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The Educational Screen

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BOOK REVIEWS

How to Write a Movie (by Arthur L. Gale) \(\text{Jan. 31}\)

"New Plan" Textbooks from University of Chicago \(\text{Feb. 7}\)

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How to Use the Educational Film (by M. K. Brantly) \(\text{Mar. 17}\)

A Paragraph of American Action (by Harold W. Dabney) \(\text{May 13}\)

Visualizing the Curriculum (by E. F. Heman, C. F. Heman) \(\text{June 19}\)

The Audio-Visual Handbook (by Edwane M. Dreyfus) \(\text{Sept. 27}\)

Teaching with Motion Pictures: A Handbook of Administrative Practice (by Edwin D. Dreyfus) \(\text{April 5}\)

On the Road to Civilization (by Dr. Albert Kerr Hickey and William L. McClellan) \(\text{Oct. 10}\)

Our Country from the Air (by Edmund E. Eisner) \(\text{Dec. 5}\)

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To a Great Teacher, a Great Scholar, an Ideal Friend \(\text{June 18}\)

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(Concluded from page 321)

roen caterpillar trucks from Beirut to Shanghai over the Himalayas through the Khyber Pass and Kashgar. It is a more than ordinary travel film not only because of excellent photography, but because the route of travel is one of great and legendary interest. If there is any immediate possibility of our crashing tourist-proof Afghanistan, most of us have done it long ago with Marco Polo. This film should be of absorbing interest to geography classes. We have no real quarrel with it but in the light of the critical comments ventured above, it is our wish to encourage more in a travel film than the progress of muddied wheels hub deep in breaking ice, and a few freak shots of detached and doe-eyed natives. There are a few passages which have a definite value to anyone more than idly curious, notably that of a festival and theatre production in a western Chinese town and that in which the young princess of a remote Himalayan village singing at her doorstep on a native instrument turns and speaks impeccably to the visiting explorer in his own language.
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Here They Are! A Trade Directory for the Visual Field
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International Projector Corporation
96 Gold Street
New York City

Dear Mr. Griffin:

During the past five years of lecturing throughout the
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dividuals or institutions wishing to get the best possible picture as well
as sound, who desire to give their audiences the greatest possible satis-
faction and pleasure, and to secure dependable results at all times cannot
do better than purchase your excellent product.

Very sincerely yours,

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Establishing a Program of Supervised Audio-Visual Education

By F. Marshall Worrell
Junior High School, Englewood, New Jersey

We, as educators, cannot afford to ignore the value of those modern teaching devices—the slide, film and radio which, by presenting facts concretely and vividly, enable us to teach quickly, thoroughly and economically the ever growing curricula with which modern youth must become acquainted.

Just as Industry has adopted machines to expedite the production and development of those commodities which make possible our economic growth, so must we adapt to our use such mechanical aids as will enable us to maintain a parallel social advance through education.

Naturally, to be effective, these teaching tools must play an active part in the classroom. Their use must be carefully planned and the mechanical operations involved should be so routinized as to reduce to a minimum the cost and complexity of handling. As their cost is inversely proportional to the number of pupils using them, every effort should be made to correlate the work of various departments, whenever possible, through the joint use of the same materials. In a decentralized organization this desirable co-ordination and correlation is frequently lost and the cost arising from duplication of materials, combined with difficulties encountered in scheduling and handling, often result in the limiting of the usefulness of these aids to a small sphere.

In a school system where such devices play an important part in the teaching procedure, I believe best results may be obtained by appointing a Director of Visual Education who would be responsible for the organization and execution of a co-ordinated visual aids program. His work would be two fold—to place at the disposal of the teacher such materials as may be most useful in the teaching of her problem and, through suggestion and example, aid her to achieve perfection in its use.

To accomplish these objectives, I have outlined, somewhat in detail, a number of preliminary activities which, I believe, should be performed. These have been planned to meet our own situation but some, at least, should be generally applicable.

Departmental Organization

I—Personnel

A—Administration

(a) A Director of Audio-Visual Education shall be appointed who will be directly responsible to the Superintendent of Schools for the successful execution of a visual education program. To be assisted by:

(b) A Visual Education Committee made up of one teacher appointed from each school. Each member will represent his school in the departmental meetings and will be directly responsible to his Principal and the Director for the successful execution of the program in his school.

(The functioning of the administrative body will be elaborated upon later.)

B—Technical Assistants

(a) Such special teachers as the Art Supervisor, Music Supervisor and Industrial Arts Supervisor will furnish technical information and assistance in their particular fields. Heads of Departments will assist in such work as the correlation of visual materials with the courses of study or syllabi.

(b) Some teacher, particularly interested in photography, shall be designated as School Photographer. He will photograph school groups and curricular and extra-curricular activities; make such photographic slides, film rolls and motion pictures as may be required from time to time. This work may be done by him, personally, or by members of a photography club.

(c) A Motion Picture Operators Club, made up of interested students of Junior and...
Senior High School age, shall be formed, under the guidance of the Director, the members of which will operate the projection equipment in their respective schools or in such schools as may need their services. (Certain scholastic credits should be given for this work.) Their duties and training will be elaborated upon later.

(d) A Member of the clerical staff will be placed in charge of repairing such visual materials as may require it, mounting flat pictures, assembling slides, oiling projectors, repairing extension cords, etc.

(e) Teachers, having hobbies in some specific branch of visual education, i.e., collecting pictures, making or assembling exhibits, making models, puppet shows, supervising a school museum or art gallery, etc., will be invited to broaden the scope of their activities by co-operating with the Director in the expansion of such services.

(Whenever these duties involve the constant attention of the teacher the Principal should recognize the fact and make suitable allowance in her teaching program for the time spent in this work.)

C—Clerical Staff

(a) A clerical staff, made up of members of the High School Commercial Department, will assist the Director in the clerical work involved in:

1—Maintaining the files of visual materials held by the department.
2—Making and repairing visual materials or related equipment.
3—Compiling records, statistics, accounts, etc.
4—Making stencils, duplicating forms, notices, etc.
5—Typing correspondence.
6—Such related work as will be of value to the department and a definite training for themselves.

D—Messenger Service

(a) Messenger service shall be established between the various schools and the Visual Education Center whereby those teachers requiring materials, held by the department, may receive them after two days notice has been given through their committee representative. (The janitor who customarily carries supplies from one building to another may be assigned this work.)

2—Visual Aid Centers

A—A room shall be set aside in a school building, centrally located, which shall serve as headquarters for the Department. It should be suitably equipped as a:

(a) Meeting place for the Visual Education Committee.
(b) Office for the clerical force.
(c) Library for visual education magazines, references, catalogs, etc.

Cataloguing and Describing Identification Prints

(d) Repository for such records and accounts as may be held by the department.
(e) Repository for such visual materials and projection equipment as may be held by the department for distribution.
(f) Workshop for making or repairing visual material.
(g) Projection room for previewing materials.
(h) May include a school museum and art gallery or such may be attached.

B—Smaller centers shall be developed in each building under the immediate supervision of the committee representative. These will contain:

(a) Such raw and unfinished materials as are specifically related to the work of the individual school.
(b) Projection equipment held by the school.
(c) Copies of slide and film records, tests, catalogs and other written data relevant to the materials used.
(d) Such facilities as will fit it as a meeting place for the departmental representatives in planning their use of visual materials.
(e) Projection facilities for giving previews of materials.

Preliminary Activities of the Department

A—Acquainting the School Administrator with the Department’s Program

After the official creation of the Visual Education Department the Superintendent of Schools may call a Principals’ meeting in which he will explain his reasons for establishing the new organization and request their co-operation. With such an introduction, the way is paved for the Director to describe, in detail, the functioning of the Department, its value to Principals and teachers, and ways in which the Principals may assist in carrying on the work. The Director must impress the Principals with the fact that his is a service organization, set up primarily to assist both teachers and Principals in carrying on the work of their schools in so far as it is concerned with visual materials.
B—Acquainting the Visual Education Committee with Its Duties.

The Principals will subsequently select those teachers who will represent their respective schools on the Visual Education Committee. Naturally only those will be selected whose interest, initiative and willingness to co-operate will assure the successful execution of the project.

These will confer with the Director in a series of meetings in which he will explain the entire program. Each will be made acquainted with his duties and will take steps to carry out the details allotted to him. (These are elaborated upon later.)

C—Acquainting the Teacher with the Facilities Offered by the Department.

The Committee Representatives or the Director will then meet with the teachers in their regular monthly Teachers’ meetings and “sell” the idea to them—describing how the Department hopes to assist them in their work and explaining the routines involved in selecting, ordering and reporting on the materials used.

In so far as is possible at the time he shall acquaint them with the available materials on hand and inform them as to the quantity and quality of material procurable from outside sources.

At the conclusion of his talk, teachers should be conscious of an aroused interest in this field and desirous of investigating its possibilities further.

The Director will subsequently meet with smaller groups in their department meetings and aid them in planning the use of materials and correlating them with their syllabi or course of study.

D—Organizing and Classifying of All Visual Materials Owned by the School System.

(a) A survey of all visual-auditory aids, now in the possession of teachers or schools, shall be made by the Visual Education Committee and the materials shall be classified according to:

Type—
Flat pictures, (mounted or unmounted), Stereographs, Objects or models, Specimens, Exhibits, Charts, Graphs, Maps, Globes, Slides (standard or microscopic), Film slides or rolls, Motion Pictures (silent or sound), Victrola records.

Condition—
New or old; usable (free from mechanical blemishes, stains, smears, scratches, etc) or damaged.

Value—
Are the facts pictured or recorded truthfully and free from distortion or illusion (proportion, color, historical setting, characterization, etc)?

Do the main facts stand out clearly in the midst of other details?

Does the material include an element known to the observer which will enable him to infer the correct dimensions of the unknown elements?

Is the material antiquated or modern in its picturization of facts (refers to slides, films, etc. which are used to picture current conditions).

Usability—
Is its use limited to specific grades, i. e. —elementary school, junior or senior high school, or, is it suitable for use at various levels?

Is its use limited to certain subject fields, i. e. —science, geography, literature, etc. or, may it be used in teaching various subjects?

Based on the results of this survey, catalogs should be compiled for the Elementary Grades, Junior and Senior High Schools listing the worth while materials according to:

1-Type, i. e. —models, pictures, films, slides, records, etc.

2-Subject, i. e. —history, science, geography, etc. (To be determined by previews made before the Visual Education Committee or comments of previous users.)

(b) Those aids collected by individual teachers as a private enterprise or of a type frequently used by the teacher or her school may be left in her possession or stored in the Visual Education centers, if such is desired, as it is desirable to encourage individual initiative in the collecting or making of visual aids and their ready availability will contribute much to their usefulness. However, the teacher should be willing to co-operate with the Department by loaning such materials to others, thus limiting the need of duplication. The name of the teacher and school responsible for such items will be indicated in the catalog to facilitate scheduling and handling.

Those items of a general nature or of a type infrequently used should be made available for general distribution and may be stored at the Visual Aid Center. Such articles shall be given a number (to be indicated in the catalogs) and subsequently filed in numerical order in suitable cabinets. The addition of new materials, thereafter, will not require a continual re-arrangement of the files. The titles of such new material will be added to the catalogs, from time to time, under the proper headings.

(To be concluded in February)

Editor’s Note—The two illustrations, furnished through the courtesy of the Visual Education Section, Los Angeles, are typical of the activities discussed in Mr. Worrell’s article.
Visual Aids in Adult Education*

What films can mean to grown-up minds and the kind of films needed for them.

By PROFESSOR G. L. FREEMAN
Northwestern University

Within the last few years an ever increasing number of adults has come to participate as students in organized instructional situations. This has created a series of problems for those educational agencies to which adults have turned. We shall discuss how some of these problems are being solved at Northwestern's University College by the use of visual aids.

The University College is a night school and its classes are open to people of all ages and degrees of educational maturity. An instructor is immediately impressed by the diversity of his group. For instance, registered in the same course last fall was a member of the editorial staff of a national magazine, the senior partner of a large law firm, a grandmother of foreign extraction and a young shipping clerk with an incomplete high school record. A highly technical approach to a subject is likely to discourage many who by persistence can eventually make up for an initial lack of background. On the other hand, an over-popularized version of the subject will be considered trivial by the intellectually mature.

Another problem facing the instructor is the difficulty of sustaining the critical attention of adults. Most of the students of the University College work during the day and reach the class in a state of boredom or fatigue. Those who are bored with their regular work expect the class period to provide them with attractive new thoughts and interests. Those who are tired expect to be kept awake. Both require a more dramatic presentation of the subject than the regular undergraduate. It is not that these students come mainly for amusement, but the class is a substitution for games of sport, and theatre, and other uses of leisure time,—and they expect it to be an interesting as well as profitable substitution.

While the organization of our psychology instruction along the lines here suggested is far from complete, student achievement already indicates that we shall wish to extend our use of visual aids in the University College. It is only the problem of obtaining the appropriate aids that holds us back, and these must be built up carefully and thoughtfully over a period of time.

The adult educator stands between the layman, who has an indefinite knowledge of all things, and the specialist, who has an authoritative knowledge of a single thing. With progress dependent on the efficiency with which the thought of the specialist is translated into the language of the layman, the need for increased use of visual aids is both apparent and real.

Finally, the adult student is likely to demand a very high standard of instructional efficiency. In his work-a-day world, he is used to seeing things done with clarity and dispatch. He brings these criteria into the classroom and will be frankly annoyed with repetition, ambiguity and lack of conciseness. The time which the adult can devote to class attendance and study is necessarily limited, and he must get at the essential points of a subject by any appropriate shortcuts which are available.

Visual aids, such as the motion picture and slide film, seemed a natural solution of these problems. The diversity of our groups could be met by an instructional medium whose appeal is universal; regardless of age or degree of intellectual sophistication, people understand and appreciate visual modes of presentation. And the fact that visual aids require the exposition of ideas in a relatively short time-span would make them a most efficient teaching device.

Our first experience in the use of motion pictures was disappointing. A contract with a commercial distributor had to be cancelled because the available material turned out to be ill-timed and ill-suited to the classes in which it was used. Films which were of sufficient technical perfection to gain the approval of the critical audience were likely to be of little educational value. Particularly, there was need for film which could be integrated with the regular class lecture instead of having to be introduced merely as an interesting side-line. For the past year, therefore, our psychology classes have become a kind of laboratory wherein we have tried to build a unified visual-aids program. These developments look very promising and our experience may be valuable to teachers, administrators and others faced with the education of the adult mind.

As a preliminary we found it necessary to review the whole field of psychology from the standpoint of its fundamental needs. With each lecture topic such as personality, intelligence and memory, we asked the question, "What is the most essential idea which we wish to get across and how may it be effectively visualized?" We explained our needs in class and organized small study groups to work with the instructor in laying out the program for.

different topics. By a careful shifting and sitting of personnel, each study group contained students of sufficient ability and motivation to make a real contribution to the program's development. Intelligent opinions demanded a thorough knowledge of both the subject matter and methods of visual presentation. Books were read, visits made to commercial studios, and available educational films criticized. A surprising amount of information was brought into the discussion groups, and upon such a basis we worked out many of the actual scenarios and planned exactly how the film would be used in the class session.

Our biggest step, of course, was to get the actual filming of the material under way. As commercial production was entirely out of the question two alternative means were found. In the first place, we discovered in our classes several advanced amateur photographers, who offered their services and equipment in the filming of certain topics. With other students as actors very creditable performances were recorded on sixteen millimeter silent film. By having actors read their lines and by accurate timing, it was possible to run a sound-track at a commercial studio at small cost. In several instances, we even succeeded in lip-synchronization after the approved Hollywood manner.

In the second method the costs of certain films are underwritten by selected industrial concerns. Because of its future possibilities, it is worthwhile to point out the merits of this arrangement in detail.

Today we recognize that the forcing of products, trade names and services upon the public by the shotgun method eventually defeats its own ends. Alert advertisers are looking about for subtle and dignified means of bringing their products before a thinking audience. To this end, many industrial films have been distributed freely to schools and other educational organizations. Much of this well intentioned effort goes wide of the mark. It does not perform effectively the educational service it is supposed to render and it frequently annoys the audience with an over-repetitious "plugging" for the company product. Better results from both the educational and commercial standpoint come with the help of trained workers in the field of adult education. Advertisers having products to place before a certain type of audience, or services related to a certain subject, are now beginning to ask about the exact type of film most needed in that field. This is a hopeful sign. Some concerns are even ready to film an educator's scenario with no further reference to themselves than a credit line. Curiously enough, human beings are so constituted that this unobtrusive appeal may make more of a lasting impression than a brass-band campaign. Furthermore, because the film is not cumbered with unnecessary and irrelevant propaganda, its educational usefulness is enhanced and its circulation is correspondingly increased. Already our great pharmaceutical companies are recognizing the value of this type of program and are co-operating with the schools in making medical and psychological film of outstanding merit.

Wherever feasible, our new scenarios feature dialogue, and practically all call for a brief musical introduction. The films are designed to run about fifteen minutes, one for each weekly class meeting. They are generally shown early in the lecture hour for their interest value and because of questions which they will raise in the minds of the audience. The instructor then clarifies some of the questions and proposes new ones. Often the film is re-run near the end of the hour, the class having been told to look for certain special items. When the film presents an actual experiment, the data are copied from the screen upon mimeographed forms and detailed results worked out for later presentation.

Visual Education Simplified

This is the title of a concise account on the making of film strips and lantern slides from pictures, by H. B. Gray of Long Beach, California, which appeared in the October issue of Leica Photography. As we believe many teachers will be interested in this example of vital teaching, we are glad to make the following partial reprint of the article.

THE FIRST subject worked up in this manner was a talk on "Butterflies". For two years my biology classes had used a series of several dozen 5 x 7 in. enlargements of Leica pictures on this subject. Out of those pictures which proved most useful in teaching, twenty-five were selected for the strip. The first step was the making of a set of enlargements from the negatives, or portions thereof, to the uniform size of 5 x 7 in. This size enables the necessary dodging and local control to be used in order that the entire set of prints will be uniform in tone quality and contrast.

The prints were arranged in the desired sequence, and then placed on the copying table. The Leica was loaded with positive film, and attached to the Sliding Focusing Copy Attachment. With this device it was a simple matter to place each print properly under the camera, put the identifying number in the lower corner, and make the copy. A calendar pad furnished the small numbers used. Since the prints were a uniform set, there was no variation in exposure, and a uniform set of copy negatives was obtained.

Thus was secured what is termed the "Master Negative". Rather than do the routine printing of this master negative, I sent it to one of the film

(Concluded on page 12)
A COMPREHENSIVE program of visual instruction requires machines for projection and reception, operators for said machines, and various administrative measures to fit this type of work usefully into the school organization. Since a large percentage of our materials is borrowed from the State Museum and from other sources, the control of this steady stream of visual aids is no small part of the problem. In addition, the usefulness of the administration may be measured by the added values that accrue to the children through its measures.

Believing that the boys and girls would gain in self-reliance, sportsmanship, and initiative, as well as in resourcefulness and valuable manipulatory skills if they controlled the distribution and projection of the visual materials, we last year inaugurated a projection force. To this organization boys and girls of the fifth and sixth grades are eligible, the only condition being that they be approved by their class room teacher. This approval is not contingent on a high standard of classroom achievement since we believe that many who need the socializing and success-insuring activity most would be shut out of it by rigid scholastic requirements. Teachers' approval, then, is dependent upon the judgment of the individual teacher, who is expected to decide whether the individual approved would be useful to the club and whether it would be valuable to him. Along with the power of appointment goes the power of dismissal; and teachers may withdraw the privilege of membership after consultation with the principal. The possibility of the plan being used as a football for disciplinary purposes is appreciated and therefore the principal finds a place in the set-up at this point.

The projection force meets after school every Friday. In this school of 400, it has a membership of forty. It is guided by a committee of three teachers. Its officers are the usual four, but their positions were created by the children when the need for them arose. A treasurer was the most recent addition, the post being decided on after a one-cent-a-week dues proposition was approved.

The meetings are planned a semester in advance; an example of the program for one season follows:

**Projection Force Program**

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>March</td>
<td>20 Trip to Movie House</td>
</tr>
<tr>
<td>April</td>
<td>3 Lesson on 16mm machine</td>
</tr>
<tr>
<td></td>
<td>17 How Cartoon Comedies are made</td>
</tr>
<tr>
<td></td>
<td>24 Lessons in Radio Reception</td>
</tr>
</tbody>
</table>

**Incoming Visual Education Material**

<table>
<thead>
<tr>
<th>Week of</th>
<th>Type of Material (name)</th>
<th>For use by</th>
<th>Projection force needed?</th>
<th>At what time and day?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Figure 1](image)

Projection Force service. Many kinds of material need no outside assistance and some teachers may prefer not to avail themselves of the trained helpers, for varied reasons. These forms serve the additional purpose of informing the staff of the complete collection of visual material available throughout the building each week.

The companion form (Fig. II) finds usefulness as a reminder and as a check. It also furnishes the principal with a list of visual aids that have met the test of use.

Our projection force soon outgrew its original intent. Each week now, the president appoints radio operators, backstage experts for assembly plays, bulletin board assistants, stock-room helpers, and special agents to the principal. These many added duties make use of the members of the club.
who have not qualified as first class operators.

To obtain the grade of first class operator, a system of tests, borrowed from the merit badge idea of the scouting bodies, is in operation. Every member of the club possesses a list of the essentials for each test; and on Fridays, after the regular meetings, those who have prepared for the examination and who have signed up for it beforehand may have their chance to qualify for one or more of them. These examinations deserve a further word. They are not written nor are they given orally. They are acted. Machines are run. Duties are done.

**Outgoing Visual Education Material**

<table>
<thead>
<tr>
<th>Type of Material (Name)</th>
<th>Date Received</th>
<th>Date Due</th>
<th>Date Returned to office (card?)</th>
<th>Used by</th>
<th>Value (Shall we use next yr?)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 2*

Return post-cards are filled out. Since the reputation of the force depends on the boy or girl who enters a class, these representatives have to meet strict scrutiny. If shades are lowered in the course of the visit, they must be returned to place before the job is considered done; if a slide is projected upside down, the test is a failure; if a radio broadcast is fuzzy or low or in any way unsatisfactory, that receptionist will not gain the coveted honor of rating “first class”. The specific requirements are given below, although no single test would include all of the items mentioned.

**Projection Force Standards 1936**

**1st Class Operator**


**1st Class Radio Operator**

1. Knows how to make good aerial connection. 2. Knows where to find the five commonest stations. 3. Knows how to regulate volume. 4. Appreciates the care required when carrying the set. 5. Can check connections if trouble develops.

**1st Class Stage Manager**

1. Knows how to close curtains in auditorium. 2. Knows how to open and close main curtain on stage. 3. Knows how to raise and lower curtain for movies. 4. Knows how to control house lights. 5. Knows how to light foot-lights. 6. Knows how to test foot-lights. 7. Knows something about the other lights on stage.


**1st Class Lantern Slide Operator**


To obtain the title expert, an operator must also know something about the reasons why the various machines operate. Another bulletin is to be issued soon covering this point.

If there is a feeling of disapproval on the part of the teachers because the children involved in duties about the building, leave their regular classes to attend to these jobs, it has not reached the ears of the committee in charge. The children have taken to their assignments with a workmanlike attitude both as to the use of time and the handling of materials; and general improvement in school morale has grown out of the club. Of course, teachers may always withdraw privileges which they have granted and this has been done when it seems that the grantee was trading on his own good fortune or the teacher’s good nature. In two years of service only three cases of this kind have occurred.

The plan fits my philosophy of education in that intrinsic values in situations motivate the learning; a self-controlled plan results rather than a superimposed scheme; and character-moulding ideals find a natural practice-period rather than a formal drill-period. In addition, the constant movement of visual aids from Trenton and elsewhere and back is facilitated, all of the staff knows all of the material available weekly, and a record of values is permanently obtained.

**Visual Education Simplified**

*(Concluded from page 10)*

*The Educational Screen*

laboratories in Hollywood, obtaining a hundred prints made on a continuous roll of positive film. These prints are positive, ready to put into the double frame projector.

Next a booklet to tell the story of each picture was mimeographed, and the strips were ready for distribution. Since each picture bears its serial number, these strips may be cut up to allow the mounting of the individual pictures between the two-inch glass plates, thus making a set of twenty-five lantern slides of that size. In this manner the transparencies may be protected from scratches and other marks of wear, and will last for years.

The first film strip has been followed by others entitled “Wild Flowers”, “Common Reptiles”, and the first one of a pair on “Insects”. Others are in the course of production.
A Critique of the Educational Film

By HAROLD LEVINE

Some results of research experiments in Elementary and High Schools made in connection with work for a Doctorate at Teachers’ College, Columbia University.

DESPITE THE favorable results achieved by many researchers into the value of the motion picture film to education, the fact remains that comparatively few institutions utilize even a small fraction of its possibilities. This may be due either to an insufficient knowledge of its multiple uses or to an ignorance as to the best methods of procedure to be used with the film to obtain optimum effects. Regardless of the why or wherefore of such failure, school children throughout the nation are being deprived of one of the finest of educational aids, an aid which, when properly utilized, may well-nigh revolutionize teaching procedure. This is not an extravagant statement clutched from thin air, as were those of Edison and H. G. Wells made shortly after the cinematograph became a practical instrument, but is a conclusion based on an empirical study of numerous experiments embodying the latest elements of scientific research, experiments undertaken to determine the relative value of the motion picture film as compared to any other teaching medium, both visual and non-visual.

In an effort to determine how the educational film is usable in the average classroom by an average teacher teaching an average lesson to an average class, seventy four (74) experiments were analyzed. The results of these experiments were dissected for specific and definite contributions of the film to various elements of the educational continuum. Individually the problems attempted were these:

1. What are the specific contributions of the motion picture film to the various subjects of the elementary, junior high, and senior high school curricula?
2. What methodology should be used with the film to render its service a maximum?
3. What are the characteristics of the film which make for educeability?
4. What are the contributions of the film at the various educative levels?
5. What are the relative values of the sound and silent film?
6. What should the content of films be to capitalize best on its peculiar advantages?
7. What, as a result of the findings to the above, are the problems concerning the educational film with which future research should deal?

The number of experiments in each subject matter field are given in the following Table:

<table>
<thead>
<tr>
<th>Subject</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>1</td>
</tr>
<tr>
<td>Music</td>
<td>1</td>
</tr>
<tr>
<td>Cooking</td>
<td>1</td>
</tr>
<tr>
<td>Penmanship</td>
<td>1</td>
</tr>
<tr>
<td>Shop</td>
<td>1</td>
</tr>
<tr>
<td>Reading</td>
<td>1</td>
</tr>
<tr>
<td>Literature</td>
<td>1</td>
</tr>
<tr>
<td>Nature Study</td>
<td>10</td>
</tr>
<tr>
<td>Gen. Science</td>
<td>9</td>
</tr>
<tr>
<td>Geography</td>
<td>26</td>
</tr>
<tr>
<td>History</td>
<td>15</td>
</tr>
<tr>
<td>Hygiene</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>74</td>
</tr>
</tbody>
</table>

From this Table it is at once evident that no generalization is possible in Art, Music, Cooking, Penmanship, Shop, Reading, or Literature, while Mathematics and Languages are not represented at all. The empirical conclusions will, therefore, be valid, as far as subjects are concerned, only to Nature Study, General Science, Geography, History, and Hygiene.

The number of experiments conducted on each school level is given in the Table below:

<table>
<thead>
<tr>
<th>School Level</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>34</td>
</tr>
<tr>
<td>Junior High</td>
<td>44</td>
</tr>
<tr>
<td>Senior High</td>
<td>13</td>
</tr>
</tbody>
</table>

The sources included:

Doctor’s Dissertations, as Arspiger’s, Rulon’s, Weber’s, and Westfall’s.

Master’s Theses; Books devoted to the educational film such as Freeman’s “Visual Education”, Devereux’s “The Educational Talking Picture,” Wood and Freeman—“Motion Pictures in the Classroom”, Ellis and Thornborough—“Motion Pictures in Education”, Marchant’s “The Cinema in Education” etc.


All told, thirty six (36) sources containing the original references to experiments conducted were consulted.

An integrated study of the results of the various experiments taking into consideration the number of subjects involved, the method of equating groups, the types of tests used, and the statistical treatment allowed the following conclusions to be formulated:

Contribution of Educational Film to Subjects

1. The educational film appears to be of value to

The total, 91, is greater than the total number of experiments performed, (74), because some of the experiments included more than one school level.
esthetic subjects as Art and Music, but sufficient experimentation has not been conducted in this field.

2. The educational film does not appear to be a good medium for instruction in such constructive subjects as Cooking, Penmanship, and Shop, when a teacher is available for demonstrating and commenting on each phase of construction.

3. The educational film appears to be of value in the teaching of literature and reading, but sufficient experimentation has not been done in this field.

4. The educational film is of particular value in the field of science, especially when its content cannot be duplicated by the teacher.

5. The educational film is of distinct and extensive aid to the subjects of Geography, History, and Hygiene.

Methodology

6. The educational film should be used in conjunction with all other visual aids wherever possible.

7. The educational film is more effective when used as an introduction than when used either in the body of the particular phase of the subject studied, or in conclusion.

8. It is still uncertain as to whether the film, when interrupted, partakes of the nature of a stereopticon.

9. An increased number of showings enhances the effectiveness of the film, provided ample time is given for discussion.

10. Comment during the showing of the film, followed by classroom work, increases the effectiveness of the educational film.

11. The sound film can be used with profit, but the tendency, which appears to be in its favor with respect to either the silent film with captions or comment or both, has yet to be thoroughly established.

Characteristics of the Educational Film That Make for Educaibility

12. The use of the educational film allows more time to be spent in other methods or subject matter fields without any loss in learning effects.

13. Memory and recall are materially aided by the use of the film.

14. The educational film enhances interest in immediate learning, in future learning, and in extra-curricular activity, when a necessary and sufficient methodology is pursued in connection with it.

15. The educational film is particularly effective in coping with the problem of those of subnormal I. Q., reducing significantly the difference between them and those of normal I. Q.

Contributions of the Educational Film at the Various Educaitive Levels

16. In the elementary grades, the film has a definite place at the ages of 10-11, but the extent of its value at lower age levels is uncertain.

17. The educational film can be utilized to a great extent in both the junior and senior high schools.

Content of Educational Film

18. Motion and action should be included in the film wherever possible.

19. Any phase of a subject not involving motion should not be depicted by the film.

20. The educational film should consist largely of close ups, and should contain speech where possible.

21. The captions should be short and concise.

Research

22. Research in the field of the educational film must be specific and minute, involving particular and definite elements of subject matter, methodology, film characteristics, educative levels, content, and the interrelation of each with the other and in combination.

These conclusions, all empirically founded, show the immense possibilities of the educational films. If a correct methodology is used, the beneficial results far transcend any initial expenditures or effort involved. It can be said with definite assuredness, backed by past research, that the value of the educational film seems to have been objectively conceded. Concerning its possibilities in specific subjects, at definite educative levels, and for the subnormal I. Q. the surface has barely been scratched. From all indications the film will prove to be a potent influence. It may, indeed, rank with the introduction of the laboratory method in its influence on educational procedure. In order to determine the nature of this effect, and its extent, future research should concern itself with the definite and specialized uses of the educational film at the various phases of the educational continuum.
FOREIGN FILMS FOR EDUCATIONAL INSTITUTIONS

Conducted by Wesley Greene
Director, University Film Society, The University of Chicago

IN CHOOSING a foreign film for showing in the United States two principles should be applied. The film selected should meet the approval of educated citizens of the country of production and it should be worthwhile for American audiences. On the one hand it should be a fair picture of the manners and arts in the country of its origin, and on the other hand it should be a film which comes within the range of appreciation of American groups which will see it. Last summer both principles were rigorously applied in selecting a Japanese feature picture to be shown in the United States, and the result is gratifying indeed if we judge from the recent reception of the picture at International House (Chicago). Only after a number of previews was Kimiko chosen, and equipped with English titles for release in the United States.

Kimiko is the film name of a young Japanese girl through whom able Director Naruse of the P. C. L. producing company of Tokyo chose to tell the story of two Japanese women and their families. One of the women lives in Tokyo, the other in the mountains of the Nagano Prefecture. As the story unfolds the film takes its audience to a middle-class city home, to a modest home in a mountain village, through the streets of Tokyo, and to a theatre in that city. The film gathers up the audience and takes them on a magic screen for an eighty-minute journey to the Japan that we should know, to the Japan that is so seldom presented to those of us who are not able to travel to the Far East.

Kimiko is the most forceful portrayal we know of the westernization of the Orient. At times the dress is Japanese in style, at other times it is current American; at times the music is oriental, at other times western. But both the "costumes" and the music are typically Japanese throughout the picture. The film affords excellent visual-aural material for social science and music classes, and at the same time should be first class entertainment for intelligent Americans.

So far this year two entertaining French films have been released in the United States: La Kermesse Heroique and Les Miserables. Both are films for colleges rather than secondary schools, both are for "cinema-goers" rather than "movie-goers." La Kermesse Heroique, however, is not now available to non-theatrical exhibitors.

The original five-hour French production of Les Miserables, which was shown in three parts at the University of Chicago and at Harvard University last year, has been skillfully cut in half so that the picture can now be seen at one sitting. In comparing the French and American productions of the picture critics are pointing out that the French version is more accurate in details, more realistic of the Paris which Hugo depicted in his much read novel. The acting of Harry Baur as Valjean, the direction of Raymond Bernard, and the musical score of Arthur Honnegger stand out. The French Les Miserables, with English titles, should be exhibited at every college and university which can arrange 35mm foreign film programs.

A third French film merits our attention even though it is not entertainment in the usual sense of the word. Une Soiree a La Comedie Francaise, a two-hour film acted by casts from the Comedie Francaise, includes Moliere's "Precieuses Ridicules"; a documentaire on the history of the Comedie Francaise; and "Deux Couverts," a short modern play by Sacha Guitry. All three parts of the picture are photographed drama and not cinema. All three will please teachers more than any film in French to be released in the United States during 1936-'37, but will be regarded as classroom material by students. Une Soiree a La Comedie Francaise is a valuable adjunct to other methods of instruction employed in advanced literature classes. The film is recommended for its proper niche in the college curriculum, but will prove valuable on the high school level unless a program of classroom preparation for it is carried out.

The Russian language version of the New Gulliver, which has been in great demand during the past year, has been withdrawn from the market to make way for the commercial release of an edition of the same photographed film with English dialog.

The writer of this column would be pleased to hear from educators who have found particular films of value for school use. Though French, German, and Russian films seem to monopolize college and secondary school foreign film programs, there is educational demand for pictures in Spanish, Czech, Italian, Polish, and Slovak. The problem is not merely to find films in these languages, but to find films which we can recommend to educational institutions. Readers of the Educational Screen are invited to use this department as a clearing house for information on these and other foreign language pictures.
NEWS AND NOTES Being brief notations on significant doings and events in the visual field.

Conducted by Josephine Hoffman

Conference on Teacher Training in Visual Methods

A group of midwestern school men and women, keenly interested in furthering the use of visual aids in teaching, met at Milwaukee on November 5th to discuss the status and needs of teacher training in the audio-visual method. John E. Hansen, Chief, Bureau of Visual Instruction, University of Wisconsin, presided. The general consensus of opinion of those in attendance seemed to be that training in the use of such aids should not be made compulsory for public school teachers, although it was conceded that such a regulation might offer some advantage until teachers in general became more conscious of the possibilities in this field.

The group agreed that a separate course should be offered rather than an attempt to offer special units of work in methods courses. As to the content of a course in visual instruction, the consensus of opinion was that it should be largely technical and should stress classroom techniques, operation and care of equipment, sources and production of materials, administration, etc. The value of summer courses was recognized by all.

A similar conference is to be held in June to which a number of persons from the Middlewest who are interested in teacher training will be invited.

New York Groups Meet Jointly

A joint meeting of the Visual Instruction Section of the New York Society for the experimental study of education and the New York Branch of the Visual Instruction Department of the N. E. A. was held on Thursday evening, December 10, at the Museum of Science and Industry, New York. Dr. Morton C. Kahn, Associate Professor at Cornell University Medical College, spoke on “The Bush Negroes of Dutch Guiana,” and showed the motion pictures made on recent expeditions to South America, portraying typical Congo Civilization.

Industrial Firm Tests "Talkies"

To make their sales meetings more effective, the Shell Petroleum Corporation conducted a series of tests to determine the relative effectiveness of the lecture, the silent film and the talking motion picture in increasing attention and learning of their sales personnel. The audience filled out questionnaires of the "true-false" type before and after the lecture or film showings. The papers were carefully graded and grades compared. In the case where a lecture was used, it was found that the students were able to increase their grades only 8%. In the case of the silent film, they improved their grades 17%. And in the case of the talking film, an improvement of 38% was made. Further studies were then made to determine the remembrance value of sound films as compared with silent films and it was found that all of the students remembered more of the talking pictures than they did of the silent.

This report, furnished by Mr. A. E. Holleman of Shell Petroleum, appears in the September-October issue of "DeVry Movie News."

News from Abroad

China. Great strides are being made in the educational film field in China. In November the Ministry of Education inaugurated a nationwide movement whereby 160 educational films, chiefly 16mm. sound and silent, will be used to supplement teaching in the primary and secondary schools, to import common knowledge to the masses, and to provide suitable recreation for the public. The whole country has been divided into 120 districts to facilitate film distribution, with one trained operator assigned to each district. The operators training class was opened September 10th at the University of Nanking. Domestic pictures will be made by the Central Studio at Nanking, a Government institution, and by the College of Science of the University of Nanking.

A school of cinematography is also planned by the officials of the Great China University, Shanghai, which will be directed by Dr. S. C. Tai, dean of the University's School of Education. This "movie school" will give courses in directing, scenario writing, stage set-up, acting and photography and will produce its own films.

South Australia. The Education Department of South Australia has formed a Circulating Film Library for schools, which is reported in the July issue of Film Progress. All but 8 of the 59 films purchased are for primary schools, but many are also suitable for use in secondary schools. Booklets are also issued with the films, describing each film in detail.

Japan. A plan has been initiated by the Educational Office of Japan to promote education by film in every elementary school of the country. Films on geographical, historical, scientific, and social subjects will be produced by domestic companies, which will be financed by the Educational Office. Such pictures will

(Continued on page 28)
THE DEPARTMENT OF VISUAL INSTRUCTION

The official "roster" of Department members, printed in the November issue, will appear again in the February issue with all necessary changes duly made. As in the November list, only those will be included whose little two-dollar duty is done, not merely promised or planned.

We suggest, therefore, another careful glance at page 281 of the November issue. The daggers tell it. All members there shown as expiring in November, December, or January, will be omitted from the February list, unless . . . ! Send your $2.00 now.

The Department will be glad to know that renewals have come in at a most gratifying rate since publication of the "roster." The column of asterisks was apparently just another visual aid of value. The alphabetical listing, as had been hoped, also started many a veteran in the field when he found his own name missing. Many have promptly reinstated themselves. More will. New members are coming in with agreeable frequency. All these — renewals, resurrections, and new memberships—together with those that will still come in before the February issue goes to press, seem assurance that the February roster will exceed November's by a comfortable margin. Evidently the Department can grow!

AUGHINBAUGH of Ohio has made his debt and characteristic contribution to the above picture. A few words from his trenchant pen, to educators in his territory, brought in a dozen new members from Ohio in ten days—up to this writing. We earnestly commend the Aughinbaugh method of "doing the trick". Here are his words: "Attention please! The National Education Association has a Department of Visual Instruction. If this Department can be properly supported it will directly benefit every user of educational slides and films. It requires such a department around which we can rally to forward the interests of visual instruction.

"Membership in this Department automatically makes one a subscriber to The Educational Screen—the only publication devoted to the field of visual education. It is very useful to all teachers.

"The membership fee is only $2.00. Send your letter of enrollment and the $2.00 to Department of Visual Instruction, 64 East Lake St., Chicago, Illinois. It is our earnest hope that Ohio can have a good representation in this organization. Let us show the rest of the United States the way forward." (Signed) B. A. Aughinbaugh, Director of Visual Instruction.

The New Orleans Program, February 22 and 23

Monday—Registration Luncheon ($1.00)
Evangeline Room, Hotel DeSoto
Address: "Significant Developments in Visual Instruction"
Dr. William H. Johnson, Superintendent of Chicago Schools. The speaker will be introduced by Principal Lionel J. Bourgeois of the McDonough School, New Orleans. (Twelve minutes by trolley, seven minutes by taxi, to The Peters School of Commerce.)

Monday, 2:30 to 4:30 P. M.
Auditorium of Peters School of Commerce
Visual Presentation: "The Open House Exhibit as a Stimulus to Interest in Visual Instruction"
Ella Callista Clark, State Teachers College, Winona, Minn.
Address: "Progress in Teacher Training in Use of Visual Aids"
Dr. Edgar Dale, Ohio State University.
Illustrated Address: "Motion Pictures as an Aid in Agricultural Extension Work in Louisiana"
E. J. Gerrie, Jr., Visual Education Specialist, Baton Rouge, La.
Address: "Plans for Cooperation between the American Council on Education and the Department of Visual Instruction"
Charles F. Hoban, Jr., Associate in Motion Picture Education, The American Council on Education.
(Tentative plans are afoot for an informal dinner Monday evening for interested members at a famous restaurant in the Vieux Carre, the old French Quarter of New Orleans.)

Tuesday—Demonstration Luncheon ($1.00)
Evangeline Room, Hotel DeSoto
Visual presentation: "Movie Record of a Rocky Mountain School"
Showing and discussion of a film made by the school. Lloyd Shaw, Superintendent of Cheyenne Mountain Schools.
Additional showings of recent educational films as time permits.

Tuesday, 2:00 to 4:30 P. M.
Visual Presentation: "Visualizing the Correct Use of Still Pictures in Teaching"
Mineta Merton, Public Schools, Waukesha, Wis.
Address: "Recent Observations of Motion Picture Production in Hollywood and Moscow"
Dr. Fred Eastman, Professor of Dramatic Literature, Chicago Theological Seminary.
Lecture and Visual Presentation: "China's Life and Culture Visualized"
(Illustrated with White Brothers' famous "camera paintings"
J. Henry White, Lake Ariel, Pennsylvania.
(An extensive collection of White Brothers photographs and hand-colored prints will be on exhibition in the Peters School Auditorium throughout the two days.)

Note:—Reservations for the Luncheons may be sent to Department Headquarters or to Caroline S. Pfaff, District Superintendent, 703 Carondelet St., New Orleans, La.
After the Thin Man (Powell, Loy, Landi, Stewart) (MG M) Successful "box-office" imitation of Thin Man—happy married couple always taking their financial fortunes and human comedy as they go. But hero's almost excessive triumphs make his detective work hardy enviable. 1:5-37 (A) Good of kind (Y) (T-C) Amus. but doubtful (C) No

The Riverboat, heroine in (Y) (C) (Y) is a doorman also studying medicine and absorbed in doing the same, as often, as one can touch of cruelty. 12-15-36 (A) Perhaps (Y) Fairly good (C) No Interest

Camille (Garbo, Taylor, Crews) (MG M) An excellent example of the bourgeoise mind in intelligent direction, restrained treatment, fine acting, pictorial beauty, with background, acting by one of true stars. The Garbo-Dumas' tragic heroine who finds love too late. 14-36 (A) Excellent (Y) Mature (C) No College Holiday (Jack Benny, Gracie Allen) (RKO) A typical group of pair of burlesque patties gathering picked college boys and girls for ideal "matting" at bank hotel turned into swank club, with old horse and swine and would-be "comedy" not always comic. Ridicule last quarter, mass 2-22-36 (A) Hardly (Y) Perhaps (C) No

Easy to Take (John Howard, Marsha Hunt) (Warner) Here is a find for a comedy by old, mild-Victorian, and also a family including heroine and an impossibly disagreeable brother, since they patched out with endless acting and singing by children performers. 12-22-36 (A) Mediocre (Y) Perhaps (C) Doubtful value

Ecstasy (Heda Kiesler) (Foreign English dialog) (20th) A rather interesting story told in exceedingly slow tempo, ending up buckle-up with almost no dialog. Incredibly indifferently gurn, utter lack of interest, sentiment, and bosh-bolism—some vague, some laborous, some beautiful, utterly different. "(C) No Novel

General Spanky (Spanky McFarland and Gang) (MGM) Spanky, for those of the Civil War South along Mississippi. Two kids, flighty, white and shifty boat life on lower Mississippi, with picturesque children, a fun ·blooming slapstick and melodramatic villainy. "Lady girl" heroine and river siren of shady past fight over crude boat brother. Stoned the padding out (A) Dep. on taste (Y) Not the best (C) No

Bigger Student (UFA) (English Titles) Hilary character story, less dancing than Saxony-Poland struggle in 1764. Hero, future king inconspicuous, and his pal have bolstered up to queen for East Poland till they win freedom and high-born bride. 22-5-36 (A) Rather interesting (Y-C) Light interest

Jungle Princess (Dorothy Lamour, Ray Milland) (Columbia) The most interesting element in comedy with threats and threats till government-agent hero, disguised as laborer, brings down the law. 12-22-36 (A) Hardly (Y) Possible (C) No

Love Letters of adanger Hunter, Polly Rowles) (Univ) Chompily "promotional" title for mild little murder mystery built on a scanted suicide, and a change-able hero with no gangsters, or gangster's gossp, misma punny. Quite puny. 12-5-36 (A) Hardly (Y) Perhaps (C) No

Lover of the Runaways (Bette Davis) (Columbia) (MG M) Hilarious, propositos pun over two newspaper pals chasing runaway heroine from Louis to New York, and every one of the "lovedies" is not sexy. Hero wins all by double-crossing role. Simple, pure, and not too cast-downly, mostly non-stop amusement. 12-22-36 (A) Very good of kind (Y) Amus. (C) Doubtful (Y) No

Man Who Lived Twice (Ralph Bellamy) (20th) An extremely good yarn with Shirley Temple (Ann Shirley) (RKO) Mostly a charming little story of grown-up love, with Gertrude Michael ador- able in the role. But Anne Shirley does not quite convince in naive, school-girl meddilng with her father's romance and certain bits. 12-14-36 (A-Y) Rather good (C) Little interest

Man Who Married aWanted Woman (Wayne Morris) (20th) An excellent adventure story, with plenty of interest, the heroine, Sensational, loyal, ardent love, deftly directed acting and camera, and considerable suspense and logical ending. Glamorous crooks dominate. 12-22-36 (A) Very good of kind (Y) Doubtful (C) No

Night Waitress (Margot Grahame) (RKO) Sinner hero struggles long to "pick up" water front cafe waitresses till complications with racketeering, smuggling and gangstering bring her life made a shambles. Thrillingly made, thoroughly sexy, with wholesome happy ending for. 9-23-36 (A) Excellent (Y) U-Shows (C) No

One Way Passage (Warner re-release) (Film Classics) (RKO) 1932. Powell and Frances excellent as smooth Scottish hero and commerical heroine, Sensational situation, ardent love, deftly acting, and top-notch photography make this a most appealingly suspenseful, logical ending. Glamorous crooks dominate. 12-22-36 (A) Very good of kind (Y) Doubtful (C) No

Pennies from Heaven (Bing Crosby, Mae West) (Warner) (Y) (C) One of the most ridicu- lously funny, mutually helpful never-do-wells, living hand to mouth through highly improbable ad- ventures, trial and error and it all adds human role better than usual. Orchestra accomplishes even in a solitude. 12-16-36 (A) Depends on taste (Y) Fine (C) No

Plain Jane, the (Gary Cooper, Jean Arthur) (Para) Powerful picture of heroine and vil-

laines in the '60s, when America was "making its frontiers safe". High historical value, with believable characteristics of heroine and her foils, her moments of torturing drama and appealing heroines, etc. 12-14-36 (A-Y) Fine of kind (C) Too strong

Rainbow on the River (Bobby Brown) (RKO) Little Girls' adventure story. New Orleans till rich by New York grand- mas. Here is an extraordinary nasal singing and ultra-sensuous appeal, but weakened by harsh and exaggerated emotions, and trivial sentimentality. 12-22-36 (A) Depends on taste (Y) (C) Good of kind (Y) (T-C) Amus. (C) No
There's nothing so convincing as proof. And we give you proof—in the panel at right—that America's foremost schools subscribe to the point we've been making for some time:

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This proof comes from the National Visual Education Directory of the American Council on Education, and the United States Office of Education. The figures shown are eloquent testimony to the fact that modern education requires modern methods of teaching—methods that fire every lesson with vibrant life!

RCA makes the various types of educational material and instruments mentioned in the panel. Products of radio's greatest sound organization... products benefiting by the wealth of research and manufacturing experience which RCA has gathered through the years—these are the products you can depend on for maximum performance at minimum cost. We will gladly send you complete information, without obligation, concerning any of these RCA products. Or ask us for your free copy of the valuable booklet, "Sound Service For Schools".

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2. Schools own 732,948 phonograph records.
3. Schools own 11,501 radio receiving sets, used to bring classroom and auditorium students world's finest educational broadcasts.
4. Schools own 841 centralized sound units, used for school-wide distribution of radio programs, announcements, Victor record programs, student programs, current event discussions and other desirable subjects.
5. Schools own 793 sound motion picture projectors and 1315 reels of sound films for regular use. Thousands of additional reels are borrowed from distributors for occasional use.

As you know, many leading school systems are organizing the sound program as a part of the work of the visual instruction director. Modern education marches forward! Are you marching with it?
Storage and Preservation of Film

ONE PHASE of the motion picture activity which has been neglected by the average amateur is that of storage and preservation of film material. It so often happens that a school will procure a fine film, entailing considerable time and expense, only to find that a few years later the film is in such condition that it cannot be shown and is worthless.

All motion picture films and film strips are produced on either cellulose acetate (slow burning, safety film) or cellulose nitrate (flammable) stock. All 16 mm. films in this country are produced on acetate base, while the 35 mm. is produced on both. Almost all of the Hollywood professional films are made on the inflammable nitrate stock although many of the present day 35 mm. teaching films are coated on the safety base.

This means that, first of all, one should ascertain which type of film is being used and especially which type of film is being stored in the film vaults or cabinets. Nitrate film should be used as little as possible as the danger with this type of film is due mainly to its rapid burning rate, its ability to burn in a limited supply of air and its low temperature of ignition and combustion. Most substances, such as wood and paper, do not ignite until a temperature of around 600° or 700° F is reached, while nitrate film will decompose at 230° F or at the temperature of an ordinary incandescent bulb or steam pipe. (1)

There is very little danger in free burning nitrate film in the open air, but on confining the combustion to a vault or film storage cabinet in a limited supply of air this burning film gives off carbon monoxide, nitrogen dioxide and nitrogen tetroxide, all very dangerous gases.

The fire hazard on acetate film is somewhat less than that of ordinary paper. The ignition temperature of this type of film is about 700° or 800° F, so that it is readily apparent that where films are shown to school children the safest type of film to use is cellulose acetate.

It is hoped that no school will have the fire situation arise but if it does we should know what to do. Many of the present-day fire extinguishers are useless on a film fire and pails of sand to throw on the fire are likewise worthless. Water seems to be the cheapest and most effective method of combating a film fire especially when it is in the form of an automatic sprinkler. (2) It is much easier however, to practice fire prevention than fire extinction.

Aside from destruction by fire a film may be destroyed just as “effectively” (although not so rapidly) as far as projection is concerned by storing it at an improper temperature or humidity. The present day “safety” film tends to curl and become very brittle when dry, whereas the nitrate film has less tendency towards these conditions. Everyone who has used 16 mm. films has noticed at some time or other that they become extremely brittle with long periods of storage.

It has been found (3) that at a relative humidity of 15% or the condition in an average home during the winter months, the films are extremely brittle and will either not project at all or trouble will be encountered during projection.

A relative humidity of 50% is found to be ideal for storage of films. This, incidentally, is the condition that has been found best for books in libraries. One must not go to the other extreme, however, and keep films in an atmosphere which contains too much water vapor, otherwise condensation will take place and be just as detrimental as a dry condition.

How then are we to keep films at the right humidity? In the majority of cases an individual would be unable to maintain the 50% condition but, by all means, try to approach as nearly as possible to this ideal. Very little trouble will be experienced in the summer months as the humidity is normally satisfactory at that time. Films should be placed in individual metal containers which contain an absorptive pad, which if kept continuously moist will retain the films in good condition. If many such cans are to be stored for any period of time it is desirable to place them all in a large container which also contains a large humidifying device.

Safety film which has become brittle may be restored to its original condition by replacing the moisture content, although this is sometimes a long process and may require several weeks. However, by running the film through special chambers or pads made for the purpose of rehumidification, films may be brought back to their original condition in 10 to 30 minutes depending upon their dryness.

Temperature is also a factor in film storage although not so important as humidity. Possibly the ideal tem-

(1) Journal Society of Motion Picture Engineers Vol. XXVII No. 6, p. 657, A. H. Nuckolls and A. F. Matson.
(2) Journal Society of Motion Picture Engineers Vol. XXVII No. 6, p. 662, Henry Anderson.
(3) Journal Society of Motion Picture Engineers Vol. XXVII No. 6, p. 694, Weber and Hill.
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Temperature would be 50° F. however 70° F. is satisfactory providing the moisture content of the air is checked.

In spite of all precautions that are taken the films will eventually wear out, although a properly processed 16 mm. film carefully cared for should last a lifetime. Of course the frequency of projection will definitely affect its life.

Who Should Make Instructional Films?

The logical person to be making teaching films is the teacher. Not Hollywood, not commercial companies “interested in the educational film field,” not those who have only a cursory interest in the growth of children in school. Only the classroom teacher knows what her pupils need at any particular point in the learning process. Only she knows when a film can be most effective during a given lesson. Only she is able to sense the necessary materials which should be included in a motion picture. All the years of research and experimentation in educational films have yielded very little more than what a good teacher knows from practical experience.

Most teachers believe that instructional films are difficult and expensive to produce. This is not at all true. Excellent teaching films can be made for as low as twenty-five dollars per film. As for the actual photographing of the material, that is no more difficult than making a kodak snapshot!

To be specific, the steps and costs involved in making a film for art teaching by an art teacher, will be briefly described.

The subject was a demonstration of the organization of lines within a rectangle, which is the foundation of all fine design. The illustration of the use of these design principles was then carried over into the painting of a landscape in water color.

A Professor of Fine Arts at a Teachers College wished to make this film. Such a subject could be used for clarifying concepts of design for lay audiences, for demonstration to art teachers, and in art classes in the junior and senior high schools.

The actual production of the film was done in one afternoon. The Professor was the only actor; the filming took place in a 5' x 10' office; lighting was taken care of by 25c Photoflood bulbs; the cost of the Eastman film was about fifteen dollars. The camera, tripod, and lights are the permanent equipment of the Fine Arts Department. The entire cost of the production was well within twenty-five dollars, including introductory and explanatory titles. Furthermore, by making duplicate prints which can be sold or rented, funds are being obtained for making more films of a similar type.

Naturally, the countless subjects which teachers may wish to film do not all lend themselves to an inexpensive treatment. Certain topics require the collaboration of experts, or more costly equipment. Nevertheless it is quite clear that simple films can be easily and inexpensively made by the teachers who are going to use them.

By ELIAS KATZ
Teachers College, Columbia University
Some Projection Problems Simplified for Classroom Teachers

IN READING the literature dealing with the mechanical problems of projection, one often comes across such expressions as: objective lens, condenser lens, focal length of lenses, aperture, aperture plate, intermittent sprocket, intermittent movement, gate, alternating current, direct current, rotary shutter, fuse, acetate film, nitrate film, safety film, inflammable film, non-inflammable film, screen picture size, and many others. Many of these terms are not clearly understood by most teachers.

The purpose of this article is to explain and clarify some of the problems incident to projection work in the classroom, which are so puzzling and which seem so mysterious to the average classroom teacher.

The first problem to be discussed is that dealing with the screen picture size. This is a very practical problem which presents itself to the teacher often and in either of the following two forms: (1) How far from the screen must the projector be placed in order to fill the screen with the picture? (2) How large will the screen picture be if the projector must be placed at a certain distance from the screen? Most articles dealing with this subject submit a page of “conversion tables” by means of which the teacher, or other person, can readily cross-check to get the answer to the particular problem. One serious drawback to this scheme is that when needed, the “conversion table” cannot be located.

The method proposed in this article is one by means of which the teacher can readily calculate the answer for a given situation by “formula,” thus being self-dependent rather than being harnessed to a “conversion table” which is usually inaccessible. The problem is a simple one, and readily understood. The factors involved are: (1) focal length of the objective lens (this is stamped on the lens housing), (2) the aperture dimensions, (3) the throw (distance from the projector to the screen), and (4) the length or width of the picture desired.

The focal length of the objective lens determines the picture size. Each lens has a fixed focal length. To change the picture size, it is necessary to change the projection distance (throw). Where this is impractical, a different focal length lens must be used. The shorter the focal length, the greater the magnification, and hence the larger the screen picture. For a given lens the picture size increases proportionally with the projection distance. With the width of the picture selected, the required focal length objective lens is given with sufficient accuracy by the following approximate formula:

\[
\text{Equivalent Focal Length (E.F.)} = \frac{\text{Throw (feet)} \times \text{Aperture Width (inches)}}{\text{Picture Width (feet)}}
\]

in which \(E.F.\) = the equivalent focal length of objective lens measured in inches

\[
T = \text{the throw measured in feet}
\]

\[
W = \text{the width of the screen picture measured in feet}
\]

This is an approximate formula and gives the dimensions within a few inches from the exact size. This formula can be used in calculations for all projectors, lantern slide projectors, motion picture machines, opaque projectors, and the film slide projectors. It is merely a matter of substituting the values given below.

As stated above, the focal length of the objective lens (E.F.) will be found stamped in the metal housing of the lens. The throw and width can be accurately measured with a tape measure or yardstick. The aperture widths and heights will have to be written down for ready reference or memorized with little effort.

The aperture dimensions for the various projectors are: The standard 35-mm aperture is a rectangular opening, .906 inches wide and .6795 inches high for the silent projector, and .825 inches wide and .600 inches high for the sound projector. The standard 16-mm aperture is .38 inches wide and .28 inches high for both silent and sound projectors.

The standard lantern slide projector has a matte opening 2\(\frac{1}{4}\)" x 3".

The opaque projector has an aperture opening six inches square.

The film slide projector and attachments have the same aperture opening as the 35-mm silent projectors, .906" x .6795".

To find the screen picture size for the projector, it is simply a matter of substituting the proper values in the formula given above. After the formula is once learned, it is possible to use it in determining the screen picture size. In making the calculations, it simplifies matters to use the abstract numbers and then affix the proper names (feet or inches) after the calculations have been made. This saves multiplying by 12 and later dividing by 12.

This problem will serve as an illustration: What will be the size of the screen picture using a 16-mm motion picture projector having a 2-inch objective

(Concluded on page 24)
Round Out Your Classroom Film Library

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No classification of Eastman Classroom Films has proved more valuable than the 38 reels on health topics. Check the following titles with your present list. Bacteria—The Blood—Body Framework—Breathing—The Living Cell—Circulation—Circulatory Control—Cleanliness (4 reels)—Digestion—Diphtheria—The Feet—First Aid (4 reels)—Food and Growth—Good Foods (4 reels)—Home Nursing (3 reels)—The House Fly—Mold and Yeast—Muscles—Posture—Sewage Disposal—The Skin—Street Safety (for primary and advanced grades)—Care of the Teeth—How Teeth Grow—Tuberculosis and How It May Be Avoided.

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The following is a partial list of the widely used Eastman Classroom Films on science subjects. All of the 42 available reels are outlined in the Descriptive List of Eastman Classroom Films (see coupon). Atmospheric Pressure—Compressed Air—Electricity (3 reels)—The Green Plant—Illumination—Behavior of Light—Microscopic Animal Life—Life History of the Yellow Fever Mosquito—Refining Crude Oil—Optical Instruments—Refrigeration—Sand and Clay—Formation of Soil—Steam Power—Termites—Volcanoes—The Water Cycle—Water Power—Purifying Water—Weather Forecasting.

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WRITE for this booklet if you have not received your copy

The Descriptive List of Eastman Classroom Films will help you bring your film library up to date. If you do not have a copy in your files, mail this coupon today... Eastman Kodak Co., Teaching Films Division, Rochester, N. Y.

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Guidance in the Use of Visual Education Material

From the Supervisor’s Notebook

SUPERVISORS in their direction of teachers find the following types in varying degrees: the alert, interested, efficient ones, and those who have become inefficient by reason of ill health or from a lack of interest. Both types need stimulation and direction, the application of such help varying with the relationship that exists between supervisor and teacher, the teacher’s general attitude toward her work, and her skill and technique. The supervisor should strive to keep alive a keen sensitiveness to these conditions so that his or her methods may hasten, not deter, desired goals.

Sometimes the first step in the supervisor’s procedure must be to convince a teacher that a method in departure from the one being used is necessary. This may be accomplished in various ways.

1. Visiting the teacher in question for an appropriate length of time, discussion of the work following, during which the supervisor broaches tactfully the subject of the change which he or she deems necessary. In this case let us, for the sake of specific illustration, presume to be the scientific use of Visual Aids. In his or her enthusiasm the supervisor should not give the impression that this is a separate subject nor even a new procedure. The best justification of visual aids should be that of enrichment of subject matter.

2. Follow your visit and its attending discussion with an invitation to the teacher to visit a teacher who is using visual aids as a means of training the powers of observation, of developing the ability to interpret correctly, and in stimulating curiosity. Ask the teacher to visit with this question in mind; How do visual aids effect worthwhile learning? Tell her that you will be glad to accompany her on the visit in order that you may be in a position to discuss the subject further. Before the date set for the visit make arrangements with the demonstrating teacher for the type of work you wish the teacher to see.

A conference composed of demonstrating teacher, visiting teacher, principal and supervisor should
preferably take place immediately following the demonstration. After a demonstration followed by such a conference, a certain teacher of her own accord remarked to the supervisor: “I had no idea of the meagreness and inefficiency in my work until I saw Miss W’s. Further I did not realize the advance in methods brought about by systematic use of visual aids.”

3. Ask the teacher in question to invite you to visit her again at some future time after she has had time to reorganize her methods in accordance with modern interpretation of fundamental principles. On an advisory capacity the supervisor may then offer guidance in such matters as further experimentation and use of materials, interpretation of courses of study and curriculum records as related to visual education, research reading, where and how to obtain visual aid material, and its care.

Often in the case of teachers unaccustomed to the use of visual education materials, a supervisor finds it necessary to break down such inhibitions as not knowing how to manipulate projectors, fear of an initial start in their use, not knowing how to apply such aids in connection with subjects taught, a fear of not continuing in accustomed ways of presenting knowledge.

These inhibitions conspire to make difficult the introduction and use of the “seeing experience” in classrooms. Recommendations to take a course in Visual Instruction will often solve difficulties for teachers when other measures offered by supervisors and principals fail.

The supervisor’s opportunities are many and diverse in character. In short her excuse for being is “to help teachers to help children grow”.

By FLORO TORRENCE
General Supervisor, Indianapolis Public Schools
New Film Releases

Prize University Film Released

Garrison Film Distributors, Inc., of New York City, announce that they have added The Oval Portrait, prize-winning two-reeler, to their "Blue List of Exceptional 16mm Sound Films." The Oval Portrait was produced by students at the University of Southern California and was awarded the Paul Muni Prize as being the best amateur film of the year. It was adapted from the Edgar Allan Poe story and is synchronized with a musical score played by the organ. Other recent additions to the Blue List are: High School of Skiing, an authentic instructional film made in the Swiss Alps, Corpus Christi Day, showing the ceremony in an Austrian village, and Eine Kleine Nacht Musik based on the Mozart music, making use of "cutouts" created by Lotte Reininger.

Shenandoah National Park in New Film

The Shenandoah National Park is the subject of a new one-reel silent motion picture film prepared under the supervision of the Department of the Interior by the National Park Service and the Bureau of Mines in cooperation with a large industrial concern. Animated photography is used to show in the opening scenes the geographic location of the newest of our National Parks, its proximity to nearby cities of Virginia and the Nation's capital, the route of the scenic Skyline Drive over the mountain tops, and other routes within the Park. Picturesque CCC camps, picnic grounds, camping sites, and other facilities for recreation are portrayed.

Copies of this film in both the 16mm and 35mm may be obtained for non-theatrical exhibition from the Pittsburgh Experiment Station of the United States Bureau of Mines, Pittsburgh, Pa., or the National Park Service, Department of the Interior, Washington, D. C.

Film on Juvenile Delinquency

Juvenile Delinquency, the one reel March of Time productions recently shown in the theatres, is now available for non-theatrical use by purchase from the National Probation Association, 50 W. 50th St., New York City. The film deals with the prevention of juvenile delinquency, portraying the conditions that breed criminals, and should be of particular interest to social workers, teachers, women's clubs and parent-teacher groups.

Resettlement Movie Available to Schools

In response to the extensive demand by schools, The Plow that Broke the Plains, the three-reel government motion picture, has been made available for such exhibitions, in both 16 mm and 35mm sound prints. All who have seen the film are unanimous in praise of it as entertainment, of technical excellence and dramatic power, and as a masterful example of the documentary picture. It presents the history and land problems of the Great Plains from the time buffalo roamed the...
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The Plow that Broke the Plains may be obtained from the Resettlement Administration, Washington, D.C., upon the payment of transportation charges.

An Announcement from Ideal Pictures

We are pleased to pass on to our readers the interesting news that Mr. H. A. Spanuth is now associated with Ideal Pictures Company, Chicago, as Vice-President of the Company. As many doubtless know, Mr. Spanuth had been associated for the past nine years with the Bell & Howell Company as Manager of their Film Library Division. In his new connection he will continue to render to those interested in motion picture films and equipment the same kind of courteous and efficient service as heretofore.

Ideal Pictures Company, which has been serving the 16mm and 35mm field for many years, is establishing an 8mm rental library, and a list of these subjects is available upon request. This Company is now prepared also for the distribution of 16mm and 35mm industrial films everywhere in the United States. Two such films recently acquired are The Art of Selling and Making a Sales Presentation Stick, both available in four reels, 16mm sound.

A Film Review

The new Woman’s Christian Temperance Union motion picture, The Beneficent Reprobate, presents in four reels an effective and instructive lesson on the characteristics of alcohol and its harmful effects on the human body, as indicated by its subtitle, Ethyl Alcohol, Its Nature and Properties. It is a scientifically accurate treatise commendable particularly for its restrained treatment and absence of any preaching or emotional appeal. Although it is educational in character and made in accordance with the principles of modern pedagogical practices, the theme is presented in interesting, popular fashion.

An introductory scene shows a medieval alchemist’s laboratory and his accidental discovery of the distillation of alcohol from wine while searching for a universal solvent. The film then summarizes the uses of alcohol in industry, and demonstrates by laboratory experiments its qualities as a solvent, dehydrant, and so on. Much footage is devoted to tests given to a group of medical students at the Northwestern University Medical School, which showed that even a small amount of alcohol resulted in definite temporary impairment to the central nervous system and to muscular control. The subjects were given forty-five cubic centimeters of alcohol, the equivalent to three bottles of 4 per cent beer.

Made by the Burton Holmes Studio, the picture is also very satisfactory technically. It is available in 16mm and 35mm, silent or sound, from the Motion Picture Bureau of the Y. M. C. A. through its offices in New York City, Chicago, and Portland, Ore. We predict a great demand for The Beneficent Reprobate from schools, churches, professional groups, and other educational and welfare groups. It is free except for shipping expenses.
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"One picture is worth ten thousand words," wrote the sage of old Cathay. He had the right idea about education and entertainment. It is our idea too, with these pictures to back it up . . .

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News and Notes
(Continued from page 16)

be distributed through prefectural distributing leagues, free of charge if possible.

India. The Motion Picture Society of India has been carrying on intensive propaganda for educational films for some time, arranging for the exhibition of such films in different centers. It has been endeavoring to impress upon the Universities of the country the desirability of introducing courses in film education and considering the production of educational motion pictures. The Society cooperated with the Madras Film League in the Second All India Motion Picture Convention at Madras on 26th and 27th of December, when an interesting exhibition of educational films will be held.

Germany. For the first time this year many German universities are including in their courses of instruction matters pertaining to motion pictures, a report to the U. S. Commerce Department from its Berlin office states. Questions concerning the films are discussed in lectures on current affairs, the theater, national economy, music, and the history of art. Universities which are giving instruction on film matters during the current collegiate year include Munich, Heidelberg, Cologne, Leipzig, Freiburg and Hamburg, the report states. The purpose of these courses is to give a general acquaintance with film art and technique.

It was announced by the official German bureau for educational films that by the end of August 1936, 10,000 projectors had been supplied to schools. This was planned to be accomplished after five years, but the figure was reached after two years. No less than 44,000 films have been supplied for educational purposes.

Visual Education in CCC Camps

A recent survey of motion picture equipment available in CCC camps reveals an extensive use of films in the Corps throughout the country. Some 1500 camps reported that movies were being shown in their camps, with 356 of them owning their own equipment, bought generally with company funds. A definite trend toward 16mm sound projectors was indicated by the survey, although there were many 35mm projectors in the camps. There were also some camps still using silent projectors. In type of films shown, 47.3 per cent was entertainment material and 41.8 per cent was educational.

The set-up of the Fourth Corps Area is particularly outstanding for its extensive film service. In general, the major job of the service is to support vocational educational activity, of which it is an effective part. A wide variety of vocational and related films is maintained in the central supply, and close contact is effected with the local offices of the using services by making up adaptable programs for their traveling field operators.
for administrators
for superintendents
for teachers

a practical handbook on audio-visual
instruction, a record of teachers' experiences, and film information.

HOW TO USE
THE EDUCATIONAL
SOUND FILM

By M. R. Brunstetter
Director of Publications, Teachers College, Columiba University; formerly research associate, Erpi Picture Consultants, Inc.

Discusses the utilization of the educational sound film and illustrates the best techniques by which to secure its effective service in the classroom.

Illustrated, 180 pages, $2.00; postpaid, $2.20

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Museum Foreign Film Series

The Museum of Modern Art Film Library announces the release of a new series of foreign film programs, for circulation to museums, colleges and film study groups throughout the country. This series consisting of three German and two French film programs, covers the development of the motion picture in those countries from 1895 on and includes such well known productions as The Cabinet of Dr. Caligari, The Last Laugh, The Love of Jeanne Ney, The Fall of the House of Usher.

Visual Courses for Indiana Teachers

Mr. H. A. Henderson of Indianapolis has conducted over fifty visual education courses in many cities and teachers colleges throughout Indiana, instructing some 3,000 teachers in visual methods, and is now in his fifth year at Butler University. Besides giving extension classes in Visual Education for Butler he is offering a course to Hammond teachers every Monday at 4 o'clock, beginning January 25, in the School Administration building. Another is to meet in the High School building in Michigan City Tuesday evening, January 26, at 6 o'clock.

Theatre Releases Now in 2000 Foot Reels

Schools and other non-theatrical organizations that use theatre features as part of their service, for auditorium or community showings, should take notice that these reels now come from the exchanges, wound on 2000 ft. reels — in accord with the adoption of the S. M. P. E. standard 2000 ft. reel for the industry.

35mm. sound projectors must now be able to handle the 2000 ft. reels. Theatre projectors can do this, but 35mm. Portables and semi-portables may have to make some changes to accommodate the new size reel.

Our attention has been called to this matter by a notice from Herman A. DeVry, Inc. that all models of their 35mm. sound projectors are designed to accommodate the new size reel.

New Instructional Films

In 16 mm. Sound

recently added to our library include Physical Science, Natural Science, Geography and Travel, Sports and Athletics, Literature, Music Appreciation.

Send for descriptive list and rental prices. Our 48-page catalog is free for the asking and contains hundreds of carefully-selected feature films for entertainment, as well as comedy and cartoons, and fine educational short subjects in 16 mm. sound-on-film and silent form.

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Among the Magazines and Books

Conducted by Stella Evelyn Myers


This comprehensive contribution on modern methods in geography teaching contains a helpful section on visual aids. "There are those who believe that visual instruction is passive. This is a fallacy. As it was necessary for the plate in the picture to go through the developing process, just so is it necessary for the child, after the presentation, to have perception followed by a mental reaction." As to teaching pupils a scientific procedure, the author quotes from the thirty-second Yearbook of the National Society for the Study of Education, "To tell children at the outset of their study of a region facts that could be discovered from pictures or maps, is to deprive them of an opportunity to make use of source materials and achieve the gain in skills and independence that comes through much use."

Scholastic (29:Nov. 21, '36).

This number is a motion picture issue filled with information most appealing to those of High School age and continuing youth. Sarah McLean Mullen shows just how the camera is made to produce its magic on the screen in more than three pages of fully illustrated material. A symposium of leaders in the film world presents, "How Shall the Films Be Safeguarded?" "Produce Your Own Movies" gives a plan for a High School Photoplay Club, suggesting correlation of certain problems with physics and chemistry. Dr. Edgar Dale discusses the art of reviewing films, and suggests that critics have been altogether too much occupied with the technique of story-telling, and too slightly occupied with the character of the content. The contribution from the foreign field, he thinks, is largely disregarded. Four illustrated pages are devoted to the late release on the life of Rembrandt, considerable of the script being included.


Notwithstanding the rather forbidding exterior of the Metropolitan Museum of Art, New York City, within it is as dynamic as a Ford factory. Almost any article in your home, from packages on the kitchen shelves, to the paper on the walls and clothing in your closet, may reflect the influence of the Met ("I call it that because those who make most use of it do and because it is human enough to deserve a nickname") since it maintains a close cooperation between the museum of art and the newly-fledged American designer. Art as viewed by the Met is an illustrated history of human culture. Human life flows by us and we see its continuity. We are calling upon the past to help us solve our present-day problems. Mr. Kent, the secretary of the museum, considers that the functions of a museum are three, of which acquisition is the first; the second, exhibition. The third function is exposition—trying to get people to see what the exhibits mean, giving them a chance to use them, apply them in their businesses or professions, work them into their daily lives.

Lantern slides are circulated free to the New York City schools; but for a fee, 38,000 were circulated in 1934-35 outside the state. The museum has produced films dealing with the temples and tombs of Egypt, with the uses of armor, with the making of pottery, tapestry, wrought iron and stained glass windows, as well as artists and sculptors at work. Last year, there were 146 motion picture showings in other parts of the U. S. and in the Canal Zone.

The significance of the art museum, in cooperation with designers, producers and distributors, is that it is doing something to make our civilization less ugly, which is almost an essential and making it less corrupt, less unjust and less militaristic. The very practical educational work of the museum is fully described in the article, and should be suggestive to all museum staffs.


The extensive showing in schools of industrial films, financed by large business concerns, is deplored by the author. Such films "do their work well," he says, one such film reaching from one to three million people a year. Although they are known as commercial films by the producers of them, "it is as educational films that they reach the spectators, and their content is accepted as education, not as propaganda."

He contends, further, that working conditions are grossly misrepresented by advertising films, and compares the films which are reaching our children with the splendid ones produced and distributed in Europe. "We insist upon textbooks being written by authorities, and would not think of placing in the hands of children advertising pamphlets simply for the reason..."
that they are free. But we are limiting their visual education, the most vivid and effective form of education in the world, to advertising films, which distort facts and prejudice children against all working class struggles.”


A tabulation is given of guides for parents in rating movies for their children, also study guides for High School pupils are included.

Building America (2, No. 1, Oct. ’36) “Our Constitution” and “Safety.” The first two units in the second volume of this series, published by the Society for Curriculum Study.

An excellent, unbiased study of the formation of our constitution, and how it has functioned to the present time. How by new interpretations it has met, in strength or weakness, the many clashes that have arisen in our Republic is developed at length. Changes in our ways of living, particularly during the period 1870 to 1920, have necessitated new laws to regulate agriculture, business, and labor, and such laws meant new interpretations of our constitution. “The history of Supreme Court decisions has caused Americans to disagree as to whether the Court should have as much power as it has. Some think the Court is not democratic enough and that its decisions favor property rather than human rights. Others think the Court is the main protection of the American people against a government which might threaten their property right.” Recent laws and Supreme Court decisions as to their constitutionality are causing the people to give more attention to the Constitution than they have for many years. Before deciding upon these questions the citizens must understand their government better than they now do.

The “Safety” number deals pictorially, as well as verbally, with avoiding accidents in industry; transportation by land, water, and air; in the home; the school; and by means of fire.

The first volume of Building America consists of nine issues, which are available in pamphlet form or in one single cloth-covered volume of 275 pages. It is planned that eight lessons will be published continuously each year on significant phases of American life.

Back Issues Wanted

Frequently we receive orders for back issues of the Educational Screen which we cannot fill because our supply is exhausted. We are particularly in need of the following copies: March, May (1925); April, October (1928); March (1930); March, September (1931); January, October, December (1932); June, September (1934); April, May, June (1935).

If any of our readers can supply these numbers, a fair price will be paid for them, if received in good condition.

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INTERNATIONAL EDUCATIONAL PICTURES, INC.
Mount Vernon & Walnut St. — Boston, Mass.

Book Review


This fascinating work covers the whole subject of motion picture production in so clear and enticing a manner that amateurs can readily follow the directions. The fundamental structure of work for the screen is constantly kept in mind as it is differentiated from verbal narrative. Plot and scenario writing for amateur photoplays are discussed and illustrated. Many simple subjects are presented in a model scenario form, the form varying with the type of subject. The use of sound, if it is added, is treated in a perfectly sane manner. Some titling, even with sound, often makes a smoother rendering. Excerpting music from records, the use of a double turntable, and post synchronization are fully treated. The difficult art of synchronizing on location, and the more deliberate art of editing sound on film receive attention. The use of sound in industrials, as distinguished from the narrative, is clearly seen by the writer.

The chapter on “Filming in Colors” should appeal to students of art, particularly, but it is a treatment of broad culture for any reader. There are psychological and esthetic advantages in bringing living, glowing color to the screen that scarcely can be overestimated. It gives depth, both stereoscopic and intellectual, to scenes. Color has a great emotional effect, which when combined with the richness of the human voice, or other harmony, and with the subtle influence of movement produces a powerful effect. Much is made of overall tones and shades to enhance the emotional content of a given scene. “Color gives an additional scale of variation to the elements of the picture,” hence there is more to see than in monochromatic film. For this reason, the color scene should run a trifle longer than the black and white film.
HERE THEY ARE

FILMS

Bray Pictures Corporation, 729 Seventh Ave., New York City (3, 6)
Eastin 16 mm. Pictures, (Rental Library) Davenport, Ia. (6) (See advertisement on page 21)
Eastman Kodak Co., Rochester, N. Y. (4) (See advertisement on outside back cover)
Edited Pictures System, Inc., (1) 330 W. 42nd St., New York City
Big Pictures, Inc., 330 W. 42nd St., New York City
General Films Ltd., 1924 Rose St., Regina, Sask.
Herman A. DeVry, Inc., 1111 Center St., Chicago (3, 6)
The Holmes Projector Co., 1813 Orchard St., Chicago, Ill.
Ideal Pictures Corp., (3, 6) 30 E. Eighth St., New York City (See advertisement on page 23)
International Projector Corp., (3, 6) 90 Gold St., New York City (See advertisement on page 4)
Motion Picture Screen & Accessories Corp., (3, 6) 524 W. 26th St., New York City
National Camera Exchange (6) 5 South Fifth St., Minneapolis, Minn.
RCA Manufacturing Co., Inc., (5) Camden, N. J. (See advertisement on page 19)
S. O. S. Corporation, (3, 6) 1600 Broadway, New York City
Universal Projector and Film Corp., (3, 4) 228 Franklin St., Buffalo, N. Y.
Victor Animatograph Corp. (6) Davenport, Iowa (See advertisement on inside front cover)
Visual Education Service (6) 470 Stuart St., Boston, Mass.
Williams, Brown and Earle, Inc. (3, 6) 918 Chestnut St., Philadelphia, Pa.

SCREENS

Da-Lite Screen Co. (6) 2721 N. Crawford Ave., Chicago (See advertisement on page 25)
Motion Picture Screen & Accessories Co. (6) 524 W. 26th St., New York City
Williams, Brown and Earle, Inc. (3, 6) 918 Chestnut St., Philadelphia, Pa.

SLIDES AND FILM SLIDES

Conrad Slide and Projection Co., 510 Twenty-second Ave., East (See Superior, Wis.)
Eastman Educational Slides (4) Johnson Co. Bank Bldg., Iowa City, Ia.
Edited Pictures System, Inc., 330 W. 42nd St., New York City

MOTION PICTURE MACHINES and SUPPLIES

The Anmpco Corporation, 2603 N. Western Avenue, Chicago (6) (See advertisement on page 5)
Bell & Howell Co., (6) 1815 Larchmont Ave., Chicago, Ill. (See advertisement on inside back cover)
Central Camera Co., (6) 230 S. Wabash Ave., Chicago (See advertisement on page 24)

A Trade Directory for the Visual Field

Ideal Pictures Corp. (6) 30 E. Eighth St., Chicago, Ill. (See advertisement on page 24)
Keystone View Co., Meadville, Pa. (See advertisement on page 24)
Radio-Mat Slide Co., Inc. (6) 1819 Broadway, New York City (See advertisement on page 24)
Society for Visual Education (6) 327 S. LaSalle St., Chicago, III. (See advertisement on page 23)
Spencer Lens Co. (6) 1905 St. Louis, Buffalo, N. Y.
Suffern, N. Y. (See advertisement on page 23)

STEREOGRAPHS and STEREOSCOPES

Herman A. DeVry, Inc. (6) 1111 Center St., Chicago (See advertisement on page 23)

STEREOOPTICNS and OPAQUE PROJECTORS

Bausch and Lomb Optical Co. Rochester, N. Y. (See advertisement on page 1)
General Films Ltd., 1924 Rose St., Regina, Sask.
E. Leitz, Inc. (6) 60 E. 10th St., New York City (See advertisement on page 26)
Society for Visual Education (6) 327 S. La Salle St., Chicago, Ill. (See advertisement on page 26)
Spencer Lens Co., 1905 St. Louis, Buffalo, N. Y.

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(1) indicates firm supplies 35 mm. silent.
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A Visual Instruction Project In Laboratory Chemistry

Some valuable suggestions on making lantern slides show students the right and wrong way in laboratory procedure.

By J. M. Levelle
John Marshall High School, Cleveland, Ohio

The conscientious teacher in high school chemistry wishing to make the most of his many opportunities in the teaching of the subject is confronted with a variety of problems. In schools which still have a laboratory as an integral part of the course, and its value still appreciated, some of these problems arise in attempting to successfully instruct pupils in laboratory technique.

Many of them take the form of dangers encountered by pupils from day to day, and these dangers are particularly pertinent to those students average or below in mental ability. To illustrate: One of my boys was about to generate oxygen by decomposition of potassium chlorate and using manganese dioxide as a catalyst. He did read the first portion of the experiment in which was specified the apparatus and materials necessary to carry out the work, but apparently decided the rest of the instructions were superfluous. Assembling his apparatus, he placed in the test tube his potassium chlorate, manganese dioxide, sulphur and a small piece of cotton. Probably the chief reason that he didn’t include wood splints, iron wire, magnesium ribbon and several other things, was lack of space in the tube. The result of applying heat to such a mixture needs no description. We never found more than two or three small pieces of the tube, and the report produced when it let go must have been heard some distance down the corridor. Fortunately no one was hurt, although several pupils were working within range of the flying glass. This does constitute an extreme case. Nevertheless, every chemistry teacher realizes full well that in every class, he has at least one or two students who should be labeled “handle with care”. It is absolutely necessary to instruct classes efficiently in laboratory technique, and constantly watch every person working in the laboratory.

Certainly it is true that problems involving possible dangers to students do not make up all which must be met by a teacher in laboratory chemistry. Many others are equally aggravating and time consuming. It seems practically impossible to make pupils realize that paper, matches, zinc, etc., are insoluble in water and should not be thrown into a sink. Stoppers of reagent bottles are always being laid on table tops or books rather than held between the fingers. There is an ever-present tendency for most pupils to visit, or be anywhere else in the “Lab” than at the desk to which he was assigned. Periodical inspection of lockers is necessary; reagents needed for present and future experiments should be available; experiments must be checked and questions answered. Only a few of a long list which could be made up by any teacher of the subject.

Chemistry as taught in this school consists of three lecture periods and two double periods of laboratory work, each week. Each period is 45 minutes long. We consider ourselves very fortunate in not being forced to subject pupils to a continuous sequence of lectures and demonstrations carried on solely by the instructors. Our pupils still have the opportunity of carrying on their own work and enjoying that fundamental basis of any science, experimentation. Our laboratory is modern in every respect. A well-equipped stockroom; a type of laboratory desk which is unadorned with reagent shelves, thus enabling the instructor to see any pupil in the room, at any time. Six hoods, two glass display cases, balance tables and two groups of reagent shelves, are standard equipment. In addition to this, we have transformed a small room originally designed as a balance room, into a chemical library. The books it contains are in constant demand as pupils leave the laboratory and go into the library to write up experiments. We are trying in every way possible, to make our laboratory a vital part of our course in chemistry.

John Marshall has been designated as an experimental high school, and many innovations in teaching technique are being tried out. A considerable amount of this work is being done in science, history and English.

Attempting to secure maximum results from each laboratory experiment performed by each student, we are confronted particularly with selection of the best methods of dispensing information regarding proper handling of chemical apparatus. As part of the procedure entered upon in making the laboratory a vital factor in the chemistry course of our students, photography and visual instruction are playing a leading role. We firmly believe that telling pupils how to do something, supplemented with pictures and demonstrations which show them how to do it, is the ideal combination. It is impossible to describe in words the proper method of using a platform balance; a bunsen burner; or the insertion of a thistle tube through a stopper. These laboratory instructions are most valuable and last longest in the mind of the student, when they are followed by actual photographs of the apparatus in use, and these
photographs thrown on a screen in the form of lantern slides. Of course there are diagrams which accompany each experiment, and these are very useful. When scenes of actual students, assembling and operating this apparatus are used, results are much more satisfactory.

As part of our efforts to illustrate a lecture titled "Making the Most of Your Laboratory," given several times to classes in the first semester work, we have tried to pick out common mistakes made in general laboratory practice, have photographed the mistake being made and followed it with an illustration of the proper procedure. These have been changed to lantern slides and are proving quite effective. Contrary to first thought, we have found that such pictures can be used not once or twice, but repeatedly throughout the first semester. They are particularly helpful during the first few weeks of the beginner's laboratory work.

Subject matter for each of these pictures was easily chosen. It was only necessary for the instructor to watch experiments being performed by students. As mistakes occurred, a notation was made as to what it was, in what experiment it was being made, and the name of the student making it.

The photographs were made with a Zeiss Maximar camera, equipped with a Tessar f: 4.5 lens and compur shutter. The film was Eastman Supersensitive Panchromatic cut film, 3½ by 4½ inches. The camera was placed about six feet from the subject and the picture first composed on the ground glass focusing screen. A set of reagent shelves, formed the background. The illumination was artificial and consisted of six photoflood lamps rated at from 750 to 1,000 watts each, in assorted reflectors. The stop opening used was f11 and the time of exposure 1 second.

The writer is fortunate in sponsoring as an extra-curricular activity, a Photography-Projection club of boys. We have a well-equipped darkroom, and as some of the boys have worked in the club for a period of two years or more, they have become quite efficient in darkroom procedure. These boys assisted in no small measure with the arrangement of lights; development of the negatives and the making of the slides.

No amateur photographer could enter upon such a project as this without learning something new in technique. We soon found that in order to show up various articles of glassware to best advantage it was necessary to experiment considerably with our lights, stop opening, exposure, etc. A few pictures had to be retaken because we failed to sufficiently evaluate the background of clothing worn by the student being photographed. Erlenmeyer flasks, wide-mouth bottles, thistle tubes and such do not show very well against a gray or white shirt; neither do ring-stands, burette clamps and bunsen burners contrast well when placed against a dark coat or sweater. Many other things which will spoil a slide have to be watched. Unfortunately some of these defects do not appear to one on the focusing screen, but strike you forcefully upon examination of the finished negative. In one instance upon development of a negative, we found that to all appearances we had stuck the end of a burette clamp directly into one eye of the pupil being photographed.

Any teacher in this fascinating subject will realize that for such a visual project as herein outlined, the possible range of subjects for pictures is very great. Those which are mentioned below compose only a partial list of the ones we already have finished, and are not meant to be comprehensive. On my desk at the present time is a list of eleven subjects to be photographed as soon as time will permit. Perhaps the following descriptions of some of our slides will serve to illustrate just what we are doing.

(1) A view of the entire laboratory, showing pupils at work in their proper places.

(2) A photograph of the school dispensary showing examination of a pupil by the school nurse. Used to emphasize possible dangers in a laboratory, due to careless work.

(3) A student is pointing to the number on a reagent bottle.

(4) The same student points to the same number on the reagent shelf.

(5) The same pupil replaces this bottle on its proper place.
Making Movies In The Junior High School

How the students themselves carry through the whole production of a movie, from the original concept to the completed film.

By Elias Katz

Graduate Student Teachers College, Columbia University

The following is a brief report of motion picture making at Junior High School No. 45, Bronx, Angelo Patri, principal.

The writer was assigned to this school from the WPA Federal Art Project in October 1936, as an Art Teacher, to carry on motion picture making as a creative activity by students. On November 25, the two one-reel films were shown to the school auditorium periods. The first “Three Friends, or, The Helping Hand,” was a story of three school chums who help one another to success in school work and in sports. The second, “A Bad Boy’s Story,” told how a ‘bad boy’ in the school changes for the better under the influence of the school, his friends, a teacher, and his mother’s visit to school during Open School Week.

Public School No. 45 is organized on the Gary Plan, the whole school plant being in constant use through rotation of classes between the many “shops”, and academic classes. There are some twenty-seven different shop activities, in addition to the regular curriculum subjects. Among these activities, which in the average school are carried on as extra-curricular clubs (or not at all), are found printing, carpentry, book binding, millinery, art weaving, pottery, clay modeling, home making, as well as science, drawing, mechanical drawing, etc.

All students have a shop, auditorium, or physical training period daily. These activities are taken up for ten-week periods. During their two or three years at the school (rapid advance classes can make the 7th, 8th and 9th years in two years of study), pupils may attend as many as eight or ten different shops.

The various shops attempt to provide an opportunity for self-expression in terms of some medium, to develop character and good manners, to explore students’ interests, and to help them to begin to find themselves vocationally. The guiding spirit of the school is Angelo Patri, whose deep educational vision and loving understanding of children has greatly influenced American education.

In order to start the project, two groups of eight boys each were selected for the motion picture class. Both groups came daily for two consecutive periods each, one and one-half hours daily. The first week or so of the project was the most difficult, since it involved the exercise of pure imagination in the developing of ideas and themes. Students were encouraged to submit ideas and suggestions for stories, with such results as follows:

“A boy is not good in baseball and other boys tease him. He grows up and decides to become a great leaguer, and does so. At the finish he is a great baseball player.”

“While two friends are listening to the radio, they hear that their old friend has hit a home run in the World Series. They say, ‘I wouldn’t think he could do that.’

“The first inning, the poor player is up with loaded bases, and he pops out.”

(Since the baseball season ended about this time, the group turned its interest to football, with the following results.)

“Two boys meet in the street and one boy has a football. He says, ‘How about a game of football?’ And the other boy says, ‘All right.’ So they go get some more boys to play.”

“The Hero owns the ball.”

“He meets a coach one day and the coach asks him why he is sad. And Savino tells him how he does not know how to play football. And the coach tells him that he can come to the football field and he will teach him how to play every day.”

“Savino is always cutting P. T. (Physical Training—E. K.) period because he does not like to play football. His friends get together and plan to bring him in the field.”

“In Savino’s home, James and Jerome are studying Arithmetic, and Savino helps them out because he’s smart.”

“Savino gets a football book from James and Jerome.”

“In shop, James calls Savino to help him with his boat.”

“We can show in the class room, the teacher telling Savino to help James and Jerome with their home work.”

“The scene at home can be taken in the Home Making Room (of the School—E. K.).”

“The teaching is marking papers and James and Jerome get very poor marks.”

“In a class room. A test is taking place. Savino smiling and writing rapidly. James and Jerome have a very sad face and are scratching heads because they don’t know the answer.”

Using the above suggestions and ideas, plus many others, a rough scenario was drawn up. The following are the two scenarios of the films.

Three Friends, or The Helping Hand

Scene 1. A football sails through the air.
A boy catches the ball.
The boy runs to the captains, who are choosing sides.
Three friends, Savino, Jerome, and James come over.
Jerome and James are chosen immediately.
Savino is the last to be chosen.

Scene 2. Savino is a poor player.
He receives a pass and misses it.
While the captains are choosing, he tries to kick the ball, but falls in the effort.

Scene 3. Jim throws off to the other team. Savino gets the ball.
Savino runs a few yards, but he is soon caught.

Scene 4. Savino tries to tag a man. The man dodges.

Scene 5. The last play. Savino misses a pass, and loses the game.
Scene 6. In the regular class room, Jerome and James are not good students.
The teacher tells Savino to help Jerome and James with their home work.
Savino helps his friends with their home work.
Scene 7. After school, Jerome and James help Savino with sports.
Scene 8. The game in which Savino is successful.
Thowoff.
A play during the game, a pass to Savino.
An intercepted pass by Savino, which scores a touchdown.
The final play, Savino scores a touchdown.
Scene 9. The three friends walk off towards P. S. 45.
THE END.

A Bad Boy's Story

Introduction: This film shows how a bad boy changes his character. He's an intelligent boy but is too lazy to work. He likes to make trouble. Under the influence of his teacher and the school he changes for the better.

Scene 1. View of class at work.
A boy throws a paper plane at the teacher. Everybody looks back at boy.
The teacher sees it. He says, "I'll speak to you after school."
The boy is not good in class work.

Scene 2. View of a work shop.
The teacher demonstrates how to chisel a certain piece of wood.
The boy breaks the piece of wood because he wants to be a wise guy.
The boy gets a poor mark in shop.

Scene 3. The boy gets into some more trouble.

Scene 4. The teacher speaks to the boy after class in the room.
The boy walks out on the teacher.

Scene 5. The teacher meets the boy after school.
The boy is going to some bad friends.
The boy runs away from the teacher, and goes to a crap game.

Scene 6. The teacher speaks to the bad boy's shop teacher.

Scene 7. Finally, the teacher speaks to the Assistant Principal.

Scene 8. The Assistant Principal calls down the boy, and tries to help him reform.

The teacher tells her about her son's conduct.
She cannot believe this news, and bursts into tears.

Scene 10. John is now thoroughly ashamed of himself.
He decides to reform.

Scene 11. The bad boy goes up to the teacher and apologizes for his bad conduct.

Scene 12. The student improves in shop activities, and in school work.

Scene 13. The teacher meets the boy after school.
The teacher walks off with him to somewhere else, instead of going to his bad friends.

THE END.

These scenarios were very useful for checking the actual photography of scenes. Thus, it was possible to avoid what often happens in amateur film making, namely, repeating a scene which has already been taken.

After the filming, much discussion was given to the whole problem of editing. This problem was especially acute in "A Bad Boy's Story," owing to the fact that the story was one with a definite 'moral' to it, and therefore needed a strong punch to convey the idea.

As can be seen from the scenario above, Scene 9 is the turning point in the film. Where everything else has failed, his mother's tears are the influence which changes the bad boy. However, in early versions of the scenario, this strong scene was not present. The need for a vivid determining force was only brought out by roughly editing the film, and discovering that it would be woefully weak without just such an episode.

The cost of the entire project, including Super-sensitive Panchromatic film and film titles was $60.00. By putting on a gala performance on the day before Thanksgiving, it was possible to obtain enough funds to cover the cost of the project, and to leave an appreciable amount for the School Fund, even though only five cents admission was charged.

From this experience, we have an indication that under favorable conditions motion picture making is an activity which may be undertaken and successfully carried on in a public junior high school. Recognizing the richness of the educational experience, and the satisfaction to be derived from seeing pictures produced by boys and girls on the same level, it would seem worthwhile to pursue the problem further along several directions. These may be stated in terms of the following questions:
To what extent and under what conditions can motion picture making be introduced as a regular part of the junior high school curriculum? How can motion picture making be instrumental in effecting some degree of integration of academic subjects and students' interest? For example, how can English or History teaching be enriched by a project in motion picture making? What materials are minimum requirements for carrying on a film project? How can motion picture making stimulate children's creative imagination, and develop independence in executing a difficult enterprise?

Establishing a Program of Supervised Audio-Visual Education

_A report on the organization of a Department of Visual Education for a small school system._

(Concluded from January Issue)

**Preliminary Activities of the Department (Cont.)**

**E—Acquiring Commercial Exhibits**

Many manufacturing concerns will furnish valuable educational exhibits to schools either free or at a slight cost. Such as are worth while should be procured and held for distribution by the Visual Aid Center.

**F—Compiling and Distributing Catalogs of Available Materials Owned by the School System or Procurable from Outside Sources**

(a) To those catalogs of visual aids owned by the school system shall be added subsidiary lists of valuable materials, procurable from outside sources, previously used by our teachers and reported by them as “Good” or “Fair”.

(b) Copies of the combined catalog shall be distributed to all Visual Aid Centers from which they may be borrowed by teachers desiring to schedule materials.

(c) Copies of the film catalogs of leading film distributors will be placed on file in the Visual Aid Centers. These may be used in selecting materials not included in the Department's catalog. It should be the general policy, however, to select materials from the catalogs compiled and distributed by the Department as these will include items for which there is some record of contents and value. As previously mentioned, when new materials are used and found of value they will be added to the Department's catalogs.

**G—Furnishing Synopsis of Factual Content of Visual Aids Used by the Department**

(a) A card record, filed in the Visual Aid Center, for each item listed in the catalog, shall include, whenever possible, the following data:

1—Type of material.
2—Sources from which material may be procured.

**By F. Marshall Worrell**

Junior High School, Englewood, New Jersey

3—Outline of the factual content of the material, as reported by users, or, if possible, a teacher's guide, attached.

4—Grade in which material has been used.

5—Subject field in which material has been used.

6—Problems the material has been used to illustrate.

7—How the material was used, i.e. as an introduction, direct teaching tool, summary, review, etc.

8—Teacher's opinion as to its value.

9—Criticism.

10—Sample lesson plans followed in using material.

11—Tests used in conjunction with the material.

(b) Duplicate copies of this record shall be filed in the Visual Aid Centers in each school. Teachers should be encouraged to consult these records before scheduling or using material.

**H—Determining the Projection Equipment Required**

(a) The Director or Committee Representative shall inspect the projection equipment held by each school.

(b) He shall list according to type (slide, still film, motion picture projectors, etc.) all projection equipment, noting: name of manufacturer, model and number, condition and any necessary repairs required.

(c) He shall list any auxiliary equipment held by the schools, such as: — adapters, spare lamps, lenses, portable or permanent screens, projector tables or stands, extension cords, film splicers, mending fluid, rewinders, cleaning materials, etc.

(d) Damaged projectors or auxiliary equipment shall be repaired.

(e) The Director shall recommend the trading
in of any obsolete equipment as part payment for new.

(f) The Director shall recommend the purchase of such new equipment as may be required to meet the following minimum requirements:

1—A slide projector shall be assigned to each building.
2—A still film projector shall be assigned to the Junior and Senior High Schools and such Elementary Schools as use films regularly.
3—A 16mm silent film projector shall be assigned to the Junior and Senior High Schools and such Elementary Schools as use motion pictures regularly.
4—The several 35mm projectors, now located in various buildings, shall remain there.
5—As far as possible, each building shall be equipped with a table radio set to be used in classroom or auditorium.
6—The Junior and Senior High Schools shall be assigned Victrolas for use in the teaching of Music Appreciation.
7—Those buildings equipped with an auditorium shall be supplied with a suitable roller type screen.
8—A portable screen will be assigned to all buildings for use in the classroom.
9—All buildings will be supplied with a suitable projection table, spare lamps, extension cords and such auxiliary equipment as may be required to take care of minor repairs and maintenance, i.e.:—oil, cleaning tissue, tape, tools, splicer, mending fluid, etc.
10—The Visual Aid Center will hold in reserve for distribution:
   Two combination slide and opaque picture projectors.
   One 16mm silent film projector.
   One 16mm sound-on-film projector.
   One 35mm silent film projector.
   Two still-film projectors.
   Two or more stereoscopes for each Elementary school.
   One spare lamp for each type 16mm and 35mm film projector.
   One spare lamp for each type slide and still film projector.
   One Victrola.
   One Victrola attachment for the sound projector.
   One microphone for the sound projector.
   Two portable screens, one of which must be a "daylight" screen.

Such lesser facilities as are required in the operation and maintenance of the machines, such as:—extension cords, wire, plugs, tape, oil, cleaning tissue, mending fluid, splicer, rewinder, soldering equipment, camel hair brush, and extra 35mm and 16mm reels.

(g) All equipment, allocated to schools, shall be in the school's Visual Aid Center. In case the demand made on the Department's reserve equipment exceeds the supply, the Department may transfer equipment from one building to another provided such a change does not conflict with the program of the school originally holding the equipment. It shall be understood that the Department has direct control over all visual-auditory facilities whether such are held in reserve or allocated to school Centers.

I—Making a Survey of All Buildings to Determine the Rooms Suitable for Projection Purposes

(a) All classrooms should be equipped with dark shades and electrical wall outlets in the front and rear of the rooms. Until this can be done, at least one room on each floor of each building should be so equipped, including shops.

(b) If possible, one or more rooms should be set aside in each building as projection rooms. Rooms capable of seating several classes should be selected. In those buildings having auditoriums, these may be equipped and used almost entirely.

(c) Those rooms set aside for projection purposes should be equipped with dark shades, roller type screen, projection table, loud speaker table, desks and seats, metal projection booth (if inflammable films are used) and suitable front and rear wall outlets. Such rooms may also be equipped with permanent radio antenna and ground wiring for use when radio programs of an educational nature are correlated with class work.

J—Purchasing Supplementary Material

(a) The Director shall requisition such office supplies as may be needed for:

1—Records
   5'x8" filing cards, Files for cards.
   Manilla folders, Filing cabinets.

2—Reports and forms
   Mimeograph paper, Stencils, Duplicating equipment.

3—Correspondence
   Post cards, Letter paper, Envelopes, Carbon paper, Filing folder (day file).

4—General Supplies
   Desks and chairs, Work table, Typewriter and suitable table and chair, Blotters, Erasers, Pens and pen points, Rulers, Library paste, Rubber bands; Paper clips, Paper punch, Labels; Hotchkiss stapel-
ing materials, Pencil sharpener, Paper cutter, Scissors, Graph paper, Wrapping paper, Cord or heavy twine, Suitable supply cabinets or closets, Cardboard (assorted sizes and colors), Scratch pads, (crayon and water colors and other material to be handled through the Art Department).

(b) The Director shall requisition such materials as may be required for:

1—Making Slides
Plain cover glass 3\(\frac{1}{4}\)"x4"
Ground glass 3\(\frac{1}{4}\)"x4"
Powdered carborundum (grade FF)
Slide carbons
Slide cellophane
Binding tape
Slide vise
Slide crayon (Keystone)
Slide ink (Black India ink and Keystone colored ink)
Ink solvent
Thumb labels
Cardboard slide boxes
Slide filing cabinets

2—Making slides (photographic)
Double extension camera (suitable for copy work)
Processed film negatives
Photographic glass slides 3\(\frac{1}{4}\)"x4"
Developing materials
Eastman developer and fixing solutions, Trays, Printing frames, Drying frames, Silk viscose sponge, Ruby and amber lamps, Photoflood lamps, McCORMICK self adjustable mats.

3—Mounting Pictures
Picture press
Chocolate and gray colored double thickness cover paper
Suitable cabinets—capable of holding pictures 11"x14"
Papertoid expanding wallets for carrying pictures
Clips for hanging pictures
Picture wire

4—Exhibits
Such boxes and cabinets as may be needed for mounting exhibits.
Suitable storage shelves or cabinets for housing exhibits.

Slide making and picture mounting materials shall be distributed to the various schools thru their Visual Aid Centers.
Such materials as may be required for making exhibits, posters, puppets, etc. shall be ordered as needed.

K—Training of Teacher and Student Operators
(a) All teachers of the Elementary Grades, desiring to use projectors, must be instructed in their care and use. It is not desirable to have very young pupils operate anything more difficult than a slide projector.

(b) All teachers of the Junior and Senior High Schools, desiring to use projectors, must be instructed in their care and use, altho the actual operating of the machines may be done by qualified pupils under the supervision of teachers. (These instructions will be given teachers as part of their in-service training).

(c) All pupils of the Junior and Senior High Schools, desiring to operate projectors, must be fully instructed in their care and use. Instructions will be given to the Junior High School pupils during their club period, by the Director. They must then serve a period of apprenticeship under the supervision of a qualified operator before they may operate the machine alone. Those pupils who have qualified for this work in the Junior High School will, upon graduation, act as operators in Senior High School. Pupils must maintain an average of “B” in those subjects from which they may be excused, from time to time, when their services are needed elsewhere.

L—Training of Teachers in Service
(a) As few of our teachers have had special training or experience in the selection and use of visual aids, a three month course will be offered by the Director, assisted by the experienced teachers. All teachers using facilities of the Visual Education Department will be expected to participate.

The following units will be offered:

1—Historical Background of the Visual Education Movement.
2—Psychological considerations in using visual aids.
3—Types of visual aids and the uses of each. Limitations of each.
4—Some typical classroom techniques involving the use of visual materials.
5—Selecting material and correlating it with the course of study. (Each teacher will be expected to select and correlate suitable material with her course of study).
6—Methods used in planning the program and scheduling materials.
7—Reports and Department routines involved in handling materials (see description of reports and departmental routines described later.)
8—Training in care and use of projectors.
9—Training in making of slides, exhibits, mounting pictures.

This preliminary training period should precede the actual planning and execution of the various visual education programs.
Ten Years of Film Estimates

A brief summary and analysis of nearly 4,000 theatrical features as evaluated from 1927 to 1936 inclusive.

By Nelson L. Greene
Editor of The Educational Screen

In September, 1926, was devised and begun in The Educational Screen the unique service of evaluating theatrical films expressly for the “intelligent public,” guessed to be about 10% of our population. Joseph Jastrow has recently declared this proportion to be about 6%, which means there are scarcely a million in the country to whom such a service can appeal. The name, “Film Estimates,” was also invented at the start to distinguish and define definitely this service. The name was evidently good, for it has been blandly adopted by others and even the exact form of the Film Estimates has been appropriated in various quarters.

The tenth birthday of the Film Estimates last September invited some summary of the films of a decade. As each Estimate is threefold (for Discriminating Adult, for Youth, for Child) there were some 12,000 separate evaluations to be collated, classified, and analyzed for their implications. Before the task was done, 1936 was ended. It was then possible to omit films from September to December, 1926, include films for the same months of 1936, and thus make the ten-year summary coincide with the calendar years of 1927 to 1936 inclusive. Included here, therefore, are the 3,930 films estimated within that period.

Why the Film Estimates Were Started

The theatrical movie is one product that the public must buy without seeing it. The industry does little to aid the public’s choice. Delirious publicity pronounces practically every production a masterpiece. This naïve practice is doubtless fairly effective with the general public. For the intelligent public it is absurd, but it does serve to make difficult any accurate selection of worthwhile pictures. Indeed the monotonous superlatives, maudlin praise and silly rhapsody often cut down the maximum attendance that a good picture deserves. The general public comes anyway, but the other public may easily miss a good film as all publicity sounds the same. Still today, for example, when the industry achieves a masterful screening of a classic like the current “Camille,” it can think, pitifully enough, of no better publicity line than “Garbo Loves Taylor” to sell it to the world. (Doubtless we should be thankful that the line was not made the title of the picture).

With such publicity as a guide—with newspaper critics aiming to pick and praise the films that are going to pay best, whether best or not, in order to be ranked as “champion critics” for the year—with other review services recommending from 30% to 70% of the total output—it is small wonder that the intelligent public grew indifferent and stayed away in droves. Worse still, many parents have kept their children away entirely, depriving the youngsters of a share in a normal, fascinating and important experience of these modern days. The Film Estimates were begun, then, to give these parents an unprejudiced and discriminating estimate of the degree of worth or worthlessness of each film coming to their theatres, made by adult minds of their own kind, from the point of view of the cultured home, and thereby serve as a consistent and trustworthy basis for selection of films for their own and their children’s viewing. The Film Estimates recommend for adults and youth about 25% of the films; for children about 11%

How Are Film Estimates Made?

A volunteer Committee, fluctuating much through the ten years in number, personnel and individual service, living in various city-centers of the country, seeing the films in the theatre with audience reaction to aid their judgments, including at different times teachers, college professors, ministers, priests, rabbis, welfare workers, club leaders and non-professional parents and laymen, all interested and experienced in viewing pictures for this purpose, and never connected directly or indirectly with the industry—these have made the Film Estimates possible. A 3x5 library card carries each opinion on each film. The Chairman, who himself sees practically every picture, collates the cards, checks with other services, with press reviews, often consults with another Committee member, and then personally writes or edits the Film Estimate for publication. The Chairman and three of the judges have served continuously through the ten years.

We are often asked, “Who are the judges?” Since the first year, names have not been printed, nor will be. When a judge gives time and effort to the highly unrenumerative task of viewing and estimating, he should at least be spared argumentative correspondence with the industry, such as blossomed promptly when names were mentioned at the start. A moment’s reflection will make clear, however, that it is not of the slightest importance who the judges are. The resultant Film Estimate is the sole test. No intelligent parent or adult would trust any service for an instant, whoever the judges, unless the estimates agreed consistently with his own opinion. Every user must prove the case for himself, by checking few or many Estimates on films he himself has seen. This is as it should be, for the parent is the only proper judge of pictures for his own child. The Estimates are so designed that all parents, liberal or conservative, seem able to select from them in exact accordance with their personal standards. The service wishes merely to make the parent independent of
irresponsible opinion, hearsay, guesswork and distorted publicity in selecting pictures for his own or his children's viewing. It is evident from subscription and syndication of the Estimates year after year, that there are still parents who care what their children shall see, prevalent "modern" conversation to the contrary notwithstanding.

Use of the Service

It is convenient for adults who care to see only the best product of the industry, or much portion thereof as their time and inclination permit, without risk of wasting a single evening on a stupid picture. For ten years the Estimates have listed about 35 films a year in the A-group for Adults. Some select only from these. For others with a sturdy cinematic appetite—and there are such among the intelligentsia whether they care to have it known or not—there is available the B-group also of 63 more films per year, usually enough to satisfy the most voracious. The Estimates are no less enthusiastically frank about the films in lower groups, X, Y, and Z. The aim is merely to give the thinking public a thumbnail minimum of what it wants to know about each film, so that it can read, consider, and do exactly as it pleases.

By far the most important service is to the parents who care what their children are seeing, and hence in greater or less degree thinking and doing. The one perfect method is for the parents to see every picture produced and select exactly those that meet their standards. This being usually beyond all bounds of possibility, The Film Estimates aim to supply the second-best method. Many parents limit choice mainly to the A and B groups for Youth and Child, about 44 films per year, but many approve also the C films for youngsters, which makes available over 100 films a year—two per week—which would seem ample. Occasional films of the X and Y group may be possible—those called "mature," "beyond them," "very exciting"—for child temperament and maturity vary greatly and only the parent can adequately know the child. The Film Estimate describes, the parent decides.

The supreme criterion in judging, of course, is the rational and wholesome entertainment value of the film. For adults, technical, dramatic and artistic consideration are paramount. For youth and child, ethical and moral
Table II

<table>
<thead>
<tr>
<th>Year</th>
<th>A—Excellent</th>
<th>B—Good</th>
<th>C—Perhaps</th>
<th>X—Doubtful</th>
<th>Y—Unsuitable</th>
<th>Z—Unwholesome</th>
<th>Ten-Year Total</th>
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The Classified Tabulations for Adult, Youth, Child

Each vertical column classifies the films of one year. The break in the column is the division between the desirable ABC groups and the undesirable XYZ groups. Within each vertical column are two numbers for each group, the right-hand, the number of films in that group, the left-hand, the percentage of that number of films to the total output of the year. The year's total of films estimated appears at the bottom of the column. The percentages, adding always to 100%, are not totaled.

The figures outside each column at the right, two for each group, are significant. They are the "Best Payers" (BP) of that group. The upper figure is the number of BP films in that group, the lower figure the percentage of those to the total films in the group. (These percentages, of course, do not add to 100%.) BP figures are missing for the years 1930, 1931, and second half of 1936, as our source of information was unable to supply them. The BP percentages beside the Ten-Year Total columns, therefore, are exact for the 7½ years reported, and probably approximately correct for the ten years. The BP figures will be discussed further below.

Fluctuations in the size of groups through the ten years would permit of unlimited analysis, explanation and interpretation from the complete Film Estimate records on over 4,000 films, but space and patience forbid. We touch here only the more conspicuous variations.

The years 1927 and 1928 were the final years of silent films. Note the quantity of YZ films in all three Tables. The Valentino sex tradition was being carried valiantly to new heights. Garbo and Gilbert, for example, were in their hey-day. But then came the Talkies, in 1929 and 1930! Words have more positive and stubborn meaning than pantomime. They are bald, incisive, definite things. The public could not yet ac-
accept the risqué in spoken form (but the screen had no trouble in training the public rapidly). So strong was the ban on verbal improprieties at the start of the talkies that even Lowe and McLaglen as tough, tough soldiers in “The Cockeyed World” could not utter a single “damn.” The first result of the talkies, then, was to reduce the objectionable films, as is evident in the Tables.

A marked increase in Y and Z films for Youth and Children appears in 1931, the last year of prohibition. The films had been growing wetter for years, and by 1931 were featuring drunken high-school boys and girls as leading characters. When repeal came the novelty of drink was gone and films grew dryer. The movies are the great national nursery for novelties and sensations while they are new. When the country has become used to them, newer ones are sought. Interesting research could be done on the screen’s role in various matters of social significance, such as “smoking by women”, “drinking by everybody”, “sock-in-the-jaw by a gentleman to a lady”, “gangster and moll”, “loving fiancés fighting until the last reel”, “marriage as a joke”, “marriage as an absurdity”, “wrangling marriage”, etc. etc.

On all three Tables may be noted a fairly consistent rise in Y Z films from 1930 through the first half of 1934. Sophistication in the films waxed merrily, and familiarity with the product was breeding indifference at a like rate. Seemingly the screen can teach anything, in either direction. Even the intelligent public was skillfully kept somnolent by “promises from Will Hays” which dotted movie history up to 1934, assuring the dear public that they need not worry, that the industry was busily cleaning up its product to a point of practical spotlessness. At each of these magic utterances a surprisingly large part of the intelligent public would rouse, listen, take comfort, and go back to sleep. But there was one part of that public that refused to be chloroformed. The Catholic Church was not sleeping. It was thinking, had been thinking for some time, and in the spring of 1934 it had reached a decision. The Legion of Decency spoke! The blow fell; the first blow, the only blow that ever panicked Hollywood!

Then Came the Legion of Decency

In the June issue for 1934 The Educational Screen, commenting editorially on the Legion of Decency’s out-
standing action, said: "By this vigorous move the
Catholic Church has done more in twenty days than all
other efforts have accomplished in twenty years to make
the magnates of Moviedom stop and think. And why?
Because the Catholic action hits straight and hard at
the box-office, the one and only vulnerable spot in
the mighty movie business. The Legion of Decency has
scored a definite hit in the heel of Achilles and, if the
arrow sticks, our Achilles is going to be greatly changed.... The threat alone may suffice to start a
rapid clean-up in Hollywood production.... For
the first signs we need wait only for the first films conceived
written and produced after the master minds of the
movies were seized, not by the fear of God, but by
fear for their box-office."

The arrow stuck, the clean-up began and continued
through the most hectic summer and fall that Holly-
wood ever knew. A glance at the three Tables show
how greatly and how swiftly poor old Achilles changed.
(The tabulation by half-years after 1933 shows this
more clearly.) Note the tumble taken by the XYZ
films, the splendid increase in the A B C's. Only
slight change appears in the second half of 1934. For
it must be borne in mind that a picture is many months
in process of production, from story-purchase to final
release. Producers spent that summer and fall feverish-
ly tinkering, trimming and twisting the scores of pic-
tures then in making to meet the L. D. ultimatum. They
managed to reduce markedly the Z pictures for Youth
and Child that fall, but many productions were not
susceptible of complete cure and one of May West's
ebulitions practically died on the operating table. The
L D results were fully manifest through 1935, and the
first half of 1936. Achilles was unmistakably changed.

Some evidence of "slipping" appears in the second
half of 1936, noticeably in the Adult B group and
markedly throughout the Youth and Child columns.
This was due in part to the regrettable practice of
turning out Class B films in quantity to take care of the
equally regrettable practice of double-feature programs.
Again the Legion of Decency was on the alert and
promptly announced in the press that, although movie-
dom had done considerable cleaning-up, still more was
needed and expected. On the whole it would seem that,
whatever our creed, (and the writer is a Baptist), we
can be devoutly glad that the Catholic Legion of
Decency is keeping its efficient eye on theatrical motion-
pictures.

And Now for Moviedom's Favorite Argument
Among the varied arguments and sophistries put
forth by the industry through its eminent spokesmen in
defense of its product, none is worked so continuously
as this: "We Must Give the Public What it Wants". It
is thereby implied, sometimes with an unctuous air of
reluctance and regret, "that human nature is to
blame, that the public likes best the suggestive and the
risqué, and hence, in order to survive, the industry has
to surrender its ideals, yield to the low taste of the
country, and make a mass of objectionable films to pay
the deficits on the good ones. Too bad human nature
is that way, but so it is."

As a matter of fact the public prefers the best
films and the industry's own box-office records
prove it! The Film Estimates are very severe on these
"bad" films. They consign more films to the
Y and Z classes than any other reviewing service in
the country. If then, the industry is really "giving the
public what it wants", we should find the great major-
ity of best paying films in the X Y Z groups, and the
minority among the A B C's. The exact opposite is the
case.

Note first the Ten Year Totals for Child. Very
properly the industry cannot produce films for children
primarily, for they are a decided minority of the nation-
al audience which supports the movies, and unquestion-
ably the industry must make money. There can be no
argument on that score. Hence we find many more
X Y Z films for Children than for Youth and Adult.
The ten year average for the Child is 26% ABC films
and 74% X Y Z films.

Now notice the distribution of the "Best Payers" *
in the six Child groups. Of the A films, 46% were best
payers; of the B films, 27% ; of the C films, 25%.
Corresponding percentages for the X, Y, and Z groups
are 18%, 14%, 15%. Obviously the better the film,
the better its chance of being a Best Payer! Nearly
half the A films for children are BP's, but less than one
sixth of the Z films do as well. In otherwords,when
they make a film that the Film Estimates can recom-
mand for a Child as an A film, it has three times the
chance of an X, Y, or Z film of becoming a Best Payer!
Yet the industry is not supposed to produce for Child-
ren! The situation is almost identical in the Ten Year
Column for Youth.

Finally, let us look at the Ten Year Column of Adult
films. As the industry produces primarily, and justifi-
ably, for Adults, its majority audience, surely the
Adult columns must prove that the industry "gives the
public what it wants". But notice!
Of 269 A-films 45% (one out of two)
proved Best Payers... (120 BP)
Of 481 B-films 26% (one out of four)
proved Best Payers... (127 BP)
Of 625 C-films 25% (one out of four)
proved Best Payers... (156 BP)
Of 511 X-films 14% (one out of six)
proved Best Payers... (70 BP)
Of 1122 YZ-films 8% (one out of twelve)
proved Best Payers... (85 BP)

3008

Summary of the Three Tables
Thus when the industry makes a film in the ABC
groups, it has one chance in three of being a BP. In
the XYZ groups, one chance in ten! ABC groups fur-
nish 403 BP; XYZ groups, 153 BP. Why doesn't the
industry give the public what it shows it wants? Our
readers can devise their own answers. We have ours.

*The list of best paying films for the ten years were
available by courtesy of The Exhibitors Herald, the
magazine that covers authoritatively and efficiently the
great field of motion-picture production, distribution
and exhibition.
February, 1937

Being the Combined Judgments of a National Committee on Current Theatrical Films

(A) Discriminating Adults
(B) Youth
(C) Children

Date of mailing on weekly service is shown on each film.

(The Film Estimates, in whole or in part, may be reprinted only by special arrangement with The Educational Screen)

Anne and Elizabeth (Dorothy Wack, Hilda Thiele) (German) (Good English titles) The two stars of Maedchen in Uniform do memorable roles. Hilda Thiele's very lovely and feminine character portrayal.
1-26-37

(A) Good of kind (V) (Y) Doubtful interest

April Romance (Richard Tauber, Jangster (MCM)) The pathetically unsuccessful love story is now, probably, told, over the background for his famous songs, beautifully sung by Richard Tauber. Refreshing simplicity of humor, and a warm feeling between the characters.
1-15-37

(B) Average good (Y) (C) Good

Beware of Ladies (Donald Cook, Judith Anderson (Republic)) Sordid crook drama with mostly unsavory characters hired to frame hero who is running for office. They fail but achieve murder, conviction and prison for heroine's weak husband, thus freeing her for him. Glamour villain.
1-12-37

(A) Unpleasant (Y) No

Career Woman (Claire Trevor, Michael Whalen (Fox)) Clever criminal lawyer wins cases by tactfully making those he is outwitting look like he is their lawyer—something he has never been. Action now brisk, now dreamy. Fritz Leiber's role is too small.
1-23-37

Entertain'er (V) Very good (C) Good

Charlie Chan at the Opera (Warner Oland, Donald Karloff) (Fox) Famous Chinese detective deftly solves multiple murder mystery. In time backstage at the Opera, involving jealousies among the various characters. Shows that lovely old world music and modern jazz are not incompatible. Various Cupid's arrow gets to Mme. Ponsiet. Action now brisk, now dreamy. Fritz Leiber's role is too small.
1-23-37

Charlie Chan at the Opera (V) Good (C) Fair

Children of Fortune (Glennenkinder) (Lillian Harvey, George O'Brien) (UFA) Laid in New York, characters are all visiting Americans. Shows every possible kind of shrewdness, thievery, good and bad, from the very young to the very old. Enjoyable; all of whom are sympathetic.
1-12-37

(A) Good of kind (Y) Good (C) Excellent

Counterfeit Lady (Carye Cay, Joan Perry) Columbia) Diabolical yarn by crooks and pseudo-crooks solved by detective who is a pseudo-shady character, who wins pseudo-consolation prize. Pleasing performance by all. No one is told. Hero's blunders correct themselves. Perfectly timed, no fun by making these crooks.
1-18-37

(Y) Good

Country Gentlemen (Owen and Johnsen) (Republic) Repugnant story of two men and their families, the son as two inaccurately crooked promoters trying to cheat husbands, when both have the same wife. Large scale, few stunts, a good deal of violence and action, all highly amusing. Enjoyable performance by all.
1-17-37

(Y) Good

Mandarin Mystery (Eddie Quillan, Charlotte Henry) (Republic) Great jewel robbery occurs, and smartly dressed hero becomes among cloud of suspects in Chinese hotel. Manager faints, and other funny things happen. Stilled dance adds to general confusion, but dumb blonde solves it all.
1-20-37

(A) Good of kind (Y) Hardly

Mind Your Own Business (Charles Ruggles, Alice Brady) (Paro) HilARIOUS, amusing farce. Circumstances in which small stone column into sensational success expose' of crooked politician and the characters as cowards. Boys Scouts interesting but Talbot's being away makes it hard.
1-18-37

(Y) Amusing (Y) Amazing

Miss Ingalls (Roger Pryor, Miriam Ervain) (Chesley) Little gem of a comedy. Two girls, who think they are going to turn into mediocre gang melodrama, with super newspaper-man running down swarming criminals, and a blackmailer and talking gutter English out of corner of mouth becomes serious, all Robertson. Picture is a laugh-o-rama.
1-15-37

(Y) No

More Than a Secretary (George Brent, Jean Arthur) (Columbia) Editor of health magazine, with highly exaggerated hygiene complex, finally learns common sense from none little heroine who takes job, as his Secretary. Artificial story about caricatures rather than characters. Showing fine lines but a very dull story. Final revelation.
1-26-37

(A) Mediocre (Y) Hardly

North of Nome (Jack Holt, Evelyn Venable (Columbia)) Action story as big, brave seal-packer, marooned on Alaskan island, learns how to shipwrecked group who are owners of the island. Dilemma solved by Holt heroic,-tough romance tops it off.
1-18-37

(A) Mediocre

One in a Million (Adolphe Menjou, Sonja Henie) (Fox) Large-scale vaudeville sketch, Airline Judge wisecracks. Menjou, head of cheap transatlantic service, bwals his lines as he funnily. But Sonja and her kindly father, seeking Olympic honors, her charm and methodless skating redeem the film.
1-12-37

(Y) Good

Policeman's Lodge (James Gleason, Zasu Pitts) (RKO) Agradable little murder mystery, with adequate thrill, plentiful suspense, too much confusion, and, lightened by humorous activities of two detectives, the center is a little weak and逗人笑的, who share success.
2-2-37

(Y) Fair

Pleasure (Maxie) (Fox) Fair

Three Smart Girls (Deanna Durbin) (Univ) Very good comedy. Deanna Durbin and her sisters, the film of Deanna's notable singing. Three sisters, en- gaging youngsters, thwart a fortune-buzzing fortune hunter. Dickie, the hero, is introduced to mother after 10 years separation, and finds that Miss Durbin is not so single-minded.
1-26-37

(Y) Excellent

Sing Me A Love Song (J. Minton, Patricia Ellis) (Warner) Light, wholesome comedy. Triple play of young love and with singing, by settings of huge department store interiors, and lightened by amusing roles by Herbert Callet, Jenkins and Pitts as employees.
1-12-37

(Y) Good

Three Smart Girls (C) Good

We Who Are About to Die (John Beal, Preston Foster, Constance Moore) (MGM) Compelling portrayal of innocent man in "Death Road." Great hero by two very good, good roles, swallows stuff, acbounds suspense, weak ending. Called anti-capital punishment. Rather belittling. With methods. Real injustice of the story.
1-26-37

(A) Grim (Y) By no means

White Hunter (Warner Baxter) (Fox) African thriller and December-January romance tightly combined. Travel film clips for African effects, heroine inadequate for role, and vengeance motif peters out into stuffy thrill st Superior roles above average.
1-26-37

(A) Mediocre (Y) Poor

Wild Brian Kent (Ralph Bellamy, Mae Clarke) (RKO) Inconceivable Harold Bell Wright story paradoxical nonsense. Once wealthy spendthrift drops city life for country, joins rural family about to lose their farm to lend-mortgage sheriff, folks villain, girl pleasant. Ticket, elementary amusement.
1-18-37

(A) Hardly

Pleasure (Y) Fair

Woman Alone (Sylvia Sidney, Oscar Homolka, John LeMesurier) (G celebrations skilfully told, gripping version of Conrad story of Sabatine in London's industry. Minor atmosphere in tense situations, grim deaths. Few individual scenes lack interest, but ill-fitted romantic situation a bit unclear.
1-19-37

(A) Good of kind (Y) Doubtful value

Woman Alone (C) Good

Hats Off (Mae Clarke, John Payne) (Grand Natl) Horrible, ridiculous potpourri of lines for rival Exposition a la Texas, seek same stage featuring. Heroine wins temporarily by braten double-crosses her man all when she falls for hero. Role of impresario by Alenon only not good.
1-24-37

(A) Mediocre (Y) Perhaps

Job Hunting (Para) Good

Untamed Passion (Elissa Landi, Brenda Joyce) (Fox) Large-scale melodrama sketch, with Adolphe Menjou, Sonja Henie, as charmingly as possible.
1-18-37

(A) Good

Victory Trial (James Gleason, Zasu Pitts) (RKO) Agreeable little murder mystery, with adequate thrill, plentiful suspense, too much confusion, and, lightened by humorous activities of two detectives, the center is a little weak and逗人笑的, who share success.
2-2-37

(Y) Good

Pleasure (C) Fair

Women's Castle (George Arliss, Nathaniel West) (RKO) Strong, vivid picture of tragic misery of 1916 Irish Rebellion. Impressive for authen- ticity of the facts, action, striking characters and realistic violence, but whole weakened by lack of meaning and stupendous uncomplete inadequacy.
1-12-37

(Y) Grim

Sing Me A Love Song (Y) Grim

Three Smart Girls (C) Good

We Who Are About to Die (C) Good

White Hunter (C) Good

Woman Alone (C) Good
Eliminating Static In Education

A few possibilities of the radio still largely unrealized in our educational procedure.

BY GEORGE W. WRIGHT
Supervising Principal, Public Schools, New Providence, New Jersey

"THIS broadcast comes to you through the American School of the Air. This is the Columbia Broadcasting System." The exclamations of "Oh, Boy! Gee, that's Great!" and other like phrases forthcoming from listening pupils in the classroom, may not be rhetorically elegant but they do indicate the expressed appreciation of the children. The faces flushed with excitement, the group constantly edging nearer the radio speaker, and the spontaneous comment of appreciation as the broadcast draws to a close, are ample evidences of a type of educational program that motivates interest.

Comenius, Rousseau and Pestalozzi advocated taking children out into the world for educational experiences. The radio, with its wide range of selectivity of stations and programs, brings the world into the classroom. In these days of international trouble and turmoil, of war and conflicting controversies through lack of understanding, the medium of the radio should be used to develop world friendship, understanding, and appreciation of other countries, customs, cultures, and contributions. Within the limitations of our own vast republic there must be a country consciousness more firmly fixed through radio reception.

In eliminating static in education through the use of the radio in school, one must carefully consider the tenable techniques necessary for successful audition and articulation. An extensive inquiry into radio reception in the public schools brings forth the facts and figures that there are three distinct types in useful operation. Some school buildings of recent erection, are outfitted with a broadcasting unit from the central office. Each room is wired with a loud speaker for reception. From the central unit the principal may make announcements or talk with teachers or pupils via the two way circuit feature; the student council project its program; pupils broadcast dramatized events; visitors talk with the student body; radio programs from our own or foreign countries received. Since these types of central radio units are usually arranged for phonographic records also, the added articulation advantage with phonographic records is available. Limitations formally existing in the selection of only one program, at a time, are now overcome by the purchase or addition of extra units. Cost limitations are being minimized by reducing the price of this type of equipment. With financial entrenchment in education, with decreased state aid and increased local tax, the cost limitation will continue to be a factor in many schools.

Some school systems are purchasing a radio that is used in the auditorium. Usually the radio set is built into a more or less elaborate cabinet which may or may not match other pieces of furniture on the platform. While the auditorium radio affords the advantage of allowing large groups to listen in mass instruction at a central point, it narrows the possibilities of direct classroom correlation with the radio program.

The individual classroom radio affords closer correlation with methods and materials, wider range of selectivity, a classroom atmosphere. The low cost of small individual radio sets makes the purchase problem one that is rather easily solved. Other visual-sensory aids in the form of a play, hand puppets or marionette production at a small admission charge will provide sufficient funds for financing this cost. This same procedure may be effectively utilized on a larger scale to purchase the first two types of radios mentioned.

Regardless of the type of radio receptor used, there are a few particular pointers that needs must be observed to insure genuinely educational accomplishment.

Mention has been made of the cost. The wise typical school will start with that which can be afforded, perhaps a borrowed one at first, and proceed to other types as rapidly as fancy and finance permit. Care must be exercised that borrowed types or gifts of old radio sets insure good reception in the form of clearness of tone and enunciation. Acoustics present a problem in some classrooms and in many auditoriums. A deaf touch of monks cloth, or an arrangement of tuned wires to the room's vibration will satisfactorily solve room echoes.

The placement of the radio should be wherever possible, preferably where the pupils may face it. As children look in the direction from which a voice issues, the radio speaker should be approximately even with the eye and ear level of the seated pupils. Making a radio program a classroom procedure, similar policies to that used in the classroom should be followed. To have a speaker high on the wall forces a cramping of necks with its accompanying irritation.

Let there be the same informality in grouping about the radio as there is listening to the teacher read or tell a story. The radio should be regulated so that the voice the pupils hear is tuned to the approximate loudness of tone the teacher naturally uses. This creates a more normal classroom atmosphere. In this feature the individual room radio has an advantage over a central unit.

Sometimes the shades will be drawn to create, by shutting off the light, the desired mood to appreciate the broadcast. At other times pupils will be grouped to facilitate work with maps, charts, globes, flat or blackboard pictures, stereopticon slides, rhythms, dances, and exercises to supplement the broadcast.

Guided listening is an important factor to the success of radio in the classroom. Aimless entertainment
with absence of aim and objectives is educational waste. Purposeful planning on the part of teacher and pupils will make for effective educational integration. The teacher must be patient but persistent. Guided listening will enable a pupil to have a richer vicarious experience as he concentrates on the program, disregarding extraneous noise.

Guided listening embraces the promoting of the proper mental attitudes—desire and ability to listen. Understanding and appreciation of any program will depend upon the thoroughness of advance preparation, the program itself, and the other subsequent follow-up work. Care must be exercised on the part of the teacher that preparation for, listening to, and follow-up activities of a broadcasted program are not duplications. While repetition is essential to the learning process, it must be remembered that sustained interest can be kindled by variety and killed by monotony. Guided listening will also touch the choice of program selection within and without the school. Slowly but surely children can build up a radio culture for enjoying the finer types of broadcasted programs. This means teacher planning over several school semesters. It means working with pupils, parents, the P. T. A., Women's Clubs, and other social agencies.

The Columbia Broadcasting System with its American School of the Air Programs, sends gratis to teachers a complete manual containing a list of radio programs, and a well-chosen bibliography.

The wise teacher with a wide knowledge of many visual-sensory aids in education will artistically articulate radio lessons with regular work enabling pupils to grow in understanding, stimulating their thinking, and leading to further educational activity.

A Visual Instruction Project in Laboratory Chemistry

(Continued from page 40)

number on the reagent shelf. These are to illustrate the method by means of which reagent bottles are kept alphabetized.

(6) A pupil calls attention to the pointer arm on a platform balance.

(7) He points to the 1 and the 1/10 gram weight on the platform balance.

(8) He indicates the 10 gram weight on the balance.

(9) Shows a student pouring a solid onto a piece of filter paper. The glass stopper from this bottle is prominently displayed as having been carelessly dropped on the desk top.

(10) The same picture, but this time the student holds the stopper between his fingers. He also holds the bottle in a manner giving the impression that he is rolling the bottle as the material is withdrawn.

(11) A pupil is pouring acid into a beaker containing some water. He holds the bottle stopper in the proper position between his fingers. This does well in illustrating two things: the correct place for a stopper or cork while it is out of the bottle, and the fact that acid should always be poured into water.

(12) A pupil is attempting to insert a thistle tube through a stopper. His hands are spread, one is holding the stopper and the other is at the opposite end of the tube. Emphasizes possibility of snapping the tube and serious injury to finger or hand.

(13) The same pupil with stopper and thistle tube, but this time the hands are placed well together. Any leverage on the tube is brought right up to the stopper.

(14) A substance is being placed in a test tube, and the mouth of the tube is directed toward the pupil.

(15) A material being heated in a test tube with the mouth of the tube being directed away from the student.

(16) A pupil is heating a piece of glass tubing preparatory to bending it and is not using a wingtop to spread the flame.

(17) A wingtop is being used this time.

(18) Improper method of reading the meniscus in a graduated cylinder. The student is looking down on the surface of the liquid.

(19) Another pupil is shown trying to read the same graduate. The level between liquid, or meniscus, and pupil is much better but still incorrect.

(20) The pupil now has her eyes on an exact level with the meniscus of the liquid in the graduate.

As previously mentioned, these are but a few of the pictures we have taken and made into slides. Of course they do not all deal with pupil mistakes in laboratory technique. Realizing that we should do some work on the other side of the question, we have slides showing complete set-ups for various experiments, correctly and neatly put together. We also have a few which show some of our better pupils running certain experiments which are given as rewards for exemplary work. These experiments are harder; take more apparatus; require more time, etc., than the average one, and do a good job of stimulating interest and a desire to do better work.

The foregoing resumé constitutes an experiment in visual instruction which is exceeding our fondest hopes; that one picture is worth a thousand words is well proven. After having given this lecture (and using the slides which accompany it) to a class upon two or three occasions, it is really unusual to see a pupil using improper procedure which has been pointed out to him by means of the slides. Reflecting upon the success of our efforts thus far, enthusiasm mounts, and the value of visual aids for instruction purposes has once more been emphasized.

"A few books, and not very good ones at that, were the tools of the teacher in the 'little red schoolhouse'. Competing with popular fiction, current magazines and newspapers, motion pictures and radio, the teacher of today would be helpless with no better tools than the books of a few years ago. The textbook still is the chief tool of teachers in directing the learning of students, but more and more the hook is being supplemented with other tools—notably, current magazines and newspapers, radio, and a wide variety of visual materials, including motion pictures."—From a Radio Talk by Einar Jacobson, Supt. of Schools, Oakland, California.
Every American School can
RCA’s Complete

Designed especially for schools, RCA equipment shown here not only aids students by injecting vibrant life into every lesson, but also materially helps teachers add a new spark to classroom routine.

RCA offers every American school a complete sound system developed especially to modernize teaching methods. Many schools have installed this equipment... are more than pleased with results.

Made by the only organization engaged in every phase of radio, this equipment is moderately priced, stands alone as great value! Write for free copy of valuable new booklet, "RCA Sound Service for Schools"!

Victor Records

The world’s most complete collection from which to choose. For elementary grades, for intermediate grades, for high schools, for music schools, colleges and universities.

RCA Victor Instruments

The R-99 Electrola (left) provides unequalled reproduction of Victor Records. Here is an instrument offering thrilling, life-like performance at economical cost.

The R-95 Electrola (right), a portable instrument designed for classroom use, is the most inexpensive quality instrument available.

A complete line of high quality portable Victrolas, designed especially for smaller schools which do not have electrical current, is available.

RCA Sound Motion Picture Projectors

RCA has a complete line of 35 mm. sound motion picture projectors to cover every possible requirement. This equipment profits by the same research that makes RCA Photophone installations throughout the country so successful. Trouble-free performance such as these theatres enjoy, is assured to you.

Illustrated is RCA Photophone Portable Projector, Model PG-81 with 900 or 1000 watt incandescent lamp. Ample illumination for average room or auditorium.
have Modern Teaching...with Sound Service!

RCA Portable Public Address Systems

These have almost an infinite number of applications to school work. Portable illustrated is primarily designed for interior use, but special weather-proofed loud speakers may be provided for a permanent installation to which this set can be connected for playgrounds, football and baseball fields. Wherever a school gathering is held, a small public address system is of great aid to instructors, particularly where the acoustics of the meeting room are not satisfactory.

Equipment illustrated includes High Fidelity Velocity Microphone, 20 Watt Amplifier, two Dynamic Speakers, entirely portable. Plugs into any 110 volt, 60 cycle outlet. Provides enough power to furnish ample volume to audiences up to 2500 persons. May be carried from room to room and set up in a few minutes.

RCA Centralized Sound System

The system is centrally controlled. Through it the school principal may convey radio programs, recorded speech and music, and direct announcements from his office to any or all classrooms. Is of great value for timely educational radio programs, music appreciation broadcasts, language teaching. Provides new clarity of speech in auditorium, enabling students to hear stage speakers with greater ease from every seat. Can also be used to supply music or instruct groups in gymnasium, and for announcements on athletic field. Is valuable for use in fire-drills, lectures, standardized aptitude and achievement tests, and has unique two-way talk-back feature which permits principal to speak with individual teachers without interrupting classroom work.

RCA presents the Metropolitan Opera every Saturday afternoon. And "Magic Key of RCA" every Sunday 2 to 3 P.M., E. S. T. Both on NBC Blue Network.

Sound Service for Schools

EDUCATIONAL DEPARTMENT

RCA Manufacturing Co., Inc., Camden, N. J.  •  A Service of the Radio Corporation of America
SINCE the November roster of 317 paid members was printed, over 43% expired within the three months intervening. Yet this abnormally heavy loss has been counteracted. More than half the expirations are already renewed (and many who 'merely forgot' will remember when their names show up again) and some 50 new members have come in. This February roster, then, stands as we had hoped, "larger than November". And the 14 double-daggers (instead of 4) are comforting. The total member gain, 20, is slight but in the right direction. We need merely hold the direction and increase speed.

AND THE New Orleans program in final form—we hope! See you there?

Second Official Roster ---- February 1937 ---- Department of Visual Instruction
(Showing expiration month of current year—July and August not included—the † indicates two years)

<table>
<thead>
<tr>
<th>Name</th>
<th>Expiration Dates Feb. to Jan.</th>
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<tbody>
<tr>
<td>Dyer, S. Elizabeth</td>
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<td>Dyer, W. C.</td>
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NEW ORLEANS PROGRAM

MONDAY, February 22nd  12 o'clock Noon

Registration Luncheon ($1.00) Evangeline Room, DeSoto Hotel.

Speaker of the day, Dr. William H. Johnson, Superintendent of Schools, Chicago.

Address: “Significant Developments in Visual Instruction.”

Principal Lionel J. Bourgeois, of the McDonough School, New Orleans, will introduce Dr. Johnson.

By special request from the New Orleans Schools, Mr. J. Henry White will comment briefly on the content and purpose of his visual presentation scheduled for Tuesday afternoon, showing a few slides.

(Ten minutes by taxi to the Peters School)

2:00 P.M. to 4:00 P.M.

Afternoon Session (Auditorium of Peters School)

Visual Presentation: “The Open House Exhibit as a Stimulus to Interest in Visual Instruction.”

Ella Callista Clark
State Teachers College, Winona, Minn.

Illustrated Address: “Motion Pictures as an Aid in Agricultural Extension Work in Louisiana”.

E. J. Giering, Jr.
Visual Education Specialist, Baton Rouge, La.

Visual Presentation: “Vitalizing Teaching by the Correct Use of the Still Picture”.

Mineta Merton
Waukesha Public Schools, Waukesha, Wis.

Address: “Plans for Cooperation between The American Council on Education and The Department of Visual Instruction of the N.E.A.”

Charles F. Hoban, Jr.
Associate in Motion Picture Education, The American Council on Education.

TUESDAY, February 23rd  12 o'clock Noon

Projection Luncheon ($1.00) Evangeline Room, DeSoto Hotel.

Visual Presentation: “Movie Record of a Rocky Mountain School” (Showing and discussion of a film made by the school)

Lloyd Shaw
Superintendent of Cheyne Mountain Schools, Colo.

Brief talks, and showings of educational films as time permits.

2:00 P.M. to 4:00 P.M.

Afternoon Session (Auditorium of Peters School)

Address: “A New Film Service in the South”.

J. C. Wardlaw
Director of Extension, University System of Georgia, Atlanta.

Address: “Essential Qualities for an Educational Film”.

Mrs. E. L. Berg
Assistant Principal, Public School No. 91, New York

Address: “Progress in Teacher Training in the Use of Visual Aids”.

Edgar Dale
College of Education, Ohio State University.

Lecture and Visual Presentation: “China’s Life and Culture Visualized” (Illustrated by slides of the White Brothers ‘camera paintings’)

J. Henry White
Lake Ariel, Pa.

This presentation by the White Brothers is justly famous. It is more than a visual experience of rare value and delight. Their intimate knowledge of China is based on eight years of exceedingly active life there. Their cameras have covered countless details and aspects of that vast country, known to most Americans only by vague generalities. Their invaluable collection of pictures merit the name of “camera paintings”. Sixteen of these appeared in full color in the National Geographic Magazine for December last. More are to appear in later issues. The originals of these, in black-and-white, sepia, and gorgeous color, done by Chinese artists, are on display for the full two days at the Peters School.

Announcements and Adjournment
NEWS AND NOTES Being brief notations on significant doings and events in the visual field.

Conducted by Josephine Hoffman

New Visual Aids Departments

Anticipating a steadily increasing use of educational films for classroom instruction in southern California, the University of California will establish a complete film library in Los Angeles, it was announced by Boyd B. Rakestraw, assistant director of the Extension Division.

An initial expenditure of $27,000 to stock the library with more than 5,000 16 millimeter educational films has been approved by the University; offices for the library have been established at 815 South Hill Street, Los Angeles, where all bookings and shipments will be handled. The library will be as large as the one now on the Berkeley campus of the University of California.

A New Distributing Library of 16 and 35 mm sound and silent films has been inaugurated by the Visual Aids Extension Service, Division of General Extension, University System of Georgia, with headquarters in Room 10, 223 Walton St., NW., Atlanta, Ga. Films of this division are available for rental by schools and other educational organizations of the Southeastern States. A special club plan for circulating films at reduced costs has been devised. This distributing center is the newest and most complete in the southeastern area and fills a long-felt need for the development of the use of films in education in the South. (School Life)

Educational Film Lists

The first quarterly Supplement to the Educational Film Catalog, published by the H. W. Wilson Company, has just come from the press. It lists 425 films additional to those in the foundation volume, which appeared last year. The form is the same except that the title and subject index has been put first in the supplement, followed by the classified section wherein data is given on each film concerning the nature of the film, length, stock, whether sound or silent, 16mm or 35mm, for sale or rent, from whom it may be obtained, and other features.

This January 1937 Supplement is the first quarterly issue of the supplementary service, which with the main catalog is $4.00. Subscription to the supplementary service, or the catalog alone, is $2.00.

One of the five projects for which the American Council on Education received a grant from the General Education Board in June of 1935, was the compilation and maintenance of a complete inventory of available film material in the United States. Approximately 6,000 films were reported in the survey made of existing educational films. The Council has begun to issue mimeograph film lists describing by name, content and source the films located in this national survey. These lists are divided into convenient sections covering related subjects. For instance, the first catalog covers films on "Sports, Games, Amusements," the second "Social Sciences and Sociology," the third "Physics." These lists are intended primarily for study and evaluating groups who will in time select and evaluate the films that should be included in the permanent lists which may be compiled later from this material.

College Listens in on Inauguration

As a partial outgrowth of a conference on Radio and Movies held at the college last October, the State Teachers College at Indiana, Pennsylvania provided opportunities for all the students to listen in on the inauguration of President F. D. Roosevelt on January 20, 1937. Seven radio sets were used through most of the broadcast. They were used by the History and English classes, Science students, the laboratory schools—both elementary and high school. Additional sets were in the Auditorium, Recreation Parlor and in the college dining room. Various sized sets were used to fit in with the rooms in which they were used. Small sets were used in the classrooms, larger sets in the group meeting places, and the public address system was attached to the set in the dining room (about a thousand students are served at one time in this room).

A Local Survey of Visual Aids

Mr. H. C. Hurff, Chairman of the Long Island Science Teachers group, circulated a Visual Instruction Questionnaire in the spring of 1936 to sixty Long Island Schools, twenty schools in Westchester County and twenty in New Jersey. We have just received a copy of Mr. Hurff's summary of the replies to his survey.

The questionnaire consisted of 25 general questions on Visual Instruction dealing mainly with the use of films and the type of equipment used by the various schools. Of the twenty schools that reported, thirteen owned and used their own projectors, the newest equipment being mostly 16mm sound-on-film. Only four schools reported having their own film library. About an equal number of free and rental films were used and about 50% of the showings take place in the classroom. Mostly all schools were equipped with screens. Practically every school had a lantern slide projector and many had micro-projectors.
EDUCATIONAL SCREEN
Published monthly except July and August. Official organ of the Department of Visual Instruction of the N. E. A. The only magazine devoted to extending and improving the use of visual and audio-visual teaching aids in education. A clearing-house of thought, fact and experience on all phases of the work.

$2.00 one year; $3.00 two years

"1000 AND ONE" BLUE BOOK OF FILMS
The annual film directory, widely known and used as the standard film reference source for educational and non-theatrical users of films. Lists some 4500 films, carefully classified according to subject (145 numbered subject groups)—with full information given on every film—whether 16mm or 35mm, silent or sound, title, number of reels, brief synopsis of contents, sources distributing the films (more than 200 such distributors indicated) and range of prices charged by them. Contains hundreds of "free" films. 152 pp. Price 75c (25c to subscribers of E. S.)

A SYMPOSIUM ON SOUND AND SILENT FILMS IN TEACHING
A stenotype report of the entire afternoon session of the winter meeting of the Department of Visual Instruction of the N. E. A. at St. Louis, February 26, 1936. Includes able presentation of the advantages of sound films, the latest addition to the family of visual aids. 8 pp. Net Price 20c

VISUAL AIDS IN EDUCATION. By Joseph J. Weber, Ph. D.
The author's final and finest work in this field, being "a balanced summary of the available scientific evidence on the values and limitations of visual aids in education and an elaboration upon this evidence by way of generalization and application so as to inspire the progressive educator in making common sense adaptation of visual materials and methods to the purposes of the school."

220 pp. Price $2.00 ($1.50 to subscribers of E. S.)

PICTURE VALUES IN EDUCATION. By Joseph J. Weber, Ph. D.
An important contribution to the literature of the visual field. Presents in unusually interesting form the results of extended investigations on the teaching values of the lantern slide and stereograph. 156 pp. illus. Price $1.00 (67c to subscribers)

COMPARATIVE EFFECTIVENESS OF SOME VISUAL AIDS IN SEVENTH GRADE INSTRUCTION. By Joseph J. Weber, Ph. D.
The first published work of authoritative research in the visual field, foundational to all research work following it. Not only valuable to research workers, but an essential reference work for all libraries. 131 pp. Price $1.00 (67c to subscribers of E. S.)

BIBLIOGRAPHY ON THE USE OF VISUAL AIDS IN EDUCATION. By Joseph J. Weber, Ph. D.
A complete bibliography on the field to June 1930. Over 1,000 references to books and magazine articles. (Additional references by Mr. Weber through September, 1932, appear in EDUCATIONAL SCREEN for October 1932.) 24 pp. Net Price 30c.

SIMPLE DIRECTIONS FOR MAKING VISUAL AIDS. By Lillian Heathershaw, Drake University, Des Moines, Iowa.
Directions for making Etched Glass Slides, using Colored Pencils; Etched Glass Slides, using Colored Inks; Paper Cut-out Lantern Slides; Ceramic Lantern Slides; India Ink Lantern Slides; Still Films; Cellophane Lantern Slides; Photographic Lantern Slides; Film Slides; The Electric Map; Spatter Work; Pencil Outlines of Leaves; Carbon Copies of Leaves; Leaf Prints from Carbon Paper; Blue Prints; Sepia Prints.


ACTIVITIES OF STATE VISUAL EDUCATION AGENCIES IN THE UNITED STATES. By Fannie W. Dunn, and Etta Schneider, Teachers College, Columbia University.
A concise and discriminating summary of total results from a comprehensive survey of 24 of the 26 states having Departments of Visual Instruction. A companion article to this, "Practices in City Administration of Visual Education,” by the same authors, appeared in EDUCATIONAL SCREEN for November and December, 1936.


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Educational Screen
64 E. Lake St., Chicago

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City............................ State........
AS THIS goes to press a hundred or more educational institutions are negotiating for foreign films to be shown this spring. Most of these plans to exhibit only one picture and must be faced with considerable responsibility in deciding what film to choose. Unfortunately if the experiences of past years are repeated again this season about half of the school exhibitors will be disappointed in the selections made.

Ideally, pictures should be chosen only after preview by a committee representing faculty and students since the correlation between the amount of favorable national publicity and the values of films to educational institutions is very low. It is natural that schools should desire pictures which have been praised highly in the public prints and which have had long runs in New York City, and if foreign films are to be presented in educational institutions primarily as entertainment, reviews and box office success are the best criteria for selection. However, if foreign films are to have point for language study, social sciences, and literature, reviews are of little value unless meticulous reading between the lines is done. This is inevitable insomuch as reviews are written from the entertainment angle and the reviewers are not interested in the educational potentialities of the pictures they cover.

As a matter of fact very little has been done to make films of value in connection with classroom work. It has been next to impossible to secure copies of film dialog from distributors, and hence study of film dialog before the showing of pictures has been out of the question. To remedy this situation and to harness the potentialities of a foreign film for language learning, William Kurath of the University of Chicago has prepared a film dialog project based on Kaestner's Emil und Die Detektive. Six scenes from the film were selected, short introductions to each written in simple German, vocabularies and notes appended, and marginal references to chapters in the book (Holt) and reels of the film included. A short scene from the project follows:


das Denkmal—das Monument; der Herzog—duke; kleben—paste; der Wachtmeister—der Polizist.

Emil: Warmes Wasser, Frau Tischbein?
Frau Tischbein: Danke, Du, ich hab' Dir drinnen schon alles zurecht gelegt.
Frau: So, Frau Tischbein.

Emil: Mutter, kannst Du mir nicht sagen, wer die guten Anzuge erfunden hat?
Frau Tischbein: Warum denn?
Emil: Der Kerl, den muesste man umbringen.
Frau Tischbein: Bitte schoen. Oh, Gott, entschuldigen Sie bitte vielmals.
Frau: Na, Sie konnten sich auch endlich einen Haartrockner anschaffen.
Emil: Die will wohl noch Dauervellen fuer ihre fuenzig Pfennige, umbringen—tooten; sich anschaffen—kaufen; Dauervellen—permanent wave.

The dialog project from Emil und Die Detektive has been used by a number of first and second year German students before seeing the film with the result that both enjoyment of the picture and comprehension of the spoken dialog were greatly increased. Imagine the thrill the beginner gets from understanding a German film and the motivation for further study which will result!

To obtain the best results from book, film, and dialog project the following series of activities is suggested: reading of the text, perusal of the dialog project, viewing the film, dramatizing several scenes from the project, and viewing the film a second time. Many a foreign film showing arranged almost exclusively as a language project fails because the students who are sent to see the picture are not prepared to understand it. The best combination of entertainment and language study available in the film field consists of the picture Emil and the printed materials which may be used with it.

Educational institutions in position to use several films during a semester will be interested in the idea onto which International House (Chicago) is hanging its film series for February, March, April, and May. Six films from six different countries constitute the program—The Ski Chase (Austrian), Son Of Mongolia, Song Of China, Thunder Over Mexico, Kimiko (Japanese), and Lac Aux Dames.

The Ski Chase is the best available ski picture, but its language value is slight, Son Of Mongolia is suggestive of life in Mongolia and is worth showing to some audiences in spite of its insignificant theme and weak direction. In this picture such trappings of industrial civilization as a portable victrola, a bicycle, and an automobile appear among tents, camels, and sheep. Song Of China is not typical of Chinese cinema since the film is an old silent picture from China cut down and synchronized in America. However, the story is fairly interesting and all the cast are genuine Chinese. Thunder Over Mexico (available in 16mm sound as well as in 35mm) is a dramatic study of the hard lot.

(Concluded on page 66)
Here is
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The International Library of Visual Aids offers every school a Student Membership Plan with a complete two-year educational program of the world’s finest general education films. Equipment includes the Victor Sound-on-Film Projector—which remains in the permanent possession of the school and can be used for other films (silent and sound), or for public address work, phonograph-record reproduction, etc. The Victor-Ilva Plan is Self-Supporting—no down payments required, no necessity for benefit picture shows or expenditures of regular school funds. Every program specially planned for both child and adult education.

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ANIMATOGRAPH CORPORATION
Davenport, Iowa, Chicago
New York City, Los Angeles
Moments in Washington’s Life -- In Hand-Made Lantern Slides
By EMMA GOLDEN, Fort Hays Kansas State College

BECAUSE of low cost and high educational value, line-drawing lantern slides are enjoying wide favor in schools. There is hardly a subject in the curriculum but can benefit by their use. Etched glass slides can be made by pupils as well as teachers by means of special crayons, pencils, and color washes easily available.

The six pictures on this page, projected on the screen as traced slides, will prompt live discussion by the class:

(1) The neat and simple house where Washington was born, February 22, 1732
(2) The familiar cherry-tree story on truth-telling
(3) Washington appointed a surveyor by Lord Fairfax
(4) Dark days at Valley Forge
(5) Commander-in-Chief who became the First President and “Father of his Country”.
(6) Washington’s beautiful home life with his wife, Martha Custis Washington.

The simplest type of hand-made slide is made by drawing or tracing on finely finished etched glass with ordinary medium lead pencil. Color, by special crayons or inks, enhance the slides greatly. Fine effects are obtained by blending with Keystone crayons. About one third inch margin should be left all around the slide. The slide is readily cleaned with soap or washing powder to receive a new picture.
"It MAKE TEACHING SO EASY AND THOROUGH"

The teacher who uses a Balopticon appreciates the efficacy of modern still projection teaching. She knows that it is remarkably simple to arouse the students' interest and hold their attention with appropriate pictures. She has discovered how readily these pictures stimulate the imagination and how permanently they impress facts upon the students' minds. And at the end of the year the standings of the entire class have been improved, and the students have gained more knowledge because of their work with the Balopticon.

Write for Catalog E 11 which describes Balopticons for every lantern slide or opaque object projection purpose.

Bausch & Lomb Optical Co., 688 St. Paul Street, Rochester, N. Y.
The Laboratory Sheet As An Aid To The School Journey

THE SCHOOL journey, or field trip, has been defined as “a school exercise designed to provide complete sensory experiences relative to such phenomena as cannot be brought into the classroom.” Since the school journey is a school exercise, it should be as definitely planned as any other type of school exercise; and since it is designed to provide complete sensory experiences, it must be looked upon as a laboratory exercise. Therefore, a laboratory sheet should be provided (1) to give definite directions to the pupils so that they may work independently, (2) to give opportunity for them to make specific records, and (3) to permit them to submit a written report of the laboratory work done.

The laboratory sheet which follows, entitled “Field Trip to The Newspaper Office,” is submitted as an illustration of one type of laboratory record which has proved very satisfactory in actual class work. While this sheet is not all-inclusive, it does consider the major items to be observed while on the trip through the plant. It is designed to trace step by step, and process by process, the course of a news item from the time it arrives in the office until it is in the hands of the reader on the street or in the home. The sensory experiences thus presented in orderly fashion will result in a coherent mental picture which can be readily recalled when the occasion demands.

It will be noted that the sheet provides for the recording of actual facts, and in addition calls for the study of certain things to gain understandings and appreciations of the printing business.

Field Trip to the Newspaper Office

Everyday Science Class. Name ................................

Only one class period is available for this field trip. We must be back on the campus for the next class. Make your observations quickly, accurately and purposefully. Secure the data and make your own record while at the plant. Determine to make the trip a worthwhile one for you.

Make the following observations and record your conclusions as indicated.

1. The name of the ........................................ Daily newspaper is ........................................
2. The editor is ........................................
3. The paper is published (morning) (evening) (morning and evening) for (6) (7) days per week ........................................
4. The paper employs ......... persons. It has ......... newsboys ........................................
5. The circulation is: Total ........................................ Town ........................................ Suburban; ............... Mailing ........................................
6. Source of news items ........................................

Teletypewriter
7. What purpose is served by the Teletypewriter? ........................................
8. List five important parts of the Teletypewriter 1. ........................................ 2. ........................................ 3. ........................................ 4. ........................................ 5. ........................................
9. How operated? ........................................

Study the Advertising Mats ........................................

Linotype Machine
10. Number ............... Why called “Linotype”? ........................................
11. Note such things as: Slugs, keyboard, metal pot, metal for slugs, gas fires, distributing bars. List some other parts of the machine ........................................

12. How does the Monotype differ from the Linotype? ........................................

Type Setting Room
13. Note such things as: Make up of the page, the number of columns to the page, how the ads, cuts, and printed materials are put into the page; how the type is held in place; size of type; kinds of materials in page. Any other items? ........................................

Press Room
14. State the composition of the Matrix ........................................
15. How is the type page used in making the matrix? ........................................
The Chinese Had a Word--We Have the Pictures for it!

"One picture is worth ten thousand words," wrote the sage of old Cathay. He had the right idea about education and entertainment. It is our idea too, with these pictures to back it up . . .

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The Keeper of Bees
The Girl of the Limberlost
Last Days of Pompeii
Little Men
Matto Grasso
Silent Enemy
This is America
The Viking
William Tell
Wandering Jew

Class Room
16 mm. Talking Films

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Insects
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16. Note the metal pot and pump. Size of kettle.
   Composition of type metal.
   Temperature of the metal.
17. What is done with scrap metal, line, and forms after paper is printed?
18. Note making of metal forms for the press—trimming—
   leveling. Other items.

Press Machines
19. Note construction of the machines—inkers—plates—roll-
   ers—rolls of paper—how paper is threaded thru machine—
   printing of paper—folding—counting.

Graphotype

Addressograph

Summary
22. On the back of this paper write a summary to trace news
   items from source to reader. Bring this material to
   class and hand in at the next class hour.

This laboratory sheet may be used at the next class
meeting period while a discussion of the trip is under
consideration. The facts recorded will make it possible
by clarifying many points, amplify the items listed, and
serve as points of departure for further readings and
research. The demand for a written summary requires
the pupil to formulate his concepts into clear-cut, pre-
cise statements.

With this sheet as a pattern, similar sheets may easily
be constructed by teachers for trips to other places.

1. The items to be included in such sheets will be
determined with relation to the particular place being
studied. The teacher will, of course, survey the place,
and if possible, secure the services of some one entirely
familiar with it to assist in listing the items to be in-
cluded in the laboratory sheet. Duplicate copies of the
laboratory sheet can readily be made at little cost by
means of the hekograph or the mimeograph.

One will be well repaid for the time and effort spent
in constructing the laboratory sheet for each school
journey taken. With the sheet before them, the pupils
are more likely to look upon the trip as a serious bit of
school work rather than to consider it a "lark" and a
release from school obligations. They will see that a
definite task has been set before them, and will of them-
selves know whether they have really completed the
assignment made. It serves as a guide and as an obliga-
tion. After having worked through the sheet, the pupils
will have the satisfaction of knowing that the assigned
work has been accurately and thoroughly done.

Foreign Films
(Concluded from page 60)

of the peons of Mexico, which reflects in some parts the
cinematic skill of its director Eisenstein. Kimiko was
reviewed in the January number of Educational Screen.
Lac Aux Dames is a typical French program picture
and is of interest as a sample of French entertainment
rather than as a prestige picture such as La Maternelle.
All six of the films on the International House series
have English subtitles.

*Just after the January issue of Educational Screen went to
press an arrangement to make The New Gulliver available to
schools was made.
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**Paramount's New Educational Film**

(Distributed by Bell & Howell)

The one-reel 16 mm sound picture, *The Spirit of the Plains*, is the first “educational” to be put out by Paramount, in cooperation with authorities in the school field. It is technically excellent, is splendidly entertaining, and should be tremendously successful in auditorium showings for schools and communities. It was made expressly for and belongs definitely in the non-theatrical field, and that field has few films to compare in quality, vividness and vigor with *The Spirit of the Plains*.

But the theatrical touch is far more evident than the academic influence. As a medium for real teaching, it might be classed as informational entertainment, or a slightly educational thriller. It is a close-coupled composite of striking shots from various “classics,” such as *Covered Wagon* and *Thundering Herd*, with considerable footage from the current theatrical feature, *The Plainsman*. It is indeed an exciting capsule of theatricalized western history, shown, sung and shouted at nerve-tingling tempo. A vast amount of historical fact is there, for anyone who can catch it. It sweeps the spectator through the dramatic high spots of sixty years in twelve minutes. The sensation is real fun. The youngsters will love *The Spirit of the Plains* and many teachers may therefore conclude that it is great “education.”

In using the film as a serious teaching tool, however, the problem will be to keep the youngster from thinking of “The West” as a seething mass of raging Indians, cowboy choruses, singing wagon trains, roving buffalo (and a man placidly plowing beside them), stampeding cattle, plunging horses, incessant human struggle, crackling guns, hurricane winds and blinding dust. A few dozen slides of these splendid shots, studied with reflection,—then the film, with the students needing only to watch and feel, not think and learn,—would accomplish something really “educational.”

Now, even if this film falls a bit short of being an ideal “educational,” it is vastly important as a symptom and a promise. For years, teachers and others have urged the producers to make available the lavish sets and the careful research work on costumes and other detail now repeatedly found in every major feature, for short topical films intended for classroom, school auditorium and general non-theatrical use. It is highly significant that a great theatrical producer has actually made his first “educational”—has definitely done something instead of merely threaten. *The Spirit of the Plains* may be but the first of a long series. And they will be successively better. This first effort will be exceedingly fruitful in suggestions for improvement. The writer has already seen, with immense satisfaction, Paramount’s second attempt, of which it will be a pleasure to write when the proper release-date comes.

N. L. G.
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Teacher Training Conferences

The Motion Picture Project of the American Council on Education has been promoting a series of teacher training conferences and has cooperated in the preparation of outlines for such conferences in New York, Florida and Boston. Through the cooperation of Dr. Fannie W. Dunn, a meeting was held January 18 at Teachers College, Columbia University, for the discussion of such topics as: How shall training in visual instruction be administered? What should be the content of such courses? What personnel is required for training in visual instruction? What in-service training should be provided?

"A Short Course on the Use of Visual Aids in the Classroom" was given to the science and geography teachers of Florida at the newly established School of Adult Education of the General Extension Division of the University of Florida at Ocala, the week of February 6-14. The course emphasized these two subjects as they require more visual material than many other subjects and there is a greater amount of material available in these fields than any other. Three Round Table Groups—Elementary School Science and Geography, High School Science, Visual Instruction in School Administration—met every morning and afternoon to view the visual material collected for the course, and to plan actual classroom programs. A display of the latest equipment was supplemented by instruction in their operation and care.

Lecturers and instructors were: Bernice Ashburn,
The Leica Method of Visual Education

Whether you are interested in power development, natural history, scientific, mechanical or other subject matter for visual educational purposes, you will find it easy and economical to use the Leica camera for you can select and produce your own material in whatever manner you desire. The camera uses 35mm. perforated motion picture film, making "still" pictures, 1 x 1½ inches in size, and its wide range of accessories enables you to photograph Pike's Peak as well as a Paramecium, or other microscopic specimen. You can make enlarged paper prints or slides, either film slides on 35mm. film or 2 x 2 inch glass slides. With a U_dimo or Umino projector such slides can be projected to large proportions. The Leica method is simple, compact and precise.

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President of the Association for Visual Instruction in Florida: Donald P. Bean, Manager, the University of Chicago Press; M. L. Carothers, Office of the State Superintendent of Public Instruction; Colin English, State Superintendent of Public Instruction, Tallahassee; W. Y. Goette, P. K. Yonge, Laboratory School, University of Florida; Charles F. Hoban, Jr., American Council on Education; Dean B. C. Riley, General Extension Division, University of Florida.

The Massachusetts Branch of the Department of Visual Instruction held its seventh annual Visual Education Conference in co-operation with the American Council on Education Saturday, February 6, at the Boston University School of Education. At the morning session Mr. E. C. Dent, Director, Educational Department, RCA Manufacturing Company, spoke on "Recent Developments in Audio-Visual Aids to Learning." Dr. Georg Roennert, Founder and Director of the Micro-Vivarium at the Chicago World's Fair, demonstrated "Wonders of an Unseen World." A discussion of some of the problems arising in the operation of a Teaching Aids Department in a school system, by directors of such departments, concluded the morning program. The afternoon meeting was devoted to an exhibit of the organization and services rendered by the Local, County, State, and National Governmental Departments, and Educational Foundations with an exhibit of their Teaching Aids.

A Course in School Photography

A University of California Extension class in School Photography opened in San Francisco Thursday, January 28th. P. Douglas Anderson, Fellow of the Royal Photographic Society of Great Britain, is conducting the course. It consists of a complete outline of the use of cameras, study of the practical application of the camera to outdoor work, action photography, interior photography, landscape and field photography, the making of lantern and film slides, film developing, contact printing, filters, and other technical features.
The Kodaslide Projector in Operation

Eastman Announces Kodaslide Projector

News comes from Rochester announcing the Kodaslide Projector, a new product of the Eastman Kodak Company, provided for owners of Kodak Retina, Kodak Bantam Special, and other miniature cameras. Manufactured to precision standards, this brilliant new Eastman projector will show either full-color Kodachrome transparencies, or black-and-white film positives from No. 135 or No. 828 negatives. For projection, each individual picture, properly masked, is mounted in a 2x2-inch glass slide, suitably bound.

The Kodaslide Projector is strong, solid and extremely easy to use. It has an attractive baked black-enamel wrinkle finish and dull-nickel operating parts. One of the chief features is the so-called “douser” method of shifting from picture to picture. The 2x2-inch glass slides are inserted in the metal gate at the top of the slide holder and are gravity-fed by means of the slide-shifting lever at the side of the projection head.

Illumination is provided by a 200-watt 115-volt lamp with concentrated coil-coil filaments. A cool outer surface is accomplished by means of an inner shell which permits an air space on all four sides. In addition, natural draft ventilation exhausts the heat from the top of the lamp house. A spherical aluminum-coated glass reflector is located behind the lamp. The three-piece condenser lens unit, ample in size to give uniform screen illumination, has in addition a disc of heat-absorbing glass to prevent over-heating of the slides. The projector comes equipped with a 4½” projection lens. Its focal length assures plenty of room in front of the projector for spectators. Two knurled thumb screws at the front of the projector base provide a convenient means of adjusting the height of the light beam to the position of the screen.

Double Frame Stillfilms

The rapid progress that is being made in the new 35mm double frame, horizontal, film strips is forcefully brought to the attention of educators by the new catalog of films, just published by Stillfilm, Inc. Stillfilm Junior, the name by which the new films are known in order to differentiate from the well known Stillfilms, have been produced for the purpose of giving a much larger picture on the screen, under the same conditions, than the ordinary 35mm films. Fully explanatory titles precede each picture making the use of manuals unnecessary. The new catalog lists more than 400 reels of Stillfilm Junior, the prices of which are well within the range of the smallest school system. Stillfilm Junior can be projected in a fully lighted classroom when the new ‘Transbrill’ screen is used—a blessing to those who have no means of darkening the room. A sample of the new film and a catalog, will be sent upon request to Stillfilm, Inc., 4703 West Pico Blvd., Los Angeles, Calif.

Leica Offers New Camera

A new tool for the maker of educational photographs, either for use as paper prints, glass slides, or film slides is the Leica camera Model G equipped with the new, fast Leitz Xenon f:1.5 lens. With this lens and camera the photographer should be master of practically any exposure situation, for whether the day is bright or dull, the action fast or slow, this lens and camera combination is said to be equal to any problem.

The Leica camera is ideally suited for making natural color pictures by means of Kodachrome film. The results are sparkling, lifelike and faithful to the color inherent in the original scene. There are so many times when the average black and white rendition of a scene fails to portray its true beauty and worth that the use of color for visual educational pictures is sometimes made mandatory by the subject matter.

Kodachrome transparencies bound as 2x2 inch glass slides may easily be projected in all their brilliance by means of the Leitz Udimo or Umena projector.

Gutlohn Company Loses President

It is with sincere regret that we report the recent death of Walter O. Gutlohn, President of Walter O. Gutlohn, Inc., of New York City. We share with his many friends a genuine sense of loss at the passing of this genial personality from the 16mm sound field.

The ideals and policies of Mr. Gutlohn will be carried forward under the direction of Mr. Harry A. Kapit, Vice-President, associated with Mr. Gutlohn since this well-known organization was formed in 1934.
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E-2-37
AMONG THE MAGAZINES
AND BOOKS

"New Plan" Textbooks from
The University of Chicago

Recent years have seen some notable educational history in the making at The University of Chicago. The already famous "New Plan," affecting both curriculum and method in university teaching, has not only startled but stimulated the whole university world. Its beginning of systematic production of educational sound films, in collaboration with Erpi, put the University of Chicago conspicuously in the forefront of the visual education movement. And now appear the first five of a series of textbooks, written expressly for use under the New Plan, which make elaborate use of scientifically selected visual material in their pages and which correlate wholly or in part with the films already produced. A significant advance, this, toward actual integration of the visual idea into education where it belongs.

The five new texts, written by members of the faculty, are published by The University of Chicago Press, with titles, authors and prices as follow:

FROM GALILEO TO COSMIC RAYS (450 pages) by Harvey B. Lemon ($3.00)—A New Look at Physics.

EXPLORING IN PHYSICS (150 pages) by Reginald J. Stevenson ($1.50)—A New Look on Problems in Physics.

Both books are finely illustrated by line drawings, diagrams and photographs. Eight correlated sound films are available for use with the above texts.

DOWN TO EARTH (500 pages) by Carey Croneis and William C. Krumbein ($3.75) — An Introduction to Geology.

Richly illustrated by numerous drawings, reproductions of models, and 64 full pages of photogravures. Six correlated sound films are available.

A MATHEMATICIAN EXPLAINS (189 pages) by Mayme I. Logsdon ($1.75)—A New Type of Textbook for Orientation Courses in Mathematics. Illustrated with figures, diagrams, formulae, and line drawings.

HIGHLIGHTS OF ASTRONOMY (280 pages) by Walter Bartky ($2.50)—A Novel Textbook Designed to Interest the Beginning Student. Illustrated with drawings and Yerkes Observatory photographs. Available also are four sound films (new), four silent films, and eight hundred lantern slides (Yerkes).

The size, format and typography of these books are no less noteworthy than the contents. They suggest happily the picture books of our younger days. They lie open invitingly on lap or desk. They would even be delightful stuff for a reader stretched out flat on a living-room rug. The type is generously large, with black initials marking main divisions, and the text dotted judiciously with bold face. Such type was once reserved for the youngster's reading page. But, logically enough, older eyes can still more fully appreciate reading-case and be healthily benefited thereby.

The text is written with literary consciousness as well as scientific intent, with an understanding of the readers as well as of the subjects. The writers freed their pens from the tradition that writing must be heavy to be authoritative. The average student mind can properly enjoy picturesque presentation nor be blamed for seizing more eagerly upon vividness than upon mere stolid truth. Literary skill is evident also in the ingenious repetition—that all-important aid and assurance to learning—so deftly done as to invigorate and not annoy. Repetition can be achieved, and hitherto generally has been, by "re-reading" which usually is healthily resented by normal young minds. But repetition gained by reading straight ahead, each repetition phrased as a novel and welcome reminder instead of a deadly "review," will win students down without a struggle. These repetitions, recognized as such by the reader, merely build confidence in the permanence of his own growing knowledge. Those not recognized were needed.

Wide adoptions of these texts, already made in other universities, colleges and junior colleges, show clearly that their value is not confined to "New Plan" instruction. Rather they both point and lead the way toward the better educational procedure inevitably coming. Effective teaching must enhance mental appeal by every means, pedagogical, psychological, typographical and pictorial. These new Chicago texts look definitely in that direction.

N. L. G.

New Home Library Publications

The National Home Library Foundation, Washington, D. C., has announced plans for the distribution of a million copies of new books of special interest to educators, to be made available at 25 cents per volume. Distribution of these books, published on a non-profit basis, will begin immediately to all sections of the country. Titles have been approved by an advisory board of sixty-six of the most distinguished names in the arts and sciences. The Foundation will extend special discounts to educators on all quantity orders.
List of titles now available are: Horace Mann: His Ideas and Ideals, by Joy Elmer Morgan, which includes Horace Mann's famous Lecture on Education, and his Letter to School Children, hitherto inaccessible to teachers; The Odyssey of Homer, translated by Samuel Butler; Democracy in Denmark, by Josephine Goldmark and Mrs. Louis D. Brandeis, describing the development of the splendid Folk High Schools and the spread of the cooperative movement as factors in Denmark's economic recovery; The Long Road, by Arthur E. Morgan, with an introduction by Dorothy Canfield Fisher; Jefferson, Corporations and the Constitution, by Dr. Charles A. Beard.


This book is a notable contribution to a relatively recent problem in visual instruction that greatly needs clarifying—the use of the "sound film" in teaching. At the outset the author recognizes frankly that the last word cannot yet be said on so new a teaching tool, that "the efficient use of the sound film . . . must necessarily be a process of experimentation and evolution".

While Dr. Brunstetter is obviously intent upon proving outstanding values in the sound film, he guards carefully against the absurd supposition that other visual aids are now obsolete. Likewise, he emphasizes properly and frequently how vitally important is the teacher. "The film medium needs the teacher quite as much as the teacher needs the film. . . . and by the time a teacher has properly prepared a film lesson, it is more difficult than teaching from the book but makes for better teaching."

With a sense of balance thus assured, the author gives in a half dozen chapters pertinent and helpful information on the unique characteristics of sound films, teaching purposes served by them, the necessity for a careful integration with the work in hand, for introduction of the film at its exact time and place, and its varying functions in introducing, illuminating, and reviewing a subject. Ample warnings against misuse are given. Two valuable Appendices and a full index round out this impressive volume.

Some difficulties may still remain in readers' minds, and naturally, in so recent a phenomenon as the sound film. The author's proof that sound film is as flexible as silent for adaptation to different grade levels, for review and repetition, for interjected comment by teacher, for permitting pupil concentration on special points—is not wholly convincing. He admits distraction of attention, and real values in running the film without the sound. He suggests how to keep the sound from making trouble.

On the whole, the book is an excellent summary and trenchant discussion of the art of teaching with "films", but presented as if it applied only to "sound films". Most of its dicta were determined long ago by silent films. What gives an air of newness is the constant assurance that "sound films" do all these things. Perhaps better add "So do silent films", and then go on to emphasize at greater length the particular things for which the educational sound film is and will be unquestionably unique and incomparable.

A Parade of Ancient Animals, by Harold O. Whitnall, Professor of Geology, Colgate University. 136 pages (Illustrated). Publisher, Thomas Y. Crowell Company. Price, $2.00.

A delightful little book, in which a college professor succeeds in presenting, to a very special audience, selected bits of real science in a form beautifully calculated to thrill and instruct that audience. Here are 136 pages of joyous reading for the youngsters. If the grown-ups are loath to admit they enjoy it equally, they have a perfect alibi. They want it "for reading aloud to the children," and there could be nothing better for the purpose. The fundamentals of the geologic Age of Reptiles and of biologic evolution are all here, stripped sufficiently of learned technicalities to stand forth as elementary concepts easily within reach of the young minds and inevitably interesting to them.

The deft appeal to youthful thinking, the captivating simplicity of style, the engaging manner of narration are all evident from the very start. Even the heading of the first chapter is magical—"Do Not Skip This"—and Professor Whitnall begins: "In this book we are going on a long journey. We are going far back to a time when the world was young and strange animals tramped over the land and swam the sea and soared in the air . . . but before we begin our stories we must have a short talk about a number of things." Ingeniously simple language then makes clear the great age of the earth, the meaning of evolution as "the great process of growth and improvement," and "as we read about the strange animals we shall see pictures of them. Of course, such pictures could not have been made while these animals lived since there were no men at the time. . . . How then do we know what the animals looked like? I shall try to tell you." He succeeds. Vividly and accurately is explained how all our knowledge of these animals has come from their bones; how study of these fossil remains can give nearly all the facts the artist needs for drawing a true picture; and how these animals were finally replaced by those we know today. "Now let us go back in fancy through those millions of years and see what some of the ancient animals looked like." And so ends three-page-long chapter 1, "Do Not Skip This." They won't.

Twenty-six chapters follow, of fascinating description of a score of ancient animals in their native environments, done in felicitous phrase and with a vocabulary over 90% pure Anglo-Saxon. Necessary difficulties are not dodged. "As it often happens in life, there were some who seemed to prosper beyond all others. Such were the big amphibians called Eryops (E'ry-ops). Don't be afraid of this new name. We shall have many worse ones. After you get used to them, they are just as easy to remember as rhinoceros, hippopotamus, alligator, and others that you already know." Twenty full page plates, and many line drawings, beautifully executed by H. C. Millard, a former student in Whitnall courses, supply the vivid visualization intimately blended with the text which is needed to make concepts clear and unforgettable. At the close of the book there is a hint of other books to come in a similar vein. There should be.    N. L. G.
HERE THEY ARE

**FILMS**

Bell & Howell Co. (6) 1815 Larchmont Ave., Chicago (See advertisement on inside back cover)

Bray Pictures Corporation (3, 6) 729 Seventh Ave., New York City

Eastern Kodak Co. (4) Rochester, N. Y. (See advertisement on outside back cover)

Eighth LaSalle Pictures, Inc. (3, 4) Pittsburgh, Pa. (See advertisement on page 71)

Eastman Kodak Stores, Inc. (6) 1020 Chestnut St., Philadelphia, Pa. 606 Wood St., Pittsburgh, Pa. (See advertisement on page 66)

Edited Pictures System, Inc. (1) 330 W. 42nd St., New York City (See advertisement on page 68)

Films, Inc. (5) 330 W. 42nd St., New York City (See advertisement outside back cover)

Erpi Picture Consultants Inc. (2, 5) 230 W. 50th St., New York City (See advertisements on pages 58, 73)

Garrison Film Distributors Inc. (3, 6) 730 Seventh Avenue, New York City (See advertisement on page 68)

Walter O. Gutlohn, Inc. (5) 35 W. 45th St., New York City (See advertisement on page 70)

Harvard Film Service (3, 6) Biological Laboratories, Harvard University, Cambridge Mass. (See advertisement on page 64)

Guy D. Hasleton’s TRAVELETTES 7901 Santa Monica Blvd., Hollywood, Calif. (1, 4) (See advertisement on page 68)

Ideal Pictures Corp. (3, 6) 30 E. Eighth St., Chicago, Ill. (See advertisement on page 66)

Institutional Cinema Service, Inc. (3, 6) 130 W. 46th St., New York City (See advertisement on page 68)

The Manse Library 2439 Auburn Ave., Cincinnati, 0. (1) (See advertisement on page 71)

Pinkney Film Service Co. (1, 4) 1028 Forbes St., Pittsburgh, Pa.

United Projector and Films Corp. (1, 4) 228 Franklin St., Buffalo, N. Y.

Universal Pictures Corp. (3) Rockefeller Center, New York City (See advertisement on page 65)

Visual Education Service (6) 470 Stuart St., Boston, Mass.

Wholesome Films Service, Inc. (3, 4) 48 Melrose St., Boston, Mass.

Williams, Brown and Earle, Inc. (3, 6) 918 Chestnut St., Philadelphia, Pa.

Y.M.C.A. Motion Picture Bureau (3, 6) 347 Madison Ave., New York City (See advertisement on page 65)

**MOTION PICTURE MACHINES and SUPPLIES**

The Ampro Corporation (6) 2839 N. Western Avenue, Chicago (See advertisement on page 56)

Bell & Howell Co. (6) 1815 Larchmont Ave., Chicago, Ill. (See advertisement on inside back cover)

Central Camera Co. (6) 230 S. Wabash Ave., Chicago (See advertisement on page 70)

Eastman Kodak Co. (4) Rochester, N. Y. (See advertisement on outside back cover)

Eastman Kodak Stores, Inc. (6) 1020 Chestnut St., Philadelphia, Pa. 606 Wood St., Pittsburgh, Pa. (See advertisement on page 66)

Edited Pictures System, Inc. (1) 330 W. 42nd St., New York City (See advertisement on inside front cover)

Motion Picture Screen & Accessories Co. (3, 6) 524 W. 26th St., New York City

RCA Manufacturing Co., Inc. (3) Camden, N. J. (See advertisement on page 54-55)

S. O. S. Corporation (3, 6) 635 Eleventh Ave., New York City

Sunny Schick, National Brokers (3, 6) 409 W. Wash. Blvd., Ft. Wayne, Ind. (See advertisement on page 66)

United Projector and Film Corp. (3, 4) 228 Franklin St., Buffalo, N. Y.

Universal Sound System, Inc. (2, 3) Allegheny Ave. at Ninth St., Philadelphia, Pa. (See advertisement on page 67)

Victor Anigraph Corp. (6) Davenport, Iowa (See advertisement on page 61)

Visual Education Service (6) 470 Stuart St., Boston, Mass.

Williams, Brown and Earle, Inc. (3, 6) 918 Chestnut St., Philadelphia, Pa.

**SCREENS**

Da-Lite Screen Co. (3, 6) 2721 N. Crawford Ave., Chicago (See advertisement on page 33)

Eastman Kodak Stores, Inc. 1020 Chestnut St., Philadelphia, Pa. 606 Wood St., Pittsburgh, Pa. (See advertisement on page 66)

Motion Picture Screen & Accessories Co. 524 W. 26th St., New York City

Williams, Brown and Earle, Inc. 918 Chestnut St., Philadelphia, Pa.

**SLIDES and FILM SLIDES**

Conrad Slide and Projection Co. (3, 4) 510 Twenty-sixth Ave., East Superior, Wis.

Eastman Educational Slides Johnson Co. Bank Bldg., Iowa City, Ia.

Edited Pictures System, Inc. 330 W. 42nd St., New York City

A Trade Directory for the Visual Field

**IDEAL PICTURES CORPORATION**

30 E. Eighth St., Chicago, Ill. (See advertisement on page 66)

**KEYSTONE VIEW COMPANY**

Meadville, Pa. (See advertisement on page 34)

**RADIO-MAT SLIDE CO.**

1819 Broadway, New York City (See advertisement on page 68)

**SOCETY FOR VISUAL EDUCATION**

327 S. LaSalle St., Chicago, Ill. (See advertisement on page 67)

**SPENCER LENS CO.**

19 Doat St., Buffalo, N. Y. (See advertisement on page 37)

**STILLFILM INC.**

4307 W. Pico Blvd., Los Angeles, Cal. (See advertisements on pages 65, 70)

**VISUAL EDUCATION SERVICE**

470 Stuart St., Boston, Mass.

**VISUAL SCIENCES**

Suffern, New York (See advertisement on page 68)

**WILLIAMS, BROWN and EARLE, INC.**

918 Chestnut St., Philadelphia, Pa.

**STEREOGRAPHS and STEREOSCOPES**

Herman A. DeVry, Inc. 1111 Center St., Chicago (See advertisement on page 69)

**KEYSTONE VIEW CO.**

Meadville, Pa. (See advertisement on page 84)

**STEREOTOPICONS and OPAQUE PROJECTORS**

Bausch and Lomb Optical Co. Rochester, N. Y. (See advertisement on page 63)


General Films Ltd. 1924 Rose St., Regina, Sask.

E. Leitz, Inc. 60 E. 10th St., New York City (See advertisement on page 71)

**SOCIETY FOR VISUAL EDUCATION**

327 S. LaSalle St., Chicago, Ill. (See advertisement on page 67)

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**REFERENCE NUMBERS**

(1) indicates firm supplies 35 mm. silent.

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(3) indicates firm supplies 35 mm. sound and silent.

(4) indicates firm supplies 16 mm. silent.

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(6) indicates firm supplies 16 mm. sound and silent.

Continuous insertions under one heading, $1.50 per issue; additional listings under other headings, 75¢ each.
MARCH, 1937

IN THIS ISSUE
Proceedings of the New Orleans Meeting—to be concluded in April issue.

Dunes in Death Valley

(Leica Photograph by Anton F. Baumann)
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FOR YOUR GLASSES INSIST ON B & L ORTHOGON LENSES AND B & L FRAMES . . .
Progress in Teacher Training in the Use of Visual Aids

Once upon a time there was a temperance speaker who was making a demonstration of the effect of alcohol upon the human body before a group of students. In one glass he had clear water. In a second glass he had pure alcohol. First, he immersed a live, wriggling earthworm in the glass of water. It jumped and cavorted gaily around in this medium. Then he dropped a second live earthworm into the glass of alcohol. Unlike its more favored companion, it turned up its toes and quickly died. Then the speaker turned to the class and asked: "Now, children, what does this teach us about the effect of alcohol?" And the usual bright boy replied: "Drink whiskey if you have worms!"

We are likely to be in somewhat the same spot in regard to teacher education in visual instruction. Some of us start out with agreed-upon facts but make totally different inferences from these facts. So in my presentation today, I should like to emphasize the tentative nature of my inferences, and to make clear at the outset that the solutions to these problems of teacher education are many-sided. Other remedies might work as well as the ones I am going to suggest.

In introducing the discussion on this topic, let me first ask a question: Who bears the responsibility for the training of teachers? Our usual and hasty answer to this question is "the teacher-training institutions." Now I realize that the teacher-training institution does bear certain important responsibilities. However, one of our chief difficulties in the education of teachers lies in the fact that we have assumed that it is done primarily by such institutions. I shall in a moment discuss their specific responsibilities. Before I do that, I want to indicate that we can never have adequate teacher education if we are to assume that the whole job is to be done by a teacher-training institution which carries on its work in a period of two or four years with immature teachers.

There is a series of responsibilities for teacher education which we have overlooked. I infer, first of all, to the teacher training that all our boys and girls are getting in the elementary, junior, and senior high schools. Day by day they are being inoculated with certain methods of teaching. Today, of course, it is primarily the reading of textbooks and the reciting upon them. This statement is based on evidence from studies made in a number of communities as to the methods that teachers are using. Dr. Thomas Briggs, for example, in a study of the teaching activities of 104 teachers in metropolitan New York who were rated as best by their principals, reported that "... the methods used were predominantly the conventional ones of questioning on assigned lessons and giving directions for work to be done at the board or at seats.... As judged by the procedures, about one lesson plan in five can be said to vary from the mechanical in such ways as to deserve commendation."

We tend to teach as we were taught. If we are not taught with visual aids, with motion pictures, then that is so much dead weight when we come to teach in the classrooms ourselves. We tend to take on the techniques of our teachers. High-school students, some of whom may be teaching within two years, are now most commonly instructed without visual instruction aids. It is true that some schools deal pretty effectively with slides, fairly effectively with pictorial materials, but in the country at large, there is little concerted, concentrated, and planned use of films in education. That, then, is a handicap with which all prospective teachers are faced when they come to the teacher-training institutions. They have not had day-by-day, first-hand contact with a wide variety of visual materials.

Contrast, for example, the background of experience of a child who has been in the John Hay High School, in Cleveland, where films are not only constantly used but even made, where high-school students frequently run the equipment, where a motion-picture projector is a very common classroom instrument, with the background of a child who has attended a high school where almost never does he see or have actual contact with motion-picture films in the classroom. I make the point, then, that since we tend to teach as we were taught, those boys and girls who are prospective teachers will tend to take on the ways by means of which they were taught in the grade schools, the high schools, and the teachers' colleges.

I make a second point in this connection. Sometimes the experiences of boys and girls in the high school, and even in college, have been very unfavorable as far as motion picture and other visual aids are concerned. A young woman who at the present time is making a very important investigation of the use of radio and movie in the schools in one of our leading states pointed out to me the boring and uninteresting experiences which she had in college when these films were shown. She reported that most of the girls paid little attention to what was shown on the screen, and used this period as a device for getting a little needed rest or for thinking about other things. Now it is evident that when such people go out to teach, they not only have no experience in this field, but they have what is worse, an unfavorable opinion of the use of films in the school.

It seems evident, then, that a number of schools which today are crowding a great many children into a single classroom to put on an educational movie, which are showing movies wholly out of context with the school lessons, which are showing third-rate entertainment films and charging children for them, are now putting on a kind of teacher-training program which is not going to be of very much benefit, and may be of great harm to the whole movement. We must remember that all teachers, whether in a college, a high school, or an elementary school, are actively developing certain attitudes toward the use of visual aids, sometimes favorable, sometimes unfavorable, and sometimes, through an absence of these materials, entirely negative.

There isn't any one single way in which we give teacher education. As one examines the literature on teacher training, he sees that quite a bit of it deals with the purported conflict between giving instruction in the use of visual aids as a single unitary course or as a part of other courses, such as a unit on visual instruction in the teaching of science, a similar unit in the teaching of geography, and so on. It
seems to me that some of this discussion is beside the point. I do not believe that in any teacher-training problem we are faced with such a dilemma as this. It is not an either-or proposition.

There are several ways in which we can give some kind of training in the use of visual aids. First, we can have a specific course. For example, the State of Pennsylvania requires that every teacher, before he gets his permanent certificate, must take a certain three-hour semester course, the material of which has been carefully outlined. This is one way of giving the training. No other state has yet made a similar prescription.

A second way in which the material can be given is through units of instruction in the various subject-matter fields in which the person is preparing himself. In other words, the person who is training science teachers includes a unit of instruction on visual aids.

A third method, one which is exceedingly important and which could go on without either of the other two, although perhaps not so successfully, is the constant use of visual aids in the teacher's college itself. Unless we have this kind of interest in the use of films, we are not making much progress. We may indeed have a required course, or we may have units of instruction, but if all the other subject-matter teachers fail to make use of films or other visual aids, then much of the value of the courses may be lost. We tend to teach as we were taught. When we go out into the schools and begin the teaching of geography, if our geography teacher in the elementary school, in the high school, and in the teacher-training institution, has made a liberal use of visual aids, and we have felt during that training period that this use was effective, then we are in a favorable attitude toward the use of such aids.

I make the further point that we shall have to experiment with all of the methods. Frankly, I believe that there ought to be a required course given somewhere in the teacher-training institution on the utilization of certain mechanical devices, not only the motion picture and still projectors, but radio as well. We have come in modern education to utilize a number of these mechanical devices. Somewhere in the training period, and very likely as a separate course, we need to gather up the techniques, some of them simple, some of them difficult, which are necessary to handle this equipment satisfactorily. There is much point, then, in offering a course of this sort.

But a required course is not enough. The State of Pennsylvania, which has such a required course, has fewer projectors in the schools in relation to the number of buildings than does the State of Ohio. Here are the facts: In the Koon-Noble survey, Ohio had one projector for every 6.3 buildings reported, while Pennsylvania had only one projector for every 8.3 buildings. When we compare lantern-slide projectors in the two states, we see that there is one lantern-slide projector for every 2.5 buildings in Ohio, and one lantern-slide projector for every 3.6 buildings in Pennsylvania.

The proponents of the Pennsylvania prescription might well make the point that their equipment is much better and more frequently used. I don't believe that any one has as yet gathered data on this point. I do make the suggestion, however, that we proceed carefully. I would say emphatically that there is a responsibility on the part of every teacher-training institution to see that some kind of instruction in visual aids is given. Too frequently the argument against a required course is used to cover up complete neglect of the whole problem in the use of these newer aids to education.

There is another form of teacher education which we have neglected too much. It is in-service training. We have assumed that in a two- or four-year training program we really train teachers. Usually these persons, at the end of this period, are 20, 21, or 22 years of age. They have had no teaching experience on the job. Too frequently their training has been carried on divorced in large measure from the whole question of community life, from the larger and more important purposes of education. It seems to me that we must proceed in our teacher-training program on the assumption that when a teacher has graduated from the teacher-training institution, she has then received only the minimum of equipment which is necessary for teaching purposes. We must follow up this initial teacher training with a great deal more in-service training.

This in-service training can be of a number of types. Let me give you some examples. In the State of Ohio (and this is going on elsewhere) we have felt that the university and the State Department of Education had a very direct responsibility for some in-service training of teachers and administrators in the field of visual instruction. We felt, too, that there were a number of administrators and teachers throughout the state who could aid in giving such a program. We have, therefore, set up during the past year a series of radio and motion-picture institutes. Up to now, they have been held chiefly in the state universities, Kent, Bowling Green, Miami, Ohio, and Ohio State. Our usual program has been to have teachers and administrators present the problems which they face in the field. We have had panel discussions of high-school students on the use of visual aids in the schools, and on the question of the motion picture in the community.

An institute was held at Muskingum College in the early part of this year, and more than 150 teachers and administrators were present. Another institute was held just recently in Coshocton County, at which the county superintendent, the superintendents, principals, and teachers were present. A similar meeting will be held at Heidelberg College in March. Quite likely a number of these institutes will be repeated this coming summer.

A meeting of those interested in producing educational films was recently held on our campus and was well attended.

We think that this work is getting down to the grass roots. We are learning specifically, and right on the job, the problems which these people face in getting their visual materials and using them. This means a great many meetings where there is opportunity for participation on the part of the teachers and the administrators. There must be no program which is handed down from on high. These counties and other units must be encouraged similarly to carry on their own teacher-training work. New problems will arise for which they will have to find the solutions. Through a co-ordination, then, of these various kinds of in-service training work, we can eventually raise the level of teacher-training instruction.

Directors of visual instruction, of course, have always been carrying on this kind of teacher training. I know of a number of illustrations in Ohio of this type of work. It means in certain cases that teachers get instruction on Saturday or in after-school hours on how to handle equipment, methods of teaching, and so on.

Another important method of teacher training is through national, state, and regional meetings devoted to the use of visual aids in education. As I have attended these in the past, they have often been very small meetings where visual instruction people talked to themselves. Now soliloquies may be good for Hamlet and others, they may be good, too, for thinking through our own problems, but they aren't much good in reaching all teachers. I have been happy to see a marked change in this whole program. We are having a
number of movements among the various specialized groups or associations of teachers to correct this situation, I shall report one.

The Women's Physical Education Association has appointed a motion-picture committee. Gladys Palmer, head of the Women's Department of Physical Education at the Ohio State University, is chairman, and on the committee are the following persons: Helen W. Hazelton, of Purdue University; Grace Davies, of the University of Cincinnati; Margaret Bell of the University of Michigan; Eline von Borries, of Goucher College; Marjorie Hillig of Teachers College, Columbia University; Grace Jones, of the Board of Education of Summit, New Jersey; and Louise Schutz, of the Ohio State University.

This committee has canvassed, through co-operation with the American Council on Education, 764 films dealing with physical education. Of this number they selected 45 for further consideration. The next task was to secure these films, review them, and report on their value in teaching physical education. This is being done, in many cases, in co-operation with students in the physical education classes. Finally, fifteen different experts in the various fields of women's sports will draw up outlines for proposed new films.

At Ohio State we had approximately fifty students of swimming evaluate a swimming film. It is clear that the girls who receive this kind of training, who were asked not only to view films but also to evaluate them, are much better fitted to teach intelligently when they go out into the classroom. Mr. Auhinbaugh, of the Ohio state film library, reports to me that he has noted a close correspondence between teachers from those departments at the university which use films and those which do not, in the later requests which he gets in his office. In other words, when classes are taught by means of films, they tend to become users of films when they go out into the schools.

Studies similar to those of Miss Gladys Palmer have been carried on by Dr. Birkeland, of Ohio State University, among the bacteriology teachers of the country, primarily those in the colleges. Similarly, Dr. Valentine, of Ohio State University, has made a canvass of this problem among the departments of psychology in the country, some three hundred of them. The Modern Language Association has a committee in this field and Mr. Edward Bernard reports regularly in the Modern Language Journal on films and materials that are available.

I make the point in this connection, however, that a small committee at the top is not enough. The whole work of the committee must be generalized and the responsibility must not rest on a few people. Active participation in a problem is the only way that we learn anything about it. Ready-made solutions are not democratic or eventually effective.

May I emphasize this matter of evaluation by teachers as a device for teacher training. During the past summer, in the course which I gave, I had a number of films shown to the class and asked each student to tell, on a written score sheet, just what he thought about each picture. He didn't merely react with a check mark; he had to put down in connected sentences some of the strong and weak points of the picture. I was really amazed at the critical insight which teachers, given this responsibility, are able to disclose. Nor is this an isolated phenomenon. When I talked about the matter at a teacher-training conference of persons who had given similar courses, they unanimously pointed out the ability of teachers to do a good job of evaluation when given the opportunity and the responsibility.

Eventually, this kind of evaluation by teachers ought to lead to increased responsibility of teachers and specialists in the production of films. This spring, in Germany and also in France, I was interested to note that a great deal of use was made of teacher's judgments in the preparation of films. I don't imply that the teacher is likely to know more than experts. I do maintain, however, that teachers can develop expertise to a greater degree than we have yet realized.

There is a third and very important method of teacher training: in-service teacher training through printed materials. Published material is valuable at this point. The Educational Screen goes to only a limited number of teachers throughout the country; we all ought to do everything we can to expand that circulation. There are other types of teacher education, through various magazine materials, that we have neglected. Once we get strong committees set up within the various subject-matter fields, the journals in these fields can be used for teacher education in visual instruction. That has already happened with the Journal of Health and Physical Education. This publication has carried several articles on the use of the motion picture in teaching physical education. I have already mentioned the Modern Language Journal.

Most of you are familiar, perhaps, with the News Letter, which we send out from Ohio State University to about ten thousand teachers and administrators. This news-letter does not deal specifically with educational films; it is concerned more generally with the problems relating to radio, movies, and the press. A number of persons have asked us to put out a monthly news-letter dealing with developments in educational films. I am not certain that this would be a desirable function. I am sure, however, that as far as the State of Ohio is concerned, we could easily support a monthly news-letter on educational film developments in our state. Many of you are familiar with the work of the American Council in the preparation of the series of digests of the literature in the field. We are hopeful that these will be published shortly and that annual supplements will be made available.

There is still another method of teacher training which is not spectacular, but which I believe offers a good deal of promise. I refer to giving an opportunity to older students, usually in the junior and senior years, to work on their own individual projects in this field. At Ohio State, for example, there is one young woman doing an honor job in this field who has carried out, among her various activities, the following: first, the production of a motion picture on eye movements; second, the screening of pictures for a number of University departments; third, participation in certain experimentation which is going on in the Psychology Department.

Another student, who is studying for her Master's degree, has made a study of the utilization of motion pictures in the Columbus schools. Another student has made a study of the utilization of motion pictures in Crawford County, Ohio. The Political Science Department has a number of undergraduate students carrying on studies relating to the motion picture and public opinion.

I received not long ago from a senior in Princeton a very voluminous report on the news reel. I see no reason why in every teacher-training institution there might not be a half dozen or even as many as ten, honor students doing special work in the field of visual instruction. Eventually they would tend to become heads of visual instruction departments. It is clear that we can do much more individualization of this sort in our teacher-training institutions.

There is another development in the motion-picture field which has close relationship to the teacher-training problem. I refer to the introduction of motion-picture appreciation into classes on the college level. Dr. Cline Koon, of the United States Office of Education, found recently in his study that 14 teacher-training institutions are already offer-
Visual Education Program of Chicago Public Schools

An Interview With
Dr. William H. Johnson

The Superintendent of Chicago's Public Schools is a busy man, yet a request for his views on late developments in visual education readily brought an interview with Dr. William H. Johnson. Dr. Johnson is outstanding among school executives of the larger cities for the richness of his personal background in visual work. For many years he had been noted among elementary school principals as an ardent devotee of visual teaching methods, he taught university courses in visual education for teachers long before such studies were at all common, and among his literary productions is an excellent work on the subject, “Fundamentals of Visual Instruction,” published by Educational Screen in 1927. The book is now regretfully out of print.

The interviewer recalled that many years ago Dr. Johnson had expressed himself tersely in answer to a question on why visual aids should be used in the classroom. “You can't help teachers by blindfolding their pupils — so long as eyes are open, give those eyes material to work on that will contribute to the teaching process”.

With this background, it is natural that one of the first questions dealt with a comparison of the opportunities and responsibilities of a city superintendent with those of an elementary or high school principal. We knew what Johnson, the principal, had done. What could the superintendent hope to accomplish in the same field?

"The principal concerns himself with making available proper visual materials and equipment, and getting as many as possible of his teachers to use these facilities effectively. The superintendent has exactly the same job, but on a much broader scale. Basically, however, the task is the same, to provide the materials, to show the teachers how and why to apply those materials, and to get them to do it!"

Responsibility for securing and circulating the necessary materials, and for coordinating these means with the course of study, cannot be the task of an individual in a city the size of Chicago. This work is done by the Department of Visual Instruction, headed by Paul G. Edwards. Considering the means at their disposal a commendable job is being done — they have accumulated and keep in constant use 150,000 stereopticon slides, and 3,500 reels of 16 mm. silent motion picture, to serve the 1000 stereopticons and 400 silent 16 mm. motion picture projectors used in the schools.

These slides and films are by no means dead stock. They are being constantly circulated. In the school year (1935-6) 900,000 slides were used, and 60,000 reels of 16 mm. film. This year the total will be far greater because of the larger number of projectors to be served and the increased interest among teachers and principals in the use of visual aids. Teachers now make up their entire year's bookings for films and slides at the beginning of the term, and where necessary they adjust the sequence of certain units of study within the limits of prescribed programs to assure access to the visual aids. Another factor that increases the use of this material is the organization of a delivery service by means of which practically all this material is distributed and collected on a weekly loan basis. Hitherto all transportation of this material was effected by school messenger or teacher.

The work of the department is carried on by the Director, one Supervisor, five clerks, three film and slide inspectors, and as work demands, artists are engaged part time for the production of additional material. In addition to films and slides, wall charts are also being distributed, and there are proposals pending for flat prints, both for classroom walls and individual seat work. Object-specimen collections are circulated to the schools by the Field Museum, and some schools draw directly upon outside sources for additional materials. We encourage the use of pupil-made slides and are accumulating experience with teacher-made motion pictures.

Slides are used beginning with the kindergarten and lowest primary grades. Silent motion pictures begin to be effective teaching aids from the fourth grade on, and sound pictures at present available seem best fitted for the seventh and up, with principal accent on the higher levels.

Sound films? Yes, there is considerable interest in this latest development. The department owns four sound projectors, in constant use at the three junior colleges and one
at visual instruction headquarters. Half a dozen additional sound projectors have been bought by high schools on their own account. Since modern sound projectors are but little larger and costlier than silent and since they run silent as well as sound film it is probable that future equipment buyers will tend to favor the combination unit. There is a small library of about forty reels thus far to serve these machines. As the number of sound projectors in the system increases, and as the technique of properly using the talking picture becomes better established in the minds and daily practice of the teachers, the sound film library will be increased. This was the process that led to our present extension use of slides and silent films.

Visual aids should be viewed just as we view books, maps or laboratory and shop equipment — they are nothing more than tools to help the teachers do the best possible job. No film, sound or silent, can be a substitute for the teacher. A film in which the sound consists solely of lecture accompaniment of a silent film may have less teaching value than a similar silent film properly presented by a well-prepared teacher. Where the sound film adds audio-experience to the visual, with actual characteristic sound effects, we have a different story, and an additional teaching tool for which there is no substitute. The sound film should prove effective particularly for presenting informative collateral background material to large groups, leaving more time for intensive work by the teacher.

The basis of any teaching program, whether by visual methods or howsoever it may be conducted, remains the teacher. The finest film libraries and projection equipment in the world will be useless unless we have a body of teachers willing to use them, and trained to do so effectively. There is usually no lack of willingness once the teachers have acquired the necessary understanding and skills requisite to a proper application of these improved teaching tools.

Field training has been carried on for years by our Supervisor. Next year will see intense action both for teachers and for normal-school students. At Chicago Normal College next term a formal course in visual education will be given all new students, and more stress will be placed on visual aids in the teaching of other subjects as the students progress through their general course. Teachers of the future will have as part of their background a thorough training in both theory and practice of visual education.

The present-day teacher is doing a constantly improving job in the field and this job will be even better as a result of wider training. For the benefit of the teachers interested in visual instruction our next school term will provide ten school clinics, under the direction of Dr. Newkirk. Five will be in science, the other five in pupil-activation classroom projects—all will emphasize the important contributions of visual aids to classroom results. Every teacher will gain something from these clinics—how much this will benefit classroom teaching generally will depend upon the individual teacher and her principal.

Paul G. Edwards, Director, Department of Visual Instruction, showing school messenger how to run 16 mm. projector. The operator's lesson lasted only a few minutes, yet with five projectors circulating among 247 unequipped schools during one term, "at no time did any mechanical trouble develop".

The initiative and self-reliance of principal and teacher is finally determinative in work of this kind. The Visual Instruction Department furnishes what facilities it can, the individual principal devises ways and means to make best possible use of them. Principals have developed need for more equipment than the Department's budgets could provide, and many schools now have additional projectors procured out of local funds. Within the rules laid down by the Board to prevent possible abuses, school entertainments have raised much of the money needed for such purchases, while the PTA and other supporting groups have contributed in many instances. Such activities tend to draw local community support more closely around the neighborhood school house and help emphasize the role of the school as a vital social nerve center. Films used in such school auditorium entertainments are and should be of educational merit in themselves. Examples of pictures used include Legend of Sleepy Hollow, Covered Wagon, Grass, and similar worth while entertainment films. The growing availability of similar educative-entertainment feature films in sound will broaden the usefulness of the sound picture to the school, particularly with respect to adult education and discussion groups. Such auditorium programs can become invaluable means of raising the standard of motion picture appreciation and thus add interest in and support for the worth while products of the motion picture industry.

Visual instruction activities in the Chicago schools did not appear over-night or ready-made. The present status was reached as a result a gradual process of adaption of resources to needs, and certainly we have reached nothing like an end to further development. Over forty years ago, in 1895 to be exact, the initiative in this field was taken by a group of Chicago principals and their neighbors in nearby suburbs, who pooled their resources of lantern slides so that each might help the other and in turn be helped by the interchange of this teaching material. These principals organized themselves into "The Projection Club" eventually

Science class in a Chicago High School using 16 mm. sound film projector.
accumulated 225 sets of slides, in addition to 37 additional sets loaned them by industrial organizations.

In 1920 the Board of Education took over direct responsibility for this work, the Department of Visual Education was established under the direction of Dudley Grant Hays, and the property of the "club" became the nucleus of the Department's collection. At this time 35 mm. silent motion pictures were added to the materials circulated, operators with machines travelling from school to school to put on assembly programs. This brought to the attention of every principal, teacher and P. T. A. worker the possibilities of the motion picture as a teaching tool, and as soon as the new 16 mm. film eliminated the mechanical obstacles inherent in the older type, the silent film took its place side by side with the stereopticon slide. In 1929 the 16 mm. silent motion picture was added, and the following year 35 mm. service was discontinued. The high schools at once embraced the medium, and to make known the efficiency and ease of operation of modern 16 mm. equipment, the elementary schools were notified in 1932 that the Department of Visual Instruction had set aside a battery of machines to be loaned to schools lacking projectors of their own. In the course of one school term five such machines were sent on missionary work among 247 separate schools. The Director reported that "at no time had any mechanical difficulties developed, although in each case the operator had but a few minutes instruction in our Department before taking the machine into the school." Today practically all of our schools have equipped themselves with one or more 16 mm. projectors. It is very likely that the more general introduction of sound projectors will follow the same course.

The new form has resulted in twenty times as many reels run, with the added advantage of having these films used right in the classroom where they are most effective in their contribution to the teaching job. In the last five years the slide circulation has doubled, the circulation of 16 mm. silent films has increased six-fold, yet the cost of running the Department has been reduced to one-third the peak budget of 1927.

We have tried to tackle each problem as it arose, and to apply the best solution we could find within our available means. A typical example is the introduction of sound films. Since most of the better teaching films available in sound seem to aim at the junior college level, a three months experiment with the use of these films in our three junior colleges, with rented projectors and films, gave us enough positive findings to justify the purchase of our present sound-film library and equipment. High schools are equipping themselves to make use of these films, now that they are available, and this will result in the growth of our sound library. When the elementary schools follow, our sound film service will probably develop very much as did our 16 mm. silent library. But the tempo will not be placed upon the teachers from above, instead, the demand will be encouraged and met as it springs from healthy roots in our teacher body.

What has been done in Chicago can be equalled in most urban centers. Because of initial cost and obsolescence, particularly of films, the independent school, unable to draw upon a city or county source of visual aid materials, probably has no other recourse than to rent or borrow slides and films from state centers and other sources. Such centralized resources undoubtedly will be further improved as the demand for visual material inevitably grows. New teachers and old are being trained definitely to consider such materials as integral part of present-day routine. At all national and state meetings where educators gather, increasing stress is placed upon these visual methods and materials. The motion picture and the slide are as much at home in our present-day classroom as ever was the felt-bound slate in that of our grandfathers. If we never lose sight of the basic fact that these are tools and not substitutes for the teacher, education cannot but profit greatly from the extension of the use of visual instruction materials and methods.

THE DEPARTMENT OF VISUAL INSTRUCTION

PRINTED Proceedings of the New Orleans meeting begin in this issue, to be completed in April. Five of the addresses given—some of which were greatly abbreviated in delivery because of time limitations—are here printed in full. The remaining addresses will appear next month.

THE Department meeting at New Orleans may be called successful when we consider the two factors invariably operating against such success: first, the travel distance, which prevented the presence of many who had definitely stated that they would be there; and second, the conflict and competition with twenty-odd other departments of the N. E. A. attempting to confine their sessions to the few afternoons designated by N. E. A. authority, and with the overshadowing program of the great Department of Superintendence running morning, afternoon and evening through the week.

Our Registration Luncheon reached the record attendance of 155. Wholehearted cooperation by Miss Caroline S. Pfaff, Assistant Superintendent of New Orleans Schools, and her expert assistants, the Misses Wilson and Moore, made it a colorful occasion, with favors, flowers, decorative palms, and entertainment numbers dotting the regular program. Unfortunately, very few of the New Orleans teachers who raised the luncheon attendance to record heights were moved to attend the more significant sessions.

DETROIT next! It should be the best session yet held by the Department. Membership growth continues. About a score of new members are in since the February roster appeared with its 340, and there are plans afoot that should show a greater member increase of the June roster over February than February showed over November. The business session at Detroit should prove of high interest and importance. Not only will the long-delayed election of officers take place, but plans and proposals of far-reaching importance for the future of the Department will be presented for careful consideration and discussion. The Department's future possibilities seem to be such that only a maximum attendance of members at the business meeting can do justice to the deliberations in prospect.
The Open-House Exhibit as a Stimulus to Interest in Visual Instruction

TEACHING a new course is one of the most challenging experiences a teacher can meet. Surely this is abundantly true in a field such as visual education where the materials themselves command unusually high interest. Coupled with the dynamic possibilities of such materials, take a group of wide-awake and interested teachers, principals, and superintendents who bring to the classroom vital teaching problems, good common sense, and abundant enthusiasm. Such a combination can develop considerable outside interest in that new course.

"Just what does that new course in Visual Instruction include?" That was a very common question on our campus last summer when the first course in Visual Education was being offered. How to convey this information clearly became a problem. Then too, occasionally an interested student would approach the instructor and ask permission to visit the class as an auditor on the day on which some special Visual Aid was scheduled for discussion. In the first place the large enrollment for the course precluded the possibility of accommodating transient auditors. In the second place, had there been room, the discussion for one or two days without the preceding general and psychological background would not have been entirely satisfactory.

Considerable thought on the part of several people finally resulted in our attempting to meet the situation by using, what for want of a better name, we called the open-house exhibit. This occurred toward the end of the quarter and was organized and run by the members of our first visual instruction class. This open-house exhibit, as the name implies, first of all, represents an exhibit of the various types of visual aids. This exhibit is as complete as availability of materials will permit. In the room set aside for the purpose there is a table for each visual aid.

For instance, in the motion picture section a 16 mm. silent projector is threaded and ready to run, the screen being set up outside an adjacent door so that the picture is projected into a dark hall thus insuring adequate visibility. Films representing various subjects are there for inspection, as are also film bibliographies, reference materials, and advertising material from all film companies which have responded to the request for information. For each of the other visual aids there is a similar set-up, with everything carefully arranged and well labeled. That is the exhibit phase.

Now, to make that exhibit a living, vital, informational source it must be endowed with a living personality. In order to supply this necessary quality, each member of the visual education class chose the visual aid in which he was especially interested. Then instead of writing a term paper for the course, he proceeded to prepare himself thoroughly in the field of his choice. Instead of preparing and memorizing a set talk, he satirized himself in information concerning the Visual Aid for which he was responsible so that he became a highly satisfactory source of information. Thus was provided the second characteristic of our endeavor, that of the open house feature in which the human element vitalized the visual materials.

When the exhibit room was made in readiness, the following visual aids were on display attended by the individuals who had prepared themselves accordingly:

- Motion pictures, Lantern slides, Film slides, Opaque projector, Puppets, Flat pictures, Diagrams and charts, Maps and globes, Free materials, Stereographs and orthographs, Bulletin boards, The electric map, Exhibits, models, and collections.

With these two steps completed, the class, in order to test the efficiency of the plan, held a preliminary open-house in which each member had an opportunity to demonstrate his visual aid to a trial audience consisting of the rest of the class. During this preliminary experience, members of the class asked any questions they wished. Thus the plan served as an excellent review and summary of the entire course; and since the class objectively evaluated each unit on a checklist which they had developed for the purpose, it often gave the demonstrator some valuable suggestions for improving his presentation. In this checklist were specific items referring to the exhibit such as: Is the exhibit complete? Is it well arranged? Concerning the demonstrator himself such question as: Is he well informed? Is he convincing? helped to analyze individual difficulties in the presentation.

This done, the open-house exhibit was made available to the college in general and the public at certain periods for two days. During that time any visitor was welcome to come and spend his time as he chose. When the visitors arrived, they were met by a courteous host or hostess who after inviting them to register, directed them to any portion of the exhibit in which they evinced interest.

As a specific illustration of the type of activity carried on, these slides will serve as an example of the material available at the lantern slide table. (Slides shown).

Mounted on a large chart were the various types of pupil-made lantern slides with directions for making each. Among these were cellophane, etched glass, plain glass with links, plain glass with ceramic pencil, and 'lumarith. Besides, several commercial slides were available including two complete geography units. If a visitor happened to be particularly interested in suggestions concerning the use of slides in any particular subject, the demonstrator had materials with which to show specific ways in which slides may be used to vitalize teaching in that subject. For instance, if an inquiry were made concerning the use of slides in geography, some of the following was given accompanied by slides.

Let us say that a child or teacher faces the task of explaining how the cocoa which we use as a food is grown. A picture will aid materially in creating in the child minds a clear impression of the cocoa tree. With this before the class the subject of discussion is brought right to the child. He can show how the pods grow. He points to the pods as he explains that a pod contains from 40 to 60 beans and that inside the hull of each bean there is a light colored kernel which we use for food. At the same time another child may wish to show where cocoa grows and what climate it needs. He may project a world map on the board, step up to it with a piece of colored chalk and mark such places as Ecuador, Venezuela, Brazil, Mexico, West Indies, and tropical Africa. With these marked he may ask the class to state.
something about the climate cocoa requires. It is quite plain 
that tropical conditions favored its growth.
When a unit of work has been finished and it seems 
desirable to give an objective test covering the items which 
our course of study includes as minimum essentials, such a 
test can easily be presented in type-slide form.
Then when the pupils are ready to check their papers, 
each child may correct his own paper by referring to an 
other cellophane slide which gives the answers. As he finds 
errors, he may stop to check up on the correct answers or 
ask a question.
This procedure gives the child an immediate opportunity 
to realize and correct any errors he has made. This is a 
good application of the law of learning readiness.
When a class is studying India, they discuss its buildings. 
The beautiful Taj Mahal is mentioned and the colored slide 
of it at that time gives the class an excellent idea of why it 
is considered one of the most beautiful temples of the world.
Then, too, the map of a country may be projected on the 
blackboard and developed to show physical features, industrial 
districts locations, or other items. Such a map is also 
usable for a location test. Cities may be located by numbers
and pupils may be asked to match the numbers with the names.
For other subjects additional slides were available. Materials 
for making slides were placed on the table so that those 
interested in experimenting could do so. Whenever possible 
questions concerning operation of the projectors were 
answered by letting the inquirer experiment.
As a whole, the exhibit seemed to be a successful ven-
ture from many angles. The enthusiasm of the members of 
the class was contagious and unusual interest was mani-
fested in the open-house exhibit. Several people returned a 
second or a third time for additional information. Further-
more the exhibit brought the members of the class together 
in a spirit of good fellowship which has carried over and 
taken the form of a round-robin by means of which members 
of the class during the school year share their experiences 
with the rest of the group. Besides this, the open-house ex-
hibit seemed to clarify general thinking on visual aids more 
than anything else we have been able to do. As a conse-
quence, it has, decidedly increased interest in Visual Educa-
tion. In fact, instead of one course in it as we had last 
summer, this summer our offerings are doubled.

The Role of Visual Materials in the
CCC Educational Program

A detailed account of the service rendered by visual 
aids in the CCC camps and the future prospect. 

By H. S. BUSBY
Assistant Fourth Corps Area Educational Adviser, Atlanta, Ga.

The significant thing about visual education in the Civil-
ian Conservation Corps is not what has been done, nor 
how it has grown, nor the contribution it has made to 
the larger problem of adult education, which is a major task 
of the CCC. Transcending all of these is the unprecedented 
opportunity the CCC has afforded to prove, on a large scale, 
what methods of use and what types and combinations of visual 
material may be employed to improve the job of building up 
humanity, thereby increasing the ability of that humanity 
to solve its problems and to arrive by shorter, surer, and simpler 
routes, at safety and sanity and satisfaction. If, incidental to 
the accomplishment in the CCC work, we have discovered 
sure-fire types of interest-holding programs which indicate a 
reliable new technique of advertising, and have brought to light 
hidden tastes which it is taking a million dollar special indus-
try to satisfy, and have opened the door to an entirely new field 
for motion picture distribution—all of these are but tools 
with which to build the ultimate structure of a self-guided 
social force in the place of its chaotic predecessor which two 
decades of indiscriminate picture production had well-nigh 
saddled upon us.
Such accomplishments as have been achieved are the re-
sult of early adherence to reality, of willingness to test each 
step taken and to be guided by the evidence obtained, and by 
avoiding reliance upon general conclusions that are 
gleaned from theory. Many of these conclusions are all too 
loosely derived and without the strength that is forged on 
the anvil of criticism.

Basis for Programs and Policies
All of the decisions affecting policy for conduct of the 
Fourth Corps Area Film Service are based, as the whole 
educational program is based, upon the needs of the men. 
Supply has been studied constantly (since May 15, 1935), 
with regard to its adaption to subject demand, as shown by 
the content of the teaching program. This relation between 
available visual material and its use is the key to successful 
exhibiting, in any class of motion picture exhibition; it is 
packed with profit for anyone who will explore it in the 
light of the evidence which has been accumulated in this 
new mass-experience of the CCC. The accomplishments 
made with visual techniques in the CCC, up to now, have 
been the result of previous experience, tests and careful 
planning. They are a product of opportunity—only in so far as 
opportunity does come to expand into general production a 
project that has passed the laboratory stage.

Five years prior to the beginning of the CCC, the prin-
ciple underlying the use that has been made of visual tech-
niques in the Fourth Corps Area was applied to expand the 
opportunity for employment of graduates in a specialized 
branch of engineering. One immediate result of placing 
extended information regarding employment opportunity in 
the hands of the under-graduates in this course was to amplify 
their field of post-graduation employment from five to 
twenty-one lines of work. Another result was to provide 
information regarding the nature of their competition and 
an increased knowledge of the field of available employment. 
This resulted in a marked increase in the salary scale offered 
to this group of graduates.

During the period of early development of the educational 
program in the CCC (May — September, 1934) it was ap-
parent that some means to attract and hold interest of the 
enrolled men in the program might well become the nucleus 
around which the principles and incentives of instruction 
could be formed. It was already evident that static visual aids 
such as maps, diagrams, lantern slides and charts were 
playing a very successful role in the instruction program in 
many of the units. It simply awaited organized use of other 
means at hand to secure for and apply to the program the
March, 1937

more dynamic aid of the film slide and the motion picture.

That educational activity which began in March, 1934, in the section of the CCC comprising the eight states of the Fourth Corps Area was something of which any worker in the organization could write the specification. It was not until the program took organized form, under zone planning, that is, when district and state oversight of the program began, that it was possible to apply, in any large degree, to the problems encountered, any of the techniques of organization and development learned in previous educational or industrial experience.

During the summer of 1934, three of the sectional heads of the program, meeting at that time in Atlanta to discuss means of further improvement of the work, recognized the growing need for a comprehensive visual program and decided to pool the resources available in their several regions, and to distribute them thru a central service. The existence of about 350 reels of films in Atlanta (most of which were 35 mm. industrial subjects) made Atlanta the logical base for the distribution. Thru the use of projectors it was possible to borrow, part time, a number of widely separated camps were soon being serviced. Ownership of the projectors used varied from schools and state departments to individuals connected with the CCC organization.

However, no statement of chronology can be as important as an enumeration of the lessons learned from this mass-laboratory experience. Bear in mind that the audiences in which the programs have been tested are as broad and as significant as any ever available for study, and that the range of film material furnished for test has covered all but the most spectacular late features. It has included a very wide range of choice: travel topics, sports subjects, musicals, industrials, advertising, governmental department interests, and comedy, as well as a considerable range of entertainment features. From more than 12,000 programs, the reactions of the group and of individuals have been drawn, bringing to light many fundamental tastes in picture-viewing not generally previously acknowledged.

This experience has been applied to the selection of subjects and program makeup as rapidly as it has been accumulated. It has also been the basis of policy in making motion pictures of local and general camp interest within the activities of the Corps itself. It has been important for our headquarters to know what subjects, under what circumstances, and in what length and manner of treatment, are of sufficient interest and general value to warrant investment of time and money in their procurement, their production and their distribution.

An interesting feature of the early struggle to establish service was the way in which the existence of one borrowed projector in a territory became the incentive to neighboring units to buy projectors. By the end of December, 1934, eight used 35 mm. projectors had been purchased, for a nominal price, and these, with many borrowed projectors, were being served regularly from the office of the Georgia State Educational Adviser, in Atlanta. Although the first films were distributed, under this arrangement, in May, 1934, and a number of companies had been served intermittently during July and August of that year, the first regular weekly service began late in August. By January, 1935, more than seventy-five companies were being served on a regular weekly schedule and the service had been expanded to include both 35 mm. and 16 mm., in both silent and sound films, also a few 35 mm. film strips. At no time was disc equipment used.

Cost has been a constant deterrent to extensive operation. The cost of entire equipment set-up of the central servicing unit of the Corps Area Film Service is $150.00. The cost of the entire educational budget, of which the Corps Area Film Service is merely a part, to date has not exceeded 50c per man per year. On such a budget it is not possible to have any facilities unless they can be applied economically over a wide range of the personnel they are designed to serve. Central purchasing of some facilities makes it possible to secure and apply these things over a wide range. In this way the benefits of the instruction value of some outstanding motion picture films of general utility may be gained for all the companies, and provision may be made to distribute these films in the most effective manner.

**Emphasis on Fundamentals**

The entire educational program of instruction has settled down to constant emphasis and reemphasis of a few fundamentals. Health, sanitation, safety and first aid have always been and will continue to be paramount. Good films are available in all of these fields. The removal of illiteracy, drafting of a simple business letter and development of ability to do simple arithmetical calculations are also emphasized. Unfortunately, little material is available, on films for the solution of these problems. The need for rehabilitation, or for the initial launching of the enrollee on a job, is a daily effort; its success is attested by the increasing percentage of men who leave the Corps for private employment. Some excellent films are available for this purpose and we have augmented them with some of local interest which we have made.

Early in the visual planning it became evident that an objective should be set up which would be at once consistent with the needs of the program and within the possibilities of the material available. Close study of the motion picture subjects which could be secured disclosed that two objectives might be realized in the material available. One is to present a wide range of information regarding trades practices, and industries in which men might reasonably expect, ultimately, to become employed. This would point out increased vocational opportunity to the men. Another objective is a presentation of information regarding geographical, social, political and historical facts about the world at large.

Tourist organizations and commercial users of raw materials from remote lands provided the latter element; no less than nineteen tourist and travel organizations have supplied an excellent variety of such information, and this is outlined against a background of scenic and entertainment interest. The life, customs and problems of Bali and Brazil have been brought to the hinterland of Suches, Georgia, and Shuqualak, Mississippi.

A great range of material was and is available for the accomplishment of the first objective, but its selection is a matter for constant study and even more careful application. Blatantly advertising propaganda is taboo, but not all advertising is without value. One of the most useful films, for teaching good fundamentals of ambition and self-development, is a reel consisting almost entirely of an advertising talk, given by a well known national industrialist to his dealers. Those nationally known corporations which limit their film advertising to a signature at the end of each reel are to be commended for their contribution of an interesting and much needed range of industrial subjects.

The most important thing to realize, in the selection and use of films, is that no policy, no determination, no judgment of any class of material, is permanent. Constantly there is the necessity for adherence to the principle of continual substitution and change to meet transitional circumstances and trends. Conditions of showing and of utilization vary, as does the ability of any group to assimilate certain material at a given stage of its development. It is well, in program planning, to explore constantly in any and all fields of available material, and to take statements of all observers only conditionally. Otherwise much applicable material of great value may be lost.
The use of 35mm filmslides came slowly and was accomplished, where it did happen, as a result of the individual personal effort of several District Advisers who became interested in its possibilities. This part of the activity began on borrowed equipment, grew on purchases of second-hand units, and is, at present, an operation covering two Districts rather completely, with a definite schedule of rotation and district-controlled supply; it extends partly over two other districts and some general distribution is made of a few special slides by the Corps Area personnel. Altogether about seventy companies receive regular service and seventy-six more a casual service. The use of kodacolor pictures of outstanding scenes of the work activity, taken on a Leica camera, has done a great deal to enhance interest in this element of the program. If it were not for the relatively high price of film slide subjects that are suitable for teaching and the high cost of making slides which would illustrate local activities, it is believed that this section of visual instruction would occupy a more important place in the program than it now does, because of its flexibility as a method of instruction.

Present Size and Objectives of the Program

It is better to have a sound and vigorous program that serves its objectives and continues to both grow and fill a need, than to use the greatest number of films or have the largest audience. We are concerned with what lasts over long periods of time because that much and only that much is the yardstick of accomplishment. At present we require about 850 reels constantly, in order to provide approximately 500 programs per month. This is educational material, a constantly growing percentage of which is used with study manuals. Combination programs, which include subjects of dateline interest, are increasing both the volume and the scope of the activity. Despite decreased enrollments of the past year, the actual volume of use (which is to say the man-use) of the service has been increased considerably.

What is the future outlook? The most surprising development appearing in visual education is the fear expressed by certain of the teaching profession that these methods will supersede or nullify present teaching activity. Specific directives, based on the experience of the U. S. Department of Agriculture have been issued in this Corps, covering this point.

"It is a mistake to assume that any subject can be taught by motion pictures alone. On the other hand, motion pictures and other visual aids may be invaluable to the instructor who uses them correctly."

Rather will the time gained and the increased alertness fostered by visual presentation provide more opportunity to increase the scope of present instruction, remove many of the criticisms of our present-day curricula which inertia and confusion have engendered, and open the way for clearer and more thorough instruction in methods to cope with our present-day social and economic problems.

Motion Pictures as an Aid in Agricultural Extension Work

WITH adequate portable sound equipment we of Louisiana are able to go anywhere in the state and put on a show. And wherever we stage such a performance we unfailingly attract large crowds. We are equipped with a power plant installed within a large truck for generating the necessary current and voltage. On several occasions the "theatre" has been some farmer’s pasture. The screen, a chemically treated cloth, was tacked to the side of the barn, the portable power plant furnished the “juice” and the audience found their own seating accommodations. Many of the people attending walked as much as five miles or more.

The attraction of people to the cinema in the cities is very strong and the rural man, woman, or child is no exception. The mere mention of the words “picture show” to the average individual creates a sensitive emotion of curiosity. The reaction of one who seldom sees a motion picture is certainly of greater intensity, and the unique appeal of the comparatively recent sound movie brings the rural people out in hordes. At a meeting in one of our southern communities last spring, one of those present was a man 87 years old, who had never before seen a picture show, much less one with sound. Even those who attend the movies regularly derive a certain amount of entertainment from educational pictures. With this in mind we try to give the people a cartoon comedy, or scenic reel, along with the educational films, thereby lightening the program, as well as making future shows more acceptable.

By using films which are applicable to conditions in our state, it is possible to more thoroughly and quickly demonstrate to a group the agricultural and home management practices and methods advocated. Usually a subject is treated by comparison, i.e., by actually showing the condemned way, say of growing cotton, and then showing the recommended method. A silent film teaching a convincing lesson may be used with good results, even though there are some who are unable to read. In the southern part of the state, a sound film oftentimes is not entirely understood, as there are many adults who speak and understand very little English. They have been brought up to speak French, or rather a French patois, of which there are about ten different varieties. Since their communities as a whole speak only French, there is, in their opinion, no need to learn much English. In the coastal parishes, one of the qualifications of a field agent is that he or she speak French.

After these obstacles are overcome, it is necessary to give much thought to the preparation of a picture. Some films made in other parts of the country do not always bear out our teachings. They are frequently made under conditions unlike ours, which sometimes tend to divert the attention of the audience from the principal thought. It is our experience that local films create much more enthusiasm among the people. For example, suppose we are making a film on Forestry, and our Forestry Specialist knows of a certain farmer who has followed the practices we are trying to teach. By making the scenes on this farmer’s land, with him and members of his family assisting an intimate aspect is lent which is appealing to their friends and fellow workers over
the state. Besides, when the film is shown in some other parish even if the participants are not recognized by name, at least their appearance and the background will be immediately registered in the minds of others as something homefolks have done and done right.

In Louisiana the spirit of competition is prevalent among farmers in the parishes. While this competitive interest may sometimes present a problem of jealousy with respect to our activities, it may well serve as a means of promoting the teachings the Agricultural Extension Division is advocating. Therefore, by carefully working up a competitive feeling among the people, they will, without knowing it, do the very thing we want done, which probably would not be accomplished by direct action.

The visual instruction specialist works through county and home agents who are in close contact with a large number of rural people, and it is through them that educational demonstrations and programs are effected. Extension workers cannot demand the cooperation from those with whom they must work; on the contrary, they must present the subject in such a way that the people will of their own volition follow the teachings and practices advocated. While it is true the activities of this organization are to a great extent among adults, even they at times can be more stubborn than children. All of our work is done with the sole purpose of helping the rural people. We are never allowed to make any charge for this service. For the reason that we must depend on funds granted by the state and federal government to carry on this work, it is not always easy to provide the necessary equipment, much less elaborate material.

Our field agents are fully aware of the value of visual instruction. The effectiveness of this teaching method is strikingly illustrated by the exhibits at community, county and state fairs; by the use of illustrative material at group meetings; and by demonstrations. But this phase of the program is limited in its effectiveness and there is greater need for a wider use of the motion picture.

In Louisiana seven specialists have made special use of motion pictures in their work: Soil Conservation Specialist, Agronomist, Beef Cattle Specialist, Dairy Specialist, Poultry Specialist, 4-H Club Leader, Forestry Specialist. The pictures were shown to both adults and juniors in general, with the exception of those based on Forestry and 4-H Club work. Work on these two projects has been largely confined to junior boys and girls. Motion pictures have been shown in 47 of the 64 parishes.

The seasons and practices are the factors which determine what timely pictures should be shown. During the winter months pictures dealing with terracing and soil erosion, or forestry practices, are more readily received by the people than in mid-summer. The harvest is past and the people have time to build terraces on their land. Cross ties, poles, wood, etc., are being cut at this season and a program of good forestry practices falls in line with the work of the farm people. Other than the seasons, the judgment of the specialists and the arrangements of their programs are factors which determine when a certain program of pictures will be shown. The relationship of one program to another and the need of local improvement also enter into the selection of what pictures to show.

There are two problems of this program which confront us extension workers in Louisiana. First, the making of, or securing existing visual material. Second, the showing of visual material made locally or secured from an outside source.

Three new motion picture films have been released by the Agricultural Extension Division, La. State University & A. & M. College, with United States Department of Agriculture cooperating. These are:

(1) For The Land’s Sake—A sound motion picture designed to show the necessity for returning to the soil that part of its fertility which soil depleting crops take from it. The subject matter applies especially to soil on which cotton and corn are grown. Scenes were made in West and East Carroll parishes and at the St. Joseph Experiment Station, in Tensas parish.

(2) Growing Sugar Cane The Modern Way—A sound motion picture film, the theme of which is expressed by the title. Scenes were made at the Baton Rouge Sugar Cane Experiment Station. Improving the land by turning under winter legumes, new cultural practices and improved varieties are the high points stressed.

(3) The Cattle Are Coming—Also a sound motion picture of general interest concerning the beef cattle industry of Louisiana, presenting the practices, both good and bad, as followed in the state. Dipping scenes are of especial interest as the necessity for dipping has been removed as a result of a fight on ticks made over a period of thirty years in Louisiana.

Some 4,700 ft. of negative have been exposed for the purpose of making a new dairy picture. The theme of this film will bring out the desirability of developing small herds, methods, etc. and the benefits derived. Scenes for various other films are being taken from time to time and will be assembled into a complete reel when sufficient material has been collected on the particular subject.

We are attempting to establish a library for our own use. This library will be made up of such U. S. D. A. and other films as our specialists consider worth while for purchase, and the films we ourselves make in the future. No attempt is contemplated to set up a rental library. It may be that some of our local films will be of use to other states, and if they are, no doubt, some exchange or purchase arrangement will be made.

Visual education is a device for educational work. It is an effective supplement to printed material, lectures, and public addresses. The goals of visual instruction from the Agricultural Extension aspect are: first, to stimulate an interest in individuals that will bring about an improvement in their present practices; second, to present a subject with more force, clearness and ease of understanding; third, to draw larger attendance at meetings through the novel means of teaching by visual aids.

At the close of the year 1936 the visual education project had existed as a definite part of the State Extension Organization over a period of one year and four months. Such statistical information as may be given will, therefore, be for this period of time only. While the words visual education embrace a very broad field, in this case they will refer to the use of motion pictures since the work of the specialist has principally been with this particular tool.

It is believed that what has been accomplished is of worth while significance. The shows have been well attended, which indicates that the people favor this method of instruction. Those who have been questioned as to their opinion of the value of the material shown have given favorable comment. Requests to come back to the same places have been received on numerous occasions.

The following is a statistical summary of the work with motion pictures among the white as well as the negro farm people.

<table>
<thead>
<tr>
<th>Event</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total attendance, Sept. 1, 1935 — Dec. 31, 1935</td>
<td>58,016</td>
</tr>
<tr>
<td>Total showings made</td>
<td>295</td>
</tr>
<tr>
<td>Total communities reached</td>
<td>255</td>
</tr>
<tr>
<td>Average attendance per showing</td>
<td>200</td>
</tr>
</tbody>
</table>

The actual time devoted to showing motion pictures during this period amounted to only 181 days, or just a fraction

(Concluded on page 94)
NEWS AND NOTES Being brief notations on significant doings and events in the visual field.

Conducted by Josephine Hoffman

Pictures with a History
Back in 1886 Paul Nadar persuaded his father, Felix Nadar, to invite the famous French chemist, Michel Eugene Chevreul, to come to their studio. Naturally the plan was to engage Chevreul in animated conversation and not let him realize that pictures were being taken. During the lively conversation that ensued, Paul Nadar was able to expose unnoticed many plates in his box camera. These photographs appear in the January 11, 1937, issue of Life magazine. It was not until last October that the photographs came to light during a dispute between Paul Nadar, who at 80 still runs his studio in Paris, and the French National Archives over the ownership of the plates.

These photographs are truly remarkable in that they actually caught the various expressions of Chevreul and were quite a departure from the stiffly posed pictures of the day. They are also more significant because Nadar made them with the cumbersome, primitive equipment of that time and did not have access to the modern speed lenses and speed films that are so common with our present miniature cameras.

Film Strips Available
The Rural Electrification Administration announces two film strips available for distribution. Electric Power Serves the Farm shows some of the important uses of labor-saving and income-producing electrical farm equipment. A Visit to Rosedale takes its audience on a sightseeing tour of the REA Electrified Farm, near Washington, D. C.

These film strips, with prepared lectures, may be ordered direct from L. E. Davidson Picture Service, 438 Delaware Avenue, N. Y. Including postage, the charge is 55 cents.

Teaching Aids from Indiana University
According to the latest catalog of "Picture Aids for School and Community Use," which lists slides, motion pictures and art exhibits loaned by the Bureau of Visual Instruction, Indiana University, all 35mm films have been withdrawn from service with the exception of the Yale Chronicles. The films now offered under the enrollment plan are all 16mm. Arrangements are now being made by the Bureau to distribute several...
special sound film programs of feature length at nominal rental rates.

As a further service to users of the Bureau's library, Mr. F. L. Lemler has prepared many helpful pamphlets. The most recent are "Important Phases in the Administration of Visual Work," which will help the school administrator or director of visual instruction to set up an efficiently functioning visual program; and "Improvement Sheet for Visual Work," a guide to good teaching technique with visual aids, showing the advantages and limitations of each type.

A Teacher's Manual on Safety Instruction

A 48-page manual of teaching aids for high schools which are presenting good driving instruction or courses in traffic safety has just been published by the National Bureau of Casualty and Surety Underwriters, 1 Park Avenue, New York City. The manual is intended as a practical instruction supplement to the National Bureau's 256-page text book, "Man and the Motor Car," published nearly a year ago, and has been issued in response to urgent requests from many of the 5000 high schools in 20 states which have now inaugurated automobile driving instruction or traffic safety as part of their regular curriculum.

The Teacher's Manual was prepared under the editorial direction of Dr. Herbert J. Stack, Director of the National Bureau's Education division, and a large committee of educators and traffic safety authorities. It contains 16 units of instruction, each one of which presents a group of text questions, several problems relating to the lesson, a number of student activities, and a broad list of supplementary references. Each unit contemplates one hour of instruction or more.

In addition to a preface by Dr. Stack and an introduction, there is a liberal text of suggestions to teachers on how to conduct the driving courses. Included in the points covered are: methods for emphasizing safety, visual aids such as motion pictures, lantern slides, talking slide films, the availability of teaching materials and many other teacher's problems. A reference section lists all publications of known value to the course. The manual contains seventeen large photographs, each dramatizing a particular unit. The manual sells for fifteen cents a copy.

WPA Movie Bibliography

"The Film in America," a bibliography of the motion picture industry, now being compiled by workers of the WPA Federal Writers' Project of New York City, is reaching its final stages, it is announced by Travis Hoke, director of the project. This book will be an authoritative work on the motion picture industry, the editors state. The bibliography will include 8,000 book and magazine titles, and will feature a minute system of subject classifications and an analytical index.

Preliminary announcements of the project's progress have aroused the interest of schools, colleges and the motion picture industry. Numerous requests have been received from them for all published material prepared by the project.
DEVRY ANNOUNCES SUMMER CONFERENCE

Announcement is made of the 1937 meeting of the National Conference on Visual Education and Film exhibition in Chicago, June 21, 22, 23 and 24—the week preceding the N. E. A. at Detroit. This year as last it will bring together producers and users of educational films—for a mutual study of the most desirable elements in films designed for education. These will include both 16 and 35mm films—both sound and silent. Advertising films designed for school use, as well as strictly classroom films will be included. There will be an almost continuous exhibition of the worthwhile educational films of the year which presents an unequalled opportunity to teachers to see at one place film subjects available for school use. There will be more time for discussion this year than last. An increase of 300% in attendance occurred last year—and the conference is growing in importance each year. Speakers of National reputation in this field, will take part in the program. Membership and admission is free, but those expecting to attend are urged to write in early for programs and tickets, so that the management may plan for ample accommodations. The office of the director is at 1111 Armitage Avenue, Chicago.

Motion Pictures as an Aid in Agriculture

(Concluded from page 91)

more than six months. The average showings, therefore, for the period were 1.6 shows per day. The remaining 8 months of the 14-month period are accounted for by the fact that the specialist performed other duties in connection with summer 4-H Club camps, conventions and annual agents' meetings, project planning, preparation of material, etc.

In St. Landry parish, prior to meetings held, farmers ordered 2,604 bushels of legume seed, representing 1273/4 acres. Following this showing they ordered 14,342 bushels, representing 667 acres. This increase of 11,738 bushels or 539% acres cannot wholly be attributed to the showing of pictures. However, since the picture shows did give the county agent an opportunity to talk to a greater number of farmers in a short period of time, and since the pictures shown had as their subject matter the results obtained from the Experiment Station at St. Joseph by planting winter legumes, with all due respect to those others concerned, the specialist is inclined to believe that this increase of better than 5 to 1 was in substantial part the result of the films.

At a farmers' meeting in DeSoto parish on December 15, reports indicated there were far less forest fires during the past year than during any other in the history of the parish, and that the forestry pictures shown unquestionably aided greatly in reducing the number of forest fires.

From present indications nothing will prevent the increased use of motion pictures as a means of visual instruction. Due to circumstances this growth may be gradual, but it is certain to be steady. Films are available on many phases of agriculture and home economics. Production of additional local films, through an agreement between the U.S.D.A. Division of Motion Pictures and four Southern States is under way at present. It is difficult to predict what heights the use of motion pictures in extension work may reach, but we may be reasonably sure that there will be no other device capable of replacing the 'talkie' in its present capacity in the educational field of rural Louisiana for many years to come.
SCHOOL DEPARTMENT

Conducted by Wilber Emmert
Director Visual Education, State Teachers College, Indiana, Pa.

Plaster Casts Further Nature Interests

THE PUBLICITY recently given to the work of the Department of Justice in making casts and finger prints has aroused interest in such work. Teachers can take full advantage of this aroused interest by having their pupils make casts of animal tracks and casts of leaves for their science and nature work. In addition to the school work, cast making offers many possibilities as a part of an activity program for various clubs, scout leadership and health camps.

Cast making is easy. The materials needed are few, simple, and inexpensive. A few simple directions and a little practice will prepare teachers to capitalize on this aroused interest in cast making. Animal tracks and leaf casts can be made into plaques for wall hanging, book ends, trays, and paper weights. Such things are easy to make, inexpensive, and very useful.

For outdoor work the materials needed consist of three cans (gallon, half-gallon, and quart sizes will do), strips of cardboard, or copper, or tin about twenty inches long, a stick for stirring, a small can of talcum powder (or a can of lard, or a can of light automobile oil), plaster of Paris, water, and salt. A compact carrying kit may be made by selecting the cans of such size that they can be nested into the largest one as the carrying container.

On the field trip plaster casts can be taken of the impressions made by the feet of animals in the snow or mud. Select the track that shows the best detail, and prepare it for the cast by dusting it with talcum powder, or by pouring a small amount of oil over it. Next place the strip of paper or metal around the track, not too close else the track will be distorted, and at such distance as will give the desired size for the finished plaque, then press it firmly into the ground, or back it up with mud, dirt, or sand.

A mixture of plaster of Paris and water of about the consistency of pea soup, is then poured into the track. In general it will require a little less than half as much water as plaster to obtain a mixture thin enough to pour easily and fill all the details properly. After the water and plaster of Paris have been thoroughly mixed, a small amount of salt is stirred in to hasten the setting and hardening of the plaster. If the mix is too thin, it will crack when hardening; if too thick, it will not flow evenly into the track; if too much salt is added, bubble holes will result in the finished product. With a few practice trials no difficulty will be found in this respect.

Since the plaster hardens rapidly and cannot be mixed again with water, it is necessary to work rapidly and to prepare at one time only the amount to be used immediately. After about ten minutes the cast can be lifted from the track, wrapped in moss, paper, grass, or leaves and carried along to the next tracks to be cast, or taken home. If a group is working, some can prepare the tracks for the casts while others are making the plaster mix; then a number of casts can be poured one after the other. With a little care no difficulty should be experienced in using the same track for several casts.

The cast just described will be a "negative" cast, i. e., one in which the impression is raised. In the laboratory "positive" casts may be made by placing the negative on the table, or on a board, covering it with a thin coating of grease, enclosing it with the band, and pouring in the plaster as before. Numerous positives can be made from a negative. Positives can also be made by greasing the foot of an animal or bird and pressing it into the prepared plaster of Paris just as it begins to set.

Leaf casts make interesting plaques and book ends. Leaf casts are made by greasing with oil, lard, or Crisco, the surface of the leaf against which the plaster is to be poured, greasing the form and band, putting the leaf into the form, and pouring the plaster of Paris.

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into it. After the plaster has set, the cast is taken from the form and the leaf removed from the cast. Since the veins are more prominent on the under surface of the leaf, this side is usually used to make the cast. Leaf casts give the best results if the cast is not more than a half inch thick.

The plaques may be prepared for hanging on the walls by laying a paper clip on the back of the cast at the proper place, just after the cast has been taken from the form, and covering the clip with a small quantity of thin plaster mix.

In making book ends, the form used to hold the plaster cast must be made into the proper shape and with the desired dimensions. The cast should be about three quarters of an inch thick at the top, two to four inches thick at the bottom, five inches wide, and six inches high. A little difficulty may be experienced in this work because the bottom must be straight and at right angles to the straight side towards the book. The sloping side is the one which will contain the cast impression. Slight irregularities can be easily carved off with a knife, or made smooth with a wood rasp. It is wise to imbed a sheet of tin or other metal in the bottom of the book end and allow it to project two or three inches beyond the book side of the cast. This can be attached in the same manner as the paper clip is fastened to the plaque. If a piece of felt or cloth is glued to the under side of the book end and the metal sheet, they will not scratch or mar the furniture on which they are placed.

Both the plaques and the book ends can be painted with water colors to give the desired tints to the leaves and the background. Test colors should be tried out on the back of the plaque of Plaster of Paris to determine beforehand how the colors will appear on this porous material.

One precaution should be observed in the disposal of the excess plaster of Paris after the cast has been poured. Allow it to harden before dumping it into the sink, otherwise the drains may become clogged as the plaster of Paris hardens in the pipes. It is perhaps wiser to empty it into the waste jar and dispose of it on the dump heap.

Cast-making can be used to further the interest of children, and as an excellent means of correlating the work in the various fields. Artistic perfection can be striven for, English compositions might very well follow the cast making, reading exercises based upon the work might lead the pupil far afield in studying about the animal responsible for the track, science and nature interest might be appreciably augmented thereby.

A collection of track casts for most of the wild animals and leaf cast for the common trees of the neighborhood would furnish very valuable materials for instruction. Those made by persons in the upper grades would assist the teachers who have the smaller children under their supervision. Track-casts of domestic animals and birds would make a splendid addition to the other group. Such teaching materials can easily be stored in shallow boxes, or trays, properly labeled for ready use.

W. E.

WILLIAM F. Barr, Dean Emeritus of the College of Education, Drake University, died at his home in Des Moines, Iowa, on Wednesday, February 27, 1937. He was 71 years of age. Upon retirement last June, Dean Barr had completed 31 years as administrator of the Drake University College of Education, where he was regarded as a pioneer in education method.

Born in Newark, Ohio, in 1865, he grew up in Indiana and gained his elementary education in the rural schools of that state. After studying at private normal schools in Ohio and Indiana, he started his teaching career as a school principal. Dean Barr came to Drake University in 1900 as physics and mathematics instructor. After taking advanced degrees he became head of the "normal school" in 1905. For two years, from 1911 to 1913, he also served as Drake’s dean of men, being the first dean of men in an endowed college in Iowa.

Dean Barr was truly one of the pioneers in the visual aids field. Many years ago he conceived the idea that teachers should be trained to understand and use visual aids effectively. He was one of the first to arrange and teach such work. The first course appeared in the Drake University catalog for the year 1925-26 and was listed under the heading of visual education as follows: "A course intended to show what can be done in teaching school and college subjects by the use of the moving picture, projection lantern, pictorial and stereoscope."

Succeeding years have seen more and more extensive courses given at Drake, covering all aspects of visual education and attended by increasing numbers of students.

Dean Barr’s activity had decreased with failing health, but in a letter received a short time before his death he expressed the same keen interest in visual instruction which had burned so strongly for so many years. To those who knew him, his inspiration and enthusiasm were powerful stimuli toward increased effort in the field of visual instruction.

H. L. Kooser.
March, 1937

Check the Amprosound

More and more Amprosound Projectors are winning acceptance as the standard of quality in the field of 16 mm. Sound-on-film. A statement like this is easy to make—but an interview with Amprosound users will confirm it. Schools, universities, museums, industrial users are delighted with Amprosound tone quality, brilliance and general satisfactory operation. See the latest Amprosound Models at your dealers. Test them carefully. Check them for the points enumerated above.

Prices complete: Junior Model, (500 Watt) $375; Senior Model (750 Watt) $415. Write for Free Circulars on any of the complete line of Ampro 16 mm. Projectors—Ampro Corporation, 9839 North Western Avenue, Chicago, Illinois.

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AND BOOKS

Conducted by Stella Evelyn Myers


Stereographs were used for individual study of pictures, and slides for group study, with two groups of fifth grade pupils. One group was of high average and the other of low average children, not equated. As a rotary system of presenting the tests was adopted, the lacking of equated grouping was eliminated. In both groups, the improvement was from 25 per cent to 50 per cent in ability to interpret facts from pictures. It was found that "Children are better able to interpret facts from a lantern slide than from an individual picture when used as a class device... Average and low average children gain more ability in geographic thinking by use of lantern slides. As a result of the use of pictures, failing children gained information, learned to talk intelligently about a region or activity, because they could visualize it, learned to read from pictures what they could never have learned to read from textbooks, and felt a sense of achievement and enjoyment in the subject."

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Book of Camera and Supplies.

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230 S. Wabash, Dept. 53, Chicago, U.S.A.
Photographic Headquarters since 1899.


A fascinating account of how a sophomore class in Central High School, Superior, Wisconsin, wrote and acted a scenario from Dickens' "Tale of Two Cities." It should be a helpful suggestion of one means of modernizing the Classics, and putting them in a form that will be decidedly stimulating to young people, everywhere aided by modern invention. One of the best features of the Superior production is that the cost was almost nothing.


An expensive micro-projector is described, which serves the purposes of projecting permanently mounted specimens, making drawings of microscopic fields, and projection of living specimens in liquids. Observing the blood stream in the veins and arteries of a live frog, when projected on the screen, is made possible by a simple home-made device, fully described. The article is replete with suggestions for science teachers. "Just as the illustrated textbook amplified the printed word following the invention of photography, so now the film, the slide, and the live specimen amplify the text by means of projection equipment."


How to make map work a thrilling and educational enterprise is here described and illustrated. The production of pictorial maps, sand table relief and wooden maps is fully elucidated.


The Detroit Health Education Club and the students in art education at Wayne University cooperated on the visualization of a health education program in terms of art materials. One is quite thrilled by seeing in imagination, based on illustrations, the central display, six feet high, revolving on its own turntable, and the tabletop displays revealing the evolution of the dance as a school activity, other dance groups with a touch of humor, and percussion instruments. "The point of this story is that any two naturally expressive areas of education, such as art and health education, can work together and can produce a graphic exposition of their mutual interests."
Give your students modern teaching with the help of this RCA apparatus especially designed for schools!

EVERY year the trend to modern teaching becomes more and more apparent. Educators all over the country are seeing the wisdom in the statement—lessons that live are easy to learn!

Use of RCA's modern teaching aids means new life in every lesson, plus effectiveness. This equipment gives you a new, fresh method of presenting studies to students.

On this page are shown two of RCA's products designed for schools. They provide true quality performance because they are created by the world's greatest sound recording and reproducing organization. Moreover, they are priced moderately. Full details about these and other fine RCA educational equipments included in the interesting new booklet "Sound Service for Schools"—a copy of which we will mail, free, on request.

RCA presents the "Magic Key of RCA" every Sunday 2 to 3 P.M., E.S.T., on NBC Blue Network

Sound Service

EDUCATIONAL DEPARTMENT
RCA Manufacturing Co., Inc. • Camden, N. J.
A Service of the Radio Corporation of America
How to Write and Market Photoplays
—told by a man whose business is handling screen stories and writing photoplays

Here is the live, authoritative, practical manual of writing for the talking-pictures, as it is done in Hollywood today, that has been wanted by writers, professional and non-professional alike.

With plenty of illustrative material from actual scripts, this book tells how the technique of the camera and sound track is utilized in story telling, how to use the accepted forms of screen writing, and what the best channels for marketing photoplays are.

The New Technique of Screen Writing

By Tamar Lane

Editor, Scenarioist, Executive, in Association with RKO, Universal, First National, Pathé, Paramount, Selznick, and Other Studios.

342 pages, 6x9, $3.00

This book places in the hands of serious writers the first adequate, comprehensive treatment of screen writing that has appeared since the talking picture made its advent. It combines chapters on the visualization and development of stories in the forms which the studios are using today with a good deal of helpful supplementary information that applies to the screen writer's problems.

A special feature is the inclusion of complete specimen scripts of (1) an original screen story, (2) a treatment or adaptation, and (3) a detailed shooting continuity, each on pictures that have been produced.

Other helpful sections give:
—authoritative discussion of the actual marketing situation on photoplay material,
—dictionary of studio terms; explanation of camera and sound effects and their use; and other technical information.
—list of agents and studios.
—chapter on dialogue.
—information on studio story routine, current demands, renumeration, story don'ts, protection, etc., etc.

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E-337


Hungary was probably the first state to make the teaching with films obligatory. In the United States, there has been a sporadic introduction of films because of local control of education. New York City for four years has undertaken an organized and extensive program of instruction with films. In 1933, projectors and films were recommended for all schools in Glasgow.

The most outstanding experiments in England and America are reviewed. Germany has decided in favor of films with projectors within a few years of the silent film. She plans to equip all of her 60,000 Each High School in Italy has a film library of 90 films. France has taken a large bureaus operating under the State Pedagogical Museum. Data from the Soviet Union are somewhat contradictory, but there is evidence that a very extensive movement has been carried on for film education.

An analysis is made of the reasons why films are not more generally used. In Germany, teachers write scenarios from which a careful selection is made, when the films are produced and distributed to the school.

Sources of materials, and plans successfully used for payment of equipment are described.

Building America (2: Jan. '37). Published by the Society for Curriculum Study. "Social Security," the subject of No. 4 in the second volume of this series, is treated in thirty-one pages, fully illustrated and illuminated by many pictorial graphs. The authors appear to take a scientific, and hence unbiased, attitude toward the study of the need for a security in living, of which the individual cannot be assured "on his own" in a society that is highly industrialized. State and federal laws covering security for the employed, unemployed, and the present aged are fully discussed. The merits of individual and social methods for security are made clear, and the Social Security Act is carefully analyzed as to its strong points and its weaknesses.

New York State Education (34: 310-311 et al, Jan. '37). "After School—Then What?", by Mary J. Clancy and Grace Line. This is the third in a series of nine articles on radio and motion pictures in the public schools. Since modern invention has immeasurably enlarged the untravelled world that the pupils may glimpse through the arch of experience, the school

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must adjust itself to these new demands. Any reasonable philosophy of education demands that teachers have a part in the education of the whole child. Because radio and moving pictures have an integral part in the lives of our children, they must be considered in any modern philosophy of education. "Educators have a duty toward these powerful devices which science has brought to them." The guide places his knowledge at the disposal of the traveller, helping him to derive pleasure and profit from his experience. Similarly, the teacher of motion picture and radio appreciation acts as guide and interpreter. Lyman Bryson is aptly quoted thus, "Education is primarily training in discrimination, and the educated person is the one who knows how to choose both for his own satisfaction and for his continuing growth."

The Social Studies (28: 6-13, Jan. '37) "The Use of the Motion Picture as a Technique of Instruction", by Grace Hotchkiss, Hyde Park High School, Chicago.

For teachers wishing to organize their course about the film as an integral constituent, even aside from the field of history, this contribution will be most suggestive. For the second semester in United States History a course is outlined that can be followed in detail. All expenses were met by the history classes with seven dollars surplus in the treasury. A study of related motion pictures was a part of the assignment for each unit, of which eight units comprise the work of the semester. At the close of the course, one picture was used for the purpose of review. Six types of activities, based on the subject matter of the films, are listed as among those included on the work sheets. The use of the motion picture affords many opportunities for adjusting instruction to individual differences, of which illustrations are given. Individual follow-up work is described.

Three most valuable tables are given, listing the thirty-five films used, with their source and price, first alphabetically, then in correlation with the eight units, and finally as to historical development. This contribution to "Social Studies" should be a landmark among history teachers in the correlation of visual aids with their subject matter.

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AMONG THE PRODUCERS Where the commercial firms announce new products and developments of interest to the field.

San Francisco Bridge in 16 mm. Sound
A new single-reel film dealing with the construction and gala opening of San Francisco's magnificent new bridge is being offered by Bell & Howell Company's Film Division. The film follows the progress of construction with effective and beautiful photography. An intelligent narrative and a musical background add to the interest. The opening ceremonies, with many thousands of automobiles racing across the new span in opposite directions, and finally the colorful night parade in San Francisco, provide a fitting climax.

Victor Enlarges Plant
To meet the steadily increasing demand for their products, Victor Animateograph Corporation has embarked on an expansion program. The first step in this program has been the purchase of an adjacent building of four floors, providing twenty thousand square feet of additional floor space. The main plant has been completely renovated also and all equipment overhauled or replaced. Even with the added manufacturing facilities, the plant will continue to operate on a three-shift schedule.

ILVA Film-Projector Plan
The International Library of Visual Aids, New York City, provides a practical plan whereby schools can obtain a sound projector and good teaching material without the expenditure of regular school funds. The service is sold to schools on a library membership plan, which consists of one Victor projector and eighteen forty-minute sound units to be supplied at the rate of one unit a month for one day’s showing, covering the two-year period of ILVA membership.

The pictures are intended for auditorium use, are a pleasing combination of entertainment and education. Teachers’ manuals are supplied for each of the eighteen films so that the teacher can plan a lesson in advance of the showing, as well as a follow-up afterward. Leading film producers cooperated in the building of the library by providing access to all picture negatives containing educational material that could be edited to provide schools with suitable films showing influences on civilization and the forces of nature that have effected the progress of mankind. A good narrative explanation accompanies each picture.

Fourteen of the units are now completed: four units (16 reels) on The March of Civilization, chronicling the successive waves of migration of the Indo-European races across Asia, Europe, and over our own country to the Orient; three units (12 reels) on Evolution of Economic Life; and six units (24 reels) on Man Against Nature. The most recent of this last-named series is “The Story of the Polar Regions,” a vivid portrayal of the life, people, animals, and industry there, and man’s struggle to discover the North Pole.

California Wild Life Films
Frank R. Church, Oakland, California, are now exclusive agents for the 16mm-sale of the educational wild life films, the negatives of which are owned by the California State Fish and Game Commission. This film material, produced by the California Commission, was turned over to the University of California a short time ago, and re-edited by Captain Jack Robertson, noted world traveler and producer of many motion pictures, into sixteen one-reel subjects. The first nine are completed and the balance will be finished shortly. Titles of these are: A Hunter’s Camp, Dwellers of the Forest, Wild Life on the Desert, Duck and Goose Shooting, Western Water Fowl, Winter Visitors, Feathered Beach Combers, Western Birds at Home, and Trout for Tomorrow.

New Hygiene Subject
The Motion Picture Division of the Kolynos Company has produced a new one-reel scientific health film entitled Science Makes a Dentifrice, which portrays modern methods of production, sanitation and
Show
PICTURES AT THEIR BEST
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Movies, filmslides, glass slides and other visual teaching material can be used most effectively only when projected on an efficient screen. In Da-Lite’s complete line of projection screens, there is a screen with the right light reflective quality for every school projection requirement. For auditoriums and other large rooms, with wide viewing angles, screens with white or silver surfaces are usually recommended. For the average classroom, the glass-beaded surface is the most satisfactory, for it reflects the maximum amount of light and gives the sharpest, clearest pictures.

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distribution of this well-known dentifrice. Laboratory experiments show its non-abrasive cleansing and polishing power, and its effect on germs. Animated drawings and trick photography are used to increase educational value and heighten interest. The picture is a suitable subject for health and hygiene groups, and contains much of interest to even more advanced medical and scientific groups. It is available in 16mm or 35mm silent, free except for express charges, from General Business Films, Inc., 565 Fifth Avenue, New York.

Schwartz Appointed Manager of Central Camera’s Chicago Store

Stanley J. Flesch, President, The Central Camera Company, Chicago, announces the appointment of Mr. Selwyn S. Schwartz to the managements of Central’s Chicago retail store.

During the early twelve years that Mr. Schwartz has been with the Central Camera Company, he has had a superlative record of salesmanship, and has acquired a host of friends in the photographic profession and among the amateurs.

Mr. Schwartz extends a personal invitation to all members of the photographic profession to make the Central Camera Company their headquarters for cameras and photographic supplies of all kinds. He suggests that out of town photographers send for the new free April Bargain Book listing hundreds of new and used bargains in cameras, lenses, projectors and photographic supplies of all kinds.

16mm SOUND FILMS
For The CLASSROOM

100 REELS

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Chicago, Ill.
New Film From Spain Released

Garrison Film Distributors, Inc., announce the release of a new 16mm film Defense of Spain produced in Spain by Ivor Montague of the British Progressive Film Institute. This picture is said to be the latest and most complete film on the subject that has reached America to date, being filmed late in November. Other sound films imported by Garrison for release are Under Western Eyes, a French feature film based on the Joseph Conrad novel; The Wave ("Redes") produced by Paul Strand on behalf of the Fine Arts Department of the Mexican Government; Inspector General based on the famous satirical play by Gogol; Rose and Raphael, a three reel sound film produced under the direction of Prof. I. V. Pavlov eminent physiologist. The latter film deals with Prof. Pavlov's experiments with two chimpanzees.

More Evidence on Classroom Film

The November issue of "The Classroom Film", under The Teaching Films Division of the Eastman Kodak Company contains a most excellent presentation of the use of several films in teaching the energy concept. The previous preparation of the pupils, and the final integration of the whole subject are made perfectly clear by Mary Elizabeth Lynch, Dorchester High School for Girls, Boston, Mass.

The "Quincy System of Teaching Aids" recognizes that if visual aids are to be used effectively certain essential practices must be established. The following are among the eighteen recommendations made:

"The appointment of one person as the Director of the Department. The arrangement of the available materials into convenient form for extended use. The classroom is the proper place for teaching with the use of films or other aids. Only inspirational or emotional type films may be used to advantage in the auditorium. Factual films should be used only in the classroom. Building should be equipped with projectors. Classrooms should have available outlets and dark shades. Silent films are more practical for school use than are sound films."

"Ten Best" for 1936

Mutiny on the Bounty was voted the best picture of 1936 by the leading cinema reviewers of the country, canvassed annually by The Film Daily. The other nine "Best" were named in the following order: Mr. Deeds Goes to Town, The Great Ziegfeld, San Francisco, Dodsworth, The Story of Louis Pasteur, A Tale of Two Cities, Anthony Adverse, Green Pastures, A Midsummer Night's Dream.
RIGHT IN YOUR CLASSROOM

AMONG Eastman Classroom Films—of which more than 200 are available—those dealing with Nature Study are outstandingly popular. This living subject is particularly well suited to films. They clarify it as no other method can . . . make it vitally real, impress it permanently on the memory of every student.

Look over the list of Nature Study films given below. The subjects have been selected with great care. You will recognize their value to you and your pupils. Plan to acquire those which are not already in your library.

Eastman Classroom Films cover a variety of subjects. Each film has been carefully prepared by authorities to insure accuracy. If you do not have the descriptive list of these standard instructional motion pictures, send for your copy. Eastman Kodak Company, Teaching Films Division, Rochester, N.Y.

EASTMAN NATURE STUDY FILMS

Adventures of Peter Bear
Beavers
Baby Beavers
Game Birds
Bird Homes
Birds of Prey
Birds of the Seacoast
Some Friendly Birds
Wading Birds
Luther Burbank
Animals of the Cat Tribe
From Flower to Fruit
Frogs, Toads, and Salamanders

Wild Flowers
The Ruffed Grouse
Some Water Insects
Three Jungle Giants
Rocky Mountain Mammals
Some Larger Mammals
Monkeys and Apes
Oysters
The Raccoon
Reptiles
Seals and Walruses
Some Seashore Animals
The Ship of the Desert
Spiders
Under-Sea Life
Being the Combined Judgments of a National Committee on Current Theatrical Films

(A) Discriminating Adults

(Y) Youth

(C) Children

Date of mailing on weekly service is shown on each film.

(The Film Estimates, in whole or in part, may be reprinted only by special arrangement with The Educational Screen)

THE FILM ESTIMATES

As You Like It (Bergman, Olivier, Quarter-
man) Fine. Miss Productions. (Gold-
fal, to spirit of original, impressively set-
act. Intriguingly abridged text beautifully
ated. Idiomatic British acting. Importing
the humor, the romance.)

(A-Y) Excellent

(B) A Woman's Heart (Mann, Murnau, De-
Barnes) Film. Modern. (The story of a
hatred and heroism, violence and bloodshed
and fine acting. A beautiful love story.)

(A-Y) Excellent

(B) Desperadoes (Burt Lancaster, color, Warner
) Film. Western. (This picture is a
romance between intrepid Irish hero and fine
East Indian heroine. Its sets, costumes, light-
free bits of human comedy.

2-9-37

(A) Fine of kind (Y) Very sad (C) Too sad

(A) Fair

(B) The Long Voyage (Humphrey Bogart, Joan
Crawford, W. C. Fields, Claudette Colbert, color,
Warner) Film. Comedy. (The story of an
Elemental laborer-hero, piqued at merde-
dom, decides to go to sea.)

2-9-37

(A) Fair

(B) Violette (Redgrave, stripper, British, prod-
Dix, Bavarian, Fox) Film. Drama. (The story of
a young Parisian dancer.)

2-9-37

(A) Good

(B) Blood and Sand (Tom Ewell, Barbara Stan-
wyck, Teresa Wright, John Ireland, British, prod-
ted by Michael Curtiz, Warner) Film. Drama.
(redemption story of a young soldier.

2-9-37

(A) Poor

(B) The Shadow of a Man (Humphrey Bogart,
Sara Allgood, Robert Lowery, Ralph Morgan,
Fox) Film. Mystery. (A good mystery serial.

2-9-37

(A) Poor

(B) The Big Sleep (Humphrey Bogart, Lauren Bac-
all, John Ridgely, British, prod. by Howard
Hawks, Warner) Film. Mystery. (A good mystery
serial.

2-9-37

(A) Poor

(B) The Best Years of Our Lives (Henry Fonda,
Myrna Loy, Teresa Wright, Robert Taylor, etc.,
Warner) Film. Drama. (A story of war
veterans returning to society.

2-9-37

(A-Y) Excellent

(B) The Last受限

red

day

play of expert thievery in English high
society, with emphasis placed on such

(A) Poor

(B) Love Is a Many-Splendored Thing (Far
Away, France, prod. by David Friedm-
ana, Warner) Film. Drama. (A sensitive

3-9-37

(A) Good

(B) Song of the Sea (Austria, prod. by Carl
Theodor Dreyer, Fox) Film. Drama. (A

2-9-37

(A) Good

(B) The Blue Angel (Engerland, prod. by
dW. W. P. Haske, Warner) Film. Drama.

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(B) The Blue Angel (Engerland, prod. by
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IN THIS ISSUE

FAITH
by
Eugene Iverd

(Courtesy of Colonial Art Co.)
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Test Questions of the “Thought” Type in Visual Education

Being some very pertinent suggestions on how to use pictures for thought-production instead of lesson-learning.

The most difficult type of question to construct in visual education, or any education for that matter, is the “thought” question. It is easier to measure recall of facts or events; it is harder to devise questions which require the pupil to organize and to use these facts in his thinking. For example, the film “Washington, the Capital City” suggests such memory questions as, “What name is given to the President’s residence?” A question using the same fact, but requiring more thought, might be:

The White House needs to be a large building because—

1. The President lives like a king.
2. The amount of executive business requires much space.
3. The President might have a large family.
4. There are 96 Senators.
5. The other government buildings are large.

This question requires more than knowledge that the White House is the President’s residence; it asks the why of an observed characteristic of this fact. It presents a problem for solution. Visual material gives an opportunity for the inclusion of thought questions which involve the organization of data, the meeting of situations, comparisons between observed and previously known facts, and the personal and civic application of data. This classification is not systematic; it is merely an expedient.

1. Organization of material. In reaching decisions in life the citizen must learn to exclude the irrelevant and to select just those things necessary for answering the question before him. The film “Daily Life in Egypt” includes a large number of scenes photographed in that country. A question such as “Name three ways in which the Egyptians use the Nile”, requires the pupil to exclude most of the material in the film. It is the kind of thinking we do much of the time. Consider the case of a candidate for sheriff, for example, who gave the following reasons for his rejection:

1. I have lived here for sixty years.
2. I believe that the home is the foundation of our democracy.
3. I am opposed to foreign entanglements.
4. I have known most of you and your fathers for many years.
5. I have never been defeated for public office.
6. I am a member of the Republican (or Democratic) party.

7. No single instance of wrongdoing on my part has ever been proved.
8. I have instituted desirable changes in the care of prisoners.

In this situation, as in the question about the Nile, there must be an organization of material into relevant and irrelevant, trivial and important, correct and incorrect, with frequent placing of facts somewhere between the extremes.

2. Meeting of situations. The solution of a problem requires an examination of the situation in which one finds himself, the calling up of various possible solutions, the testing of these solutions and finally their verification. Strictly speaking, this classification includes all the others but here it will be re-
are considered together. The question about fuel in 1630 is of this type because it involves a comparison between past and present. Although the film itself does not include the answer, the showing of

A Puritan Interior from The Chronicles of America Film, "The Puritans."

"The Mining and Smelting of Copper" might be followed by a question such as "Which is hotter—molten copper or boiling water?" A series of films showing scenes from various cities might be followed by the question: "Which of these cities gives the greatest evidence of planning before building—New Orleans, Washington, New York City," etc. A series of films on various industries might be followed by a question such as:

Which of the following employments usually offers the greatest independence?—


The question about the uses of the Nile might be followed by a question which draws out the way in which each of these results are achieved locally, i.e., obtaining drinking water, providing moisture for crops and transporting persons and things.

4. Applications. Some questions which involve the personal or civic application of data are:

A. Which one of these do you think best describes the Columbus of the film you saw? ("Columbus" film)

In a few words give an instance from your own observation or experience of an event which this may not have been a virtue.

B. How did Washington feel after he had surrendered to the French? ("Gateway to the West" film)
(1) Lucky to have escaped
(2) That he was not a good officer
(3) Disgraced
(4) That he was too young to know better
(5) That it was the fault of someone else.

In a few words give an example from your own experience or observation of one who is living down an early mistake or misfortune and is moving toward success.

C. Columbus had to wait upon the king before he could carry out his plans. If you had a project today which seemed just as worthwhile to you as Columbus did to him, what would you do? In deciding whether a question is of the thought or memory type, these things should be kept in mind:

1. We think with things that we have remembered; facts are the material of reasoning.
2. Thought problems studied by a class may become memory questions on a test.
3. All “why” questions are not thought questions; some “what” questions are of the thought type.
4. A question might require considerable reasoning for one pupil and mere recall for another.
5. A question might require thought in grade 7 and mere memory in grade 8.

In making a selection of questions for thought by the class, it is well to consider these points:

1. The question should be worth thinking about. For example, the value of considering the fuel problems of 1630 might be questionable. The teacher should examine each question and then ask himself: "So what?" or "What of it?"
Vitalizing Teaching Through the Correct Use of the Still Picture

By MINETA MERTON
Waukesha Junior-Senior High School, Waukesha, Wis.

THE modern school is a child centered school. In it, the emphasis is placed on teaching the child rather than on merely teaching the subject. The three R's of the old school are now supplemented by three new R's which we may call:

Reality: So that learning will have real meaning and understanding;
Reasoning: So that students will be trained to think and form judgments rather than merely to memorize the abstract words of the text, and
Research: So that children are encouraged to investigate and to seek enrichment of learning.

Visual aids have contributed richly in realizing these new trends in education. By providing rich illustrative materials they have brought reality into learning; by providing true facts to form the basis for clear thinking they have improved the reasoning of students and by arousing interest they have stimulated research.

Perhaps the greatest value of visual aids is that they build on pupil's past experiences, and when these experiences are limited, visual aids provide substitute or vicarious experiences which serve as the background for interpreting the new work to be learned. It has been said that the basis of all thinking is experience. Each child interprets the spoken words of the classroom and the written words of the textbook by means of his own past experiences. What he has seen and what he has experienced provide his background for word understanding. An educator has said that when we teach we stand upon a scaffolding just as the carpenter and painter stand upon a high wooden platform when working on a building. The scaffolding is to the teacher what the child's past experiences are to him. When we teachers step off this scaffolding by failure to consider the child's past experiences, we ought to get the same kind of a jolt that the carpenter or painter would get if he were to step off his high wooden platform. Unfortunately some classroom teachers step on and off this child experience scaffolding without even being aware of its existence and it is the child who loses thereby.

The fewer real experiences our students have, relating to the subject we teach, the more important it is to use visual aids to help them develop correct initial concepts and prevent the forming of false and inaccurate interpretations.

How can we use visual aids most effectively in teaching? Each visual aid has its own particular advantages and also its limitations in various teaching situations. Some are more effective at one stage of the learning process than at another. It is a great problem to determine in what specific situations in learning each will render the greatest service.

The most universally used visual aid in the classroom is the still picture. We use it constantly in textbooks and reference books, in mounted pictures, and projected pictures such as lantern slides and opaque projection. For this reason we are vitally concerned with the need of training teachers and pupils in using and interpreting these pictures most effectively. Too often a teacher shows a picture and considers it self explanatory and concrete when the picture actually may be filled with abstractions for the child.

Our problem is: How can we use our still pictures so that students will get the most accurate and complete understanding from them? How can we help students read into a picture facts which will make it meaningful? Too many pupils are allowed merely to look at pictures which is far different from studying and interpreting them. A picture, like the printed page should contain material for thought and study.

The student who has travelled through the mountainous region of our west and looks at a picture of a mountain canyon can read into it the depth, size, color that makes the picture a vivid experience to him. But what of our students of limited experiences whose lives have been confined to their immediate surroundings?

The guidance of the teacher is needed to train these pupils to interpret pictures comprehensively. There are several factors about a picture which it is well to train children to consider:

Size: A picture is of greatest value when there is something in it which is familiar. A person, automobile, house, or known animal are essential in some types of pictures if an idea of height and size of an unknown object is to be grasped. The teacher should help the child to gain the habit of looking for something of which he knows the size and then using that to help interpret the size of an unknown object in the picture.

One of the greatest difficulties in using pictures is that frequently there is something in the foreground which looks so large that it gives a misleading concept of the true size of an unknown figure in the background due to the fact that the distance between the two is not known to the child. Still this distance is a most significant factor in understanding the true dimensions of the unknown object. The teacher must take special pains to see that the child understands the true size in pictures such as these.

How important it is for us to judge the teaching value of pictures from the standpoint of a known factor of size! First, we must look for pictures with known factors of size. Second, if the pictures do not show known factors, we must look to see if the legend under the picture will help the child to understand the true size. Third, in the absence of both of these the clear vivid description of the teacher must give the child some idea of true size.

Temperature: Another abstraction which the teacher must help the child to overcome is that of temperature. The child must read into a picture of a jungle the intense humidity and heat, the lack of any breeze and the sultry sticky warmth which causes this dense vegetation.

One must also read temperature into a picture of a smoking geyser. Does the child realize that this is hot water being hurled into the air? Last summer I received a letter from a friend who stood too near to a geyser that suddenly spouted and this person was seriously scalded and suffered excruciating pain for several weeks. In a picture of a geyser we should also call attention to motion. Is the geyser like a fountain continually shooting steam into the air? The child must realize that this takes place only occasionally, some every few hours, others at shorter intervals.

Motion: Motion should also be read into a still picture of a ship passing through the locks of a canal. The picture shows the boat only at the time the camera was flashed. It does not show how the water in the locks is raised or lowered and how the boat moves from one of the locks to another. This will have to be described to make the picture have real meaning.

Sound: There is the abstraction of sound in a picture of Niagara Falls. Such a picture does not become an ex-
experience for the child until he reads into it the sound of the roaring waters dashing over the steep precipice. Only the vivid description of the text or the words of the teacher can help him to fully comprehend this.

Another illustration of the need for describing sound is in pictures of factories where the noise and din of the machinery is almost deafening.

**Distance:** Still another abstraction in pictures we must help pupils to overcome is that of distance. Does the child really grasp the miles and miles covered by the winding stretch of wall in a picture of the Wall of China?

**Depth:** Probably the most necessary factor in understanding a picture is reading depth into it. Pictures show only two dimensions: length and width. They cannot show the depth that the human eye really sees.

We have access to a visual aid which shows depth. It is the stereograph and the stereoscope. The stereograph is the double photograph and the stereoscope is the instrument through which the picture is seen. When the double photograph is seen through the lens of the stereoscope it shows depth.

To illustrate how real a picture becomes when it is seen through a stereoscope, I will mention a true incident. A boy was given a stereoscope in which had been placed a stereograph of a man standing on a high ladder. The boy became so absorbed in the picture that when the teacher came up unawares and touched him on the shoulder he jumped back in fear because he thought he would be pushed off this high ladder by the slightest touch.

The following are types of pictures which should first be shown through a stereoscope to have the student understand depth: Pictures of mountain canyons, airplane view of cities, the depth and structure of glaciers, the architecture of great cathedrals, the beauty of underground caverns, mountain peaks and valleys. After students have studied such pictures in the stereograph they will be able to read depth into two dimension pictures of those scenes.

The stereoscope is to be used for individual study. It should not be passed from student to student during class recitation periods. When used for individual study the child actually imagines himself in the setting which the picture portrays.

**Color:** The teacher needs to help the child to sense color when an uncolored picture of the Grand Canyon is shown. The student must read into this picture the beautiful colors of the rocks to fully appreciate this spectacle. Color must also be read into a picture showing an uncolored picture of a cotton blossom, or an uncolored picture from which the child is expected to appreciate the colorful costumes of some foreign country.

**Odor:** The odor of a paper mill should be called to the student's attention when a picture of a paper mill is shown, or in contrast the delightful odor of a field of narcissus in bloom in Holland. Just as a paper mill town can be identified from a distance by the peculiar odor of its paper mills, so the communities where fish are dried in the sun can be identified by the strong fishy odor which saturates the air of the community. This should be called to the child's attention when pictures of such localities are studied.

**Speed:** In our age of speed in transportation, does the child looking at a picture of an ox team comprehend the slow, plodding gait of the team pulling a crude two wheeled cart? Can he have any comprehension of the number of miles this team can go in one hour?

**Weight:** As the child looks at a picture of Philippine workers carrying baskets of potatoes on their heads does he merely see people and baskets and potatoes or does he comprehend the great weight of these large baskets being strapped to the heads of young Philippine girls?

A great contribution which all classroom teachers can make in the field of visual education is to train pupils to overcome the limitations and abstractions of pictures, so that students may more effectively use and interpret the picture material in their textbooks, reference magazines, encyclopedias, and also the commercialized aids that are used to further enrich their work. When students during their study periods will study pictures as intensively and thoughtfully as they do the material from the printed page, we will have indeed vitalized our teaching.

Very often a single picture is not adequate in showing a teaching situation since a single picture can show only one step in a process or show a scene from only one angle or at the moment the camera was flashed. This is often true of textbook pictures since textbooks cannot provide enough space to show a complete series of pictures for an industry or region because of the extensive content they must cover.

An example of what might be given in a textbook is a single picture of the making of pottery. Just how does the potter's wheel work? How fast does the plate turn? What steps were necessary before this stage in the making of the plate was reached? All of these questions must be answered either through a series of pictures on the making of pottery or by the clear vivid description of the teacher. She will have to supplement the gap by collecting and building up a series of pictures that will show different steps in an industry, or different views of a region, or stages of a process.

One of the finest things that can be done is for the teachers of a building to work together to make a building library of excellent pictures. Each school should contain a three to four drawer filing cabinet filled with catalogued pictures of teaching value. Good file mounting boards in attractive colors should be secured so that the pictures may be well mounted before filing. These pictures may be used advantageously in opaque projection and also provide attractive and interesting bulletin board displays.

Still another source of a series of still pictures that may be used to show a more detailed process of an industry or region is available in the film strip which consists of a series of pictures printed on strips of film. A film strip may contain from twenty to over one hundred or more still pictures with suitable captions. In a film strip a teacher undoubtedly has a most complete series of pictures related to a topic that can be economically secured. However, teachers must guard against the temptation of showing too many of these pictures in one lesson. These may be used very effectively in the discussion period of a review or summary of a topic or a unit of work.

Still a third source of still pictures in a series is the new type of visual material available on sets of cards such as that provided by Comptons in their picture series. Each card consists of colored pictures and on the back of the card are the clear, vivid descriptions intended to help the child interpret the pictures. The Photocart Visual Units consist of cards with the picture and printed description on the same side so that students may refer to the picture more easily as they read the description. The advantage in using this type of visual material is that they may not only be projected before the class in an opaque projector, but they may also be passed out to students for individual study or reports or used as reference material on the library table or bulletin board.

Teachers frequently make the mistake of using too many slides or pictures for one lesson. In a development lesson only a very few should be used. However, at the close of a unit of work a larger number of slides would be justifiable as they would be used to recall and fix definitely work that has been taught and to help students to organize this body of knowledge.

In closing I wish to state that it is not my purpose to minimize the value of other visual aids by not referring to them in this discussion. Their effective use and great value would require a discussion in itself. I have wished to show how the correct use of the still picture may be used to enrich and vitalize our teaching and also give valuable learning experiences to our students.
Services of the American Council on Education

A detailed summary of achievements, past and planned, of the American Council's Educational Motion Picture Project.

By CHARLES F. HOBAN, JR.
American Council on Education, Washington, D. C.

SINCE its inception in 1935 the Educational Motion Picture Project of the American Council on Education has undertaken a clearing house function for the wider and more effective use of films in the classroom. During the past year activities have been concentrated on (1) the development of conferences and programs related to the preparation of teachers in the use of motion pictures and other modern teaching aids, (2) the preparation of materials for publication, and (3) the initiation of studies related to problems of motion pictures in education.

(1) Teacher Training Program. During the latter part of 1936 and early in 1937 conferences on the problems of teacher training in modern teaching aids were held at Milwaukee in cooperation with the University of Wisconsin and at New York City in cooperation with Teachers College, Columbia University. These conferences were attended by representatives of teacher training institutions of those regions and others responsible for teacher preparation in the use of visual aids. At the Milwaukee conference discussion centered in 15 specific questions related to both pre-service and in-service training of teachers in the use of concrete teaching aids. A tabular report of the discussion of these topics has been published in mimeographed form. This report contains many valuable specific suggestions as to methods of approach and content of training. A more general approach to the problems of teacher preparation was taken at the New York conference. Here the discussion centered in five general questions. A summarized report of the contributions on each of these general topics has been published. These two reports constitute an excellent basis for development of training programs throughout the country. A charge of 25 cents is made for this pair of reports to cover mimeographing and mailing costs.

The Educational Motion Picture Project participated in an intensive training course in the use of motion pictures and other concrete teaching materials at the School of Adult Education of the General Extension Division of the University of Florida, February 6-14 at Camp Roosevelt. One hundred and twenty teachers from various school districts in Florida enrolled for this training program. A large number of films were evaluated with particular references to the elementary and high school geography and science courses of study in Florida. These film materials were integrated with particular units, textbooks, etc., and some indication was given as to the particular merits of films and their general value. Reports on these evaluations have been mimeographed and will be made available to school districts throughout Florida. As such, they constitute a valuable source of information on educational films available for classroom use. In addition to these classroom films, a total of 47 industrial films were reviewed and briefly annotated. This training program constitutes a new approach to in-service training of teachers and a practical program of film evaluation and correlation with a state curriculum.

As a result of the conference, a course in visual instruction is being instituted at the University of Florida, Gainesville, and the School of Adult Education plans to continue a series of week-end programs in other courses of study, similar to those conducted in the geography and science fields. A further result of the conference was the inauguration of a plan to expand the present library of industrial films of the School of Adult Education into a cooperative film library to serve the schools of the State of Florida. A report on the conference is being prepared by Mr. Donald Bean of the University of Chicago Press.

(2) Publication Program. The Educational Motion Picture Project has undertaken a publication program to facilitate the use of motion pictures and other teaching materials in the classroom. Early in the summer there will be made available a volume of digests of literature on various phases of visual instruction, including administration, teacher preparation, methods of use, research, production, evaluation, etc. This volume will be published by the H. W. Wilson Company, 950 University Avenue, New York City, and may be ordered directly from them subsequent to June 1, 1937. These digests have been prepared under the direction of the Project by Fannie W. Dunn and Elta Schneider of Teachers College, Columbia University, Edgar Dale of Ohio State University, and the central office staff of the Educational Motion Picture Project.

Another publication series will be issued directly by the American Council. There will be included in the American Council on Education Studies a statement by the Committee on Motion Pictures in Education on the present status and the needs for a wider introduction of motion pictures in the classroom, and a handbook on the use of educational films, including a great deal of material on classroom and small district administrative problems. The latter has been compiled by Edgar Dale. Both of these studies will be available for distribution on May 1, 1937. There is also in preparation a study of methods of teacher training and a syllabus for use in teacher training courses. This is being prepared under the direction of a subcommittee of the Committee on Motion Pictures in Education headed by Henry Klonower, Director, Teacher Training and Certification, Pennsylvania Department of Public Instruction. While the cost of these studies has not yet been determined, they will be sold for less than 50 cents apiece.

The American Council is also cooperating with Cline M. Koon, Senior Specialist in Radio and Visual Education of the United States Office of Education, in the preparation of an experimental study of the status of audio-visual equipment in the elementary and secondary schools, based on a survey conducted early in 1936. This study will be published as a bulletin of the United States Office of Education. There has already been issued the National Visual Education Directory which lists the type of equipment owned by and the directors of visual instruction of school districts in all states of the Union. This Directory resulted from the survey by the Council and the United States Office of Education, and has been published by the former. It is being distributed by the American Council at a cost of $3.00 a copy.

(3) Research Studies. Three research studies have been undertaken by members of the administrative staff of the Educational Motion Picture Project on problems directly related to the use of films in the classroom. One of these is a study of patterns of distribution of educational motion pictures throughout the United States. There will be included in this study an analysis of types of services and an attempt to determine...
A GREAT deal of thought is being given these days to world relationships; to the building of an International consciousness. Dr. Nicholas Murray Butler speaks of the "International Mind." He describes it as "that habit of thinking and dealing with the nations of the civilized world as friendly and cooperating equals in aiding the progress of civilization, in developing commerce and industry, and in spreading enlightenment and culture throughout the world."

Education for International Friendship

The question is how can we build this International Mind? One Western Educator says: "A new spirit of understanding and cooperation is developing in the world, but we who would inspire the youth with that spirit must begin to revise our estimations of educational values; we must clear away some of the misunderstandings about our world neighbors and point the way toward a universal program of peace."

Dr. Albert Einstein would solve the problem by proposing "that the League of Nations bend its energies to collecting the experiences of the races and the contributions of the nations into "One Wisdom" as the basis of instruction of the world's children in the elementary schools in international cooperation." He asserts, "the greatest task which lies ahead of the schools in all lands is to instruct the children and youth in the need and in the means of international understanding and cooperation."

Attitudes Must Change

Before we can teach world friendship to the children our own attitudes must change. Too often we have emphasized backwardness and primitive methods in countries which have contributed enormously to world culture and art and literature. To illustrate the point, we have found many Americans, college graduates, who think of China as an uncivilized country. There is certainly something radically wrong with an educational program which leaves such false impressions. The difficulty is that we don't know what China is. Our whole approach to that land has been wrong, and it is doubtless true of other lands. This situation must be corrected if we are to succeed in building world peace.

Dr. Paul Monroe in writing of the problem in China says: "In business, in diplomacy, in religious and educational endeavor, in friendly approach, the Westerner must change his attitude if he expects the Chinese to change his acts. Conscious of our own rectitude of purpose or the excellence of our goods, we have been quite indifferent to what the Chinese thought. . . . Attitudes have now become the most important of the facts which the Western powers have to face in China." He says that it is absolutely necessary for the people of the United States to "change their point of view."

Dr. Faunce, President of Brown University, desairs of changing the attitude of our adult population. He says: "I believe it is too late to attempt to overcome the nationalistic prejudice and narrowness of the men and women who are fifty years of age. We must begin with the boys and girls in our high schools, who do not yet know enough to hate." I would suggest that we begin with the kindergarten, and I would also paraphrase the last phrase by saying that we should see to it that our boys and girls know so much about other peoples that they would be protected against blind hatred, that hatred that grows out of fear and ignorance.

The Problem and a Solution

How can we build an intelligent knowledge of other lands which will lead to a respectful attitude? That is the problem. In countries with rich heritages of culture and art and natural beauty the problem is not difficult. An old Chinese saying gives us the secret. It says: "One showing is worth a thousand tellings." It is a question of Visualization. Show the children the beauty of the country, reveal to them the glories of architectural achievement, portray vividly the arts and crafts of the people, make real the life and customs and industry. Build on a foundation of art and beauty, create a genuine respect for these people in the hearts of the children; then lead them to a sympathetic understanding of their life and activities. Don't just tell them how they do and live, but explain why they do it that way. If we begin by stressing backwardness, low standards of living, primitive methods, crowded conditions, and peculiar customs and characteristics we are building on a wrong foundation.

Personal Experience in China

This situation of wrong emphasis in our education was keenly sensed by my brother and me during our eight years of residence in the Orient. We felt absolutely unprepared to face the problem of understanding China. We had no idea that China contained so much of art and beauty. It was this revelation of what China actually was that led us to try to capture, if possible, the spirit of her ancient civilization and pass it on for others to see. And it was this inspiration of China that has led us during the past seven years to carry on in the United States an experiment which many educational leaders consider a unique solution to the problem of building international friendship.

Our first years were spent in Peiping, that center of China's glorious past, and we were made deeply conscious of China's artistic and cultural contribution to world civilization. We marveled that these beauties had never been adequately revealed to the West. In Peiping we found unusual opportunity for study and research in various backgrounds of Chinese civilization. We also had first hand contact with the best that still exists of China's marvelous architecture. To capture this beauty we chose the camera as our aid. It was a fascinating task. Although engaged in educational and publishing pursuits, we spent every spare moment and every vacation day in exploring the ancient temples, palaces, and gardens. Week by week we found new beauties and added them to our store of films.

We found China a land of brilliant and harmonious color. Nowhere has architecture developed so many beautiful forms, and the old Chinese architects knew instinctively how to decorate their constructions. They built palaces, temples and pavilions in harmony with all that is grand in all the world. Those vermilion pillars resting on platforms of grey or white marble and supporting gently sloping roofs of green, yellow or blue porcelain tile; those eaves and crossbeams painted in the gorgeous hues of the rainbow; those magnificent interiors reflecting the colors of the peacock's tail in coffered ceiling and beams and pillars, presented a challenge that we could not resist.
This color must be reproduced at any cost. The second step in our effort to reproduce China for the West was the preparation of an exhibition of China's Beauty Spots in the natural colors. Outstanding subjects were selected from our collection of three thousand films, and these were enlarged for painting. Chinese artists were trained in a special technique which made it possible to reproduce perfectly the brilliance of lacquer and glaze of architecture, or the delicate hues of nature. Hundreds of hours were often spent in perfecting the coloring of a single scene. It made China live before the eye.

The presentation of this exhibition won immediate recognition in China. The production of the Art Volume called "Peking the Beautiful" featuring seventy-two of our Peking views did much to bring our art to the attention of leading China artists and critics. Dr. John Ferguson, noted Art Authority of Peking, and Dr. Arthur DeC. Sowerby, Editor of the "China Journal," pronounced the collection the finest representation that had ever been made of Peking.

Prominent Chinese recognized in this exhibition a superlative means of presenting in a simple and yet effective manner the fine things in China's cultural heritage. Dr. David Z. T. Yui, late head of the Y. M. C. A. organization in China, says: "No one who is conversant with the world situation of today will fail to agree that one of the prime requisites and sure guarantees for lasting international peace is international understanding and goodwill. And one of the best ways of promoting this understanding and goodwill is to enable the different countries to genuinely and mutually appreciate the fine and distinguishing points in each other's civilization. What you are doing will, I am sure, have a most decided and favorable effect upon the mutual understanding and goodwill between the two sister republics on both sides of the Pacific."

Mr. B. A. Garside, Secretary of the China Union Universities, New York City, expressed his reaction to our effort in these words: "One of the gravest blunders we Western friends of China have made has been our failure to give any adequate presentation to the Western world of the enduring beauty which the Chinese people have through the ages perpetuated in their temples, their palaces, their monuments, their landscape, and even through their costumes and their daily round of ceremonials and observances. "Herbert C. White and J. Henry White have given us a most unique and invaluable contribution which goes far to remedy this failure. With the warm understanding of true friends of China and the Chinese people, they have been able to see and appreciate this beauty. With the genius of the artist they have accomplished the task so many others have attempted without success—they have captured and preserved this beauty so that it may be shown to all. And with the skill of experts in photographic reproduction they have prepared a collection of photographic studies which is beyond comparison with anything else ever brought to us from China."

**Putting the Collection to Work**

On our return to America in the fall of 1929 exhibitions were arranged in leading universities, art institutes, and civic groups and clubs. Illustrated lectures were prepared to accompany the exhibition of the paintings. The work received immediate acclaim from artists, photographers, and those interested in world affairs. Educators saw in it a definite approach to the Orient and a real contribution to the field of international relationships.

One of the first educators to sense the possibilities of a visualization of China was Mr. Willard E. Givens, then Superintendent of Oakland Schools in California. Mr. Givens attended our first showing in America and immediately invited us to present our material to his staff and teachers. The response was most gratifying, and following the lecture Mr. Granger, Director of the Department of Visual Instruction, requested that we give thought to the organization of our material into units of study for teacher and classroom use. We took Mr. Granger's request seriously, and devoted nearly six months to the selection, organization, and reproduction of units touching practically every phase of China's life and culture. A story was also prepared to accompany each of the three hundred views included in the series. The material was made available in photographic prints and colored slides. Sets of this China Visualized series have been in constant use in leading libraries and city and county systems on the Pacific coast; and in a number of the larger mid-western centers. There has been a constant urge that this material be made up in printed form, which would multiply the usefulness of the collection a thousand fold. There is hope that this may be accomplished before many months.

In the organization of material for teacher use and in our lecture work we have tried to maintain a balanced picture of art and life. This is very important in developing a visual program for our history and geography classes. During recent years we have delivered hundreds of lectures in schools from Bellingham, Washington, to Gorham, Maine; and from San Diego, California, to Miami, Florida. The pictures are everywhere acclaimed as the most beautiful that have ever been shown. The student reactions have been very revealing. For one thing it has proved that a beautiful still picture can be used as a means of educational entertainment. The trouble with many still pictures is that they lack artistic merit, and lack proper application of color. Art in visual education must be the standard of merit. Slides and prints must not only depict works of art, but they must be works of art. It may cost a little more to produce high quality visual material, but it will be worth the extra cost in a definite reaction on the part of the student.

During the past seven years the attitude of thousands of young people has been very definitely changed toward China. Foundations have been laid on which the teacher can build a definite interest in this fascinating country. We have tried to reach teacher groups also and give them the inspiration of beauty from China. Scores of Teachers Colleges have sponsored our Exhibit and Lecture series called "A Day in China."

We have found Teacher Institutes interested in gaining a glimpse of China. The International Relations Committee of the National Education Association sponsored the program last summer in Portland, Oregon. After a week's work in the schools of Elgin, Illinois, Mr. Waggoner, the Secretary of the Visual Instruction Department of the National Education Association, wrote thus: "It is with a great deal of pleasure that I report to you the reaction of our students and teachers to your pictures on China. All reports were exceptionally complimentary, and your material fits very nicely into the modern trends in teaching. I know of no other material that we could have used that would better acquaint students with the contribution made by China to world civilization. I hope it will be possible for you to make these pictures available to every student in the country."

The experiment has taken much time and much effort, and during the past few years has not been an easy thing to carry forward. But we feel well repaid when tributes come such as this one from Mr. Givens, the Secretary of the National Education Association: "Your greatest contribution wherever you are able to give your lectures and exhibit your paintings is, no doubt, in the building of goodwill. That is certainly something that needs emphasizing at this particular time when there is so much confusion and unrest everywhere."

And we certainly appreciate this opportunity of presenting our exhibit and lecture material before the Visual Department at this meeting in New Orleans. We thank Mr. Greene for his kindly interest and his invitation to make this demonstration. We hope that as time goes on many more will devote their time and talent in this great effort to make the world one happy family of nations.

The study of appreciation of motion pictures in High School has attained a settled place in the curriculum of progressive schools. The philosophical basis of this inclusion in the curriculum is that children should be taught to do better the things they are going to do anyway. The pupil is led to condition himself by selecting only the best pictures to see, through acquiring knowledge beforehand of their quality. Enjoyment is heightened by new sources of esthetic satisfaction in symbolism, in atmosphere through music and settings, in appreciation of the art of direction, and in the psychological effects of the unusual camera angles and adjustments. Emphasis is shifted from star to story. Content must contain truth about life, the theme must have worth, and the presentation must make some genuine social contribution.


The school library has been changed from a room of quiet and decorum to a workshop of ideas, in which books are tools and their use is more desired than their preservation. Learning in the schools has changed from formal learning to learning as a manifestation of growth. With progressive methods, it is natural that emphasis should be placed on the use of visual, or objective, aids, for it is only through these means that the realism and concreteness demanded in the new program can be achieved. The librarian is a collector and dispenser of information. She is an expert in classifying source material. It is therefore logical that teachers should turn to her for guidance in problems that are visual. Charts, posters and prints may be collected and cataloged by the librarian. It is suggested that slides may be cataloged, repaired, and distributed by the library force. As films often involve mechanical problems, their handling would depend upon the individual librarian, and the kind and amount of assistance which can be furnished her. The treatise is replete with detail, and may be of great service to any librarian desiring to take over such service.


The entire courses in history and geography are constituted of picture lessons. The illustrations were prints, assembled from a variety of sources, then mounted, numbered, and placed in envelopes. Notes of each lesson also were filed containing picture references in the margin. After each lesson, the pictures were used as the basis of a summary. Tests were given based on the illustrations. In English, oral themes were prepared and delivered explaining each view. There is strong motivation in this procedure for both strong and weak pupils. There is less self-consciousness as the attention of the group is centered on the picture rather than on the performer.


When a five year old child's ability to read was questioned, she replied, "O yes, I read from pictures." The story was so fully illustrated by an artist that the child made good. Commercial concerns have long known that if we read their pictures on the highway often enough we will respond to the experiences they portray. The church school cannot ignore these far-reaching influences.

Pictures heighten the joy of delightful experiences that are familiar. Children like to see other children enjoying the experiences that they have enjoyed. Thus, the author goes on to her ninth value to be found in pictures,—"Boys and girls need to live close to the beautiful. We know that a beautiful picture may lift one up to realms where the great have lived." Excellent criteria are given for the choice of pictures, and a list of houses from which prints may be obtained.


The Bantu Experiment was financed by the Carnegie Corporation of New York, and has been carried on for about two years. Some space is given this report because of the analogy between the primitive mind and the child mind on a cultural level when the receptivity to a film presentation is considered. For both, it is imperative that a pictorial experience merge into an appropriate background of general life experience. Educational films must deal with problems which pertain to the daily life of the African, and which can be worked out with the means at hand. The Natives, especially the educated ones, are greatly interested in the white man and his ways, but western films must be re-edited for him, or taken anew. The African needs to see the simple home life and rural side of life which give a more true and balanced idea of the white man's
mode of existence and character than can be obtained from most entertainment films. Keeping out undesirable films is not only necessary, but a large and continuous supply of good ones is imperative. Scenarios must be prepared by people whose main interest is humanitarian and not economic. "I submit that (the film) is going to be a potent influence for good or evil and that it will be an almost criminal dereliction of duty if we fail to make proper use of this tremendous power which lies to our hand."

"Classroom Methods" (p. 154), by John L. Harde. A general treatise of three techniques for film lessons, but especially applicable to the teaching of English Composition and Appreciation of Poetry. The three factors in the latter are assimilated more fully by the use of the film than by the usual methods of exposition or reading, whether oral or silent.

(pp. 128-135) "How can film entertainment specifically designed for children be provided in public cinemas?"

A conference on "Films for Children," organized by the British Film Institute, was held in London in November. "The Dimensions of the Problem," a talk given at the conference by Simon Rowson, reports that all of the films acceptable to the British Film Institute only about one out of nine is considered suitable for children.

This department extends an invitation to psychologists or others to sustain, or refute, the following thesis set forth in "What Children Like," an article by Dr. Emmanuel Miller. "Enjoyment which is obtained through the visual scene, arouses by its very nature primitive interests and instincts. Particularly is this true of the cinema in which visual impressions are obtained through the medium of movement. This is true of adults as well as of children. . . . Never mind what our age may be; on entering a cinema the mental age undergoes immediate devaluation on the whole. Emotional and instinctual satisfactions are sought even if what we see is subject at times to intellectual assessment." Analyzing further the instinctual interest in the motion picture, the child is interested in movement and in speed, but the movement must be in the direction of a goal. Movement implies power, and power often implies aggression. The child favors aggressive living, but the aggression must be harmless. Recent Mickey Mouse films terrify some children because the aggressive motive is too insistent. "When aggression or destructiveness is portrayed, . . . it must be curbed, and some measure of justice and reconciliation must be achieved. Through the phantasy life of the child, the aggressive motive is satisfied as he becomes identified with the doer of big deeds. Enhancement of the self takes place,—positive self-feeling is a dominating emotion. As the child becomes older the ego is expressed in heroism and moral excellence. Although boys may imitate the aggressive methods of the gangster, they do not adopt his motives. I have not known a single young delinquent of more than 100 I have studied, who was deeply influenced by films of crime. They may act the gangster, but they do not follow his career."

Our Cover Picture — FAITH

EUGENE IVERD, public school teacher, whose real name is George M. Erierson, was born in St. Paul, Minn. January 31, 1893. His early school days were spent in the little town of Waseca. A student of Yankton College, the St. Paul Institute of Art, and the Pennsylvania Academy of Fine Arts. He is a painter of youth, having acquired a fine appreciation and understanding of boys and girls through his work in the schools. His cover designs of boys appear on leading magazines, and his landscapes and marines have hung in many exhibitions.


Nearly 400 boys and an equal number of girls attending a Junior-Senior High School, were examined as to attendance at movies and the type of plays preferred. Results are described and tabulated. It is the author's opinion that the quality of picture production has improved since 1930 with a corresponding increase in the use of books, plays and poems as themes for pictures. A similar investigation was made of radio auditions with rather startling results. "With reading interest at a peak in Grades VII-VIII, guidance is needed to counteract this radio 'trash.' A strong appeal is made to educators to exert a direct influence in the guidance of what young people see and hear through the media of two of the world's most marvelous inventions. We must seriously consider the influence of movie and radio. . . . and act vigorously."


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Services of the American Council on Education

(Concluded from page 117)

termine the advantages and disadvantages of each of these types.

Another study deals with evaluation procedures which are employed by school districts for the selection and the use of educational films. Attention is being given to the various evaluation forms which are used and an attempt will be made to develop a standard evaluation form which can be used throughout the country.

A third study will inquire into the procedures used in western European countries in the educational motion picture field. France, Italy, Germany, and England will be visited this summer by a representative of the Educational Motion Picture Project. Inquiry will be made into production, distribution, teacher training, and classroom procedures. A report on this study will be available next fall.

The Department of Visual Instruction of the N. E. A.

Full announcement regarding the three-day session at Detroit, June 28, 29, 30, concurrently with the annual meeting of the N. E. A., will be made in the May issue of Educational Screen.
A Report on Visual Education in Minnesota

A study of Audio-Visual Aids in use in Minnesota, compiled by Harold C. Bauer, Superintendent of Schools at Lakefield, for the Minnesota School Board Association, presents a case for greater emphasis on such aids. The data obtained from the reports of 220 school superintendents are of considerable interest. It was found that more than half of the schools of the state own phonographs, lantern slide projectors, and radios. 41% own stereographs, 25% micro slide projectors, 19% 16mm silent projectors, 16% filmstrip projectors, 13% 35mm silent projectors, 13% still film attachments, 10% central sound projectors, 8% opaque projectors, 8% motion picture cameras, 4% 16mm sound projectors, and 1% 35mm sound projectors. Response to the question, “type of equipment desired,” indicated that there is the greatest demand for 16mm sound projectors. The average yearly expenditure of the 220 schools participating in the study, is $40.

Minnesota school administrators endorse the use of audio-visual aids and encourage their furtherance. Their response in positive support of such aids was unanimous. The survey disclosed the fact that the greatest obstacle to the promotion of a visual education program is finances, the second being the lack of teacher preparation for the use of such aids.

New York School PTA Motion Picture Course

The Parent-Teachers Association of Samuel J. Tilden High School, New York City, is offering parents, teachers and students a course of ten sessions, February to June, to acquaint them with the many phases of motion pictures. The historical, educational, social and artistic aspects of the film will be presented by distinguished authorities, and each topic will be illustrated with motion pictures. Miss Rita Hochheimer, in charge of the Bureau of Visual Instruction of the Board of Education, will supervise the course.

Film Societies Exchange Pictures

The Cinematique Francaise, a French society for the collection of motion picture films, and the American Museum of Modern Art have recently arranged an exchange of motion pictures between France and the United States which show the development of the art. The American organization was one of the first to start a collection of old films. The French society was founded only last September, but already it has several hundred films in its library.

Among the more interesting items in the French collection are the early efforts of Louis Lumiere, known as the “father of the cinema.” Some of these motion pictures were made as early as 1895. The oldest examples will be placed on display in the Photography Pavilion of the Paris International Exposition of Arts and Crafts which opens in the French capital in May.

Film Courses at Universities

At the University of Illinois, Prof. Ernest Bernbaum has inaugurated a course in Appreciation of Movies, English 58. Fifty are in the class, one-half of the applicants. Twelve movies are to be evaluated during the course. Students must read the book on which the motion picture is based, or a criticism of it, before going to the theatre, Midsummer Night’s Dream and The Charge of the Light Brigade were the first films studied. The class meets twice a week for discussing the historical accuracy, artistry, and technical qualities of films studied. An examination will be held, and three credits allowed for the course. It is to be determined whether values communicated through the medium of the novel and the drama can be adequately communicated through the medium of the cinema.

A course in cinema appreciation has been conducted by Professor Sawyer Falk at Syracuse University since 1934. This year a laboratory plan which includes the showing of motion pictures and analysis of scenarios, has been added. Students will examine scripts, analyze them in terms of sequences and in general become familiar with cinema terminology. The picture under discussion will then be shown for careful scrutiny of definite scenes which afford examples of various film construction.

WPA Art Loans Continued

Thousands of paintings and other works of art, created by workers on units of the Federal Art Project of the Works Progress Administration, are available for loan to public institutions deriving their support from tax funds, according to instructions issued to State WPA Administrators throughout the country. Procedure to be followed by institutions in applying for loan of art works and by directors of art projects in the states in granting these requests are outlined in these instructions.

It is interesting to note that thousands of public institutions throughout the country already have availed themselves of the benefits of the Federal Art Project. According to the latest available figures, 500 WPA Federal art mural projects were completed in schools, hospitals, and other public buildings in all sections of the country last year. In addition, 6,136 institutions and public agencies have received 7,695 easel paintings; 1,462 sculptures; 1,511 prints; 102,103 posters; 130,092 photographs; 4,395 art and craft objects; 15,973 mat drawings and diagrams; 322 stage sets; 155 dioramas and models from visual education; and 4,253 lantern slides.
Seeing Salem
Paramount One-Reel Educational Film

Here is Paramount's second offering under its recently inaugurated policy of producing one-reel condensations from such of its theatrical features as contain material of genuine value in the classroom. It is a splendid policy, which will win for Paramount from the educational field not only approval and appreciation but well-deserved profits in course of time. Educational material of this kind is absolutely unobtainable from any other source or by any other method. The huge expense of research, set-construction, properties, costumes, professional cast, expert direction and optimum photography is definitely prohibitive for educational production per se. But with the cost of these essential elements carried by the theatrical film, the educational cream of the picture can become available to the schools at a price they can pay, and will pay more and more widely. Seeing Salem is a sample of this educational cream. It merits not only our sincere congratulations to Paramount but widespread rental and sale. It is a selective condensation from the notable feature picture, Maid of Salem, expertly done with real understanding, which is much beyond the ordinary "good intentions". The cooperation of Annette Glick, of the Los Angeles Schools, is an evident factor in the excellent result.

Seeing Salem is an appropriately named, one-reel, silent film, that could hardly be improved by "sound". It aims to present a reconstruction of the modes, manners, customs and costumes of the Puritans and we may add also "the mood, mentality, emotions, atmosphere and tempo of New England life of three hundred years ago." The picture moves slowly, as it should for ox-cart days. It gives time for careful seeing and reflecting. Countless details are there—of costume, furnishing, tools, landscape, village architecture, facial expression and type—details that are utterly new to youngsters of the present day and which their eyes need time to master. Wise omission of the violence and hysteria that make good "theatre" in the major production leaves a little picture smoothly and richly informative in factual elements. It is a treat for learning eyes and minds that need to grasp and hold the permanent facts of Salem life, undistracted by thrill and crisis. The feature film, Maid of Salem, is a dramatic convergence upon certain tense and tragic moments in Salem history for purposes of theatre. Seeing Salem is a calm and charming replica of daily life as it went on, not for moments, but for generations on the "stern and rock-bound coast."

Paramount has also provided an excellent and needed supplement to the one-reeler in the form of an attractive carton of two dozen beautiful stills from the film, skilfully annotated for teaching use. Unhurried study of these will yield a wealth of details inevitably missed in the moving picture. Indeed, if a youngster is to get all that Paramount has to give on Salem, here are the three steps: First, analysis, interpretation and discussion of the still pictures; second, an intense and thoughtful viewing of Seeing Salem; and third, (for those not too sensitive for strong drama) a session with the Maid of Salem for a thrilling, unifying experience, with all background details already known and the mind and eyes free to absorb the action.

Bell and Howell handle Seeing Salem for the educational field.

N. L. G.
WE realize that the purchase of motion picture equipment requires long and serious consideration and advertisements, correspondence or even catalogs are ordinarily inadequate. In many instances decisions cannot be quickly made and it is, therefore, highly desirable to have information personally supplied by representatives of the National Theatre Supply Company, Distributors of Simplex Projectors, with Branches throughout the United States. We are also represented in foreign countries and would like you to write to us for the names and addresses of any of our distributors.

OUR wide experience enables us to understand the needs of schools, colleges, churches, hospitals, private and public institutions, etc., and where there is no technical advisor to guide in the selection of equipment the complete line of 35 MM Simplex Projectors places us in a position to impartially advise regarding the kind of equipment best suited to meet the specific requirements of any proposed installation. Projection Room Plans and information regarding installation of motion picture equipment will be supplied to architects and others upon request.

FOR a quarter of a century, a period which covers almost the entire commercial history of the motion picture industry, the products of this company have held an unquestioned, outstanding leadership wherever motion pictures are shown and enjoyed. In New York, Chicago, Los Angeles, London, Paris—the great cities of the world—Simplex Projectors are installed in the largest and finest motion picture houses, and are extensively used in South America, Asia, Australia, Africa, as well as throughout North America and Europe. Over twelve hundred theatres in England, Ireland and Scotland alone are equipped with our products. These facts we believe definitely substantiate our claim “Simplex—the International Projector.” Simplex Projectors are used in thousands of rural communities throughout the United States and Canada as well as in the larger cities where superior projection is necessary and dependability is essential. The universal appeal of motion pictures has been made possible and practical for over twenty-five years very largely through the engineers and mechanical staff of this company. Governments, the Army and Navy, great commercial organizations, universities, churches, and other institutions have used Simplex Projectors exclusively for many years. More recently the finest Trans-Atlantic and Pacific Liners have installed Simplex Projectors for the entertainment of their passengers.

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Many of the men in our plant have been with us from fifteen to thirty years, and have had extensive experience in the design and construction of motion picture projectors. This is of utmost importance as motion picture projectors must be designed and built with a thorough understanding of the practical difficulties of the motion picture field as well as the technical problems. Although Simplex Projectors are made with scientific accuracy and projection involves a knowledge of mechanics, electricity and optics, utmost thought has been given to the importance of having our machines simple and dependable. Very satisfactory results can be obtained even by those who have not the skill and knowledge required in order to secure the quality of screen presentation demanded in large motion picture theatres. In the hands of a projectionist with the necessary technical knowledge, Simplex Projectors will meet all reasonable requirements under any conditions. We definitely claim that no other organization is so completely equipped for the manufacture, testing and checking of sound and visual motion picture apparatus.

Simplex parts are made from carefully selected raw material, and this also involves an intimate knowledge of the highly specialized requirements of this field. Every part used in the manufacture of Simplex Projectors is made in our own plant, and whenever required in order to secure greater ease of operation and longer wear all parts are specially hardened and ground. Satisfactory screen results can be secured only through such constant care in the manufacture of Simplex parts. Due to the tremendous enlargement of the picture from the film to the screen, unsteadiness becomes noticeable and objectionable, thus greatly reducing the entertainment value of the picture. Unsteadiness in some instances may be due to errors in photography, but frequently is the result of projectors which are poorly designed and constructed or in a defective condition. Failure to use properly made parts is a harmful practice.

Basic Mechanical Excellence

In addition to basic mechanical excellence, Simplex Projectors have many exclusive patented features which secure ease and safety in operation, and reduce maintenance cost. Supplemeting the many other desirable features of Simplex Projectors is our wide sales and service organization throughout the United States and in many parts of the world. Our representatives are also able to help theatre owners and others using Simplex Projectors by solving their technical problems and by prompt, adequate service in supplying parts for emergencies. Service to be satisfactory involves willingness to help as well as adequate facilities and we assure users of Simplex Products that either direct or through our representatives we are glad at all times to be of assistance whenever it is in our power to do so. A cordial invitation is extended to visit our offices and inspect our factory. Packing, shipping and servicing of Simplex Projectors also involve many problems and here again our great experience and vast resources enable us to maintain our outstanding international leadership in this field.

SIMPLEX FACTORY
Pueblo Indians - In Hand-Made Lantern Slides

By ANN GALE

Art Department, Lindblom High School, Chicago

THE Pueblo Indians, true natives of our country, are interesting to children in third, fourth, and fifth grades. Their way of living is an excellent example of man's adaptation to his physical environment. Their thick walled homes, agriculture by irrigation and dry farming, and their crafts show this adaptation.

These six pictures may be traced on slides and projected on the screen as the basis for a discussion of Indian life in the Southwest:

(1) Indian pueblos on a mesa, with other mesas and mountains in the background

(2) An Indian pueblo with an Indian woman in front of the oven. The drying racks are on the side

(3) An Indian man weaving a blanket

(4) Indians selling pottery and blankets to tourists

(5) An Indian family on a donkey

(6) An Indian cultivating his patch of corn.

Keystone crayons will show the brilliant contrasts of yellow-orange sand, green foliage, blue sky, purple mountains, and red cliffs.

The simplest type of hand-made slide is made by drawing or tracing on finely finished etched glass with ordinary medium lead pencil. Color, by special crayons or inks, enhances the slides greatly. Fine effects are obtained by blending with crayons. About one third inch margin should be left all around the slide. The slide is readily cleaned with soap or washing powder to receive a new picture.
Leading educators throughout the country know the great value of RCA’s Modern Teaching Aids. Designed especially for school use, they offer supplementary instruction which injects new and vigorous spirit into regular classroom work. Lessons take on new life—and lessons that live are easy to learn. Young minds are stimulated, and teaching becomes more effective!

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This interesting booklet answers your questions, shows how RCA’s many Educational Aids will help your school. Write now! No obligation.
A Living Picture Book

TWICE, while teaching and supervising art, I have used a living picture book in the elementary grades to stimulate interest in reading books. This device as used in the sixth grade art class was a modified revolving stage constructed to look like a large open book, with different scenes, and the children themselves as living characters in the books. The projects grew out of the interest in some new library books which the children wished to recommend in a forceful way to their classmates.

Except for some help from the school carpenter, whom we called in as a consulting engineer when the book would not turn easily, most of the actual work was done in regular art class periods by the children themselves.

In planning the problem the group decided to make a large book from which the characters could step out and speak. They chose ten favorite books, decided upon the most dramatic or characteristic incident in each book, then each pupil made an illustration for one of these incidents, but leaving out the characters, as they were to be real children after the book was made. The drawings were posted on a bulletin board, class criticisms were given, improvements were made, and finally the ten best pictures were chosen by the class from the forty pictures submitted.

These were enlarged on newsprint paper to about 36" x 42" in size, then outlined with a number zero round nib lettering pen. Several children worked together on each drawing, filling in the outline with colored crayon, and working definitely for strong contrasts. Plans were made by those children not working on the large drawings to do the printing which they felt was needed to complete the book. A title or an explanatory sentence was chosen for each illustration, and after practice in lettering, they were placed on a page to be opposite each drawing. The printing was done with an old chart printing outfit with letters one inch high. Cut paper or pen lettered titles could have been used for these pages.

Costumes suitable for the different characters were decided upon through class discussion. The children gathered together odds and ends of materials, such as sashes, feathers, costumes previously used, and remnants of cloth. From these materials costumes resulted with no outlay of money and a minimum of effort. In some cases materials were sewed together to make the garment, but in general, parts were cleverly pinned together to make an attractive, usable, and satisfactory costume.

Free periods were used for the construction, sawing, and nailing together of the book. It was made of double beaverboard, edged with light weight moulding, with an old broom handle in the center between the two pieces of beaverboard. Both back and front were painted with showcard paint to give the appearance of an open book. At the right side, both back and front, a shallow, rounded shelf was built upon which the characters sat or stood and from which each one stepped after speaking a few words.

To give the illusion of pages in a real book five printed pages were nailed, one on stop of the other, on the left side of the book. At the right five pictures were nailed, in the same manner. This was done on the front and the back.

The “book” was placed in the center of the room with screens extending on each side to form a continuous wall across the room. Had curtains been available they would have been used instead of the screens. The diagram which follows shows how the screen and the materials were arranged for the performance.

(Audience here)


As soon as one character was shown, the book turned, and while that character was speaking the first printed page and illustration were torn off and the

(Concluded on page 130)
“Oliver Wendell Holmes Was Right. The Stereoscope Is Not A Toy.”

— The March Number of The Technology Review

The above quotation is taken from a most interesting and informative article on the use of stereographs in education and ophthalmology in the official monthly publication of the Massachusetts Institute of Technology. The article is entitled “Seeing Solid.”

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next character and scene were arranged. In this way there were no pauses. The book turned, a character spoke, stepped down, and took a seat; the book turned again, and the next character appeared, spoke, stepped down, and took his seat. By having the children properly placed it was possible to repeat the process rapidly and for as many scenes as had been planned.

Some difficulties were experienced with the mechanical operation of the book. It was found that the base had to be large, heavy and strong to keep the book from falling over. The bottom of the broom stick had to project deep into the base so that the pages would turn easily. These were the things discussed with the carpenter. Small children had to be chosen as the characters so that they would not be out of proportion with the pages of the book, and to reduce the weight on the mechanism.

The short speeches for the characters were written by the class during language periods. In subsequent language periods the children who were to portray the characters were coached in their speeches, and in the mechanics of getting in and out of the book.

Child kneeling on shelf in front of picture in book.

As planned at first the living picture book was to be quickly and inexpensively constructed, and to be presented in an Art period to another sixth grade. Due to the interest created during the construction of the book, the making of the costumes, and the "rehearsal," this initial presentation was so successful that the Principal asked the class to repeat the program so that more persons might see it. This was done, and in addition to entertaining several classes, it provided a most interesting assembly program to which many parents came.

This type of integrated project can be carried out in any school where the teachers plan their work together and cooperate in various undertakings. It provides an activity in which all the children can have a major part in both planning and working out the final product.

By ALMA M. GASSLANDER
Teacher and Supervisor of Art,
State Teachers College, Indiana, Pa.
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"The Mighty Treve" — A Film Review

(Based on Albert Payson Terhune's novel, "Treve")

M ANY dogs have come and gone on the screen, in bit parts, in star parts, from Strongheart and Rin Tin Tin down through lesser knowns, even to adorable pups that are nameless. And now comes "Tuffy." If there are any youngsters who have never lost their hearts to a dog in a movie, let them prepare to lose them now. This irresistible collie is a dog "star" of the first magnitude. The picture is his.

It is an open-air picture of rolling plateau and windswept upland in the great Southwest, grazing lands for sheep in thousands. Against a glorious natural background unfolds a human little story, adequately acted, of sheep-ranch people and especially of "Bud" (sincerely played by Noah Beery Jr.) and his dog.

The home ranch sold, to a heartless buyer who claims the dog goes with it, the disconsolate orphan hero with his last possession rides off alone with his pony and parrot to seek another home. But the loyal dog escapes and overtakes his master. Joyously now they travel on and meet a girl who offers shelter at her uncle's ranch — but the dog must be kept out of sight for "uncle hates dogs." Accident reveals Tuffy's presence, and only the plea of his niece prevents the furious old man from sending the wanderers on their way. After a poignant scene where the uncle nearly manages to shoot the beautiful animal, Tuffy's irresistible charm, intelligence and devotion gradually turn his hatred to affection. Tuffy's masterful handling of a huge, headstrong flock of sheep that were too much for the herdsmen is finely thrilling. He saves the uncle's life from an attacking mountain lion. He wins prizes and much needed money when his fond master exhibits him at a neighboring fair — but then comes misfortune which all but leads to tragedy. The brutal buyer of Bud's old home appears, claims Tuffy, the law upholds him, and the broken-hearted hero sees his pal led away apparently forever.

Shortly comes news, dreaded by every rancher, that sheep are being found killed. Madly they hunt the perpetrator. It may be coyote, wolf, mountain lion, or even a sheep-dog turned "killer," as they are known to do occasionally. Tracks are found showing that the killer runs on three legs. And one day Tuffy reappears, bedraggled, bloody, holding an injured forefoot off the ground. The code of the range says killers must die, and a dozen revolvers are drawn for the execution. Bud
pleads, but in vain. A Ranger rides up, across his horse
the mangled body of a dead wolf with a forefront miss-
ing, evidently lost in a trap long before. The three-
pawed tracks are explained! Tuffy had killed the
“killer” in what must have been a terrible battle! The
proven innocence and heroism of the adorable dog,
after tense moments of suspicion that will be emotion-
ally trying to sensitive children, provide vast relief and a
triumphantly happy ending.

N. L. G.

The Chicago-Erpi Films on Astronomy

This group of four sound-films, recently completed
by Erpi Picture Consultants under the scientific sup-
ervision of Walter Bartky, Associate Professor of As-
tronomy in the University of Chicago, is a notable
addition to our steadily accumulating store of educational
film material of real distinction. Such productions are
raising the quality of visual teaching, and are hastening
the day when real selection can be exercised and in-
ferior stuff consigned to the discard.

The four films form a logical descriptive series, be-
ginning at home with “The Earth in Motion”, then to
“The Moon,” then to “The Solar System,” and finally
“Exploring the Universe” with unlimited space
as the only limit. Splendid animated drawing, neces-
sarily condensing the distance scale but keeping relative
motions accurate, is a major feature used to great
advantage throughout the films. Obviously the “sound”
element in these pictures means merely the accompanying
vocalogue dubbed on the film, it being impossible
as yet to catch “the music of the spheres” on the

PLEASE NOTE

Your film plans should include our “World in Review” series
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The Educational Screen

Visual Education Conference
The National Conference on Visual Education reports that applications already in for free membership cards for the June meeting indicate that registrations will exceed all former records. The cards will be issued in the order received. When the seating capacity of Francis W. Parker School auditorium is reached, no further cards will be issued.

Supt. W. L. Johnson of the Chicago City Schools will give the address of welcome for the teaching fraternity, and President Homer Buckley of the Buckley Dement Co. for the advertising fraternity. Both of these men are leaders in their respective fields of school administration and advertising.

Held the week before the June N. E. A. meeting, the conference should provide a convenient stopover for visual educationalists on the way to Detroit—and it is hoped that special groups will be organized to attend the Detroit session of The Visual Education section of the N. E. A. The Conference is made possible by The DeVry Foundation, and its headquarters are at 1111 Armitage Avenue, Chicago.

Back Issues Wanted
Frequently we receive orders for back issues of the Educational Screen which we cannot fill because our supply is exhausted. We are particularly in need of the following copies: March, May (1925); April, October (1928); March (1930); all issues of 1931, 1932, 1933; January, June, September (1934); April, May, June (1935).

If any of our readers can supply these numbers, a fair price will be paid for them, if received in good condition.
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Recent Gutlohn Releases

Walter O. Gutlohn, Inc., New York City, announce the addition of many new reels to their library of 16mm sound films, among which is Highway Mania, a two-reel instructional film on the hazards of reckless driving, giving constructive suggestions and criticisms on the safety of automobile driving. This film features Lowell Thomas and has been produced by Pathé News. It is available either on a rental or outright purchase basis.

Another picture available on the same basis is a three-reel film on The History of Aviation, also produced by Pathé News. The subject matter deals with the first flights in history up to and including the present-day transatlantic flying liners and the China Clipper.

New subjects in the World in Review and Secrets of Nature series are being acquired regularly for distribution to schools and institutions on a leasing or rental arrangement. Twenty-five of the films in these series may be obtained in 16mm silent versions.

Mention should also be made of Harmony Lane, a moving interpretation of Stephen Foster's life, which is now available for the first time in 16mm sound-on-motion film from this library.
A New Source for 16 mm. Films

The Pictorial Film Library Inc. of New York City have recently entered the 16mm producing and distributing field and plan to make available one new film each month for the educational field. Czechoslovakia, The President Speaks, and Ski-Esta have been announced as completed, and others are in production.

Czechoslovakia is a timely one-reel subject which captures the light-hearted spirit of the colorful life of the country. Prague, with its beautiful architecture and quaint buildings, and the mountain folk of Slovakia are its features.

The President Speaks, one reel, is an historical living document of the policies of President Roosevelt as explained to the people of the United States in one of the famous Fireside Chats of May 1935. This film, claimed to be the first and only one of its kind ever offered to the public, was produced with the consent and cooperation of the White House.

Representative of the series on sports, the one-reel subject, Ski-Esta, stresses the elements of skiing from actual class instruction to the more advanced phases of the thrilling sport. Photographed at the popular ski resort-North Creek, New York—by the famous outdoor cameraman, Carl Berger, it contains scenes of pictorial beauty.

Da-Lite Screen Prices Reduced

At a time when the prices of nearly everything are going up, announcements of price reductions are especially welcome news. Among the few manufacturers who are making such announcements this Spring is the Da-Lite Screen Company, Inc., Chicago, makers of one of the largest lines of projection screens. The Da-Lite Company advises that owing to economies, resulting from recent increases in sales, the prices of several of its portable models have been reduced.

All sizes of the Standard Challenger—the popular portable screen with tripod attached—are now $5.00 lower in price. The 30" x 40" which was $20.00 is now only $15.00. The 36" x 48" has been reduced from $25.00 to $20.00. The 39" x 52" which was $30.00 is now $25.00. These lower prices bring the advantages of a tripod screen to a school at practically the cost of a box screen. The 30" x 40" size of the Standard Challenger is actually less than the same size of the Da-Lite New Deal box screen. The other two sizes—36" x 48" and 39" x 52" are the same in both types of screens.

Users of visual aids will also appreciate the saving offered in price reductions on the Defluxe New Deal (box) Screens—the large screens (45"x60" to 72"x96") for showings to large groups.

Sealtite Film Cabinet

A circular has just been issued by the Neumade Products Corporation, 427 West 42nd Street, New York City, on the new Sealtite Film Cabinet. The new cabinet is made up in units of 5, 6, 8, 10, and 12 sections, accommodating the new 2,000 ft. reel. It has several innovations to recommend it, among which are, automatic closing of section doors; safety in chambers between section; permanent reel carriage and heavier gauge steel construction.

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The Model VA Spencer combination projector, ideal for classroom use gives you:

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Write for complete description and prices of Spencer Delineascopes for school use. Please address Dept. R-7-

Spencer Lens Company
Buffalo New York
The Fine Stewart's laughs. His manner Night 3-23-37 (Y) keep brother (C) character 3-16-87 Decency futile. Merely (C) And Opera-singer, (C) expert shown (Y-C) atmosphere crooks. ing climax. ship-owner loyalty, (C) Hardly (Y) (Para.) Her Borderland Hardly heavy of some (UA) get overdone. (A) Artistic re-creation of Maytime (Jeanette MacDonald, Nelson Ed- dington) was a film bursting with melodrama, plots, and a non-melodramatic heroine in railroad-chase after big muggings. The dialog is unbearably heavy and the heroine is materialized in a characterization that is unoriginal, overdone, and overdone. (A) Excellent (Y) Excellent (C) but gd. and for 3-23-37 3-30-37 (A) Dep. on taste (Y-C) Utterly unhomely

Midnight Court (Ann Dvorak, John Litel) Washington Sensation of sixteen years ago has vanished from this national pastime. And merely a case of a man's being used in a film for his strength in playing back. Lovely music, beautifully sung, in beau- tiful settings. (A) Excellent (Y) Excellent (C) but gd. (A) Hardly (Y) (Para.) Nancy Steele is Missing (Victor McLaglen) (Fox) Another heavy-fated role for McLaglen. Raging at muggings-makers as cause of war, he kidnaps baby, hides it safely — then goes berserk trying to swing the father, his own beloved baby girl. McLaglen is a far stronger actor than he's ever been, and does an admirable job. But the role is completely unworthy. (A) Fine of kind (Y-C) By no means

Parole Racket (Paul Kelly, Rosalind Keith) (Colombia) Sensational stuff on parole abuses which could be worthwhile. The plot shows as big boss of bomb-throwing, racketeer type might not marginally be worth the railroad fare, but the characters are all stock, and the plot is weak. (A) Very good of kind (Y-D) Doubtful (C) No

Personal Property (Jean Harlow, Robert Taylor) (MGM) Inartistic version of "Man in Possession." Vacuous "society" drama of war-time romance is congealed into a crude slapstick, raucous dialogue, and barbed wire character. Many laughs for the general pub- lic but none that are calculated for those of the silent generation. (A) Depends on taste (Y-D) Doubtful (C) No

Quality Street (Hepburn, Trench, Balister) (MGM) Genuine treat for Barrie lovers. Acting is good of all. Musical is as good as it can be, but the music is not a major factor in the film. Probably should be seen in the theater where the atmosphere is right. (A) Delightful (Y) Excellent (C) Very good

Ready, Willing and Able (Ruby Keeler, Ross Alexander) (Warners) Just a musical comedy routine, with the usual male cast and usual musical number. No great hope for the musical comedy future, with two young wise-cracking would-be producers trying to get a play financed. Misses and local interest distinguished for artistry and intelligence. Correctly slow-moving, to keep gentle humor, romance, charm of original, with scenes and songs setting the mood. Only a few good songs in the movie patchwork atmosphere of the period. 3-30-37 3-21-37 (A) Delightful (Y) Excellent (C) Very good

Seventh Heaven (James Stewart, Simone Sil- mon) (Fox) Notable re-creation in sound of famous silent of ten years ago, superior to it in drama, comedy, original songs, tone and in charm and sentimental appeal. More strength than weakness in the plot. A good musical for those who like the pure and simple. (A) mediocre (Y) Per haps (C) Hardly

Spain in Flames (Antheil war pictures) (A) Adequate, the terrifying, grim, realistic scenes in Spain, taken by Soviet and Spanish Government cameras, portray present struggle from strongly anti-fascist standpoint. Pro-

founding stirren, "Hitler's People's Front symphonic." Excellent commercial sounds much. 4-17-37 (A) Depends on taste (Y) No (C) No

Swing High, Swing Low (Fred MacMurray, Carole Lombard) (Para) Hilarios mixture of tom- tom action and "Maytime"-type of breezy adventure, pick-up romances, a "cabaret" love, cheap philandering, sudden drunken- ness, and genuine pathos for a character and intelligence, sure-fire money-maker. 3-17-37 (A) Depends on taste (Y-C) Utterly unhomely

Time Out for Romance (Claire Trevor, Michael Whalen) (Fox) Continual, ultra-rich music of social ethics, bums titled husband for spirited daughter. Latter runs away, disguised, to join father. Cross-crown chase by mor- tor-car caravan furnishes amusing complication. Elementary fun. 3-30-37 (A) Hardly (Y-C) Probably quite entertaining

Top of the Town (Doris Nolan, Geo. Murphy) (Univ.) Frequent musical, escape scenes and noise, and brainless hilarity in glorified cabaret where life is just one long hunt for laughs. Buried among the laughs is a film known as "classical." Low salaries made possible big sets. Compare such stuff with, "Maytime." 4-6-37 (A) Dep. on taste (Y-D) Doubtful (C) No

Trouble in Morocco (Jean Bick, Mae Clarke) (Columbia) Naive thriller. Hero and heroine, rival reporters, seeking scoop on arms-am- maging Africa. They are forced to each other and evading treachery on all sides. Holt's gun never misses, but enemy volleys never come near them. (A) Hardly (Y) Perhaps (C) No

Two Wise Maids (Allison Skippworth, Polly Moran) (Republic) Poor effort at realistic study of old schoolteachers and their faithful serv- ices. Makes heroine fundamentally unsympa- thetic, then tries to win back sympathy. More burlesque than realistic "incident". 3-23-37-worth. Moran is futile. (A) Mediocre (Y-C) Little or no interest

Under Cover of Night (Edmund Lowe, Flor- ence Vidor) (United Artists) Mixes multi-million- dery in a college faculty, with quite convincing color, background, English is spoken, no wisecracking. Particularly low on action, but solution kept continually interesting. Considerable action. (A) Good of kind (Y-Y) Thrilling (C) Too strong

Waikiki Wedding (June Crosby, Shirley Ross) (Para.) Much photographic beauty but little else. Bing, as ingenuous public relations girl, and Waikiki pineapples, starts what leads to crazy hash of South Sea adventure, mandolin romance, volkswagen eruptions, sensorious dances, clown comedy, and much, much Bing "music." 3-30-37 (A) Depends on taste (Y-C) Doubtful value

We Have Our Moments (Sally Eilers, James Dunn) (Univ.) Likely shipload story of crooks, detectives and stolen money, with Dunn-Eilers team back in best form. Rural schoolteacher, best of all. In a plight of marrying rustic fiancé, finds exciting adventures and a real hound-dog. 3-17-37 (A) Good of kind (Y) Very good (C) Good

What's Your Birthday? (Joe Brown, Mar- shall Marsh) (RKO) Fast, hilarious farce with Joe's typical crazy gags and antics better than average. Hero's relationship to Hurd's complications and a burlesque prisifigkeit. With help of his "pianist", he wins both right and wrong. 4-16-37 (A) Depends on taste (Y-C) Good

Wings of the Morning (Annabel C, H. Fun- dal) (Fox) Colorful, richly romantic, rambling story, with great beauty and charm, with a scene and action in stunning Technicolor and ex- ploiting French heroine. Her early experiences ad as boy and several embarrassing moments with hero avoid offense. 3-16-37 (A) Unusual (Y) Excellent (C) Mostly good

THE FILM ESTIMATES
Being the Combined Judgments of a National Committee on Current Theatrical Films [(A) Discriminates Adults] [(Y) Youth] [(C) Children] Date of mailing on weekly service is shown on each film. (The Film Estimates, in whole or in part, may be reprinted only by special arrangement with The Educational Service)

Borderland (Bill Boyd, Jimmie Ellison) (Para) Hopakon Cassidy poses as 'bad man' to help Rangers capture murderous head of cattle rustlers. Fine scenery, good action, usual saloons and gun-battles, tense moments, but heavy villainy not overdone. Get all Westerns. 4-4-37 (A) Hardly (Y-C) Good of kind

Don't Tell the Wife (Cly Kibbee, Urna Mer- cey) (MGM) Except tears, killings, torture, all is splendidly overdone in this extremely melodramatic film. (A) Mediocre (Y) No value (C) No

Family Affair (Laraine Barrymore and fine cast) (MGM) Excellent picture of family life and loyalty, rich in character values and humo- ry, human interest. Film and its subject suggest that crooked political foes, comes through with flying colors, for itself, town, and family. One marring sequence. 3-16-37 (A-Y) Excellent (C) If not too mature

Her Husband's Secretary (Jean Muir, Wal- ter Hill) (Warner) Good little triangle story but there are so many people showing how wife should stand rerty, Abused motiva- tion, materialization of embittered, and too one-dimensional, Secretary spoil it. And a forest fire for climax. (A) Hardly (Y) No (A) (Para.)

History Is Made At Night (Jean Arthur, Clas- her (UA) Headwaiter-hero, jealous ship-owner, husband, long-suffering heroine who wins in exciting battle with "Titanic" disaster" climax. Fine acting, striking photo- graphy, convincing characters out- side of the melodramatic. (A) Very good of kind (Y-D) Doubtful (C) No

John Meade's Woman (Edward Arnold, Fran- cine Lamarre) (Para) Strong, compelling character drama, finely done, turning to mere wind-machine melodrama for climax. Rich, ruthless hero rides rough-shod over others but finds it impossible to win the love of those ethals at their worst, like "Come and Get It". (3-21-37 (A) Very gd. of kind (Y-C) Very unhomely

King and the Chorus Girl (Fernand Gracev, Joan Blondell) (Warner) Clever, sly comic play comedy of whimsical nonsense. Gravat, notable as ableable play-boy king who never sees daylight. Blondell fine as little American chorus girl who cures him. Thin sophisticated adequate movie. And comic. (A) Very good (A-Y) Very good of kind (C) Little interest

Lost Horizon (Ronald Colman, Jane Wyatt, Margo) (Colom) Costly, pretentious screening of much loved book, with much beauty, fine acting, but also much...beauty. Nature is to be enjoyed, not interspersed with lo- sial overdose violence and sound, drug cut scenes, long running time and thought unweig- h, length and spectacle. (A) Notable (Y) Heavy (C) Beyond them

A Man Betrayed (Lloyd Hughes, Eddie Nut- gent) (Republic) Second-rate but harmless little tale of young polygamist who returns to find brother in hands of crooks. Management is not hot on murder charge. Hero battles everybody and wins. Feeble throughout. (A) Mediocre (Y-C) Harmless but slight value

The Man Who Could Work Miracles (Roland Young) (British) (UA) An H. G. Wells prophecy about miraculous power bestowed on ordinary human man who uses it first for small ends, then greater, and finally for universal destruc- tion of all life. Put on permanent cable TV. 3-30-37 3-24-37 (A-T) Interesting (C) Doubtful interest
Publications on the Visual Field

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A complete bibliography on the field to June 1930. Over 1,000 references to books and magazine articles. (Additional references by Mr. Weber through September, 1932, appear in EDUCATIONAL SCREEN for October 1932.)

SIMPLE DIRECTIONS FOR MAKING VISUAL AIDS. By Lillian Heathershaw, Drake University, Des Moines, Iowa.
Directions for making Etched Glass Slides, using Colored Pencils; Etched Glass Slides, using Colored Inks; Paper Cut-out Lantern Slides; Ceramic Lantern Slides; India Ink Lantern Slides; Still Films; Cellophane Lantern Slides; Photographic Lantern Slides; Film Slides; The Electric Map; Spatter Work; Pencil Outlines of Leaves; Carbon Copies of Leaves; Leaf Prints from Carbon Paper; Blue Prints; Sepia Prints.

ACTIVITIES OF STATE VISUAL EDUCATION AGENCIES IN THE UNITED STATES. By Fannie W. Dunn, and Etta Schneider, Teachers College, Columbia University.
A concise and discriminating summary of total results from a comprehensive survey of 24 of the 26 states having Departments of Visual Instruction. A companion article to this, “Practices in City Administration of Visual Education,” by the same authors, appeared in EDUCATIONAL SCREEN for November and December, 1936.

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IN THIS ISSUE

Teaching an Abstract Concept in Science by Motion Pictures

The Preparation of Educational Film Strips

What the Supervisor Wants in Visual Education

Flowers of the Norway Maple

Photo by Mark Mooney. (Courtesy of Nature Notes)
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Teaching an Abstract Concept in Science
By Means of the Motion Picture

Presenting the results of a preliminary experiment in an out-of-the-ordinary teaching problem.

By DR. C. L. GUTZEIT
Formerly of Cornell University and University of Texas

In a world of increasing number and variety of technical advances, a genuine understanding of science and its principles becomes increasingly necessary. It is no longer possible to reserve the teaching of these principles to the specialist in college or to pre-college training. Molecules, atoms, and electrons have become common words in the news of the day and the subject of curiosity and interest to everyone who reads the daily newspapers.

In spite of the fundamental nature of these concepts, which are the foundation of all physical science, the study of them has been reserved for the technically minded university student. Although molecular and atomic structure are generally mentioned in elementary textbooks of physics and chemistry, the teaching of the micro-structure of matter is beset with difficulties which are only partly solved in first year college science and attacked with little hope of solution at high school level or below. With sufficient persistence it is possible to force the terminology into the student's vocabulary for examination purposes, but there is very little real understanding of the concepts.

The teaching of molecular and atomic theory involves two closely related difficulties. Like all very fundamental and general inter-relating principles, the concepts are very abstract and foreign to the thinking processes of the untrained individual. Furthermore, the demonstration and technical elucidation of experimental evidence of the structure of matter are necessarily limited to specialists.

The teaching problem resolves itself into finding a method whereby accurate mental imagery may be conveyed. A verbal description is inadequate. The various pictorial devices used by the specialist and carried over into elementary textbooks are not only inadequate but actually misleading to the uninitiated. It is quite satisfactory to place a series of marks representing electrons about a central particle representing the nucleus, or to place a set of dots representing an outer shell of electrons about the symbol for an element, provided that the reader understands the arbitrary nature of the symbolism. As a teaching device, however, such pictures become pernicious misrepresentation. The static character of models renders them only slightly useful in atomic theory and totally ineffective for kinetic molecular theory.

It has been the opinion of the writer, who has had experience in the difficulties of presenting such material to college students, that the problem is primarily one of method of presentation and not of subject matter. The fundamental nature of these concepts suggests that they be introduced in the study of science as early as possible, rather than that they be postponed for advanced work. The presentation requires two characteristics which textbook or blackboard presentation fail to give: three dimensions and motion.

The motion picture enables one to depict the required motion, and the three dimensions by the use of perspective drawing in animated diagrams. In addition, it also permits one to superimpose theoretical interpretations on actual photography of experimental phenomena. The visualization of the theoretical principles removes their abstractness and makes them intelligible to the student at an earlier mental age than is otherwise possible. The motion picture should, therefore, be admirably adapted to the presentation of abstract concepts.

On this hypothesis an experiment was planned, using available films, to teach elementary molecular and atomic theory to college level and below until the lowest perception limit was reached. Circumstances prevented the experiment from being carried beyond the preliminary stages in high school chemistry and eighth grade science classes. Results which indicate successful teaching in the eighth grade show that the lowest perception limit had not been reached.

Subject Matter

Elementary molecular theory assumes a spherical form for molecules. Atomic theory was combined in the unit of instruction to indicate the arbitrariness of this assumption. The subject matter content of the film on atomic structure also suggested this combination.

Molecular Theory of Matter, Erpi Picture Consultants, Inc., University of Chicago series; (1 reel, sound). This film introduces molecular theory as a plausible explanation of diffusion, and develops by means of a comparison of theoretical predictions and

1Taken from a paper delivered before the Alamo Section, Texas State Teachers Association, at San Antonio, Texas. Acknowledgment is made to the following in San Antonio Public Schools: Mr. Thomas B. Portwood, Assistant Superintendent in charge of the Secondary Division, Public Schools; Miss Emma Gutzeit, Director of Radio and Visual Instruction; Miss Kathora Remy and Mr. John W. Todd in whose classes the experiment was conducted.

2Loaned through the courtesy of Calpini, Inc., San Antonio, Texas, representative of Bell and Howell Company, from Erpi Picture Consultants, Inc.
experimental facts. It includes diffusion of gases in air and vacuum, pressure of gases as a kinetic phenomenon, liquefaction and evaporation, vapor tension and equilibrium, cooling due to evaporation, crystallization and melting, and the Brownian movement.

Beyond the Microscope, The General Electric Company; (1 reel, silent). This film presents in detail the mechanics of the electrolysis of water, including the structure of the hydrogen atom, the hydrogen molecule, the water molecule, ions and ionic reactions in the electrolysis of water, crystallization of water and microphotographs of snow crystals. The atomic theory pictured is the combination of the Bohr theory and the Lewis-Langmuir theory customarily used by the chemist in elementary theory of atomic structure.

Classes Used

Two senior high school chemistry classes and two eighth grade junior high school science classes were taught in parallel, a film group and a non-film group in each school. The age and ability of the two groups in each school were comparable and represented normal classes. Diagnostic tests could not be made because of lack of time, but evidence indicated little, if any, previous knowledge of the subject matter. Intelligence quotients were available for the eighth grade groups.

Teaching Method

For the motion picture groups, the film was introduced by a brief explanation and followed by a detailed class discussion. Appropriate comments and explanations were made during the showing of the silent film. Each film was shown twice on successive days, the film on molecular theory being presented first, and the final (fifth) day devoted to review. In the eighth grade class, the review included a third showing of both films.

For the non-film groups, the discussion was patterned after the films. For molecular theory, the theoretical principles were introduced and the discussion followed the deductive reasoning given in the film. For atomic theory it was necessary to present the theoretical conclusions directly and without experimental proof. In both cases the discussion centered largely about blackboard diagrams.

The purpose of the experiment was to determine directly the perception ability by film and verbal teaching, following identical subject matter, so that no textbook was used. Specific applications were avoided as much as possible, and the discussion was held to the simplest applications suitable for lending experimental validity to the abstract, theoretical concepts. This is contrary to usual classroom procedure, and the restriction decreases learning effectiveness. As such, the results should be below normal for ordinary classroom teaching.

Tests Used

The nature of the subject matter makes it very difficult to use the standard type of objective tests. No tests have been devised for objective measurement of concepts involving motion. Verbal tests are entirely inadequate.

Three types of tests were chosen: multiple choice, true-false, and pictorial. Multiple choice tests favor textbook teaching, and since no textbook was used, these were of particular interest. True-false tests are reported to favor oral instruction and hence should favor the non-film group.

The pictorial tests require special explanation. The non-film groups were taught by means of static diagrams patterned from the dynamic ones in the films, in order to make the presentation as uniform as possible in both groups. Since the concepts are essentially pictorial in character, these tests were anticipated to favor the non-film groups where both the presentation and tests involved static diagrams.

Each of the three tests covered both films, the questions alternating on each film. Except for a few technical terms specifically applying to the phenomena and explained as a part of the presentation, terminology of the tests was chosen to avoid any vocabulary difficulties. Ten minutes was allowed for each test, and the tests were of such lengths that this provided ample time for completion. In this way the confusion and error of the ordinary "speed test" were avoided.

Results of Tests

Results are recorded for each film separately, "A" for Molecular Theory of Matter and "B" for Beyond the Microscope. The tests represent: I Multiple choice, II True-False, and III Pictorial tests. All question were given equal weight. Results represent the records only of those students attending the entire experiment.

Discussion of Results

Since the median grade for the eighth grade science class is considerably better than anticipated for satisfactory results the subject matter is definitely not beyond the conception range at this grade level. The method used is a severe one and the normal teaching procedure should give better results. An examination of the frequency distribution of error on the individual questions indicated that the tests were too simple to gauge the effectiveness of the teaching. The tests were designed to give median scores within the range of 40 to 75 for the junior and senior high school groups. It was expected that the tests would require modification before proceeding with further experimentation.

The non-film groups gave erratic results, as shown by a detailed examination of the test papers. This masks the superiority of the film groups. Absences due to assemblies, etc. seriously interfered with the experiment in the eighth grade groups.

True-false tests gave the most erratic results and favored the non-film groups. This is in accordance with

(Continued on page 150)


5Complete sets of these questions may be obtained from the Director of Visual Instruction, Board of Education, San Antonio, Texas.
The Preparation of Educational Film Strips

Describing, with fully detailed directions, an interesting use of 16 mm. film for classroom teaching.

By LORREN C. SPIRES
Community High School, Carterville, Illinois

A device for the presentation of new material or as a means of providing more interesting and effective drill material, the teacher-prepared film strip is the peer of all. No doubt many schools, recognizing the merit of such teacher-prepared strip, have shunned its preparation because of the seemingly insurmountable difficulties to be overcome. Such fear is in reality groundless, as excellent results can be obtained at the first attempt if certain fundamental rules are adhered to. The procedure need not be at all complex.

In this article will be discussed the preparation of film strip on 16mm motion picture film. These strips may be projected with the ordinary class room motion picture projector, if it is set for still projection. The reasons for selecting the 16mm film are: ease of obtaining equipment, low cost of materials, and excellence of the resulting pictures. It should be clearly understood at this point, however, that the same method may be employed with 35mm film to be used with the regular film strip projector, the only difference between the two cases being the use of a 35mm miniature camera instead of the 16mm. These 35mm cameras are now obtainable at a relatively low cost.

To film the pictures a 16mm motion picture camera is used. And the simplest form of filming is to use one of the titling stands made for such cameras. These stands are provided with supplementary lenses which enable material to be filmed at a distance of about 8 inches from the camera, with the result that type-written material can be used rather than large, hand printed titles. In case the school is not equipped with a motion picture camera, there can always be found an amateur movie maker in the community who will gladly cooperate with the school in the production of the film.

The film used is 16mm positive film, obtainable from any large camera supply house at a cost of about $1.25 for a 100 foot roll; enough to produce at least forty film strips of 50 frames each. It has speed enough for outdoor work and is well suited for reproducing line drawings and printed matter. This film does not come on light tight spools so must be handled in the dark by the light of a safe red lamp. The red frosted bulbs sold by electric or variety stores make excellent working lights for this type of film. When the film is taken from its metal container it should be wound on a camera spool for safe storage, as well as for insertion in the camera. The emulsion or dull side of the film must face the lens when the camera is threaded.

In the preparation of the material to be filmed, the teacher should make a carefully written sequence of the drawings and explanatory titles to be used. Each title or drawing is then transferred to a separate white card or strip of paper for photographing. All drawings should be in black ink, and a relatively new black ribbon should be used on the typewriter for printing the titles and explanatory legends. Hand printed titles may be used if desired, but it should be remembered that any irregularity in the print is magnified many times on the screen and small errors become large errors, as viewed by the audience. After printing, each card is numbered according to its place in the sequence and is then ready for filming. The actual filming should be done in bright sunlight.

In the filming procedure the camera is securely fastened to the titling stand and the lens stopped down to the correct stop for bright sunlight. The first title of the sequence is then placed in the titling easel and accurately centered. This is important as any variation of a printed line from the horizontal is very noticeable when projected on the screen. After properly centering the title, a single frame exposure is made. If the camera is not equipped with an attachment for making single exposures, a quick pressure and release of the starting button will do nicely. This motion can be quickly mastered by practicing it with the camera empty. When the first title has been filmed, these operations are repeated until all of the cards in the sequence have been photographed.

After making the last exposure of the sequence, the camera is taken into the dark-room, lighted by the red lamp, and the film is cut just above the film gate. The exposed strip may then be removed and is ready for development, the most interesting step in the procedure.

The development equipment consists only of two half-gallon jugs. These will serve as developing tanks as well as storage containers for the solutions after they have been used. If kept in tightly corked containers, the solutions may be kept in good condition for several weeks, and will develop at least 200 feet of film before becoming exhausted. Lacking two half-gallon jugs, glass fruit jars will make excellent developing tanks. The solutions may then be stored in tightly corked bottles.

In one of the jugs, place enough prepared developer—any kind of film developer will do—to make 64 ounces of solution. Fill the jug with water and stir until the developer is completely dissolved. Partially fill the other jug with water, and in it dissolve the contents of one package of acid-fixing powder (hypo), then add water until the jug is full. These are the only
solutions required in the developing process, and the directions given on the containers of the chemicals should be carefully followed as any variation from them may result in the failure of some of the chemicals to dissolve.

Development is carried on in the dark-room lighted by the red lamp. Grasping one end of the exposed strip, the film should be quickly immersed in the developer. While in this solution, the film should be agitated occasionally to assure even development over the whole strip. This process should reach completion in about five minutes, after which the film is removed from the developer and placed in a tray of water. The water serves to remove the chemicals from the emulsion so that the fixing solution will not be contaminated. Ordinarily one minute will be enough time for this washing process. Examination of the film at this stage will show that the exposed parts have now turned black, leaving the printing and the margins white.

The film is taken from the water next and placed in the fixing bath, where the unexposed parts of the emulsion are removed, producing a transparency suitable for projection. Under ordinary conditions three minutes will suffice for the fixing process. After the film has been placed in the fixing bath the white light may be turned on in the room for further examination of the strip. Upon removal from this bath, all of the unexposed parts of the emulsion should have been removed and the parts should appear clear by transmitted light. Then the film should be washed in running water for about fifteen minutes. Thorough washing is very important at this stage, as failure to completely remove the fixing bath will result in discoloration of the finished strip.

After thorough washing, the film should be gone over with a bit of wet absorbent cotton to remove any foreign matter from the emulsion, then it should be hung up to dry. The strip will be dry enough for projection in from fifteen minutes to an hour, depending upon the temperature and moisture content of the air. The background should appear black and the letters and drawings should be sharply outlined against this background. This is a pleasing combination as viewed from the screen, and is perhaps the simplest combination of light and shadow for the beginner.

The process, as outlined above, may be used to reproduce printed material or line drawings, and can be adapted to practically any type of subject matter. It has been found especially useful in increasing the effectiveness of drill material in science and mathematics classes. It is also an interesting device for the presentation of new material. And its economical feature enables extensive film strip libraries to be built at a nominal cost.

Teaching an Abstract Concept in Science With Motion Pictures

(Continued from page 148)

the claims of Weber, that oral instruction is favored by the true-false tests. Pictorial tests favor film groups in spite of the greater similarity of the tests to the class presentation for the non-film groups compared to that given to the film groups. This result indicates a greater clarity of concepts obtained by the use of films.

The results of the multiple choice tests are of particular interest. The ratios of the percentile scores on these tests to the mental ages as calculated from the intelligence quotients gave nearly constant values for the individuals in each eighth grade group. The film group was approximately 25% superior to the non-film group. This result was qualitatively anticipated. Although the data are too meager for generalizations, this result is in accordance with the principle that the multiple choice tests are more nearly in accordance with the gains in general information than the true-false and pictorial tests.

A frequent objection to the introduction of abstract theory in science for the high school level or below is the lack of interest by the students. The abstract nature of the subject matter and treatment in no way interfered with the class interest in this experiment. The eager interest and attention were particularly evident in the junior school groups, both film and non-film groups.

The non-film groups were favored by the experience of the teacher in teaching abstract subjects without the use of visual aids. The average teacher in the secondary schools is not familiar with the technique of teaching this type of subject matter.

Both films used in this experiment offer unusual and valuable contributions to science programs in secondary schools as well as for the college level. It is obvious that the technique of presentation must be
different for the junior high, senior high and college levels, but the theoretical principles must be identical. These principles are adequately covered in the films, and the subject matter is sufficient for the greater part of the junior school treatment of this subject. For senior high school and college the films serve to introduce the material and to implant the correct fundamental principles.

*Molecular Theory of Matter* represents unusually excellent photographic treatment, but has the disadvantage that the film moves too rapidly. The sound is not a part of the phenomena represented, but the lecture is a well coordinated system of deductive reasoning. The verbal accompaniment to the film is too rapid and out of proportion to normal practice in lecture presentation of technical material. The film could also be used as a silent picture, with appropriate comments by the teacher. This would make it possible to decrease the running speed of the film and enable the use of individual frames as still pictures. An alternative would be to use the film as a sound picture for the first showing and as a silent film on a double action machine for subsequent review and detailed study. The latter method would combine the advantages of both silent and sound pictures.

*Beyond the Microscope* is unusually free from discontinuities caused by subtitles. For senior high school and college level the film requires amplification. By means of a set of drawings for slide or opaque projection, including not only the structure of the atoms, molecules and ions shown in the film, but also others, not included, it would be possible to construct a unit of study on this difficult subject superior to any at present available.

These films, in common with practically all technical teaching films, could be vastly improved if the producer furnished supplementary still pictures taken directly from the film and included as a part of the film teaching unit. These could be in the form of film strips, slides or prints, for opaque projection. The study of detail always requires still pictures which can be projected for an unlimited time. Devoting any considerable part of the motion picture to such stills is not only an expensive waste of film but is less satisfactory than the pictures specifically designed for still projection.

What the Supervisor Wants in Visual Education

By JOHN S. McISAAC

which the writer is connected. Some forty responses were secured although a few of these pled lack of contact as an excuse for not checking the lists in full. While the number is not large enough to make the findings completely unassailable it is sufficient to permit some statistical treatment and the comparison of the averages of two chance groups within the list showed a close correspondence and high correlation.

The returns showed a definite majority in favor of a special course in visual instruction rather than stress in subject matter or special methods courses.

"I believe that teacher preparation in the use of sensory aids should be done in special methods courses in particular fields"—22%

"I believe that teacher preparation in the use of sensory aids should be done in the content courses in the various fields"—25%

"I believe that teacher preparation in the use of sensory aids should be done through a special course in visual education"—53%

The second finding was that, as a class, knowledge and information is rated more important than techniques and skill. The difference in the rankings was nearly six times their probable error denoting certainty that a real difference exists.

A third observation was that the more common and familiar devices such as maps, blackboards and graphs are rated more important than the more technical ones often thought of first when visual education is mentioned. The ranking of the ratings is appended.

Information and understanding about—
1. Maps and globes
2. Blackboards and bulletin boards

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**Summer Courses in Visual Instruction**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Title of Course</th>
<th>Instructor</th>
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<tbody>
<tr>
<td><strong>Alabama</strong></td>
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<tr>
<td>Alabama Polytechnic Institute, Auburn, June 8-July 16</td>
<td>Visual Instruction</td>
<td>M. I. Beck</td>
</tr>
<tr>
<td><strong>California</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of Southern California, Los Angeles, June 21</td>
<td>Fundamentals of Motion Picture Production; Motion Picture Story and Continuity. Social Psychological Aspects of Motion Pictures Audio-Visual Education</td>
<td>Sarah Mullen</td>
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<tr>
<td><strong>Florida</strong></td>
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<tr>
<td>University of Florida, Gainesville, June 14</td>
<td>Visual Education</td>
<td>W. L. Goette</td>
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<tr>
<td><strong>Georgia</strong></td>
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<tr>
<td>University of Georgia, Athens, June 17</td>
<td>Visual Aids in Education</td>
<td>T. R. Wright</td>
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<tr>
<td><strong>Illinois</strong></td>
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<tr>
<td>Northwestern University, Evanston, June 21-Aug. 14</td>
<td>Visual Aids and Radio in Education</td>
<td>Paul C. Reed</td>
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<tr>
<td><strong>State College, San Francisco</strong></td>
<td>Photography</td>
<td>S. Morse</td>
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<tr>
<td>June 21</td>
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<tr>
<td><strong>Colorado</strong></td>
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<tr>
<td>State College of Education, Greeley, June 21-July 16</td>
<td>Visual Aids in Education</td>
<td>Helen Davis</td>
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<tr>
<td><strong>Indiana</strong></td>
<td></td>
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<tr>
<td>Purdue University, Lafayette, June 14</td>
<td>Visual Education</td>
<td>H. A. Henderson</td>
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</tbody>
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3. Graphs and charts
4. Teacher training programs
5. Research experiments
6. Exhibits and museums
7. Motion pictures
8. The school journey
9. Flat pictures
10. Dramatization and pageants
11. Administrative programs
12. Lantern and film slides
13. Radio
14. Projection
15. Photography
16. Telecine "Maps"
**Institution** | **Title of Course** | **Instructor**
--- | --- | ---
**Iowa**
Iowa State College, Ames, June 16 | Lecture-Discussions on Visual Aids | H. L. Kooser

**Kansas**
University of Kansas, Lawrence, June 8 | Visual Education in Elementary and Secondary Schools | Fred Montgomery

University of Wichita, Wichita, June 7 | Visual Sensory Aids in Teaching | W. A. Bonwell

**Kentucky**
University of Kentucky, Lexington, June 14 | Visual Instruction | Louis Clifton

**Maryland**
University of Maryland, College Park, June 23 | Visual Education | Henry Brechbill

**Massachusetts**
State Teachers College, Fitchburg, July-August | Visual Aids in Education | C. W. Erickson

**Minnesota**
State Teachers College, Moorhead, June 14 | Supervision through Visual Aids | C. P. Archer

State Teachers College, Winona, June 14 | Visual Instruction | Ella C. Clark

**Missouri**
Teachers College, Kansas City, June 14 | Methods in Use of Visual Aids | Rupert Peters

**New Jersey**
State Teachers College, Montclair, July 5 | Visual Instruction | E. W. Crawford

State Normal College, Trenton, July 5 | Visual Instruction | Geo. W. Wright

Rutgers University, New Brunswick, July 5 | Visual Instruction | L. R. Winchell

**New York**
New York University, City, July 5 | Visual and Auditory Materials in the Social Studies | D. C. Knowlton

Laboratory Courses in Visual Aids | John Shaver

Practical Applications of Visual Aids | John Shaver

Teachers College, Columbia University, July 12-Aug. 20 | Research in Visual Aids in Auditory Education | F. C. Arnsberger

C. M. Koon

Chautauqua Summer Schools, Chautauqua, July 5-Aug. 13 | Laboratory Course in Visual Aids | G. H. O'Donnell

**Ohio**
Ohio State University, Columbus, June 21 | Visual Aids | Edgar Dale

Western Reserve University, Cleveland, June 21 | Institute of Visual Education and others | W. M. Gregory

**Pennsylvania**
Pennsylvania State College, University Park, June 14 | Aids in Education | Paul Nelson

**Wisconsin**
State Teachers College, Platteville, June 14 | Visual Instruction | V. M. Russell

State Teachers College, Stevens Point, June 14 | Visual Instruction | C. D. Jayne

**Wyoming**
University of Wyoming, Laramie, June 15 | Radio and Visual Education | C. M. Koon

**Pennsylvania**
The following teacher-training institutions will give courses in Visual Education. As complete information was not available in time for this issue, we present only a partial list of instructors of such courses.

Albright College, Reading | Rosemont College, Rosemont | E. W. Crawford

Allegheny College, Meadville | Seton Hill College, Greensburg | J. E. Malin

Beaver College | St. Thomas College, Scranton | J. S. McIsaac

Bucknell University | Susquehanna University, Selinsgrove | M. J. Jenkinson

College Misericordia, Dallas | Temple University, Philadelphia | E. R. Keener

Drexel Institute of Visual Aids | Philadelphia | New Brunswick

Elizabethtown College, (E. W. Engle) | (J. T. Garman) | Elizabethtown

Elizabethtown University | Temple University, Philadelphia | (J. J. McIsaac)

Geneva College | University of Pittsburgh, Scranton | Beaver Falls

Gettysburg College | University of Pittsburgh, (Mr. E. E. Schreist), Pittsburgh | Gettysburg

Grove City College, Grove City | Villa Maria College, Erie | Grove City

Immaculata College, Immaculata | Villanova College, Villanova | Immaculata


LaSalle College, Philadelphia | Lock Haven | Huntington

Lehigh University, Bethlehem | Mansfield | LaSalle College

Marywood College, (S. M. Sylvia) | Millersville | (S. M. Sylvia)

Mercyhurst College, Erie | Shippensburg | (S. M. Sylvia)

Muhlenberg College | Slippery Rock | (H. E. Miller)

Penn State College | West Chester | Allentown

State College | Cheyney Training School | (H. E. Miller and J. G. Sigman)

**Oklahoma**
A & M College, Visual Education | J. C. Muerman | Stillwater, May 31

**Texas**
University of Texas, The Use of Visual Aids in Education, Austin, June 8 | B. F. Holland

**Wisconsin**
State Teachers College, Platteville, June 14 | V. M. Russell

State Teachers College, Stevens Point, June 14 | C. D. Jayne

Stout Institute, Menomonie, June 22 | Paul Nelson

University of Wisconsin, Madison, June 28 | J. E. Hanson

**Pennsylvania**
The following teacher-training institutions will give courses in Visual Education. As complete information was not available in time for this issue, we present only a partial list of instructors of such courses.

Albright College, Reading | Rosemont College, Rosemont | E. W. Crawford

Allegheny College, Meadville | Seton Hill College, Greensburg | J. E. Malin

Beaver College | St. Thomas College, Scranton | J. S. McIsaac

Bucknell University | Susquehanna University, Selinsgrove | M. J. Jenkinson

College Misericordia, Dallas | Temple University, Philadelphia | E. R. Keener

Drexel Institute of Visual Aids | Philadelphia | New Brunswick

Elizabethtown College, (E. W. Engle) | (J. T. Garman) | Elizabethtown

Elizabethtown University | Temple University, Philadelphia | (J. J. McIsaac)

Geneva College | University of Pittsburgh, Scranton | Beaver Falls

Gettysburg College | University of Pittsburgh, (Mr. E. E. Schreist), Pittsburgh | Gettysburg

Grove City College, Grove City | Villa Maria College, Erie | Grove City

Immaculata College, Immaculata | Villanova College, Villanova | Immaculata


LaSalle College, Philadelphia | Lock Haven | Huntington

Lehigh University, Bethlehem | Mansfield | LaSalle College

Marywood College, (S. M. Sylvia) | Millersville | (S. M. Sylvia)

Mercyhurst College, Erie | Shippensburg | (S. M. Sylvia)

Muhlenberg College | Slippery Rock | (H. E. Miller)

Penn State College | West Chester | Allentown

State College | Cheyney Training School | (H. E. Miller and J. G. Sigman)

The use of visual aids is apt to be an "extra performance" rather than a teacher's aid in the classroom. This attitude indicates a need to fit the visual materials more effectively into the course of study. The first step in this direction would be to determine the visual aids required for a particular course of study. This work might be done by specialists in subject-matter, in visual aids and the sources of materials, and experienced classroom teachers. The major and minor objectives for each unit should be considered, and the particular aid that would be most useful in meeting each objective should be decided upon, and listed with source and prices for purchase and rental. If gaps appear in such a visual correlation, suggestions should be made for new visual aids to be produced.

Teachers should be provided with directions for the use of the aid for a particular lesson. If requests were commonly made for visual aids for a whole course, rather than for separate programs, producers would, no doubt, attempt to supply such materials by courses.

The plan for cooperation among schools in the use of visual aids seems almost imperative in order that costs may be reduced. The writer seems to have an exaggerated idea of the difficulty and the expense of fitting each classroom for projection lessons. He recommends the plan, which seems to work more efficiently and with perhaps no more loss of time, of each school having a room set aside for projection purposes with all stationary equipment always in place.

When the mass of detail involved in booking, obtaining, and using visual materials is considered, it seems unwise to place this load on the teachers. "For purposes of efficiency and economy this work should be assigned to one person, a director of visual education. This director would be responsible for supplying the visual education needs of the school and for the operation of the projection room. "This expense for visual equipment must be thought of in the terms of: Can we afford to do without it?... Perhaps more advertising is needed to convince boards of education of the fact that visual aids are an important complement to the teacher and deserve an expenditure in comparison to their worth in the whole teaching process."

Film Progress, London (2: 5-10, Jan. '37). "The School Film, What Is and What Should Be," by Bruce Beddow. (The London editor states that he publishes this article because of the number of live issues that it raises.)

The serious business of bringing the film into the classroom has been badly mismanaged, because in the main it has not been managed by educators. It is suggested that an Education Film Council be formed to direct and co-ordinate the work of lesser bodies. Brains, imagination and enthusiasm must be required of all applicants for positions on the Council, or the lesser bodies. Also, the candidate must have sufficient classroom experience to give firsthand knowledge of the mentality of the elementary and secondary school child.

The Council should appoint a Subject Committee for each school subject and each of these subject committees would divide into sub-committees for three age levels. The History Committee with the knowledge and approval of the Council would pass on to the Junior History Sub-Committee certain terms of reference for a series of films to be produced. The correct approach, the 'atmosphere' to be attempted, and the actual teaching facts would be listed. Not until this stage of the procedure, should the film director be approached. "As for the films now in existence, a few could be 'cut' and embodied in the scheme, but the mass should be solemnly burnt next April Fool's Day." As to sound, the English educator says, "When I see apple orchards in Kent I do not want to listen vaguely to a mawkishly jocular voice—coming from nowhere to tell me how the apples are packed: let one of the workers look up and speak to me in his own good Kentish dialect and I will accept him and his explanation as natural things. So that I think that what the teacher resents is not the sound film, but the voice of the too explicit commentator."


A most enlightening article on the general status of the visual field for education is presented under the headings: "Production Activities," "Distribution," and "Increased Use." The writer proclaims that a new surging of interest and activity in these three fields is everywhere evident. The thought of this long-desired synchronization is most stimulating. The lamented limitations to learning are overcome by means of an interesting and understandable pictorial presentation. The world comes into the classroom and speaks even to the retarded child, instilling truer attitudes, enriching knowledge, and motivating skills.

Educational films are being produced by educators, as is fitting, by industrial and commercial organizations to make explicit their own processes and products, and by certain federal departments. Distribution is being carried on by several state departments of education, at least 28 university extension bureaus, and teacher-training institutions that have developed circulating film libraries. There (Concluded on page 156)
NEWS AND NOTES Being brief notations on significant doings and events in the visual field.

Conducted by Josephine Hoffman

Free Source Material
Under the guidance of Mr. Lester M. Bruce, Chairman of the Social Science Committee of Teachers, in the New Providence Public Schools, New Providence, New Jersey, a 10-page publication "Materials of Instruction in Social Science," has just been issued. This first number contains over one hundred sources of free posters and publications. Copies may be secured free of charge by writing to George W. Wright, Supervising Principal, New Providence, New Jersey.

Bureau of Mines Films Shown to 7,000,000
A total of 7,252,000 Americans learned something of how minerals are produced and utilized through attendance at the showing of the educational motion picture films of the U. S. Bureau of Mines, Department of the Interior, during the year 1936. The films, covering 57 different subjects, were exhibited on 84,783 occasions, the attendance figures exceeding those of any previous year. Approximately 500 reels were added to the Bureau of Mines motion-picture library during the year, making over 3,000 reels available for distribution. The cost of producing the films is borne by cooperating industrial concerns. The films are used by educational institutions and engineering societies throughout the country. Some of the films have actually been made a part of prescribed courses in certain colleges.

High Lights of Visual Conference
Advance information has been furnished us by the officers of the DeVry National Conference on Visual Education. Dr. I. E. Deer will show the latest films in The Secrets of Success series. L. W. Cochrane, University of Iowa, will exhibit color films made at the University. Supt. Hamilton of the Oak Park Schools and William G. Hart of the Fordson Schools at Dearborn, Michigan, will show films of school activities. The National College of Education at Evanston has done some interesting filming that will also be presented. A. E. Holleman of the Shell Petroleum Corporation, who has made an outstanding contribution to scientific testing for film training in salesmanship, will present further studies made on this subject, and will exhibit a striking new film, Miss Alma Rogers, organizer of the County Cooperative Film Service of St. Louis County, will report on the progress of this unique organization. A similar county film service along original lines will be described by County Supt. H. E. Ryder of Sandusky County, Ohio. Supt. Rilling of Anna, Ohio, will present the remarkable way in which a Public Address System enabled him to continue the work of his schools, after the recent earthquake destroyed their school buildings. There will be an illustrated lecture on a 6000-mile tour of Soviet Russia by Supt. F. E. Hewitt of Washington, Kansas. James Henry White, who delighted audi-

ces at the New Orleans meeting of the Department of Visual Instruction, will show his fascinating pictures on China. Bertha Rachael Palmer will present the new film of the National W. C. T. U., The Beneficent Reprobate. Forest Treasures will be presented by the Veneer Association. A number of new Government films will be shown, including glimpses of C. C. C. Camps at work. Raymond Evans, Chief, Division of Motion Pictures, U. S. Department of Agriculture, will discuss the work of his department and present In the Beginning, a new film depicting the Genesis of mammalian life. Many industrial firms will also present their latest films.

The program is far from complete, but promises to be one of exceptional interest. The Conference meets this year June 21 to 24, inclusive, and will be held in Chicago at the Francis W. Parker School.

School Reports on Peace Film
The anti-war documentary film, Dealers in Death, exposing the munitions racket, was shown to an assembly of students and teachers at John H. Francis Polytechnic High School, Los Angeles, and the reports gathered from the group after the showing testify to the effectiveness of the film’s appeal for peace. A few of these reports are quoted below verbatim:

Questions:
1. Do you feel this is a picture that should be shown to high school students?
2. Please explain your vote.
3. Give a short evaluation of this program.

Answers:
Secondary Principal:
1. Yes.
2. The reaction of the students was good. They were obviously affected. Attitudes changed, yet not emotionally debauched.
3. Artistically poor.
   Dramatically medium.
   Intellectually fine.
   Emotionally O. K.

High School Teacher:
1. Yes.
2. I believe that high school students should see this picture. As the future citizens of the U. S. they should know the causes of war and who causes them. We must develop the hate of war in students as early as possible.
3. The horrors of war caused by the greed of a few munitions makers who do not care how many people are slaughtered and their methods of propaganda, are fully explained without fear. Only through the education of people to the horrors and truth of war can we outlaw it. The enormous amount of money
spent for rearmament has involved most of the world in a siege of hunger and starvation. I believe this film has shown me more of the horrors of war than I could ever hope to learn in books. I heartily endorse this film not only for high schools but for colleges as well.

Student (President Scholarship Society):
1. Yes.
2. The boy or girl of high school age needs just such facts as these brought before him in order to change war from an adventure to a disaster in his eyes.
3. Some of the scenes are exceedingly gruesome, and yet, I think something authentic as this is needed to bring out the point of war as a tragedy. The facts brought into the picture are interesting, because none of these things are given in newspapers of today. We need something like this to awaken the youth of today.

High School Student:
1. Yes.
2. I feel that this picture should be shown to high school students because when they are this age they are old enough to understand the grim realities of war and young enough to turn this knowledge towards channels of peace.
3. This program showed very clearly just how futile war is. Many millions of lives are lost because of the inhuman avarice of the munitions manufacturers. The cost of war is brought out most clearly, I think, by the fact that for every soldier that is killed $25,000 is spent. Another startling fact was the comparison of the money wasted on destruction and the same money that could have been spent to build colleges and libraries, and provide millions of homes for the impoverished. I think it would be very wrong not to show this picture because if we want peace we must first show the horrors of war.

This film, which is handled by Garrison Film Distributors, has been endorsed by the U. S. Senate Munitions Investigation Committee. It was produced with the editorial advice of Professor Walter B. Pitkin. Its author, Burnet Hershey, is a famous war correspondent who served the New York Times with the American Expeditionary Forces during the World War and was later attached to General Pershing's Headquarters.

School Gives Photography Course
A course in photography is given at Lehigh University, Bethlehem, Pennsylvania, in connection with the regular journalism instruction at the school to candidates for posts on the student newspaper. So great has been the response that the class had to be divided into two sections. With the purchase of a miniature camera and the setting up of a regular darkroom, the semi-weekly news photographers were ready to go to work. The instruction includes mastery of developing and printing and of what it takes to make pictures under the varied conditions which newspaper photographers face.

Among the Magazines and Books
(Concluded from page 154)
are 97 full-time directors of visual education in the United States, and 230 part-time instructors. Additional film catalogs are helping in increased use of appropriate films. Teachers are being trained in film projection and teaching techniques, over 300 teacher-training institutions offering courses dealing with the motion picture in education. In fact, by surveys, publications, and conferences, this organization is attempting to serve as a clearinghouse of educational information in the field of the film.

This library wonder-worker, enabling a reader to carry the contents of five large books in his vest pocket, while the librarian both lends and retains a copy of each book, is helpfully illustrated. At home, the book is read from a translucent screen. Six pages of a book are reproduced on microfilm about one by five inches in measurement. If the microfilm images can be reduced to one-fourth of their present size, a book of 240 pages can be produced on film the size of the usual cataloguing card. A whole library would then require no more room than the space now occupied by the card catalogue.

Science (85: 240-242, March 5, '37) "Dissemination of Scientific Literature by Means of Microfilms."
This scientific article, less popular in style than the preceding article, contains suggestions that should be very helpful to librarians when the stage of cataloging microfilms is reached.

Cinema Report-Cards as designed for an Elementary School are described with six points for children's rating. What plays made the greatest impression is indicated, and also how good or bad the pupils thought them to be. The total findings are re-produced for 1936 with the child's own point of view told in his own expressive manner.

Building America—Steel (2: 31 pp, Feb., '37)
The story of steel is one of the most romantic of the fourteen stories published to date in the series, "Building America." The development of the industry from the early crucible to the Bessemer converter and the open hearth process is presented in word and picture. The fascinating steel network of the Great Lakes Region is traced from the fluctuating compass of William Burt in Northern Michigan (1844) to the busy hives where half a million men are the workers. The romantic stories of Carnegie and Gary are delineated with their respective policies. The organization of large corporations and monopolies and the Sherman Anti-Trust Law are treated. The history of welfare work by the companies, and the organization of labor unions are clearly analyzed. As far as the economic foundation of the reviewer extends, the account is perfectly straight-forward and told with a great desire to present both the labor and managerial sides with absolute truth and justice.
THE DEPARTMENT OF VISUAL INSTRUCTION OF THE N. E. A.

ATTENDANCE prospects grow steadily brighter for the coming Department sessions in Detroit, June 28 to 30, held concurrently with the annual meeting of the N. E. A. With the invaluable assistance of W. W. Whittinghill, Director of Visual Education in the Detroit Schools, acting as our efficient Chairman of Arrangements, most desirable accommodations have been secured for the occasion.

The Fort Shelby Hotel is official Department Headquarters, where our scheduled luncheons will be held, and where there are still rooms available for our members who write the hotel promptly for reservations. Our meetings will take place just across the street from the Fort Shelby in the beautiful auditorium of the new WWJ Broadcasting Studios. Seldom has the Department enjoyed such ideal arrangements for its periodic get-together.

PROGRAM

Detroit Meeting, June 28 to 30, 1937
Department Headquarters—Fort Shelby Hotel
Assembly Programs, in WWJ Broadcasting Studio
Local Chairman of Arrangements, W. W. Whittinghill, 9345 Lawton Avenue, Detroit. (Send luncheon and hotel reservations direct to him).

FIRST DAY (Monday, June 28)
12 Noon—Registration Luncheon (Crystal Ball Room, Fort Shelby Hotel)
Address of Welcome
Guest Speaker, Frank Cody, Superintendent of Detroit Schools
Overview of Detroit Visual Program
Manley E. Irwin, College of Education, Wayne University, Director, Division of Instruction, Detroit Schools

2 P. M.—Afternoon Program (WWJ Auditorium)
Immediate Needs in Visual Instruction
F. Dean McClusky, Director, Scarborough School, Scarborough, N. Y.
State Wide Visual Work in Indiana
F. L. Lemler, Secretary, Bureau of Visual Instruction, Indiana University
Complete Learning through Visual Aids in Physics
O. S. Anderson, Physics Department, High School, Fargo, N. D.
The Motion Picture in the Learning Process
W. M. Gregory, Director, Educational Museum, Cleveland Public Schools
Recent Trends in Use of Cinema in Education
Panel discussion led by John A. Hollinger, Director, Department of Visualization, Pittsburgh Public Schools.
(Showing of selected educational films)

SECOND DAY (Tuesday, June 29)
12 Noon—Conference Luncheon (Fort Shelby Hotel)
(for Department Members only)
Considerations on the Present and Future of the Department
Nelson L. Greene, President of the Department of Visual Instruction

Showing of new film, "Child Safety in Traffic", for discussion by members
Don Carlos Ellis, Treasurer, Metropolitan New York Branch of the D. V. I.

2 P. M.—Afternoon Program (WWJ Auditorium)
The Teaching of Wild Life near Home
Frank S. Gehr, Yonkers, N. Y.
Lantern Slide Technique in Geography Instruction
Villa B. Smith, Lecturer in Geography, Western Reserve University
Seeking New Educational Objectives through Use of Films
Edgar Dale, College of Education, Ohio State University
Teacher Participation in Educational Film Production
(Panel Discussion following)
Charles A. Gramet, Franklin K. Lane High School, Brooklyn, N. Y.
(Showing of selected educational films)

THIRD DAY (Wednesday, June 30)
1:30 P. M.—Afternoon Program (WWJ Auditorium)
Essential Qualities for an Educational Film
Esther L. Berg, Public School 91, New York City
Second Showing of "Child Safety in Traffic" for audience discussion
(Showing of selected educational films)

Business Meeting

With such a meeting in prospect, our membership should keep pace. The June issue of THE EDUCATIONAL SCREEN will print the third Roster of Paid Members. As before, no member expiring previous to June can be included unless his $2.00 renewal is received before June 1st. Your expiration date is shown in the November or February rosters. February showed increase over November. June should show a still greater increase over February. It all depends on you!

Special significance will attach to the June Roster. It is planned to make it merely the "charter nucleus" of the greater Department that is to come. A new number (from 1 up as far as the roster goes) will be assigned each member, a new membership card issued, and that number will be permanent for that member. Non-renewal will merely drop the number, leaving a permanent gap in the member series. In future rosters, then, the member number itself will be an automatic index of seniority in the Department, the lowest numbers indicating permanently the "charter nucleus".

Let's make this "nucleus" at least 500, and give the new officers to be elected this June something to build upon as a real foundation. It all depends on you!
FOREIGN FILMS FOR EDUCATIONAL INSTITUTIONS

Conducted by Wesley Greene

College foreign film showings may be classified in the main under two headings: those arranged to serve broad cultural interests and those promoted by specific language groups. In the former group are such programs as those sponsored by the Film League of Nashville, International House (Chicago), the student-conducted Art Cinema League of the University of Michigan, and the University Theatre at the University of Wisconsin. In the latter group are the French programs sponsored by the French Talking Films Committee of Cambridge, Massachusetts, and the occasional showings sponsored by language instructors interested in only one subject.

In this issue we are pleased to have an account of the work of the Film League of Nashville, to illustrate the successful presentation of foreign films designed for those with a multiplicity of cultural interests. In the next issue we shall have an account of a leading film group specializing in one language.

Film League Of Nashville

By FRANCES NEEL CHENEY

Librarian of Vanderbilt University and Secretary of the League

The Film League of Nashville, organized in 1932 by Thomas Dabney Mahry for the study of the history and development of film art, offers to those genuinely interested in the motion picture an opportunity to see and study films whose nature is too special for popular appeal and which would not otherwise be shown in Nashville. The films are drawn from three sources: foreign films which would never be exhibited in commercial theatres, films made by individuals in America and elsewhere which are concerned with the experimental and technical side of the cinema, and memorable American and continental films which may be revived for historical study.

The twelve films shown in one season are divided into groups of three or four each, according to language. In this way college students can obtain a French or German membership if they are not interested in the whole series. This is a non-profit making organization and the membership is of three kinds: a minimum membership of four meetings for $2.00, a sustaining one of twelve meetings for $5.00, and a student membership of three meetings for $1.00. Members may obtain guest cards for fifty cents each.

The group is made up of students and townspeople, and meets every other Sunday evening at a commercial theatre which is rented for the purpose. A union operator is used and the films exhibited are shipped back the same night of the showing. Each member is notified three days before the meeting by a postcard which gives the name of the film with a brief resume or critical note. This supplement the printed program which is issued at the beginning of each season. The membership has grown more varied from year to year.

The task of selecting films, however, becomes increasingly difficult. In the beginning, there were any number of classics such as Potemkin, Le Million, Zwei Herzen in 3/4 Takt, Madchen in Uniform to choose from. But by showing three of the best English, French, German, and Russian films each year the supply of old films has been exhausted; and it is now necessary to show the current year's releases, which cost more and thus require a larger membership. This year, for instance, the League has seen The Eternal Mask, Crime et Châtiment, Gypsies, Janosik, and hopes to close the season with La Kermesse Herouïque.

Very little effort is made to please the whole group even though the films are chosen by a committee which is often advised by the faculty of Vanderbilt University. For example, some of the members are widely enthusiastic over Rene Clair, others are bored. Some consider The Passion of Joan of Arc the best film they have seen, others think it desecrates a lovely legend by having Joan appear so ugly and unkempt.

It is impossible to determine the group reaction to certain films in advance of the showings. At the showing of Madame Bovary the student element was very rowdy and laughed uproariously at the wrong time. However, this sort of thing does not happen often.

There has been no difficulty with showing Russian and German films as the League is well established as a non-partisan organization. There has been no cry of its furthering communism by showing Potemkin or Gypsies. In the German language, Emil und die Detektive, Blue Light and Der Hauptmann von Köpenick naturally have given no cause for criticism.

We have found that English titles with the films are essential and so far only Emil und die Detektive has been shown successfully without them. When no English titles are available, it is necessary to have introductory remarks by someone and this is far from satisfactory. We suggest that distributors equip their films with better English titles and that these titles hide no more than a third of the screen at the worst.

The increasing number of film bureaus such as the International Film Bureau and the New Film Alliance greatly simplifies the selection of only the best films. The League looks forward to closer cooperation with organizations which realize its needs and which can act as clearing houses for the sort of information desired.

*It is interesting to note that the subscription idea failed miserably when tried four years ago at International House, Chicago. Apparently some groups like the idea and some don't.—Wesley Greene.
New Life
in every lesson
with this RCA
Equipment

RCA SOUND MOTION
PICTURE PROJECTOR, PG-81

...One of RCA’s complete line of 35 mm. sound motion picture projectors. Has 900 or 1000 watt incandescent lamp. Ample illumination for average room or auditorium. Has the same RCA Photophone Rotary Stabilizer soundhead used in large motion picture houses all over the country. Assures you the exacting performance that these theatres insist on.

RCA VICTOR PHONOGRAPH-RADIO
MODEL 9-U-2
This beautiful instrument fulfills the demand for a combination phonograph-radio of excellent quality at moderate cost. It provides all types of radio programs, domestic and short-wave, and reproduces phonograph records with sufficient volume for use in the school auditorium. Its fine quality is demonstrated by its wealth of superb RCA Victor Radio features, including Magic Voice, Magic Brain, Magic Eye and RCA Metal Tubes. The phonograph features automatic record changer, new inertia tone arm and pick-up, automatic stop, and plays 10 or 12 inch records interchangeably. The cabinet is 34 inches high, 46½ inches wide and 18½ inches deep, richly finished.

Give your students modern teaching with the help of this RCA apparatus especially designed for schools!

EVERY year the trend to modern teaching becomes more and more apparent. Educators all over the country are seeing the wisdom in the statement—lessons that live are easy to learn!

Use of RCA’s modern teaching aids means new life in every lesson, plus effectiveness. This equipment gives you a new, fresh method of presenting studies to students.

On this page are shown two of RCA’s products designed for schools. They provide true quality performance because they are created by the world’s greatest sound recording and reproducing organization. Moreover, they are priced moderately. Full details about these and other fine RCA educational equipments included in the interesting new booklet “Sound Service for Schools”—a copy of which we will mail, free, on request.

RCA presents the “Magic Key of RCA” every Sunday 2 to 3 P.M., E.D.T., on NBC Blue Network

Sound Service
EDUCATIONAL DEPARTMENT
RCA Manufacturing Co., Inc. - Camden, N.J.
A Service of the Radio Corporation of America
How Nature Protects Young Plants and Animals
---In Hand-Made Lantern Slides

By ANN GALE

Art Department, Lindblom High School, Chicago

SPRING is a good time for a study of the various ways of protection for young plants and animals in intermediate grades.

In plants the growing tip of the young plant must be protected against cold. With animals, the baby animal must be protected until he can fend for himself.

These six pictures may be traced on slides and projected on the screen as a basis for such a study:

(1) The tightly rolled tips of young ferns.

(2) The protecting bud scales found over the leaves of trees.

(3) The flower of the bloodroot which is tightly wrapped in the leaf.

(4) A mother robin feeding young robins who are not strong enough to get their own food.

(5) A mother bear and a young cub together foraging for food.

(6) A young kangaroo in his mother's pocket.

Keystone crayons may be used to suggest the natural coloring of the plants and animals.

The simplest type of hand-made slide is made by drawing or tracing on finely finished etched glass with ordinary medium lead pencil. Color, by special crayons or inks, enhances the slides greatly. Fine effects are obtained by blending with crayons. About one-third inch margin should be left all around the slide. The slide is readily cleaned with soap or washing powder to receive a new picture.
SEVENTH NATIONAL CONFERENCE ON VISUAL EDUCATION
and FILM EXHIBITION (DeVry Foundation) CHICAGO, JUNE 21, 22, 23, 24, 1937

At the Francis W. Parker School, 330 Webster Ave. (Opposite Lincoln Park)

A Large and Representative Gathering of Visual Educationalists, Bringing Together the School and Advertising Fraternities, Speakers and Film Exhibitors of National Reputation.

No Admission or Membership Fees

Almost continuous showings of selected industrial and educational films as examples of the best current practice. These will be both silent and sound, 16 as well as 35 mm. films.

After the showings, advertising and schoolmen will discuss the films. Discussion will include photographic and scenario technique; advertising, sales or training values, and educational values. As a rule, representatives of producers and sponsors will be present and will lead the discussions. Sessions will begin at 9 o'clock each morning and continue until 3 o'clock, with one hour for lunch—Evening sessions begin at 7:30.

ANNUAL DINNER and ENTERTAINMENT

An evening of music, fun and good fellowship. Radio and Movie stars. This is the only session for which a charge is made. Banquet Tickets, $1.50.

Teachers, Principals, Superintendents, College Instructors, Advertising Managers and Assistants, Advertising Agencies, Sales Managers are especially invited.

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1111 ARMITAGE AVE., CHICAGO

Please send me program and Free Membership Card.

Name ____________________________

Address ____________________________

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How To Construct and Use Star Maps

WITH the reorganization of courses of study for the public schools, science has taken its place along with the traditional subjects, beginning with the first grade and continuing through every grade to the high school. Survey courses in science are popular in universities, and in many teacher-training institutions such science survey courses are mandatory.

One unit which is included in all these survey courses deals with the earth on which we live and with the stars in their courses. To satisfy the natural curiosity of people about the heavenly bodies, there has been a rapid growth of the planetarium idea in this country. It is expected that within a few years a planetarium will be within the reach of every person in the United States. Until such time as the fundamentals of astronomy and the definite first-hand acquaintance of the constellations is the common knowledge of every one, the schools can perform valuable service by teaching about the stars and the star stories to the children. Star maps, star charts, and "guides to the constellations" will prove very helpful in this work.

The directions given below for the construction of star maps, and the recommended technique for their use provide the teachers with usable materials for their activity program in the modern school. This program involves construction work in the classroom and field trip experiences during the observation period.

Making the Star Maps

Materials needed for the construction of the star maps consist of one sheet of oak tag and a box of small gummed stars. The oak tag sheet is approximately 23 x 28 inches in size, large enough to make the cards for eight star maps. The box of small gummed stars contains one hundred stars, which is just about the right number for the star maps to be constructed. These stars may be had in a number of colors, such as silver, gold, blue, red, and green, any of which gives satisfactory results on the map. The oak tag is of such color and texture that it will give a long period of useful service, though any other cardboard material may be used for cards.

The oak tag is prepared for the maps by first cutting a strip two inches wide the long way of the sheet, making it 2 x 28 inches, and then cutting the remainder into eight equal pieces, each about 7 x 10 inches. The long strip may be used to make a "zodiac band" and the other pieces serve as the cards for the star maps. If a large paper cutter is available it is a simple matter to cut the sheet. Scissors may be used, but are not so satisfactory. Another plan is to secure a board six or eight inches wide and about three feet long, lay the oak tag on the board, and with the yardstick as a guide cut the sheet with an old razor blade. It is best to cut the sheet the long way, giving two equal pieces twenty-eight inches long. Then each strip may be cut into four equal pieces for the final cards. A small paper cutter is usually large enough for this final cutting.

Teachers will see in this construction work opportunities for correlation of the work in science with other subjects, particularly mathematics and art. Extreme accuracy in measurement is necessary if the eight cards are to be exactly the same size. Since the oak tag often runs slightly over the 23 x 28 inch size, it will be necessary to deal in fractions of inches, or trim the card to those dimensions. In any event it requires mathematical considerations to plan the work for the cutting. In the lower grades this might well be one of the major objectives in the process of making the star maps. Art comes into play during the placing of the stars on the cards. Proper spacing is necessary; correct placement of stars must be made; and neatness in sticking the stars, drawing the lines, and lettering the cards all make for artistically finished products. It also serves as a stimulus to the imagination, which is one of the fundamental purposes of art education.

The star maps suggested for the early work in this field are those which stress relationships in such a manner that associations are formed whereby other constellations may be readily identified. The natural starting point is the north star and the circumpolar constellations, followed with those which also have the north star as the point of reference. Consequently, star map number (1) is The Big Dipper and the North
Mechanical Superiority of the HOLMES 16 mm. Projector

No Other 16 mm. Projector Has All These Features:

REAR PICTURE SHUTTER—Has been on Holmes Projectors since 1922.

BALL BEARINGS—For long life and smooth running.

INSTANT TENSION ADJUSTMENT OF PICTURE APERTURE—Absolutely essential for perfect projection.

DECREMENTAL SPROCKET MOVEMENT—No claw.

ALL SPROCKET—Insures maximum film life.

ALL SHAFT DRIVEN—No belts or chains.

STRAIGHT SOUND APERTURE—No sound drum.

DIRECT BEAM OF LIGHT ON SOUND TRACK AND PHOTO CELL—No prism or reflected light.

HOLD BACK SPROCKET—Absolutely essential for perfect sound.

FILTERED SOUND SPROCKET—Same as used in theatre machines.

SHAFT DRIVEN TAKEUP—Positive in action.

SPEEDOMETER—No guesswork about proper speed.

GOVERNOR TYPE MOTOR—With speed regulator.

THREADING—Simplicity itself.

HIGH FIDELITY SOUND LENS.

EXCITER UNIT—Adjustable in six directions.

LAMPHOUSE—Adaptable to 500, 750 or 1000 Watt Lamps.

DYNAMIC SPEAKER—With 12 inch cone.

AMPLIFIER—15 Watts Output.

REELS—400 to 1600 feet.

WEIGHT—Complete equipment approximately 70 pounds.

This 16 mm. projector with a HOLMES ARC LAMP instead of the MAZDA shown was used to throw a 24-foot picture 144 feet for a National Institution at Constitution Hall, Washington, D. C.

HOLMES EASY PAYMENT PLAN MAKES PURCHASE EASY—ASK FOR CATALOG—FREE DEMONSTRATION.

Remain at Your Desk

while you illustrate your lectures with slides

- Here is a real convenience in delivering an illustrated lecture. You may sit at your desk facing your class as usual, with your notes in front of you. You also see the slide you are using to illustrate a point. It is right side up, exactly as the class sees it on the screen. As you point with your pencil to a significant detail, the silhouette of the pencil point on the screen serves as a pointer. You will find a gain in student interest.

This is the Spencer Model "B" Delineascope.

Return the coupon for Folder K-78 giving full information, or see this projector at the nearest Spencer display room.

Spencer Lens Company

Buffalo New York

SPENCER LENS COMPANY
Dept. R-7-5, Buffalo, N. Y.

Please send folder K-78 describing Spencer Delineascopes.

NAME

ADDRESS
Since the north star (Polaris) is the end star in the handle of the Little Dipper, a star map showing the relative positions of the Big Dipper and the Little Dipper form the subject matter for star map number (2), "Big Dipper and Little Dipper." These names are used, rather than "Ursa Major and Ursa Minor," because the dippers constitute only parts of the "Bear" constellations. It will be seen that as the earth rotates on its axis the dippers...
appear to revolve about the north star counter-clockwise, always holding their relative positions with one another. If either constellation is seen, it is an easy matter to locate the other.

If a line is drawn from the bend in the handle of the Big Dipper to the north star, and then projected an equal distance beyond, it will locate the constellation Cassiopeia. The star map, number (3), "Big Dipper and Cassiopeia", stresses the relationships existing between these circumpolar constellations. If one constellation is identified, the other can be located readily. It can be shown that both the Big Dipper and Cassiopeia revolve counter-clockwise about the north star and that either one, or both, may be used as a "clock of the sky".

The vernal equinox is a very important point of reference in astronomical measurements. Spring occurs when the sun arrives at the vernal equinox. To locate the vernal equinox, draw a line (a meridian) from Polaris to Beta Cassiopeia, (a distance of thirty degrees) then on to Alpheratal in the Square of Pegasus (another thirty degrees), and extend it another thirty degrees into an open space in the sky. That point will be the approximate position of the vernal equinox, ninety degrees from the north star. This map entitled, "How to Locate the Vernal Equinox", number (4), stresses the relationships between the north star, Cassiopeia, the Square of Pegasus, and the vernal equinox. Identification of any one makes possible the ready location of the others.

Starting again from the north star and projecting a line through the constellation Auriga on to the celestial equator, a number of relationships may be indicated. Chart number (5) points out the positions of Cassiopeia, Auriga, Taurus, and the Pleiades.

One of the most brilliant and fascinating constellations of the autumn and winter months is the giant Orion majestically marching westward across the southern skies and driving the enraged bull, Taurus, backward hour after hour. This constellation is easily located by drawing a line (meridian) from Polaris past Capella in Auriga, and on beyond the celestial equator. Orion will be found with the upper star in his belt along the celestial equator, with his faithful hunting dog, Canis Major, containing the brightest star of the heavens, Sirius, following closely behind him. Star map number (6) entitled, "Orion", shows these relationships.

Autumn begins automatically when the sun is at the autumnal equinox. This point may be located by following the ecliptic three-fifths of the distance from the first magnitude star, Regulus, in the sickle of the constellation Leo, to Spica in the constellation Virgo. Since both of these stars are bright, first magnitude stars and as there are few other stars in that immediate vicinity, no difficulty will be experienced in locating with a fair degree of accuracy, the autumnal equinox. Map number (7), "How to Locate the Autumnal Equinox" will be of great assistance in this work.

The last of this series, number (8), is used to locate certain bright, first magnitude stars, starting from the initial point of origin, the Big Dipper. It is said that the Century of Progress in Chicago was officially
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opened by light from the star Arcturus. This star may be easily located by following southwest the swing of the curve of the handle of the Big Dipper until the first bright star is encountered. That star, in a fairly starless region, is the first magnitude star, Arcturus, in the constellation Bootes. A continuation of that line will bring into view certain other first magnitude stars as indicated on the star map, "Big Dipper, Arcturus, Spica, Antares, Regulus".

This series of eight star maps constitutes only a few which can be constructed. They do, however, deal with very prominent star groups seen for a number of months during the year. Other star maps might well assist in locating the constellations favorably placed during the time the unit is being studied. With the experience gained in constructing this small number of maps, it will be easy to make any others desired. Teachers should be certain to keep in mind the desirability of stressing definite relationships between constellations or stars when making the star maps. An isolated constellation on a card will be of little value in attempting to locate the heavenly bodies when on the field trip.

It would be well to have an observation period before the actual work of constructing the star maps. This would serve as a stimulus and create a desire on the part of the children to make the maps. It is a good plan for the teacher to construct a set of the maps to find the problems the children are likely to encounter in their work. The set made by the teacher may be used as a standard of excellence for the children’s finished products. The teacher might well place the diagrams in an enlarged form on a wall chart, having all the groups on the one chart. One way to do this is to draw the figures on a strip of unbleached muslin, say thirty-six inches wide by about sixty or seventy-two inches long, with colored crayon. All members of the class could view this at the same time during their construction work. The “zodiac band” may be made by drawing a line to represent the ecliptic in the middle of the two inch strip and its full length, then marking off spaces every two inches to form the areas for the twelve zodiacal constellations. The constellation figures may then be put in these spaces, along with the symbols and names of the signs of the zodia. The months and dates for the signs may also be noted in these spaces. Since the strip is twenty-eight inches long, four inches may be used to lap over to hold the band in a circular form.

It has been found that in placing the stars on the cards it is much easier to simply place the stars in

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the approximate positions, then shift them about until they look like the diagram on the chart, and then sticking them on the card, rather than measuring the distances and drawing the form beforehand. The lines can be readily drawn in after the stars are stuck to the cards. Use a cloth or a handkerchief in pressing the moistened star to the card to avoid a smear around the star on the card. Draw the lines in ink to avoid the smearing of the lines when the cards are in use. This latter exercise gives experience in ruling with ink.

How to Use the Star Maps

Before going on the field trip, it would be well for the children to know the names of the stars and the constellations to be studied. They must know also that the star maps are so constructed that it is necessary to hold them over the head to get the true relationships when viewing the stars.

There are several ways of using the star maps on the field trip. One way is for the teacher to make a demonstration, using the focusing flash light pointed toward the stars in the constellation. Then the pupils may look at the star map to identify the objects indicated by the teacher. After a few such demonstrations the pupils can very easily pick out the other constellations by using their maps. Pupils may be called on to demonstrate in place of the teacher. Misunderstandings may be cleared up by referring to the maps and then using the flash light to trace out the stars and star groups.

One way to firmly fix the constellations and their relative positions clearly in mind is to tell the star stories and legends as the observation progresses. For example, Taurus is always to the west of Orion. This can be remembered from the legend which states that in his fight with the huge bull, Orion was victorious and now drives the charging bull westward, while his huge hunting dog, Sirius, follows faithfully behind.

In the classroom pupils may review the field trip lesson by using the star maps and telling the stories of the constellations and stars contained thereon. Children might be asked to mark out the constellations on the floor or blackboard, then check their work for accuracy by using the star map. The map contains items which will call for reading and study in order to understand all the implications in it.

After a little practice and some further instructions the pupils may find great pleasure in going out by themselves, or in small groups in their own neighborhood and studying the constellations. The star maps will make them independent of the teacher in this work and they can study the stars as often as they choose. They may wish to make additional maps when their fund of knowledge grows beyond the small set of eight.

The construction of the maps will assist in developing certain skills, habits of work and neatness, stimulate the imagination, and promote understandings. Their use may lead to the acquisition of wholesome interests which might cause wide reading and culminate in a life-long hobby. Teachers who grasp this opportunity for an integrated project will be opening up broad avenues to the wonders of immediate and remote environment of daily life.
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With simple, "one shot" methods of color photography coming more and more into prominence for amateur use greater emphasis has lately been placed on projection, the method by which color transparencies such as Kodachrome or Dufaycolor can be enjoyed. In addition, the projection of black and white studies reveals details and depths of tones unsuspected in a paper print.

For the proper projection of color transparencies a projector must meet certain requirements. The screen image must be brilliant and sharp, and the ventilation such that in normal use the delicate colors of the transparency are not destroyed by the heat. The new Leitz VIII-S Projector (made by the makers of the Leica Camera) was designed with these considerations in mind and while it gives a brilliant image for use with moderately large gatherings it is also adaptable for home use. It employs a 250-watt bulb which, because of the projector's unique system of condensers, gives a greatly increased screen illumination over projectors of a comparable wattage.

The VIII-S Projector is versatile in that it will project single frame filmslides, Leica double frame filmslides, or 2x2 inch glass slides. These latter are usually employed with color transparencies.

The gate for the positive film strips has spools to which the film is clipped. After a strip of positive film has been run through the projector it is merely slipped off the take-up spool. To insert the film in the gate the latter opens up and the film is inserted. Scratching is prevented by a novel arrangement that releases the glass pressure plates before the film spool is turned. Interchanging of the gates for 2x2 inch glass slides and positive film strips has been reduced to extreme simplicity, for all that is necessary is to turn a lever, and the one gate is merely lifted off the projector to interchange with the other.

The entire construction of the VIII-S Projector is such that the maximum illumination possible is obtainable. External adjustments allow the lamp to be moved sidewise or forward and backward, to place it in correct optical alignment. The lamp housing design provides excellent ventilation, one of the main features being internal removable condensers mounted separately. The external condenser is also interchangeable.

New projection lenses are available for the Leitz VIII-S Projector, complete information on which may be had by writing to E. Leitz, Inc., 730 Fifth Avenue, New York, N. Y.

Coronation Pictures in 16 mm.

A striking development of modern visual education is found in the authentic 16mm motion pictures of England's Coronation just announced by Pathetograms of Rockefeller Center, New York. These films, of special interest to teachers of history and social science, will be available in both silent and sound versions and in a variety of lengths for use before the end of this school year.

The longer editions will include with the pictures of the Coronation, taken from preferred official positions, an historically accurate presentation of British royalty since 1900, making them especially valuable for school film libraries.

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Central Doubles Size of Catalog

The Central Camera Company, 230 South Wabash Avenue, Chicago, have enlarged the size of their new catalog 100%. In this latest camera catalog, Central has included numberless new importations in cameras and accessories for the professional and amateur photographer, as well as listing the latest domestic merchandise, all at unusually attractive prices. Many interesting bargains in used equipment are also included, and each one bears the Central "OK" tag which guarantees the camera mechanically and includes the Central guarantee of satisfaction or your money back within ten days. A free copy may be secured upon request.

Ray-Bell Film-Ad Productions

Heading an imposing list of national advertisers, Ray-Bell Films, Inc., announces the release of four special Alka-Seltzer films. For these productions, Ray-Bell Films brought the famous radio act—"Uncle Ezra and The Hoosier Hot Shots," from Chicago. The films were made in color, using the new Cinicolor process, and in actual sound.

Other national advertisers for whom Ray-Bell Films has made pictures recently include: Dr. West Toothbrushes, Pepsi-Soda, Dreyf, John Deere, Ford, Chevrolet, Campana-Listerine, Minneapolis-Moline Power Implement Company, and the International Harvester Company. Another large advertiser signed by Ray-Bell Films last week was the Pure Oil Company whose contract calls for a series of 26 different films with several in color.
California Straight Ahead (John Wayne) (Univ.) After many years of action by highway-riding hero, some mutation of his driving skills demands a change. He's known as the "Dude" in his role and manages to drive his car through mountains to carry important cargo to West Coast. Some pictures of the film's adventure.C. (A) Mediocre (Y) (C) Perhaps

Call It a Day (Ian Hunter, Frieda Inescort) (Warner) Ignore plot and let gallop of energetic, spontaneous romance with outstanding cast, straightforwardly directed, breezy love-choir by emotional female lead. Mary Poppins, boy toy, and amiable, to overcome and silly. Perhaps a good "hurricane supplemental youth." (A) Very good of kind (Y) Doubtful (C) Slight

Can This Be Dixie? (Jane Withers, Slim Summerville) (Fox) Episodic series of struggles to keep added-pasted, poverty-stricken Southern colonel's estate out of sheriff's hands by dubious, after a comic shooting scene. Smart, child smart dominates all. Illustrations in spots but mostly preposterous. 4-13-37 (A) Rather amusing (Y) Perhaps (C) No

Carnival in Flanders (La Kermesse Héroïque) (French prod., English titles) Outstanding costumes and sets, and the picture's ending in 17th Century Flanders. Wives ignite magnum mystery, and hero, a timid and unknown genius, topples into position with a hysteric family where he becomes invaluable. Now, a love interest, filling amusing action, dialogue and character. 4-13-37 (A) Doubtful of kind (Y) (C) Good

The Crime Nobody Saw (Lew Ayres, Eugene Pallette) (Para.) Mediocre murder tale, poor in direction, acting and dialog, incredible action and racial situation. (Warner) Would be gray, writers, hired to write, are devoid of ideas till masked by their very noses. Necessary plot. 4-13-37 (A) Mediocre (Y) Perhaps (C) No

Criminal Lawyer (Lee Tracy, Marcot Grava- ham) (RKO) Hero lawyer, partner of racketeers and politicians, tricks justice, barouses country. Also portrays government. Wins street-walker heroine. Instead, sorrid motives and gangsters ethics rule. Hero's mawkish overact and shriveling make plot impossible. (A) Poor (Y) Unhospitable some (C) Good

East Meets West (George Arliss and English cast) (GB) Costume meller-drama, filled with romance and historicals, with Arliss doing "Green Goddess" role by anti-guts. Oriental sultan of the forms of rations against each other to win huge loan from each. 4-13-37 (A) Good of kind (Y) Doubtful (C) No

Fiftieth Roads to Town (Don Ameche, Ann Soothern) (Fox) Parody comic of mistaken identities and comedy complications. Hero is taken for gangster by heroine and police who capture him, thus getting crooks but losing hero to love interest. Soap padding and dull elements, but capable cast makes it pretty good fun at an easy pace. 4-13-37 (A) Rather amusing (Y) Perhaps (C) No

Good Old Soak (Wallace Beery, Janet Beecher) (MGM) Well-acted screening of Don Marquis' comic fishbowl for a serious comedy of life and people with assorted characters providing simple humor and drama. Kindly splash-mouth-publisher skillfully manoeuvres affairs and people, and successful finesse of innocence of young falsely accused of murder. 4-13-37 (A) Perhaps (Y) Fairly good (C) Mature

Internes Can't Take Money (Stanywick, Mc- Gras) (Para.) Medical ethics and gangsterism combined in truly acted, sensational drama. Gang leader owes life to intern-hero and helps him. Hero's daughter is hidden by ex- husband. Character values distorted, ethics scrambled, but one of the most powerful roles of a career. 4-13-37 (A) Good of kind (Y) Better not (C) No

Laughing at Trouble (Jane Russell and Fox) Pulsing partnership of the war time and people with assorted characters providing simple humor and drama. Kindly splash-mouth-publisher skillfully manoeuvres affairs and people, and successful finesse of innocence of young falsely accused of murder. 4-13-37 (A) Perhaps (Y) Fairly good (C) Mature

Melody for Two (James Melton, Patricia Ellis) (War) Ordinary mixture of singing, jazz, cafe drama and dance band. Over- self-realized hero, provoked into breaking contract, dies, and life- difficult situations are smoothed out by heroine. Only features, Melton's songs and comedy bits. 4-13-37 (A) Mediocre (Y) Perhaps (C) Hardly

Midnight Taxi (Brian Donlevy, Frances Dyke) (Fox) Above average Class B thriller. Gorman hero, posing as taxidriver, gains confidence of gangsters and of heroine involved with them, until final round-up cuts violent end to huge counterfeit racket. Exciting, successful climax, well-rounded plot. 4-13-37 (A) Perhaps (Y) Good of kind (C) Doubtful

Mountain Justice (J. Hutchinson, G. Breat) (War) Harrowing, well-acted melodrama, inspired by recent headlines, depicting hill-billy injustice and its consequences. Fine heroine kills her brutally inhumane father, and narrowly avoids conviction for murder while grim proceedings somewhat. 4-27-37 (A) Depends on taste (Y) No (C) No

Murder Goes to College (Marcha Hunt, Lynn Overman) (Para) Disagreeable mystery, with college-plot; hero valiantly utilized by the police and crime and shows heroine's innocence and saves father's interest. 4-27-37 (A) Hardly (Y) Good (C) Probably good

Park Avenue Logger (Geo. O'Brien, Beatrice Roberts) (RKO) Vigorous, healthy little yarn about lumber-jim's son, thought by father to be high-brow, sissy, known to audience as wrest- lling hero. His father's plan for making him a flows, he detects crook and saves man's interest. 4-27-37 (A) Hardly (Y) Good (C) Probably good

Revolutionists (Russian, with English titles) (Amkino) Storied action and comedy, marvels of revolution. In revolution, most notable, good photography, acting and narrative. Avoids raucous sound, driving terms and overplayed heroines. (A) Yes (Y) Unhospitable some (C) Good

River of Unrest (John Loder) (G.B) Seething Irish-rebellion melodrama with usual patriot guns, government tanks, ambushes, secret meetings, killings in the dark, etc. Mysterious Irish leader, hero's brother ingenuously, finally killed by hero, who manages to make any impression on the audience. Grim and confused. 4-27-37 (A) Mediocre (Y) Little interest, less valuable

Romance and Riches (Gary Grant, Mary Brian) (Gr Nat) Exaggerated, highly incredible Oppen-heimer of ultra-rich hero bored by heroine, pro- gressed to earn his way incognito for a year. He strolls through the title's sleazy gifts easily among despising people, and wins humble heroine and happiness. Main idea well done. (A) Middly amusing (Y) Good (C) Perhaps

Shall We Dance (Fred Astaire, Ginger Rogers) (M-G-M) Beautifulично of the dance, romance, and old-style melodrama which precedes it. Character to their previous ones, with music, notable dancing, spectacular sets, and good comedy by E. E. Horton. Mild sophistication achieved by ship-board rumor that the innocent pair is mar- ried. A remarkable "tymessiness" will be felt. 4-27-37 (A) Good of kind (Y) Doubtful value (C) Hardly

That Man's Here Again (Hugh Herbert, Tom Brown, Mary Maguire) (Warner) Feeble rumble of farce, romance, and old-style melodrama which precedes it. Character to their previous ones, with music, notable dancing, spectacular sets, and good comedy by E. E. Horton. Mild sophistication achieved by ship-board rumor that the innocent pair is married. A remarkable "tymessiness" will be felt. 4-27-37 (A) Good of kind (Y) Doubtful value (C) Hardly

Thunder in the City (Edward G. Robinson) (Columbia) American super-salesman supposed to have about $100,000,000 by a momentary stock-buying in new metal discovery. He wins heroine's hand but loses it again, made treacherously. Harless and lovely item funk as hilarious exaggeration. 5-4-37 (A) Fair (Y) Good (C) Perhaps

Twenty-Three and a Half Hours Leave (J. Halliday, Grand) (RKO) Darrel standing in camps. Rollicking fan, stick-stick, song sequences, as cocky sergeant hero wins the general, and wins his daughter also for good manners. 5-4-37 (A) Perhaps (Y) Amusing (C) Probably good

Watch and Live (Winchell, Bernie, Faye, Jack Haley, Kelly Kayo, Ned Sparks) (L-B) (Fox) Hilarious farce comedy at its best. Winchell and Winchell, also in 'Bells Are Ringing,' so deftly woven into plot centered on hunt for "phantom troubadour," whose voice, accidental- ly, turns out to be that of Adolph Menjou (A) Excellent of kind (C) Probably amusing

When Love Is Young (Virginia Bruce, Kent Taylor) (Univ.) Colorless version of title theme. Plain small-town girl of humdrum life. Hero's factory role brings her out into beautiful Broadway- star by clever press-agent, and gets to even old scores that her dead asset is dear character role by Walter Brennan. 4-27-37 (A) Pair (Y) Prob. good (C) Little interest

The Woman I Love (Paul Muni, Miriam Hopkin) (RKO) Unsympathetic leading roles and old, overcome. Great War details mar this serious triangle story. Man hated as jinx by fel- low war-starter, his love lowest in same squadron. Depression messed over by youth's death! Watson-Talbot (RKO) 4-27-37 (A) Disappointing (Y) Unhospitable some (C) Good

Woman Wise (Rochelle Hudson, Michael Whalen) (Fox) Vigorous sports-editor, with real humanity in his make-up, fights outrageous use of old fighters by ring racketeers, even risking his own reputation to win his cause and the peppe heroines. Elementary stuff, but efficiently handled. 4-27-37 (A) Hardly (Y) Fairly good (C) Doubtful

You're in the Army Now (Wallace Ford, Grace Bradley) (G.B) Mediocre film, rambling plot about smart-aleck, hillbitter American soldier who lands indirectly in British Army, Comedy values marred by cheap action and dialogue, and totally unappealing hero who achieves role death fighting Chinese bands. 4-27-37 (A) Mediocre (Y) No (C) No
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Problems in Introducing a Visual Aid Program

Comments and conclusions from actual experiences which will be pertinent to many other situations.

By Alvin B. Roberts
Principal, Haw Creek Township High School, Gilson, Illinois

The school man of today who attempts to introduce a Visual Aid program is faced with many problems which those of us who started using visual material ten or twelve years ago did not have to work out. Consequently, there are numerous questions which come to the mind of the principal or superintendent who is now planning to introduce such a program.

Perhaps the first problem which will confront the school executive is determining the type of projector to use. Roughly speaking, projectors may be divided into two groups, the still group, including the lantern slide, opaque, strip film, and micro-projector; and the movie, including the 35mm and 16mm, either silent or sound. The average high school of today must depend entirely upon some outside source for its projection material. Consequently, a study of these sources will reveal the amount of available material for either of the above types of projectors. Seemingly, the movie projectors are receiving considerably more emphasis, but the still projectors will always have a place in any well-rounded visual program. If a still projector is to be selected, probably a combination machine will be more desirable, since it costs very little more than the lantern slide projector and yet will handle either the strip film or slides.

It is not so easy to select a projector in the movie field. With the rapid introduction of 16mm film, very few schools of today are buying the 35mm projector. However, even when we confine our questions to the 16mm machine, there is a question of the silent or sound-on-film. Here a number of things must be considered carefully. In the first place, is the projector to be used almost entirely in the classroom or in the auditorium for large groups? If the latter, probably the sound projector will meet the needs more adequately. Again there is a question of price. Since the average sound projector costs approximately three to four times that of the silent projector, one cannot altogether ignore this item. Next there is a question of portability, that is, is the projector to be moved to the different classrooms? Then there is the question of adaptability. Many of the sound films so far produced are suited for one particular class and one particular subject. The silent film may be adapted to the general level of the class and to the different classes, as well. For example, in the film “Mining of Sulphur”, the context may be used in connection with the General Science class, showing the operation of pumps and other simple machines. The same film may be used in the Physics class to show certain physical and chemical processes which are involved in the mining of sulphur. One loses this adaptability in using the sound film. On the other hand, one must take into consideration that the lecture included on the sound film will probably be given much better than the teacher will give it to the class. Again there are certain classes in which sound is almost indispensable, for example, in connection with music classes or in Physics classes where sound really makes up a part of the film itself. At the present time I believe the majority of schools are using the silent projector as it is more adaptable to use in the classroom. These figures taken from the National Visual Education Directory seem to bear out the above statement: 16mm silent projectors in use, 6074; 16mm sound projectors in use, 458. One might, however, explain the use of the great number of silent projectors by the fact that the sound machine has been on the market for such a short period of time. These are only a few of the questions that come up in the selection of silent or sound projector. Assuming now that the school executive has determined the type of projector, we find the following problems which must be worked out in connection with the development of the Visual Aid program.

These might be grouped under the head “Problems of Administration and Utilization.” Under administration, the first major problem is to see that the teachers are interested in, and are sympathetic with your program. Unless your teachers are interested you will be disappointed with the results of the use of film. One reason for this is that preparing a film for presentation to the class requires a great deal more time than preparing for the regular class room recitation, and if the film is not properly prepared, there is a waste of both the teacher’s and pupils’ time.

Building the Film Program

Building a suitable program requires considerable work over a period of years; like building a curriculum, it is set up and changed from year to year. Starting from the ground up, the first problem is the building of a time schedule for the films which you are planning to use. Whether you use those put out by a University Service, or some other source, the problem remains the same. If you could press a button and have the film, which you wish to use drop into your hand, the time schedule would not trouble you. But when you consider that (in Illinois, for example) there are between three and four hundred schools now using the University Service, you can see that it is necessary to send in your reservation several months in advance. The purpose of the time schedule is to correlate the film to the material you are studying in the textbook. This may be done by checking the amount of time required for each chapter or unit, and marking the date for opening and closing the chapter.
or unit, then thumbing through the film catalogue and listing the films that you expect to use with that particular unit according to your estimated time for study. When the film is received, you should correct your time schedule because you will probably find the film has come a bit early or a few days late, and it can be reserved for the following year on a more accurate basis. It is true that the next year's class may go slower or faster, but this method seems the most satisfactory of all we have used.

The second major problem is rating and apportioning film. By rating, I mean determining the class for which the film is best suited. For example, in the field of science, shall you use a particular film in general science, in biology, in physics? Is it too technical for the Freshman class? Is it worth showing to the Freshmen and repeating later when they are taking biology or physics? By apportioning the film, I mean determining in which subject it may be used to the best advantage. There are a host of films which can be used in connection with commercial geography, but few in American history. The films, "Philippine Islands," "Mexico," "Alaska," and the "Panama Canal" can be used equally well with either class, but in order to avoid excessive use of visual material in the former class we used them with the history group when studying the unit on imperialism. By proper apportioning, also, more of your teachers will use film and all the work will not fall on just one or two. A temporary rating and apportioning sheet may be set up by reading the descriptive material given in the catalogue; this sheet can be corrected after the film has been seen.

Projection Problems

Another problem which should receive careful consideration, is providing a room suitable for projection. This room should accommodate the largest class without crowding and should be darkened so that the pictures will be sharp and clear, yet large enough for the students to get all details. For two years we used the projector in the classroom where translucent shades were used, and I feel that much of the value of the film was lost because the image was not sharp and distinct, or, in an attempt to bring out the details of the picture, the image had to be so reduced in size that it was not clearly visible to all members. Where only one room is used it is well to post, a day or more in advance, the schedule of classes using the room. Since all classes will use the room at their regular hour of meeting, I do not believe much of the value of the projected material will be lost because of the change from the regular class room.

Another problem is the training of teachers to operate the projector. This requires only a few minutes since either the silent or the sound projector is very simple to thread and focus. I believe the teacher will secure better results when using the projector, without the presence of another teacher to operate the machine. In many cases, the operation of the projector may be turned over to some responsible boy. This allows the teacher to stand near the screen so that she may point out more clearly just what she expects the class to get. She is also in a better position to talk to the class, especially if it happens to be a large one.

In the utilization of slides, the students must get away from the "show idea". When we first started using film, the students came into the class room with a feeling that it was to be merely a "show". A good stiff test or summary on the material shown will help to break up the show idea. There are few of you, I believe, who would come into your class room and state, "The material I am going to give you today is entertaining and interesting but not worth remembering." Hence, why should the class not be held responsible for the visual material? If it is not worth this, is it worth using at all?

Correlation With Subject Matter

The greatest value will come to the class if the films are properly fitted to the subject matter. How well the films will correlate with the material the class is studying will depend entirely upon the care with which the time schedule was built up, and the adjustment made in the class room procedure after receiving the approved schedule from the source you are using. Here, again, there are few of you who would discuss a map on the "Migrations of Barbarians in Europe" when you were studying the unit in your text dealing with Ancient Egypt. Naturally you would fit the map discussion to the text material, and the same principle applies to films or slides. In order to present a film to the best advantage, the teacher will need considerable time for preparation. A teacher cannot prepare properly for a presentation without first seeing the film. It is true that the class room films are accompanied by manuals, but even so, the teacher must know exactly what is coming next. Preparation of this type means gaining access to the projection room, generally after school or during the evening. Hence, the time for preparation greatly exceeds that used in preparing for regular class room recitation. As is true with all class room procedure, a well planned lesson secures far better results.

The students, too, must do some preparation for the film or slides. The amount will be determined by the place in the unit in which the aid is being used. If introducing a new unit little will be done; if closing the unit a great deal more may be expected of the class. In all cases students should be held accountable for the material so presented; whether in special test, summary, or questions included in the regular unit test or examination matters little, so long as the class realizes that it is to be held responsible for this material.

Whenever possible, the aid should be discussed immediately after showing. This gives the students an opportunity to ask question on points not clear, and if necessary, portions of the film may be shown a second or third time. Remember that the teacher through preparation is familiar with the film; the students are seeing it for the first time, so considerable explanation on some parts may be necessary. For example, in the film "Circulation" the exchange of carbon dioxide and oxygen in the tissues, while quite clear to the teachers, needs some explanation for students.

Schedule for Specific Unit

In addition to fitting the film to the text book material, the teacher must decide the proper sequence of the aids in the unit. There are many units in science and
geography, which will require extreme care. Here again, however, it is impossible to make a proper placement until after having used the films once or several times. For example, in my biology class I use the following material in studying the unit on "Insects". Now you may not agree with the order in which I have listed this material, and I do not contend that the arrangement is perfect, but I do know that you secure better results when planning some sequence of material for the unit. I introduce the unit with the set of slides, "Importance of Insects to Man." In this we see how insects are injurious to crops and animals; how they carry disease; how they are valuable to man; and something about their structure and general methods of control. You can readily see that this touches almost every phase we will take up in our study of the unit. The second set of slides used is "Structure of Insects". This shows wing formation, mouth parts, structure of skeleton, muscular attachment, digestive tract, nervous, and circulatory systems. This prepares students for dissection of insects if you expect to do any, and if not, it gives them a good conception of the general structure of insects.

I then use the third set of slides, "The Life History of the Honey Bee." Here we study an insect that is beneficial to man, one that has a complete metamorphosis, and also one that lives in a colony.

The first film which is used is, "The House Fly." This very graphically shows every stage in the life history of the fly and how the changes are made. It also shows how the fly eats and why it is one of our greatest menaces to health, as a carrier of disease germs. Proper methods of control are shown and also the effects of general control methods.

To close the unit I use the three reels "Malaria." Here again life history, carrier of disease, how germs are carried, control measures and effects are shown. Now, as I stated above, you may not agree with this sequence, but I believe you will agree some sequence is necessary.

There are a few uses of films that I should like to mention which probably do not belong under either administration or utilization.

Films or slides are also excellent for use in preparing students for field work. I know there are many schools (again in Illinois, for example) which are visiting our leading cities and historical places throughout the state. In our own school we travel approximately 3000 miles during the term. The students have an opportunity to study in Chicago, St. Louis, Springfield, Peoria, Rock Island and other nearby cities. To receive the most good from the tour the students must make some preparation, and here again visual material cannot be excelled. The film "Rocky Mountain Mammals" is used in preparing part of the work for the biology class in the Field Museum. "The Nation's Market Place" is used in preparing those who are to visit the Chicago Board of Trade. "Reptiles" is used in preparing the biology class for their study in the Snake House at St. Louis. "Crude Oil Refining" and "Romance of Glass" are used to prepare the upper classes for their tour of the refinery at Wood River, and the glass factory at Alton.

Films may also be used to an advantage by those interested in vocational guidance. Whether this is given as an independent course or in a series of assemblies throughout the year, the use of film will be found very valuable, because by careful selection of visual aids, a great number of vocations can be brought to the attention of the students. Films showing occupations, from the lowest unskilled to the highest skilled and professional groups, are now available.

Many teachers and principals are using films to bring the activities of the school to the attention of the parents and people of the community. Those of you who are teaching know that few, if any parents, visit the class room. Through the use of inexpensive cameras, either still film or movie, many of the activities can be photographed and shown at P.T.A. and other community meetings.

Some teachers are also using these cameras to photograph projects for permanent records and use in future classes, others to recopy pictures, which at best cannot be used advantageously in the class room, and require considerable time and space for filing. When copied on roll film they can be presented effectively and stored in very small space. Other teachers are using their own film to bring portions of their travels into the class room. Whether visiting points of interest in her own state, or traveling extensively, the teacher will always find something of interest to photograph for use in her school.

Comments and Conclusions

In summarizing, the main points to be considered in introducing a visual aid program, are (1) selection of projector, (2) interesting teachers in the project, (3) the time schedule, (4) rating and apportioning film, (5) preparation of teachers, (6) preparation of pupils, and (7) holding pupils accountable for visual material used.

Probably some of you might be interested in the students' reaction to a visual aid program. Last year my senior class, 1936, had been taught with the use of visual aids for four years. I asked each member of the class to write a paper on "Why I Like Visual Aids" and each was also invited to give adverse criticisms and suggestions if any. While there were only twelve in the class, ten of them said they liked a visual aid program because it was different from the regular class room procedure. The second most frequent point mentioned was, "It is easier to remember material when we see it, than when we read it." The third highest was, "Visual material saves time. It would take hours sometimes to read what can be shown on the screen in fifteen or twenty minutes, and then we would probably not understand it as well."

The adverse criticism was, "We miss many interesting points when given a long list of questions before seeing the film. We are so busy looking for the answers to the questions that many points are overlooked."

Those who attempted to give a suggestion preferred introduction by the teacher and comments while showing the film, and also the opportunity to ask questions and clear up points during presentation of film.

In conclusion, I should like to leave as a warning to those who are using visual aids for the first time, this suggestion. See that you do not book too many films for the first year. When selecting films in some

(Concluded on page 203)
A New Era in Visual Methods

NOW, right now, we are so showered with radical improvements and accruing possibilities in the technique of Visual Education that it is difficult for a willing and enthusiastic teacher to keep pace with the progress. Those who are not trying, are surely missing rare opportunities for pioneering in the new day that has dawned.

Most important potentially is the talking film, the potency of which in some types of instruction, even with the films now available, can hardly be over estimated. The possibilities and ramifications of future development are boundless.

Because of the expense and inherent difficulties of moving picture and sound production, the use of speaking pictures in classrooms must necessarily proceed comparatively slowly, while for stills—stereopticon pictures,—less entertaining, perhaps, but often more effective, the stage is set for inexpensive and satisfactory visual methods of teaching, impossible before the improvements and inventions of the last year, without, in general, prohibitive cost.

This has been brought about, first, by the advent of miniature cameras using 35 mm. film.* Ten years ago there was but one on the market, still far in the lead because of its requisite precision and abundant accessories; to-day, there are too many miniature cameras to name, and their tribe increases; all, even the cheapest, are capable of producing good teaching slides, at surprisingly low cost.

The last year has also brought the improved Kodachrome film, by means of which, it is possible to make color slides of simply startling beauty. If amateur photographers at large, realized what they can do with ease in color photography, they would soon own a miniature camera. It becomes a necessity of life, and is absolutely necessary for color slides, because at present, Kodachrome is not available in other than strip film. Because of its newness, color photography scares off the tyro, without reason. No special filter nor equipment is necessary.

*For full discussion of miniature cameras and the technique of slide making, see Fortune, Oct. 1936 and the writer’s articles in the Educational Screen, May 1935, and Nov. 1936.

Interesting ways and means for extending the range of still pictures in teaching.

By JOHN B. MACHARG
Professor of American History
Lawrence College, Appleton, Wisconsin

Using Eastman, K135, for out-of-doors shots and K135A, for artificial illumination, simply set the Weston meter at Scheiner 18 and follow the reading. If you haven’t a photometer, 1/60°—1/100° at f4.5 will not be far off for most shots out of doors. Copying is easier, with No. 1 flood lamps, two or three feet from the color print; 1/20° at f4.5, will give a beautiful positive, every time.

Of course, if you make color slides, you must have a projector, if you are to view them with any degree of satisfaction. Color prints can be made on paper from Kodachrome positives, but it is a process that requires more skill and patience than most amateurs possess, and the results do not compare favorably with stereopticon projection.*

Fortunately, both for the worker in color photography and for the instructor, who is alive to the fact that he must include slides for maximum effectiveness in teaching, projectors of unprecedented efficiency and versatility have appeared within the last year at half the cost of machines formerly available. This makes it practical to furnish a room at a cost of fifty dollars with two projectors, an equipment affording so much of satisfaction and advantage that the double cost should be assumed, wherever possible.

First, two machines enable the teacher to use a map and picture side by side, and to project similar or dissimilar objects for comparison.

Valuable as is this technique in teaching, it is in the use of two machines with a rheostat that the chief advantage lies. This method of changing projections on the screen without motion, through the gradual fading out of one image and the emergence of another, relieves eye strain and adds so much to the pleasure of stereopticon pictures, that, if for no other reason, it should be generally adopted. At present this method is practically unknown in schools.

A switch-board for this work requires simple wiring.

*For enthusiastic description of the process and results, see Leica Photography, Feb. 1937. Detailed information will be found in Eastman Wash-Off Relief, published by the Eastman Kodak Co., Rochester, N. Y.
that almost anyone can do, and materials that can be readily procured for well under five dollars. Fig. 1 shows the hook-up in detail; A, A, are the receptacles for the stereopticons, B is the mounted rheostat, (50 Watt, Ohmite Potentiometer, Resistance 500, suitable for two 100 Watt machines.) C is a knife-switch cut-out, governing both projectors. The receptacle, E, and switch, D, are not necessary adjuncts but convenient for control of a room light, which, if of the indirect, reflector type, may be used during the showing of most slides, with sufficient light for note-taking. F, is the plug for current. Fig. 2, shows the mounting of the rheostat. The handle and support are easily cut from sheet metal. The cylindrical fitting at the top, which is necessary for holding the handle in place, can be obtained by breaking up the bakelite knob, supplied with the rheostat.

Fig. 3, shows the switch-board mounted with a support for the two projectors. The rheostat lever may be seen just behind the machines. The board shown is fitted with five receptacles, two for the stereopticons, and three for added convenience. One may be used for room light, the other two for independent use of the machines, without rheostat, when comparative study of two images, shown at the same time, is desired. Still another receptacle might well be provided to accommodate a small fan, which is desirable for cooling rheostat and slides, if long continued use of the apparatus is necessary. The open switch-board, and the use of two machines, however, obviate undue heating for the usual work of the class room.

Two machines and rheostat make possible the use of varied devices and motion picture effects. One of the most obvious is the map title, which serves to impress the location of a picture.

After a slide showing the title, "Craigmillar Castle," which arouses the attention of the student, the next slide, Fig. 4, fades in and the location of the perhaps unfamiliar home of Queen Mary of Scots appears. When the picture of the castle, Fig. 5, comes out of the screen, as it seems to do, there is opportunity for the telling of all the romantic history that clusters about this picturesque ruin.

By the use of colored slides or screens, beautiful and surprising sunset effects may be produced. Blank outline maps with a question superimposed, gradually fade into the same map with the states in color, answering the question. Flowers may be made to change their colors gradually, etc. Among others, the field of Psychology, in particular, offers abundant scope for the ingenuity of the teacher in producing valuable devices.

In fact the use of this apparatus affords so many opportunities for effective originality on the part of the teacher, and so great added eye comfort to both teacher and students, that once used and appreciated, it is likely to seem indispensable.

Two projectors used without rheostat, also, make stereoscopic or three dimensional projection comparatively simple. To accomplish this, two stereoscopic negatives must be made of each subject and the positives made from them projected superimposed through color filters, one blue-green, the other red. The resulting image on the screen when viewed by means of spectacles with lenses of complimentary colors has surprising depth and decided advantages in many fields, especially that of anatomy. The enduring vogue of the hand stereoscope, often with crude and unsatis-

\[ \text{Figure 3. Double Projection} \]

factory pictures, bears witness to the fascinating charm of three dimensional images.*

We teachers are living in a rare era of new developments, which are at hand ready for use; for maximum efficiency, they must be used. The challenging call of visual education resounds today, with imperative notes of privilege and duty.

*Filters and spectacles with corresponding lenses may be obtained from the Bausch and Lomb Co., Rochester, N. Y.
The School Newsreel Needs A Sponsor

Presenting some of the values and methods of a recently developed extra-curricular activity.

By ARTHUR STENIUS
In Charge of Visual Education
Western High School, Detroit, Michigan

For many years visual education and extra-curricular activities have gone hand in hand on the secondary school level. Sponsors of clubs have always found that a sure guarantee for attendance of members is a notice to the effect that at the next meeting of the organization, pictures bearing on the interest of the club will be shown. A biology teacher may find that he cannot present a film to his class because other schools in the city's system are scheduled to use the picture during the several days when it jibes with his course outline, or because his room is not suitable for the showing of pictures and the school's program prevents a shift to a suitable room, or for one of five or six other reasons which are common in the average high school. But to show the same film to members of the school's nature club offers none of the obstacles. A meeting can be moved ahead or postponed to meet the availability of the film. With an organization meeting after school hours, class and room schedules are not interfered with in order that the school's visual education equipment can be used. All in all, the freedom from formal demands, which an extra-curricular activity possesses, has always permitted faculty advisors to make the most of the visual aids offered by the school system.

But until recently, no extra-curricular activity has been of such a nature as to come directly under the visual education department, or be sponsored by the teacher in charge of a school's visual education program. Such an activity has now had its probationary period, proved itself to be sound and worthwhile, and shown that it can best be handled by one directly connected with visual education. This activity is the school newsreel.

Started at Detroit Western High School approximately four years ago, the school newsreel has spread as it proved itself more than a fad. Today, as worked out in the school where it originated, the newsreel is a regular supplement for the school paper, showing every second week as part of an hour's program, and receiving such support from the student body that it promises to become the most popular extra-curricular activity of the school.

Although there is no need for recounting the start of this activity to outline procedures which now are followed in carrying through the school's motion picture program, a brief summary may be of value to prove that this student activity is possible in schools other than those of large cities where general funds can be called upon for the initial expense. Western High's newsreel began as a function of the school newspaper when a year's profit from the publication was sufficient to buy equipment needed. To any school which lists a 16mm projector as part of its visual aid equipment, the cost of additional equipment needed for the activity comes well under one hundred dollars. With this amount one can purchase camera, film, bulbs and reflectors for inside pictures, and materials for the making of titles. And no activity will pay for its equipment more readily.

But what are the benefits justifying such an extra-curricular activity? True, first thought may tend to condemn the activity because so few students can participate in and benefit by the activity itself, but just as varsity teams' "sports" programs find their greatest justification in the enjoyment which the students in general receive from watching the contests and not the actual benefits received by the team members, just so the newsreel and the work of a few create a thing of general interest and enjoyment. The newsreel itself is intensely interesting to the students. There are few things which hold more fascination to the adolescent than the opportunity to see himself and his friends on the screen, and when pictures bring a club outing or a football game played away from home to the auditorium, then both students who participated and those who missed the event are thrilled.

Various departments of the school benefit from this activity. Athletic events not usually supported whole-heartedly such as cross country races, track meets held away from home, etc. can be shown to the student body. Action shots of a team in practice makes the best type of stimulus at a pep meeting. With a camera that will take slow motion pictures as well as those at regular speed — and practically any good medium-priced motion picture camera now offers three speeds for taking pictures—athletes and coaches can benefit when seeing just what form is used in clearing the bar in a high jump, or why an opposing tackle managed to break up a play, etc. But the athletic department is not alone in receiving such benefits. A senior class play can be advertised by shots taken at rehearsals. Within a year or two, selected shots of individuals make for an interesting class history as the seniors see themselves or classmates as they really looked when members of the sophomore or junior class. No, there is no shortage in benefits justifying the school newsreel.

But what are the demands on faculty time if such an activity is carried through? Very little. No activity can be so wholly a matter of student participation. With camera manufacturers striving to create an amateur motion picture market, equipment necessary for the taking of pictures is almost fool proof. A few simple directions which practically any upper grade intermediate student can carry out, and highly presentable pictures can be the results. Development, of course, is done by the manufacturers, so that from
the plan of what pictures are to be taken to the wit-nessed program, actual care of the projector while the films are being shown is the chief demand on the time of the teacher in charge of the activity.

With sufficient benefits to the students justifying the venture, with demands on faculty supervision not too great to make the activity less desirable than any other in a school's extra-curricular program, and with the initial and upkeep cost far below that necessary for the carrying out of such student activities as the school annual, newspaper, senior play, etc., the news-reel is an activity which can successfully be taken on by practically any school on the secondary level. To the faculty member who sponsors a motion picture activity will come one of the most interesting adventures in student activity that the school can offer. His problem will not be one of stimulating those working under him, but in harnessing the enthusiasm of the students who are to carry through the newsreel and its kindred presentations.

As the newsreel activity has been carried out at Detroit's Western High School, the programs offered to the students have either been one of a full class period, or one complete within half a period. When the full period programs are shown, the presentation is usually offered the last two hours of the school schedule as well as one showing after all classes are out. In this manner, most students who have early programs, are able to see the program without staying more than one period after the classes are through, yet no student is without an opportunity to view the program because his classes conflict with the showings. The shorter programs, those taking only half a period to show, are given during the lunch period so that each student has the opportunity of eating during one half of the hour and seeing the motion pictures the other half of the period.

In neither the longer or shorter presentation does the newsreel showing activities of the students make up the entire program. Two hundred-foot reels of film taken about the school is the usual amount of newsreel shots shown on a program, a fact which makes only eight minutes of the program the showing of school activities. If the newsreel is to be shown at longer intervals, of course, more footage can be given to students activities, but we have tried to keep it a NEWStureel, and accordingly have found that if a month or more elapses between showings, the interest in the pictures is not as high as under the present procedure. In the shorter type of program, an animated cartoon rented from a motion picture library completes the presentation; the entire half lunch period being only 22 minutes in length, some seventeen or eighteen minutes of pictures is all that can be shown in that time and still permit students to buy tickets and seat themselves in the auditorium.

The longer programs shown at the end of the day have varied. In some a one-act play put on by a club or dramatics class has acted as the completing unit for a newsreel and comedy; in others, films make up the entire program. In the latter case, there are various means of securing material for the showings. The complete program, other than the newsreel, may be rented from the rental libraries referred to before. Sport, musical or travel features can be added to comedies to complete the presentation. Or educational films of a more or less general interest offered by the board of education's visual department can be used, as well as some type of films offered by various groups such as the United States Navy department, National Parks systems, etc. Just how and from where films can be rented or loaned readily can be learned by consulting any person connected with a concern selling photography equipment.

But a motion picture activity of the type with which this article is concerned need not hold itself to the newsreel idea. The writer has already directed the producing of a "movie" written, acted, and edited by the students. True, it was merely a twenty-minute comedy of the slapstick variety, but no picture was ever more enthusiastically received than that which was shown to our student body. A style show taken with colored film featured another program viewed by more than thirteen hundred students of the school. Parent-teacher association meetings can be livened with an occasional showing of what makes up some of the activities of the school, and other uses of the equipment are as numerous as the sponsor or students handling the activity care to make it.

When the newsreel idea started, there were some who felt that it was a novelty with little value and no permanent place in the school's extra-curricular program. Today, when the idea has been carried through successfully in various high and intermediate schools, colleges and even on the elementary level, an individual is short sighted not to realize that motion pictures "of the students, by the students and for the students" is here to stay. No department of the school can reasonably be selected to sponsor this activity except those concerned with visual education; and in turn, those of the profession who are interested in visual work should not hesitate to take on an activity which carries as much interest and worth for the students of our schools.

In six years, according to Alan H. Nicol, director of visual education, the Buffalo schools have developed the use of 16mm film from none in 1929-30, to 14,605 films, in 1935-36.
To a Great Teacher, a Genial Scholar, an Ideal Friend

Herbert Ellsworth Slaught
1861 - 1937

AT SUNSET, May 21st, 1937, ended a long life of great and varied service to education and humanity. Professor Slaught was intimately a part of The University of Chicago, as student and teacher, from its beginning in 1892 to his retirement in 1932. Known above all, perhaps, as a great teacher of Mathematics, his dynamic energy carried him far beyond the classroom. He was a potent force behind such university activities as the Bureau for placement of teachers, the Alumni Council, the Association of Doctors of Philosophy, serving long terms of office in each; in such national activities as the founding of the Mathematical Association of America, and the development of The American Mathematical Monthly, of which he was Managing Editor for many years; and there still remained surplus power that made him widely known as a speaker on convention platforms, writer of scholarly articles in many publications, and author of the famous series of mathematical textbooks. But these and many more details of the great life will be written at length elsewhere. We are concerned here with what was a very minor part of Dr. Slaught's multiple preoccupations, his relation and importance to The Educational Screen.

THERE would have been no first issue of this magazine to appear in January, 1922 were it not for Herbert H. Slaught—"Dear H.E.S." as we soon came to think of him. It was he who, after careful study and deliberation, said the magic words "We'll do it." His generous initial financing, from the none too abundant resources of a college professor, made possible the beginnings of organization and production. Visual instruction was not his field. Only the keen vision of his incisive mind told him the coming importance of that field and the logical need of a magazine to serve it exclusively. His faith in the visual idea, his unquenchable enthusiasm, his unwavering support, his sage counsel, his buoyant sense of humor and his famous laugh, kept us going through the many years of discouraging deficit, topped by the great depression, until the field should have grown large enough to support the enterprise. We are deeply thankful that he lived to see his faith justified and the magazine safely on its way.

His was a rare spirit, a great heart, a rich personality, a genial soul. We of the magazine cannot hope to replace such a President. We shall seek only a successor. Whatever the value of The Educational Screen to the visual field during the past fifteen years, and whatever the service it may render in the future, it must be considered largely as a gift from him who has gone, to a field that was not his own.

NELSON L. GREENE.
IN THE single language field the most active group is the French Talking Films Committee of Cambridge, Massachusetts, organized and directed by Mrs. Belle P. Rand.

Foreign films are usually shown in college communities either to cover broad cultural interests or to meet the demands of special language groups. The former type of program was discussed in the last issue of THE EDUCATIONAL SCREEN by Frances Neel Cheney, Secretary of the Film League of Nashville, which aims to exhibit films from several different countries in the course of each school year.

In this issue we are pleased to present a description of the work carried on so well in the Harvard University community by the one person who is more responsible than any other for the continued success of an intelligent French film program for a university group.

French Talking Films at Harvard
By Belle P. Rand
Chairman, French Talking Films Committee of Cambridge, Mass.

TWO major difficulties confronted the French Talking Films Committee at the outset of our venture six years ago, the problem of financing it and the problem of securing sufficient talking films to ensure its prolonged success. Because it is the usual experience of film committees and educators to meet with these two stumbling blocks in their initial efforts to promote better understanding of the language and culture of one or several countries by a foreign film program, I shall explain in some detail our solution of both of these.

It was a Maurice Chevalier film, La Grande Mère, seen in the Paramount Theatre on the Grand Boulevard one late afternoon in Paris in August 1931 that set me thinking a series of films for students at Harvard that would present the language they were studying in the lecture room with a colloquial and vivid reality. On my return to Cambridge I secured the enthusiastic cooperation of the young man in charge of showing instructional silent films. The Institute of Geography had just been built and equipped with a complete small auditorium and 35 mm. projectors. We arranged to use this auditorium for our film programs, but because no admission can be charged for any function held in a University building we had to make immediate arrangements to meet our costs in some other way.

A contributing committee of generous Francophile friends in greater Boston was formed without too much trouble and we presented Le Million three times to such enthusiastic audiences that we were encouraged to start a series. Free tickets were issued to students, instructors, stenographers and clerks. Assistant professors and those of higher rank were expected to become voluntary subscribers, to secure admission cards. We adopted the policy of showing a documentary film, often as popular as the feature in the program, before each long film and of beginning the program with a short talk by a young professor of the department or a student who had lived in France.

The problem of securing a sufficient number of good films was more difficult to solve. For a while our chief source of supply was Paramount Pictures. We have never shown anything as successful as Marinus, which we obtained from them, but on the whole most of their films were American productions done over into French for consumption in French provincial towns. However, the French Ambassador at Washington, hearing of our activities, offered an ideal solution by letting us bring into the country a few films from Paris by means of the valise diplomatique. These films, rented at a small sum, are free of duty and remain in the country only three months, after which they are sent back to Paris. It has been increasingly possible to rent these films, while they are here, to other schools and universities. The proceeds of the minimum rentals charged are sent back to the firms in Paris which very graciously loan the films. The commercial value of the film has not been injured for this country because by this arrangement it can only be shown in a very limited number of places and it is never furnished with the English subtitles necessary for commercial consumption.

In Paris we organized a selection committee of prominent French people and Americans living there. It is headed by Madame Maurice Girod-de l'Ain and Dorothy Lect, Director of the American Women's University Club, acts as secretary-treasurer. When a film has been voted upon by several members of the committee it is sent to the office of M. Yves Chataigneau at the Ministère des Affaires Etrangères who has always graciously attended to the details of exporting the film through the diplomatique pouch.

We have always hoped to see the widespread use of French films in university language courses throughout the country. By dint of much letter writing and encouragement we have persuaded several groups to repeat an experiment that has proved so successful with us. The task will be easier when more college auditoriums have been equipped with sound projectors and when more French films become available at reasonable rentals.
I

The Educational Screen

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DEPARTMENT OF VISUAL INSTRUCTION
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PROGRAM

Detroit Meeting, June 28 to 30, 1937

Department Headquarters—Fort Shelby Hotel
Assembly Programs, in WWJ Broadcasting Studio

Local Chairman of Arrangements, W. W. Whittinghill, 9345
Lawton Avenue, Detroit. (Send luncheon and hotel reservations
directly to him).

FIRST DAY (Monday, June 28)

12 Noon—Registration Luncheon (Crystal Ball Room,
Fort Shelby Hotel)

Address of Welcome
Guest Speaker, Frank Cody, Superintendent of
Detroit Schools

Overview of Detroit Visual Program
Manley E. Irwin, College of Education, Wayne University,
Director, Division of Instruction, Detroit Schools

2 P.M.—Afternoon Program (WWJ Auditorium)
Immediate Needs in Visual Instruction
F. Dean McClusky, Director, Scarborough School,
Scarborough, N. Y.

State Wide Visual Work in Indiana
F. L. Lemler, Secretary, Bureau of Visual Instruction,
Indiana University

Complete Learning through Visual Aids in Physics
O. S. Anderson, Physics Department, High School
Fargo, N. D.

The Motion Picture in the Learning Process
W. M. Gregory, Director, Educational Museum, Cleveland
Public Schools

Essential Qualities for an Educational Film
Esther L. Berg, Public School 91, New York City

SECOND DAY (Tuesday, June 29)

12 Noon—Conference Luncheon (Fort Shelby Hotel)
(for Department Members only)

Considerations on the Present and Future of the Department
Nelson L. Greene, President of the Department of Visual
Instruction

Showing of new film, "Child Safety in Traffic", for discussion
by members

Don Carlos Ellis, Treasurer, Metropolitan New York
Branch of the D. V. I.

2 P.M.—Afternoon Program (WWJ Auditorium)
The Teaching of Wild Life near Home
Frank S. Gehr, Yonkers, N. Y.

Seeking New Educational Objectives through Use of Films
Edgar Dale, College of Education, Ohio State University

Laternar Slide Technique in Geography Instruction
Villa B. Smith, Lecturer in Geography, Western Reserve
University

The Circulation of Visual Aids in a Small City—School System
H. J. Dotson, Principal, John Simpson Jr. High School,
Mansfield, Ohio

Teacher Participation in Educational Film Production
Charles A. Gramet, Franklin K. Lane High School,
Brooklyn, N. Y.

Informal Comment and Discussion led by H. H. Church,
Superintendent of Schools, Fremont, Ohio
(Showing of selected educational films)

THIRD DAY (Wednesday, June 30)

2:00 P.M.—Afternoon Program (WWJ Auditorium)
Recent Trends in Use of Cinema in Education
Panel discussion led by John A. Hollinger, Director, De-
partment of Visualization, Pittsburgh Public Schools.
(Showing of selected educational films)

"Is the cinema used effectively in classrooms? What evidence
is there? What types are most valuable in classrooms?"

J. E. Hanson, Bureau of Visual Instruction, University of
Wisconsin

"Is the cinema used effectively in assembly programs?
What type of assembly programs are most satisfactory?
What types of pictures give best results on such programs?"

(Speaker to be selected)

"Has large-group instruction by visual aids proved effective?
What organization is essential? What procedures are desirable?
What are the outcomes?"

J. W. C. Remaley, Gladstone Jr. High School, Pitts-
burgh, Pa.

"How select films and projection equipment? What standards
are generally accepted? What type projectors for classroom?
For auditorium? Should selection be made by
administrative officers, supervisory officers, teachers, or
other?"

(Speaker to be selected)

"How may producers meet demands of education? How
should educators encourage or stimulate production?"

William F. Kruse, Bell and Howell Company, Chi-
cago, Ill.

General Summary by Panel Chairman

Second Showing of "Child Safety in Traffic" for audience
discussion

Business Meeting

Election of Officers, New Policies, Adjournment.
I Met Him in Paris (Colbert, Douglas, R. Young, with Charles B. Fitzsimons) (Y) Well-done, vivid, solid stuff about pre-war racketeering drug dealer, with heavy gangster explosions. Charmingly played by Colbert, with minor characters set in elaborate well of awesomeness and implausibility, but the good manage to stay "reasonable" and interesting and without illogical and unconvincing.

5-1-37 (A) Very good of kind (Y) Better not.

Jim Harvey, Detective (Guy Kibbee, Tom Brown, Craig Reynolds) (Para) Well done racetrack thriller, with newspaper-hero engagi-

ing in moral deformity. Minor characters set in elaborate well of awesomeness and improbable, but the good manage to stay "reasonable" and interesting.

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5-11-37 (A) Very good of kind (Y) Better not.

Jim Harvey, Detective (Guy Kibbee, Tom Brown, Craig Reynolds) (Para) Well done racetrack thriller, with newspaper-hero engagi-

ing in moral deformity. Minor characters set in elaborate well of awesomeness and improbable, but the good manage to stay "reasonable" and interesting.

5-11-37 (A) Very good of kind (Y) Better not.
NEWS AND NOTES Being brief notations on significant doings and events in the visual field.

Conducted by Josephine Hoffman

Visual Education in the South

A conference for the promotion of visual education was held May 14th at Florence, Alabama, State Teachers College and attracted an attendance of more than one hundred school officials in addition to supervisors of TVA, faculty and students of the college. Dr. Floyd F. Cunningham, Professor of Geography and head of Visual Instruction at State Teachers College, presided over the morning meeting and discussed "Establishing a Program of Audio-Visual Education." Dr. C. B. Collier, head of the Department of Education, spoke on "Visual Aids in Modern Education," and E. B. Baldwin of the Department of History on "The Film Strip Projector in Visual Education." Dr. Eula P. Egan, head of the Department of Psychology, presided over the afternoon session and gave a talk on "The Use of Sound Films in Teaching Psychology."

Out of town speakers included E. E. Schriest, principal Ensley High School, Birmingham; Dr. J. S. Wardlaw, director of the Bureau of Visual Instruction, University System of Georgia, who explained "A New Film Service for the South"; Supt. R. E. Thompson of Tuscaloosa; and J. Paul Waldrop, Guntersville Dam, whose subject was "The Use of Visual Aids in the Program of the TVA."

The conference passed significant resolutions urging the extension department of the University of Alabama to establish a state film library service.

Further evidence of the increasing interest in audio-visual education throughout the southern states is the announcement by the Hamilton County board of education, Tennessee, that films and radio broadcasts will play a large part in the county school system next year. According to Mrs. Harry B. Lacey, chairman of the board, they are planning ways in which all their schools may acquire motion picture projectors, and the auditoriums of many schools will be equipped with projection booths. Also, in some of the new county schools, wired channels will be run into the various classrooms to permit the entire school to listen in on broadcasts of educational interest. Mrs. Lacey declared there is no limit to the subjects that might be covered by these audio-visual aids. "The old way of teaching is giving way gradually to a newer concept. There is no reason why education cannot be a gripping, glamorous process."

Ohio Film Clinic

The third Ohio State University Film Clinic was held May 22 in the motion-picture laboratories of the Goodyear Tire and Rubber Company at Akron.

The program for the day was the making of a film on how to make a film. Mr. George Blake, head of the Goodyear photographic laboratories, made available the motion-picture facilities of the Goodyear company for the shooting of this 16-mm. film. Mr. J. Ray Stine, principal of Central High School, Akron, had prepared the scenario for the day's shooting. In this way the members of the clinic were able not only to get first-hand experience in shooting motion pictures, but also to study the equipment of a motion-picture laboratory.

National Cinema Appreciation Convention

As the culmination of the very active season, the Cinema Appreciation League will have its Annual Convention on July 22-27 under the general guidance of Dr. Rufus B. von KleinSmid, President of the University of Southern California and Director of the American Institute of Cinematography; Dr. Vierling Kersey, Superintendent of Los Angeles City Schools; Dr. Lester Burton Rogers, Dean of the Summer Session; and Dr. Boris V. Morovkin, Head of the Department of Cinematography at the University of Southern California and Editor-in-Chief of the magazine, Cinema Progress.

The detailed program will be sent to anyone interested by Miss Rose Walton, Secretary of the Convention. Address 3551 University Avenue, Box 74, Los Angeles, California.

Minnesota Organizes Audio-Visual Society

Minnesota educators, meeting at the University of Minnesota to discuss the function and scope of audio-visual education, voted to organize the Minnesota Society for the Study of Audio-Visual Education. This association will devote its time and energies to research. Harold C. Bauer, Superintendent of Schools at Lakefield, Minnesota, was elected chairman in charge of organization.

Pavilion of Motion Picture, Photography and Recording at Paris Exposition

An imposing monument to the arts of photography, recording and motion picture production, will rise at the foot of the Eiffel Tower, to reveal to visitors the mysteries of these important industries. This palace, dedicated to these three arts, promises to be one of the most brilliant exhibits at the Paris 1937 International Exposition.

The great French savant, Mr. Louis Lumière, has accepted the presidency of this class at the show. In the Lumière factories at Lyon, experiments tending toward the solution of the problem of color and three dimensional moving pictures, are being constantly carried on under his direction. Mr. Lumière reveals that his color research concerns the use of auto-chromatic plates which he invented 30 years ago. Three dimensional films are now being shown in Paris, applying his recent discoveries in this field.

(Concluded on page 203)


AMONG THE MAGAZINES 
AND BOOKS

Conducted by Stella Evelyn Myers

Book Review

Visualizing the Curriculum (320 pages) ($3.50)
By C. F. Hoban, C. F. Hoban, Jr., S. B. Zisman.
Published by The Cordon Company, 225 Lafayette 
St., New York City.

Here is a book of which the visual field may well be 
proud. Both in content and appearance it is an
outstanding contribution to the field, a milestone of pro-
gress in the literature of visual instruction.

In typography and lay-out it is refreshingly
"modern", and yet of a dignity to please the most con-
servative. Its seven-and-a-half by ten-inch page of 
quality paper-stock, its large-type, well-led text, its 
finey chosen type-faces, its deft arrangement of num-
erous illustrations, make for utmost reading ease. Text 
occupies the inner two-thirds of the page, the outer 
third is a generous margin which permits artistic va-
riety in the placing of cuts, an ideal location for sub-
titles and "footnotes" beside the text where they apply, 
and incidentally will allow many readers the joy of ex-
ercising their penchant for annotating.

Contents are as satisfying as the format. The "vis-
ual" literature of the past twenty years has been ex-
tensive, but not wholly free from platitude and repeti-
tion. The authors of "Visualizing the Curriculum" 
have evidently waded widely, sifted industriously, and 
selected judiciously from the congeries. The obvious 
has been deftly condensed, the absurd discarded, the 
dubious resolved, and the truth, old or recent, present-
ed in terse and telling form. The result is a careful 
and authoritative compendium of past thought and in-
vestigation, richly amplified by copious quotation from 
latest research and much original matter of the authors' 
own.

"Visualizing the Curriculum" covers the field of 
visual aids with refreshing completeness and discrim-
inating emphasis. It will be a valuable corrective to the 
still too prevalent notion that "visual education" and 
"movies" are synonyms. The titles and page-lengths of 
the nine chapters suggest the range of subject-
matter and the balanced treatment. The first chapter 
discusses the fundamentals—verbalism, psychology of 
learning, and underlying principles—the why” of 
visual instruction (26 pages). The next five chapters 
present comprehensively the following classes of visual 
aids: The School Journey (31 pages), Objects, Models, 
School Museum (32 pages), The Motion Picture (53 
pages), The Still Picture (64 pages), Graphic Ma-
terials (51 pages). The three final chapters are: 
Integrating the Materials of Instruction (30 pages), 
Administering a Visual Aids Program (12 pages), 
Architectural Considerations (20 pages). A Glossary 
of technical terms and a detailed Index close the 
volume.

Few readers will be satisfied to “glance through” 
this book. It deserves and invites careful reading, re-
flexion and repeated reference. There are mental 
vitamins here for all serious students of the visual 
field and, for good measure, a few fertile germs of 
controversy as well. This is as it should be, for full 
agreement is not only impossible but quite undesirable 
in a living, changing field.

N. L. G.

School and Society (45: 475-477, April 3, '37). 
"Visual Vitalization", by Laurence B. Campbell, 
Evanston, Ill.

Educators producing streamlined curricula are chal-
lenged by opportunities for visual vitalization. 
Improvement of courses involves not only ploughing un-
der outmoded subject-matter, but also introducing 
new content, which now may be simplified by visual 
aids. "Pioneers on our educational frontiers no 
longer need to champion the cause of visual instruc-
tion, for scientific research has demonstrated its ef-
ficineses. . . . To question the value of visual aids 
properly used is to reveal an amazing ignorance or an 
extraordinary prejudice both utterly alien in insti-
tutions to be guided by modern educational philo-
osophy." The advocates of visual edu-
cation "believe it will vitalize the pattern of experi-
ences designed to modify the growth and develop-
ment of pupils to condition them for life in a dem-
cracy. We will need all available resources to achieve 
such a goal . . . Counterfeit economy should be pass-
ing. Public hysteria during the depths of the depre-
sion made it seem necessary to curtail expenditures 
in the schools . . . . Now that the worst period of 
the panic apparently is past, administrators and many 
boards of education are realizing that an economy 
which cripples the mental and emotional development 
of the next generation may prove costly."

New York State Education (24:616-617 et al, 
May '37) “Administering Visual-Audio Aids in a 
High School”, by Elmer W. Snyder and Clarence 

A Service Bureau for radio, visual and photographic 
service is maintained by the pupils under the direct 
supervision of a member of the faculty. The service 
includes the physical charge of equipment, as well as 
photographing school activities and making lantern 
slides. Printed forms are reproduced in the article 
for radio and visual requests from teachers. “The 
general use of these visual-audio aids by our teachers, 
after teaching experimentation has shown convincing 
and lasting results, indicates that visual aids and sound 
equipment are bringing in a new era of educational 
methods. Of the truth of this there can be no doubt.”

California Journal of Secondary Education (12: 
163, March, '37). “Los Angeles County’s New Film 
Library”, by Mary Clinton Irion, Ass't. Director 
of Audio-Visual Division of the County Schools.

For many years films were provided by the Division 
of Visual Aids of the County School Department for 
(Continued on page 200)
That's why modern schools throughout the nation are joining the swing to forceful, dramatic education through use of sound motion pictures and are installing

**RCA SOUND MOTION PICTURE PROJECTORS built especially for SCHOOLS**

This equipment, the result of RCA sound engineering, is especially built for school use. And no matter how small, or how large your school, there is an RCA Photophone sound motion picture projector to suit your requirements.

In addition, RCA Victor offers schools a complete sound service including everything needed for the reception, recording, reproduction, amplification and distribution of sound. There are Victor Records, Victrolas, RCA Victor Electrolas, RCA Victor Radios and Phonograph-Radios, voice recording equipment, portable public address systems, centralized sound equipment and many related products.

**AT THE DETROIT CONVENTION** ... visit the NBC-RCA Exhibit, Booths C-44 and 45—an effective and complete sound service for schools, designed for modern teaching—teaching that makes lessons live.

Write today for your free copy of the interesting new catalog, "Sound Service for Schools" which gives full details about all RCA Victor's modern teaching aids.

**EDUCATIONAL DEPARTMENT**

**RCA MANUFACTURING CO., Inc., Camden, N. J.**

Listen to "The Magic Key" every Sunday, 2 to 3 P.M., E.D.T., on NBC Blue Network.

**RCA PHOTOPHONE** Portable Projector, Model PG-81 with 900- or 1000-watt Incandescent Lamp. Ample illumination for the average room or auditorium.

**RCA PHOTOPHONE** Portable Projector, Model PG-81 with 15-ampere Low-Intensity Reflector Arc Lamp. Stronger illumination for the large auditorium.
MEXICO OFFERS an interesting unit in the study of social types for third or fourth grades. Such a study of Mexico does much to encourage an interest in the Mexicans and a feeling of friendliness toward them. These six pictures may be traced on slides and projected on the screen as aids in the study of Mexico. (1) A Mexican man, showing his serape before he puts it on, and afterwards. (2) A Mexican woman with her baby wrapped in her reboso. On her head and in her arms she carries baskets of flowers. There is a cactus fence in the background.

(3) A maguey field with one of the workers. (4) A Mexican market. The woman is selling pottery. Fruit, flowers, baskets, and other articles are for sale. (5) A man carrying articles to market by perching them on his back. (6) Another man headed for the market but he uses donkey-transportation.

Keystone crayons may be used to show the blue rebosos, red and blue serapes, yellow hats, pink shirts and magenta skirts.

The simplest type of hand-made slide is made by drawing or tracing on finely finished etched glass with ordinary medium lead pencil. Color, by special crayons or inks, enhances the slides greatly. Fine effects are obtained by blending with crayons. About one-third inch margin should be left all around the slide. The slide is readily cleaned with soap or washing powder to receive a new picture.

By ANN GALE
Art Department, Lindblom High School, Chicago
**TWO DeVRY LEADERS**

Beware of "just as good" Sound Projectors. They may "get by" at a demonstration, but the sound goes "sour"—and poor materials and workmanship shorten the life of the unit, and pleasure of the audience.

The DeVry 16 mm. Sprocket Intermittent Sound Projector

[Look through the magnifying glass]

The DeVry 16 mm. "Challenger" Sound Projector

Made for discriminating users who want the best low priced Sound Projector available.

Seventh National Conference on Visual Education and Film Exhibition (DeVry Foundation)

Chicago, June 21, 22, 23, 24, 1937

At the Francis W. Parker School, 330 Webster Ave. (Opposite Lincoln Park)

A large and representative gathering of visual educationalists, bringing together the school and advertising fraternities, speakers and film exhibitors of national reputation.

No admission or membership fees

Almost continuous showings of selected industrial and educational films as examples of the best current practice. As a rule, representatives of producers and sponsors will be present and will lead the discussions. Sessions will begin 9 o'clock each morning and continue until 5 o'clock, with one hour for lunch—Evening sessions begin at 7:30.

Wednesday evening, June 23, 6:30 o'clock

Annual dinner and entertainment

An evening of music, fun and good fellowship. Radio and movie stars. This is the only session for which a charge is made. Banquet tickets, $1.50.

Teachers, principals, superintendents, college instructors, advertising managers and assistants, advertising agencies, sales managers are especially invited.

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National Conference on Visual Education

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Please send me program and Free Membership Card.

Name

Address

Position
Postage Stamps and School Work

EDUCATORS today base their philosophies of education on the assumption that the child is a biological organism endowed with all the attributes inherent in a biological organism and which characterize protoplasm as such. Chief among the characteristics of protoplasm is that of adaptability. The business of the school is to present the environment of persons and things to the child in such form that he can learn to adapt himself to it. The ultimate goal of educational work at any level of intellectual attainment is the desirable modification of the life of the student. This process involves the development of abiding interests, desirable habits, abilities, skills, attitudes, and appreciations. Wholesome interests constitute a major factor in the educative process. Children seem to be innately endowed with certain interests, chief among which is the desire to acquire, collect and assemble materials of various types. Peculiar, strong, personal attachments develop towards such possessions. Herein lies the teacher's master key to assist the pupils in their intellectual developments. Existing interests may be utilized, and through them the "drive" to bring about the desired habits, abilities, skills, and appreciations.

One practically universal interest brought to the schools by the pupils is that associated with stamp collecting. Children of all ages will be found to have stamp albums and collections, and to be engrossed in this fascinating hobby. They derive a tremendous amount of pleasure and satisfaction out of collecting stamps, exchanging them with others, studying them, arranging them in their albums and into exhibits, finding out about the countries from which they came, the lives and habits of peoples, and the monetary systems of various countries. Postage stamps arouse interest in a thousand and one different things, and present numerous problems for solution. Problem solving involves reflective thinking and the drawing of conclusions from observed facts. Problems may be characterized by the questions: "Why?", "Where?", "What?", "How?", or "When?". In looking over a packet of stamps the child is easily prompted to ask, "Why is George Washington's picture on a stamp of Brazil?; "Why is Lindberg's portrait on a stamp of Spain?"; "How does it happen that Columbus is the only person shown on the stamps of Chile for fifty years (1853-1904) when it is known that Columbus never discovered that country or never visited it?"; "Where is Azerbaijan?"; "What is a (or should one say where is — ) kookaburra?"; "How should one pronounce the word "philately" (the science of stamp collecting and stamp study), and the word, "philatelic"?; "When was the first adhesive postage stamp issued by the United States Government?".

Hundreds of other questions will arise in the minds of the child, and their solutions will add greatly to his fund of information, materially modifying his life. Postage stamps are much more than just little pieces of colored paper; they are alive with history, art, romance, science, avarice, tragedy and international intrigue. From their study the child will have a keener understanding of the histories, customs, and life occupations of peoples in many lands. Teachers of any subject or grade can, from time to time, find occasion to call upon this philatelic interest to further the school work of the moment and contribute to the child's intellectual development.

A few illustrations will indicate ways in which postage stamps may be used as a part of the school work. From these leads the alert teacher can see many other fruitful paths to follow whereby desirable habits, abilities, skills, attitudes, appreciations, and interests may be developed.

Recently tremendous world-wide interest centered around the succession to the throne in England. In 1935 the King George V Silver Jubilee was celebrated throughout the British Empire. The following year saw the abdication of King Edward VIII, with questions arising as to the attitude of some of the Crown Colonies and the Dominions towards the parent government. May 12, 1937, witnessed the coronation cere-
monies for the new ruler, King George VI. With the reign of these three kings, special stamps were issued to commemorate the events. In schools throughout this country, teachers and pupils were concerned with certain features of these affairs. History, current events, and geography classes were asking: The British Empire?—Crown Colonies?—Dominions?—just what are they?, where are they?, how many are there?, why "Crown Colonies?, why "Dominions?". Many of these questions are very elementary for some of the stamp collectors in the classes; they can be very effectively answered:

1. Have someone bring his stamp album to school, give a report and show his collection to the class.
2. Have some fan prepare exhibits using maps of the world (several, if need be) with the stamps around the map and lines or threads to the country of issue. (This gives the individual the experience in selecting the stamps, arranging the materials artistically on the page, searching for stamps to complete the list, lettering the labels for the stamps, and further insight into his hobby. The class as a whole has the experience of seeing in pictorial and graphic form the far-flung distribution of the member colonies of the British Empire.)
3. Have a number of classmates give reports on specific problems related to peoples, products, customs and governmental affiliations of the separate colonies.
4. Have separate exhibits and reports devised for each colony and related problems of all colonies. Many of these things would be found depicted on the various postage stamps; their presentation in this form produces lasting memory-images in the minds of the pupils.

The scope of activities is tremendously large. Stamps must be printed on paper with ink. Problems connected with paper-making, ink-making, etching, engraving, and printing could well form topics for consideration in certain classes and units of work.

If well planned the educational outcomes would be very significant. Do you sense the history, romance, and international intrigue in some series of stamps?

In 1932 the United States postoffice department issued the George Washington Bi-centennial series of twelve stamps. Each of the twelve stamps had a separate likeness of Washington taken from portraits painted during his lifetime by famous artists. It can be readily seen that an exhibit of these stamps on a card about the size of a sheet of letter-head paper (8½x11"), each stamp framed with a square drawn with India ink, properly labeled with the name of the artist, the date of its production, and the present location of the original painting, all framed under glass would make a valuable set to be used in history and art classes. The production of the exhibit might be a group project, some furnishing the stamps, others searching for the information about the stamps to be included in the set, another who is adept at lettering making the labels, and some one measuring and making the lined squares to frame the individual stamps. Either the unused or the cancelled stamps could be employed in this exhibit. Sometime during the construction work the story back of each stamp could be presented by members of the class.

The current fourteen-cent stamp depicts the American Indian in full war bonnet. Schools throughout this country devote considerable time in certain grades during the months of October and November to the "Indian Projects". Would not an exhibit of stamps showing "The Redman of United States Stamps", with

Natural Color Plates

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Perfectly Protected

The greater density that is characteristic of natural color plates requires special projection equipment, such as THE SPENCER MODEL DK. The optics, of traditional Spencer quality, produce screen pictures of perfect definition and color value. The specially designed Spencer cooling fan protects the plates from damage by heat from the lamp.

The Spencer Model DK is especially designed for color-plate projection where the projection distance does not exceed 50 feet. Similar instruments are available for distances up to 150 feet. The complete line of Spencer projectors for lantern slides, opaque objects and film-slides is described in Catalog K-78. Use the coupon to obtain your copy.

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Page 197
The Chinese Had a Word—
WE Have the Pictures for it!

"One picture is worth ten thousand words," wrote the sage of old Cathay. He had the right idea about education and entertainment. It is our idea too, with these pictures to back it up . . .

STRANGER THAN FICTION; GOING PLACES; YOU CAN'T GET AWAY WITH IT; OSWALD CARTOONS;
MEANY MINY MOE CARTOONS;
MENTONE SHORTS; SERIALS;
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THREE KIDS AND A QUEEN

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The Educational Screen

all the features associated therewith, be an acceptable addition to the list of activities usually undertaken during the study of this project? The 1c-, 2c-, and 3c-stamps of the United States Columbian Commer-
ative issue of 1893 shows "Columbus in Sight of Land," "Landing of Columbus," and "Columbus Presenting Natives to the Queen." A later issue portrays "Mar-
quette on the Mississippi," and "Indian Hunting the Buffalo." Stamp No. 328 shows Captain John Smith; No. 330 gives a picture of Pocahontas; No. 372 com-
memorates the Hudson-Fulton events; No. 680 shows General Anthony Wayne and his Indian guide, No. 739 shows Nicolet landing in Green Bay and his rel-
lations with the Indians; No. 682 is for the Massa-
chusetts Bay Colony; No. 683 commemorates South Carolina; No. 743 depicts the cliff dwellers' homes; and No. 775 celebrates the statehood of Michigan. His-
tory, science, transportation, romance, tragedy, and de-
velopment are portrayed in the "Redman Stamps." A new series of Indian stamps is to be released by the postoffice department during this year to educate the people concerning Indian art and crafts, industries, and community life—those elements of progress des-
tined to save the race from extinction. The government
is thus placing in the hands of teachers outstanding pic-
torial materials valuable for school work.

Nations issue postage stamps to honor their famous personages, to commemorate places and events, to ad-
vertise their products, to publicize their scenic spots and natural resources, to secure international good
will and to spread propaganda. Since postage stamps go everywhere, their pictorial and cryptic word mes-
gages are carried into every nook and corner of the
world, reaching untold millions of people and affecting
their lives, manners, and attitudes. Our national parks
are known the world over because of the National Park Series of ten stamps. The recent Army-Navy
series of five stamps each brought to the attention of
the world a long array of military personages. On
August 18, 1937 the Virginia Dare stamp will be issued
by the United States Government. To the query "why"
the world over, the answer will be that Virginia Dare
was the first white child born on the American Con-
tinent.

The above suggestions have indicated some of the
possibilities of postage stamps and school work, and
how the teacher can make this a regular feature of the
school procedure. The concluding paragraphs deal with
a list of topics for class and club work, and a brief
bibliography of this field.

The following topics might be used as an outline
of procedure for the stamp club, or worked in as
features of the regular school work at the appropriate
times.

Fundamentals of Philately
A Pronouncing Gazetteer
Stamps and War
Peace and Postage Stamps
Fight and Philately
A Philatelic Garden
Children on Postage Stamps
Postage Stamps and Inflation
Science and Philately
The Horse on Postage
Stamps
The Postoffice in 1847
Birds on Postage Stamps

High Art Comes to the
Stamp
American Citizens on For-
eign Stamps
Philatelic Railroads
Women and Philately
Aircrafts on Airpost Stamps
Health Heroes on Postage
Stamps
Musical Composers Honored
on Stamps
The Bureau of Engraving
and Printing
BIBLIOGRAPHY
Scott Stamp and Coin Company, "Standard Postage Stamp Catalogue"
1 West 47th Street, New York
Boy Scouts of America, "Stamp Collecting Merit Badge Booklet"
Boy Scouts of America, Two Park Avenue, New York City
The following three publications are available from H. L. Lindquist, Publisher, 2 West 44th Street, New York City
Charles Phillips, "Stamp Collecting, the King of Hobbies"
Johl and King, "United States Stamps of the Twentieth Century"
Stamps Magazine, "Stamps Magazine"
Western Stamp Collector Magazine, "Western Stamp Collector"
Western Stamp Collector, Albany, Oregon
Mceel's Weekly Stamp News, "Mceel's Weekly Stamp Newsletter"
Portland, Maine
H. E. Harris Company, "The Fiery Throne"
Weekly Philatelic Gossip, "Weekly Philatelic Gossip"
Holton, Kansas
Harold Shaffer, "Philately Serves Chemistry"
Journal of Chemical Education, May 1934
Etude Magazine (Several articles on Philately)
By Wilber Emmert, President Philatelic Society of Indiana, Pa.

Projection Screens for ALL Visual Teaching Requirements

The Standard Challenger
—the most popular portable on the market. The only screen with all of these advanced features:
(1) Adjustable in height
(2) Square center rod on tripod to hold case rigid
(3) Single rear support that locks automatically in position
(4) Non-sag top slider to keep top of screen aligned
(5) Light weight; foldable for easy carrying
(6) Four sizes, 30" x 40" to 52" x 52" at new reduced prices, from $15.00 up.

You will find, in the Da-Lite line, the right screen in the right size for every projection requirement. Da-Lite roller-mounted Screens for hanging from walls, ceilings or Da-Lite Super-Tripods are available in twenty sizes from 22 in. x 30 in., to 12 ft. x 12 ft. inclusive. Da-Lite models for use on desks or tables are mounted in several styles and offer a choice of twenty-four sizes ranging from 13 in. x 18 in. to 6 ft. x 8 ft. There are many other styles including theatre-type auditorium screens in sizes to fit all installations.

Surfaces of all portable screens are glass-beaded, unless white or silver is specified. Laboratory tests have proved the Da-Lite glass-beaded surface the most efficient reflector of light for average class room projection. See at your supplier's or write for catalogue and new low prices now!

DA-LITE SCREEN CO., INC.
2717 No. Crawford Avenue Chicago, Illinois

DA-LITE SCREENS AND MOVIE ACCESSORIES
"We the People"—A Film Review

This compact little educational film, in 16mm sound and something less than a reel in length, summarizes the history of our Constitution, its origin, its fundamental provisions, and its high importance as a guarantee of American principles and liberties. It is a composite of many shots from many sources arranged in logical sequence and with a forceful vocalogue accompanying.

Opening with the signing of the Constitution in 1787 in Independence Hall and a facsimile of the document, the film sketches briefly the three-fold division into legislative, executive and judicial. From this point on, chief emphasis is on the Supreme Court as the bulwark of the Constitution, the uprime of legality—and the baseball umpire is flashed in as a startling comparison! The possibility of changing the Constitution by popular vote is then emphasized. Famous previous Amendments are recalled, from Woman's Suffrage in 1920 to Prohibition Repeal in 1933. And finally, aiming to show what the Constitution saves us from, a kaleidoscopic series of shots of President Wilson, the Great War, bombings, torpedoes, riots, Hitler, Stalin, and animated maps showing how large a part of the world is under dictatorships.

We the People presents much material in little space, swiftly, and with unmistakably patriotic intent. Available on rental or purchase basis from Walter O. Gutlohn, 35 W. 45th Street, New York City.

N. L. G.

Among the Magazines and Books (Continued from page 192)

the schools of the county. Finally these prints wore out, and for the last six years there has been no appropriation for replacement. A plan has been devised by which each district may provide the purchase price of one or more short or long reels. This is about seven and one-half cents per pupil in the elementary school, and ten cents per pupil in the secondary school. The films are to be deposited with the Division of Visual Education for circulation among all contributing schools. The Division will bear the expenses of housing, repairing, booking, and shipping films to the schools. Committees of administrators and teachers from contributing districts, along with members of the Division of Visual Aids will make the selection of films to be purchased.


Finding that the educational films ordered were often dull and pedantic, that they were a collection of scrap shots from disused films, strung together with hastily improvised titles, that they were aloof with a complete lack of the personal touch, the author has been for the past two years gradually accumulating a library made by himself to suit his own requirements. Being thoroughly familiar with the subject matter, and with the type of pupils for whom they were designed, he has found the films most fitting.

The main content of some of the films were as follows: One picture was of the Welsh Mountains,
which dealt, not only with the formation of the mountains themselves, but also with farm and village life in the valleys. The continuity and the personal touch were gained by linking together the scenes with the adventure of a party of mountaineers. This gave a human interest, often overlooked in educational films. Another motion picture was of spring in Kent. The care of young lambs and farmyard animals, and the methods of sowing and planting were combined with sequences suggestive of the meaning of spring—its promise, its power, its excitement. Because the writer could not find a satisfactory film on life in the Alps, he went to Switzerland and spent two weeks in a typical mountain village, living in the home of a mountain guide. The daily struggle with the snow and methods of transport, including skiers carrying messages, families descending by sledge into the valley, and the use of the horsesleigh were depicted in his film. A week-end skiing expedition gave an excellent opportunity for introducing views of the Savory Alps, the Vaudois, and Mont Blanc.


From a survey made by the writer, it is shown that school administrators ranked "lack of teacher appreciation and understanding of the audio-visual program" the second greatest obstacle faced in using these aids. The following reasons are thought to be back of this indifference. "Some teachers are loathe to move aside and use mechanical aids which, for the time being at least, force them into the background. Squirm if you will, but the ego of some teachers will not permit the easy conception of a situation in which they do not dominate the entire audio-visual scene." Some teachers are diffident about trying to operate what appears to be complicated machinery; others do not wish to do anything different from their treadmill procedure. Yet, the large majority want to know what this new movement is all about, and how they can prepare themselves for it.

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AMONG THE PRODUCERS

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New S. V. E. Filmslide Series Announced

In advance of the appearance of the 1937-38 Fall Catalog of Picturets to be distributed by the Society for Visual Education, Inc., announcement is made of some of the new productions which will be included.

Of especial appeal to nature students is the set edited by Dr. Gayle W. Pickwell of San Jose State College, California. This set has been divided into short rolls, suitable for socialized classroom work with youthful pupils; and the sub-titles have been carefully written accordingly. Some of the subjects are: Toads & Tree Toads, How Young Birds Get Food, How Animals are Protected from their Enemies, Squirrels and Other Gnawing Mammals, Texas Night Hawk, The Barn Owl, Monarch Butterfly, Buck Moth, Some Spiders and How They Live, Desert Animals, How Color Protects Animals, The Swallowtail Butterfly.

Professors Guy Garrand and Ray Cross have assembled and edited an instructive and sufficiently complete series on Diesel Engines, divided into ten rolls titled as follows: Fuels and Lubricants, Stationary Engines, Tractors, Other Portable Types, Locomotives and Trains, Automobile Buses & Trucks, Marine Engines, Aircraft, Schools, Use in Foreign Countries.

Changes in important geographic details make necessary a system of constant revision of data in that field. This is reflected this season in a larger than usual number of new revised Picturets. There are five admirable rolls on the city and harbor of New York. Other new subjects in the City Series are: Cleveland, Denver, Detroit, Los Angeles, Minneapolis, New Orleans, Pittsburgh, San Francisco, Seattle, St. Louis and Washington, D. C. Modern developments in Palestine are shown in two new rolls, one dealing with Rural and the other with Urban subjects.

An entirely new course on The Metals is presented in a series by Prof. Evans W. Buskett, of which six rolls are in the laboratory: Gold & Silver, Iron & Steel, Zinc, Aluminum, Lead and Copper.

Increasing interest in visual aids as part of the technique of teaching youngsters to read makes the offering of Juvenile Graded Reading in three volumes a matter for attention. The screen exercises lead beginners rapidly into effective reading of juvenile literature, and also develop confidence and ability to approach more difficult reading. While this series is offered only by the "volume," each of the three volumes or sets is divided into twelve rolls. The first set is for kindergarten, identifying some of the objects and experiences of the home, the town, and the country. The second set, for beginning first grade, couples objects with actions, requiring memory and judgment as to which is correct; and in the third set, for upper first grade, each of the twelve rolls contains three little illustrated stories into which are woven information about nature and homely items of child experience, together with distinctly valuable lessons of honesty, safety, health and economy.

Notable among the miscellaneous additions which will appear in the Fall Catalog for the first time are: Negro Music and Musicians—Hadley; Beginning Spanish: Vocabulary—Hatton; A Visit to the Zoo: Animals—Millen; Yellowstone National Park—Peabody; Crater Lake National Park—Peabody.

Kodachrome Price Reduction

Eastman Kodak Company announces a reduction in the price of Kodachrome Film for miniature cameras. Kodachrome Film No. K135, and No. K135A for Photo-flood lighting, both 18 exposures, for Kodak Retina and similar 35mm miniature cameras, is reduced from $3.50 to $2.50, including processing. Kodachrome Film No. K828, and No. K828A for Photo-flood lighting, both 8 exposures, for Kodak Bantam Special is reduced from $1.75 to $1.35, including processing.

Bausch & Lomb Microfilm Reader

At the suggestion of Watson Davis, Director of Science Service, the Bausch and Lomb Optical Company has developed a Microfilm Reader to be used in connection with "bibliofilm."

By microphotography, tiny photographic prints, single motion picture frame size, are made on safety film. Newspaper or text book pages, portions of rare or valuable "out-of-print" publications, sketches and illustrations are reduced to approximately 34 in. by 1 in. Thus a roll of microfilm small enough to go into a vest pocket may hold as many pages as five books. The reductions in bulk and copying costs are invaluable to Science and Literature. Bibliofilm or microfilm service is now available from several sources.

Naturally these small film areas are too small for direct reading. The Microfilm Reader provides the handy, inexpensive means for reading these microfilms. With its magnification of from 7½ to 8 times, the tiny photographs are enlarged by the Reader to comfortable reading size. Lightness of weight and a convenient handle make for effortless reading over long periods. In addition, the Bausch & Lomb Reader is suited to the careful inspection of miniature camera negatives, single frame size. Double frame size negatives may be inspected in their entirety by slightly moving the film.

Focusing Device for Cine-Kodak Special

Hugo Meyer & Company, New York City, have constructed a special reflex focusing device for the Cine-Kodak Special Camera which will permit the use of 200-foot magazines. Hitherto, with such magazines, the photographer was unable to use the reflex focusing device of the camera itself. The attachment incorporates a tube containing a series of reflex prisms, so arranged that the main focusing tube is offset thus
clearing the side of the 200-foot magazine. A special turret has been also installed, adapted to any lens having the standard thread lens mount.

Bell & Howell "Streamline 8"

The new 8 mm. camera just announced by the Bell Company is not only “palm size”, as this company advertises, but it is palm fitting as well. This newest Filmo is the same size as the original Double 8, and is called the Streamline 8 because its die-cast aluminum case is designed along the flowing lines which characterize everything these days.

The serious 8 mm. amateur will welcome the single-frame device on this camera, a mechanism which permits the user of 8 mm. film to enjoy animation work. A new exposure guide is built into the camera, a guide which permits quicker light readings. Choice of two speed ranges is available, 16-24-32 and 16-32-48-64 frames per second. The lens is a Taylor-Hobson 12½ mm, F 2.5, fully corrected for both black-and-white and natural color film and is instantly interchangeable with an almost unlimited selection of other lenses. 1-inch and ½-inch lenses are mounted directly for the Streamline 8, and the camera is equipped with two viewfinder masks.

New Film Service for Schools

With the endorsement of the P. T. A. and other local civic bodies, the National Educational Film Foundation, Inc., a non-profit organization, has just been launched to produce a large number of educational films each year. Schools will be able to obtain prints of these films from their nearest state university or other such organizations as are interested in the cause of visual education.

The Universities which are going to handle these films have been asked to appoint some member of their staff to join with the work of several educators who are forming an Educational Committee for the Foundation. This committee will assist in the selection and preparation of film subjects. In the beginning work will be confined to the production of teaching films for the primary and secondary schools of the United States.

Headquarters have been established at 11333 Chandler Boulevard, North Hollywood, California, where literature on the work of the Foundation is being distributed.

New Mexican Film

The new Mexican feature length film The Wave (“Reeds”), made along the Gulf of Vera Cruz by the Department of Fine Arts of the Mexican Government, has just been released by Garrison Film Distributors, Inc., New York City. This dramatic study of the fisher-folk was initiated by Carlos Chavez, eminent composer and conductor, when he was head of the Department of Fine Arts. The film was completed under the supervision of the American photographer, Paul Strand, who chose an all-native cast of non-professional actors.

Introducing a Visual Aid Program

(Concluded from page 181)

classes there are so many that can be used, that the inexperienced teacher is likely to include all. Then, when the films begin to come in at the rate of five or six per week, the teacher finds it impossible to prepare properly. If the teacher does not know just what is in the film, she cannot assign definite preparation material for the class. With poor preparation on the part of the teacher and the class, I am afraid you will be disappointed with the results of your program. To get best results, I feel that it is much better to use fewer films, allowing ample time for preparation for both teacher and pupil.

News and Notes

(Concluded from page 191)

An ultra modern film studio, complete in every detail, will occupy the main floor. Here the public may follow the entire development of a modern movie, from the initial steps to the final presentation. Other halls will be devoted to the latest methods and results achieved in the photographic field. France's new developments in color photography will be demonstrated and contributions for this display will be collected from world-wide sources. The resultant exhibit will be the finest offered on the subject of photography. A recording studio will be an attraction in another section of the massive hall where the intricate process of producing a phonograph record may be viewed.

S. M. P. E. Spring Convention

The Society of Motion Picture Engineers held a five-day convention in Hollywood at the Hollywood-Roosevelt Hotel, May 24th to 28th. Examinations of the papers program, emphasizing practically every phase of the motion picture industry, indicates that research and development of motion picture equipment and techniques show greater acceleration in the last year than at any time since the first several years after the introduction of sound.

At the Friday afternoon program which was devoted to a Sound Equipment Symposium, “Present Aspects in the Development of 16mm Sound” were discussed by A Shapiro of The Ampco Corporation, Chicago, and “A Sound Kodascope” was demonstrated by Eastman Kodak Company.

More Summer Courses

Since the printing of the list of Summer Courses in Visual Instruction in our May issue, the following schools have reported such courses, which should be added to that list.

California, Santa Barbara State College, June 28 to August 6, “Mechanics of Visual Education”

New York, Cornell University, Ithaca, July 5 to August 13, “Observational Aids”, by Ass’t Professor Johnson, Miss Gordon

Oregon, State College, Corvallis, “How to Use Visual Aids”, by George Eby

A Correction: Lehigh University, Bethlehem, Pa., will not give a course in Visual Education this summer, as stated in our May issue.
HERE THEY ARE

FILMS

Akin and Bagshaw, Inc. (6) 1425 Williams St., Denver, Colo. Bell & Howell Co. (6) 1815 Larchmont Ave., Chicago (See advertisement on inside back cover) Bray Pictures Corporation (3, 6) 729 Seventh Ave., New York City Eastman 16 mm. Pictures (6) (Rental Library) Davenport, Ia. (See advertisement on page 201) Eastman Kodak Co. (1, 4) Rochester, N. Y. (See advertisement on outside back cover) Eastman Kodak Co. (1, 4) Teaching Films Division Rochester, N. Y. Eastman Kodak Stores, Inc. (6) 1020 Chestnut St., Philadelphia, Pa. 606 Wood St., Pittsburgh, Pa. Edited Pictures System, Inc. (6) 330 W. 42nd St., New York City Erpi Pictures Consultants, Inc. (2, 5) 250 W. 37th St., New York City (See advertisement on page 178) Films, Inc. (5) 330 W. 42nd St., New York City 19 S. LaSalle St., Chicago 925 N. W. 19th St., Portland, Ore. Garrison Film Distributors (3, 6) 730 Seventh Avenue, New York City (See advertisement on page 200) Walter O. Guthin, Inc. (5) 35 W. 45th St., New York City (See advertisement on page 196) Harvard Film Service (3, 6) Biological Laboratories, Harvard University, Cambridge Mass. Guy D. Hasleton's Travaleetts 7901 Santa Monica Blvd., Hollywood, Cal. (1, 4) Ideal Pictures Corp. (3, 6) 28 E. Eighth St., Chicago. (See advertisement on page 200) Institutional Service, Inc. (3, 6) 130 W. 46th St., New York City The Manser Library (4, 5) 2439 Aubanel Ave., Cincinnati, O. (See advertisement on page 200) Pinkney Film Service Co. (1, 4) 1028 Forbes St., Pittsburgh, Pa. United Projector and Films Corp. (1, 4) 228 Franklin St., Buffalo, N. Y. Universal Pictures Corp. (3) Rockefeller Center, New York City (See advertisement on page 195) Visual Education Service (6) 131 Clarendon St., Boston, Mass. Wholesome Films Service, Inc. (3, 4) 48 Melrose St., Boston, Mass. Williams, Brown and Earle, Inc. (3, 6) 918 Chestnut St., Philadelphia, Pa.

MOTION PICTURE MACHINES and SUPPLIES

The Ampro Corporation (6) 2839 N. Western Avenue, Chicago (See advertisement on inside back cover) Bell & Howell Co. (6) 1815 Larchmont Ave., Chicago (See advertisement on inside back cover) Central Camera Co. 230 S. Wabash Ave., Chicago (See advertisement on page 201) Eastman Kodak Co. Rochester, N. Y. (See advertisement on outside back cover) Eastman Kodak Stores, Inc. (6) 1020 Chestnut St., Philadelphia, Pa. 606 Wood St., Pittsburgh, Pa. General Films Ltd. (3, 6) 1924 Rose St., Regina, Sask. (See advertisement on page 200) Herman A. DeVry, Inc. (3, 6) 1111 Armitage St., Chicago (See advertisement on page 196) Ideal Pictures Corp. (3, 6) 28 E. Eighth St., Chicago. (See advertisement on page 200) International Projector Corp. (3, 6) 90 Gold St., New York City (See advertisement on inside front cover) The Photoart House 844 N. Plankinton Ave., Milwaukee, Wis. RCA Manufacturing Co., Inc. (5) Camden, N. J. (See advertisement on page 193) S. O. S. Corporation (3, 6) 636 Eleventh Ave., New York City Sunny Schick, National Brokers (3, 6) 407 W. Wash. Blvd., Ft. Wayne, Ind. United Projector and Films Corp. (1, 4) 228 Franklin St., Buffalo, N. Y. Victor Animatograph Corp. (6) Davenport, Iowa (See advertisement on page 174) Visual Education Service (6) 131 Clarendon St., Boston, Mass. Williams, Brown and Earle, Inc. (3, 6) 918 Chestnut St., Philadelphia, Pa.

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FALLING LEAVES
by
J. E. Bundy

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Our-View of the Detroit Visual Program

The Immediate Needs in Visual Education

Teacher Participation in Educational Film Production

SEPTEMBER, 1937
VOLUME XVI
NUMBER 7

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How to Select a 16mm. Projector

Frankly, it is not the easiest task to select the best 16mm. sound-on-film or silent projector. There are many points to be considered, many facts to be determined. Recently the American Council on Education in its booklet “Teaching with Motion Pictures” listed 10 questions the prospective purchaser should have answered before ordering. We have taken the liberty of reproducing some of these questions—and our answers.

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Over-View of the Detroit Visual Program

A survey of the valuable service rendered by the Department of Visual and Auditory Education

By MANLEY E. IRWIN
Director of Instruction, Detroit Public Schools

VISUAL education in Detroit is relatively new. The Department of Visual Education of the Detroit Public Schools was organized in 1918. At that time the department library consisted of approximately seven thousand slides and only two schools were using films. The policy of purchasing films and equipment for a department library was soon established and a program of training teachers in their use was begun.

Today there are 125,000 slides in the Detroit schools and 19,000 more in our Visual library. To make the use of these slides possible there are 220 stereopticans in use in the schools. Instead of only two schools using the films, practically all of our 250 schools use them. In addition, Detroit now has 306 motion picture projectors of which 166 are for 16mm. silent films, 139 for 35 mm. silent films, and one 35 mm. sound projector in a high school. There are 11,074 classroom films and 4,042 auditorium films in the visual library. At least one teacher in each school is trained to operate these machines according to the standards set up. The department has expanded and its name changed to the Department of Visual and Auditory Education.

From the beginning, the Department found that it had a fertile field for experimentation. It was not handicapped by any traditions such as one might find in undertaking an experiment in the field of arithmetic, reading, spelling, or social studies. The parents of the children in school had no childhood experience with visual education. For this reason, they had no preconceived idea as to whether instruction by means of visual materials is good or bad. They can not compare visual instruction of today with the way they were taught by visual aids. Neither could the Department.

Thus we have had almost a free hand in determining what type of visual education program we should present to the pupils. It is somewhat disconcerting to some of us that although new devices may be used in instruction and new materials may be supplied for use in the classrooms, children of today must learn through the same five senses that were used by their parents.

For a while visual education offered only one avenue of approach, viz., through seeing. With the advent of talking pictures in school use, hearing has been added and two senses can be used. Such instruction has an advantage over many other instructional aids. Through hearing and seeing most of our knowledge can be gained; emotions can be aroused; imaginations stirred; and desire to do things awakened. No educational program can hope to do much more for pupils, because visual aids appeal both to the intellectual and to the emotional sides of life.

But, with opportunities come responsibilities. The studies made possible by the Payne Fund and carried on under the direction of W. W. Charters show that care must be exercised in the selection of both quality and quantity of the pictures which children are to see.

The Department of Visual Education in Detroit was naturally rather conservative. No one was sure just what should be included in a visual program for schools, or in which grades materials should be presented, or what methods should be used to teach by visual aids.

The problem of selecting visual material is a cooperative one. The content of the visual aids has to be selected from some subject matter field. If there are pictures of people, forests, or rivers, they naturally fall in the field of the social studies. If there are pictures of animals or plants, they naturally fall in the field of the exact sciences. If there are pictures of architecture or paintings or musical instruments, they fall in the field of fine arts. For this reason, close cooperation had to be worked out with the different departments in the Division of Instruction. May I give an illustration.

Suppose a picture of making bread was prepared by some bakery. A copy of the film is sent to our Department of Visual Education. The Department checks the photography and the mechanical arrangement of the picture. A showing of the picture is then given, to which the supervisor of home economics is invited. The supervisor will evaluate the picture in terms of the process of making bread. She will make sure that the same kind of picture might be taken in another bakery and that the ingredients used in the process of making bread are not peculiar to one company. A committee which views the picture also checks to see whether the name of the company is undesirably prominent, or the description given is too extravagant for one brand of the product shown. If the film is approved, it is then placed on our school list and is referred to in our course of study in home economics. The same process would apply to other fields.

The following standards have been set up for selecting pictures:

1. Films and slides containing more than a minimum amount of advertising or propaganda may not be used in the Detroit Public Schools. Generally, a courtesy title at the beginning or the end of a film is approved. For example, a courtesy title would permit the commercial organization to state: This Motion Picture Presented by (name of organization).

2. Visual and auditory teaching aids should not carry implications which point to the absolute superiority of one specific product or a particular commercial organization.

The Bureau of Mines, a division of the Department of the Interior, follows a policy which reads as follows: This Motion Picture Presented by The Bureau of Mines in Cooperation with (name of organization).

The rest of the film relates directly to the manufacture and uses made of this particular product and does not repeat propaganda for the purpose of merchandising this particular product.

Even before the publication of the volumes containing the report of the Payne Fund Studies, all members of the instructional departments in Detroit schools were aware of the tremendous influence which pictures, either motion or stills, were exerting upon the public. No department is vain enough to believe that all of their teachers can influence the young people to the same extent that is exerted by billboards, magazines, or other types of pictorial advertising. Nor can our teachers hope to compete in character portrayal with such movie stars as Joan Crawford, Clark Gable, or Joe E. Brown. The same is true of special fields. No health teacher is more effective in getting children to eat spinach than "Pop-Eye, the Sailor Man."

Of course, we are trying to make the classroom more like life itself. Yet, we doubt whether most of the dramatizations in...
the regular classrooms of the schools or even motion pictures brought in by commercial concerns can compete with Katharine Hepburn, John Barrymore, or George Arliss.

Teachers of the social studies have long realized that they are unable to give as complete a picture of the Salem witchcraft as that depicted in The Maid of Salem or life on the western frontier as that given by The Plainsman. The same might be said of a large number of our historical films.

Since visual education is relatively new, it has been natural that the early methods of instruction by visual aids should be copied from the regular methods of instruction which are used by classroom teachers.

I remember visiting a classroom about twelve years ago in which the teacher was having the children in a fifth grade science class look at stereoptican views. The pupils were told to look at a picture and study it and be ready to give a report in ten minutes. Each child was to see one picture. The pupils soon became restless and the teacher whispered to me that the class was "dumb" and could not concentrate. I saw the same class with a different teacher who gave much more scientific directions and I came to the conclusion that the pupils were not so "dumb."

Even yet there are few or no standards to guide one in saying just how a program of visual education may be used, nor how a city school system might prepare the instructional type of film. A few years ago, some promoters believed that the movie and other visual aids would replace the teacher. You and I know that the real value of education which comes from the intimate contact of pupils with teachers cannot be replaced by any mechanical instrument which has yet been devised. Yet, it is true that some teachers have been disturbed.

Such teachers are still afraid that they may be replaced by radio, television, talkies, or motion pictures. No doubt they represent the type which opposed textbooks because they thought textbooks would replace teachers. Those who have such fears are probably justified to some extent; because it is barely possible that with the type of personality they possess they could be replaced by some of these mechanical instruments. However, the teacher who is the real artist and professional worker may rest assured that the general public would not be content to have motion pictures or even the radio take the place of the teacher in the classroom.

Some enthusiasts, in attempting to outline a program or write scenarios for motion pictures and talkies, thought that they could take a picture of what they called a "master teacher" to conduct lessons in many subjects. For example, penmanship. Let me dramatize:

A picture would be taken of a teacher conducting a class in penmanship. The teacher would say, "Good morning, boys and girls. Today our lesson in penmanship is making "ovals." Get out your pads and your pens. Remember your penmanship position! Do you have both feet on the floor, both arms on the desk, and the pen pointing over the right shoulder? Are you ready? One, two, three, four, five, six, seven, eight, nine, ten."

Thus for fifteen or twenty minutes the pupils would make oval shapes or letters under the skilful counting and rhythmic chant of this master teacher, whose only function was to count and swing her arm to the rhythm of her counting.

The same would be true of music. Of course, the teacher on the screen could make no check on the quality of singing, nor could he be sure that the pupils were following the baton. However, this master teacher could ask all pupils to turn to a particular page and sing the scale and other exercises. Under such a procedure one teacher could present herself in as many rooms as would have films and film projectors.

Thus, you see, the task of the regular teacher in the classroom would be to take care of the projector and act in the role of a patrolman. She would maintain order as best she could and make her report to this master teacher whose picture had taken place.

Believe it or not, we in Detroit do not subscribe to that type of instruction. We think that something more can be done with visual aids than to follow the regular classroom procedures, either as they were followed a generation ago or as they are today.

We believe that instruction by visual aids can be used in five ways: (1) as a means of stimulation; (2) as a means of integration; (3) as a means of disseminating information; (4) as a means of summarizing other classroom experiences; and (5) as a means of evaluating motion pictures and talkies and of appreciating the great literary and historical films which are presented to the public.

The visual program used in Detroit is designed to stimulate the intellectual curiosity of pupils. It is thought that from such stimulation a number of activities can be attempted. Frequently there is a discussion period in which pupils talk about the things they have viewed; there are dramatizations, reports on personal experiences, special drills, preparation of exhibits, visits of inspection to places mentioned or related to those presented in the pictures.

As a means of integration, the visual program makes possible the presentation of large units of work which naturally cut across the subject matter lines and draw on the various subjects of the curriculum for their contribution to the topic under discussion. Frequently pictures contain content which is related to history, art, and literature. The activities which can grow out of such a presentation are as numerous as the sands of the sea. English, both oral and written, handwriting, spelling, social studies, reading, art, and nearly all the rest can be used. Thus the different subjects have a real part in solving the problems which are presented in a single picture.

The Department of Visual and Auditory Education and other cooperating agencies in Detroit have thought that our visual program can bring to pupils up-to-date information of a kind not readily found in textbooks, not readily accessible to pupils, and not apt to reach them through ordinary channels. We believe in first hand experiences that come from visits to places of interest. James Russell Lowell probably had this type of experience in mind when he suggested that the most effective way to teach historical and geographical facts is to visit the place where these events occurred. You remember what he said in the poem, Under the Old Elm, in describing the place where Washington took command of the colonial troops. He said, "Here—here, where we stand, stood he, the would be, Yet, we can approach it by bringing in pictures of of historical interest, important as we think that experience.

Our teachers can not take all their children to these places of historical interest, important as we think that experience would be. Yet, we can approach it by bringing in pictures of interesting spots with much of the atmosphere and grandeur associated with them. Such pictures help to bridge the gap between the abstract presentation of the textbook and the actual experience of standing where stood "the purely great."

As a summary lesson, visual materials often bring together the experiences that children have had in art, social studies, and other rooms in the school. They help children to live again those experiences which they have had and make it possible for them to get a new view of the units they have studied.

The use of motion pictures, both sound and still, give the schools an excellent opportunity to help pupils evaluate the programs which they see outside of school. They learn to discriminate to some extent among the pictures available. They are able to study English, drama, sound effects, and to build standards for judging the worth of the bill of fare offered in the theaters. With understanding and evaluation naturally will come an appreciation of the work that goes into the production of even the lesser of our commercial pictures.

Thus it will be seen that practically every phase of the
The Immediate Needs in Visual Education

By F. DEAN McCUSKEY
Director of Scarborough School,
Scarborough-on-Hudson, New York

NO EDUCATIONAL movement in recent years has been characterized by so much experimentation as has that known as visual instruction. At the February 1936 meeting of the Department of Visual Instruction of the National Education Association held in St. Louis, Missouri, I stated that the need for comparative experimentation in visual instruction had ceased to exist. We have had enough of research to prove its value. That it has value in instruction has been definitely established. What, then, are the obstacles which prevent a widespread use of visual materials, particularly the motion picture, in educational institutions?

In stating the obstacles to progress, with particular reference to the motion picture, I shall also indicate the remedial steps to be taken. These remedial steps represent the needs in visual education. They are the problems to be solved.

Obstacles—1. There has been a definite lack of coordination between educational and commercial interests.

a. Educators have failed to make their problems articulate to commercial producers and both educators and business men developed the notion that entertainment, commercialism, and education do not mix.

b. Commercial interests have failed to grasp or to study sufficiently the nature of instruction and the complexity of educational institutions.

c. Business men dominated by the quick profit motive lost sight of the necessity of gaining the confidence and backing of professional leadership in education.

Remedial Steps—1. The production of motion pictures for schools can be successfully accomplished only by independent companies working in conjunction with the educators—not by theatrical producers, or by any others with whom the production and distribution of motion pictures is a side line or medium for propaganda, or purely a commercial enterprise.

Closely allied with our program of visual education is radio. We now have 254 radios in the schools. Of course, some of these schools have more than one radio and others have none. A number of radio programs are prepared by the Department of Radio Education and are broadcast directly into the schools. What I have said about the motion picture program applies equally well to our radio program.

In addition to the visual education program carried on in the schools we have close co-operation with other agencies in the city. The Detroit Institute of Arts, the Detroit Historical Society, and our own Children's Museum constitute an integral part of our program of visual education. Through the co-operation of these different agencies and the close working together of our different departments we are able to provide a program of which we are proud.

Kipling was probably thinking of visual education when he wrote,

"It ain't the guns and armament
nor the funds that we can pay,
but it's close co-operation
that helps to win the day.

It ain't the individual
nor the army as a whole
but the everlastin' teamwork
of every bloomin' soul."

Emphasizing the need for practical application of visual education, and suggesting some remedial steps

2. In order that coordination between educators and commercial interests may be made effective

a. Educational leadership would be obtained through advisory boards or committees, each member of which would retain his or her professional standing and position.

(1) These educational advisors would blueprint needs, conduct research, and validate materials.

(2) They would operate in a non-profit framework.

b. The cooperating commercial producers would manufacture the productions outlined by the educational advisory group and market only those materials which it had validated.

(1) The commercial producers would operate at a profit but the service motive would be dominant.

(2) The object of the commercial producers would be to market materials for instruction independent of special interests.

Obstacles—2. School trustees, heads of educational institutions, and teachers have looked upon motion picture teaching as a fad or novelty. Their attitude has been, let the other fellow try it first. This educational conservatism or inertia has been a major obstacle to progress.

Remedial Steps—1. Educational leaders must be aroused to meet their responsibilities in evaluating the importance of the motion picture in national life and in schools.

2. The place of the motion picture in instruction must be made a major topic for discussion at professional meetings in teachers' institutes, and in regional, state, and national conventions.

3. The impetus for arousing the interest of educational leaders in the motion picture should come from within the profession itself rather than from commercial sources.

Obstacles—3. Educational leaders have been critical of the bad
taste, stupidity and low moral tone of theatrical motion pictures. As a result those in whom the control of education rested developed a feeling of opposition to motion pictures in general. They regarded with suspicion all plans and all enterprises which had as their aim the introduction of motion pictures into schools. While leading educators have recognized the potential value of motion pictures in education they have quietly and continuously opposed all attempts to introduce into broad classroom use motion pictures which smacked of commercialism, low moral tone, propaganda, or controversial issues. The unsatisfactory pictures were found to be so numerous that the good ones suffered from being too frequently found in bad company.

Remedial Steps—1. Educators with the support of the right kind of capital must take things into their own hands.

2. An unbiased clearing house of educational information must be established.

3. Children should be trained in schools to appreciate the true values in entertainment and in propaganda motion pictures in keeping with the accepted aims of education.

Obstacles—4. The stupidity which has characterized the advertising, propaganda and sales methods of companies producing and distributing so-called “educational” motion pictures created strong opposition in educational circles to school films good or bad. Some of this propaganda created a fear in teachers that motion pictures would supplant them and mechanize instruction. The notion expressed in this propaganda that films would be used to supplant text books aroused not only the opposition of teachers to visual education but also the antagonism of the authors and publishers of textbooks.

Remedial Steps—1. An analysis of the psychological processes involved in learning by means of the various devices and techniques used in visual instruction must be made by painstaking research governed by economical and educational criteria.

2. Statements relative to the value of and place of the motion picture in education must be confined to the true merits of this medium of instruction.

3. Teachers must be reassured that the introduction of visual instruction into classroom use will be based upon impartially conducted experimentation.

Obstacles—5. Non-theatrical exhibitors and distributors met vigorous opposition from the theatrical distributors and exhibitors who feared that school and church competition would hurt theatrical box office receipts.

Remedial Steps—1. The educational motion picture must be developed apart from the theatrical interests by educators.

2. Educators and allied non-theatrical producers and distributors should establish a working agreement which will secure the good will of theatrical interests and not their active opposition.

Obstacles—6. Low financial returns to producers and to distributors of motion pictures in the non-theatrical field has been to some extent caused by the competition of “free” films and “subsidized” distributors such as state universities and museums.

Remedial Steps—1. Educational institutions should place visual instruction on a sound financial basis by making a place for it in the budget along with other school equipment.

2. Utmost care should be used by school authorities in selecting “free films” for classroom use.

3. Educators and non-theatrical producers and distributors should study the cost of films and of equipment to standardize as far as is possible such costs to schools so as to establish a fair return to business men.

Obstacles—7. Heads of educational institutions have devoted little time, energy or thought to the organization, supervision and administration of visual education. This has resulted in a lack of leadership and guidance needed by sincere producers and distributors of “educational” motion pictures and by pioneering teachers using this new medium of instruction.

Remedial Steps—1. School authorities must make visual instruction a major item of study and include it in any consideration of school equipment and its use.

2. Heads of schools should appoint a competent person to head up visual instruction in the school system and in each school building.

3. Conferences on the use of visual materials should be held by school authorities with teachers.

4. Visual instruction should be made a major item on the programs of state and national professional gatherings.

Obstacles—8. The mechanical problems involved in the use of motion pictures in classrooms have been a strong inhibitory factor. Before the safety standard 16 mm. film was perfected, the fire hazard was great and laws prohibited the use of films in classrooms unless equipped with fireproof booths. Many teachers have been timid about operating the machines. Many also would not take the trouble to order films, set up projector, et cetera, even when such were available for use.

Remedial Steps—1. A member of the teaching staff in each school building must be placed in charge of visual equipment and become expert in the use of it and in the mechanics of operation.

a. The chairman of visual instruction should train teachers in the mechanics and use of equipment.

b. He should inspect projector equipment in classrooms to insure the maximum efficiency in results.

c. He should work out routines and schedules for the use of equipment and assist teachers in securing materials.

d. The person in charge of visual instruction in each school building should work in close cooperation with the central school authorities and with those agencies upon which he must depend for films, slides, et cetera.

Obstacles—9. Commercial interests and educators alike have failed to develop definite agreed upon policies with respect to production and use of motion pictures in education. Competition also between different types of visual materials confused school boards and executives.

Remedial Steps—1. An educational foundation or clearing house of national scope should be established which will serve to coordinate educational experience and practice in the use of visual materials.

2. Educators and commercial interests alike should determine in conference the standards and policies which should govern the use of visual materials in schools.

3. The place of each visual aid in instruction should be determined by experimental methods which should result in a coordinated program of teaching with these materials.

Obstacles—10. Many of the failures of commercial efforts in the non-theatrical field have been traced directly to poor management, or unsound business methods or questionable business ethics, or excessive overhead and or lack of planning.

Remedial Steps—1. The integrity of those business interests engaged in producing and distributing motion pictures for schools must be established.

2. The service motive must be dominant.

3. The business interests must coordinate their efforts with school authorities and follow educational leadership.

4. No special interests must be permitted to use the educational motion picture for propaganda.

5. Commercial interests must be willing to start small and grow with the field and to provide sufficient capital for the long pull.
Obstacles—11. Few non-theatrical producers, distributors and exhibitors have developed a satisfactory system for distributing motion pictures to be used in schools.

Remedial Steps—1. Each school building should contain a library of essential visual materials owned by the school authorities.

2. Supplemental materials should be circulated from a school owned and operated library serving a local geographical unit such as a city school system, a township or county.

3. District sales, rental and service organizations of a commercial nature covering a state or larger area would supplement the work of local, county or school officials. The primary function of the commercial organization would be to render projection service and to sell, rent, or lease prints in quantity to the local libraries.

Obstacles—12. The cost of films for school purposes has been too high. Schools could not afford to pay the high cost of projection equipment and films.

Remedial Steps—1. Mass production of equipment and of materials is necessary to reduce costs.

2. The formula is quantity and quality.

3. School authorities must establish a regular item in the school budget for visual instruction and place it on a sound financial basis.

Obstacles—13. Educators have not purchased nor used motion pictures for schools on a broad scale because few offerings have been suited to the curriculum. The motion pictures available for school use have not represented a comprehensive educational program. The films have not been correlated closely enough with units of study nor with text books. As a consequence the films used in schools have been a side issue.

Remedial Steps—1. A careful analysis of basic courses of study needs to be made to discover wherein visual materials may be used to greatest advantage in accordance with economical and educational criteria.

2. Producers should not attempt the production of motion pictures for classroom use until the continuities for such films have been validated by educators who are experts in the teaching of the particular fields of study in which such films are to apply.

3. An evaluation of existing visual materials needs to be made by educational experts in the teaching of the subjects in which these materials are to be used. Such evaluation should be based wherever possible upon actual experience in the use of that particular film or aid in the classroom.

4. Educators should not use motion pictures which are unsuited to the educational purpose of the schools.

Obstacles—14. Pioneering educators have not had sufficient information relative to the sources of and effectiveness of educational motion pictures and equipment.

Remedial Steps—1. An independent unbiased clearing house of visual instruction must be established. It would:

a. Conduct research and surveys to determine where the greatest needs for visual aids occur and disseminate that information.

b. Survey and appraise the pedagogical pictures now available, suggesting in some instances recutting, in others the specific conditions under which the pictures could be used to greatest advantage, and eventually determine upon or organize a plan of endorsement acceptable to educators and producers.

c. Promote cooperation between publishers of text books and producers of pictures, to the end that each might complement the other.

d. Evolve a comprehensive blue print for the production of visual aids, to avoid duplication and insure eventual coverage of the whole curriculum.

e. Serve as a clearing house for information, at the disposal of all interested parties.

f. Promote the training of teachers in visual instruction.

g. Secure the active interest in and support of educators in the development of the new techniques.

Obstacles—15. Pioneers who despite great handicaps and obstacles proceeded to develop motion picture programs for schools found that teachers needed to be trained to use motion pictures effectively in the classroom.

a. In the early days of the visual education movement, pioneering producers held to the notion that motion pictures would supplant text books and teachers, hence teacher training in motion picture instruction was not considered by them to be of importance.

b. Despite the fact that educators as early as 1923 began to emphasize the necessity for teacher training in visual instruction, progress has been painfully slow. While there has been an increase in the number of teacher training institutions offering courses in visual instruction, these courses are electives (with the exception of a few institutions, especially in the State of Pennsylvania), which means that the vast majority of teachers in training are not tutored in the use of motion pictures and other devices in education.

Remedial Steps—1. There is agreement as to the need for training teachers in visual instruction. But authorities are not in agreement as to the way to accomplish this goal for teachers-in-training.

(a) One suggestion that has considerable backing is the introduction of a required core course in teacher training institutions.

(b) Another is to require the specialists in the teaching of the several school subjects to train teachers in the use of visual materials in teaching those subjects.

2. It is generally agreed for teachers-in-service

(a) That the best procedure would be for them to observe in demonstration centers the work of teachers who are successful in the use of visual materials.

(b) That visual instruction be made a major subject for discussion in professional meetings.

From the foregoing discussion it is apparent that the greatest immediate need is to shift educational thinking with respect to visual education from the experimental base to that of practical application. Teachers want guidance as to best methods of using visual materials in the classroom. A number of demonstration schools or centers should be created in the public and private schools of the country in which a thorough-going, continuous demonstration of visual instruction in daily classroom use would be exhibited. Each of these demonstration schools should be fully equipped in every classroom with projection equipment and with the necessary visual materials such as bulletin boards, diagrams, models, etc. necessary for a systematic instructional program. The demonstration centers should be geographically located so that teachers, principals, and school board members throughout the United States could benefit by visiting the centers and seeing the work at hand. It is my firm belief that the equipment companies would enhance their sales and make rapid progress, if they were to invest money and materials in the establishment of such centers rather than to spend further money in experimentation of the type that has characterized most of the past research in this field. The Department of Visual Instruction could serve as an agency to bring this to pass. Many of the large city school systems already have spent considerable time and energy servicing schools with visual materials. Would it not be practical for these bureaus to consider the desirability of equipping completely one school building to serve as a demonstration center for the city in all subjects and in all phases

(Concluded on page 217)
Teacher Participation In Educational Film Production

Presenting the problem of real teaching films and how teachers can contribute to the supply.

By CHARLES A. GRAMET
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There has accumulated a great store of picture material much of which is purchasable as footage and much of which is usable. A number of small producers have made use of such film material to concoct or assemble teaching films, not often successfully. Competent teachers should select, edit and supplement such pictures. Too often the picture determines its educational use, rather than does the educational need determine the teaching film.

We have reason to believe that the day is not far off when an adequate program of cooperation between the motion picture industry and the schools will be developed on such a basis as has been suggested and the rich store of the former made available for enriching the work of the latter.

An examination of the curricula and courses of study will show that commercial producers have neglected great areas. Business training, for example, is a completely virgin field. Only science has been extensively developed and even here there are important gaps. There is no lack of need, but failure to recognize the need and a failure or inability to satisfy it when recognized. To fill many of these deficiencies we recommend teacher-made pictures.

There is, too, the problem of pictures that are of local interest, yet essential in that situation. We have reference to pictures for community civics, local industries, community hygiene, educational guidance, records of important local (school and community) events, dramatizations, etc. It is obvious that commercial producers would not find it profitable to produce such films. They must be made by teachers.

Can teachers make pictures? Can such pictures compare favorably with commercial products? The answer to both questions is in the affirmative. This belief is based on personal experience and acquaintance with the work of amateurs in making movies. We have described elsewhere (Educational Screen Jan. & Feb. 1934) the making of a teaching film. The problems appear to be these:

1. Planning. This involves describing the film lesson and making the scenario. The aim of the picture, unity, coherence, interest, climax must be considered.
2. Taking. After the continuity is developed, the camera work is done. Picture composition, emphasis, camera angles, tempo and lighting are the technical effects that must be considered.
3. Editing. The scenes are cut and reassembled. This is done in accordance with the principles listed under planning. The product is viewed and reviewed, cut and re-edited until the film satisfies the criteria that we have established.
4. Titling. The length of each title, the amount of telling as against thought stimulation and provocation of the imagination, the total proportion of titles to the length of the picture, the vocabulary of the pupils for whom the film is planned, must be considered.
5. Sound. Except where the dialogue or conversation is an integral part of the activity, sound, if deemed necessary, may be dubbed after the picture is filmed. Music, comments and effects may be produced in this way. There is a large enough field for teacher production in silent
pictures or those with dubbed sound. We need not intrude, for the present, into the "talkie" field where the costs as well as the skills are high, though not beyond our reach.

We have discussed elsewhere, too, the questions of equipment and costs. These are not, in our opinion, paramount issues. If the making of pictures by teachers is educationally desirable, money must be provided as for other educational services.

This presentation has been made brief in order that ample time might be given to the showing, and possibly the discussion, of several teacher-made films. Each has been developed in accordance with the pedagogical, psychological and technical principles that have been suggested in this paper. Each has been designed, too, for a specific teaching situation. Each has its virtues as well as its limitations. It is hoped that they will be viewed and criticised in terms of the criteria that have been enumerated.

The first picture, *How the Heart Works*, is an early effort. The second, *How Plants Are Reproduced*, has only recently been completed. The latter is described in detail in the lesson plan that has been distributed. The pictures that we have been interested to make in the past have been in the field of science, for here we require least expert scientific advice. The principles are, however, applicable to any subject area and we intend to explore other fields next—business training, art and English. Limitations of time and space preclude our describing here a school organization for facilitating the production of teaching films. It has been described in an article that will soon be published.

Teachers have an important contribution to make in the production of educational films directly through the making of pictures and indirectly through cooperation with commercial producers as advisors, consultants and editors.

**The Immediate Needs in Visual Education**

*(Concluded from page 215)*

of visual instruction rather than to have efforts scattered as they are in many places at the present time?

A second step of great importance which must be taken is the blue-printing by educators of the areas in the school subjects which can best be taught by the use of visual materials. Producers of slides, films, and other materials have been working totally in the dark with respect to what the educator wants. I recall meeting some 15 years ago, the head of an organization with capital of over $1,000,000 which had been set up for the purpose of producing motion picture films for the schools. He had the money and the staff but did not know what pictures the educators wanted him to make. This individual made an honest effort to find the answer and was unable to do so even though he received the co-operation of the then United States Commissioner of Education. Surveys have been made here and there which throw light upon curricular needs with respect to visual materials but there is no doubt in the minds of those with experience that the visual education materials produced so far have not been systematically organized to meet the needs of the school. The blue-printing of educational needs should be undertaken by a Foundation which would finance the bringing together of educators to accomplish this task. If this Department were to do no other thing than to make it possible for such a group to function, it would be making a real contribution such as would justify its existence. As it is now, films are made topsy-turvy apart from any planned program and educators are asked to accept the product and make of it what they can.

A third immediate need in visual instruction has been mentioned many times during the past seventeen years. The first group of educators to call attention to it was the Committee of the National Education Association of which Charles Hubbard Judd was Chairman, appointed by its then President, Will Owen, in 1923. In their report, which was presented to the meeting of the N. E. A. held in Oakland, California, in 1923 they stated that a clearing house of information must be established. Throughout all succeeding years the need for a clearing house has been reiterated. Here again is a job for a Foundation. Such a clearing house of information would have to be unbiased and independent in order to render judgments which would be regarded as authentic and reliable by teachers and commercial interests alike. It is to be hoped that the work of Dr. C. F. Hoban, Jr., of the American Council in Education, will result in the permanent establishment in that institution of such a center for the guidance of principals, teachers, and others vitally interested in the progress of education.

A fourth immediate need is the recognition on the part of many who went into the field from the commercial side that visual instruction is not a "get-rich-quick scheme" and that large sums of money and profits are not to be made at the expense of American education by making and selling visual materials to the schools of the nation. The President of a large university recently stated in an address which I heard that visual education is likely to prove more profitable than oil. Such wishful thinking has led many educators with the sincerest of motives and others astray. Even our greatest textbook companies have had their financial difficulties from time to time in serving the needs of American education and not one of them has produced a John D. Rockefeller. Obviously, it will take capital to provide schools with materials which they need but it must be capital which is furnished with a motive to serve the schools of the nations. Such capital will have to be put up by people who will be content with little or no profit, certainly not more than 6% on their investment.

The educational field cannot be compared with the entertainment field as a source of gain. The rapid growth of the motion picture industry and the wealth which has come to many people connected with it will not be duplicated in schools.

The fifth and last immediate need in visual instruction which I wish to emphasize is that of developing a spirit of co-operation among commercial and educational interests alike to see that this important job is done. Mr. Owen D. Young recently said in my presence that it is a crime that motion pictures have not yet found their way into American education on anything like the scale which should have been attained and that the next great effort to bring about this should be a success. The field is so great and the amount of work which will be necessary to do a splendid job is such that there is room for everyone. And it will be a labor of love. Those who have been sincere and intelligent in their efforts in this field, and there are a large host, recognize the soundness of the above statement. If by some means or establishment of a pivot this co-operation could be secured and the now scattered efforts unified, visual instruction would come into its own and would become a major force in American education.

*Note:* The remaining Detroit papers will be reprinted in the October issue. A report of that meeting will also be given in that issue, together with a discussion of future plans for the Department of Visual Instruction. Due to the enforced absence of Mr. Nelson L. Greene, our editor and president of the Department, the regular Department page has been omitted this month. We are very happy to report that, after several weeks of illness, Mr. Greene is now rapidly recovering and expects to be back soon at his desk.
The FILM ESTIMATE

Being the Combined Judgments of a National Committee on Current Theatrical Films

(A) Discriminating Adults (Y) Youth (C) Children

Date of mailing on weekly service is shown on each film.
(For the Film Estimates, in whole or in part, may be reprinted only by special arrangement with The Educational Screen)
Goetterer, The (Brecht, Wieninger, Anita Louise) (War.) Noisy but amusing nonsense comedy of the Vienna cafe. Heri mountains unbothered of obstacles, placed in his way by a “fancy” wife. Wieninger practically perfect as Cappy Ricks. For the most part, the performances are omitted brief, needless bedroom scene. 6-22-37 (A) Good

(A) Modesty very good

Great Gambini, The (Tamiroff, Marian Marsh, John Standing) (Comedy) Tamiroff playing murder mystery, well-acted in part, but with such a frequent insertion of action, burlesque police characters. Some mannerism due to the character portrayed by Tamiroff. 6-22-37 (A) Fairly good (Y) Fair (C) No value

Great Hospital Mystery (J. Darwell, Sally Blane) (Mystery) A
dilemma of situations, exaggerated characters, in
glorious slapstick comedy, absurd hospital
mockery, a scathing attack on the medical
finally solved with aid of intrepid head nurse.
Ridiculous very good

(A) Hardly (Y) Better not (C) No

Heart’s Desire (Richard Tauber, Leonora Corson) (Musical) Simple, appealing Buon. about rise of Viennese singer to opera, till dis
diffusion brings him back to his beloved Vienna. Tauber sings gloriously, but unfortu
nately poor acting and bad taste in costuming make this an unsuccessful attempt at the story.

(A) Pleading (Y) Very good (C) It’s Interes

It’s All Yours (M. Carroll, Francis Lederer) (C.) Secretary-heroine inherits employer’s company, determined to prove herself; some
thrift nephew, whom heroine loves. Gay, 
pleasingly humorous, but unfortu
nately poor acting.

(A) Fairly good (Y) (C) Perhaps not

It Can’t Last Forever (Ralph Bellamy, Betty Furness) (C.) Clownish, ill-conceived combina

tion of an ingenue and an agent-hero’s publicity hoax by fake mind-reading act on air. When he wants to quit, she’s caught in a web of fiction and games with whom he outwits in amusing climax. 7-1-37 (A) Excellent (Y) (C) Perhaps not

Knight Without Armour (Dietrich, Don) (U. A.) Strong romantic melodrama with illusory background. Grim death and destruction present in the gaudy with manic

episodes inoffensively handled; famed bat
tub guerillas, and romantic gestures.

(A) Excellent (Y) (C) Perhaps not

Lady Escapes (The) (Gloria Stuart, Michael Whalen) (Univ.) Cheap connection about married, in love supposedly, who con

stantly quarrels, scatters clues, hurls fur

ture. They separate, giddy wife engages in
delicate and romantic rescue, leading to reunion for renewal of petticoat bickery. 9-7-37 (A) and (Y) Stupid

(A) Fairly good (Y) (C) Doubtful value

Last Train from Madrid (Gilbert Roland, K. Morley, D. Lamour) (Para) Tense, suspenseful, 

powerful melodrama about advertised char
acters scheming, lying and killing to obtain coveted loot. London was Madrid. Violent, unimpressive, little character value, and with

some feeble acting and humor.

6-29-37 (A) Poor (Y) (C) Doubtful

Leaue of Frightened Men (Wallace Beery) (Loa.

ond Stander) (Col.) Good detective picture, needing no booms and little violence, with Con

nors and Corrigan careful, and scene was

sanely funny, and villain beautifully concealed to the last.蓓

tiful crime thrillers. 6-29-37 (A) Good of kind (Y) Good Thriller (C) Excellent

Life of Emile Zola, The (Men, Schildkraut, and Mantz) (Yrigoyen) An excellent version of novel fil
m, authentically mounted, true in essentials, 

flawless in all details. Mini superb, Schildkraut’s 

Dreyfus impressive. Minor flaws in make-up that hardly detract from the praises of dramatic value.

(A) and (Y) Excellent (C) Mature

Life of the Party (Gene Raymond, Harriet Hilliard) (RKO) Ridiculous title for largely rhythmic, but well-staged, vaude

volve plot of hero chasing heroine who is chas

ing a car, a pretended “man-and-wife situa
tion,” to accompaniment of gags and come

s across amusing role. Par. works, 9-27-37

(A) Depends on taste (Y) It amuses (C) No

New Faces of 1937 (Penner, Berke, et al) (RKO) Fine comedy picture, not a musical, but offering production of a show crooked producer

with assorted comics, very clever skits and ensembles, and very funny at times.

(A) Depends on taste (Y-C) Probably amusing

North of the Rio Grande (Bill Boyd) (RKO) Fairly

lively picture of the hero and his bad man’s 

lawful enemy, young man who manages to

with complications of diseases. Heroine 

Darling, enchants the hero, applicable to the feature, Horton’s unique comedy work as the hero.

(A) Hardly (Y) Fair (C) Good but exciting

On Again, Off Again (Whalen and Woeckley) (RKO) Usual preposterous nonsense stuff and 

bokum by pair as braceless partners in suc

cessful pill business. Incessant fighting leads to content, loser of which becomes valet to other. Provokes a feeble laugh occasionally but almost never tiresome.

(Y) and (C) Poor

One Mile from Heaven (Claire Trevor, Sally 

Haine) (Fox) Highly incredible farce-melodrama about an innocent girl who fails to solve invention and wishes to share good for

with man who has been tricked and leads to horrible escapades involving gangsters, 

villain, war, vixen, and police. 7-13-37 (A) Stupid (Y-C) No

Married Before Breakfast (Robt. Young, F. Rice) (RKO) Silly, preposterous farce, with 

heavy story, also, involving Inventors.

Sells invention and wishes to share good for

with man who has been tricked and leads to horrible escapades involving gangsters, 

villain, war, vixen, and police. 7-13-37 (A) Stupid (Y-C) No

Meet the Missus (Victor Moore, Helen Broder

ick) (RKO) INTERESTED as satirical farce on the public and its foibles and curiosity of the 

public to the same. Unrehearsed husband 

does not at all, but Moore, the Harpo may. 

Expert Moore-Broderick team wasted on stuff more than subtle. 6-22-37 (A) Poor (Y) (C) Perhaps amusing

Midnight Madonna (W. William, E. Ellis, K. Clancy) (Para.) Framed testimony about 

virtuous heroine gives child to worthless ex-

husband, till gam-bit-heros’s sensational ex-
pert is cured and proves his worthiness of 

must be sure to be on trial. My Shirley Hand
come-like. 7-6-37 (A) Mediocre (Y) Poor (C) No

Maiden of Madness (Alison Booth, Rosalind Keith) (Col.) A new type of story, a girl 

tries to drive new model outboard-motor racer and in her efforts runs down someone’s 

causing on gambling ship and punchy ones 

the night the great race. Second-rate in 

plots and the characters. 6-12-37 (A) Mediocre (Y) Poor (C) No

Mr. Dodd Takes the Air (Kenny Baker, Jack Mc

louch, A. Bradley) (Warner) Farece comedy 

starring Mcclough, mainly far-fetched, silly, unconvincing and even dis

vastating in situations and characters. Here’s 

engaging personality and voice compensate for 

sillyness of preposterous action. 6-7-37 (A) Hardly (C) and (Y) Fairly Good

Mr. Vance can solve the mystery. Poor direction, 

confused plot, and especially illogical characters make it dull stuff. 

7-12-37 (A) Mediocre (C) Better not (Y)

Nightingale, The (Russian, full color, sparse 

English) Impressive story, well acted, beau
tiful and grim by turns, of Russian 

industry as it was under Czars. Obvious 

propaganda. Morally by slow tempo, over-pre

lenged romances, and many touches of cruelty, 

vivid, and shiny. Good music, sound. 8-27-37 (A) Novel (Y) (C) Little interest or value

Night in the Museum (R. Patterson, R. Karna

s) (Col.) The story of early Band of 

Dine murder tale. Three murders ensue, one after the other. Philo 

Vance can solve the mystery. Poor direction, 

confused plot, and especially illogical characters make it dull stuff. 

7-12-37 (A) Mediocre (C) Better not (Y)

Road Race (The) (Cromwell, John King, et al) (Univ.) Nostrils in car business. 

Impressively depicting agility, terror and 

victories over delays. Carcrashes in and out of 

airplane invention. Thrilling flying. 8-2-37 (A) and (Y) Perfect

Roadster (Joe E. Brown, Guy Kibbee) (RKO) Illusions, clean comedy with usual film 

tricks and some genuine stunt effects. En

trerequisites into trouble with his girl and community through slick stock promoter, but becomes hero with screenwriter. Strongler of plane. 8-27-37 (A) and (Y) Good of kind (C) Doublevalue

Roaring Timber (Jack Holt, Grace Bradley) (Col.) Interesting picture of a hard-working hero, a lumber-jose, overcomes all obstacles, despite heavy villains, to meet 

dead like date set by contract. Some love’s 
screnny and interesting glimpses of logging 

operations, but elementary stuff. 8-3-37 (A) Mediocre (Y) Poor (C) No
Producers and Educators Cooperate
On Film Project

A highlight of the Detroit convention of the National Education Association last June was the significant announcement made by Dr. Mark A. May, director of the Institute of Human Relations at Yale University, that the Motion Picture Producers and Distributors of America will furnish film material to the school field, to be evaluated by educators.

The Hays organization has set up headquarters at 1600 Broadway, New York, for a group of educators reviewing all non-current short subjects of Metro-Goldwyn-Mayer, Paramount, RKO, Twentieth Century-Fox and Educational, United Artists, Universal and Warner Brothers. Approximately 15,000 short subjects have been produced by these companies since the beginning of sound pictures. Of this number some 2,000 films were selected for viewing by the educational group as being the most likely for school use. These selected films were classified under music, physical sciences, biological sciences, physical education, elementary education, and social science. The 50 films yet to be examined come under this last group, which comprises the greatest number of films of any of the classifications. Approximately 1000 films have been approved so far by the 70 educators and these will be edited to conform to educational needs.

With the analysis completed, the next step will be the consideration of the distribution problem. In addition, a board of educators proposes to advise the producer-distributors on new production of films for schools.

A $75,000 Rockefeller and a $50,000 Hayes organization appropriation is paying for an exploration of the field.

Berkeley Summer Film Exhibit

A new type of educational film exhibit, staged experimentally by the University of California Extension Division, for teachers and school officials attending Summer Session at Berkeley, has been highly successful and will probably become an annual affair, according to Boyd R. Rakestraw, head of the Extension Division's Department of Visual Instruction.

Instead of restricting the exhibit to the showing of educational films, as has been done on the Berkeley campus in the past years, the Department of Visual Instruction this year requested the manufacturers of projection equipment and motion picture cameras to send representatives and exhibits. Each exhibitor was given the opportunity to demonstrate his equipment in a two-hour showing of educational films in one of the University's large auditoriums. In a lobby outside the auditorium exhibitors were given display space, so that visitors could inspect at close range a number of types of projectors and cameras. During the five afternoons of the exhibit, 37 educational films, furnished by the Department of Visual Instruction, were shown to over a thousand visitors.

The objectives of the exhibit were: first, to enable educators to “preview” a variety of educational films and to learn about this tool of education; second, to enable teachers and administrators unfamiliar with school projection equipment to determine which types of equipment would meet the teaching and budgetary requirements of their schools.

The success of the exhibit amply warrants its establishment as an annual summer session feature. Rakestraw believes, and plans are now being made for a repeat performance in the summer of 1938.

Summer Conference Held in Missouri

A conference on the use of visual aids in secondary schools was held on July 20 and 21, at the University of Missouri, Columbia.

The following topics were discussed by members of the faculty: Problems Involved in the Use of Visual Equipment in Teaching. The Place of Visual Aids in the General Teaching Program. An Example of the Use of Visual Aids in the Teaching of Geography, Visual Aids in the Teaching of Physics, The Use of Visual Aids in the Teaching of Classical Languages.

Demonstrations of various types of visual aids and equipment were also given. A demonstration lesson, Teaching Dental Hygiene Through the Use of Motion Pictures, using the advanced unit in the fourth and fifth grades of the University Elementary School, was one of the program's highlights.

Audio-Visual Education Conference in Atlanta

A statewide conference on the use of the radio and the motion picture in Education will be held in Atlanta Friday and Saturday October 15 and 16. The Audio-Visual Education Association has prepared an excellent program including addresses by men and women of national reputation and recognized leadership in these fields as well as superintendents, principals and teachers in the colleges and in both urban and rural schools, and leaders in religious education in Georgia and other states who have successfully utilized these modern teaching tools in classroom, laboratory and auditorium.

The October conference should be of great interest and benefit also to members of Parent-Teacher Associations civic clubs, religious education agencies and other organizations interested in the effective use of the latest developments in the audio-visual field, and it is expected a large number of officials and other educational leaders from all sections of Georgia and adjoining states will attend.
In connection with the conference, demonstrations of the use of improved audio-visual aids will be given: a tour of Atlanta's several broadcasting stations will be made, methods of using the radio and the motion picture films in teaching and developing appreciation in music, health, current events, spoken English and other subjects, and in the conservation of resources, both natural and social, will be presented. New educational motion picture films will be shown, and the latest audio-visual equipment and materials will be exhibited.

**Micro-Photography to Preserve Valuable Material**

The American Documentation Institute has been incorporated on behalf of leading national scholarly, scientific and informational societies to develop and operate facilities that are expected to promote research and knowledge in various intellectual fields. A first objective of the new organization will be to develop and apply the new techniques of microphotography to library, scholarly, scientific and other material. The board of trustees elected consists of: Dr. Robert C. Binkley, Western Reserve University; Dr. Solon J. Buck, Director of Publications, National Archives; Watson Davis, Director, Science Service; Dr. James Thayer Gerould, Librarian, Princeton University Library; Dr. Ludvig Hektoen, Chairman, National Research Council.

Such a national organization was foreseen as an outcome of Science Service's documentation activities when they were begun in July, 1935, implemented with grants from the Chemical Foundation and conducted with the cooperation of the U. S. Naval Medical School, the U. S. Department of Agriculture Library, the Bureau of the Census, the Works Progress Administration, the Library of Congress and other agencies.

Bibliofilm Service has been conducted by Science Service in cooperation with the Library of the U. S. Department of Agriculture as a service to research workers, and auxiliary publication through microfilm has been conducted by cooperation with leading scholarly and scientific journals. In the first years of its operation this service shot almost one-third of a million pages. Science Service's documentation activities will be transferred to the new American Documentation Institute.

**Annual DeVry Conference Report**

The Seventh Annual Session of the National Conference on Visual Education and Film Exhibition, sponsored by Herman A. DeVry, Inc., was given in Chicago, June 21-24, 1937, at the Francis W. Parker School. The Conference attracted a large assemblage of nationally-known and prominent educators, school officials, superintendents and principals.

One of the most important features of the Conference was the close co-ordination of educators with industrials, who furnished a number of excellent films which were adapted to school curricula. Also exhibited were outstanding films produced during the current year by visual heads of various institutions, and explanations of methods of producing these films were given before the Conference audiences. Among films in this class were a color film on Mexico which gave unusual views of ancient Aztec civilization; *The King's Diary* and *Spinning Spokes*, two amateur films from a Milwaukee high school, the U. S. Department of the Interior's motion picture, *The Price of Progress*, and a number of other outstanding educational film successes.

The program was spiced with excellent lectures on the use of Visual Education and its co-ordination with school systems by such authorities as Professor L. W. Cochrane, Director Visual Education Service, University of Iowa; Supt. W. J. Hamilton, Oak Park, Ill.; Mrs. Alma B. Rogers, Director, Visual Education, St. Louis Co. Schools, and many others.

One of the most important features of the 1937 Session was the election of the Conference Council, headed by Mr. A. P. Hollis, who has long been known in educational circles as an outstanding authority on Visual Instruction; L. W. Cochrane, Director, Visual Education Service, University of Iowa; L. A. Hawkins, International Harvester Co.; Mrs. W. H. Ross, State Chairman, Visual Education, Congress of Parent-Teachers; Miss Amelia Meissner, Curator, Educational Museum, St. Louis Public Schools. This Council has already begun its work towards formulation of aggressive plans for future Conferences.

**Films and International Understanding**

The latest Bulletin of the International Bureau of Education states that Mr. M. J. Russell Orr, of the Central Information Bureau of Educational Films (London), and Professor George Green, of the University College of Wales, have developed a project for the production of educational films specially planned to serve the cause of international understanding. As a start they are concentrating on the production of films not exceeding three reels in length and portraying sympathetically the cultural life of various countries. The first of these, dealing with life in Holland, was produced in co-operation with the National Educational Film Institute of Holland. Their second production, "Living In Wales," will show in a similar manner its customs and mode of life and its aspirations, together with the reasons which make its people both different from and similar to peoples of other countries. They believe that full understanding on these lines is the best way to promote international sympathy and they hope to be able to deal with each country in turn. It is expected that these films will be shown both at the public cinemas and in schools throughout the world.
Getting Ready for Winter -- In Hand-Made Lantern Slides

By ANN GALE

ANIMALS, birds and insects all prepare for winter in ways that children in the primary grades can observe. These various ways of getting ready for winter make interesting material for science stories. The six pictures may be traced on slides as the basis for science stories on getting ready for winter.

1. Wild geese are migrating south for the winter keeping their wedge formation just like airplanes in V formation. Their honking is heard in October.

2. The Oriole has changed his attractive black and white suit shown in the upper part of the slide to a duller streaked traveling suit. He needs protection for his winter trip to Brazil which starts in August or September.

3. This Chipmunk is carrying corn and nuts to his storehouse so that he will have food when he goes into his nest in October for his winter sleep.

4. The Bear is looking for a nice hollow tree or cave to climb into for his winter hibernation.

5. The White Tailed deer is changing his red-brown coat for a grey one which will be less conspicuous in the leafless woods.

6. The larva of the Tiger Swallow-tail butterfly is stretching a web across the hollow of a leaf for his winter bed. Next spring he will wake up and come out a Tiger Swallow-tail like the one in the top of the picture.

The simplest type of hand-made slide is made by drawing or tracing on finely finished etched glass with ordinary medium lead pencil. Color, by special crayons or inks, enhances the slides greatly. Fine effects are obtained by blending with crayons. About one-third inch margin should be left all around the slide. The slide is readily cleaned with soap or washing powder to receive a new picture.

Art Department, Lindblom High School, Chicago
AMONG THE MAGAZINES AND BOOKS

Conducted by Stella Evelyn Myers

The School Executive (56: 412-413, June, '37) "For Users of the Sound Film," by Mary Louise Israel and Mary-Clint Irion.

Although this article is largely a review of Doctor Brunstetter's book, "How to Use the Educational Sound Film", the authors have enriched the thought content from the wealth of their own experience. "The sound film is not a mere supplement to school books, but is a student experience, basic for determining subject matter, and thus to modify curricula. It stimulates, adds to information, molds attitudes and appreciations. It overcomes the limitations of time, of space, and of reality. The unity of impressions received from the sound film is the closest approximation to reality which indirect experience can afford." Mere observation is not enough for learning; the extension and completion comes with thinking over, exploring, and verifying that which the film has presented. The motion picture must be placed in a dynamic learning situation. Perhaps the chief problem for the administrator is, "How to integrate the film with classroom teaching." The film library does not need to be complete in its initiation, but should be added to in accordance with a changing curriculum and the attainment of skill in teaching with films. Five qualifications in an instructor after receiving training in visual teaching, are noted.


Information that is much needed for the organization of local motion picture units, not in a city system, is here presented. Twenty years ago, the marvel of life manifestations and processes in their daily development, simulated on a screen, was hailed as a vivifying influence in education. Today, this educational "giant" is scarcely found beyond the large cities and a few of the wealthier small districts. Many teachers have never seen an educational motion picture in classroom use. The difficulty is not in a lack of educational films, nor suitable projectors, but in the fact that a film frequently is used for only a single class, once a year. A silent film costs twenty-four dollars, and a sound film costs forty-five dollars. If a school should buy silent films to use on this basis for four years, the cost would be four thousand dollars. How the cooperative film library plan is solving this difficulty in southeastern Pennsylvania, is fully presented in this article.

Education (57: 486-489, April, '37) "The Value of the Visual", by Dorothy Park Latta, New York University.

Visual Education is being dignified by the claim of the classical teachers, who say that they were in the forefront of this modern movement. Under the Service Bureau for Classical Teachers, the use of pictorial and graphic material has been spread all over the United States in striking contrast to the method pursued in European schools. "Whatever is being done elsewhere, we in the United States are convinced that at least a modicum of objects to see and touch is necessary for the vitalizing of our world." While the science and manual training departments are being provided with proper equipment, a special room with murals, furniture, museum cases, colorful and useful, should be provided for the classical studies. The book publishers are helping with colorful and whimsical maps of the ancient world. The students, also, are making charts showing the debt our modern world owes to Rome, or are putting touches on murals. Models of a Roman theater are made, and plays, based on Latin or Greek themes, are presented with puppets in marionette theaters. Relief maps, towns, and battle plans are modeled of clay or plaster on a glass-topped table.

Visual educators will recognize the claims of our classical friends as well-founded and true. Come right into the fold. We only wonder why you have been so long in claiming kinship.


A review is given of four significant experiments in the use of sound pictures, and reference is made to Brunstetter's book on techniques of using these aids. More and more the school is reaching out and trying to bring reality to the child. The writer gives a most interesting and intimate account of his acquaintance with peoples acquired by means of the sound picture in comparison with acquaintance through actual visits. The superiority of the former means is accounted for in these words: "The sound picture was prepared with a purpose. All extraneous matter had been eliminated. There was one objective: the teaching of the ways in which a certain people live. Every well-prepared educational sound picture... concentrates, delimits, it focuses attention, and it provides compelling and yet pleasing opportunity for learning." The reviewer is sure that producers of silent films will think that their case has been stated well for them, also.

"Sound Systems for Schools", by William L. Moore and Librador K. Meola. (pp. 212-243 et al.) An exhaustive description of the installation of a sound system in a well-equipped school, exclusive of the sound motion picture reproduction, which is a subject unto itself, will be helpful to many administrators.


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take both your still and motion picture cameras. Mr. Donald McGuire, a Detroit School Principal, has had much fun and valuable experience in this manner, says the writer. On one jaunt, he made “Irrigation” his secondary theme, and has used the resulting film in his science classes with much success. The writer records a thrill thus: “Behind the Shakespeare theatre, I happened to see the villagers dancing on the green. I was mad with excitement and I crawled over, under, and around hedges to get the best possible shots. That was a happy day for me. I was as equally elated when I caught the German peasants in the Black Forest doing their folk dances in their picturesque costumes.”

Sight and Sound (6:35-37, Spring '37) “Teaching Physics with Films”, based on a lecture given by R. A. Watson Watt at the Royal Institution on Jan. 21, 1937,

The use of five kinds of film lessons is described and illustrated. An abstract concept, the wave-form of sound, is made plain by the film, “How Talkies Talk”. The powerful artifices of animated diagram are revealed in the film, “The Cathode Ray Oscillograph”, when the parts of the dissected oscillograph are labelled and used with chalk diagrams. By animated diagram and model, time and space are concentrated. That which appears static and abstract is brought into the realm of visible activity by the use of the film, “The Story of a Disturbance.” Isobaric charts for short successive intervals during a day, when projected give an animated picture of the isobaric system. Similarly cloud formation views, projected with acceleration, integrate the whole process. A forty foot length of film, “Storm over Europe,” represents 30 seconds in the storm history of a continent. “The diagrammatic film, ‘x+x=0’, is, to my mind, the fore-runner of a new epoch in education by film... I know of no method, no notation which could possibly compress into three and a half minutes the vivid impression which this film gives.” A description is included of the simplification of radio research by the use of three films.


We consider this one of the very best of this series for the past two years. What is happening to our land from wind and water erosion is pictorially and graphically presented with such force as to alarm the citizen least aware of such desolation. The tremendous depreciation in all vegetable products, where nature’s balance is not preserved, is vividly pictured. The steps in the transformation of the Great Plains from a Food Basket to a Dust Bowl is at once a lesson in civics and economics. Looking destruction in the face, we welcome the efforts of Uncle Sani, who has seen our imminent danger, and read with relief of the building of check dams, of terracing on farms, and of contour cultivation. Forest fires have caused a vast amount of loss of lumber, and damage by floods, but nearly one hundred million trees
have been planted annually for the last four years. We are trying to preserve our wild life. Stuart Chase is quoted as saying that our oil deposits will last only fifteen years. Our motto seems to be to drive hard and fast while it lasts. One chapter on the Tennessee Valley shows how a large geographical region may be made more productive, and its natural resources conserved.

The High School Journal (20: 188-193, May '37) "Use of Motion Pictures in Instruction", by A. M. Jordan.

The eye as a sense organ is treated in a truly inspirational manner, facts, not ordinarily presented, being incorporated. Four methods by which the projector aids ocular activity are mentioned. Tests for the effect of the general film on factual information and upon attitudes and emotions are recounted with their findings. The silent classroom film in geography and history, and the sound film in general science and music are ranked according to well-known tests. The comparison of sound with silent film lessons showed a definite advantage for the sound film.

Two Book Reviews

The Audio-Visual Handbook, by Ellsworth C. Dent. (160 pages) ($1.25, paper bound; $1.75 cloth bound) Published by The Society for Visual Education, Inc., 327 South LaSalle St., Chicago, 1937.

This book is a full and splendid treatise on all phases of audio-visual aids, and is designed for teachers, supervisors, and executives, as well as for students of this subject. The movement having passed beyond the initial stage, since it is now being fostered by many leading governments, is justified by experimental evidence that is tersely presented in a form for ready reference.

The first two sections of the handbook, comprising over a hundred pages, deal with the strictly silent visual aids to teaching. There is considerable descriptive matter, and some very illuminating digests of recorded results from the use of various visual aids in different combinations with other teaching material and methods. All the commonly used visual aids are discussed, in a clear and readable manner, with strict adherence to facts and authorities.

Seven advantages of the school journey are mentioned, with two limitations. Excellent steps are developed in a technique for organizing and conducting a trip. Plays and pageants, the school museum, charts, maps, graphs, and the sand table are dealt with as to their unique possibilities and their limitations. The construction of one of our newer attractions, the electric map, is fully outlined and pictured. The sources of prints, and their mounting and filing are very fully considered. The stereograph, bringing us closer to reality, perhaps, than our other aids, provides a problem in physical handling. Three full pages are devoted to different ways of sensing the third dimension without confusion in the classroom and without loss of time to the pupil. The various materials for homemade slides are given with directions for using them. Ways of using slides, and four points on how to look

(Concluded on page 234)
School-Produced Film Strips

Editor's Note: After several years of research work in photography and development of pictures for projection, Mr. Marx has developed an inexpensive process for instruction by means of photographs taken with the candid camera using 35mm motion picture film, and projected on small screens.

When Mr. Marx first investigated photography for projection, it was expensive and required technical skill. The greatest difficulty encountered was the same as with general photography—under and over-exposure. The new process devised by Mr. Marx makes it possible to correct both of these difficulties. Much of the film processing equipment is of original design and was built by him in leisure time.

Almost any subject can be photographed on economical strips of film and then shown in the school. Different schools can cooperate by making their own film studies and exchanging them with other schools. In this way, teachers could specialize in that branch of a subject in which they are most skilled. The exchange of films would then provide the best possible course in visual education, combining the best points of all the teachers in the system.

By Gustave H. Marx
High School, Linden, N. J.

By means of the films, museum views, exhibits, travel scenes, and scientific apparatus can be projected before the entire class and easily explained because each member of a class may see it at the same time. The picture does not move, so there is less eye strain, and it may be retained for discussion as long as desired. The films are less expensive than ordinary motion picture films, the cost of a strip about five feet long being fifty cents. The projection equipment is likewise inexpensive and simple to operate.

By this method material of recent local origin can be quickly and economically prepared for projection. For instance, a photograph of a pot stove which caused an explosion in Elizabeth was displayed a week later to our students, together with pictures of an exhibit prepared by the Elizabeth Fire Department, taken to show the final results of improper installation and what should be done to avert a similar catastrophe.

One Saturday a group of students from the Junior high school visited points of interest in New York; The Museum of Science and Industry and The Hayden Planetarium. The following week the children who visited these interesting places described to the others some of the outstanding exhibits which they selected for the writer to photograph. By using this new method the field trip taken by the group has an infinitely greater value than if there were just a trip for just the routine check up which ordinarily follows such a trip. By permitting children to select the exhibits which appeal to them we may be assured of their interest. When we have the interest, we also have attention and under the guidance of a competent teacher a profitable lesson may be taught. The girls in the group were interested in the exhibit depicting the making of cloth when it was a home industry. The boys were interested in the machines which perform this task in the industrial plants.

Mr. Bedrick of the junior high school made excellent use of the school camera by taking it with him on a trip to West Point. As a result of his efforts the children he teaches have a much better understanding of this interesting place. They may see, on the screen, all of the interesting buildings, statues, and grounds. Their greatest interest was in the pictures of the Cadets on parade. They may have seen some of these in the movies, but never before have they been able to have such an intimate contact with the distant points which they study.

Newark Visual Department

The Department of Visual Education in the Newark, New Jersey, schools has been merged with the Board of Education Library, under the direction of Marguerite Kirk, the librarian.
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Spencer Lens Company
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Bicycle Club Produces Safety Film

By H. M. KUCKUK

King High School, Milwaukee, Wis.

Over half a million bicycles a year added to our wheeled population have brought gasps from many a motorist and deep concern to parents and everyone else interested in the safety of children on the streets. The Bicycle Club of Rufus King High School, Milwaukee, raised a cry last year for a movie to help in the constant campaign for safety among their five hundred or more riders. With the failure of all efforts to secure a film which had anything to do with their problem, they promptly obtained permission from their principal to produce one. The equipment of a teacher in the advanced stages of photophobia began to work, late in April, on a scenario weathered by months of writing and rewriting. Interiors were shot while bare branches still presented backgrounds too barren for outdoor pictures, and the middle of June found the camera grinding its last grist—the heart of the picture, in which Our Hero watches the antics of the bad, bad riders ahead of his father's car.

"Spinning Spokes" was ready, after a fashion, before school closed June 25th. In fact, it had made its modern bow somewhat diffidently at the DeVry conference on June 21. It suffered many vigorous goings-over, however, before it was really ready to go to work, in all the glory of its superimposed titles, on the lesson that "A Careful Rider is the Best Safety Device."

Jack Stewart, who insists that "Rules are for Saps", gets his bike smashed on the way home from school. He is indignant when his father suggests that he learn to be careful before getting a new bike, and is disgusted by the interest of other students in a safety contest. He calls it a "dirty trick," however, when he hears how a bicycle rider injured a lady on the sidewalk, and responds to the suggestion of a nice looking high school girl that he enter the safety contest and win back his dad's confidence. He sees both good and bad riding while on the way downtown with his father, and they visit a bicycle inspection for messengers together. When the day of the "Bike Carnival" (an annual event at this school) arrives, a grand parade is followed by races, riding stunts, and finally Jack, proud winner of the safety contest, gives his "Rules for Safe Riding." Scenes from the earlier part of the picture are repeated as he gives his rules, serving to bring home the lesson in a natural manner. Jack receives a plaque to symbolize the honor of winning the contest, leaving to the father his rightful position in furnishing the new bike. "Learn the A B C of Safety—Always Be Careful" winds up the picture with, we hope, the audience still wishing to emulate Our Hero in not only knowing how to ride safely, but in wanting to do it that way.

Prints of the film (550 feet, 16mm silent) are being distributed by The Marion Studio, Milwaukee. They prefer to sell copies, however, leaving rentals wherever possible to agencies organized for that service.
DeVry manufactures the largest and most complete line of motion picture sound equipment in the world.

**CODE FMZRI**

DeLuxe Solid Base

Theatre Projector

Specially designed for sound projection, silent chain drive, streamlined, dustproof, fewer parts, lower costs, either low or high intensity arcs, Mazda Lamp. New DeVry "Brillante" Lens. 35 mm.

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Same mechanism as solid base projector, 2100-watt, 60 volt Mazda Lamp housed, 0.5 high intensity arc may be used. New DeVry "Brillante" Lens. 35 mm.

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The Famous DeVry Studio Sound Camera

Here is the supreme camera for location and news reel work. In a single unit it permits single and double system recording, silent photography or b июдь. color photography, improved motor, silenced gears, optical viewfinder, noiseless high fidelity sound recording. Distinctly surpassed by greater precision and ease of operation. Equipped with 4 lens turret. 35 and 16 mm.

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16 mm. Sprungk Intermittent

Sound Projector

The ONLY 16 mm. sound projector using rotary synchronous intermittent instead of slow movement. Double Exciter Lamps. Separate amplifier. 750 to 1000-watt lamps.

**Code MKRA**

16 mm. "Challenger" Sound Projector

Below: The only movement (multi-claw) at its best. Lower in cost than the expensive intermittent projector but includes all the features—except the intermittent mechanism.

All DeVry Sound Projectors run silent films as well. They may also be purchased first as silent projectors and sound added later.

Free circulars on any of the above items on request; also the following booklets:

- Values of Movies and Talksies in Education.
- Glorify Your Product—(Use of Business Films).
- Raising Funds With DeVry Talksies.
Students Learn Technique of Projection

As a regular part of the work in Visual Education at the Indiana, Pennsylvania State Teachers College, students are taught the techniques of operating the various types of projectors, together with the principles underlying their use as teaching aids in the classrooms. Students in their training are given the opportunity of setting up the projector for use, threading the film through the machine, and, while the machine is in operation, required to make the proper adjustments for a clear picture on the screen and securing the proper tone volume for the room in which the device is being used.

For fluency of discourse and an understanding of the literature dealing with projectors, it is imperative that the student-projectors have a ready command of the vocabulary of the profession. The following list of terms as usually used in connection with projection work is pretty generally mastered during the conduct of the course.

- Acetate
- Aberration
- Chromatic
- Subcoherent
- Absorption
- A. C. (Alternating Current)
- Ammeter
- Ampere
- Aperture
- Amplifier
- Beam
- Binding Post
- Booth
- Caption
- Condenser
- 6 type
- Aspheric
- Prismatic
- Common lens
- Conductor
- Current
- Direct Current
- Distortion
- Dull Side
- Dupe
- E. F.
- Emulsion Side
- Exalter Lamp
- Filament
- Fill
- Pitch
- Acetate
- Acetate-Cellulose
- Inflammable
- Non-Inflammable
- Nitrate
- Nitro-Cellulose
- 16-mm.
- 35-mm.
- Standard Gauge
- Narrow Gauge

References:—Cameron,—Motion Picture Projection. (See Glossary)
Egelre and Farnham—Morda Lamps in Projection.
Richardson,—Handbook of Projection.

This training work at Indiana is done by Wilber Emmert, Director of the Visual Education department at the college. Since every student at the college must pass the course in visual education before a permanent certificate to teach in the public schools of the Commonwealth is granted, Mr. Emmert trains approximately 120 students each semester of the school term, with an additional number during the summer session.

In the class rooms of Cleveland, more than five thousand film lessons are used each month, according to an article, “Cleveland Schools Use Motion Pictures to Give Pupils Ideas,” by William M. Gregory, Director of the Educational Museum, appearing in the Cleveland Clubwoman for March.
For the New Semester's Film Needs
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72-Page Rental Catalog

Lists and describes thousands of 16 mm talking and silent, and 35 mm silent films for education and entertainment, including

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NATURE STUDY  HISTORY
GOVERNMENT  AVIATION
INDUSTRIES OF THE U. S.  BOTANY
SALES TRAINING  BIRD LIFE
ANIMAL STUDIES  MARINE AND ACQUATIC STUDIES
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Among the Magazines and Books

(Concluded from page 226)

at a slide are given. The advantages of the various types of lanterns are brought forward, and the principles of projection are simply but clearly and ably treated. The advantages and limitations of the single and double frame filmslide are treated without bias. The recent adaptation of mounting individual frames is said to have considerable popularity with many educators. The projectors for the celluloid slides, and attachments that may be used, are fairly appraised.

The limitations as well as the advantages of both silent and sound motion pictures are treated without prejudice, and the technique of film projection along with a description of standard projectors is fully covered. Forty-five pages present the very latest compiled information on other sound aids for schools, such as the phonograph, radio and sound amplification, together with expert advice on the administrative problems involved in organizing the audio-visual service in a school or a school system.

Finally, there are more than twenty pages closely packed with small-type lists of sources from which seekers may secure special information, equipment of all sorts applicable to this field, and services either free or at reasonable rates.

The volume is profusely illustrated. It can be secured either in a very durable paper binding or in an especially strong cloth binding. Both finishes are imitation leather, in heavy red with gold lettering, an unusually attractive combination.

* * *


This study, which is the second of a series in the motion picture in education, is designed to serve the purpose of the teacher, principal, or administrator, wishing an introduction to the problem of initiating and administering a visual education program. In fourteen chapters it deals with the selection, procuring, and storing of equipment; sources of films, and the question of buying, renting, or using free materials; how should the program be financed; should some one person be put in charge of the field; servicing of films to teachers in visual technique; and, finally, an excellent chapter on how to evaluate the whole visual procedure—under eighteen criteria.

The above survey includes: a brief summary of the outstanding experiments with film teaching; fourteen criteria for films and eight criteria for screens; the distinctive field for the sound picture and for the silent films; seven criteria for choosing a film; seven special duties of a Director of a Visual Department, and nineteen duties listed by the Los Angeles Schools; seven things that may go wrong with a projector and what to do about them; recommendation of demonstration programs for training teachers in service, with a caution appended; excellent suggestions on the various ways of teaching with a film followed by certain wise cautions.
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Back of its rich fields, the desert sand, where the villages and towns are built.
And, back of this, the high, rocky desert hills.
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Novel Travel Material Available

Pictures accompanied by personal letters mailed from foreign countries directly to classes in schools, and to adult study groups, are available this year through the Alvin Lyons International Expeditions, 612 North Michigan Avenue, Chicago. Mr. Lyons and his associates, O. D. Foster (Ph.D.—Yale) and Joseph E. Elliott, are experienced travelers, educators and lecturers. This expansion of their personal-travel-correspondence to include any school, adult class or P. T. A. desiring such an advantage, is a refreshing addition to the devices for holding interest. It provides a fresh source of accurate and up-to-date teaching material in geography, history, foreign languages and literature.

The organized work has grown from foundations unwittingly laid some years ago by Mr. Lyons when he was a research student and bicycle traveler through Europe. At that time he sent interesting descriptive letters and pictures back to the schools with which he had been connected. Many of the letters were written especially for the pupils in the upper grades and this effective method of writing for special groups is being continued. In order to test the appeal of new material for grade pupils, an active-minded sixth grade boy is accompanying the 1937-38 expedition into Central and South America.

The 16mm. motion pictures taken by the expeditions in each country will be made available to schools in reels and in shorter strips on special subjects. Likewise, the still pictures will be available in printed form and in filmslides for projection, and can be secured in glass slides when so desired. Some of the pictures will be in color, for use in lecture work by special arrangement.

Schools or adult groups joining this “visualized correspondence” network are furnished with wall maps on which to check the location of the items of interest photographed and written about. They also receive a monthly illustrated bulletin, with a binder to hold bulletins, detail maps and the weekly personal letters.

Readers may expect, in later issues, news summaries of the motion pictures made available to schools this autumn and winter by the expedition to Latin America.

Unique Film Teaches Use of Books

A two-reel silent motion picture entitled Found in a Book, which has heretofore been circulated by the American Library Association, is now available from the Bell and Howell Company. Originally produced as a project at the Library School of the University of Illinois, the film dramatizes the commonly-accepted library tools, such as the encyclopedia, card indexes, readers’ guides. A simple story effectively ties up the various sequences and holds interest to the very end. Class is dismissed, two boys have the same theme to write on “puppet plays.” One boy goes straight home to depend upon a none-too-helpful imagination; the other stops at the library and assembles readily obtainable facts. So many readily usable notes have been assembled that the student instantly puts them together, right at the library, and the theme is finished, while his colleague is still hopelessly wrestling in a debris of crumpled, discarded first pages.

New Historical Sound Subject

A great historical spectacle portraying the career of Sir Francis Drake during the reign of Queen Elizabeth has just been released by Walter O. Gutlohn, Inc. under the title Drake the Pirate, on 16 mm. sound-on-film.

The National Board of Review comments: “Drake the Pirate,” with Charles A. Beard of Columbia University as the historical authority, deserves mention for its authenticity. The historical incidents are unusually well-conducted, making for lucidity suitable for family and juvenile audiences.”

Authentic speeches by Queen Elizabeth and Francis Drake are included in the film.

New Photographic Items

The Central Camera Company, 230 S. Wabash Avenue, Chicago, has several new items in stock which should prove very popular to everyone with an interest in photography.

First, they have introduced a new inexpensive reflex camera to the public. The camera, the Altiflex, follows the conventional design of 2½x2¼” two-lens reflex camera. It uses the regular 2½x3¼” roll film with 12 exposures. It operates on the same principles as the other reflex cameras, and rapid focusing is accomplished by simply moving a small protruding lever up or down. This camera ranges in price from $25.00 to $40.00 and may be had in five different lens and shutter combinations.

Central Camera is also introducing a new kind of print dryer, blotter and straightener. This is the Trojan drying press. It is sturdy and compactly built with no protruding section other than the knurled knobs which apply tension. The outstanding feature is the knob arrangement which is so made as to eliminate the necessity of completely removing the knobs for print placement.

Another new article is the 6½x9 inch Trojan enlarger. One of the unusual features of this enlarger is that the square condensing lens assures even illumination of the negative, thereby rendering an absolutely flat field. Other fine features are rapid and micro focusing, adjustable bulb height, removable F:4.5 anastigmat lens, counterweight inside enlarging.
Publications on the Visual Field

VISUAL AIDS IN EDUCATION. By Joseph J. Weber, Ph.D.

The author's final and finest work in this field, being "a balanced summary of the available scientific evidence on the values and limitations of visual aids in education and an elaboration upon this evidence by way of generalization and application so as to inspire the progressive educator in making common sense adaptation of visual materials and methods to the purposes of the school."

220 pp. Price $2.00 ($1.50 to subscribers of E. S.)

PICTURE VALUES IN EDUCATION. By Joseph J. Weber, Ph.D.

An important contribution to the literature of the visual field. Presents in unusually interesting form the results of extended investigations on the teaching values of the lantern slide and stereograph.

156 pp. illus. Price $1.00 (67c to subscribers)

ACTIVITIES OF STATE VISUAL EDUCATION AGENCIES IN THE UNITED STATES. By Fannie W. Dunn, and Etta Schneider, Teachers College, Columbia University.

A concise and discriminating summary of total results from a comprehensive survey of 24 of the 26 states having Departments of Visual Instruction. A companion article to this, "Practices in City Administration of Visual Education," by the same authors, appeared in EDUCATIONAL SCREEN for November and December, 1936.

8 pp. Net price 20c.

THE AUDIO VISUAL HANDBOOK. By Ellsworth C. Dent.

Presents in convenient form, practical information for those interested in applying visual and audio-visual aids to instruction. The six chapters include discussions on "The Status of Visual Instruction," "Types of Visual Aids and Their Use," "Types of Audio-Visual Aids to Instruction," "Types of Sound Aids for Schools," "Organizing the Audio-Visual Service," "Source List of Materials and Equipment."

180 pp. Illus. Paper binding. $1.25; Cloth, $1.75.

BIBLIOGRAPHY ON THE USE OF VISUAL AIDS IN EDUCATION. By Joseph J. Weber, Ph.D.

A complete bibliography on the field to June 1930. Over 1,000 references to books and magazine articles. (Additional references by Mr. Weber through September, 1932, appear in EDUCATIONAL SCREEN for October 1932.)


SIMPLE DIRECTIONS FOR MAKING VISUAL AIDS. By Lillian Heathershaw, Drake University, Des Moines, Iowa.

Directions for making Etched Glass Slides, using Colored Pencils; Etched Glass Slides, using Colored Inks; Paper Cut-out Lantern Slides; Ceramic Lantern Slides; India Ink Lantern Slides; Still Films; Cellophone Lantern Slides; Photographic Lantern Slides; Film Slides; The Electric Map; Spatter Work; Pencil Outlines of Leaves; Carbon Copies of Leaves; Leaf Prints from Carbon Paper; Blue Prints; Sepia Prints.


A SYMPOSIUM ON SOUND AND SILENT FILMS IN TEACHING.

A stenotype report of the entire afternoon session of the winter meeting of the Department of Visual Instruction of the N. E. A. at St. Louis, February 26, 1936. Includes able presentation of the advantages of sound films, the latest addition to the family of visual aids.


COMPARATIVE EFFECTIVENESS OF SOME VISUAL AIDS IN SEVENTH GRADE INSTRUCTION. By Joseph J. Weber, Ph.D.

The first published work of authoritative research in the visual field, foundational to all research work following it. Not only valuable to research workers, but an essential reference work for all libraries.

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Additions to Erpi Film Library

ERPI Picture Consultants has recently completed 19 new educational sound films which are ready for immediate use in schools and colleges throughout the country. Two entirely new series have been inaugurated for use in elementary schools. One deals with "Human Geography" and includes seven films; the other series, of which three films have been completed, is intended for lower primary grade levels. Of the remaining nine new pictures three complete the series in "Physical Science"; one adds to the series on "Human Biology," another deals with "Light" and four music films replace those previously issued on this study.

The Human Geography series which was produced under the direction of Dr. James A. Brill of Erpi Picture Consultants, includes the following subjects: Our Earth, Animals in Modern Life, Clothing, Shelter, Water Power, Conservation of Natural Resources and A Backward Civilization. They are intended for use in the fourth, fifth and sixth grades.

Our Earth, filmed in collaboration with Dr. Clyde Fisher of the American Museum of Natural History, is designed as an introduction to the entire series. Animals in Modern Life also planned in co-operation with Dr. Clyde Fisher provides a study of the world wide uses to which domestic animals are put. Dr. Atwood, President of Clark University, collaborated in the filming of Shelter which shows how climate and available raw materials of the environment have influenced types of shelter in all parts of the globe. Clothing, another film produced in cooperation with Dr. Atwood, shows first, how primitive peoples and the simple civilizations of today use materials found immediately about them for clothing. Water Power, produced in collaboration with Dr. George T. Renner, Jr., of Teachers College, Columbia University, begins with the portrayal of the cycle through which the use of water power has passed, and power development in the United States. Scenes in the Conservation of Natural Resources, another film prepared under the supervision of Dr. Renner, are confined to conservation in America. A Backward Civilization prepared under the guidance of Dr. Ellsworth Huntington, Yale University, is a two-reel feature giving a comprehensive study of Berbers, an isolated civilization of North Africa.

The New series intended for lower primary grades so far include Adventures of Banny Rabbit, The Poultry Farm, and Farm Animals, directed by Dr. L. K. Eads and produced in cooperation with A. I. Gates, Ph. D., Mrs. Celeste E. Pearson, M. A., of Teachers College and Ernest Horn Ph. D., of the State University of Iowa.

The Physical Science series, produced under the direction of Dr. Melvin Brodshang, of Erpi Picture Consultants, in collaboration with the University of Chicago, is now completed with the three new films Velocity of Chemical Reactions, Catalysis and Colloids.

Reproduction Among Mammals, the new addition to the Human Biology series, was produced under the direction of Dr. Brodshang in collaboration with Dr. H. H. Strandskov of the University of Chicago. The story of embryology is presented in this film by means of actual photography, animated drawings, microcinematography and three dimensional animation. The domestic pig was selected for the purpose of illustration.

Light, produced in collaboration with Dr. H. H. Sheldon of New York University, is adapted for use on the High School level. An elementary presentation of light, it includes a comprehensive explanation of the reflection with plane, concave and convex mirrors. Animation is employed extensively to visualize otherwise intangible processes.

The four music films listed among the new releases which replace the former series on this subject were supervised by Dr. Brill in cooperation with Peter Dykema, head of the department of Music Education, Teachers College, Columbia University.

An Instructive Short Subject

The Cloth of Kings, a recent one-reel release in the Going Places With Lowell Thomas series, produced by Universal Pictures, is an informative and effective travelogue showing the weaving of Irish linen. It received the Merit Award from Associated Publications for the outstanding short subject of the week. We quote a review of it from the Film Daily: "During the process, the peasants gather and prepare the flax, in their primitive way, for the weaving machines. But in the factory ancient methods give way to the new and the fibers are processed by modern technique. True Irish looms are among the factory workers, and their deft fingers create the designs and trace the delicate embroidery that completes the job. During the early scenes the cameraman captures some picturesque views of the Irish countryside which recall painted landscapes. The subject has an absorbing interest throughout, its incidental educational value detracting not at all from its entertainment qualities."

An Effective Safety Subject

Educators and traffic experts have endorsed enthusiastically the safety-instruction film, America's Safety City, produced by P. O. Warren of Dayton in cooperation with Evanston's Bureau of Accident Prevention. The film was made especially for children along lines suggested by officers of the National Education Association, the National Congress of Parents and Teachers, and the National Safety Council, and contains no advertising of any kind. Most of the material was obtained by Evanston, Ill., police in six years of movie-taking on the streets of that city, and shows candid shots of children encountering traffic hazards and the mistakes they make.

So effectively does this 2-reel sound film teach right traffic behavior that accidents have been reduced 60% in localities where children saw the picture. It presents traffic safety in a way that children understand and will copy.
PICTURES CONVINCE skeptics

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(Motion advertisement on inside back cover)
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Cine Classic Library (5) 1041 Jefferson Ave., Brooklyn, N. Y.
(Estimated advertisement on page 120)
Eastin 16 mm. Pictures (6) (Rental Library) Davenport, Ia.
(See advertisement on page 126)
Eastman Kodak Co. (1, 4) Rochester, N. Y.
(See advertisement on outside back cover)
105 Wood St., Pittsburgh, Pa.
Edited Pictures System, Inc. (6) 330 W. 42nd St., New York City
Erpi Pictures Consultants, Inc. (2, 5) 250 W. 57th St., New York City
(Film Library of New England (5) 239 Columbus Ave., Boston, Mass.
(Film Library on page 128)
Fils, Inc. (5) 330 W. 42nd St., New York City
64 E. Lake St., Chicago
925 N. W. 19th St., Portland, Ore.
Waiter O. Gutman, Inc. (6) 35 W. 45th St., New York City
(See advertisement on page 127)
Harvard Film Service (3, 6) Biological Laboratories, Harvard University, Cambridge, Mass.
Guy D. Haselton’s Travellettes (1, 4) 7901 Santa Monica Blvd., Hollywood, Cal.
J. H. Hoffberg Co., Inc. (2, 5) 729 Seventh Ave., New York City
Ideal Pictures Corp. (3, 6) 28 E. Eighth St., Chicago, Ill.
(See advertisement on page 128)
Institutional Cinema Service, Inc. (3, 5) 130 W. 46th St., New York City
Lewis Film Service (105 E. 1st St., Wichita, Kan.
(See advertisement on page 123)
The Manse Library (4, 5) 2439 Auburn Ave., Cincinnati, O.
(See advertisement on page 123)
Pinkney Film Service Co. (1, 4) 1028 Forbes St., Pittsburgh, Pa.
Alan B. Twyman Sound Film Libraries Inc. (2) 29 Central Ave., Dayton, O.
(See advertisement on page 129)
United Projector and Films Corp. (1, 4) 228 Franklin St., Buffalo, N. Y.
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(See advertisement on page 124)
Visual Education Service (6) 131 Clarendon St., Boston, Mass.
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(Herman A. DeVry, Inc. (3, 6) 111 Armitage St., Chicago.
(Holmes Projector Co. 1813 Orchard St., Chicago
(See advertisement on page 127)
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(See advertisement on page 123)
International Projector Corp. (3, 6) 90 Gold St., New York City
(See advertisement on inside front cover)
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(S. O. S. Corporation (3, 6) 636 Eleventh Ave., New York City
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(See advertisement on page 124)
Victor Animatograph Corp. (6) Davenport, Iowa
(See advertisement on page 124)
Visual Education Service (6) 131 Clarendon St., Boston, Mass.
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A Trade Directory for the Visual Field

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(See advertisement on page 123)
(See advertisement on page 125)
Radio-Mat Slide Co., Inc. 1819 Broadway, New York City
(See advertisement on page 122)
Society for Visual Education 327 S. LaSalle St., Chicago, Ill.
(See advertisement on page 123)
Visual Education Service 131 Clarendon St., Boston, Mass.
(See advertisement on page 122)
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Complete Learning through Visual Aids in Physics

The Motion Picture as an Aid to Learning

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Lantern Slide Technique In Geography Instruction

PICTURES and maps are essential tools in geography instruction. They have contributions to make that are as essential as those of the printed page. For classroom use, the lantern slide is an invaluable tool. It provides a large, clear image that all can see, and may be displayed for as long or as short a time as circumstances require. It lends itself to many uses not provided by other aids.

A large, clear projection is, perhaps, nowhere more needed than in map study. All too frequently the maps in elementary texts are small. On that account, they are ineffective tools. Wall maps, likewise, are ineffective, particularly when used in the study of individual countries. The map problem is a serious one. In many instances, it may be easily and cheaply solved by using the map slide.

The first slide selected (Fig. 1) is invaluable in sixth grade geography. Here, the Netherlands is actually large enough to be seen. Such a map is large enough to be used by every member of the class. It has much to reveal concerning the country. Its facts throw considerable light upon the life and activities of the Dutch people. The presence of two kinds of low land, that above and that below sea level; the concentration of large cities on the lands below sea level; the course of the Rhine distributaries across the country; the broad, shallow waters of the Zuider Zee are some of the things to be observed and interpreted. The Zuider Zee has much of interest when viewed in the light of the present great reclamation project. Map facts are as important as the facts of the printed page. They frequently aid in the understanding and interpretation of textual materials.

By projecting such a map on the blackboard, a child can quickly trace its outline, indicate its rivers and its cities of importance. Such a blackboard map may be one of a series. It lends itself to a variety of uses. When traced on tag board, it may become part of a permanent collection.

Maps of other countries lend themselves to a variety of uses. The next one selected (Physical map of France) is essential in the introductory lessons on France. Projected on the blackboard, it may be the basis of class activity. When chalk takes the place of pointer, the map grows before the eyes of the class. Lines superimposed on the projection make possible the development of significant ideas from a mass of map detail. When the lantern is disconnected, the blackboard sketch emphasizes the story with startling clearness.

While the map slide is an effective teaching tool, its efficiency depends largely upon the teacher who has it to use. To one trained in map techniques, it has much to offer. To one without training it offers little. Effective map technique calls not only for the recognition of map symbols, but for their interpretation and translation into actual landscapes. The teacher should furnish guidance, so the child finds what the map shows and acquires skill in using these facts in geographic thinking.

In many classrooms the lantern slide is a picture rather than a map. Pictures have universal appeal. They are a substitute for reality. Carefully selected, they are invaluable aids in the teaching of modern, elementary geography. There is great need, however, to practice a technique which will make them function effectively. Such directions as "study the picture" or "look at the picture" are out of place in modern class procedure. These directions assume that the child instinctively knows what to look for in a picture and how to use the information found. The ability to read a picture is acquired only under careful guidance.

Geography introduces the pupil to a strange array of new words, ideas and relationships. Let it develop into a purely memory subject, it is necessary that these words have meaning and that they be used in developing and expressing ideas. That pictures put meaning into words is illustrated by the next slide (Fig. 2). Children in the fourth grade, when studying the Netherlands, are confronted with a new situation, unlike any with which they are familiar. With this picture before them, they are made to feel that they are in the Netherlands. Under guidance, they become acquainted with the things they see and find reasons which help explain the landscape upon which they are looking.

To illustrate: Find the windmill nearest you in the picture. Notice the narrow road that leads from it to the other windmills in the distance. In many places there are tiny houses
close to the road. Do you find them? The windmills, the road and the houses have been built along the top of a wall made of earth. This wall is a dike. Since you are viewing the wall from an airplane, it does not appear high. If you were walking along the narrow dike road, however, you would be on the highest land in the picture and able to look down upon the broad green fields. The Dutch people have built the dikes. These broad, high walls enclose the low fields.

Find the narrow ditch filled with water, to the right of the dike nearest you. This ditch is a drainage ditch. Water drains into it through smaller ditches that cross the low land. These smaller ditches are plainly seen in the low land near the upper left hand corner of the picture. Do you find them? Perhaps, you can find drainage ditches crossing the low land nearest you. The water that soaks into the ground drains into the small ditches. From these, it drains into larger ones, and finally, into the large ditch next the dike.

As the great arms of the windmills turn in the wind, they pump water. They pump it from the drainage ditch into the canal on the other side of the dike. Do you find the canal? It is the broad waterway to the left of the dike nearest you. From the canals, the water may be pumped into the rivers or carried to the sea. The low land that is drained is called a polder. Polders would be under water were it not for the dikes, the drainage ditches and the windmills. Many polders are planted to crops. Many are rich grass lands.

A presentation such as this, has introduced the class to a number of words necessary for an understanding of the Netherlands. The next slide (Fig. 3) offers a helpful device for checking this vocabulary. Members of the class are either provided with a typed list of items to be identified, or the list is written on the board. The list includes such words as dike, drainage canal, large drainage ditch, small drainage ditches, dike road, windmills and polders. All these are numbered on the slide. The child is to find the numbers that represent each item and to place these numbers after the proper word in the list. This is a check-up on a play level. It affords excellent opportunity to check the understanding of the landscape under consideration. A sketch slide of this sort can be easily and quickly copied by projecting on the blackboard. The ways in which such a blackboard copy may be used are many. They all add to the child’s understanding and afford opportunity to use words and to develop ideas.

Vocabulary and ideas may be checked in still another way. An entirely different scene may be used, as is done in the next slide (Fig. 4). Questions such as the following, direct the child’s attention to the picture. Can you tell where this narrow road has been built? What reasons can you give that account for the dike being higher than the land you see on the right? What name is given this low land? How are the polder lands being used? Notice the water next the dike on the right. Can you suggest what this water is and tell from where it has come? Why is the windmill close to the drainage ditch? Into what does the windmill pump the water? What would you expect to find along the dike on the left? The picture suggests one reason why the polder lands are good for dairy cows. What reason is it? What other sign of the dairy industry do you find in the picture? Why does the dog cart seem well suited for milk delivery in this land of dikes?

A fourth grade Netherlands unit should be rich in pictorial aids. The few slides selected merely illustrate some of the techniques necessary in picture presentation. The type of procedure outlined does not emanate from the pupil. It is part of the skilled technique of the teacher. It directs the child into the picture, introduces him to those things that are new, affords opportunity for him to recognize things that are familiar and builds ideas essential to geographic thinking.

In pictures of high geographic quality there are two types of things to be recognized, (1) those that pertain to man and his activities and (2) those that pertain to nature. The task, however, does not end with recognition. The recognition step must be followed by that of interpretation, which calls for the finding of the relationships that exist between man and his natural environment. In the elementary school, interpretation consists largely in finding the simple reasons that help explain what man is doing.

In the next picture (Fig. 5), the child observes that the people live in tents and that they have flocks of sheep. He observes that the land in which they are living has very little vegetation. The sheep must eat and the scattered bunches of grass supply the food. Such food, however, is not plentiful and is quickly consumed. On that account, the flock must move to other feeding grounds. This constant search for new grass lands and food makes it necessary for the herdsmen to move with their flocks. When they move they take their homes with them. Tents are the best shelters for such people. Tents are light, can be easily taken down and put up, and can be easily carried. The wool of the sheep furnishes the material for the tents as well as clothing.

Through the use of this picture, not only is the idea of a wandering or nomadic life developed, but such a life is directly related to the natural surroundings in which the people live. Sparse vegetation is a suggestion of little rainfall. Lack of trees in the landscape, likewise, suggests little rainfall. From the picture the child concludes that in this land of little rain,

Figure 3

![Diagram](image1)

Figure 4

![Image](image2)
since in using its materials, the child has been able to relate human activities to the conditions of the natural environment.

Frequently, children are plunged into pictures, and without reasoning from picture materials, asked to state ideas that are mature generalizations. What does this picture tell you about rainfall? This is a type of question often asked. The fourth grade child finds that it tells him nothing. He can guess, or can make use of stock expressions which he has found generally acceptable when such a question is asked. What in the picture suggests that this is a land of little rain, would be a far better type of question to ask. It immediately directs the child into the picture and calls for recognition and use of materials that are there. Too frequently, questions direct the child away from the picture and encourage wild guessing.

In many desert pictures, where flat roofed houses are shown, the child is led to believe that such roofs are built because there is little rainfall. Time is not taken to develop the idea that in a land of little rain and little wood, a flat roof is generally the only sort physically possible. Such a roof is satisfactory since there is little water to stand upon it and cause damage. The roof is an expression of materials and man's ingenuity in shaping them. Such a roof may suggest little rainfall, so also may the thick mud walls of the house and the slit-like windows.

The ideas a picture suggests depend upon the background and the experience of the class. To city children, a picture of a large barn, silo and corn crib may at first suggest little. Silo and crib may have to be introduced and their use explained. With experience, such structures acquire deeper meaning. A silo picture comes to suggest dairying, even though a dairy herd is not shown. It may even suggest a growing season too short for corn to ripen and a winter too long and cold for dairy cows to feed in the open. Since pictures are but one tool in geography instruction, there are many ways in which inferences derived from them may be checked. There is real purpose in reading when picture ideas must be verified. There is a real satisfaction when the printed page yields ideas that check or supplement those derived from the picture.

Lantern slide technique does not differ radically from that of other picture or map techniques. The slide places the map or picture before the entire group. It brings the entire group to the same place at the same time and easily focuses attention upon specific things. It provides opportunity for class activity in introducing new ideas, in recognizing old and in interpreting map and picture facts. With proper technique, it gives the child definite concepts. It provides means for effective guidance. By building vocabulary and developing ideas, it points the way to more purposeful reading and a clearer understanding of the printed page. The low cost, convenience and flexibility of the lantern slide commend it as a geographic tool worthy of careful consideration.

Complete Learning Through Visual Aids in Physics
By O. S. Anderson
Central High School, Fargo, North Dakota

What I have to say does not pertain entirely to the subject of physics, for we know without question that physics is not the only subject for which there is a need for a more complete learning. Today, many gaps are left in our presentation of subject matter. The individual student is left to conjecture for himself. It is not the fault of educators nor of any one particular group, but rather because there is more to learn and society demands more to be learned. Now, to fill in these gaps and to teach more readily this matter which is being omitted, there is one solution—greater efficiency through the use of visual aids to cover more thoroughly a greater amount of work. There are some things which can be taught in a few minutes with the use of a picture while it might take a week by the regular classroom procedure. The advantage gained by the use of visual aids cannot much longer be generally denied if we are to keep up with the changing world.

We must first recognize some general outline of approach to the subject. The value and use of visual aids in physics as well as in any other subject can be guided by six essential points as follows:
1. Resourcefulness of the teacher.
2. Knowledge of the use of visual aids.
3. Systematic planning of each semester's work.
4. Knowledge of contents of visual aids to be used.
5. Classroom situation set-up.
6. Application of contents of visual aids to subject matter.

A variation of method is necessary to meet this situation which confronts us. A teacher should no longer be satisfied with one single method of presentation of all phases of subject matter. Each unit or part of a unit may call for a different presentation to insure learning with a minimum amount of time and effort. We cannot say that one method will hold for all teachers. One teacher may be more effective in the use of one method than another. This is somewhat dependent upon the resourcefulness and personality of the teacher. A salesman must take advantage of his opportunities to say and do the right thing at the right time; so must the teacher select the right procedure. The salesman's volume will drop in terms of dollars if he misses too many chances to make use of his individual personality and resourcefulness. We as teachers cannot measure in such definite values as money but we can ascertain to some degree teaching efficiency by the use of a testing program.
Before making use of a visual aid program the teacher should learn as much as possible of what is being done and how it should be done. Much time of student and teacher alike can be saved by making a study of present day practices. There are a number of sources of information where teachers can secure help in the orientation of a program.

Each semester’s work should be carefully planned. This helps to keep the subject matter and program together. An accurate school calendar should be on hand to insure correct dates. For example, it might happen pictures would arrive during vacation periods, a thing which is embarrassing and inexcusable. If you have the necessary materials in stock, of course these problems are reduced to a minimum. It is frequently convenient to have the number of the school week, subject matter, picture titles, type of picture and distributor on such an outline.

The outline also tends to keep the work systematically organized for the use of pictures. Lack of organization leads to a waste of motion in the use of visual aids. It may lead to false conclusions of its worth as a teaching aid. It may even go so far as to keep the teacher from any further work in this direction. Setting up this program may seem to some as a lot of extra work the first year or two, but after that it becomes a matter of routine, especially with those pictures you decide to adopt for permanent use.

In the planning of the program and the continuation of its improvement, caution should be taken not to go too rapidly. Try out various pictures and fit them into the course of study. Pick out several the first semester through the title and description if no better way is possible. In the semesters which follow, look for units where the text should be supplemented, community needs satisfied, or where technique can be improved. For example, there are parts which require motion. How can you teach motion properly when all the objects are standing still? How can you teach properly the characteristics of the moving electron which is invisible? How can you teach properly electrolysis when you cannot show what is going on inside the solution? How can a power plant be studied properly when such parts as the generator, turbine, boiler are enclosed? How can you teach color under the subject of light without the use of color? Hundreds of other examples might be enumerated, but it is hardly necessary as this is sufficient to make us conscious of the possibilities of improving our present day instruction.

A teacher should by all means know thoroughly the content of any picture to be used in class. For example, before correctly using a picture one should be able to determine if it is fitted for a purpose of motivation, review, information, project or the like. These are facts which should be known when planning the program. Again, there are questions you may not be able to answer accurately unless you have made use of the picture for several semesters. One picture which may look equally good to you for either a purpose of introduction or review may prove to be much more effective as a review.

The teacher must be responsible for the building up of the situation to make use of a picture. The students should be led into the situation through their own curiosity carefully guided by a well planned program. Care should be taken to keep away from formalism in classroom procedure.

The purpose of showing the picture determines the procedure following the showing to the class. If it is informational, an informational test can be given. If it is preparing for the field trip, the trip should follow. If it is answering a problem, the application should be made. If it is supplementing an experiment, the connection should be clearly explained.

Now we are ready to consider a visual program in physics mentioned previously. You will notice at the bottom of this sheet a listing of the various purposes to which these pictures have been found most effective.

In preparation of field trips—Coal to Electricity.
Directly in connection with experiments—Beyond a Microscope, Refrigeration, Wizardry of Wireless.
Review—Behavior of Light, Magnetism, Principles of Currents, Sound, Induced Currents, Heat and Light from Electricity.

We will now turn to the individual merits of some of these pictures. Among the 16mm motion pictures there are a good many parts which could be used several times for different purposes if they were in stock. Most of these will be taken on the assumption of having them available for but a day or two. The still pictures are exceptions to this since they are in stock.

The Metric System is a 35mm still film which is helpful in teaching the metric units of measurements because of the many explanations of the derivative prefixes and suffixes use in the metric system. It leads to a quicker and better understanding of this system of measurement which it seems necessary to introduce with the science of physics.

Gears is a still film which brings in pictures of all kinds of wheel and axle applications. This gives the student a better idea of the many uses of this machine. The picture can take the place of reports by students of their observations which might mean less to some people in class. A few additional examples can be given after the picture is shown if the students wish to do so. The students become more interested in the subject of machines and likewise the problems which belong to machines. A noticeable increase in the interest of working problems pertaining to machines is evident after making a study of this picture.

Friction is a subject which can be defined and discussed in class but not nearly so well as when the class can see numerous examples in pictures. The still film Friction brings numerous good examples and shows both the advantages and disadvantages of friction.

Liquid Pressure shows a number of practical applications to the student. The class can work out, as a group, problems shown in this slide with a picture accompanying them. This gives a realism and practical angle when associated with something the student can see while working the problem.

The 16mm motion film on Compressed Air can be used effectively for the purpose of supplementing class discussion of the application of compressed air. It adds interest to the subject which might otherwise be passed with little notice. I do not use an equally good film entitled Air Pressure because I have the apparatus to show as effectively the demonstration on air pressure.

Strength of Materials shows many pictures of its importance. This picture supplements for the student a good many interesting observational facts which would be otherwise overlooked.

Hot Air Heating is a good film from which to teach air currents. Convection currents are invisible to the eye and rather difficult to teach except where one might use colored liquids or ribbons or the like. This picture traces clearly air currents in rooms and affords an easy and quick way of study.

Energy and Sunlight is a film which is rather elementary for physics but nevertheless can be used very nicely to study the transformation of energy.

The still film Magnetism is a good review because it covers in a series of pictures rather completely the subject of magnetism. It does not show anything new, but since the subject of magnetism is covered in a short time it forms a quick way of going over the material.
Heat and Light from Electricity is a film which covers generally the subjects of electric circuits, conductors and insulators, light and heat. One might conclude from this that it would be a good film to buy, for it would be possible to use it at several different times. It also appears as if it might be a good review or introduction film. I have not used it enough to determine under what procedure it might be most effective, but it apparently is a good teaching film.

A film entitled Behavior of Light is an excellent review film on the general subject of light as taken up in the high school physics course. Better results will be found if this is used after the subject of light has been covered. This picture contains too many parts which are not within the grasp of the student before the study of light. This would make an excellent film to have in stock and use at the various parts of light were studied.

Let us now go to an outline of the procedure in making use of a picture in the classroom. For instance, when the following problem is reached, How may water be changed to a gas without boiling?—the experiment in the manual or electrolysis can be studied as to objective and apparatus. The apparatus which is ready to be used is connected to the electric current. The student sees the formation of the gases in the two tubes. The volume of the gases is noticed and the standard tests for oxygen and hydrogen are applied. This discussion finally leads to the question, What goes on inside the solution to cause this formation? Here the 16mm silent picture entitled Beyond the Microscope can be used to a decided advantage. This picture shows by a series of moving diagrams the attractions of hydrogen ions to the cathode. There they give up their charges and become hydrogen gas. The negative SO4 radicals pass to the anode where they are united with water molecules to form more acid, and oxygen is liberated. Only the part of the reel which pertains to this action is used. The class now turns to answer the questions in the manual. If questions are asked regarding the picture which indicate it had passed too rapidly the picture can be shown again. In this particular case it gives the student a moving picture of what goes on inside of the solution. This picture when used with groups as described above has shown improved understanding of the process of electrolysis over groups not having used the picture.

A second situation where a film has proved to be of decided help is in a field trip to the power plant. The class period can be opened with the question by the instructor, where could we go to see as many as possible of the applications of what we have studied thus far in physics? After a short discussion the power plant becomes the center of interest because there we can find good examples of mechanics, heat and electricity. The class is then given a list of questions and a diagram of the plant. They look this over and ask questions about the material handed out. During the time they are looking over these materials the projector is brought into the room ready to be used. The instructor then makes the explanation that since it is difficult to hear, the plant rather intricate in construction and parts cannot be seen, it is necessary to study the power plant through the motion picture before making the journey. The picture entitled Coal to Electricity is shown which explains a typical steam power plant divided into four parts as to function. It also shows what goes on inside of the turbine, generator and boiler. The class takes as much time as the period will permit to discuss the journey to the plant. The next day the power plant is observed through the guidance of the engineers who have a full plan of the instructor's objects. The day after the journey questions regarding the plant are discussed briefly followed by a written test. Students in classes so conducted have an excellent attitude toward a field trip and show a good understanding of the applications of the principles involved.

How does a radio work? In answer to this question a demonstration is made by connecting up a galvanometer, batteries, reverse switch and tube. The galvanometer gives various readings under the different hook-ups from which conclusions can be drawn as to the effect of grid, plate and filament in the tube. Still the student is left without a clear and permanent picture of the electronic action inside of the tube which causes these results. Since it is impossible to see the electron and its action, it still remains an abstraction in the mind of the student. By bringing into this demonstration the first part of the second red of the picture entitled Wizardry of Wireless, this can be clearly explained to the student. This motion picture shows the electron emitted by the hot filament, attraction of the electron by the positive plate, and the control of the electron by the grid. This cannot help but leave on the mind of the student a permanent impression which is clear and definite. Of course this can be drawn on the board and thus explained, but still you are using a stationary picture to explain some thing which is in motion.

Sound pictures and the opaque picture have not been left out intentionally but rather because of the limited amount of experience with the former and the greater amount of time necessary to discuss the latter.

In conclusion, let it be stated that we hope that the possibilities of visual aids have just been touched and that we are on the threshold of a new era in which learning will be quicker and more complete. Teachers should be encouraged to do more in the line of visual aids.

Panel Discussion at the Detroit Visual Meeting

A BRIEF resume' only is possible of the panel discussion of "Recent Trends in Use of Cinema in Education," held by John A. Hollinger, Director of Visualization, Pittsburgh Public Schools. The topic, "Is the Cinema Used Effectively in Classrooms?" was presented by J. E. Hansen, Chief Bureau of Visual Instruction, University of Wisconsin, whose conclusions were that classroom procedures and classroom teachers should have conscious methods, making the motion picture an integral part of the lesson plan. He felt that there was room for considerable improvement along this line. F. Gardner Gillen, Arsenal Junior High School, Pittsburgh, discussed the subject, "Is the Cinema Used Effectively in Assembly Programs?" stating that a really interested individual should be assigned to this particular duty, that complete cooperation of all teachers and the supervising principal is necessary and that problems that arise can be solved with proper care and attention. The motion picture is used effectively in many assembly programs and when so used is a valuable asset in education. Presenting the topic, "Has Large Group Instruction by Visual Aids Proved Effective?", it was the opinion of J. W. C. Remaley, Gladstone Jr. High School, Pittsburgh, that such instruction had been proved effective, that results are found satisfactory when problems pertaining thereto had been properly solved. "How to Select Films and Projection Equipment," was presented by Carlton Erickson, Director of Visual Education, Public Schools, Greenfield, Mass., whose conclusions were that carefully trained individuals should aid in the selection of visual materials in a democratic manner, and teachers called in to help after standards have been indicated. "How May Producers Meet Demands of Education?", was discussed by Wm. F. Kruse, Bell and Howell Company, Chicago. He emphasized the desire of producers to cooperate stating that producers can meet better the demands of education as those demands become less nebulous.
The Motion Picture as an Aid to Learning

Suggesting methods for increasing the effectiveness of films in instruction.

By William M. Gregory
Director Educational Museum, Cleveland Public Schools

The motion picture has been given plenty of glamour from Edison down and it has been widely used without skilled technique, although its cost and short life make it the most expensive of modern aids. Educators too frequently have become such "showers" of pictures that they have lost all common sense in using this marvelous aid.

We are very particular in the selection, adjustment and use of the still picture as a tool of instruction. We are not so choosy about the motion picture; in fact, the idea that it is a motion picture enables poor pictures to be shown without having had the critical inspection of the teacher who is to use them. There is very little value in such showings and considerable damage. In the pioneer use of the film most anything that could be obtained "free" and had motion was pushed into the school. It is an indication of growing up when teachers use films that have been carefully selected and adjusted to the lessons presented.

The extensive experiments of Freeman, McClusky, Davis, Clark, Knowlton and Wood prove that the film is an aid to learning. While these proofs have been known for sometime, comparatively little of their essential findings has been applied in the use of films in schools.

What educational influence does the film have? The Payne Fund found that theatrical films have a great influence upon conduct, ideals and attitudes. In these respects present educational films are weak. This does not mean that theatrical films would be best as teaching aids. But it does mean that some of their technique should not be disregarded in the production of educational films.

In considering the problems of educational films, attention is directed to:
1. The technique of the teacher and the attitude of the pupils.
2. The film content in relation to the curriculum.
3. The cost of the equipment and films. Free films and advertising material.
4. The practices that are stalemating progress in using films as aids to learning.

The Technique of the Teacher

Does the teacher in the classroom observe the following procedure? If not, why not?
1. The film must be previewed.
   No film should be shown unless it has been carefully previewed. The preview enables the teacher to know just what the film has to contribute and to note those things that are essential for its understanding and interpretation. The preview provides opportunity to create an attitude for the picture and makes possible intelligent guidance in its use.
2. The film ideas must be adjusted to the purpose of the unit studied.
   No film should be shown that is not a functioning part of the lesson unit under consideration. The fact that a film is interesting or free should not be the basis for its use in a class. It is part of the teacher's technique to adjust the film to the lesson. It is ridiculous to use a fine film on the frog in a class studying the butterfly or a butterfly film when mollusks are the center of attention.
3. The class must be prepared.
   The general relaxed and passive mind common to the theatrical movie audience is most undesirable when an educational film is used. The attitude of the class is largely the result of its preparation and a reflection of the standards set by the teacher. The pupil should be quizzical and ready for careful observation. He should be given opportunity to use the facts and ideas presented by the film.

One method of class preparation to receive a film, is to use stills in lantern slide form. In this way ideas portrayed in the film, are easily recognized and their import fully caught.

Another method is to list those things of significance that should be watched for and carefully observed. Often in listing items, questions are raised and the class asked to find the answer as the film is shown. Well directed questions create an interest in the film and guide observations. Most films are accompanied by good synopses which should be used by the teacher. Those are too often entirely neglected.
4. The film must be followed by discussion and check-up.
   Check-up sheets for each pupil should be used after the showing. Questions of points raised by the film, should have careful attention. Opportunity should be given to use film facts in later work.
5. The film presentation must be carefully recorded.
   A record should be kept of the films used so that at the next presentation of the unit, procedure may be based on past experience. Questions such as, "What were the most desirable outcomes of the film lesson?" "How were worthwhile results obtained?" should be constantly asked and their answer recorded. Only through the accumulation of such information can a teacher hope to improve her technique.

Film Contents and Educational Ideals

How closely does the film content check with the objectives of the unit under study by the class? Is the fact true, that many "free" films are used solely because they are "movies"? The full appreciation of the value of the motion picture for students has not yet reached the place where the majority reject poor materials. They do not yet know that it is impossible to obtain worthwhile results with low grade material.

The Cost of Equipment and Films

Free films set a false standard in cost and educational ideals. They form a large and extensive group which has a powerful and subtle influence in film showings. More than 200 companies supply schools with motion picture films advertising directly or indirectly, foods, clothing, shoes, automobiles, electrical appliances, refrigerators, etc. Free films are supplied to state universities, city school systems and other institutions, with a large amount of subtle advertising material.

One city visual organization had a large film library, consisting entirely of advertising films. Without these there would have been no films in this city. Later the policy of the city was changed. The highest types of educational films replaced these films in the film library. This was a drastic and necessary change. It has resulted in a large increase in the film use in the classrooms of the city. It is true that large industrial concerns have been quick to see the advantage of the motion picture as a subtle sales-
man of their product. We are indebted to many of these large concerns for starting our schools and teachers in the use of films. However, those companies that are trying to produce educational films should not have to compete with free advertising films. It is most unfortunate if teachers have to choose the advertising material. It is an indication of the lack of educational progress in their community.

It is a questionable policy for any teacher to take school time to show motion pictures of an advertising type. The teacher should never set aside regular lessons to show at intermittent times and in an irregular manner, advertising material. This is widely done because the films are free. In nearly all schools such material is shown under the guise of visual education.

The showing of “free” advertising films in a public school is sure to bring strong condemnation from parents for this false visual instruction. For the person in charge, the “free” film is the easiest way, for in the pioneer work of using films in instruction it requires a budget which is established only by educating your community to the value of the film material for pupils.

If the time is ever to come when the motion picture is to develop citizenship, aid in correct living attitudes, and give training for jobs, we must begin to use better films with more intelligence. Every advertising film shown as a lesson, weakens confidence in the school as an educational center. A school purgée of free films would benefit the progress of educational films.

Practices that are Stalematting Progress of Educational Films

1. Commercial and University Extension Circuits.

Small schools that do not own projectors or films, are supplied by subscribing to commercial or university circuits which supply both projectors and films. These circuits supply schools with a variety of films for a price at designated times. These films are for one day’s use. This method of supplying educational, industrial and advertising films for one day’s quick showing, is questionable as the time and circuit are inflexible, and the pictures are not integrated into any education lesson or program. The material is not previewed by the teacher before showing, nor are the groups prepared in any way for its intelligent use. Where this service is used, the plea is that its cost is small and it is best-obtainable. It is time that these organizations put more effort in having their films adjusted to a modern school program and that they employ spot bookings, so that schools may use films at the opportune time and for the frequency required.

2. Poorly Trained Visual Education Directors.

To carry forward a modern program in visual aids in a larger school requires a person who has the mechanical ability to operate machines, the energy to carry forward definite plans, a working knowledge of the various courses of instruction and the technique of using modern aids. The application of all aids to learning should be done with such a technique that worthwhile results are obtained. In some schools the motion picture has become a fetish and no attention given to other helpful aids.

In one high school where a large number of films are used, analysis shows that about 50 per cent are “free” films and the remainder governmental, propaganda, and educational. In this school, films are not well timed or adjusted to any particular course. They are simply “shown.” The person in charge of the visual materials, all too frequently does not know the film content. There is no class introduction to the film. There is no check-up. With such conditions prevailing, skillful educational use of the film is impossible. Such practice results in considerable damage to the real value and effectiveness of the motion picture for educational uses.

3. Operators of Machines are Untrained.

It is true that a 16mm projector requires but little skill and care in its operation. All too frequently the teacher lacks both, and difficulties arise. To remedy this defect on the part of the teacher who needs this training, movie clubs, photographic clubs, operators clubs, etc. are formed among the high school boys. These boys are trained to operate the machine. Upon receipt of films, the boys acting as operators, go to various classrooms at the appointed time and show the films. The weakness here is that emphasis is upon the projection and the showing, rather than the content of the picture.

Let each teacher become skilled with the simple projector and really train pupils to project pictures under careful supervision. Let pupils use a projector but attempt no repairs or adjustments. The final result should always be, that the teacher has the film projected to her class at time desired.

4. The Sound Film.

Too many teachers think the sound pictures will do the job of teaching for them. This is far from the real condition as the sound picture requires all of their skill in its use, or it is a misfit. The motion picture with sound is particularly adapted to some specific lessons, and is not as flexible as the silent picture.

The sound film needs far more careful consideration before being put into a course of study, than the silent film. First, because the sound film is more expensive, and also because its vocabulary is frequently too difficult for the pupil. New words are not properly introduced or emphasized and frequently the talk is too rapid, particularly in the American films, for clear comprehension by pupils. Perhaps the British Gaumont film, “The Amoeba,” is the best example of a clear voice properly spaced.

5. Poor Adjustment of Film Material to Instruction.

The educational use to obtain worthwhile results is the real-test of any aid to learning. Any plan for using motion film must have as its basis a curriculum in which the film is necessary in presenting some of the fundamental ideas in the units studied. Many schools present films for various units but films geared to the various subjects are yet to be produced. In biology, such film presentation as the “Lung Fish” is an almost perfect sound motion picture for the high school class. In elementary geography, Lowell Thomas’ presentation of Colorado is excellent. “The Work of the River” by Erpi is adapted to college physiology.

The time has arrived in the use of educational film to make a careful appraisal and adjustment of the material for class use.

Some Standards for Motion Pictures for Instruction

1. The film should give clear and truthful ideas of the subject matter at the grade level shown. All films for all grades? No, never!

2. All titles and comments should be simple, accurate and fully within the comprehension of pupils at the class level in which it is used.

3. Titles and comments should contribute to clear ideas of subject matter. Music and wisecracks when used to eliminate monotony should be ruled out of all school films.

4. There should be a worthwhile, understandable continuity. If the sequence of events, processes or stages is not clear, the film is not suitable. The continuity should be clearly within the comprehension of the child at the grade level used. In elementary schools, close-ups of events, stages, processes, or central idea objects should be frequent and simple. In elementary school films, one central idea or object should occupy the film.

5. The motion and changes of scene, time and place should be easily comprehended by the group. Unless there is a distinct reason and advantage for motion in the film, a motion picture film is out of place as an aid to learning.

(Continued on page 255)
The Teaching of Wild Life Near Home

In my travels with camera and flashlight in the woods and fields near home I have found that Mother Nature has been kind, and that all of her little subjects found there have been more than willing to pose for me. Night is the most interesting time for nature photographs if one wishes to have thrills and pictures that are considered by most people as impossible to obtain. All girls and boys of school age have the hunting instinct. With a little coaching this can be of great help in the schoolroom. On their hikes on week-ends and during summer vacations the children may learn much of the great out-of-doors, and with a little patience can secure many interesting and helpful pictures for later use in the classroom.

When a child, while on some trip, is able to secure a nature picture of a little wild friend, he is always ready and willing to show it and to tell how and where it was obtained. After making a study of the subject he is able to explain the value which he and others may derive from it.

Four phases of hunting must be employed in the photographing and study of any outdoor subject: (1) where and how to find the subject; (2) how to photograph it; (3) what its values are to mankind; and (4) its natural habits. The last two may be covered in the form of composition and thus may aid us, by combining English and Science, in advancing our modern integrated program. The first is a matter of research, while the act of taking the picture is the most thrilling phase, giving an opportunity to display and develop initiative, ambition and patience.

Most people have the idea that it is impossible to make a systematic study without expensive equipment. On the contrary, I find that it is easy to take good pictures with a small box or folding camera. Science of today has developed fast films with a wide working latitude and also special lighting equipment that makes it possible to photograph difficult subjects day or night. It takes very little study or preparation to be able to reap a harvest of helpful information while studying wild friends with the aid of a camera. Besides it gives a thrilling experience and a wonderful satisfaction of doing something most people think impossible.

Many schools have their own camera or nature clubs that foster the nature work. The combination of the two can soon build up a library of pictures of wild friends photographed on their trips into the woods and fields.

One of the easiest subjects to start with is the flowers with which they are all acquainted. It should be remembered that a collection of flower pictures never wilt; while bouquets of flowers themselves would soon disappear.

A picture of a bird or a flower, without some knowledge of what it is and what it does, is rather lost but the owner who is able to explain different phases of the life of the subject has the satisfaction of accomplishment never before realized.

It must not be forgotten that the camera has but one eye and gets only two dimensions in the picture—width and height; while we have two eyes and get three dimensions—width, height and depth. That fact alone will produce views different than we see them with our naked eye. Not only that, but a camera used at the waist level will give a different viewpoints than that which we get ourselves at eye level. Art work may be utilized to a great extent to secure correct balance and composition in a picture. By that I mean a picture that is pleasing to look at and regardless of how many times seen will hold your attention. A beautiful photograph is not always something beautiful being photographed, but something photographed in a beautiful way. The correct lighting on many subjects, not in themselves beautiful, will produce an effect making the picture pleasing to the eye. This should be studied as much as possible in order to secure desirable picture results.

Let us consider a few of the pictures that lie within easy reach of us. Take for instance the skunk cabbage. Seldom do people consider it as a flower, let alone as a cannibalistic plant that devours insects. We know it as a big leaved plant that we are able to see all summer. When it first comes up thru the ground, at times thru the snow, as our first spring flower, we find nothing but a beautifully colored spathe containing a fleshy spadix covered with its small flowers. Then down in the bottom of that spathe is a poisonous liquid and the insects crawling down on the inside become drowned in the liquid and through chemical reaction are assimilated by the plant itself. Also, in the spring of the year, we have that curious little songster, the spring peeper, our tree frogs which are trying to tell us with their bell-sounding peeping that spring is here. Again the opossum, our only representative of prehistoric mammals, has come down thru the ages by employing a well-known trick. When found in the woods at night we soon find that they are rather tame, can be approached very closely and a beautiful picture taken by employing the photo-flash lamp.

When taking a picture at night the camera is focused on the subject and when all is ready the shutter is opened, the bulb flashed and the shutter closed, the bulb giving about one half-million candle power being sufficient light for proper exposure.

You may wonder how I locate my subjects at night. I use what I call a "Magic Beam"—the light shaft of a big flashlight. By using the five cell light I am able to locate many subjects at a long distance from me and then by using a flash lamp I am able to secure the pictures I am after. I specialize in night photographs because those are the ones that seem to give me more thrills and enjoyment. Of course, we have an entirely

An abstract of the author’s lantern slide presentation of his work in nature photography.

By FRANK S. GEHR
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different form of wild life on the move at night than we have during the day, and much harder to find. Some of my night pictures have been taken by setting the camera and lighting outfit before dark and then waiting, sometimes for several hours, until the subject is in the proper position to photograph. At other times I prepare and set an automatic device which lets the animals take their own pictures while I use another camera in some other locations.

A small set can be made and assembled in the class room on the top of a table and with proper lighting, subjects like the frogs, toads, salamanders, moths and butterflies can be placed in the set and photographed seemingly in their own natural habitat. Study has to be made to enable a class to prepare the proper setup for each subject they intend to photograph in this way. The subjects for this kind of photographic art can be gotten on field trips by individuals or small groups. If properly cared for no harm can come to the different subjects found.

The Motion Picture as an Aid to Learning

(Concluded from page 253)

6. A film should be up-to-date and accurate in its sets. Modern scenes should have up-to-date apparatus. Present street scenes should have people in the present style of dress, modern automobiles and other appliances. The intention of Safety films frequently miscarries, because of ridiculous over-dramatized situations. Historical themes should have the touch and tempo of the times—"The Plainsman," 16mm, has too much tempo.  

7. What attitude will this film create? Consider its effect upon class group.  

8. The photography of a film is of paramount importance. Its artistry and perspective ought not to be sacrificed in any manner. Clearness of the action and its intent should easily register with the group.  

9. Each film must be accompanied by a synopsis of still pictures and comments that reveals the exact contents and its nature. The suggested lesson plans should aid the class work. The material issued to accompany the "Maid of Salem" is a good model of the guidance sheets needed.

Have the Teacher Test and Judge the Film

The time has passed when the teachers and pupils go to the auditorium to be shown films without very much regard as to the content of the film, except as it touches in a broad way some school subject. This was pioneer visual education, and very bad technique on the part of any visual educator. It should not continue. There should be an effort by each school executive to aid the teacher to judge the film to be used. Some schools prepare a schedule of film lessons for an entire semester, but only after the films have been selected by the teachers. In a large school system all films should be tried in an experimental school before becoming part of an organized school curriculum. Screening of films by a committee is not enough; it’s better to try out each film with a group of pupils under normal school conditions.

The Motion Picture Made by the Educator

A significant movement is the taking and projection of the motion picture by the pupils and teacher. Teachers are not trained directors but it is possible, with a little practice, for them to record on the film, valuable activities for the interpretation of their locality or show some special training. The simple motion picture camera and its technique is well within the skill of any teacher. It does require a new type of thinking to produce the results and obtain essential material.

One school made motion pictures of its various activities. These were titled, edited, and served as a splendid means of bringing together all interests of the school. The cost of this was very easily met by their exhibition. This should be only a beginning in the use of the motion picture camera.

It is not too expensive to utilize the motion picture in an effective manner, but the teacher or operator must do more than take snap shots. Ideas must be clear and some simple technique must be mastered before results become worthwhile.

It would be an exceedingly profitable investment for some of our great Educational Foundations, to apply their funds to a school situation where films might be made and used by teachers under some of the conditions outlined, so that the entire country might benefit by the experience.

Our schools have hardly commenced to use this new and powerful means of communicating ideas and giving experiences in the mass. The needed technique will develop where the school will experiment with films. If schools are to give ideas of the world in which the pupil lives, what better way than with excellent pictures? Many of the problems of adjustment to work would be easier, if clear ideas of the work could be brought vividly to the pupil by this powerful medium.

Few pictures attempt to do this, but motion pictures can be produced full of enthusiasm for work, creating right attitudes and providing ideas that help in this muddled world.

In our beginning schools, there is need of simple habit-forming pictures with clear ideas and simple vocabulary of few words. Our present educational pictures are out of place below the fourth grade. This is a wide field waiting the skilled hand of an educator who is master of the picture art and the psychology of child development. This aid to learning will speed the early learning of vast numbers of pupils who learn slowly from the printed word.

To make the motion picture function as an essential aid to learning the producer and the educator must do some new thinking and act with more courage along these lines:

1. An understanding and application of the modern technique in the use of the motion picture in the classroom. The teacher needs this opportunity.

2. The educator should try to clearly prescribe what is needed in the classroom in sound pictures—these definite prescriptions should be used by the professional motion picture producer to obtain results.

3. A cheaper, more durable, simpler projector, free of gadgets and low in light cost.

4. Large quantities of selected and organized film, to follow the development of subject matter. These films must be ready for use and just as effective as a modern text book. All films must be far cheaper than any at present.

5. There must be more organized courses in colleges and universities to give the careful training that so many teachers need to develop their appreciation and skill in the field of using, not showing pictures. Not so much training in the mechanical skills but more understanding of the educational technique necessary to create ideas and develop attitudes.

6. A combined effort by educational authorities to prevent just "showing" film, to eliminate "free advertising films," to break up the rigid circuits, to use definite film lessons as part of the daily school routine and to employ a modern technique in the mass education of adults.

7. To convince producers of excellent pictures that the educational needs are becoming as important as the motion picture theatre. To make easily available in 16mm such classics as "Louis Pasteur," "Little Women," "Romeo and Juliet," and others.
Training in the Operation of Sound Projectors

A practical procedure for preparing teachers in the use and care of such equipment.

By LLOYD L. RAMSEYER
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In January, 1936, there were over ten thousand motion-picture projectors in use in the schools of the United States. Evidence, at least in Ohio, indicates that there has been a rapid increase in the number of projectors in the schools since that time. This increase in the use of motion pictures in the schools brings with it a variety of problems. First, and most important, is the way in which films are to be used for educational purposes. Another problem of major importance is the training of teachers in the techniques of the operation of these projectors. With a view to discovering practical techniques for teaching projection with a minimum of time and effort, the writer carried on the service study here reported.

One of the objectives in a six-weeks summer course in visual instruction recently given at the Ohio State University, was training in the skills of the operation of a projector. A 16-mm. silent motion-picture film showing the operation of a silent projector had been made at Ohio State University for such a purpose. Similarly several glass slides had been made to teach some of the skills. The film was approximately 150 feet in length and showed the projector being taken out of the case, the machine leveled, switches adjusted and electric cord attached, lens and aperture cleaned, speed regulated, film threaded into the projector, rheostat adjusted, focusing, and framing. The slides showed the threading of four popular makes of sound projectors, the optical system of a projector, and a number of slides showed sound and silent film and types of film damage and splicing. The latter were made by enclosing samples of the film between two cover glasses.

The above film was shown without comment early in the summer at a regular meeting of the class. The slides were shown later in the course, also in a regular class session, and were accompanied by a discussion.

Each member of the class of seventy-five members who had never run any type of projector or who had run a silent projector and wanted to learn to operate a sound machine was given an opportunity to manipulate one of the two sound projectors used. In all, sixty-two members of the class were given training, in some cases on one machine, in other cases on both makes. The system found most successful was to have the individuals appear for instruction at fifteen-minute intervals. In arranging the schedule, a paper bearing the fifteen-minute time intervals was passed through the class and each person signed for the time when he could appear for training. Although coming at fifteen-minute intervals, each person stayed thirty minutes. During the first fifteen minutes he would watch the person who preceded him thread, start, and adjust the projector and rewind the film. During the last fifteen minutes he would perform the activities while the next person observed. The instructor added explanations and suggestions as they seemed to be needed.

We discovered that individuals differ greatly in their ability to learn these operations. However, most persons could perform them with considerable facility at the end of the thirty-minute lesson.

Those who felt a desire for a second lesson were invited to return for it. The term was drawing to a close, however, and only a few availed themselves of this opportunity. Judging by these individuals, it seemed that the skill was retained quite well over the period of about two weeks which intervened between lessons. However, the number returning was too small to generalize concerning the retention of the skill.

At the close of the term a paper and pencil test was given on the operation of projectors. Results tabulated below relate only to the 46 persons who had not previously operated any type of motion-picture projector, had received the training, and took the final test. The questions and results follow.

1. Draw the threading of the film in either of the above drawings.

One of the drawings was poorly made, decreasing the validity of the result. It was felt that more students could have threaded the machines correctly than were able to trace in the threading. Ten of the 46 traced the threading without an error. It is doubtful whether this was a valid test of the ability to thread a projector.

2. List three of the most important precautions which should be taken in threading a projector.

Precautions which were most frequently mentioned and the per cent of those mentioning each:

a. Be sure that the sprocket teeth fit into the perforations of the film—100%.

b. Be sure that there are loops—93%

c. Try the machine by hand before turning on the motor—17%.

d. Be sure that the film is properly fitted into the aperture groove—15%.

e. Be sure that a sound film is not used on a silent projector—13%.

3. List the steps which you would take in starting and adjusting a projector after it has been threaded.

Steps mentioned most frequently and the per cent mentioning each were:

a. Start the motor ................. 93%

b. Focus projection lens ............ 91%
c. Turn on sound .................. 63%
  d. Adjust volume control .......... 57%
  e. Turn on light .................. 54%
  f. Check threading to be sure it is
      O. K. .......................... 39%
  g. Regulate speed .................. 37%
  h. Regulate tone .................. 22%
  4. Label the following parts on one of the projec-
      tors sketched above.

  Below, the per cent correctly labeling each part is
  shown:

  Aperture .......................... 78%
  Projection lens .................. 98%
  Reel arms ........................ 85%
  Take-up reel ..................... 93%
  Lamp house ........................ 78%
  Sprockets ........................ 93%
  5. In what respects does a sound film differ from a
      silent film in construction?
    a. Sound film has only one row of
        perforations .................... 70%
    b. Sound film has sound track on one
        ......... .edge 61%

  The remainder of the test was for the purpose of
  getting criticisms of the methods used and suggestions for
  improvement.

  6. Discuss briefly your reaction to the effective-
      ness of the use of the motion picture and lantern
      slides which we used as aids in teaching the opera-
      tion of projectors.

  Twenty-two per cent thought that the aids were
  effective, 17 per cent thought that they were of some
  help, 20 per cent thought that they were of little or no
  help, while 41 per cent did not make their position
  clear. Several persons mentioned that they would
  have helped more if they had been shown more than
  once. The general opinion seemed to be that the
  pictures were much inferior to actual manipulation as
  a teaching technique. Students seemed to feel that
  if the motion picture had been shown more than once,
  with comments, and after they had manipulated the
  machines, it would have been more effective.

  7. Considering the number of individuals to be
      trained and the time available in which to do the
      work, criticize the method used this summer in teach-
      ing the operation of projectors.

  Fifty-nine per cent thought the method satisfactory,
  17 per cent thought it satisfactory but gave sugges-
  tions, 20 per cent did not commit themselves but gave
  suggestions for improvement, and 4 per cent did not
  reply. The most general criticism was that more time
  should have been provided for practicing the newly
  acquired skill. A few seemed to think that the instruc-
  tor should have given more verbal explanation during
  the course of the lesson of the reason why the
  machine should be operated in a certain way.

  8. Do you feel that the instruction which you have
      had this summer in operation of projectors has been
      of any practical value? If so, in what way?

  Eighty-nine per cent said the instruction was of
  value, 9 per cent did not reply, 2 per cent, one in-
  dividual, said that it was of no practical value. Ways
  mentioned in which it was valuable included, (a) stu-
  dent expected to use the skill in the classroom, (b)
  gained familiarity with and lost fear of projectors,
NEWS AND NOTES Being brief notations on significant doings and events in the visual field.

Conducted by Josephine Hoffman

French Film Contest

Do French Films Teach French? The question is very simple and so is the answer. Using it as a subtitle to its nation-wide French Film Contest, the French Motion Picture Corporation, 126 West 46th Street, New York City has just launched a campaign for the dissemination of French in High Schools, Colleges and Universities.

The novelty of the contest lies in the fact that very unlike the run-of-the-mill contest it does not require the participant to send in a letter of praise, for some product or other, but it is a lesson in French itself. In order to qualify for honors, the students are requested to send in the English translation of a series of about 50 gallicisms and idioms, which have been picked out of the dialogues and the textbooks of the French motion picture being the object of the contest.

There is no entry charge in connection with this contest. Any student of French in an American High School, College or University is eligible for entry. Teachers, coaches, or other members of the faculty are excluded. The contest opened on September 15, 1937 and the closing date is May 15, 1938. Entries received after this date will be ineligible. There will be two prizes consisting of trips to Paris and return aboard the French Line and a week stay in Paris as the guests of the French Motion Picture Corp. The judges who have selected the English counterparts to the 50 idioms are heads of French Departments in American Colleges and Universities. Their names will be revealed at the conclusion of this contest.

For complete rules and details of the contest, write the French Motion Picture Corporation.

Motion Picture Study Courses

Recognizing the motion picture as “a mass art profoundly characteristic of the present and a social force of growing magnitude,” Columbia University has established an academic division to be known as Film Study. The new unit, starting this Fall, will function through University Extension, of which Dr. James C. Egbert is director. “It will be within the provinces of Film Study to further the development of motion picture study and appreciation, to arrange discussions and illustrated lectures, to present special showing of films to coordinate such work in the field of the motion picture as is now being done in various parts of the University and to act as a clearing house of information for those departments, and to cooperate actively with other organizations and groups that have similar aims,” Dr. Egbert explained.

Film Study announces for its first year the “Motion Picture Parade,” a series of twenty Wednesday evenings devoted to the motion picture. The course, beginning October 27, will be given in McMillan Academic Theater, Broadway at 116th Street. Specifically selected films—old and new, domestic and foreign, fictional and documentary, silent and sound—will be shown at these meetings. In connection with each showing, a twenty-minute discussion will be led by an outstanding actor, director, critic, or writer of motion pictures.

Supplementing this popular course, Film Study will offer a twenty-eight week series on the motion picture, beginning this month, to be given in cooperation with the film Library of the Museum of Modern Art. It will be under the supervision of John Abbott, Director of the Film Library, and Miss Iris Barry, its curator. Experts in the movie field, including camera-men, cutters, laboratory technicians, and directors, will give lectures and demonstrations for this restricted group. The entire course will be illustrated by films from the collection of the Film Library.

The School of Education of New York University will offer again this year its well-known course on “The Motion Picture; Its Artistic, Educational and Social Aspects,” conducted by Professor Thrasher and other distinguished lecturers on Thursday evenings in the School of Education auditorium. The course discusses practical problems of schools, social agencies and community organizations in relation to films of both entertainment and educational types.

The city college division of the University of Denver is offering a course in motion picture appreciation, History of pictures, esthetic, social and economic, and the effect of motion pictures on children, will be studied. The class will meet once a week.

WPA Uses Visual Aids in Safety Education

More than 3,300,000 children have been given safety instruction in New York City through a Safety Education project of the Works Progress Administration and the New York Board of Education. The project was placed in operation in 1934 and has continued ever since, Pupils in more than 26,700 classes in 1446 schools have received instruction and some 48,323 stereopticon slides have been exhibited, 12,948 poster talks have been given, and 951 motion pictures on safety subjects have been shown.

Among the motion pictures shown are included The Bad Master, demonstrating fire-hazards; Saving Seconds, which deals with street safety; and Once Upon a Time, fairy tale which has been adapted for safety lessons.

In addition to the safety talks and demonstrations made possible by this project, Safety Patrols have been organized among pupils under regulations set up by Harold G. Campbell, superintendent of schools. Traffic on school stairs, in corridors, playgrounds, gymnasiums and swimming pools is directed by young patrol

(Concluded on page 269)
Costume Design --- In Hand-Made Lantern Slides

By ANN GALE

Art Department, Lindblom High School, Chicago

Costume design is an interesting unit for general art classes or clothing classes in high schools. Students of this age not only are interested in their clothes but also they have a major voice in their selection. They should have some basis for choice of clothes. A series of slides like those shown below demonstrate good and poor use of lines for short, heavy and tall, thin people.

1. Two costumes for the short heavy girl are shown. The first emphasizes the horizontal line. The second shows how much better such a person looks with the emphasis on the vertical line.

2. Two hats for the person with the round wide face. The first unfortunately emphasizes the long line of her face while the second with the horizontal emphasis makes her face look less long.

3. Two dresses for the tall slender girl. The first emphasizes her height and slenderness because of the vertical lines. The second makes her look better because of the horizontal lines of the puffed sleeves, collar, belt and jacket.

4. Two suits for the short heavy boy. The double-breasted suit with horizontal emphasis on shoulders, lapels and pockets makes him look wider, while the second suit with the single button, small lapels and unemphasized pockets is more flattering.

5. Two sweaters for the tall slender boy. The first makes him look taller because of its vertical lines, whereas the second adds to his width with the horizontal lines over the shoulders and waist.
AMONG THE MAGAZINES AND BOOKS

Conducted by Stella Evelyn Myers

Asia (37:644-648, Sept., '37) "India-Made Movies", by F. M. deMello.

Although the cinema has in the main misrepresented India’s culture, it is appreciated for its attempt to banish the characteristic sadness of the people. The first successful Indian film was made in 1931; the first cartoon, in 1935; and educational pictures and news-reels are still for the future. "Sacrifice", adapted from Tagore’s play, and "Devadasi" represented the re-action of the present generation to the education of women to the service of the gods in Hindu temples. M. Bhavani, director of these pictures, hopes that India will repeat their successes abroad in the sound films, not only to promote international understanding, but to entertain and instruct in the East Indian way. In all India there are six hundred and seventy-five theaters, less than half being wired for sound, and about a hundred producing companies.

The sound film seems to prognosticate linguistic unification for India. The silent film had no influence in this direction and a commentator was always employed to give a running narrative of the plot for the benefit of illiterate audiences. Hindu promises to displace the other five or six language groups and to become the language of the cinema as it is understood over the most of the country.

"The Merry Monkey" is India’s "Mickey Mouse," and judging from the illustration given, we hope that it will be imported. Shakespeare is also enjoyed, however. As the harassed Indian director must complete ten or twelve reels in a few months, anachronisms do not worry him. The Hindu classics are here appreciated, but are not to be tampered with in an up-to-date form. The East Indians do not want their Aesop modernized. Bombay likes sociology, Bengal revels in sentiment, and the Punjab is fond of adventure.

The make-believe of the screen is too realistic to tolerate kissing, hugging, or mixed dancing since such intimacies are not permitted in real life, or if they occur are best not mentioned. While the purity of the pure is thus preserved, the producer may introduce loose persons to test the strength of a "hero," and incidentally to enliven the plot. The Indian film is essentially moral in tone. The scissors of the censors are sharp, one company, at least, having been forced into liquidation for this reason. The outstanding example is that of a picture showing the effect of the dissolute life of a mill-owner upon the work and wages of the laborers.

The archeological department of the government and sometimes the army cooperate with producers. "There is unlimited wealth of film in India, in its past and its present, its natural scenery and its varied population, which still awaits intelligent use."

Science (86:63-64, July 16, '37) "A New Type of Relief Map", by Edward L. Troxell, Trinity College, Hartford, Conn.

Following explicit directions, here given, you will be able to produce a relief map of board material. Also, a model in plaster may be made as a by-product.

"The Use of Motion Pictures in Science", by Watson Davis (Page 8). Surgical operations filmed in color make records with more fidelity than formerly. Chemical experiments with color reactions are captured in color as a record, and for later study. Softer X-rays than the ordinary variety permit the filming of the internal functioning of creatures too delicate in structure to be caught by ordinary hard X-rays. In Rochester, a woman’s digestive process was filmed recently. High speed cameras, with film moving about one hundred times faster than usual, are in general use in certain researches.


Films are used for setting, as Roman ruins for the Julius Caesar play, and for motion where motion is being taught. Movies are used at the beginning or end of a unit, as the writer finds them confusing in the middle of a development where ideas are more or less vague. In this school of boys, noon movies are a compromise between education and entertainment. It is probably a good policy for all schools. Interesting and significant work of a Photoplay Club is described fully.

Building America (2: No. 8. May, '37) "Movies". This illustrated issue, of thirty-one pages, deals with the evolution of the art of simulating motion starting with a series of stills in 1861, when the pictures were mounted on the paddles of a wheel, and by a later process were bound to the circumference of a wheel. Eighteen views of the horse, of which Leland Stanford had an engineer and a photographer take pictures at frequent intervals as the horse raced, form a frieze across two pages. The steps in adaptation of the flexible Eastman film, and finally projection on a screen, carry the youthful industry from an individual peep-show stage to an extensive communal experience starting in 1896. Foreign influence is considered by the authors, and the technique of sound production is presented in clear and simple steps. Music and speech synchronization with action is a big business in addition to actual photography since thirty-five miles may be the length of film actually eliminated from a single feature. The celluloid used in a year equals 45 times the equatorial circumference of the earth. This makes 500 feature films and twice as many
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shorts. Cartoons and newsreels are given a chapter in the pamphlet. The various organized attempts of society, as well as of this billion a year industry, to improve moral standards are all impartially treated. The booklet on the "Movies" is probably the best concise, yet sufficiently exhaustive treatment for any but technical purposes, that has been produced.


The writer gives an account of various schools that have profited in the circulation of books by the movie's advertisement of stories filmed from books. Panels are furnished free by Motion Picture Producers and Distributors of America, "Romeo and Juliet" and "Maid of Salem" being among the educational subjects.

In England, Joan T. D. Webster, librarian at Rochdale Public Library, projects a film when the children are gathered, makes a few remarks at the close, and then calls the attention of the children to a group of books, which further elucidate the film subject, arranged on a table accessible then and there, the children thus establishing a direct contact which is invaluable. Richard James Hurley, librarian of the Roslyn High School, New York, advocates a Movie Corner and the use of the caption, "Read the Book—See the Movie." An English teacher at Seward Park High School, New York City, says, "Miniature sets of outstanding pictures, reproduction of movie lots made by the pupils themselves, original properties from such films as "The Crusader" all drew a tremendous amount of attention from the students. A print of the Movie Book Corner, in Brookline, Mass., High School Library, shows pictures and books arranged in a most attractive manner.

A Superintendent's Report—". . . of the people" is the title of Superintendent Frank Cody's Annual Report, the first pictorial presentation of the Public Schools of Detroit in nearly one hundred years of their history. The prints, in size usually two-thirds of a page, or a full page, have each a brief legend, the whole being very informative and inspirational. We venture to say that more is being learned from this report by the public than has been learned about the operation of the Detroit Schools from all the previous reports during the century. The eight subjects treated are, "The Basic Skills", "The Natural World", "Living Together", "The Fine Arts", "Abundant Health", "Home Making", "Trade Education and Industrial Arts", "—And By Night".

St. Nicholas (64:39, Aug., '37) "Young Stars", by Edith Winter McGinnis.

Juveniles, and others of perennial youth, will rejoice that Shirley Temple has impersonated Heidi on the screen. Although Shirley thought that it would be a good thing for all the characters in the play to take a trip to Switzerland, only the camera crew went. The Swiss Alps were photographed for

(The Concluded on page 270)
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Current Film Releases

A Valuable Astronomy Film
A new film of Astronomy, Seeing the Universe through the World’s Largest Telescope, in five reels, has recently been released by Educators Film Library, 1600 Broadway, New York City. This subject is a complete outline of descriptive Astronomy coordinated with standard text books and made especially for classroom use. It is also highly recommended for assembly and general entertainment purposes. Enthusiastic commendations of noted astronomers and educators indicate the merit and application of the film. It is available in either 16mm, or 35mm, sound or silent versions.

Pan American Union Produces
The Section of Motion Pictures of the Pan American Union of Washington, D. C. announce that several new talking pictures are now available on Central and South American Republics for the use of schools, women’s clubs and other study groups. This new series, titled Union of American Republic Productions, is being produced by William B. Larsen, the chief of the Section of Motion Pictures. The films are available on both 16mm, and 35mm, sound, and are loaned free of charge except for transportation costs.

The following two-reel subjects are now ready: The Story of Bananas, Rollin’ Down to Mexico, Native Arts of Old Mexico, Black Gold Beyond the Rio Grande, Where Seas Are Joined, Havana the Siren City, and Picturesque Guatemala. A 16mm, silent two-reel film, The West Coast of Mexico, and a one-reel 35mm, sound film, Ashore at Panama, are also available. There are several new films in preparation for release later in the year.

It is requested that bookings for these films be made at least three weeks before date of showing. A choice of three pictures is required in one case is not available an alternate may be selected.

Ernest Hemingway Spanish Film Released
Prometheus Pictures at 1600 Broadway, New York City, announces the release of Ernest Hemingway’s new feature film made in Spain—The Spanish Earth, available on 16mm and 35mm sound film for limited territories. The film was produced by Joris Ivens, famous Dutch director. Narrative was written and spoken by Ernest Hemingway. Story was written in collaboration with Archibald MacLeish and Lillian Hellman.

An Important Historical Short
Servant of the People, one of a series of historical two-reel subjects produced by Metro-Goldwyn-Mayer, is an important illustration of the educational possibilities of films not primarily designed for classroom use. The film depicts the adoption of the Constitution of the United States and the conditions which led to the famous Federal Convention at Philadelphia in 1787. It visualizes the “fathers of the Constitution”, in their picturesque colonial dress, as they labored at their arduous task. The film commemorates the 150th anniversary of the framing of the Constitution.
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New Series of Films

A special showing was recently given by The Film and Photo League, New York City, of the first of a series of films called Getting Your Money's Worth. The films, one reel in length have sound commentary as well as a musical background. The subject matter deals with the frauds and misrepresentations practised upon the public. The films show how articles and commodities are tested to determine their actual value—and advice is given on how to guard against misleading advertising statements. Technical supervision of the series is in the hands of Arthur Kallet, author of “100 Million Guinea Pigs.” 16mm sound prints will be made for schools and educational institutions. The films serve a two fold purpose inasmuch as they educate the parents as well as the children.

WPA Film Productions

The Motion Picture Production Division is rapidly becoming of increasing importance in the scheme of things at the WPA Federal Art Project. The Division is made up of professional cameramen, continuity writers, film editors and technicians, and functions on the same basis of co-sponsorship as the other departments of the Federal Art Project; that is, the co-sponsor defrays the material costs. On this basis, the Division is able to make films for any public tax-supported institution or government agency on any subject relative to the activities of the co-sponsor or otherwise.

Among the films turned out by the moving picture unit to date, The Technique of Fresco Painting, a three-reel film, illustrating the method of painting a fresco mural, has been shown to a number of schools, museums, union organizations, and various assemblages throughout the country. The film was made under the direction of Leo Seltzer. He chose the mural, “The Evolution of Western Civilization,” which James Michael Newell executed for Evander Childs High School, New York City, as a basis for the film.

The film is introduced with a picture of a Stone Age carving demonstrating the historical roots of mural painting. It ends by coordinating the art of fresco with modern civilization through a panoramic montage of industrial activities and developments of our age.

A film on the technique of ceramics is now planned. The film will be built about the fountain design which Waylande Gregory is now in process of building for Roosevelt Park, Raritan Township, N. J. The fountain is being made in Perth Amboy which has long been the center of the ceramics industry in New Jersey. All the aspects of ceramics will be portrayed in the film, which also will trace the history of the art of ceramics and show the modern potentialities of the medium.

The plans for another film on the subject of lithography, are also well under way, and several other films dealing with various phases of art work are contemplated by the Motion Picture Production Division.
Aids for the Photographer

A MATEUR photographers who wish durable tanks for their developer and fixing bath materials will find the hard rubber cases from old automobile storage batteries very satisfactory. They will hold over a gallon of liquid, and their depth, length and width are of such dimensions that they will easily care for the various types of film, such as roll, film pack, and cut-film. They do not crack, chip, corrode, or break readily. Most battery owners gladly give them away as an easy means of disposing of the cast-off material.

A scheme which has proved very helpful for the amateur photographer consists in using a pyrex dish for the developing tray, underneath which the “safelights” have been placed. With the light coming through the tray it is possible to examine the film as it is being developed to determine when the process is at the right point for the stopping the action of the developer. A switch can be arranged on the floor so that the light can be turned on and off with the foot, leaving the hands free to hold the film. A switch could be located on the side of the bench and operated by pressing it with the knee. Both the red and the green “safelights” can be placed in the device, thus making it serve for the various kinds of films being used. This “thru-vision” plan serves three definite purposes, namely, it facilitates the examination of the film, it prevents dripping the developer solution over the table between the tray and the light, and smearing the light and light-switch key with the fluid.

A Brief Bibliography on Photography
Photography, C. E. K. Mees, Macmillian Company, New York City, N. Y.
Composition Simplified, Hermon Gabriel, Fomo Publishing Co., Canton, Ohio.
Elementary Photography, Neblette, Brehm, Priest, Macmillian Company, New York City, N. Y.
The Kingdom of the Camera, T. Thorne-Baker, Isaac Pitman & Sons, New York City, N. Y.
Filmo Topics, Bell and Howell Company, Chicago, Illinois.
Consult—The local Photographer; the local Drug Store; Magazines on the News Stands; the local camera shops.
See—Educational Screen Magazine, Educational Screen, Chicago, Ill., for the addresses of equipment companies.
Get catalogues from—Eastman Kodak Co.; Agfa-AnSCO; Bass Camera Co., Chicago, Ill.; Central Camera Co., Chicago; and others.

A Sundial Project

THE construction and use of a sundial can be made a worthwhile project in a number of different grades in the schools, with a number of educational outcomes, such as: learning to tell the time of day; understanding some problems connected with the revolution of the earth around the sun, and the rotation of the earth on its axis; changes in the position of the sun at different times of the day, and at different times of the year; about the equinoxes and solstices; months of the year; changes in the length of days; etc. The construction of a sundial is a simple matter, and possible on most school grounds and recreation camps. The flagpole may serve as the object to cast the shadow. A number of stones placed in a semi-circle of ten to fifteen foot radius may be used to mark the hour divisions for the day. If the stones are painted
The extreme accuracy of precision machined HOLMES Projectors assures rock steady brilliant pictures at all times.

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UNIT TEACHING
Simplified by
Opaque Projection

- Material accumulated by students and instructors, in developing a unit of study, may include small objects, photographs, illustrations in books and newspaper clippings—objects too small for group study. Opaque projection is the ideal aid in such a program, making graphic demonstrations possible.

The Spencer Model VA Delineascope is a combination instrument which will project lantern slides as well as opaque materials. An object six inches square or a six inch square of a larger object can be projected in full color.

A built-in fan cools the light chamber. A new elevating device makes it simple to center the picture on the screen. Modern projectors are easy to use.

Example "SUGAR"

MAP from Encyclopedia
POSTCARD View of Plantation
OBJECT — Section of Sugar Cane
NEWSPAPER CLIPPING — Cargo Steamer Ship
BOX LABEL — Use of Sugar

Spencer Lens Company
Buffalo New York
Spatter Work in Color

One of the interesting bits of nature study work is the spatter work project to stress the shape of the leaves as a method of identifying the trees and plants. This is usually done by using printer's ink (black) thinned with turpentine, "spattered" from an old toothbrush over the leaf and the paper. Upon removing the leaf, a clear section with the outline of the leaf is discovered on the paper. Some advantages of the printer's ink are that it dries rapidly, does not spread or smear, and is permanent. Show card paints, while not fully meeting the requirements just mentioned, do allow a wide range of color. Colored paper with the appropriate color of showcard paint for the spatter make surprisingly attractive pieces of work. If these are framed under glass, they make splendid decorations for the walls of the classroom. It will help appreciably to secure sharp and distinct outlines if the leaves are pinned closely to the paper. Ordinary pins will not do because they are not thin enough. The long, thin, sharp insect pins used in fastening the insects to their mounts are admirably suited to this work with the leaves. Pupils and teachers will have to experiment considerably to find the most satisfactory colors or paper and paints for this work. White paint on black paper has been the most popular in classes recently visited by the writer.

In six years, according to Alan H. Nicol, director of visual education, the Buffalo schools have developed the use of 16mm film from none in 1929-30, to 14,605 films.
Notes and News
(Concluded from page 258)

officers who are identified by conspicuous belts and arm insignia. The patrol officers are stationed at street intersections adjacent to schools and there they direct the children across the streets when traffic conditions are safe.

Surveys have indicated that the majority of accidents to children in school occur in the gymnasium. Next to the gym, the stairs and corridors are the scenes of more accidents, with vocational shops as the third most dangerous location. The least number of accidents occur in class rooms.

The Board of Education, which sponsors the Safety Education project, insists that all instruction on safety shall take positive form, placing the emphasis on “Do” rather than “Don’t.” No horror tales such as “And Sudden Death” are included in the pamphlets and motion pictures which are distributed.

Safety lessons include talks of the various hazards encountered in homes, schools, playgrounds, and streets.

So successful has been the New York Safety Education project that word of it has spread to distant places. Inquiries have been received by project officials from many cities which wish to institute similar safety instructions. One WPA project for safety education established in Boston is patterned exactly after the New York City program.

Classroom Moves to Rails

The iron-horse couldn’t be brought to school, so the students of Spring Street School, Atlanta, Ga., go to Terminal Station for first-hand information on the locomotive and air-conditioned cars of the Robert E. Lee, famous train of the Seaboard Railway. The group shown plans to build a miniature train and railroad station as part of a community life project. Similar scholastic tours on the Seaboard provide practical education in many southern cities.

In the Rochester, New York public schools the circulation of films has increased from five films in September, 1930—or one film to each of the sixty Rochester public schools every twelve days—to fifty-seven films a day in March, 1936.
Among the Magazines and Books
(Concluded from page 262)

background. Carved objects, all about the hut, attest to the verity of Swiss craftsmanship. Even Shirley’s wooden shoes are hand-carved, portraits of the goats. Swanli and Bearli, painted thereon. No practicing of goat-milking was permitted until we see Shirley’s first attempt in the motion picture.

Book Review

ON THE ROAD TO CIVILIZATION, by Dr. Albert Kerr Heckel and Dr. James G. Sigman. Published by John C. Winston Company, Copyright 1936, Price $2.40.

Here is man’s parade from Cro-Magnards of the Old Stone Age to the present Spanish Revolution, told with a dramatic continuity that probably transcends any former attempt, and we are mindful of the magnificent production of H. G. Wells. This book of over 800 pages is written from the viewpoint constantly of the interdependence and the common humanity of all peoples and races versus the stereotyped narrations of each nation or group of nations within its own narrow limits of space and time. We have here the complete panorama of man’s development seen in the light of trends of thought which make events inevitable. Only thus can the student acquire the historical sense requisite for interpreting contemporary events.

The style is marked by vivid description including fascinating stories of individuals, sidelong glances in human interest, and a modern viewpoint always. Even paragraph headings are fresh and colorful as, “Out of the tombs came the story of life,” “Greece fails to build a nation but achieves a civilization,” and “Black Death speeds decay of feudalism”. Among the 350 illustrations of the book are copies of rare prints, stills from motion pictures, and contemporary cartoons, all of real human interest.

The ideal of democracy as a way of life underlies the whole of “On the Road to Civilization”. The authors feel that under our liberal government not sufficient stress is placed upon this objective, quite contrary to the propaganda methods used in education in many undemocratic countries. Of the review questions, ninety-one percent refer to social and cultural contributions to civilization. A constructive attitude is induced in the student by the stress on arts and sciences, rather than on wars.

The whole historical account is developed through fifteen cores, or units, each being preceded by a statement of “Aim” and a “Preview”. An essential part of each unit is “Suggested Activities”, over 550, in all. These are greatly varied, being adapted to all sorts of pupil interests. Dr. Sigman, Director of Visual Instruction, in Philadelphia, has added to each unit an exhaustive reference to correlated films, filmslides, stillfilms, and historical photographs with duplicate slides. The book of good print and paper, is bound in washable, vermin-proof cloth. It is strongly recommended for High School, as it is simply written, and for college classes.
October, 1937

**JAPAN** Modern, westernized urban life contrasted with the ancient modes and methods that persist in farm areas. Public-school life; religious ceremonies. Facts recorded as only the motion picture camera can record them. 2 reels—$48.

**TURKEY** The new Turkey evolving under the modernizing influence of the Young Turks is shown in highly instructive action scenes. Life in Ankara, the new capital. Rapid strides in industrialization. Agricultural activities. 2 reels—$48.

**RUSSIA** Its people; its public buildings, old and new; conditions in the cities, in the factories, in the oil fields, on the farms. An intimate, objective camera study of an experiment affecting one-seventh of the world's land area. 3 reels—$72.


Order now for prompt delivery, or write for further details...

Eastman Kodak Company, Teaching Films Division, Rochester, N. Y.

**Eastman Classroom Films**
AMONG THE PRODUCERS Where the commercial firms announce new products and developments of interest to the field.

New Da-Lite Screens

Da-Lite Screen Company, Inc., Chicago, announces important improvements in the manufacture of its Glass-Beaded Screens. A new method of applying beads to the surface of the screen provides more uniform distribution of the beads, greater smoothness, greater density of beads per square inch and perfect adhesion. As a result of these improvements, the reflected light is more diffusive and the picture is free from sparkle and glare. Graininess is eliminated. Color tones are brought out brilliantly and faithfully. Details are sharply defined. The new process not only improves the quality of pictures but increases the life of the screen. The fabric stays white and pliable indefinitely. The beads adhere tightly and are guaranteed not to shatter off even when exposed to excessive humidity.

Da-Lite Glass-Beaded Screens are available in many styles—box type, table models, hanging wall screens and the popular Da-Lite Challenger, which has a tripod attached to the case and can be set up instantly anywhere. Da-Lite, with more than a quarter of a century of experience in making screens for all requirements, recommends the glass-beaded surface for most users—but also makes screens with mat white and silver surfaces for special requirements.

Fourth Annual Leica Exhibit

Prints are now being received by E. Leitz, Inc., for the Annual Leica Exhibit which will be held in the early part of next year. As in previous years, this exhibit is planned to show the progress and advance made in photography with the Leica camera. It is, therefore, open only to pictures made with the Leica.

There is no entry fee and all owners and users of the Leica camera are urged to send in as many pictures of exhibit quality as they desire. Pictures should not be smaller than 8x10 inches in size and may be sent mounted or unmounted. If mounted they should be on light colored mounts conforming to one of the following sizes: 8x10 in. prints—13½x17 in. mounts; 11x14 in. prints—16x20 in. mounts; 16x20 in. prints 22x28 in. mounts.

Pictures to be submitted to the exhibit should be sent to E. Leitz, Inc., 730 Fifth Avenue, New York City, and the word “Exhibit” should be plainly marked in the lower left corner of the package. The closing date for the receipt of pictures is November 30. Complete details on the submission of pictures to the exhibit may be had by writing E. Leitz, Inc.

News from Ampro

The Ampro Corporation, Chicago, Illinois, manufacturers of silent and sound motion picture projectors, has announced the appointment of W. F. Scranton as Advertising Manager. Mr. Scranton formerly was advertising and sales promotion manager of Victor Adding Machine Company of Chicago.

Another interesting news item comes to us from this organization. They report the shipment of one hundred and ten projectors to the Detroit Public Schools. This is believed to be the largest single school order for 16mm equipment ever placed by any public school in this country. The shipment was made in time for the current school year and is indicative of the steady progress made in the educational field in the use of projection equipment. Last year eighty-three Ampro’s were purchased by the Detroit Board of Education.

DeVry Acquires Another Factory Building

Next year the DeVry firm celebrates its 25th anniversary, and the opening salvo of the anniversary is the purchase of the new Ashland Avenue plant, only a few blocks from the present DeVry factory. It is a modern two story brick “U” shaped structure with a central court opening to the street. This building will just about double the existing manufacturing facilities of the DeVry Company. It will house several departments now overcrowded in the Armitage Avenue plant, and will house also the rapidly growing DeVry Forest Training, Inc.—another Educational Service under DeVry sponsorship.

The last five years have witnessed the entrance of Mr. DeVry into the professional motion picture equipment field with his Deluxe Theatre Projector, and The DeVry Sound Recording Camera. These completed his regular line of 35mm. and 16mm. sound projectors, which have attained enviable sales records in school and business circles. DeVry sound units are now operating in 68 countries of the world.
THE B & L OVERHEAD ATTACHMENT enables you to operate your own Balopticon and, at the same time, face your class.

THE B & L FILM PROJECTOR ATTACHMENT converts your lantern slide Balopticon into a still film projector.

THE B & L MICRO-PROJECTOR ATTACHMENT when attached to a Balopticon allows you to use microscope slides for projection material.

HOW TO INCREASE THE USEFULNESS of your Balopticon

The Balopticon is a very adaptable teaching tool. Many schools are finding that with very moderate expenditures for Balopticon Accessories they can increase the range of usefulness many times—can handle additional subjects and present old ones in new and attractive fashion. Bausch & Lomb has designed a wide variety of interesting, valuable and convenient Balopticon Accessories to meet specific teaching problems. They will help you do a better job. They are fully described in Catalog E 11 which is yours for the asking. Write for details to Bausch & Lomb Optical Co., 688 St. Paul Street, Rochester, N. Y.

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... WE MAKE OUR OWN GLASS TO INSURE STANDARDIZED PRODUCTION

FOR YOUR GLASSES INSIST ON B & L ORTHOGON LENSES AND B & L FRAMES...
Being the Combined Judgments of a National Committee on Current Theatrical Films

(A) Discriminating Adults (Y) Youth (C) Children

Date of mailing on weekly service is shown on each film.

(The Film Estimates, in whole or in part, may be reprinted only by special arrangement with The Educational Screen)

**Annapolis Salute** (James Ellison, Martha Hunt) (RKO) Fairly good little picture of Annapolis life with lively, well-drawn characters, and a romance involving rivalry of two midshipmen over heroine. When circumstances almost lose hero his commission, rival comes through for him in fine style. (Y) Good (C) Good

**Back in Circulation** (Joan Blondell, P. O'Brien) (War.) Fast, violent, overdrawn arrangement of unscrupulous tabloids, with thoroughly despicable, low-brow hero who does brutal murder, escaping gallows thru perjury. Bunk to work, aided by weak but loyal brother who tries to make more trouble with police, his attempts to escape bring grisly end. (Y) Unpleasant (Y) Sordid (C) No

**Bad Guy** (Bruce Cabot, Virginia Grey) (MGM) Demonstration of all that is base in the human personality-current day gangster does brutal murder, escaping gallows thru perjury. Bunk to work, aided by weak but loyal brother who tries to make more trouble with police, his attempts to escape bring grisly end. (Y) Unpleasant (Y) Sordid (C) No

**Baltic Deputy** (Russian Film) (Amikin) Skillful, touching, powerful character study of distinguished scientist who is ostracized by fellow-professors but honored by the Bolshevists when he adheres to them. Fine flight of propaganda subordinated to biography. Based on authentic facts. (Y) 10-21-37 (A) Good but mature (C) No

**Big City, The** (L. Rainer, S. Tracy) (MGM) Waste of stars in incredible, obscure story. Taxicab driver's immigrant wife, with motherhood in mind, is accused of getting herself killed in a bombing in taxi war, but saved from deportation in ridiculous adventure, by flying into ring of famous ring champions. (Y) 9-28-37 (A) Fair (Y) Unsuitable (C) No

**Big Shot, The** (Guy Kibbee) (RKO) Another homewrecker story, of man who, with guile and subterfuge, discovers misfortune from unknown uncle and uses it to crusade against rackets, not his own gang, but those of his new wife's family. Artificial but fairly diverting comedy with a little suspense. (Y) 21-12-37 (A) Perhaps (Y) Prob. amusing (C) Unsuitable

**Breakfast for Two** (Barbara Stanwyck, Herbert Marshall, Eric Blore) (RKO) Dizzy, slapstick farce, of word games, with good cast. Poor but much is silly. Dazzling settings, and girlish-chase man with preposterous, sophisticated situations. Carryball rampages, hardly the kind of thing for Marshall. (Y) 10-12-37 (A) Amus. of kind (Y) Amus. but mature (C) No

**Bullfight Drummond Comes Back** (J. Barrymore, John Eldredge, Henry W. Colton) Another murder mystery, of exciting thrills, suspense and comedy. Howard lacks the flair of his old hero who was able to write with sinister villains, but Barrymore does expert role as Inspector Nelson, and E. C. C. ... (Y) 10-28-37 (A) Good of kind (Y) Perhaps (C) No

**Bulgarian, The** (Ricardo Cortez) (Fox) Lively semi-historical melodrama interesting chiefly for background. Concerns early days of California and selection of land from Spanish by unscrupulous Americans and power. Spaniard hero turns bandit to restore property to rightful owners, etc. (Y) 21-37 (A) Fair of kind (Y) Rather good (C) Perhaps

**Charlie Chan on Broadway** (Warner Oland, Joan Marsh, Donald Woods) (Fox) Good mystery yarn of murder in Broadway night life and characters for background. Good crime yarns by 

**Dangerous Adventure** (Don Terry, Rosalind Keeler, Winifred Shephard) (RKO) with much cliffhanger operations as background. Heroine inherits fortune; line of relatives, including a loely and husky hero, but he detects crooked management in time to save her interests from being stolen. For girls. (Y) 21-37 (A) Hardly (Y) Perhaps (C) No

**Forever Yours** (Benj. Gigi & English Cast) (Grand Nat') Much of poignant, human appeal in bald story about marriage of little limerine heroine to adoring husband, who is threatened momentarily when wife's former sweetheart returns. Gigi's glorious voice compensates for her acting. (Y) 10-21-37 (A) Fiasing (Y) Good (C) Beyond them

Hideway (Fred Stone, Emma Dunn) (RKO) Poor comedy material but Stone gives capable characterization of lazy, ner-do-well father of fanatical farm homesteader who uses obviously false refugee by beagles. Their presence starts hectic complications leading to gang b讳d elimination of racketeers. (Y) 10-12-37 (A) Mediocre (Y) Passable (C) No

**High, Wide and Handsome** (Irene Dunne, Randolph Scott) (Par.) Lively, long, colorful musical melodrama, authentically set, waltzers with delightful music, combining the factual and the make-believe in story about beginning of oil strike in Texas, with preposterously riotously funny climax. (Y) 10-3-37 (A) Very good (Y) Very good (C) Exciting

I Cover the War (John Wayne) (Univ.) Uninspired film about are newsreel cameraman sent to cover World War II fire, he comes back from mystery rebel chieftain. They discover heavy villainy, are taken to fake gold mine in attempt to reach British outpost and send reinforcements to desert battle. (Y) 9-21-37 (A) Hardly (Y) Passable (C) Exciting

**King Solomon's Mines** (Roland Young, John Loder, Susan Peters) (MGM) Action picture of a filing of Haggard's sensational adventure. Authentic backgrounds. Some in congratulations and romance, element weak, but work through humor, vigor, sweep and fine reality achieved in scene of Zulu tribes. Tense thriller for climax. 10-12-37 (A) Good of kind (Y) If too strong (C) No

**Lancee Spy** (George Sanders, Dolores Del Rio) Another one of a line of thrilling espionage stories. Rather interesting story, but far-fetched, incredible situations, glorifying German heroine who betrays her country in attempt to aid England. Her real German military secrets which prove war's turning point. 10-28-37 (A) Good of kind (Y) Perhaps (C) No

**Life Begins in College** (Gloria Stuart, N. Perdon) (Fox) Another stupid film, distorting college life, with ridiculous, often offensive burlesquing of established college institutions. Values buried under the dizzy antics of Bros. run rampant throughout to preposterous conclusions. (A) Perhaps (Y) Stupid (C) No

**Love Takes Flight** (Bruce Cabot, Beatrice Roberts) (Grand Nat') Dull, unconvincing triangle situation. Self-satisfied transport-pilot-hero and long-suffering heroine skycracket to fame, he becomes movie star and she famous aviatrix. She wins him from rival when she understand the man who loves his wife's father. (A) 21-37 (A) Hardly (Y) Perhaps (C) No value

**Man Who Cried Wolf** (The Lewis Stone, Tom Brown) (Univ.) Original, fairly interesting tale, but with sympathy wholly for murderer-hero, whose uniquely planned killing of blackguard proves boomganger, when son is accused crime. A romantic but properly presented, fairly convincing, finely acted by Stone. 9-21-37 (A) Good of kind (Y) Delightful (C) No

**Meet the Boy Friend** (D. Carlyle, Carol Hughes) (Repub.) Lightweight, backhanded story of romantic complications. Radio crooner, insinuated by sponsors against marriage, falls in love with insurance man's girl, her friend; then tries to protect policy, but love of course wins out. 10-5-37 (A) Thin (Y) Perhaps (C) No interest

**Music for Madame** (Nino Martini) (RKO) Martini's vocal outstanding feature. Enacting an immigrant Italian tenor who becomes innocent involving, in league theft, causing success to be postponed until capture of crooks. Rather original story but weakened by repetitious, stupid comedy. 9-15-37 (A) Good (Y) Good (C) Little interest

100 Men and a Girl (Dennna Durbin, A. Monjou) (Univ.) Splendidly produced film distilling by glorious music and Dennna's singing, a true romantic story of underdog musicians and charming heroine by whose efforts they are conducted into symphony orchestra, and get Stokowski to conduct. 9-21-37 (A) And (Y) Very good (C) Yes, if it interests

On such a Night (Karen Morley, Grant Richards) (Par.) Sensational, largely incredible thriller, agath with Mississippi flood for background. Hero flees unjustice murder charge, is sought in flood waters with menacing villain who framed him. When drowning imminent, hero misses all, and happily ending results. 9-28-37 (A) Hardly (Y) Better not (C) No

**Paradise Isle/Movita, Warren Hull (Monogram)** Agony of the Damsel (Cronin) The passionate love between blind painter, shipwrecked on way to eve specialist, and lovely native girl, enhanced by convincing and lurid adventure story. Most violence done, or done overdone, as hero and faithful pal "Windly" again outwit cattle rustling gang. (Y) 10-28-37 (A) Hardly (Y) Good (C) Prob.

**Shadow Strikes, The** (Rol Landroge) (Grand Nat') Feeble murder mystery of some suspense, but here is colorless and wooden, the action is often obscure, novel confused, the characters generally dull and solution hardly convincing. Plot and situations of the pulp-thriller variety, only slightly changed. (Y) 21-37 (A) Hardly (Y) Passable (C) No

**Sing and Be Happy** (Tony Martin, Leah Ray) (Fox) Trivial, lively stuff, combining romance, comedy, and crooner, not for hero would rather sing than work in father's advertising business but for love of heroine in rival, goes to work and lands big contract. (Y) 10-21-37 (A) Ordinary (Y) and (C) No value

**That Certain Woman** (Bette Davis, H. Fonda, Han Hunter) (MGM) Heavy, involved, well-directed, directed drama about virtuous heroine pursued by sordid past. Marries wrong, but emerges hero; his father annuls, Follow birth of child, in frequent change, the story of characters generally pretty dull and solution hardly convincing. Plot and situations of the pulp-thriller variety, only slightly changed. (Y) 21-37 (A) Good of kind (Y) Unsuitable (C) No

**Wife, Doctor and Nurse** (W. Baxter, L. Young, V. Bruce) (Fox) Refreshingly different triangle, involving intelligent, considerate women, who work out situation amicably. Some intimate, occupying details of medical practice, not sufficiently drunken spere climax somewhat inconsistent with hero's character. 9-28-37 (A) Very good of kind (Y) Mature (C) No

**Wild and Wooly** (Jane Withers, Walter Brennan, Roy Hickey) Artificial concoction with the precarious Jane again as "little Miss Fixit," who hears all, knows all and solves all. As self-appointed detective she exposes crooked grafters, falls bank robbery, settles a feud and all else. 9-28-37 (A) Y and (C) Poor
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Time and again we have said: "Lessons that live are easy to learn"! And with each passing month more and more teachers are agreeing. For they have tried teaching this modern way—with excellent results!

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Plan now to get one of these fine record players for your school—and join the parade to modern education. Your local RCA Victor dealer will be glad to provide full details about these instruments and arrange a demonstration at your convenience.

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Holmes Projector Co. 1813 Orchard St., Chicago, Ill. (See advertisement on page 267) (3, 6)
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Continuous insertions under one heading, $1.50 per issue; additional listings under other headings, 75c each.
Pilgrims Going to Church, by George H. Boughton

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The Movie Club as a Visual Education Project

Natural Color Lantern Slides for School and Home
Simplex Sound Projectors

**TYPE SP**

The characteristic care and accuracy which have given our products an outstanding international reputation are maintained throughout in the manufacture and assembly of Simplex Sound Projectors Type SP. Superior Sound and Visual projection can be secured with Simplex Sound Projectors Type SP. An absolute assurance that in the field for which they are intended the quality of results is exactly the same as that secured with Simplex Projectors in thousands of leading theatres throughout the world.

Simplex Sound Projector Type SP is particularly adapted to the special requirements of small theatres, schools, colleges, churches, hotels, hospitals, commercial organizations, etc. If you are contemplating the installation of motion picture equipment we would be very glad to have you write to us or the National Theatre Supply Company for full information regarding our products.

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**PROFESSIONAL PROJECTION**

in

**SMALLER THEATRES,**

**Schools, Colleges,**

**Auditoriums**

**Etc.**

**SIMPLEX TRADE MARK REG'D**

**INTERNATIONAL PROJECTOR CORPORATION**

88-96 GOLD ST.

NEW YORK, N.Y.
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Keystone View Company
MEADVILLE, PENNA.
The Motion Picture Policy of the United States Department of Agriculture

By RAYMOND EVANS
Chief, Division of Motion Pictures, Extension Service, U. S. Department of Agriculture

ONCE LONG ago, J. Proctor Knott made a speech in the Congress, on the general subject of the then struggling village of Duluth. It was such a splendid example of satirical oratory that it has become a classic. No anthology of famous American speeches is complete without it.

Pretending that he couldn't even find Duluth on the map, and without the name with the skill of the trained orator, he spoke of his quest in a strain of high and flowing irony. "I knew," he said, "it was bound to exist in the very nature of things; that the symmetry and perfection of our planetary system would be incomplete without it, that the elements of material nature would long since have resolved themselves back into original chaos if there had been such a hiatus in creation as would have resulted in leaving out Duluth." Then we have this bracketed commentary from the House Reporter of 1871:

"Roars of laughter."

Well, we all know how Duluth has belied that speech and the applause it evoked. Today Duluth is indeed the "Zenith City of the Unsalted Seas," everything that J. Proctor Knott so eloquently implied she never could be—and who would now remember the orator but for the fact that he once made a great speech poking fun at Duluth?

And thus, for all its effectiveness as an example of irony in oratory, in the candid eye of history this speech remains merely a striking example of the unsavory art of the demagogue.

Now, according to Noah Webster, who is generally right, a demagogue is "one who controls the multitude by specious or deceitful art." This is an art that can find expression orally through oratory—witness the speech we have just cited—it can find expression in the written word—witness many of the editorials we read and practically all the advertisements—and it can find expression through motion pictures—witness the propaganda film of the extreme ex parte type in which too often specious and deceitful arts are more or less skillfully used to further causes that cannot so well be furthered by truth and candor. This is a type of film that the Department of Agriculture has sedulously tried to exclude from its lists. Nevertheless, I suspect that in spite of our best efforts some of our films will be found to be vitalized by a lack of complete frankness and sincerity. Not that we customarily practice duplicity consciously and with malevolent aforethought, but when a film is fresh from the assembly table you can never know how specious and misleading it may look when it has cooled off a few years.

With this confession of too frequent failure to live up to our own ideals—a not uncommon human experience—I wish to outline briefly the creed that we have tried to follow in the motion picture work of the United States Department of Agriculture.

In the first place, as already indicated, we do not believe that the Federal government, in its information service, which includes official motion pictures, should stoop to the use of the specious tricks of the demagogue. Thus we do not believe that official pictures should be designed to sway people merely by an appeal to the emotions, but rather by an appeal to reason by presentation of facts. We do not favor the technique of the preacher, but rather that of the teacher. We believe that an official film should tell the truth, and tell it candidly—that it should present the whole truth and nothing less than the whole truth—and, of course, nothing more than the truth. We believe that lies are as dangerous as those that are effected by telling half the truth.

We do not believe that the Federal government should compete in the entertainment field, except insofar as the subject matter of our educational films, properly presented for the information of the public, may be entertaining. I don't mean by this that we do not try, as best we can with our equipment, to keep our standard of photography and sound recording up to some approximation of the high standard set by Hollywood, but certainly we do not believe that the fact that Hollywood sometimes spends a million or more on a single entertainment picture, is in any sense a reason why the government should spend money in the same lavish fashion on its educational productions.

Indeed we do not believe that the educational field and the entertainment field have anything important in common. In purpose, methods and ethical standards they are as different as night is from day, and we feel that the tendency on the part of uninformed persons to discuss them both in one breath and in the same category serves no useful purpose whatever. I have attended conferences on the problems on the educational motion picture field in which much of the time was consumed in bitter denunciation of the Will Hays organization. To my mind such criticism is wholly out of place in this connection. It is not our business to reform the commercial movies, but rather to build along our own lines in an effort to fill the void that exists in the educational field.

By the same token we feel that seldom, if ever,
should federal funds be expended specifically for the purpose of securing presentation of our films in theaters. If, as may happen occasionally, we have scientific or scenic films that are inherently interesting enough to appeal to the general public, and the theaters find it to their advantage to use them, we of course welcome any cooperation that they may volunteer in the presentation of our subjects. But, in the main, the circulation of our films is carried on through the 2000 county agricultural agents who are the representatives of the Department of Agriculture in agricultural communities throughout the country, through representatives of the State Colleges of Agriculture, and through the visual education departments of schools. However, since our service is part of the organization set up for agricultural extension work, we cannot, as a rule, serve schools to any great extent, simply because we don't have funds to provide enough copies to meet the school demand. Hence, we would not consider expenditure of Department of Agriculture funds for theatrical circulation as proper, so long as the extension and school fields remain wholly unsatisfied in spite of our best efforts to provide enough films for their use.

We do not believe that the educational film activities of the Federal executive departments, such as the Department of Agriculture, should ever be drawn into the field of partisan politics. That way lies the destruction of all the possibilities for service to science that such organizations as ours may have. Politics and science do not mix. Try to mix them and you get an unsavory emulsion—nothing more.

We do believe that the motion picture is potentially the most effective of all media for the wide dissemination and quick inculcation of knowledge, and we cannot make it too emphatic when we say that we feel that the educational motion picture field has been lamentably neglected.

As for mode of presentation, we believe that the treatment of the educational film should be determined largely by the educator or the scientist, rather than in accordance with the known reaction of the public to the entertainment film. By this I mean that an educational picture should be prepared, primarily, to present clearly the subject in hand, and that the sugar-coating, or the lubrication, or whatever you may call the artifice used to make the dose easy for the public to swallow, should be of secondary importance.

We feel that the majority of government films, at least, should be of the direct rather than the oblique and diffuse type—that, in general, the use of footage for purely artistic atmosphere should be subject to restraint. If we take “Man of Aran” as an example of the highest type of the so-called “documentary” films, we have cited a type that, in our opinion, it would be inexpedient as well as presumptuous for a government organization to take as its model. “Man of Aran” is essentially a work of art, and the government has no business spending the taxpayers’ money on forms of pure art while there remains a crying need for instructional films on the control of syphilis, of malaria, of hog worms, of the Japanese beetle or the boll weevil.

In passing let me express my profound aversion to the dry and pedantic term “documentary” as currently used to describe such work of art as “Man of Aran”, “Moana”, or “Grass”. “Man of Aran” is no more “documentary” than is the Moonlight Sonata. It is a poem in picture, while some of the uninspiring but necessary films that we make are perhaps the true documentary pictures—if we must use that word.

These are our beliefs. Briefly summarized, our aim has been to present, for the information and betterment of all classes, the results of the scientific research of the greatest research organization in the world, and to do it without recourse to the art of the demagogue, without competing with the commercial producers, and without becoming involved in partisan politics.

As I said before, we have not always been able to live up to our ideals, but we have consistently resisted efforts to direct our activities into channels not in harmony with these principles.

In this connection, I would like to add a word about the cost of our films. We are getting rather tired of reading in the newspapers and trade journals stories to the effect that the government has spent millions of dollars for films in the past three or four years, with the implication that the Department of Agriculture is involved in a program of lavish expenditure for motion picture work. A recent syndicate article had the total figure loosely from five to ten million, and stated that “more than forty” government agencies were “extensively” engaged in making motion pictures. —As a matter of fact, four old line departments and three or four of the New Deal organizations may truthfully be said to be engaged regularly in making motion pictures. As for the Department of Agriculture, at the present rate of expenditure for our Division of Motion Pictures, it will be over one hundred and twenty years from now before we shall have expended as much as ten million dollars for motion pictures. To date, in the more than twenty years since the Department began making pictures, we have expended just about one million dollars in all on this score, and for that expenditure we have made and circulated copies of over five hundred educational pictures.

Now one million dollars will buy just one outstanding Hollywood feature film. We make about twenty modest pictures each year. Figure for yourself what the cost to the tax-payer might be if these were paid for at the scale prevalent in Hollywood. And yet we are frequently criticized severely because our films are not as entertaining as those that come from the West Coast studios.

We have no delusions of grandeur as regards our capacity for making pictures, comparable to the Hollywood product in entertainment appeal. Entertainment is not our business, so why worry about it? In the main the material that we have to work with falls into what might be called the category of the sow’s ear. Now from a sow’s ear it is quite possible to make a plain but serviceable purse of hog’s-hide, but seldom or never anything comparable to the proverbial silk purse. In this connection, I dare say the most useful picture we have made this year is one on the control of screw worms—a picture as simple as the first reader and wholly lacking in beauty and sex
appeal, but with the saving merit of having a message to the farmer. It tells him how to save his stock from being eaten alive by maggots and points the way to a potential saving of ten million dollars a year. This picture cost the tax-payer not more than three thousand dollars all told—travel, including two long field trips for director and cameraman from Washington to Texas and return, raw stock, processing, editing, matching, scoring with sound, and printing copies for use in the current campaign for screw worm control. This is the kind of picture that pays dividends to the taxpayer even though it may not rate very high with the connoisseur in documentary films.

The Movie Club As A Visual Education Project

WITH the development of 16mm. equipment the motion picture has rapidly taken its place, along with glass slides, film strips, and opaque materials, as an educational medium. The projectors are giving increasingly efficient performances, while educational films have been produced that are the equal of regular commercial films. We are informed by a reliable source that there are more than 9000 educational films in the United States, a vast number of them obtainable at no rental charge, while the remainder may be rented at a nominal rate.

With this wealth of material it would seem that every school might make full use of this very essential branch of the visual educational program. Unfortunately, the material is not well organized for the teacher or principal to scrutinize.

Believing that an organization of such material would be a worth-while project for our science-minded students and realizing the fact that there was much material in our locality for film presentation, we organized a movie club in our school with a two fold aim: (1) To organize the sources of 16mm. material for a more efficient utilization. (2) To perfect an organization for the filming of educational material in our own immediate vicinity.

In September, 1935 we organized our club in a manner similar to a regular motion picture company. For charter members we selected outstanding stu-

A few ways in which a student activity can contribute to the school's teaching needs.

By LOREN C. SPIRES
Community High School, Carterville, Illinois

ents in the fields of Art, Mechanics, Physical Science, and Typing. These members were then divided into staffs for which their various aptitudes best adapted them. Our staffs were: Art, Camera, Editing, Dark Room, Technical, and Advisory.

The Art staff studied the building of movie sets, the preparation of artistic titles for our films, motion picture make-up, and the making of animated drawings. An especially interesting and valuable film depicting the step by step method of making Geometric constructions was a realization of their efforts.

The Camera staff was concerned with the actual filming of scenes about the school and community. They collected data concerning camera angles, length of scenes, types of film for camera use, lenses, lighting, and color filters.

The Editing staff adapted material to filming and later spliced the scenes together into a continuous sequence. Theirs was an important assignment. Unrelated scenes and titles came to them from the developing room and continuity, interest, and educational value was dependent upon their skill in handling the subject.

The Dark Room staff mastered a technique whereby we developed all our film thereby saving about 75 percent over regular amateur motion picture film cost, and enabling us to project our films within two hours after they were taken. Thus a football game might be filmed one afternoon and shown at the school carnival the same night. In a surprisingly short time we were able to develop films that were comparable to those of the commercial finishing stations.

The Technical staff constructed the apparatus used by the other departments such as, developing reels and tanks, camera tripods, title making apparatus, and projection screens.

The Advisory staff catalogued many of the free and rental films as to nature of the film, source from which it might be obtained and rental fee. This list would enable any classroom teacher desiring a film on any specific subject to find it with a minimum of searching film lists.

Our first project was a short film of school life to be shown at the home-coming carnival. It was received with great enthusiasm and with the proceeds
we were able to undertake larger projects including Home Geography films, local industries, Physics films, and animated Mathematics films. In May, 1936, we filmed a four reel feature entitled "The Old Home Town" in which the town, the schools, the industries, and the citizens were depicted. Again our efforts were enthusiastically received by our audience. A more effective means of school publicity would have been difficult to conceive.

The equipment for producing 16 mm. films is not elaborate or costly. Excellent cameras may be purchased for about the same price as a good snapshot camera. All of the other accessories including tripods, tilting stands, developing reels and tanks, can be made. Our total outlay, exclusive of camera and projector, was less than five dollars. This outlay enabled us to film pictures suited to our own particular needs which could not be procured elsewhere at any price. The possibilities are practically unlimited.

Natural Color Lantern Slides for School and Home

By ELLIS C. PERSING
School of Education, Western Reserve University, Cleveland

The problem of natural color photography may at first seem difficult for the amateur or the teacher but one need no longer be disturbed about the possibilities of making and showing pictures in color. Recent developments make it extremely simple to obtain natural color transparencies. It is true that the making of prints in natural color is more difficult and may be left to the more advanced worker and for that reason will not be discussed here. For the benefit of the beginner, the teacher, and the student, we shall discuss only the procedure of natural color photography which deals directly with the making of records in natural color for the home or the school.

A new medium for color photography has been made available in 35mm films which seems very well adapted to general use, namely, the new Kodachrome film offered for the miniature camera. Tests made with the Kodachrome A type show results which seem to surpass already existing standards of achievement in the field of color photography. The color rendering qualities and the emulsion speed are about all that one needs for general use.

The film is available in daylight loading magazines ready to be placed in the camera. There are 18 exposures to the magazine. The exposures are made and the magazine removed from the camera. It is then placed in a container, supplied with the film, for mailing to Eastman Kodak Co. It is returned to the owner as positive transparencies, the use of which is explained below.

Using The Film With Artificial Light
One who can make a good black and white negative will not have any more of a task confronting him

Conclusions
Is this filming of school pictures a burdensome expense on the school budget? Our public showings of films has enabled us to pay our own way without receiving aid from the school budget. Is it within the scope of high school boys and girls? The films are of vital interest to them and they take pride in the making of their own movies. Has the club any value to the school and to the boys and girls of the club? The films are educational in nature and are produced to meet the particular needs of the classroom teacher. It would be difficult to over-estimate the value of the club members. If they are willing to devote hours of their time after school to their hobby it must be one of interest and lasting value. In pursuing their hobby they are learning much concerning art, chemistry, problem solving, and motion picture appreciation. The club is an effective means of bridging the gap between the school and the community.

Offering some concrete directions for making colored film transparencies

with the Kodachrome A type film in the camera. As evidence of this, several persons were selected at random from a group of students. Each was given the camera loaded with Kodachrome and an assignment to be made in color. One exposure of the 18 was a failure because the camera was moved. Otherwise the transparencies were sharp, with good color rendering and without grain. The exposures were made with controlled lighting—photoflood lamps.

It is not difficult to have a corner of the basement with a table for the smaller specimens and lights arranged ready for use. With some such equipment available on a moment's notice one is more likely to photograph specimens such as fruits, seeds, butterflies, and other small objects. With such a simple outfit one can easily make exposures which will yield delightfully colored lantern slides (transparencies).

Illumination requirements for color photography are somewhat different from those for black and white work. It is essential to remember that flat lighting is important for exposures made with photoflood lamp as well as for those made outdoors. It is also important that deep shadows be avoided.

The uses which one can make of Kodachrome are numerous about the home and school. Recently a teacher had a series of charts made by an outstanding pupil. The work had been done by crayon and was not in permanent form. The teacher wished to keep a record of the boy's work since it showed the efforts of a near genius. The Art Supervisor wished to use the charts as illustrations for publication. With Kodachrome and a simple equipment such as already described for the basement corner, the work of re-
ducing the charts in color is a comparatively easy procedure.

Using The Film In Daylight

We have just shown the simple procedure for the use of Kodachrome with artificial light. An equally simple method is followed for making color transparencies with daylight. Again it should be said that one who can make black and white negatives can easily use the Kodachrome outdoors. Follow the exposure table or use a reliable exposure-meter in making the exposures. Keep in mind that the light should be flat.

Records in color of the summer's travel, mountains, lakes, trees, flowers, people, and totem poles are further possibilities for outdoor exposures. Children at play about the home are comparatively easy to get with the faster emulsion speeds in the new film.

Making Transparencies or Lantern Slides

If you had your camera loaded with Kodachrome and made the ordinary exposures, with a little more work you have your transparencies ready for use. The wild flowers, the children, and innumerable subjects are photographed. The film is processed by Eastman and returned to the owner with the objects in natural color. All extremely simple operations.

The next procedure to make the lantern slides is just as easy to do. The separate pictures are cut from the film strip. The single exposure is placed between two cover glasses two inches by two inches, with a mat to fit the picture, and bound with tape. By this method the film is protected from dust and can not be scratched. The lantern slide is ready to use. All of these operations can be easily done by the lay person. These small transparencies are filed and handled just as any other slides.

For a small sum an adapter for the regular size lantern slide projector can be obtained so that the 2" by 2" slides can be shown; but it will be more satisfactory to use one of the projectors made especially for the 2" by 2" slides. A few of the better known makes are the Kodaslide Projector (Eastman Kodak Co.) The Pictulaire (Society for Visual Education) and the Leica line of projectors (E. Leitz, Inc.). With these comparatively inexpensive devices one can obtain pictures entirely satisfactory for regular use.

The projector for 2" by 2" slides is likely to become standard equipment for school and home because of the low initial cost and the apparent possibilities for the small size transparencies in natural color. For educational purposes this natural color picture seems to meet all needs for the classroom according to the reaction of teachers in recent test showings.

The need for pictures in natural color has long been felt but equipment and cost have been items to consider. The development of the miniature camera makes it possible to obtain a sharp clear picture and with the new Kodachrome film the picture can be projected to a size suitable for classroom or lecture room without grain and loss of detail at a comparatively small cost. A roll of Kodachrome—18 exposures for the Leica camera is available at $2.50 present price, ready to use. If you wish to protect the picture from scratches one must add the cost of mats, cover glass and binding tape which brings the total cost to hardly 20c per slide.

For schools and the home the miniature camera slide seems to meet a real need at the present time. Until other processes are evolved one should make use of the splendid materials and equipment for making natural color available to the children in our schools and for the enjoyment of the parents in the home.

Visual Aids in the Service of the Church

T he title of a very valuable handbook for churches and clubs has been produced from the experience of members of the class in Visual Education of Yale Divinity School under the guidance of Professor Paul H. Vieth with the cooperation of the Harmon Foundation.

Educators, both secular and religious, have long utilized prints, charts, and exhibits to give more of a sense of reality to their teaching. Since the development of pictures in motion, the inference has usually been that they, also, should be adopted. As with other tools, the more finely wrought one is, the more clearly marked must be its limitations. Many churches have failed in this procedure because they expected the expressive picture to do the whole work. We must know the contents of our film, and carefully adapt it to the theme that is being presented. "Poor technique in projecting, poor quality of supporting program, careless handling at any point, will tell to convince people that this thing is not for the church." The task of the church is to refine desires, and to motivate aspirations for higher values. Pictures make vivid and real, often creating more accurate thought images than speech. Pictures are a means of providing vicarious experience, since the spectators live in the thought and action of the characters. The feelings are stimulated with the determination "to do something about it". The church need not longer. Slides, films, and equipment are available from private concerns and denominational headquarters.

If a standard for evaluation of pictorial material is wished, what better one can be applied than that for religious drama, viz., that the audience departs "exalted in spirit and with a deepened sense of fellowship with God and man"? Six kinds of pictures are named as coming up to this standard; objections, sometimes heard to the use of visual aids in the church, are answered; and nine principles to be followed in the use of projection material are given.

Types of projected pictures are treated and sources included from which they may be secured. About fifty motion pictures are described, and recommended for certain church groups. This list should fill a great need. Several complete service programs are outlined, the picture always being made subordinate to the main theme. In great detail, all the main features in the preparation of a program are described. Also, the technique for selling the entire visual aids program to the church is scientifically developed, and methods of financing are suggested. Very practical
methods for providing trained operators in entire charge of films are listed. Three pages are devoted to hand-made slides, and making your own films.

“A worship service including good visual material promotes an atmosphere conducive to maximum participation by the individual in the group. Attention is concentrated . . . Visual and auditory interruptions are at a minimum . . . A room in semi-darkness, with one focal point of attention, is by common consent the most worshipful environment.”

Two Thanksgiving services are reprinted here from this eminent treatise.

**A Thanksgiving Service**

**Prelude**
**Call to Worship**
**Unison prayer**
**Hymn** (“Come, Ye Thankful People, Come”)
**Responsive reading** (musical background: “America the Beautiful”)
**Scripture lesson, Psalm 100**
**Prayer**
**Lord’s Prayer**
**Governor’s Thanksgiving Proclamation**
**Offering**
**Doxology**
**Hymn** (“O Bless the Lord, My Soul”)
**Movie:** “The Puritans”
**Hymn** (“Be Still, My Soul”)

**Benediction**
Here the whole service is welded together into a unity. No part is more significant than any other. It makes an ideal service. The reader will note that the film is the only visual aid in the program. We now turn to a more extended use of visual aids. In this second sample program, slides are used as well as a film, and musical background is furnished throughout the service by turntable and records.

**A Thanksgiving Service**
(Room is darkened throughout)

**Prelude:** Beethoven’s Sixth Symphony (second movement, “By the Brook”)
**Slides:** “Sunset on the Bay,” “Sunrise on Galilee”
**Call to worship** (flashed on the screen)
**Hymn slide:** “O God Beneath Thy Guiding Hand”
(organ accompaniment)
**Scripture lesson and prayer, on slides**
**Slide:** “Pilgrims Going to Church”
**Hymn slide:** “God of Our Fathers”
**Brief talk on the Pilgrims**
**Slides:** “Pilgrim Fathers Face the Unknown”, “Mayflower at Sea”
**Motion Picture:** “The Pilgrims”
**Slide in closing:** “Departure of the Mayflower”
**Hymn slide:** “America the Beautiful”
**Slide:** “The Builder”

**Offering**
**Benediction**
**Postlude**
This program of course requires careful detailed preparation. Nevertheless it suggests the possibilities of a theme-centered worship service. The simplicity or complexity of the program must be determined by the amount of physical equipment available. The general outline of the services given above can easily be used in planning a simpler but still effective program.

The following suggestions are offered for further effective use of films and slides in church work.

**SPECIAL SITUATIONS**—There are occasions other than the regular youth services already mentioned where visual aids may be used to tremendous advantage. At least three are worthy of our attention: with an address, with a luncheon, with interest groups.

**With an Address**—At a victory dinner, it is interesting and illustrative to use movies of football games, of track events, of baseball and basketball contests. After a speech by the coach of the local college or high school, a film actually showing what is meant by sportsmanship, skill, or stamina, makes an enormous appeal to the imagination.

At missionary addresses, the importance of the work is effectively brought home by films or slides taken in Africa, China, Burma, or India. Where words fail to communicate the message, visual aids swiftly plant unforgettable images in the mind.

At civic betterment addresses, films graphically show dire needs in the slums, happiness among children at municipal playgrounds, or the beautifying effects of parks.

**With a Luncheon**—Where church organizations have monthly meetings or fellowship groups which convene periodically, it is helpful to use visual aids. A film or slide sequence is thrown on the screen before the group sits down to lunch or dinner. At the fellowship of the meal and interplay of mind with mind, the theme of the picture is brought up and “worked over.” This “free talk” method gives the atmosphere of informality and gives direction more or less to random conversation. This use of visual aids will stand a great deal of experimentation, since it will provide variety in conventional programs.

**With Interest Groups**—Frequently at week-end retreats, or at opening sessions of youth conferences, or at winter institutes of young people, leaders of the program find it helpful to present a thought-provoking moving picture which fits into the theme of the conference.

S. E. M.

**Our Cover Picture**

*(Pilgrims Going to Church)*

In this picture of early settlers of New England going to worship in spite of the fact that death may come at any moment from Indians lying in ambush, Boughton has caught the feeling of winter along the seacoast of Massachusetts. A fall of snow, not deep, but moist, a soft gray light and chilly atmosphere that are prophetic of other snowflakes ready to descend. He has expressed silence throughout this scene. No conversation may be carried on among these friends; strict observance of the day may forbode, fear of the enemy certainly will.

Many of our Puritan and Pilgrim forefathers came from Boughton’s birthplace in England, and that fact, so doubt, helped his sympathetic portrayal of them in many of his pictures, making him what one writer has called “The interpreter and illuminator of New England life in the seventeenth century.”

Boughton was born in Norwich, England, and died in London. He came to America when three years old and received his art training under distinctly American influence.

The original hangs in the Lenox Gallery in New York.
The Use of Film Dialogue in Language Teaching

It has been the purpose of this department over a period of several months to offer a guide for the use of foreign films in schools and colleges. In doing this it has had two functions in mind: (1) that of reviewing at some length or evaluating with a passing mention in a general critical review the several current foreign films released every so often to the educational market in the 16mm. size at a rental price most convenient to the average school, and (2) that of discussing methods of presentation and reporting in detail on the advances and experiments which are continually being made.

Cinema leagues in university centers and cultural groups in many other cities are now making consistent use of the best foreign films for entertainment programs, choosing among the older classics, or the one or two new films that top the New York critics' list for the year. In school or department programs where entertainment value is not the first requisite of a film, although it should remain as nearly uppermost as possible, selection is made, (1) among films that cover several languages and countries with elements of definite cultural interest and world understanding, or (2) among several films in one language that offer special advantages for practice in that language.

Demonstration of the value of using foreign film for modern language classes has been undertaken by many schools and colleges recently and has proved on the whole, so successful that discussion of the issue involved can now be limited to particular techniques of presentation. Even here these are governed necessarily by the purpose for which a foreign film is shown to a language class, and three major distinctions are apparent: (1) the use of film dialogue for practice in conversational skills, (2) the presentation of film material for building up background and association, and (3) the use of film for teaching a foreign literature.

The use of film dialogue for practice in conversational skills fulfills a function which few activities of the language class have yet been able to supply. It is a common experience to have a child say "I am going to Europe with my parents this summer so I must learn to speak well" and to find that his interest needs no further artificial prodding and remains high for an entire ten months. But for the child or even the older student who is not going to Europe in the immediate future, every help must be employed towards obtaining a permanent and satisfying motivation. This is where a talking film can do more than any other medium. The student is confronted with a change of environment sufficiently forceful to challenge his reactions as authentically as if he were suddenly dropped into a German backyard and abruptly asked the password for admittance to the gang. However, if experiments in the use of prepared dialogue are to have any permanent value, they must be conducted with films that gain the respect of the student audience for technical excellence. A tiresome first experience with this type of activity would seriously affect the possibility of further interest.

In the case of Emil Und Die Detektive last year, short selections of the dialogue were edited by William Kurath, then of the University of Chicago, now head of the German department at the University of Arizona. The dialogue was purposely abridged so that its preparation before the film could take anywhere from one class period to two weeks intensive drill and the cost to each student would remain nominal. This year Henry Holt & Co. has published the entire script of Mélusine by Marcel Pagnol, noted French playwright and film producer, and edited by Lucius G. Moffatt of Syracuse University, a project which I believe has been in preparation for some time. With a long background of teaching in the lycees of southern France and in Paris and much literary experience it has been Pagnol's conviction that film scripts should have as high a literary quality as the written drama and should deserve publication as such. The script of Mélusine was first published in France in 1935 in La Petite Illustration. The school edition is a reader of one hundred seventeen pages with illustrations from the film. A reader of this length because of content and of cost to the student is usually apportioned to at least several weeks of work in the student's program. There will probably be much need for experiment before the satisfactory proportion of written material to film is settled in such a way that the visual and aural elements retain the primary emphasis. Most film distributors however will send dialogue sheets upon request from which the individual teacher can prepare her own classroom material when the choice of a film has been based on its cinematic value.

Film critics, on the whole, agree that a film is apt to suffer if it is originally conceived from any other than

(Concluded on Page 301)

A lesson plan is described for using a film, not only incomplete in factual material, but containing errors, when no other film was available. Description, and particularly demonstration, made the facts more evident than a good film usually does.


When the teachers of English at Central High School, Providence, Rhode Island, noticed that a considerable number of pupils read nothing but the comic strips regularly, they decided to meet the pupils at their own level and capitalize a more or less universal interest. The colored comic page was pasted on cardboard, and ten large orange-colored circles were pasted thereon, each circle containing a book description.

Pupils flocked to the gay posters and found such sprightly prods to reading as these: "Popeye is an amateur compared with Captain Blood. Read all about the daring exploits of this sea rover in Sabinini’s novel, a copy of which awaits you in the school library.” "Sea stories in our school library that put to shame the imaginary deeds of Popeye, the Sailor Man, include Hurricane Weather, Wind in the Rigging, All Sails Set, and Magic Portholes." Because of the excessive demands upon the library, the posters had to be withdrawn temporarily.

(pp. 39-43) "Hampden’s Course in Appreciation of Movies and Radio," by Kent Pease, Hamden, Conn.

Although the movies and the radio provide the chief "intellectual" entertainment of vast numbers of students, teachers of English mostly teach books. If we cannot convince the students that we are in sympathy with their points of view, we can do nothing for them. There are courses in appreciation, approached variously, but often stressing the wrong point of view as the Hamden teachers see the situation. While we have succeeded in imposing an adult standard in regard to books, it may be quite impossible in the newer fields of entertainment because of the great strength of the forces that repel and attract. As a preventive measure, it has been well to reduce the number of bad pictures, but as an educational activity, it means nothing. The youth still prefers the bad picture when he can find it. The best discipline is imposed by one’s self from his own tastes and thinking. The writer contends that learning the essential difference between a stage play and a movie of the same name does not necessarily induce appreciation; nor does becoming aware of the backgrounds from which the author took the story, or being able to explain certain technical tricks in the picture lead to appreciation. "Generally such evaluations degenerate into a set of mere fijical prejudices rather than a maturing, practical, usable judgment."

For testing the foregoing opinions, as to their truth or falsity, Hamden High School, in 1936-’37, set up an experimental class in the appreciation of movies and radio. There was no thought of a standardized final product. It was hoped that each pupil could be helped to discover why he liked what he liked. There is constantly proof that children’s tastes in this form of entertainment change rapidly. "If we can give them reasons for discrimination and standards below which they will not willingly accept their entertainment, we have done all that any appreciation course can or ever has done for anyone." There was throughout the course perfect freedom of discussion, the teacher’s prejudices weighing no more than those of the pupils. "We found out that appreciation based on commonly-arrived at judgments cannot be gained and gained with profit to all."


Several very wise suggestions are made to show how a community spirit may be worked up for the purchase of audio-visual aids. Definite procedures are given for raising funds and for arranging easy terms with commercial supply houses.


While we have talked much about economy in education, we have said little about economy in classroom procedure. Why not save time and money by energizing the pupils with actual things and with pictures relative to what is being taught? A more real experience will raise efficiency, and efficiency in the classroom should mean as much as it does in industry. Economy will come through efficiency in lessening teacher effort, time for motivation, and time for review, checking retardation, and increasing permanence of learning. Because of interest and concreteness in the use of visual aids, pupils read more books, and correlate their work more closely with other subjects. The retarded student is assisted by an easier and quicker method of learning. When retardation is reduced crime is reduced, an advance in finances as well as in character. The cost of visual aids is much less per pupil than in subjects requiring individual material for each pupil. The failure to recognize the advantages of visual education will become more and more evident until a demand will be generally made for teachers trained in this field. Greater use will mean greater efficiency and greater efficiency will mean greater economy.

(Concluded on page 306)
DEPARTMENT OF VISUAL INSTRUCTION

PROSPECTS for growth and expansion of the Department of Visual Instruction during the coming school-year could not be brighter. We state this deliberately, although the fall campaign for membership is already months late in starting. There are reasons.

The Detroit meeting last June impressed many as particularly successful. The arrangements for headquarters and assembly were ideal, attendance was notably good, enrollment of new members was unusually high, and exceptional interest and fine enthusiasm seemed all-pervasive. New officers were chosen to take over the promising work and carry on to better things. Then came two unforeseen incidents. The new President, Rupert Peters of Kansas City, found himself compelled by cogent considerations to decline the appointment. The retiring President was suddenly and seriously incapacitated soon after the Detroit meeting, was not allowed even to know of Mr. Peters' decision for two months, nor to lift a finger to do anything about it for another month. Now at last, all difficulties seem resolved when the new Executive Committee instructs the first Vice-President, Edgar Dale, to take over the presidential duties at once. Under Dr. Dale's dynamic direction notable progress may be confidently predicted for the Department this year.

ALL PAPERS and addresses from the Detroit program, with a single exception, were reprinted in the September and October issues. It remains to give here merely a brief summary of action taken at the business sessions.

The Business Luncheon on Tuesday noon was occupied by comments by the President on the Department's status, and especially by a showing of the film on Child Safety in Traffic, produced by the Metropolitan New York Branch, for official approval by the Department of Visual Instruction. The discussion following, pro and con, was long and vigorous, lasted far beyond luncheon time, and was ended only by placing the matter in the hands of a newly appointed Resolutions Committee, with John A. Hollinger as Chairman, for resubmission at the Business Meeting Wednesday. (Final conclusion appears in Resolutions VI and VII below.) The Nominations Committee was also appointed at this time, with George E. Hamilton as Chairman, and the 160 ballots by mail from members unable to be at Detroit were turned over to this Committee for full consideration in their preparation of nominations for submission at the Wednesday meeting.

At the regular Business Meeting on Wednesday, Chairman Hollinger read the Resolutions prepared by his Committee. They were passed individually, with occasional discussion from the floor. They are printed here in full:

Resolutions Passed at the June (1937) Meeting of the Department of Visual Instruction of the National Education Association

I. Resolved, that the Department of Visual Instruction of the National Education Association hereby expresses to the Convention Bureau its appreciation and gratitude for the exceedingly satisfactory, pleasant and convenient headquarters and meeting places provided; to the Detroit News for the courtesies extended through the use of the WWJ broadcasting studio for its meetings and the notably efficient service rendered by its entire staff; to the Detroit schools for the gracious courtesies extended through its system, the inspiration given by Superintendent Frank Odaly, and the exceedingly efficient services rendered by Mr. W. W. Whitnghill and his staff in handling all details of local arrangements; and to the courtesy of those individuals and organizations who so kindly provided and operated projection equipment at our meetings.

II. Whereas, Mr. Nelson L. Greene has for many years devoted unfruitful efforts and given generously his time and energy to the cause of visual instruction and the work of this department and has during the past two years, served as the President of the Department and in that capacity has worked without stint and given the utmost of his outstanding ability to the growth and welfare and accomplishment of the Department,

Therefore, Be It Resolved that we extend to him our sincere gratitude and deep appreciation for the most efficient performance of the duties of his office, for his excellent work he has accomplished and the outstanding results which have been attained under his leadership; and be it further resolved, that the Department of Visual Instruction hereby extend to The Educational Screen, its editor, Mr. Nelson L. Greene, Miss Evelyn Baker and other members of its staff, its sincerest thanks for their efforts and services to the work of the Department and in aiding in the success of the meetings of the two years.

III. Whereas, economy, simplicity, availability of materials and safety from fire hazards justify the use of 16 mm. motion pictures as a standard for instructional use,

Therefore Be It Resolved, that the use of 16 mm. motion pictures be considered as standard for educational purposes.

IV. Whereas, there is urgent need in the Visual Instruction field for standard terminology,

Therefore, Be It Resolved that a committee of three members of this Department be appointed by the Executive Committee to prepare and submit to the Executive Committee a list of terms generally used in this field that may comprise a standard glossary of Visual Instruction terms.

V. Resolved, that the Department of Visual Instruction strongly advocates that boards of education provide in their annual budgets adequate appropriations for visual auditory equipment, materials and supplies, and for the salaries of personnel engaged in the work of visual auditory instruction.

VI. Whereas, the Safety Committee of the Automotive Industry has made a grant to the New York-Metropolitan branch of the Department of Visual Instruction of the National Education Association for the production of a motion picture on child safety in traffic for elementary grades and its national distribution, free of cost to the users, and

Whereas, the Executive Committee of the Visual Instruction Department have approved of the production and national distribution, free of cost, of an educational motion picture on child safety in traffic, for elementary grades, as a presentation of this Department, under the supervision of the New York Metropolitan branch, and

Whereas, the New York-Metropolitan branch has, under said grant, had the film produced under its supervision and arranged for its national distribution, and

Whereas, the said film has been completed and submitted to this Department for approval, and

Whereas, a full accounting of the expenditure of the grant for the production and distribution of this picture has been made,

Therefore, Be It Resolved, that the Department hereby compliment the New York-Metropolitan branch for its excellent work and approve of the film as a presentation of this Department, and

Be It Further Resolved, that the Department hereby express to the Safety Committee of the Automotive Industry its appreciation for the grant which has made possible the accomplishment of this project, and

Be It Further Resolved, that copies of these resolutions be sent to the Safety Committee of the Automotive Industry and to the New York-Metropolitan branch of this Department.

VII. Resolved, that a committee of this Department be appointed by the President to set up and submit to the Executive Committee standards and requisites for the approval by the Department of any educational motion picture production or production project hereafter submitted to it for approval, said standards and requisites, when accepted by the Executive Committee, to become the policy of the Department with reference to the approval of such production or production project.

It is recommended that there be included in such standards and requisites the requirement that no film shall
be approved which (1) is designed to advertise any commercial organization or promote the sale of any commodity, or (2) is in direct competition with any satisfactory existing production available for rental or sale; that a full accounting be made to the Department for the expenditure of any grant made to the Department for the production or distribution of a film so approved; that the approval of the film be conditional on its acceptance by the Executive Committee on completion, and that members of the Department be properly informed, through the official organ or otherwise, of the approval of such a production or project.

X Whereas, the Visual Instruction Department deplores the indiscriminate use of motion pictures in the school, therefore, Resolved, that the Department recommend that greater care be taken to distinguish more clearly between motion pictures used for specific classroom purposes and those general motion pictures useful for auditorium or assembly activities.

XI Whereas, the Department of Visual Instruction suggests that greater attention be given by its members to the functions of the Department as a clearing house of information on visual-auditory materials and instructional methods, and

Therefore, Be It Further Resolved, that the Executive Committee explore the possibility of giving additional services and benefits to members in order to increase the size and effectiveness of the organization.

The FOURTH Official Roster of members is here presented. In order to put it on a school-year basis, all members are included who expire from September 1937 to June 1938 inclusive. It consists, then, of the June roster (352) less the June expirations (326) plus the 89 new and renewed memberships received since the June roster, or a total paid membership of 415 as of September, 1937.

N. L. G.

Chairman Hamilton read the recommendations of the Nominations Committee as follows:

For President, Rupert C. Peters of Kansas City.

For First Vice-President, Edgar Dale of Ohio State University.

For Second Vice-President, Rita Hochheimer of New York City.

For Executive Committee, Robert Collier, Jr. of Denver; William H. Dudley of Chicago; Mariami Evans of San Diego; H. A. Henderson of Indianapolis; John A. Hollinger of Pittsburgh; Abraham Krasker of Boston.

From the floor was made an additional nomination of J. E. Hansen of Madison as member of the Executive Committee. Mr. Hollinger immediately withdrew in favor of Mr. Hansen and, thus modified, the entire slate was unanimously elected. (The later withdrawal of Mr. Peters, who was not present at Detroit, has been explained above.)

THE FOURTH Official Roster of members is here presented. In order to put it on a school-year basis, all members are included who expire from September 1937 to June 1938 inclusive. It consists, then, of the June roster (352) less the June expirations (326) plus the 89 new and renewed memberships received since the June roster, or a total paid membership of 415 as of September, 1937. N. L. G.
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Minnesota Institute in Visual Education

On Thursday, Friday and Saturday, December 2, 3 and 4, 1937, the University of Minnesota Center for Continuation Study will offer a regional institute in Visual Education, the first of its kind in the Northwest. On Saturday, December 4, the Center will hold a conference on the Classroom Use of Radio.

The chairman of the faculty for the Institute will be Professor Robert Kissack, Jr., head of the University Visual Education Service. The instruction staff of the Institute as now arranged includes such well-known experts in the field as Dr. Edgar Dale of Ohio State University, Charles Hoban of the American Council on Education, H. B. McCarty, Program Director of WHA at the University of Wisconsin, J. E. Hansen, Chief of the Bureau of Visual Instruction at the University of Wisconsin, Ella Clark of the State Teachers College at Winona, and H. L. Kooser, Head of the Visual Instruction Service, Iowa State College.

It is probable that other educators who have made a conspicuous success in the use of radio and visual aids will also be asked to assist.

In brief, the program will deal with teaching methods (with demonstrations), teacher training in visual education, equipment, distribution of visual aids, preparation of visual aid materials, application of visual aids in the new concepts of learning, and administrative problems (such as securing, budgeting and setting up visual aid programs in rural and urban schools).

"Thousands of teachers in the Northwest are now making use of visual aids," says J. M. Nolte, Director of the Center, "but there is a widespread opinion among them that such use is not always as effective as it might be made. This institute is offered at the suggestion of teachers who seek to know the best practices in employing visual aids. It will attempt to present to institute members the experience of those who have been most successful in this field, and it will give the teachers attending full opportunity to discuss their own problems in relation to the subject."

The institute is offered for professional educators in the Northwest. All applications will be sent to each applicant by the Director of the Center. Details as to registration, tuition and accommodations are available from the Center for Continuation Study.

The Motion Picture on Williamstown Program

The influence of the motion picture on public opinion in the United States, particularly from the point of view of the relation of the movies to ethics and the spirit of America, was the subject of extended discussion at the 1937 Williamstown Institute of Human Relations at Williams College, Williamstown, Mass., from August 29 to September 3. The Institute was held as in 1935, under the auspices of the National Conference of Jews and Christians, of which Dr. Everett R. Clinchy is director.

Three co-chairmen of the Institute—Newton D. Baker, Prof. Carlton J. H. Hayes and Roger Williams Kraus—represented the Protestant, Catholic and Jewish faiths. Dr. Harry A. Garfield, president emeritus of Williams College, presided at the sessions Aug. 30 and Aug. 31, during which the motion picture was the topic of discussion.

Edgar Dale, Ohio State University, spoke on "The Motion Picture and Inter-Group Relations." At the second day's session, Gerald B. Donnelly, Associate Editor of America, Fred Eastman of Chicago Theological Seminary, and Rabbi Morris S. Lazar of Baltimore spoke on "The Motion Picture and Its Public Responsibilities."

Atlanta Audio-Visual Conference

The first Southern Conference on Audio-Visual Education, held last month in Atlanta, was a marked success, attracting a large attendance at the three-day meeting, which was under the chairmanship of Dr. J. C. Wardlaw, Director of the University System of Georgia Division of General Extension. The principal speakers and their topics were:

"The Motion Picture—A Great Teaching Medium," by Dr. B. H. Darrow, educational director, Buffalo Evening News Radio Station; "Seeking New Educational Objectives Through the Use of Films," and "Teaching Motion Picture Discrimination to Children and Youth," by Dr. Edgar Dale, Ohio State University, Columbus, Ohio; "Teacher Training and Audio-Visual Education," by Dr. Walter D. Cockey, Dean Peabody College of Education, University of Georgia; "Recent Developments in the Use of Visual Aids to Instruction," by Dr. Ellsworth Dent, educational director, Victor Division, Radio Corporation of America; "The History and Present Status of Instructional Sound Films," by Dr. H. A. Gray, Research Associate, Erpi Picture Consultants, Inc. "The Educational Motion Picture Policy and Program of the United States Department of the Interior," by Fanning Hearon, director, Division of Motion Pictures, U. S. Department of the Interior, Washington, and "New Developments in Educational Motion Pictures," by Donald P. Bean, director, University of Chicago Press.

The conference closed with a resolution to make a permanent organization of the association, which was organized in August by a group of thirty southern educational organizations.

The October meeting of this association was probably the most significant educational meeting that has been held in the state in ten years.
Noted English Producer Visits U. S.

Paul Rotha, author of several books on motion pictures and an authority on documentary films, has arrived from England for a five months' stay during which he will cooperate with the Museum of Modern Art Film Library, New York City, in the production of a film on the technique of motion pictures, which will illustrate technical and artistic progress with excerpts from films in that library.

His other activities while in the United States will include a series of lectures at several Eastern colleges and universities, and the showing of several representative English documentary films, which are considered by many in England the most significant type of film at present made there. Mr. Rotha is production supervisor of Strand Film Company and has produced most of the films he has with him.

College Inaugurates Film Course

Dartmouth College started the experiment of developing motion picture script writing with the recent arrival in Hanover, N. H., of Walter Wanger, producer. He will promote instruction in this field as a memorial to the late Irving Thalberg. The project will be carried on in upper-class courses of the English department under direction of Professor William B. Pressey, who will be assisted by writers, directors, actors, actresses, producers, censors, camera men and editors sent from Hollywood by Mr. Wanger.

Announcing a Different Type of Primary School Program

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WALTER O. GUTLOHN, Inc., announces the release of a series of one reel films specifically adapted and edited for children in the 6 to 12 year age group.

These pictures are both instructional and entertaining. The subjects consist of a film entitled "Adventures of Bunny" and seven "Children's Hour Programs", which are variety films composed of nature study, marionette and novelty material, taken from Pathe's World in Review series.

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The Camera Serves the Schools

With the arrival of the so-called "Candid Camera Era", people of all ages have been fascinated by the hobby of photography. The interest is not restricted to the camera itself as such, but includes all phases of photography, the making of pictures, the chemicals involved in making prints, the print itself, optical principles involved, various grades of photographic papers and emulsions, camera angles, and the like. In fact all those elements which enter into the making of an artistic finished product, the print, challenge the interests of the addicts to the fascinating hobby.

This interest can readily be turned to advantage for educational purposes. Camera clubs can be formed and courses in photography offered in the high schools. Pupil and parent influence in this matter have reacted in many cases so that school administrators have discovered that they could find in the school budget an allotment of money and rooms for photographic work. Administrators have also found that pictures of school activities when used in local papers have been of inestimable value in building favorable attitudes toward securing community cooperation for the school and its program. A creative teacher might greatly vitalize the study of the fundamental subjects by photographing the activities during the conduct of a unit of work, thereby creating greater interest on the part of the pupils and also showing the principal, the supervisor, and the parents the effects of these dynamic techniques in a functional curriculum.

The following illustrations show how the camera was turned to educational use in the regular conduct of class work in the schools. In some cases it was used to record accomplishments; in another it served to indicate techniques; in other instances it pointed the way to possible activities to enrich the subject matter of the curriculum.

A Mural of Mexico

During the regular conduct of the geography unit on Mexico in the seventh grade in the Training School of the State Teachers College, Indiana, Pa., the pupils expressed a desire to add something of their own making to the increasing quantity of visual materials in their classroom. After due deliberation they decided to execute a mural, stressing certain features of Mexican life. This project was turned over to Alma Gasslander, Art Supervisor, who had each pupil submit a design on a large sheet of wrapping paper. A vote was taken, and the two murals shown in the picture were made on cloth, with crayons and in color, as class projects. These now adorn the walls of the classroom.

When the murals were almost completed the camera was called into use and this picture taken, primarily to indicate techniques employed in this integrated and functional curriculum of the college. The picture tells better than words can, how the project was executed. One sees at the right a group of pupils sketching and making the designs; while the center foreground indicates that in the initial stages the work on the mural was done with the cloth spread on the floor, making it possible for quite a number of students to work on it simultaneously. "Finishing touches" were added with the mural in place on the wall, thus giving the proper perspective and making it convenient to add a bit here and there to give the correct shades and proper tone values to the whole picture.

This picture has been made into a lantern slide and serves admirably at institute meetings to inform teachers in service of projects and techniques which will...
appreciably enrich their teaching. Used in the college paper, the local daily paper, and in the college catalogue, it informs the community at large of the type of work being done in the modern type of school. Thus the camera serves the school.

4-H Guernsey Calf Club Round-Up

A NOTHER instance in which the camera came into play to serve education was in connection with the 4-H calf club work carried on during out of school time. In June 1935 a number of boys and girls of Purchase Line, Penna., joined the 4-H Guernsey Calf Club under the sponsorship of County Agent John Warner, knowing that such an undertaking was a long-term project. At that time each member entered a six-months-old calf in the contest. Approximately two years later, when the animals were fresh and milking, they were entered in the judging contest at the annual field day and live stock round-up. On this day, which marked the culmination of the project started two years previously, the sixth photograph in a long pictorial record of the project, was taken to commemorate the event. The series of pictures tells very graphically the story of progress and achievement. The camera did its work well and proved to be an invaluable servant.

Mr. Warner used the pictures in newspapers to inform the people of the work of the young people, to promote community spirit of cooperation, to enlist the interest of other youngsters in such club work, and to arouse people to a desire for better dairy herds in their communities. Some of the pictures were made

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November, 1937

Page 299
into lantern slides and used at the various live stock and agricultural meetings. Some of the prints were used in the opaque projector at such meetings. He contends that the camera is his "right hand man" in the conduct of his work as County Agent under the U. S. Agricultural Extension Service in this community.

This article enters a plea for the use of the camera in the regular conduct of classroom work. It has been shown that the ramifications of the photographic hobby are multitudinous, invading practically every phase of every school subject—art, science, history, geography, etc. Only a few instances have been cited. It would be of interest to all to have a full word description and a pictorial presentation of the case in which a student in the college here spent several months time and considerable money in photographing the few remaining parts of the old portage railroad in his county. His pictures were made into lantern slides and used in a number of county institutes and historical society meetings to recreate that historical epoch in American history. Several historical societies of the state have made attempts to secure these pictures, but it is his intention at some future date to present them to the State Museum. Highway construction, and the ravages of time have practically obliterated this particular strip of the old railroad and hence no other pictures can be made to commemorate the enterprise. His photographic work serves as a monumental achievement, and thus again the camera serves the schools.

W. E.

STANDARD OF OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS

OF AUGUST 24, 1912

Of The Educational Screen and Visual Instruction News, published monthly except July and August, at Pontiac, Ill., for October 1, 1917, State of Illinois, County of Cook, as

Before me, a notary public in and for the State and county aforesaid, personally appeared Nelson L. Greene, who, having been duly sworn according to law, deposes and says that he is the owner of The Educational Screen, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, circulation, and other details required of a newspaper, as required by the Act of Congress approved August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, The Educational Screen, Inc., 64 E. Lake Street, Chicago, Ill.; Editor, Nelson L. Greene, 64 E. Lake Street, Chicago, III.

2. That the owner is: The Educational Screen, Inc., 64 E. Lake Street, Chicago, III. Katherine Snydhiht, 6530 Kentwood Ave., Chicago; Nelson L. Greene, 5366 Stony Island Ave., Chicago; Estate of Dudley G. Hays, 1641 Estes Ave., Chicago; Estate of Frederick J. Lane, 6450 Kentwood Ave., Chicago; Margarette Oertdrorff, 1617 Central Ave., Indianapolis, Ind.; Frank Green, Ocala, Fla.; Marie Craig, Bangor, Me.; Estate of J. J. Weber, Bay City, Texas.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain no statements embracing affidavt's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner and this affidavit has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold and distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is . (This information is required from daily publications only.)

NELSON L. GREENE,
Signature of editor, publisher, business manager or owner.

Sworn to and subscribed before me this 1st day of October, 1937.

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Foreign Films for Educational Institutions

(Concluded from page 289)

the purely cinematic point of view although the filmed play has a place of its own in certain programs. Although the acting of the children is not at all as successful in Merluse as in Emil Und Die Detektive or in La Maternelle, the atmosphere is accurately rendered. As one British reviewer puts it, “This is a real lycée—the hollow corridors, the playground, the dining-hall, the classroom, the bare dormitory are absolutely authentic; one is almost aware of the peculiar smell which such places invariably give out.” It is to be hoped that the future creation of sound film primarily for language classes will lie rather in the direction of the universal child classic than in any other.

Suggested Films
La Kermesse Heroïque: French dialogue. Recommended for mature classes.
Merluse: French dialogue.
Singenie Jugend: Austrian-nude, German dialogue. The Vienna choir boys singing and at play.
Spanish Earth: English narrative. Best of the several films on events in Spain.
The Golem: French and Yiddish dialogue.

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Current Film Releases

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The 16 mm. Sound-on-Film Recess Programs which are being introduced by Walter O. Gutlohn, Inc., have aroused great interest because of their value in supplementing classroom visual instruction. Many schools are using these Recess Programs as an aid in formulating their visual instruction activities. The programs are approximately half-hour in length and have been carefully edited and arranged by a special committee whose work in this field has won widespread recognition.

Garrison Films on China

After releasing three films dealing with the background and war in Spain, Garrison Film Distributors, Inc., New York City, announces it is releasing three sound films on the background and war in China.

The films on Spain are: In Old Madrid (1 reel), Heart of Spain (3 reels), The Spanish Earth (6 reels). The new sound films on China are: China (1 reel), study of the background: Thunder Over The Orient (2 reels), scenes of the actual war; China Strikes Back (3 reels), a dramatic study of the unification of China in defense against Japanese aggression. The latter film was produced by Frontier Films, Inc.

Foreign Films In 16mm.

The International Film Bureau, Chicago, announces the acquisition of the 16mm. rights to four foreign films: Carnival in Flanders (La Kermesse Heroïque), Singende Jugend, Kimiko and Tsar to Lenin. In addition, the Bureau has purchased the 35mm. rights to Song of China, which is being handled in 16mm by Bell and Howell. All the films distributed by the International Film Bureau have English sub-titles, except Tsar to Lenin which has an English narrative. Distribution for the entire United States is being handled from the Chicago office of the Bureau, except in the case of Wisconsin, Minnesota, North Dakota, South Dakota, and Montana—which states are being handled by the University of Wisconsin, Canadian distribution for the Bureau is being handled exclusively by the University of Alberta.

Timely Subjects

Pictorial Film Library, New York City, announce they have secured the exclusive 16mm. rights to the just completed film, Thunder over the Orient. Dealing with the Sino-Japanese War, this two-reel sound film is authentic current news, portraying both China and Japan previous to the War, events leading up to the present crisis from 1891 to the disastrous events of the present.

Sea of Strife, another two-reel subject, traces the history of the Mediterranean Sea back to the Cretes, Greeks and Romans, up to the present with the struggle for supremacy among the nations of today, showing how Italy, England, Spain, France and Germany are involved in the conflict.
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in 10 new reels

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AMONG THE PRODUCERS

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Permanently attached arms, capable of taking reels up to 1600 feet of 16mm film are swiveled to enable instant movement in various positions without detaching. Ample forced ventilation protects all standard pre-focused base projection lamps up to and including the 750 watt. A triple movement engages three sprocket holes in the film simultaneously which enable the film to be fed properly even though two of the three sprocket holes engaged are torn and useless. A rotary type shutter is multi-bladed thus affording maximum light efficiency. A still picture button will permit the exposing of one frame at a time on the screen, if desired, without injury to the film. The amplifier with five tubes operating on 50-60 cycles A.C. 100-120 volts provides an undistorted output of 40 watts with a maximum output of 55 watts.

New Products from Central Camera

Central Camera Company, Chicago, have ready several articles of their own manufacture, namely, a lighting unit called "Realite," a Film Chest Negative File and Photopure Acid Fixer. Their new streamlined "Realite" lighting unit which has no clamps, no nuts, no bolts, should appeal to those photographers who are seeking to make their work easier, to produce better lighting and better pictures at lower cost. The
patented lock construction locks the stand instantly to any desired height from 30 inches to 80 inches. Double legs eliminate wobbling and insure firmness and rigidity. Twin arms swing through a complete arc—as low as the floor and as high as 80 inches—and stay put at any angle. Reflectors swing in all directions on a universal ball joint. It weighs very little and folds down to 38½ inches for carrying.

The Film Chest, complete for $275, affords a convenient system for filing as many as 4600 35mm. negatives or a correspondingly large quantity of negatives of other sizes up to and including 2½ x 4½ films. Humidifier pad and bottle of humidifying solution are included, the application of which keeps the film in good condition. Film Chest provides also a means of preserving negatives. It contains 100 envelopes with imprint providing for data on each negative stored therein.

The Photopure Acid Fixer is a new rapid acting acid fixing hypo power for all papers, film and plates. It contains hardening as well as acidifying chemicals which help to prevent blisters and frilling.

Complete details are described in Central’s latest Bargain Book of Cameras and Photographic Supplies, which will be sent upon request.

**RCA Victor Sound Catalogue**

The first complete catalogue listing RCA Victor sound services available for school use has just come from the press.

Included in the catalogue is RCA Victor equipment, from music appreciation books and catalogues to elaborate school-wide sound installations, one of which is accurately diagramed in a double-page spread in the center of the catalogue. Such a system permits announcements to be made to the entire school at the same time while classes are in session by utilizing loudspeakers in the classrooms.

The catalogue lists uses of Victor Records for teaching elementary, intermediate, high school and college classes in music rhythm, instrumental combinations and music appreciation, as well as for instrumental instruction. It is beautifully illustrated with pictures of phonographs, radio-phonograph combinations and radios which are adapted to school use, as well as the latest RCA Photophone motion picture projectors and Victor Recording Equipment. A section is devoted to battery sets and equipment for rural schools and portable sound systems.

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**RCA Catalog Cover**

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COMPARATIVE EFFECTIVENESS OF SOME VISUAL AIDS IN SEVENTH GRADE INSTRUCTION. By Joseph J. Weber, Ph.D.

The first published work of authoritative research in the visual field, foundational to all research work following it. Not only valuable to research workers, but an essential reference work for all libraries.

131 pp. Price $1.00 (67c to subscribers of E. S.)

BIBLIOGRAPHY ON THE USE OF VISUAL AIDS IN EDUCATION. By Joseph J. Weber, Ph.D.

A complete bibliography on the field to June 1930. Over 1,000 references to books and magazine articles. (Additional references by Mr. Weber through September, 1932, appear in EDUCATIONAL SCREEN for October 1932.)


SIMPLE DIRECTIONS FOR MAKING VISUAL AIDS. By Lillian Heathershaw, Drake University, Des Moines, Iowa.

Directions for making Etched Glass Slides, using Colored Pencils; Etched Glass Slides, using Colored Inks; Paper Cut-out Lantern Slides; Ceramic Lantern Slides; India Ink Lantern Slides; Still Films; Cellophone Lantern Slides; Photographic Lantern Slides; Film Slides; The Electric Map; Spatter Work; Pencil Outlines of Leaves; Carbon Copies of Leaves; Leaf Prints from Carbon Paper; Blue Prints; Sepia Prints.


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The catalogue is designed to put before the educators of the country information concerning advances in the field of commercial sound and radio. Use of records, phonographs and radio in education has steadily increased for many years. Recent improvements in recording and sound reproduction are expected to make sound service of even greater importance to the school.

Stereographs and Slides on China

In response to numerous requests for material on China, Keystone View Company, Meadville, Pa., has assembled a set of fifty stereographs and lantern slides on that country. The pictures include scenes in the leading cities—Hong Kong, Canton, Shanghai, Nan-king, Peiping—and Mauchukuo, scenes of river life, industries and native life in the rural districts, and other places prominent in the news of the day. An important part of the set is the political map slide on China that accompanies the pictures.

Helpful Source List of Visual Materials

Spencer Lens Company, Buffalo, New York, has compiled and offers free, three source lists of visual material suitable to use in Spencer Delineoscopes. These lists give 25 Sources of Pictures, 24 Sources of Lantern Slides, and 14 Sources of Filmslides. They are conveniently classified by subject, and each source is keyed to show the type of material available. The Subjects include Science, Geography, Industries, History, Art, Literature, Hygiene, Agriculture, Religion, Nature, Sculpture, Music, Travel, Architecture, and Juvenile Encyclopedia.

Among the Magazines

(Continued from page 291)

Teachers College Record; English Number (39: 55-64, Oct., '37) “Children’s Standards in Judging Films”, by Mary Allen Abbott, Teachers College, Columbia University.

Mrs. Abbott has collected in Horace Mann School since 1927 reasons given by Junior and Senior High School pupils for liking or disliking films. In 1936, High Schools in Greenwich, Conn., East Orange, N. J., carried on a similar investigation to that in Horace Mann School. The results in the two periods are compared. Five pages are devoted to lists of films that were liked or disliked and the reasons therefor on the part of boys and of girls in the years nine to twelve of the High School. This tabulation should be interesting to teachers of classes in film appreciation. The writer points out the bases, suggested by the students themselves, that may serve as a means for enlargement and refinement of criteria. Teachers of English, history, art, and music as well as literature teachers may find much that is suggestive in their fields. Considerable interest is expressed by the pupils on adventure throughout the studies and on plot that is dynamic. Mrs. Abbott believes that this is true well-invested to help young pupils find heroes that are worth imitating.
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1815 Larchmont Ave., Chicago (See advertisement on inside back cover)
Brassey Pictures Corporation (6)
729 Seventh Ave., New York City
Cine Library (5)
1041 Jefferson Ave., Brooklyn, N. Y. (See advertisement on page 259)
Eastin 16 mm. Pictures (6)
Davenport, la. (See advertisement on page 302)
Eastman Kodak Co. (1, 4)
Rochester, N. Y. (See advertisement on inside back cover)
Eastman Kodak Co. (1, 4)
Teaching Films Division
Rochester, N. Y. (See advertisement on page 297)
Eastman Kodak Stores, Inc. (6)
1020 Chestnut St., Philadelphia, Pa.
606 Wood St., Pittsburgh, Pa.
Edited Pictures System, Inc. (6)
330 W. 42nd St., New York City
Films, Inc. (6)
330 W. 42nd St., New York City
64 E. Lake St., Chicago
925 N. W. 19th St., Portland, Ore.
Garrison Film Distributors (3, 6)
730 Seventh Ave., New York City (See advertisement on page 299)
Walter O. Gouton, Inc. (6)
35 W. 45th St., New York City (See advertisement on page 297)
Harvard Film Service (3, 6)
Biological Laboratories, Harvard University, Cambridge, Mass.
Guy D. Hesselton’s Travellettes (1, 4)
7901 Santa Monica Blvd., Hollywood, Cal.
International Library of Visual Aids (6)
RKO Bldg., Radio City, New York (See advertisement on page 277)
J. H. Heilberg Co., Inc. (2, 5)
729 Seventh Ave., New York City (See advertisement on page 304)
Ideal Pictures Corp. (3, 6)
28 E. Eighth St., Chicago, Ill. (See advertisement on page 304)
Institutional Cinema Service, Inc. (3, 6)
130 W. 46th St., New York City
International Film Bureau (2, 5)
50 E. Van Buren St., Chicago (See advertisement on page 297)
Lewis Film Service (6)
105 E. 1st St., Wichita, Kan. (See advertisement on page 297)
The Manse Library (4, 5)
2439 Auburn Ave., Cincinnati, O. (See advertisement on page 304)
National Cinema Service (6)
3 W. 92nd St., New York City
Pinney Film Service Co. (1, 4)
1028 Forbes St., Pittsburgh, Pa.
United Projector and Films Corp. (1, 4)
228 Franklin St., Buffalo, N. Y.
Universal Pictures Corp. (3)
Rochefeller Center, New York City (See advertisement on page 300)
Visual Education Service (6)
131 Clarendon St., Boston, Mass.
Visual Instruction Supply Corp. (6)
1757 Broadway, New York City (See advertisement on pages 301, 304)
Wholesome Films Service, Inc. (3, 4)
45 Melrose St., Boston, Mass.
Williams Brown and Earle, Inc. (3, 6)
918 Chestnut St., Philadelphia, Pa.
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347 Madison Ave., New York City

MOTION PICTURE MACHINES and SUPPLIES
The Ampro Corporation (6)
2839 N. Western Avenue, Chicago (See advertisement on page 251)
Bell & Howell Co. (6)
1815 Larchmont Ave., Chicago (See advertisement on inside back cover)
Eastman Kodak Co. (4)
Rochester, N. Y. (See advertisement on inside back cover)
Eastman Kodak Stores, Inc. (6)
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General Films, Ltd. (3, 6)
1924 Rose St., Regina, Sask. (See advertisement on page 304)
Herman A. DeVry, Inc. (3, 6)
1111 Armitage St., Chicago (See advertisement on page 278)
Ideal Pictures Corp. (3, 6)
28 E. Eighth St., Chicago (See advertisement on page 304)
Institutional Cinema Service, Inc. (3, 6)
130 W. 46th St., New York City
International Projector Corp. (3, 6)
50 Gold St., New York City (See advertisement on inside front cover)
RCA Manufacturing Co., Inc. (5)
Camden, N. J. (See advertisement on page 282)
S. O. S. Corporation (3, 6)
636 Eleventh Ave., New York City
Sunny Schick National Brokers (3, 6)
United Projector and Films Corp. (1, 4)
228 Franklin St., Buffalo, N. Y.
Universal Sound Projector (5)
1921 Oxford St., Philadelphia, Pa. (See advertisement on page 304)
Victor Animatograph Corp. (6)
Davenport, Iowa (See advertisement on page 277)
Visual Education Service (6)
131 Clarendon St., Boston, Mass.
Williams, Brown and Earle, Inc. (3, 6)
918 Chestnut St., Philadelphia, Pa.

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Colonial Art Company (8)
1336 N. W. First St., Oklahoma City, Okla.
The Photocell Studio (8)
844 N. Plankinton Ave., Milwaukee, Wis.

SCREENS
Da Lite Screen Co. (6)
2717 N. Crawford Ave., Chicago (See advertisement on page 299)
Eastman Kodak Stores, Inc. (6)
1020 Chestnut St., Philadelphia, Pa.
606 Wood St., Pittsburgh, Pa.
Hornstein Photo Sales (6)
29 E. Madison St., Chicago (See advertisement on page 299)
Institutional Cinema Service, Inc. (6)
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Williams, Brown and Earle, Inc. (3, 6)
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SLIDES and FILM SLIDES
Conrad Slide and Projection Co. (6)
709 E. Eighth St., Superior, Wis.

A Trade Directory for the Visual Field

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Johnson Co. Bank Bldg.,
Iowa City, Ia.

Edited Pictures System, Inc.
330 W. 42nd St., New York City

Ideal Pictures Corp.
28 E. Eighth St., Chicago, Ill. (See advertisement on page 304)

Keystone View Co.
Meadville, Pa. (See advertisement on page 280)

Radio-Mat Slide Co., Inc.
1819 Broadway, New York City (See advertisement on page 297)

Society for Visual Education
327 S. LaSalle St., Chicago, Ill. (See advertisement on page 302)

Visual Education Service
131 Clarendon St., Boston, Mass.

Visual Sciences
Suffern, New York (See advertisement on page 301)

Williams, Brown and Earle, Inc.
918 Chestnut St., Philadelphia, Pa.

STEREOGRAPHS and STEREOSCOPES
Herman A. DeVry, Inc. (3, 6)
1111 Armitage St., Chicago (See advertisement on page 278)

Keystone View Co.
Meadville, Pa. (See advertisement on page 280)

STEREOOPTICANS and OPAQUE PROJECTORS
Bausch and Lomb Optical Co.
Rochester, N. Y. (See advertisement on page 307)

Eastman Kodak Stores, Inc.
1020 Chestnut St., Philadelphia, Pa.
606 Wood St., Pittsburgh, Pa.

General Films Ltd.
1924 Rose St., Regina, Sask. (See advertisement on page 304)

Keystone View Co.
Meadville, Pa. (See advertisement on page 280)

Society for Visual Education
327 S. LaSalle St., Chicago, Ill. (See advertisement on page 309)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y. (See advertisement on page 301)

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(2) indicates firm supplies 35 mm. silent
(3) indicates firm supplies 35 mm. sound and silent
(4) indicates firm supplies 16 mm. silent
(5) indicates firm supplies 16 mm. sound-on-film
(6) indicates firm supplies 16 mm. sound and silent.

Continuous insertions under one heading, $1.50 per issue; additional listings under other headings, 75c each.
IN THIS ISSUE

The Present Status of Teacher Training in the Use of Visual Aids

Standards for Selecting and Evaluating Still Pictures

Enriching Child Learning

Factual Films for History and Social Study

Photo by James H. Sedgwick (Courtesy of Nature Notes)
We realize that the purchase of motion picture equipment requires long and serious consideration, and that in many instances decisions cannot be quickly made. We, therefore, ask you to write to us or any branch of the National Theatre Supply Company for full information regarding SIMPLEX SOUND PROJECTORS TYPE S P or any of the other products of this Company. Our wide experience enables us to understand the needs for schools, colleges, churches, hospitals, private and public institutions, etc., and where there is no technical adviser to guide in selection of equipment our complete line of 35 mm. SIMPLEX PROJECTORS places us in a position to impartially advise regarding the kind of equipment best suited to meet the specific requirements of any proposed installation. SIMPLEX SOUND PROJECTORS TYPE S P are an absolute assurance that in the field for which they are intended the quality of results is exactly the same as that secured with SIMPLEX PROJECTORS in thousands of leading theatres throughout the world.

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December, 1937

The EDUCATIONAL SCREEN

DECEMBER, 1937  VOLUME XVI  NUMBER TEN

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MEADVILLE, PENNA.
The Present Status of Teacher Training in the Use of Visual Aids

By W. Gayle Starnes
Department of University Extension, University of Kentucky, Lexington

The purpose of this study is to determine the present status of visual instruction courses in teacher training institutions in the United States. Since the first course in visual instruction was offered only fifteen years ago, the movement is still in the pioneer stage. The instructors in these courses have had little to guide them in preparing their syllabi. The average course, as revealed by the tabulation of the data, is not offered as a model for all visual instruction courses; it merely gives a composite picture of the practices of those institutions in which such a course is being offered. It is believed that this report will be of value to those who are now teaching visual instruction and to those who plan to offer such a course in the near future.

The writer recognizes the fact that this study does not represent all the teacher training in the use of visual aids. For many years there have been teachers in teacher training institutions who have given their students instruction in the use of various visual aids as they pertained to a particular subject matter field. He also recognizes that part of the regular course for elementary teachers contains much training in the use of certain visual aids.

It was impossible to secure absolutely accurate data regarding the amount of time devoted to each topic in the course. However, it is believed that the estimates received are sufficiently reliable to give a reasonable true picture of existing practices. Due to the fact that some of the respondents said that they could not give even an estimate of the amount of time devoted to each topic, this part of the study had to be based on the fifty-three responses in which time allotment was indicated.

Previous Studies. The only other similar study in so far as the writer has been able to ascertain, was the one made in 1932 by George A. Stracke,1 who endeavored to find out what was being taught at that time in courses in visual instruction. Each of the eighty-six institutions listed in the 1931 Directory of the National Academy of Visual Instruction was asked for a detailed outline of its course in visual instruction. Forty-four institutions replied. Of this number eleven stated they offered no such courses. (The data contained in the present study show that there were fifty-six institutions offering courses in 1931.) Outlines were submitted by thirty-three institutions. Analysis of these outlines revealed a total of fifty topics. Results of Mr. Stracke's study show the diversity of opinion existing among instructors in visual aids courses as to what should be included in such a course. The present study shows that this diversity still exists.

Method. The data concerning the courses were collected by sending questionnaires to the 154 institutions reported to be offering courses in visual aids. This mailing list was taken from the Visual Instruction Directory, published by the National Academy of Visual Instruction in 1931, supplemented by the list which appeared in the May (1935) issue of the Educational Screen. This latter list consisted of the names of the institutions offering visual aids courses in the 1935 summer session.

Of the 154 questionnaires sent out, 140 replied, about a 90 per cent response. Eighty institutions stated that they offered separate courses in visual aids. The reply from one of these institutions came in too late to be included in the study. The seventy-nine replies on which the study is based represent Hawaii and the following twenty-three states: Arizona, California, Colorado, Connecticut, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Utah, and Wisconsin. Twenty-five teachers colleges, twenty-one liberal arts colleges, twenty-one municipal and private universities, and twelve state universities are included in the study.

Analysis Of The Data

The questionnaire was divided into fourteen items, four of which requested preliminary information, such as the names and addresses of the institutions and responding staff member. This blank was very carefully prepared in an effort to be able to mirror existing conditions in the tabulated results. Of course, many other interesting questions could have been asked, but the writer realized that educators today are deluged with questionnaires; with this in mind, he confined his to what he considered the minimum information necessary to make an accurate study of the subject.

When Course Was First Offered. The first significant item in the questionnaire asked for the date a separate general course in visual aids was first offered in the institution. Since 1921, when the first course was offered, the number of institutions offering such courses has increased at the rate of an average of about four each year, until there are at the present time, according to the information received for this study, seventy-nine (eighty, including the reply that was received too late to be classified) institutions offering courses in visual instruction.

Number of Students Completing Course. About 26-

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800 students had completed a course in visual aids by June, 1936. At the time the replies were received, the second semester, 1935-36, the seventy-nine institutions reported that about 23,230 had completed the course and that 2,572 were at that time enrolled in visual instruction courses.


Table 1 shows the number of institutions offering the course on various grade levels.

<table>
<thead>
<tr>
<th>Level</th>
<th>Number of Institutions</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior College and Graduate Level Only</td>
<td>40</td>
<td>54.65</td>
</tr>
<tr>
<td>Senior College Level Only</td>
<td>17</td>
<td>22.98</td>
</tr>
<tr>
<td>Junior and Senior College Level Only</td>
<td>7</td>
<td>9.46</td>
</tr>
<tr>
<td>Junior College, Senior College and Graduate Level Only</td>
<td>4</td>
<td>5.41</td>
</tr>
<tr>
<td>Junior College Level Only</td>
<td>4</td>
<td>5.41</td>
</tr>
<tr>
<td>Graduate Level Only</td>
<td>2</td>
<td>2.70</td>
</tr>
</tbody>
</table>

Laboratory Materials Used. Table 2 shows the extent to which the various laboratory materials are used in the different courses. In addition to these listed there were eighteen others given by one or more respondents.

<table>
<thead>
<tr>
<th>Courses Using Materials</th>
<th>Number of Courses</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat pictures, charts, maps, globes, etc.</td>
<td>72</td>
<td>100.00</td>
</tr>
<tr>
<td>16mm. motion picture projector (silent)</td>
<td>71</td>
<td>98.61</td>
</tr>
<tr>
<td>Glass slide projector</td>
<td>70</td>
<td>97.20</td>
</tr>
<tr>
<td>Stereoscope</td>
<td>70</td>
<td>97.20</td>
</tr>
<tr>
<td>Collection of object-specimen-model materials</td>
<td>70</td>
<td>97.20</td>
</tr>
<tr>
<td>Film slide projector</td>
<td>65</td>
<td>90.26</td>
</tr>
<tr>
<td>Opaque projector</td>
<td>65</td>
<td>90.26</td>
</tr>
<tr>
<td>35mm. motion picture projector (silent)</td>
<td>46</td>
<td>63.88</td>
</tr>
<tr>
<td>16mm. motion picture projector (sound)</td>
<td>31</td>
<td>43.05</td>
</tr>
<tr>
<td>35mm. motion picture projector (sound)</td>
<td>18</td>
<td>25.00</td>
</tr>
<tr>
<td>Cameras, (motion and still)</td>
<td>18</td>
<td>25.00</td>
</tr>
</tbody>
</table>

Topics Covered in Course. The eleventh item of the questionnaire endeavored to ascertain what is being taught in the general course in visual instruction and the amount of time allotted to each topic. In addition to the twenty-eight topics listed in the data blank one of more of the respondents named fifteen others. Four of these were mentioned by a sufficient number to be included in the tabulations. These forty-three topics either included or implied the fifty subjects named in Stracke’s study.

It will be noted that the following twelve topics are covered in from 75 to 93 per cent of the courses in both studies:

1. History of visual education.
2. Psychological justification for the use of visual aids.
3. Value of the school journey.
4. Technique of conducting the school journey.
5. Technique in the use of the stereoscope.
6. Advantages and disadvantages of the stereoscope.
7. Technique in the use of lantern slides, film slides and opaque projectors.
8. Advantages and disadvantages of lantern slides.
10. Technique in the use of motion pictures.
11. Advantages and disadvantages of motion pictures.

Time Given to Each Topic. Table 3 shows the average time given to each of the thirty-two topics included in the tabulation. The average course was calculated on the basis of a three credit course, meeting three times a week for eighteen weeks:

<table>
<thead>
<tr>
<th>Topic</th>
<th>No. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technique in the use of motion pictures</td>
<td>3.80</td>
</tr>
<tr>
<td>Technique in the use of lantern slides, film slides,</td>
<td></td>
</tr>
<tr>
<td>opaque projectors</td>
<td>3.75</td>
</tr>
<tr>
<td>Sources of visual aids materials; film slides,</td>
<td></td>
</tr>
<tr>
<td>stereographs, projection apparatus, object-specimen-</td>
<td></td>
</tr>
<tr>
<td>model materials, etc.</td>
<td>3.75</td>
</tr>
<tr>
<td>Mechanics of projectors and projection</td>
<td>3.33</td>
</tr>
<tr>
<td>Result of scientific studies regarding use of visual</td>
<td></td>
</tr>
<tr>
<td>aids</td>
<td>2.42</td>
</tr>
<tr>
<td>Psychological justification for the use of visual aids</td>
<td></td>
</tr>
<tr>
<td>lantern slides, film slides</td>
<td>2.12</td>
</tr>
<tr>
<td>Technique in the use of flat pictures, cartoons, maps,</td>
<td></td>
</tr>
<tr>
<td>globes, etc.</td>
<td>2.12</td>
</tr>
<tr>
<td>Value of flat pictures, cartoons, maps, globes, etc.</td>
<td>2.00</td>
</tr>
<tr>
<td>Administration of a visual aids program</td>
<td>1.90</td>
</tr>
<tr>
<td>Technique in the use of object-specimen-model visual</td>
<td></td>
</tr>
<tr>
<td>aids</td>
<td>1.90</td>
</tr>
<tr>
<td>Photography</td>
<td>1.75</td>
</tr>
<tr>
<td>Advantages and disadvantages of motion pictures</td>
<td>1.67</td>
</tr>
<tr>
<td>History of visual education</td>
<td></td>
</tr>
<tr>
<td>Advantages and disadvantages of lantern slides</td>
<td>1.50</td>
</tr>
<tr>
<td>Value of object-specimen-model aids</td>
<td>1.50</td>
</tr>
<tr>
<td>Present status of visual education</td>
<td>1.50</td>
</tr>
<tr>
<td>Verbalism</td>
<td>1.33</td>
</tr>
<tr>
<td>Value of school journey</td>
<td>1.33</td>
</tr>
<tr>
<td>Technique of conducting the school journey</td>
<td>1.33</td>
</tr>
<tr>
<td>Evaluation of textbook photographs and illustrations</td>
<td>1.33</td>
</tr>
<tr>
<td>Technique in the use of the stereoscope</td>
<td>1.33</td>
</tr>
<tr>
<td>Advantages and disadvantages of opaque projectors</td>
<td>1.33</td>
</tr>
<tr>
<td>Photoplay appreciation</td>
<td>1.33</td>
</tr>
<tr>
<td>Advantages and disadvantages of the stereoscope</td>
<td>1.25</td>
</tr>
<tr>
<td>Advantages and disadvantages of film slides</td>
<td>1.25</td>
</tr>
<tr>
<td>Value of blackboard and bulletin board</td>
<td>1.20</td>
</tr>
<tr>
<td>Technique in the use of the materials named above</td>
<td>1.20</td>
</tr>
<tr>
<td>Radio and television education</td>
<td>1.10</td>
</tr>
<tr>
<td>Value of dramas as a visual aid</td>
<td>0.80</td>
</tr>
<tr>
<td>Teacher and pupil-made slides</td>
<td>0.50</td>
</tr>
<tr>
<td>Reproducing devices; mimeograph, hectograph, etc.</td>
<td>0.40</td>
</tr>
<tr>
<td>Mounting and cataloging pictures</td>
<td></td>
</tr>
</tbody>
</table>
Standards for Selecting and Evaluating Still Pictures

In the beginning, learning grew only out of actual experience. With the development of language, learning came to be transferred through the medium of a symbol, the word. Verbal transfer was possible, however, only when the two parties to the exchange had a common experience. The invention of the printing press provided an instrument for rapidly recording verbal symbols for communication. Verbal transfer is, however, an indirect method of communication and often results in lack of understanding and numerous misconceptions, especially when new concepts are being developed.

The invention of photography and the perfection of the camera have provided a visual recording device of the most expressive form. Since visual imagery is fundamental to much of our thinking, the photograph from the camera provides one of the most effective methods of communication. The still photograph presents a cross-section of a visual experience at the instant it occurs. It stops motion, shows line and color, indicates spatial relationships, and portrays people, objects, and scenes in which motion is not an essential feature. When taken from place to place, and presented to various groups, linguistic limitations are not placed upon the observers and it is, therefore, an effective means of communication. This is also true of the artist’s painting or drawing.

The flat picture (used here, for lack of a standardized term, to mean an unprojected picture) is the most familiar form of pictorial presentation today, existing as it does in a variety of forms, as in the newspaper, the magazine, the textbook, the photographic print, lantern slide, the billboard, the window display, transparent plates, etc. It is destined to become a necessary part of our symbolic language of education. Since it is the least abstract of symbols, it portrays scenes outside the child’s view in such a manner that, vicariously, he can readily and effectively develop the proper mental images for the situation depicted.

Since pictures are so dynamic in their effects in teaching, those selected for classroom purposes should be considered as materials for study, and selected because of their relationships to the course of study. Teachers, supervisors, principals, and school systems should have definite standards for selecting and appraising pictorial materials, and these should be rigidly applied in the acquisition and purchase of pictures for school use. A number of research studies have been conducted to determine the characteristics of pictures suitable for classroom use. Other persons, out of long experience in teaching, have drawn up standards for selecting and evaluating flat pictures for teaching purposes. In general they emphasize the necessity of having pictures that fit into the curriculum, that are strong in contrast, contain a chief center of interest, strong artistic rhythm of lines, build up a background or atmosphere for the topic under consideration, stimulate aesthetic feelings, and are truthful. A number of sets of standards which have been developed are submitted herewith in an effort to help teachers improve their instruction through the use of pictures. It will be observed that a set of common elements runs through the lists given, and in addition each author makes meaningful contributions to the problem.

For instance, Branom¹ states that:

A picture if wisely selected,
1. Enables a pupil to take in at a glance a complex relationship economically and accurately,
2. Recalls a concrete, specific situation,
3. Gives, through its reproduction of the original, an appearance of reality,
4. Is easily understood,
5. Arouses questions which lead the pupil far beyond the immediate scope of the picture.

Gregory² emphasizes the following functions of pictures:

1. Pictures are not merely illustrative aids, but valuable sources of information,
2. Pictures create ideas which are the basis of thinking and action,
3. Pictures must bring a close relationship between the abstract idea and the material thing,
4. The picture is a partial substitute for the concrete material,
5. The picture must exhibit the subject of a lesson as it appears in real life.

In his standards for selection of pictures for instruction Gregory states:

1. All pictures should be clear and distinct,
2. The picture must show clearly the points desired,
3. Simple pictures are best for teaching purposes,
4. Pictures must show actual conditions and be of high pictorial quality,
5. A picture should contain one principal subject,
6. Pictures should be selected so that a series of views is obtained.

Hoban³ contends that in considering pictures for school use one must keep in mind the fundamental art principles of contrast, comparison, and continuity so that the abstractions represented in the picture may be

¹Branom & Branom: Teaching of Geography p. 114.
³Hoban, Hoban & Zisman: Visualizing the Curriculum, pp. 185-193.
made real by meaningful deductions. These abstractions are:

1. **Motion**: The pose of the subject, its relation to gravity, its probable changes in position and method of movement, suggest clues to be followed.
2. **Size**: The sense of size is often related to the scale of the human figure, and the inclusion of objects of known size give the clue to this element.
3. **Distance and Depth**: Lines of perspective carry the eye to distance points as they tend to converge.
4. **Weight**: Weight may be interpreted from the nature of the material used.
5. **Color**: Color is a matter of association, such as the changing of colors of the day with the sun, clothing, etc.
6. **Temperature**: This is indicated by the amount of vegetation, amount and type of clothing worn, etc.
7. **Tactility, Sound, Odor, and Taste**: Present specific problems and both pupil and teacher must spend considerable time in developing skills and habits to secure the proper responses to these abstractions in flat pictures.

Hoban further states that in making, selecting, and using pictures, certain standards of quality and guides for intelligent and efficient application should be followed, as indicated below:

1. **Truth**: Pictures should be true and accurate.
2. **Clarity**: Only clear, high quality pictures should be used.
3. **Composition**: Simplicity of composition, and dramatic elements should feature the picture selected.
4. **Action**: People and animals should be shown in performance at work or play.
5. **Grade Level**: The content should fit the age or grade level of the individual or class.
6. **Relevancy**: Pictures must relate directly to the lesson and contain a minimum of irrelevant material.
7. **Size**: The size is conditioned by the use as for individual or group study.
8. **Number**: A few well selected pictures should be used at a time.
9. **Finishes and Processes of Reproduction**: These depend upon the use to which the pictures are to be put.

In a research study conducted at the University of Colorado, Boulder Colorado, Lelia Trolinger developed a score card for evaluating flat pictures based upon **Technical and Instructional Qualities**, as follows:

### Technical Qualities—40 Points

A picture should be:
- Artistic
- Free from Blemishes
- Clear and Distinct

### Instructional Qualities—60 Points

A picture should be:
- True
- Significant
- Authentic
- Stimulative
- Relevant
- Suggestive of Size

While this is a mechanical device for arriving at a score for evaluation, it may achieve its most beneficial results in the stimulation it provides in arousing the teacher to carefully scrutinize and evaluate pictures selected for classroom use.

In addition to the general standards which apply to all flat pictures for school use, there are specific considerations applicable to the separate subjects or related subjects.

For the selection of geography pictures, Gregory gives the following suggestions, although they apply in general to such subjects as history, agriculture, industry, etc. The pictures should show clearly:

1. The features of the landscape which influence man's activity.
2. Some aspect of the climate of the places studied.
3. How man makes use of and adjusts himself to the environment.
4. Each picture should have a clear statement as to its location, activity of man, time taken, etc.

Thralls summarizes the rules for selection of geographic pictures by stressing:

1. Their geographic quality.
2. Their contribution to an understanding of the relationships developed at a specific teaching level.
3. The maintenance of a proper balance so that children will not secure a one-sided view of man's adjustment in a specific region.
4. The inclusion of key items, natural and cultural, characteristic of a given region.

Merton recommends the following technique be used in the analysis of pictures:

1. Set down all you see in the picture. Do not depend altogether upon what you are told to see in the caption.
2. Read the caption connected with the picture and note just how the picture illustrates it. Do you see in the picture what the writer of the caption points out?
3. What is there new or strange in the picture?
4. What other pictures or scenes does it call to mind? Why? How?
5. Does it recall anything you have read? How?
6. Look up the city, country, or person pictured and note exactly what the picture by itself tells you of these.
7. This picture has probably been selected from a large number. Why?
8. If you are dealing with a related group of pictures, note just what added bit of information each contributes and how well the group, as a whole, illustrates the city, country, event, or whatever is featured by them.
9. Try to imagine yourself part of the scene in every case. Would the experience be a strange one or one that was familiar? In what ways?
10. Remember that studying a picture means more than merely looking at it. It means seeing and interpreting it.

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5Merton, Elden: Visual Instruction, p. 25.
Enriching Child Learning

By F. Gerrit Hoek
Supervising Principal, Public Schools, Haledon, N. J.

ALTHOUGH the economic situation for the past few years has had its effect in somewhat retarding the introduction and use of visual aids in our educational institutions, an increasing number of schools have found ways and means of establishing a visual teaching program.

There continues to exist to some extent the idea that visual teaching consists solely in the use of the motion picture. But the motion picture is only a part of the visual aids program. Although we now have the sound-on-film equipment in which schools are finding increasing values, we must not forget the many other desirable and valuable teaching aids which exist. For example, I believe that more use could be made of that very fine visual aid, the stereograph, which affords excellent means for close observation and study of a picture. One excellent use for the stereograph would be in the preservation and future study of outstanding works of art. The motion picture does not afford this, in spite of some strong claims by manufacturers of such projectors for their "still projection." Detailed, unmarred study can be made of a subject by the use of the stereograph.

The combination lantern slide and opaque projector also provides means for careful detailed study of pictures both through the lantern slide and through the enlargement of flat pictures and prints. Field trips and visits to museums, manufacturing plants, art galleries, educational exhibits, also constitute a very important part of a visual instruction program. These are all agencies that should be definitely incorporated in a well-rounded curriculum.

When I was appointed to my present position some two years ago I found that no definite plan for the use of visual aids existed in this school system. Any one initiating a visual aids program will encounter various difficulties — their variety and degree depending to a great extent upon the understanding and the attitude of faculty, board of education, parents and community, and by the kind of equipment which may be available, or funds for its purchase. Fundamentally these problems are the same throughout the country so I shall review briefly my experiences in the hope that those to whom this field of didactics is a new venture may be benefited thereby and perhaps find in it a solution to their problems.

In beginning my visual aids program my liabilities greatly outnumbered my assets, of which I had but two: first, my conviction of their values, and my determination to incorporate them in my school work, secondly the help of certain outstanding educational and industrial agencies. The task before me was no easy one, as there were neither equipment nor funds available, and neither the Board of Education, the faculty nor the community in general were familiar with this type of education. There was one thing to do — simply begin the project and educate them to it. I was convinced that familiarity with the method and its benefits would be a more efficacious means of winning them over to its merits than any talking I might do. My experience proved this to be the case. A means for raising funds was imperative and plans were laid for a school circus, another new venture for this community. Enough money was raised to purchase a silent projector.

In the past few years rapid progress had been made in developing sound-on-film pictures and equipment. After considerable time spent on a survey of the possibilities in sound equipment, I felt justified in purchasing a sound projector. The library of good educational sound films is growing rapidly, and the 16 mm sound projectors have been so perfected and simplified that there need be no difficulty in their operation, whether in classroom or auditorium. The research which has been done on the values of the sound film in education, I believe, has conclusively demonstrated its effectiveness and efficiency as a teaching aid. Recent experiments by Arnsberger, Rulon, Westfall, and University of Chicago seem to have shown that there is a very definite place in classroom procedure for sound film. In Dr. Westfall's report on a study made of results with silent and sound pictures he stated that the pupils expressed a five to one preference for sound films. I do not feel of course that the student's own choice should be a basis for selection, but tests that have been made show in many instances a greater learning power and retentiveness on the part of the pupil through the use of sound films. We here at Haledon have watched the classes closely, observing the increased amount of interest in the pictures shown, in subject matter, and the greater responsiveness and accuracy in reply to questions based upon the pictures shown.

We use our sound pictures in social science, music, art, science, literature, manual training and we also use it to show pictures suitable for the primary grades. It might occur to some to ask if the silent films are used as frequently now since the purchase of sound equipment. The regular film schedule as organized for this school year consists only of silent pictures as we had only the silent projector when this schedule was prepared. The pictures chosen fitted into the subjects being taught, and the teachers who had had previous experience with these films, knew their contents and their adaptability to our program of studies. However, we
are supplementing this list with the new sound films wherever possible.

When we feel that the situation warrants, we combine classes for auditorium showings. We do not encourage this method, however, as I am a firm believer in the effectiveness of classroom instruction. There are times, however, when grouping will expedite matters. Some additional labor is required in the setting-up of the sound equipment for auditorium use, but these efforts are more than repaid when results show increased pupil knowledge.

In our system no child is permitted to operate the projector. It is felt that this is teaching equipment and as such to be used by the teacher.

Taking into consideration the results of experiments of leading workers in the visual aids field, and my own experiences for the past ten years, I have come to the conclusion that the sound-on-film instructional picture is one of the best teaching mediums.

Use of "The Film Estimates" by Civic Organizations

By MARY BELLE POWELL

The Beaumont (Texas) Motion Picture Council is an organization composed of representatives from about forty civic organizations, eighteen of which are parent teacher groups. This Council is in the fourth year of its existence and has made a record in Texas.

It has been chiefly interested in considering the movie as a factor in the child’s and adolescent’s recreational life. To us (members of the council) the best long time solution for the matter lies in a motion picture appreciation project in the schools; and in study groups for adults.

So far schools are doing too little with the motion picture appreciation idea. Over-loaded teachers, cramped budgets, and a certain amount of inertia, accounts for this situation. On the adult side the Motion Picture Council for the months of February, through June of 1937, conducted a series of lessons in Motion Picture Appreciation. To these lessons were invited members of other groups such as literary societies, professional, educational, and religious organizations.

However, the motion picture appreciation work is somewhat a long-range solution, and we have been confronted with the need for an immediate aid of some sort. Therefore, all parent-teacher groups in Beaumont have placed the Film Estimate Weekly in all school and public libraries in our area—twenty-two libraries. The following information is given to each librarian:

Use of Film Estimate Weekly

Aim:
1. To make available, early enough and often enough, for every boy and girl, and interested parents, a dependable estimate of motion pictures.
2. To assist the child in forming the habit of choosing pictures suitable for his age group.
3. To furnish means for cooperation between school and home in doing something about this social problem of choosing correct movie fare for the youth.

Thinking parents have realized many pictures are unsuitable for children and adolescents, and most parents would like to have a dependable way of choosing pictures for the children.

It is physically as well as financially impossible for the parent to see all pictures before permitting attendance by their children. Many would not know how to advise even though they could perform such a miracle. There are good reviews in some magazines, but these come monthly and thus are too late for many pictures coming here. Then too the older boy and girl—the adolescent—must learn to make choices for himself. Usually he does not want to depend upon choices made by his parents.

The reviews now handed you come weekly and are recent enough to cover practically all the pictures coming to Beaumont. It is hoped they will create the habit of shopping for pictures. The reviews include all feature pictures released through the year.

These “Film Estimates” are published by the Educational Screen, a magazine devoted to visual education, and official organ of the Department of Visual Instruction of the National Education Association. They are composite estimates by experienced judges, and the service is now in its eleventh consecutive year.

Suggested Plan For Use

Cut the reviews apart, pasting one review on a card—the kind used in regular library filing. Thus each week there will be eight cards to prepare, since there are eight reviews on each card.

File the cards alphabetically according to title.

When the system is begun, show the child how to use the file and card, explaining the information given. The most important item, the age grouping, will need careful explanation of terms, also the remarks that will be given as to suitability, or unsuitability, for each group. (A) is Discriminating Adults; (B) is Youth or Adolescent; (C) is Child.

Then try children out to see if they can find a review desired and see if they can understand the card.

After the librarian is sure the child knows how to use the review, if she occasionally asks pupils if they are looking to see that the pictures they heard of seeing are suitable for their age group, her work is done except for seeing the reviews are always prepared for filing upon arrival. There will be a few pupils who will be glad to make this their duty—and it should become a project for the children.

It is the parent’s duty to ask his child (when the question of movie attendance comes up) if he has looked to see if the picture is suitable for his age group. The motion picture chairman will explain these cards and their use to the parent-teacher group and will occasionally ask parents if they are doing their follow-up work with the child.

These reviews are not to be used as an advertisement for certain pictures, or something by which one can censor pictures. They are a means of getting information about pictures as one gets information about books or plays. The child is not told what he must choose.

In the elementary schools the librarians place the

(Concluded on page 326)
Factual Films For History And Social Study

FACTUAL films of several kinds are more and more at the complete disposal of social science and history classes to an unusually effective degree though there are still many gaps in a school program which must be filled in other ways. Even the presence of film material in certain subjects does not exclude the necessity of text and lecture with it. The use of film here as in other class room subjects is only justified as a short cut insomuch as it allows the ground so cut to be covered more than once in the same allotment of time merely by running the film again.

Current releases of newsreel films are as often the object of despair as high hope both among theatre audiences and in the columns of the critic. What with the limitations imposed by the problems of censorship, propaganda and editorial bias, the public usually goes home with the innocuous consolation of the speed race in some form or other and grumbles. The several thousand feet of anonymous and interchangeable Chinese or Loyalist soldiers dead on the edge of ditches no longer offer the same startling antidote after the first few. However it may well be that the result of all the intrepid camera shooting by newspaper men and free lance adventurers that always turn up when history is on the point of being made, will find itself several years later in a type of film composition represented by the feature length Tsar to Lenin with Max Eastman as editor and commentator.

Tsar to Lenin is a skilfully edited succession of shots culled from innumerable film libraries and private collections. It starts out with scenes taken of the Tsar’s family in recreational moods by the Tsar himself and found in the Winter palace after the assassination of the whole family. Carefully and repeatedly the important faces of Lenin, Stalin, Trotsky, Kerensky, Kropotkin, John Reed, Radek, the Tsarevich, Zinoviev and many others are flashed on the screen until they grow familiar with a certain impact of personality which must always be a little less powerful in a text. The present Lenin sympathizers have objected strongly to bias on the side of Trotsky in the commentary. In fact when objects became articulate along about the second week of its New York run the Filmarle theatre put up a sign “Please respect our pickets.” But on the whole it represents a technique of newsreel editing which commands respect. With only slight traces of bitterness the tightlocked dilemma before Tsar and Church, the gay unconcern of the baronial classes, the abysmal differences between possession and want in a country where the problems of organization had become almost superhuman, all of these elements are presented calmly and with a pervading sympathy and recognition of the necessarily inexorable contrast of facts in history and life. In any film designed for study of the deeper historical and social conflicts it is imperative to establish in some way the admission that each side acts as it does according to its own voices and not because one is of heaven and the other of less than earth. If direction and comment depart from this initial position the essential drama of human conflict is never lost and something of the character of a universal work of art has crept into a difficult production. Tsar to Lenin for this reason achieves something of that quality.

The King’s People, edited by John Drinkwater, is also an edition of newsreels which takes up half of its feature length from early shots of the coronation of Queen Victoria to that of George VI. Unfortunately, to the point where we hesitate to recommend it, an amateurish flavor is introduced by the fictional treatment of Mr. Drinkwater’s procedure in collecting the material, with shots of his family and a tea party or two. However, the conviction of passages recording conversations with George Bernard Shaw and Lady Astor only strengthen the point that undamaged personalities of this kind in natural setting on the screen will always have interest. If there is any bias at all here, it is the mild one for which somehow or other we repeatedly forgive the English.

Spanish Earth, inimitably photographed by Joris Ivens with a running comment written and spoken by Ernest Hemingway, is an entirely different thing. Beautifully, sympathetically, probably onced side it shows the sun-hardened face of the Spanish peasant, the plow, the symbolic irrigating water flowing suddenly on parched land, enemy planes poised in the burnished sky of a defenseless hill town, all of these with a lyrical rhythm of contrast which of itself is one of the components of a real work of art. Perhaps in a few years, when sides are less vociferously taken, if we have as deeply human a documentary film of the motives and hardships incurred by adhesion to the rebel cause and both are edited and mounted with the insight, creative thought and human sympathy which makes literature and painting enduring, we will have something infinitely more engrossing in the art of recreating history than anything even as notable from the point of view of pure cinema as The Life of Emile Zola.

Yellow Cruise is a feature length travel film with a running comment in English, following the expedition of a fleet of specially designed French Cit-

(Concluded on page 340)
Among the Magazines and Books

Conducted by Stella Evelyn Myers


The inauguration of a new geography course in Cleveland has been aided by radio broadcasts and slides. Five classes in each of 120 schools were served with sixteen to eighteen weekly radio lessons, the other lessons for the week carrying out the suggestions made during the broadcast. The scheme required the production of 100 or more sets of duplicate lantern slides, about 5,000 for each grade division. By this method, the teacher was assisted in the proper selection of material, and also in the proper use of the slides. All needed materials, including the projector, are delivered to the classroom at the beginning of the semester. An outline of the lessons for Grade 4A for one semester is included in the article, as well as the script for one radio lesson. The radio geography lessons have been broadcast since September, 1930, and have clearly proved their value according to the author, who is well capable of judging from his long experience in the field of visual instruction. This technique seems to be an excellent one for introducing a new course, as it saves teachers, otherwise busy, from floundering about with materials difficult to correlate with daily lessons.

(pp. 60-64). "Surmounting Barriers to Human Learning," by Howard A. Gray.

An interesting survey of the history of human aids to learning reaches its climax with the visual-auritory picture. It overcomes tremendous barriers to learning, such as space, seasonal limitations, reading disability, limited range of vision, opaqueness of most matter, the minute scale of much organismic functioning, and rate of speed, often too slow, or too rapid to be visible. We do not have to take turns in using projection mechanism, but great groups may see simultaneously. In the film, everything goes off as planned. No experiments fail, or keep us waiting. Historical continuity, also, is presented in a minimum of time. The selective quality of a good educational film and the excellent organization of material, all made dynamic on a fitting emotional basis, preclude ambiguity and confusion. Words alone are often uncertain in their meaning, but when used carefully to aid concreteness, misunderstanding is obviated. The picture has the power to raise the general level of learning, but those most in need of learning are most benefited.

This article is one of the most concise, comprehensive, keenly analytical, and logical in its deductions, of all our contributions to film literature.

Cinema Progress (2:15-17, Oct. '37) "How Moral are the Movies?" by Dr. Edwin D. Starbuck.

During the past summer at the University of Southern California, the author tried to obtain a cross-section of the opinion of cultivated people in regard to the present status of the movies as an influence in civilization. There is probably nothing in all history to match their invasion. The tremendous influence of the movies is accounted for on the ground that we think with our muscles, not only with the skeletal muscles that have to do with action and reaction, but with the smooth or visceral muscles involved in breathing, digestion, glands, and blood circulation.

Most of the students, responding to the questionnaire submitted, were High School and University instructors, assuring mature judgment. Many type questions are included in the article with the various ratings each received. On the whole, it was held that the motion picture does seem to cultivate and dignify the art appreciation of the public. On about half of the items, the cinema suffers disapproval. "There seems to be a heartache for the wholesome simplicity and the sincerity of a Will Rogers or a Marie Dressler... We shall not get very far in the long stretch of years with all this until art and art appreciation are made central and fundamental instead of incidental in all the schools of America."

The American Scholar (6:435-44, Autumn, '37) "Let the Movies be Natural," by Mark Van Doren.

The movies were successful long before we recognized them as an art, and before schools conducted classes in screen appreciation. Movies can be most dignified by being themselves, and, since they are very truly an art by being interesting. The interesting is the good. Denying this is harmful both to the art and to the people enjoying it.

The movie was invented to tell stories and its one main means is by photography. Sound has come in, but it has been absorbed by the primary function. The most interesting picture could be followed without serious loss by a deaf spectator. The moviegoer has gone to see a story told, not to hear it told. The movie is a unique art and it cannot be elevated by attempting to reproduce the work of another art, such as a literary masterpiece. The assumption is that the limits of the movie art are ignored, and no art can be elevated by ceasing to be itself. A movie, made from a novel, may be an excellent movie if the director has his eye on the movie and not on the classical writer, which is usually not the case. He forgets his own art in borrowing another. A novel or a play must be transformed almost beyond recognition if it is to be made into a veritable movie. There are many qualities of a play that do not come over into the art of the screen directly. The play deals with a fixed scene while the observers of the picture have learned to expect that the point of view and the amount of anything being seen will change constantly. Mr. Van Doren claims that this difference is of great significance.

That most deadly malady of all teaching, verbalism, has been shown to prevail to an alarming extent in even our best city schools. Pedagogy seems wedded to catechetical methods, irrespective of childish interests and needs. Verbal reflexes are often met with, such as, "The Chinese people worship their aunts' sisters." These evils may be reduced to a large extent by concrete experience. Actual contacts with things in their natural environment probably provide the best means for concrete experience. "Less direct, yet only partially abstract, are contacts with experience through the use of pictorial materials." Six types of such materials are mentioned, but the author limits his discussion to the motion picture. Prof. Hogben, of the University of London, is quoted as saying, "What we have still to realize is that (the cinema) can explain many things which many people can never understand at all, if they have to rely on the printed word." A still picture shows products or results; it can only suggest action. The motion picture shows processes, development, change; it pictures action.

Objectives figure largely in the selection of a film as well as the method used. The number of times a film should be projected, the technique of using it in instruction and the place of discussion in using a motion picture are fully treated.


This excellent treatise on the educational use of glove-puppets includes not only a practical description, but stresses the psychological basis by which many retiring pupils are helped in a release of a cramped personality. The reviewer has felt for many years that most educators are overlooking several unique advantages of puppetry, consequently this article, saying what she has wished to say, is heartily recommended.

Book Review


The two hundred and twelve views from the air, reproduced in this new publication with descriptive and prodding reading matter opposite each picture, are truly revealing of our country in a scenic and industrial way. The imaginary journey extends from coast to coast via Texas and the central states. A scene from the air, because of the extended range of the camera's eye, is an intermediary step between a surface photograph and a map. Hence, it may well be used in introducing map symbolism. The reading, however, in this work is adapted for more advanced geographical study. While looking at the full-page picture, 7½ by 9½ inches, one readily makes application of the story on the page to the right. The photography is remarkably clear and well-defined throughout the book. The child's love of adventure is strongly appealed to, in this method of learning to interpret a landscape,—to see the use made of land, and the work done by water.

S. E. M.
DEPARTMENT OF VISUAL INSTRUCTION

Presidential Letter

It is unnecessary for me to state at the outset the feeling I have in regard to the very great honor that has been conferred upon me by my election as President of the Visual Instruction Department of the National Education Association. We have a large department and a growing department. We have a department that stands at the forefront in the field of educational progress. Perhaps more than any other department in the National Education Association, we have the problem of interpreting the impact of new technological instruments upon school policy and school material. Because of that responsibility it is exceedingly important that we clarify our thinking in this whole field. May I, therefore, very briefly indicate the four major areas in which we must think through our problems. These areas, as they relate to visual instruction are stimulation, production, distribution and utilization. I shall comment briefly on each of them.

Stimulation. If we may accept the report of Dr. Cline Koon as roughly accurate, approximately one school in twenty-five in the United States was equipped with a motion picture projector in 1936. Approximately one school in fifteen was equipped with a lantern slide projector. Other data show that the extent of use of visual materials in schools is roughly proportional to the size of the school. As the school gets larger, the amount of visual materials used increases. This means that in large cities there is today quite extensive and intelligent use of visual materials. But at the other extreme, especially in our rural areas, good materials of this sort as well as other teaching materials are extremely scarce.

What methods stimulate schools to utilize increasingly these better teaching materials?

The first of these methods is stimulation by informing. Extensive studies have already been made which have demonstrated the value of visual materials in certain fields. Excellent articles point out how visual materials can be best used. This information, however, has not gotten down to the rank and file of our teachers. This can, perhaps, be best passed on through a much wider and better distribution of the many excellent articles, books, and magazines now available which treat the problems. Happily the amount of available material is increasing rapidly. Much of this material has been drawn together and digested in the volume recently published by the H. W. Wilson Company, Motion Pictures in Education: A Summary of the Literature. This book shows very clearly that up to 1936 most of the significant articles in this field have appeared in the Educational Screen. This is an excellent showing for the magazine.

However, we must also have articles prepared and made available in all types of educational journals. There ought to appear each year literally hundreds of articles in the various state journals, teachers journals, newspaper articles and the like. This is a challenge to every member of the society. Not only must we write more extensively for an increasingly large number of journals but demonstrations and discussions of these newer techniques in education must receive a place on national programs, educational programs, on programs of subject matter groups.

Stimulation directly from the members of the Visual Instruction Department of the National Education Association is another important method of increasing interest in the field. Our present membership is 415. If we could increase this to one thousand members by January 1, 1939, the range of our effectiveness would be enormously expanded. The organization of branch divisions of our department, notably the Massachusetts branch and the Metropolitan branch in New York City, are a forecast of what can be done to stimulate further growth and thinking along the line that I have suggested.

Production. We need more and better production of visual materials. In the past we have depended far too much upon free materials—posters, exhibits, slides and motion pictures. We can make no real progress in this field until we have an ample supply of visual materials competently made by producers who utilize excellent techniques of production and who are closely in touch with the best thinking in the curriculum and teaching field.

The rapidly increasing participation of teachers in the production of their own visual materials is a happy portent. I do not believe for a minute that this kind of production will take care of our needs. It will, however, have three very excellent results. First of all, it will develop a competent group of teachers who also are specialists in production.

Second, it will care for specialized needs which cannot be met on a national production basis. Third, it will make available to those who produce for national consumption a group of technical assistants who will know clearly the needs of the school and will have sufficient technical training to know what can and cannot be done in production in these various fields.

I look upon film production by the national government as an especially auspicious omen. Through films we can sensitize our citizenry to the problems of soil erosion, crime and juvenile delinquency, housing, flood control, national recreation facilities as exemplified in the national parks. Such films can and should be produced by our national government. In such production again the government needs the guidance and council of experts in these various fields, especially those who see the problems in terms of its teaching possibilities and needs.

Distribution. Under the heading of distribution, I am thinking about the problem of obtaining and distributing the materials once they have been produced. This problem has been solved in our larger cities by excellent libraries. It has not been solved, however, for the majority of schools in the United States. There has been a great deal of interest in the co-operative film library plan which was first discussed in the Educational Screen. Certainly development of state-
owned film libraries which would rent or make films and slides available free to schools, as is done in Ohio, needs extensive promotion.

We shall not have solved our problem, however, until every school can get the films or slides or flat prints or exhibits at the time when they need them in their teaching. This means far more extensive city, county, village and state libraries. It also means, it seems to me, much lower cost per unit than we have at the present time. When we reflect on the fact that the German government has made as high as 1,250 prints of one of their science films, with undoubted savings in cost due to mass production, we see the distance that we must and can travel.

Utilization. One of the major problems now confronting teachers is how to use visual materials satisfactorily. There is much haphazard use of these materials. Perhaps this is inevitable as we learn new teaching techniques. But if we set about working on this problem right now and do the job well, much of this inapt use can be eliminated at the outset. Certainly we now know how to dispel the show or entertainment idea. No educational film program worthy of the name conceives of the use of visual materials as an entertainment. Certainly there is no longer any excuse for not having satisfactory projection in a classroom. Certainly there is no need now for the method which assumes that by exposing children to the viewing of a large number of slides, they are automatically educated. Yet these three errors in the use of visual materials are frequently made. What can we do about it?

Clearly we need an extension of teacher training. First of all we need in-service training. Second, we need improved training in teacher-training institutions. There are today, in the United States, more than one million teachers. Of this number I doubt whether more than twenty-five thousand have received any training at all in the adequate use of visual material. Pennsylvania has led all of us by making such training a state requirement for a teacher’s certificate. Other states plan to follow suit. Our problem then, is first, to develop techniques for in-service training, and second, to see that instruction in the use of these new teaching tools is given in the teacher-training institutions.

The introduction of courses or units of instruction in this area is not really so difficult as it sounds. It is largely a question of outlining the problem to teacher-training institutions, showing them what needs to be done and how to do it. One effective method for introducing this problem to educators generally is to have literally hundreds of institutes on visual instruction throughout the country. These have already been held in a number of places. The Ohio State University, the University of Georgia, the University of Florida, the University of California, the University of Indiana and many others have held such institutes. Most of them have been reported in this journal. Even now one state is planning a two-weeks seminar to be attended by the faculties of teacher-training institutions as a device for acquainting them with this problem.

Certainly there are many opportunities for demonstrations in the use of these materials. Paul Reed at Rochester, New York, for example, is holding a series of Saturday classes at which one teacher from every school attends a two-hour session on visual instruction. This kind of training can and must be extended.

One especially important problem which we must attack and solve is the gearing of visual instruction into progressive methods of teaching. There has been too much use of such materials as instruments to do better what ought not to be done at all, to increase the amount of subject matter emphasis, to increase the emphasis on information. There has been a corresponding failure to see visual materials as devices for raising problems, stimulating interest, awakening curiosity, sensitizing students to major social problems.

In conclusion, may I say that the size of the problem should not dismay us in the least. I have had an opportunity to meet and know a large number of the men who are leading the thinking in the visual instruction field. They are doing an excellent job. They understand the opportunities in and the limitations of these materials. They do not believe that visual materials are the be-all and the end-all of education. They see these materials, however, as providing certain concrete experiences without which any program of progressive education will inevitably fail.

The First Educational Film Of The Visual Instruction Department

The Visual Instruction Department released its first educational film at the Detroit meeting when it approved as its own presentation the film, Speaking of Safety, which had been produced under the direction of the New York Metropolitan Branch of the Department. The film is a one-reel, silent picture on the subject of child safety in traffic. Its production and distribution, free to the educational field, was made possible by the Automobile Safety Foundation, which finaneced the project as a contribution to the teaching of safety in elementary grades. The Highway Education Board collaborated in its preparation.

The plan for the film was prepared by a committee of elementary school principals, supervisors and teachers and visual instruction authorities, working with the producers, and was tested with pupils in the elementary grades in schools in New York City; Garden City, N. Y.; and the Searborough School, Searborough, N. Y. Their reactions were used as a guide.
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Three Kids and a Queen
The Road Back
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100 MEN AND A GIRL
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in the production of the picture. The horror element was entirely avoided in the film. Its purpose is to motivate children in the habit of carefulness in traffic. It presents several typical traffic danger situations to children in highway traffic. This is done by ordinary traffic scenes and by talking automobiles, the fronts of which turn into cartoon faces with titles coming out of their mouths as they tell of the toll being taken in children injured and killed in automobile accidents, warn the children against carelessness in crossing streets, urge them to "remember not to forget to be careful always," and exact a promise of carefulness.

A teaching guide with scenes from the film has been prepared to accompany the film.

The picture was produced by Films of Commerce and is meeting with enthusiastic reception on the part of schools throughout the country, the demand being greater than can be taken care of by the 100 prints now in circulation. About 200,000 children are seeing the film each month. Prints have been deposited with the visual instruction departments of state universities, museums, and state department of education and several commercial exchanges from which schools may borrow prints without cost, except for transportation charges. Applications should be made to Films of Commerce Co., 21 West 46th Street, from which they will be referred for filling to the depository nearest the applicants.

Use of the "Film Estimates"
(Concluded from page 320)

reviews of those pictures appearing for the week of bulletin boards either in the library or the main hall. In the junior highs the librarians have given lessons in the use of the reviews and this has stimulated interest in more lengthy reviews such as can be found in Scholastic magazine, Boy's Life, Literary Digest, and Life. In the senior high the students have been informed about the service, and the sponsor of the school paper intends to carry some news notes about it.

To each parent group the use of the reviews has been explained and the importance of follow-up work on the part of the home has been stressed. Some elementary schools have felt the service will possibly be of more value to the parent than to the child of these years; therefore, these school principals make mention of the system when such groups meet in regular or executive sessions.
The NEW importance of the EAST

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An undeclared war between China and Japan . . . In Siberia, a vast region coming to life . . .
Soviet Russia—a nation engaged in a tremendous experiment in government . . .
Turkey throwing off the garments of the past and changing to modern modes of life . . .
Manchukuo and its still doubtful destiny . . .

Geography, Industry, and History—
all of these things become clearer when pupils see these five important classroom films, edited from a wealth of pictures made by the famous American explorer-traveler, Julien Bryan.

ORDER NOW TO insure early delivery . . .
Eastman Kodak Company, Teaching Films Division, Rochester, N. Y.
Christmas in Other Countries -- In Hand-Made Lantern Slides

By ANN GALE

The celebration of Christmas includes a mixture of pagan and Christian customs that vary according to the country. Children in intermediate grades are interested in the ways Christmas is celebrated in other countries. For children of those grades these slides could form the background for stories about various kinds of Christmas celebrations.

1. Children in provincial France putting their wooden shoes before the hearth on Christmas eve to receive presents from "father Christmas."

2. Children in Italy receiving their gifts from a large vase—the urn of fate. In the background on the table is a miniature representation of the nativity.

3. German children on Christmas eve looking at their Christmas tree decorated only in lights and bon-bons.

4. Norwegian children looking in all kinds of hiding places for their Christmas presents.


6. An American child looking at his Christmas tree and stocking full of presents.

The simplest type of hand-made slide is made by drawing or tracing on finely finished etched glass with ordinary medium lead pencil. Color, by special crayons or inks, enhances the slides greatly. Fine effects are obtained by blending with crayons. About one-third inch margin should be left all around the slide. The slide is readily cleaned with soap or washing powder to receive a new picture.
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An Authentic Document of China's Teeming Millions

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"Vivid... striking... genuine pictorial beauty"
N. Y. Herald Tribune

"Unique... marvelously done... extraordinary"
N. Y. Post

"Vividly and unforgettable he has recorded anachronistic China from bare bleek Gobi Desert and shaggy Inner Mongolia to shiny modern skyscraping Shanghai"
Cue Magazine

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NEWS AND NOTES Being brief notations on significant doings and events in the visual field.

Conducted by Josephine Hoffman

New University Visual Services

To the rapidly growing list of University Extension Divisions serving their state with visual aids, must be added the Bureau of Visual Instruction recently established at the University of North Carolina, Chapel Hill. This Bureau will rent 16mm. silent and sound films, and lantern slides, to schools and other organizations. The Extension Division of the University of Alabama, and Western State Teachers College of Kalamazoo, Mich., also plan to distribute films and other visual aids on state-wide bases.

A cooperative film library is being established by the Extension Division of the University of Michigan, and another by the General Extension Division of the University of Florida. In Massachusetts, the Boston University School of Education is organizing a cooperative specialized film library in addition to their regular Free Films Service.

Reports indicate that the Wyoming Visual and Radio Conference which was held at the university recently may lead to the establishment of a state visual service to the schools of Wyoming.

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2. RECESS PROGRAMS (sound and silent)
3. OUR WORLD IN REVIEW (edited from Pathé News material)
4. SECRETS OF NATURE (British Instructional Films)

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Survey Reveals Growth in 16mm. Field

The Motion Picture Division of the U. S. Department of Commerce is making a survey of the 16mm. and 8mm. equipment field to secure accurate, worthwhile information on this particular branch of the motion picture industry for the comparative years 1932 and 1937. Early returns from this questionnaire show a steady development in the use of 16mm. film in industrial and educational work.

Inquiries were sent to producers, manufacturers, laboratories, libraries and camera and projector companies to establish capital investment in 1932 and the current year, and comparative employment totals for those years. Additional questions were asked on the number of industrial, educational and advertising subjects made, average number of prints per picture, average production costs per foot and methods of distribution.

Notes from Abroad

South Africa. Since the recent establishment of a National Film Library in the Union Department of Education, use of educational films in the schools of South Africa has been increasing steadily. In response to this demand, £2600 will be available for the purchase and production of new films, as compared with £800 in 1936. The Union Library films are rented to member-schools at a nominal fee and are restricted to use with projectors approved by the Film Division. The loan of films from foreign industrial firms is requested by the Director of the National Bureau and Social Research for South African schools.

* * *

Germany. During the three years since its foundation, the National Education Film Bureau has furnished German schools with 17,000 16mm. projectors. In the near future 70,000 German schools and universities are to be supplied with such apparatus, according to a report from the U. S. Motion Picture Division of the Department of Commerce. The Bureau is interested in foreign educational films and in the exchange of its own similar films with interested organizations in the United States. So far the Bureau has produced about 300 educational films.

* * *

Great Britain. According to an analysis of incomplete replies received by the British Film Institute, there are only 540 projectors in use in the schools of England and Wales, and 140 in Scotland, or approximately one school in 500. Although England is far behind other countries in the use of the film in education it is a leader in the production of fine documentary films.
Teacher Training in Visual Aids

(Concluded from page 316)

Although the final tabulation indicates what the writer considers to be a reasonable safe guide (not a model) in preparing a syllabus for a course in visual instruction, he does not mean for this tabulation to imply that all visual aids instructors agree on the amount of time to be devoted to each topic. There is extreme divergence of opinion in this regard. In all of the thirty-two topics, except one, technique in the use of motion pictures, the number of hours given each topic in one or more courses is zero. In one topic, photography, the variation between the number of hours devoted to it in two different courses is thirteen.

Course Instructors. In view of the variation in topics covered in the course and the time devoted to each, it might be of interest to know something of the instructors in the courses. The seventy-six instructors have a total of twenty-nine titles, only one of which is Professor of Visual Education. Only twenty-seven of the seventy-six instructors had titles that indicated their connection in any way with teacher training. Table shows the distribution of these titles.

<table>
<thead>
<tr>
<th>Title</th>
<th>No. of Instructors</th>
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<tbody>
<tr>
<td>Professor of Education</td>
<td>11</td>
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<tr>
<td>Assistant Professor of Education</td>
<td>4</td>
</tr>
<tr>
<td>Associate Professor of Education</td>
<td>1</td>
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<tr>
<td>Professor of Visual Education</td>
<td>1</td>
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<tr>
<td>Consultant in Education</td>
<td>1</td>
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<tr>
<td>Director of Teacher Training and Personnel</td>
<td>1</td>
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<td>Dean of College of Education</td>
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<tr>
<td>Secretary of Bureau of Visual Instruction*</td>
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<td>Director of Visual Instruction</td>
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<tr>
<td>Assistant Director of Visual Instruction</td>
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<td>Director of Museum*</td>
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<td>Director of University Extension*</td>
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<td>Lecturer on Visual Education</td>
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<td>Assistant Director of University Extension*</td>
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</table>

One of the following fifteen titles was held by one or more of the remaining forty-nine instructors:

- Professor of Business Administration
- Associate Professor of History
- Professor of History
- Professor of Physics
- Professor of Bacteriology
- Associate Professor of Physics
- Professor of Geography and Social Science
- Professor of Agriculture
- Associate Professor of Industrial Arts
- Assistant Professor of Biology
- Instructor of Photography
- Professor of Mathematics
- Professor of Science
- Professor of Handwriting
- Professor of Home Economics

Credits Offered for the Course. The number of credits offered varies from one to four, with about 40 per cent of the institutions offering two credits, 35 per cent offering three, and the remaining 25 per cent being about equally divided between one and four.

(To be concluded in January)
The Place of the Motion Picture in an Arts Exhibit

By F. M. WORRELL
Director Visual Education, Public Schools, Englewood, N. J.

DURING the recent depression many administrators found to their dismay that although their administration of school business had been conscientiously and intelligently managed, they had neglected a very important part of the educational program, namely—selling the school to the community—with the direct result that many school activities, classed by certain public groups as "fol-de-rols of education," were subject to much public censor, in many cases cut from the curriculum entirely.

Unfortunately, as many of these courses furnished the sole interest and opportunity for a large part of the less gifted children, their elimination forced the pupils to study materials beyond their scope and interests, dooming them to failure in an educational system which should have provided for their successful development in suitable fields.

One of the best ways to enlighten the public as to the value of these new school activities, reducing, thereby, the possibility of adverse public opinion in the future, is through the medium of the school exhibit.

Parents and friends, viewing the products of their children's activities in art, manual training, domestic science, printing and the various clubs now considered part of a progressive school's program, cannot help but feel a sense of pride in their accomplishments and an appreciation of the educational opportunities which made these results possible.

But a school exhibit that creates in the observer a self-satisfied frame of mind has only accomplished half its possibilities. To be truly constructive it must show him not only the end products but also the conditions under which these were produced, indicating not only the school's strength but also its weaknesses, outlining what must be done to bring about improvements and suggesting ways in which his support and co-operative activity may bring about their consummation.

The observer should leave the exhibit feeling that although the schools have done well with their available facilities there is much room for improvement, that conditions are far from perfect and that through his efforts in advancing the educational program in his city much good can still be accomplished.

In other words, a school exhibit should stimulate a desire for a continuous improvement of educational opportunities, in the minds of the citizenry, rather than supine satisfaction with present conditions.

This idea was carried out, to a very slight extent, in a recent Arts exhibit of the Englewood Public Schools. An English teacher of the Junior High School, owner of an inexpensive motion picture camera, acting in conjunction with members of the staff, planned and produced an eight hundred foot film depicting the Board of Education, schools of the city and their respective faculties, and activities of the Junior High School.

The production involved no expensive "settings." Real situations were used. The "acting" was the normal activity of the groups pictured. The expense—less than twenty-five dollars. Although the picture was not planned with the idea in mind of creating a dynamic urge in the mind of the observer to aid in furthering an educational program, it did show the actual making of many of the objects on exhibit and pictured a number of school activities which could not have been exhibited otherwise.

A booth was set up at the exhibit for the showing of the film. Student operators, working in relays, presented a continuous "show." Other students, using our public address system, described the activities as they were pictured.

The crowd around the booth was so great that many times we wished we had planned for more space. Observers were not content to view the picture once, they stayed and saw it several times. After they had tired
of this part of the exhibit, they went to inspect the articles themselves, appreciating them more because they had seen the conditions under which they had been made.

The old saying "The proof of the pudding is in the eating" holds good also when applied to an exhibit. The week following the exhibit the town paper ran an editorial on the value of the Arts Courses in education ending with a statement to the effect that when a reduction of public funds because of low tax returns requires educational curtailment, the arts courses must be left in the curriculum.

Junior Walton League Film

A school-made picture on the Junior Iszaak Walton League, produced by R. L. Swanson of Wilson Junior High School, Appleton, Wisconsin, is available from the Bureau of Visual Instruction of the University of Wisconsin. The film thoroughly portrays the worthwhile activities carried on by the Junior Waltonians, such as, planting shrubs and flowers, caring for birds and other wild life, reforestation projects, soap carving of animals, and other studies of outdoor life.

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Da-Lite portable Screens have glass-beaded or mat white surfaces. The glass-beaded surface is usually best for classroom use as it gives the brightest, clearest pictures. For auditoriums, Da-Lite theatre-type stationary screens are also available with silver surfaces and in seamless form.
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**VISUAL SCIENCES—Suffern, N.Y.**

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Another Film On China

To the list of timely motion pictures on China should be added the 6-reel feature, This Is China, available in 16mm sound from Commonwealth Pictures Corporation, New York City. This film is an interesting and informative travelog covering considerable territory, from Inner Mongolia and the bleak Gobi Desert to modern Shanghai, giving vivid glimpses of the customs and pursuits of China’s teeming millions and their struggle against disease, famine and poverty. There are maps charting the Japanese invasion and sequences of marching Japanese troops. A good commentary, written by Jack Foster and narrated by Alois Havrilla, accompanies the picture.

**Releases from Nu-Art**


These productions were formerly released through United Artists, and star: Jeanette MacDonald, Joan Bennett, Gloria Swanson, Zazu Pitts, Dolores Del Rio, Fannie Brice, Bebe Daniels, Walter Huston, Bing Crosby, Chester Morris, Harry Richman, Conrad Nagel, Joe E. Brown, Douglas Fairbanks and others.

**Primary School Film Programs**

An innovation in the film service offered by Walter O. Gutlohn, Inc., is the introduction of “Children’s Hour Programs,” which are specifically adapted and edited for children in the 6 to 12 year age group and are distributed in 16mm sound-on-film. The program consist of one reel films with instructional and entertainment material selected from Pathé’s World in Review series, and contain nature studies, marionettes and novelties. For primary school work, the Children’s Hour Programs fill a long-felt need and should find widespread use in schools throughout the nation.

**Additions to Filmo Library**

The following new 16 mm. films are announced by Bell & Howell Company: The Toy Shop (1 reel sound), a Christmas story in color with musical background; One Metre Board (1 reel sound and silent) and Three Metre Board (1 reel silent), which give instruction in mechanics of spring-board diving by the Olympic champion, “Dutch” Smith; Cobbler Captain of Kopenick (6 reels sound), a German language comedy-drama with English titles superimposed; Siamese Journey (2 reel sound), a Huntington-White White travelog.
AMPRO circles the world

Wherever 16mm. silent or sound films are shown you will find AMPRO Precision Projectors delivering continuous satisfactory service. In rapidly increasing numbers Ampro Models are being shipped to all parts of the world. The “export trade” is unusually particular. It demands dependable efficiency. Ampro offers that plus skilful design and numerous other advantages. The coupon below will bring full details.

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[ ] Ampro 16mm. Silent Projectors
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Name

Address
The Film Estimates

Being the Combined Judgments of a National Committee on Current Theatrical Films

(A) Discriminating Adults

(Y) Youth

(C) Children

Date of mailing on weekly service is shown on each film.

(The Film Estimates, in whole or in part, may be reprinted only by special arrangement with The Educational Screen)

Adventures of Blonde (Glenda Farrell, Barton MacLane, and Walter Winchell) Another in the "Torchy Blane" comedy-mystery series, about as usual. Fast, breezy action—BartonMacLane is the best part—solving of another murder?

11-30-37

(A) Perhaps (Y) Fair of Kind (C) No Value

Away with the Doves (Donald O'Connor, Gary Grant) (Col) Fast, hilarious farce-comedy opening with a Gettysburg reenactment. No good since it is an effort to reconcile．Notable for fine subtle character acting by stars. Clever mixture of genuine comedy and slapstick. Risque bits to strain is inessential.

11-30-37

(A) Very entertaining (Y) Sophisticated (C) No Value

Barrier, The (L. Carroll Carr, J. Parker, J. Wilson) RKO Beach's melodrama of revenge to the love of young Lieutenant for a supposed halfbreed. Though it is a film that lacks .sparred vigor, Chief merits are Carroll's fine character role and beautiful scenery.

11-23-37

(A) Fair (Y) Poor (C) No Value

Borrowing Trouble (Jed Prouty, Spring Byington) a study of the boy to be in Jones Family series of domestic comedies. Natural boy action and wholesome family relationships. Dep't with simple realism. Good and sympathetic understanding. Good social values. Overdrawn climax doesn't seriously detract.

12-7-37

(A) Fair (Y) Poor (C) Very Mediocre

Conquest (Garo, Boyce, MGM) Romantic romance concludes with all the lushness. Story, elaborately set down with power, dignity, and beauty by notable cast. Makes Napoléon's whole career come true. Garbo and Boyce do outstanding roles. Long and foppish style.

12-7-37

(A) Notable (Y) and (C) Very Mediocre

Damsel in Distress (Fred Astaire, Joan Fontaine) A frothy, entertaining, not too serious but absurd far-fetched comedy. Characteristic and amusing situations make it quite amusing. Rather more story than dancing in which Garbo and Boyce do outstanding characters. Some excellent photography, novel camera effects, and settings. Great pantomime and fairly funny.

12-7-37

(A) Amusing (Y) Amusing (C) Amusing

Eve Tide (Millard, Homolka, Farmer) (Para) Story of an adult woman and her two boys who can not be kept in the South Seas, notably for excellence of Garbo's performance. It is unfunny but delightful.

12-7-37

(A) Fair of Kind (Y) and (C) Very Mediocre

Gangway (Jesse Matthews, Not Pendleton) (British-Gaumont) Handsome staged and photogenic serial with appealing dancing and a story by engaging little garlic. Fast, breezy action, but combination of musical comedy, mystery drama, and farce is a bit stiff.

11-23-37

(A) Poor of Kind (Y) and (C) Little Int.

Great Garrick, The (Brian Aherne, Donald Crisp, Mother West) Skillfully produced, finely acted thing with very entertaining and amusing satire on imaginative episode in Garrick's life. He pays his debt to fame and wins the world.

11-23-37

(A) Very Entertaining (Y) Good (C) Good if one is interested

Hold 'Em Navy (Cary Grant, Mary Carlisle) (Para) Lovely Annapolis picture considering its rules and traditions. Story not new; concept, skillful production, excellent acting. Anyone who troubled of spoiled hero until he learns discipline, the hero doesn't even play in big gag.

11-30-37

(A) Very Good (Y) Good (C) Prob. Entertaining

Hot Water (James Cagney, Spring Byington, Fox) Plugging addition to the Jones Family series, really in characters, incidents and family life. Mr. Cagney should win another Academy Award for his own performance. Family entertainment.

11-23-37

(A) Fair (Y) Good (C) Good

In the Far East (Russian, English Titles) (MGM) Very enjoyable exposition of espionage in a Soviet camp on the Eastern frontier between Siberia and Japanese. This was a first-class assignment for a

11-30-37

(A) Hardy (Y) Poor (C) No Value

It's Love I'm After (Leslie Howard, B. Davis) (Warner) Delightful, gauzy interpretation of the comedy-drama, Clever dialogue, brisk tempo, and amusing situations as actor's performances, who strangely personate, and almost loses his social status. Acting fair to well done.

12-16-37

(A) Very entertaining (Y) Sophisticated (C) No Value

Lady Fights Back, The (Irene Hervey, Kent Taylor) (Universal) Excellent, gauzy, fast, and heroic operating fine skating club, battle over proposed dam construction which will cut off salmon from the salmon "ladder" arrangement. Thiny, lightly amusing, fast action.

12-16-37

(A) Hardy (Y) Fairly good (C) Doubtful Int.

Last Gangster, The, (Edward Robinson, MGM) Grim study of ruthless, evilotic "big shot" gangster, confined to Alcatraz. Upon release seeks son and revenge on wife who marries again, but contact with boy stirs him to self-sacrifice, which he is unable to bear, and much laughter, well-told and acted.

11-23-37

(A) Good of Kind (Y) Strong (C) No Value

Live, Love and Learn (Montgomery, Russell) Punches in the face of a man's creation of breezy, exalted, sophisticated whimsy, slapstick and serious drama. Painless artist, calming mood, and richly, temporarily loses sense of values and his wife: recovers both before the end.

12-7-37

(A) Amusing of Kind (Y) Prob. Int. (C) No Value

Merry-Go-Round of 1938 (Lahr, Save, Auer, et al) (Univ) Crazy, hilarious stuff made thereby funny by able performers and direction.

12-7-37

(A) Substantial, human story of wandlewundance and id. (Y) Disquieting, well thought out and acted (C) Par Excellence

Mr. Boyce Steps Out (Stuart E. Wilson, John Chandler) (Grand Nat) Homey, quiet little comedy concerning business endeavors of ingenious stock boy. He becomes a factory and makes success of it. Ern's well-cut, and village character roles and romantic element add interest.

12-7-37

(A) Fairly good (Y) Amusing (C) Fair

My Dear Miss Aldrich (Maureen O'Sullivan, Walter Pidgeon) (MGM) Rather labored comedy with much involved mistaken purposes, action and incredible situations. Edna May Oliver provides a few curiosities as the domineering aunt of heroine who inherits newspaper run by suspected King of journalism magazine editor.

11-30-37

(A) Hardy (Y) Poor (C) Doubtful Int.

Murder on Diamond Row (Edmund Lowe, Sebastian Shaw (U.A.) Settings and photography, interesting, but rather clumsily told so story provides only mild suspense. Action randonale, character possibly more than Low's conventional heroism less than certain. Homicidal man is extinguished from murder mess by far-fetched, clumsy execution of second of three crimes.

11-30-37

(A) Hardy (Y) No Value (C) No Value

Nothing Sacred (Lombard, March, Warner, Connolly, MGM) Lavish, well-acted, crazy, farce about a bid, had newspaper exploiting heroine supposedly dying of radiology poison. Pulverizing mos of brain faking, com rode drunkenness, wisecrack dialogue, slyly done role about absurdities—and all techie it! 11-23-37

(A) Depends on taste (Y) Doubtful (C) No

Partners in Crime (Lyne Overman, Rosemary DeCamp, 3900 East) Murder mystery in trilogy of low-budget films glorifying early Bolshevik party. Complex and slow-moving story which describes Porteau portrays activities of secret organizers and bolshevik press,licting wars, mass marching, riots, grim death for "the cause." 11-16-37

(A) Interesting (Y) If it interests (C) No

Second Honeymoon (Loretta Young, Tyro II Power) (F o x) Elaborate, sophisticated comedy, embroidered with hilarious slapstick as monologuistic, playboy here's re-woods and re-woods ex-wife from her second husband. Letter is a "stuffed shirt" so it's all very gay, and right and proper! Appealing subordinate roles. 11-23-37

(A) Good of Kind (Y) Better not (C) No

Sheik Steps Out, The (Ramón Novarro, Lina Lane) (RKO) Choice for Novarro's return to Screen. Innocuous but naive, outdated love story of desert sheik who is really a Spaniard count, and spirited American heroine whom he "tames." Pleasingly acted by star, and some good supporting roles.

12-7-37

(A) Hardly (Y) Perhaps (C) No Interest

Spanish Earth (Contemporary Historians) Stirring portrayal of life of Lope de Vega, the one of Madrid and environs. Emphasizes need of good soil to guarantee food supply and shows how the church's irrigation project along with war scenes. Partisan but effective narration by Hemingway, impressive photography. 11-23-37

(A) Fine of Kind (Y) Doubtful (C) No

Stand-In (Leslie Howard, Joan Blondell) (U.A.) Sprightly, Frank satire on film industry, Howewer delicatesness and unscrupulous framing effect sent to Hollywood to save movie company. Enjoyable blend of comedy, hilarious farce, serious drama, interesting backgrounds, deft direction and acting.

11-23-37

(A) Very good (Y) Good (C) Doubtful Int.

Submarine D-1 (Pat O'Brien, Wayne Morris, Doris Westor, McHugh) (Warner) Routine plot of romantic rivalry subordinated to absorbingly fine photography of submarine service and newly developed reconnaissance apparatus. Striking sea effects, atmospheric photography, Avoi'ge romance and impossible heroines.

12-7-37

(A) Interesting (Y) Very good cf. (C) Prob. gd.

This Way, Please (Buddy Rogers, Ilg, Grable, Nabors, Davis, Para) Large, ridiculous bid for education in stage and screen tops off with a good laugh, but a lot of the gags are either not clever or are badly executed.

11-23-37

(A) Mediocre (Y) Passable (C) Doubtful Int.
AMONG THE PRODUCERS

DeVry Adds New Services

Herman A. DeVry, Inc., of Chicago, has just recently announced a local newsreel plan in which a beneficial tie-up is created between newspapers and local theatres. While the newsreel is not intended in any way to compete with the features or shorts in theatres, it is offered as substitute for free gifts and bank night promotions. The plan has already been tried in several communities and has been found especially successful in towns having smaller populations where there is a strong local interest in affairs.

The 16mm newreel being produced by the Stadium theatre in Evanston, Ill., is an example of the development in the Chicago area. Interest in the weekly showing has been growing rapidly, according to the manager of the theatre. The newsreel is worked out in cooperation with the Evanston News-Index, daily newspaper, which supplies the cameraman with information regarding news events in the territory.

In order to make it possible for theatres who so desire to produce their own newreel, the DeVry company has set up a plan whereby the exhibitor may lease the equipment. A camera, projector, exposure meter, reels, splicing machine and other necessary paraphernalia are included in the outfit.

Amateur cameramen are invited to write to the DeVry Company for further particulars.

Another addition to the DeVry list of services is the recently announced Special Centralized System Department, headed by J. R. Cowan, which offers free consultation service, layout plans, and advice on such installations. The DeVry Company now has available school centralized systems, which include public address features, single or two-way communication systems between principal's office and classrooms, and other features.

Leica Deferred Payment Plan

For those people who wish to extend their photographic scope with a Leica camera or wish to add to their present Leica equipment but who do not find it convenient to make a substantial cash outlay at one time, E. Leitz, Inc., announce the creation of a Leica Finance Plan. Under this plan the purchase of cameras, new lenses, enlargers, projectors, or any other item of Leica equipment including Leitz Binoculars may be paid for over a period of time.

Screen Bargain

Hornstein Photo Sales, 29 E. Madison St., Chicago, distributors of projectors, cameras and photographic accessories, is offering a special bargain in sound screens. A 54"x72" perforated screen, with good struts, usable for silent or sound projection, in fibre container, is offered at less than half the original price.
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(See advertisement on inside back cover)
Bray Pictures Corporation (3, 6) 729 Seventh Ave., New York City
Cine Nascent Corporation (5) 1041 Jefferson Ave., Brooklyn, N. Y.
(See advertisement on page 333)
Commonwealth Pictures Corp. (5) 729 Seventh Ave., New York City
(See advertisement on page 329)

Eastin 16 mm. Pictures (6) Davenport, la.
(See advertisement on page 332)
Eastin Film Co. (1, 4) Rochester, N. Y.
(See advertisement on outside back cover)
Eastman Kodak Co. (1, 4) Teaching Films Division
Rochester, N. Y.
(See advertisement on page 337)
606 Wood St., Pittsburgh, Pa.
General Films, Ltd. (3, 6) 1924 Rose St., Regina, Sask.
156 King St., W. Toronto
(See advertisement on page 334)
Herman A. DeVry, Inc. (3, 6) 1111 Armitage St., Chicago
(See advertisement on page 310)
Holmes Projector Co. (3, 6) 1815 Orchard St., Chicago
(See advertisement on page 329)

Ideal Pictures Corp. (3, 6) 28 E. Eighth St., Chicago
(See advertisement on page 333)
Institutional Cinema Service, Inc. (3, 6) 130 W. 46th St., New York City

Institutional Cinema Service, Inc. (3, 6) 35 W. 45th St., New York City
(See advertisement on page 332)
Harvard Film Service (3, 6) Biological Laboratories, Harvard University, Cambridge, Mass.
Guy D. Haselton’s Traveltudes (1, 4) 7901 Santa Monica Blvd., Hollywood, Cal.
J. H. Hoffberg Co., Inc. (2, 5) 729 Seventh Ave., New York City

Ideal Pictures Corp. (3, 6) 28 E. Eighth St., Chicago, III.
(See advertisement on page 333)

Institutional Cinema Service, Inc. (3, 6) 130 W. 46th St., New York City
Lewfilm Service (6) 105 E. 1st St., Wichita, Kan.
(See advertisement on page 333)
The Mans Library (4, 5) 2439 Auburn Ave., Cincinnati, O.
(See advertisement on page 334)
National Cinema Service (6) 3 W. 29th St., New York City
Pinkney Film Service Co. (1, 4) 1028 Forbes St., Pittsburgh, Pa.
United Projector and Films Corp. (1, 4) 228 Franklin St., Buffalo, N. Y.
Universal Pictures Corp. (3, 6) Rockefeller Center, New York City
(See advertisement on page 326)

Visual Education Service (6) 131 Clarendon St., Boston, Mass.
Visual Instruction Supply Corp. (6) 1757 Broadway, Brooklyn, N. Y.
(See advertisement on page 334)
Wholesome Films Service, Inc. (3, 4) 48 Melrose St., Boston, Mass.
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19 S. LaSalle St., Chicago

MOTION PICTURE

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(See advertisement on page 335)
Bell & Howell Co. (6) 1815 Larchmont Ave., Chicago
(See advertisement on inside back cover)
Eastman Kodak Co. (4) Rochester, N. Y.
(See advertisement on outside back cover)
606 Wood St., Pittsburgh, Pa.
General Films, Ltd. (3, 6) 1924 Rose St., Regina Sask.
156 King St., W. Toronto
(See advertisement on page 334)
Herman A. DeVry, Inc. (3, 6) 1111 Armitage St., Chicago
(See advertisement on page 310)
Holmes Projector Co. (3, 6) 1815 Orchard St., Chicago
(See advertisement on page 329)
Ideal Pictures Corp. (3, 6) 28 E. Eighth St., Chicago
(See advertisement on page 333)
Institutional Cinema Service, Inc. (3, 6) 130 W. 46th St., New York City
International Projector Corp. (3, 6) 90 Gold St., New York City
(See advertisement on inside front cover)
RCA Manufacturing Co., Inc. (5) Camden, N. J.
(See advertisement on page 313)
S. O. S. Corporation (3, 6) 636 Eleventh Ave., New York City
United Projector and Films Corp. (1, 4) 228 Franklin St., Buffalo, N. Y.
(See advertisement on page 337)
Victor Animatograph Corp. (6) Davenport, Iowa
Visual Education Service (6) 131 Clarendon St., Boston, Mass.
Williams, Brown and Earle, Inc. (3, 6) 918 Chestnut St., Philadelphia, Pa.

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606 Wood St., Pittsburgh, Pa.
Hornstein Photo Service (6) 29 E. Madison St., Chicago
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Institutional Cinema Service, Inc. 130 W. 46th St., New York City
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(See advertisement on page 333)

(See advertisement on page 312)
Radio-Mat Slide Co., Inc. 1819 Broadway, New York City
(See advertisement on page 333)
Society for Visual Education 327 S. LaSalle St., Chicago, Ill.
Visual Education Service 131 Clarendon St., Boston, Mass.
Visual Sciences 545 New York Ave., N. Y.
Williams, Brown and Earle, Inc. 918 Chestnut St., Philadelphia, Pa.

STEREOGRAPHS and STEREOSCOPES

Herman A. DeVry, Inc. 1111 Armitage St., Chicago
(See advertisement on page 310)
(See advertisement on page 312)

STEREOPTICONS and OPAQUE PROJECTORS

Bausch and Lomb Optical Co. Rochester, N. Y.
(See advertisement on page 309)
Eastman Kodak Stores, Inc. 1020 Chestnut St., Philadelphia, Pa.
606 Wood St., Pittsburgh, Pa.
General Films Ltd. 1924 Rose St., Regina, Sask.
156 King St., W. Toronto
(See advertisement on page 334)

(See advertisement on page 312)
Society for Visual Education 327 S. LaSalle St., Chicago, Ill.
Spencer Lens Co. 19 Doat St., Buffalo, N. Y.
(See advertisement on page 331)
Williams, Brown and Earle, Inc. 918 Chestnut St., Philadelphia, Pa.

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(3) indicates firm supplies 35 mm. sound and silent.
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(6) indicates firm supplies 16 mm. sound-oor-four.
(8) indicates firm supplies 16 mm. sound and silent.

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models Filmosound for all silent

audience requirements

the two-case Filmosound 138, for both silent and sound film projection, offers the complete film protection of all Bell & Howells. Especially quiet, due to the sound-proofed blimp case in which the projector mechanism operates. Filmosound 138 is ideal for classroom or small auditorium operation. Other models for larger audience requirements.

Better pictures result from scratch-free films that are kept so by the complete film protection which is characteristic of all Bell & Howell projectors, sound and silent. Film protection is an especially important consideration for schools which have any film library of their own, for these films will be quickly injured and soon destroyed unless they are used only on projectors that are designed to protect the film.

Complete film protection is obtained in Bell & Howell Projectors by such superior design features—most of them exclusive—as the following:

1. FLOATING FILM—The sound and picture record areas do not touch any stationary part of the projector mechanism, so that even the softest film cannot be scratched.

2. JERKING OF FILM IS ELIMINATED—Harmonic cam moves film at aperture with correct steady acceleration without "clawing" or jerking.

3. "SAWING" ACTION IS AVOIDED—Shuttle teeth move in a rectangular path and parallel to the film; perforation wear is reduced to a minimum.

4. ACCURATE TEETH—Shuttle teeth and sprocket teeth are accurately machined to distribute pressure over the full edge of the perforation.

5. STRAIGHT LINE FILM TRAVEL—Film is not twisted at any point. All film-carrying parts are perfectly aligned. Twisting film opens splices, causes tearing.

6. AUTOMATIC SNUBBER—Bent take-up reel or accidental stopping of reel will not cause film injury. A spring snubber on 1600-foot reel models automatically compensates—absorbs shocks.

7. SELF-MONITORED REWIND—Damage from careless rewinding is avoided by correct automatic tension on reel spindles.

8. ROTATING SOUND DRUM—Rotating ball-bearing sound drum (on sound models) prevents perforation strain and scratching liable to result from stationary sound drums.

For complete information about Bell & Howell projectors—information on how they qualify in all requirements of perfect projection as they do in complete film protection—mail the coupon below.


THE BASIC REQUIREMENTS OF PERFECT PROJECTION

1. Rock-steady pictures, free from lumps and weave (see our steadiness test).

2. Brilliant, uniformly illuminated pictures.

3. Flickerless pictures, eliminating eye-strain.

4. Simple, errorproof operation.

5. A long life of constant dependability.

6. Ease of maintenance . . . simplicity of oiling, cleaning, replacing lamps.

7. Complete film protection.

and also, in sound film projectors—


The advertisements of this article tell how Bell & Howell Projectors meet these requirements.

ALL-COLOR CHRISTMAS SOUND Film RELEASE, "The Toy Shop"—A one-reel, 16 mm. sound film in natural color—printed from Technicolor negative—that depicts a toy shop in a French Village on Christmas Eve. The toys "come to life," unfolding a delightfully gay and entertaining film story. Rental, $2.50. Out-right purchase, $50.

TWO-REEL ATHLETIC FEATURE, "Mechanics of Swimming"—A 16 mm. film in two reels by "Dutch" Smith, Olympic champion. Reel 1—One-Metre Board; Reel 2—Three-Metre Board. These films are silent, fully titled. Rental $1 per reel per day; purchase, $50 per reel. The One-Metre Board teaching film is also available in sound with verbal instruction by Mr. Smith. Rental, $1.50 per day; purchase price, $35.

BELL & HOWELL COMPANY
1817 Larchmont Avenue, Chicago, Illinois
Please send me full information on ( ) Filmo sound Projectors, ( ) Silent Film Projectors, ( ) Bell & Howell Payment Plans, ( ) Silent films for school use, ( ) Sound films for school use.

Name: ____________________________
Address: __________________________
City: ____________________________  State: ________
SAFE PROJECTION

TO SHOW 35-mm. pictures safely without a projection booth...and to comply with fire underwriters’ requirements... project only film of the “safety” type. Specify Eastman Safety Film whenever you order 35-mm. movies, and look for the words Eastman...Safety...Kodak throughout the margins of each reel.


EASTMAN SAFETY FILM