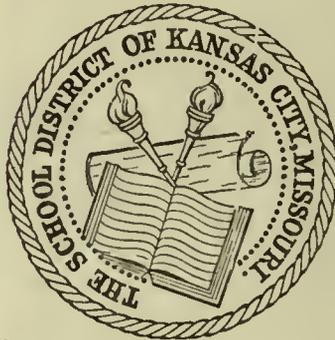


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JANUARY, 1933

VOLUME XII

NUMBER I

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EDITORIAL

WITH this issue we begin Volume XII, with eleven years of consecutive publication behind us. This is a venerable age for a magazine in the visual field. It is twice the age attained by the longest-lived of our half dozen predecessors. The twelfth year now faces us, and with this country and the world still pretty thoroughly

a slave to the depression-habit. Yet in spite of the present shriveled state of affairs, in general and in particular, and counting upon the continued support of the field which made possible the eleven years, we confidently propose to carry on and complete the even dozen. And thereafter? Well, that will probably be a long story and we reserve the recital of our great expectations, awaiting a more cheerful audience in more auspicious times. *Forsan et haec olim meminisse iuvabit!*

Depressions may come and go, but the visual field cannot lose its confidence. Nothing can stop the visual idea in education. It can be, it has been, and doubtless still will be delayed by various elements congenital in the educational organism. Some of these are—the perennial poverty, both real and imagined, of the school field; the power of rigid tradition and impervious conservatism in the educational world; the static mood of the trained mind that knows it needs to know nothing more; the complacent inertia of the teaching rank-and-file that got its job by conventional methods and archaic qualifications and can hold it by the same means; in short, the very human and universal tendency to sit still and ride after one has caught one's car. Yet none of these elements, nor all of them, can possibly prevent the final defeat of vagueness and approximation by clarity and accuracy in teaching. They cannot prevent the inevitable substitution of factual truth and actuality for futile indirection and substanceless verbalism in the classroom. The visual idea will win, and is winning now.

THE question of the new name is still pending. Obviously "The Educational Screen combined with Visual Instruction News" is utterly cumbersome but many considerations must enter into the making of a change. The right name will not be trite, banal or flippant. It will be not only distinctive but appropriate and meaningful. It

will indicate character, content and purpose, and will include the whole field of teaching by sensory aids, not a limited part of that field. Names so far suggested are, in alphabetical order,

The Educational Screen
Educational Screen News
The Eye Opener
The Projector
Reel News
Sensory Teaching Aids
Visual Education
The Visual Educator
The Visual Idea
Visual Instruction
The Visual Instructor
Visualization
The Visual Screen

Objections to each of the above names can be readily found. Perhaps the most common and most serious fault is the implication that screen projection is the only form of visual teaching aid. Most of the names listed above have been duplicated often by different correspondents. Consensus opinion seems to favor "Visual Instruction" so far. It is assuredly accurate and comprehensive, even if not particularly thrilling, and seems to have more arguments in its favor than any of the others.

There are, of course, certain technical considerations involved in the complete change of a long established name. Reference, index, and quotation services are seriously affected, and adjustment will require a long time. The librarian of one of the most prominent firms in the visual field writes: "I hope you may welcome the suggestion of keeping the same title, which adequately expresses the purpose of the magazine. Improve or change the contents of the magazine, advertise in any way desired that this has been done, but keep the same title. Educational Screen, which has outlasted the other sporadic publications in this field, is probably the first thought of those who are looking for such material. With a new title this prestige is lost and it is usually only the librarians, who are kept perpetually busy already changing titles, who will know to what new name to turn."

Teachers and visual directors have also urged retention of the oldest name in the field of visual publications. There is also the financial item, quite serious in these times, of the cost of new designs, new plates, new stationery and forms, which inclines us perhaps to be more willing to accept delay in the decision. We realize that delay is not desirable, may even be working harm in some degree, and that impatience is growing in certain quarters at our seeming vacillation. We mean to run these risks, however, in the effort to ensure that the choice be right when it is made. Further advice and suggestions are earnestly invited at any time from all quarters of the field.

The Production of Animated Diagrams With Amateur Equipment

ROBERT L. PETRY

IN THE course of lecturing to classes in Physics, problems of teaching which involve motion arise frequently. At present models and laborious black-board diagrams with word pictures are used in an attempt to meet the students' difficulties with such topics. But experience with these methods has indicated that in many cases an animated drawing would have unique advantages, especially since a film can be shown over and over again until the slower students have grasped the idea.

With this in mind a survey of Physics texts* was begun and topics that might profit by illustrating were selected tentatively. In considering the method of producing such projects it seemed very advantageous for the teacher to work out these animations himself, since then, as he discovered each difficulty, he could solve it in connection with his own text and could integrate it with his course successfully. At first this seemed impossible because of the equipment and time supposedly necessary, as well as the technical skill involved; but a period of experimentation has demonstrated to the writer that with ordinary amateur motion picture equipment, a tracing board, usual drawing supplies, and a little celluloid, usable animations can be made with a moderate amount of time.

Seven very brief projects have been photographed. These deal with electromagnetic induction, the steam engine, interference in wave motion, motion of a projectile, a problem in alternating currents, the electro-scope, and simple harmonic motion.

The first of these was the least successful but it gave the information needed as to the method of procedure. The steam engine, using one hundred rather complicated drawings on paper and two celluloids, required about fifty-five hours; the motion was quite jerky and irregular but in later projects this was largely avoided by more careful use of the method to be described below. In the study of projectile motion two hundred sixteen simpler drawings on paper and one celluloid required only twenty-four hours. The drawings for the electro-scope were made by a university freshman and required eight and one-half hours, including the time needed to plan the work-sheet and to practice drawing on the celluloid. About four hours were used in making up the demonstration of simple harmonic motion. The total length of film needed for two or three cycles of each of the seven projects was one hundred sixty-five feet, requiring less than seven minutes to show. In practical use these cycles would be repeated ten or twelve times through duplication in printing, at some extra

cost but without additional expenditure of time. The cost of the supplies used (not including permanent equipment) has amounted to about \$12.00.

The simplicity of the method has several advantages. First, the method can be applied best in cases where the problem first appears as a genuine difficulty in teaching, and the animation is then used to solve it. A problem may sometimes be worked out within a short time after it arises. This adds greatly to the interest of the work. In the second place, the cost in time and money is small enough so that the interested teacher can discard entirely films of doubtful teaching value which he may have made. He can remake these with the benefit of the experience gained, profiting in particular from the reaction of the class to his first attempt. In the third place, the method should make possible a greater variety of expression in this field. Standardization in teaching films will have its advantages in a later stage of development. But at present there are too many able teachers in all fields who have had no opportunity to contribute their ideas as to the best use of motion pictures in teaching. As a result, these have lacked constructive interest in films. Possibly the best means of arousing this latent interest and of drawing out original and constructive ideas about the planning of teaching films lies in presenting the opportunity of making films themselves, even if only a few feet of sketchily-made pictures.

Equipment

The equipment and supplies used have consisted of the following items. Dimensions are given but in most cases these may be varied somewhat to suit convenience.

(1) The template. A sheet of metal $4\frac{1}{2}$ " long, 1" wide, and $\frac{1}{32}$ " or more in thickness, with two $\frac{1}{4}$ " holes $3\frac{1}{2}$ " apart from center to center.

(2) The tracing board. A smooth board of any convenient size (a drawing board is recommended), with

- (a) A glass window 4" wide and 3" high mounted flush with one surface a little above the center of the board
- (b) Two $\frac{1}{4}$ -inch metal or hardwood pegs about $\frac{1}{2}$ " high set $3\frac{1}{2}$ " apart on a horizontal line $1\frac{1}{2}$ " from the upper edge of the window and symmetrically located with respect to it. These must be spaced accurately by setting one peg first, then slipping the template on to it and drilling the hole in the board for the second peg through the second hole in

the template, then driving this second peg through the hole of the mounted template.

(3) The paper, not too opaque (16-pound bond paper has been used), in sheets 6"x5½", punched with ¼-inch holes 3½" apart and ½" from one of the longer edges. To avoid difficulty the punch must be set by the use of the template instead of by measure-

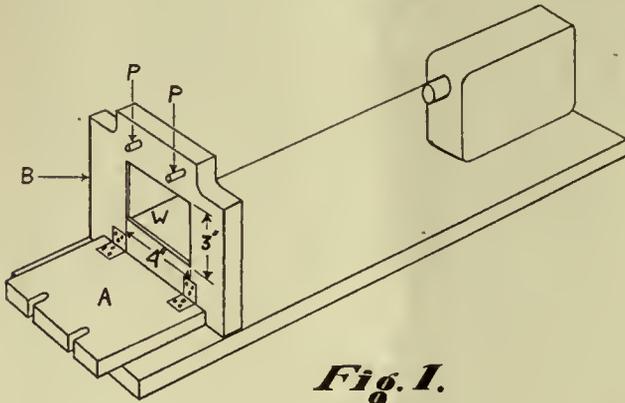


Fig. 1.

ment and the first sheets punched should be tested as to the spacing by trying them on the tracing board.

(4) Celluloid, in sheets about 5½"x5½", punched with ¼-inch holes 3½" apart and ½" from one edge. We have used celluloid one one-hundredth of an inch thick. This may be obtained from a few drafting supply shops but similar celluloid used for replacing windows of automobile curtains may be obtained from mail order houses.

(5) Usual drawing tools and supplies, including waterproof India ink.

(6) An amateur motion picture camera. The ones we have used have not had single-frame attachments, although this feature would facilitate the work somewhat.

(7) Amateur equipment for photographing motion picture titles with the camera above. This may be made up in accordance with Fig. 1 or a standard outfit may be adapted to this purpose by substituting a new frame for holding the drawings in place of the one furnished. (The Eastman titler uses an auxiliary lens; here it would probably be more convenient to adapt the titler.) In either case this frame for holding the drawings as shown in Fig. 1 consists of

(a) A vertical board B about 8" high with a window W located centrally in front of the camera; this window measures 3" by 4" on the side away from the camera but is bevelled out to 4½" by 5½" on the other side in order to prevent shading by the edges.

(b) Two ¼-inch pegs P, P 3½" apart on the back side of the board and 1½" above the edge of

the opening; these must be spaced as were those of the tracing-board, by use of the template.

(c) A stiff hinged back A, covered with white paper on the side toward the opening, to hold drawings down smoothly against the opening.

This holder is fixed rigidly in front of the camera, at a distance determined accurately by the focussing distance in the standard title writing set for the particular camera used.

(8) Eastman Panchromatic safety film, in 50-foot rolls.

(9) Lighting equipment. We have used one frosted 100-watt bulb without a reflector in some trials but have generally used two of these.

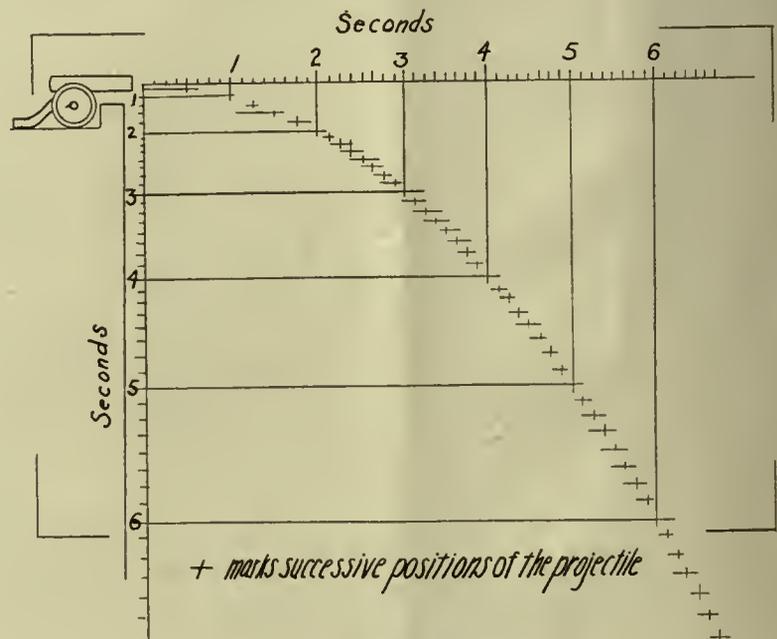
Procedure

The procedure in making up a project may be divided into steps as follows:

(1) Choosing a subject. The subject should preferably be one of immediate interest, should fit in with the text used, and should require only simple drawings, especially in the first projects attempted.

(2) Making a work-sheet of the entire project. The field photographed is 3"x4" but a ½-inch margin is left so that the drawing field is 2"x3". The work-sheet is illustrated by Fig. 2, which shows the plan and measurements for a study of the motion of a projectile. This film consisted of four parts (See Fig. 2 and Fig. 3):

- (a) a tracing of the real parabolic path
- (b) a tracing of the path if gravity were not acting, horizontal motion with constant velocity.
- (c) a tracing of the path if gravity alone were acting, without the horizontal motion of the preceding



+ marks successive positions of the projectile

Fig. 2.

part; this is uniformly accelerated motion, computed from the laws of falling bodies.

(d) a tracing of the actual parabolic path, the

result of combining the two motions (b) and (c); (see Fig. 3 c). A black cannon-ball P traces out the parabolic path while one phantom ball Q travels directly above it on a horizontal line as in (b) and a second one R keeps on the same level with it, moving exactly as in part (c).

The vertical motion under (c) was first computed and laid off on a scale which would give a maximum change of position from one picture to the next during the cannon-ball's descent of not more than $3/32"$. This would require 54 steps or about 54 drawings. (The divisions at the beginning of the descent were so crowded together that only a part of them could be put on the work-sheet.) Each of the parts should then consist of 54 drawings, making a total of 216. This large number is feasible only because of the simplicity of most of them.

(3) Making the drawings on celluloid. In the illustration used (Fig. 2) the cannon and the cliff on which it rests do not change throughout. One drawing of these, traced on celluloid, will serve for all four parts. Ink does not trace readily on celluloid. Washing the surface with ammonia and drying it makes ink trace better. We have used water-proof India ink because water colors could then be used for shading where desired. An "Eastman negative pencil" can be used for shading; this photographs quite well but gives too diffuse a line to be used readily in outlines. In general, after a little experience, the celluloids do not offer difficulty; if a serious error is made, the whole can be washed off with ammonia and the drawing begun again, but slight imperfections such as rough edges and projecting tips can be erased nicely with a pen-point.

(4) Making successive drawings of moving parts on separate sheets of paper. The first of these in part (a) above would consist of half the projectile, just emerging from the muzzle of the cannon. The second drawing would show the cannon-ball one division farther away from the cannon, while the third would show it still farther away with a line beginning to be traced. Figs. 3 a, b and c show respectively the thirtieth drawing described in paragraph (a), the thirtieth of paragraph (b), and the fortieth of paragraphs (c) and (d). The additional lines in parts (b) and (d) emphasize the distance travelled per second along each axis. The exact position of the cannon ball and other parts in each drawing is obtained by tracing them off the work-sheet by the use of the tracing board with a light beneath it. The smoothness or jerkiness of the final projected picture depends mostly upon the accuracy with which the drawings when hung on the pegs of the title-writing set to be photographed reproduce the relative positions determined by the pegs of the tracing-board while they are being drawn; hence the care exercised in spacing these pairs of pegs and in punching the paper and celluloid.

Ordinary ink photographs fairly well, although In-

dia ink does somewhat better. Heavy pencil may be used for shading and for rather faint lines.

(5) Photographing the drawings. Instructions as to focussing, aperture and lighting are furnished with a title-writing set and are to be followed closely at first. Lights must be far enough to the side or far enough above the camera that they do not give a reflection from the surface of the celluloid into the camera.

First the celluloid is hung upon the pegs of the holder of the titler and is held flat by closing the back.

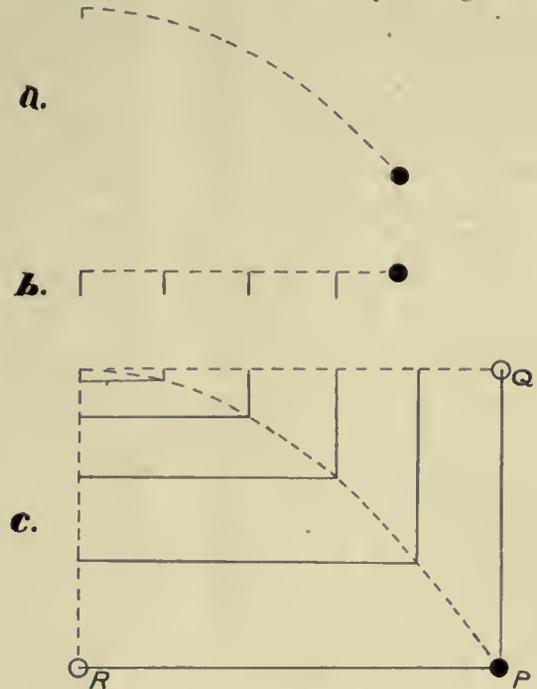


Fig. 3.

A number of pictures are taken, one at a time, to make an introduction to the action. The number of frames taken is determined by the length of time this introduction is to run; sixteen frames represent one second. Then the first drawing is hung back of the celluloid and one or two frames are taken. If three frames of each drawing are taken, the motion is slower but becomes jerky. If two are taken, the motion is smoother but proceeds more rapidly. If only one of each drawing is taken, the motion is smooth but is too rapid unless a larger number of drawings with small change from each one to the next has been made; the larger number gives superior results, however. We have made nearly all our films with two frames of each drawing.

The other drawings are taken in order in the same way. If titles are to be added, these are photographed in order. Heavy typing with a good typewriter ribbon gives letters which photograph satisfactorily. Not less than three seconds or 48 frames should be given each title.

There are 40 frames per foot in 16 mm. film or 2000 in a 50-foot roll. In planning the use of this

(Concluded on page 12)

The Educational Museum

ARNOLD W. REITZE

THE VALUE of the museum as an institution for the preservation of objects depicting the progress of man and of civilization is a well established fact. For centuries museums have been concerned and associated with the culture of peoples and countries throughout the world. The museum as a vital force in education, however, is of more recent origin, but a force which is being more fully recognized each year. Its value as an aid in teaching is becoming increasingly more important, and in many communities the museum has become an indispensable institution.

With the increasing recognition given to the value of the museum in education, has gradually come the realization that for the most effective use as an educational aid, a special type of museum is highly desirable. This has brought about the educational museum, a term which should have a special significance, particularly to those engaged in the profession of teaching.

While all museums have varying degrees of educational value, the true educational museum is rather unique in character. Most museums, at least at their inception, have been formed from collections which have been more or less interestingly displayed for the view of certain select groups, or for the general public. It is true that within recent years many of the museums have realized the value and importance of effectively displaying their material. As a result of such displays, from an educational point of view, their exhibits are highly valuable and instructive for children. An educational museum on the other hand is a museum laid out solely from the viewpoint of the educational needs of the child and in accordance with the best educational and psychological practice. An educational museum is set up primarily for the benefit of the children and teachers within a school system, rather than for the general public or for general exhibition purposes.

The purpose of the museum in education is to present to the child concrete examples of materials and objects with which they would not ordinarily come in contact. Objects which may be included are animals, birds, plants, and minerals, as well as replicas and models of all sorts. The museum is to aid the teacher to present more vividly and more interestingly much of the information included in the various lessons. Its purpose is to vitalize all forms of teaching rather than to teach of itself or take the place of the teacher. This fact should always be kept clearly in mind.

While the value of the museum to the student in-

terested in the progress of civilization is quite apparent, the value of the educational museum is not so well established. However, if we grant that a museum performs a service to mankind through a mere collection and passive display of such material, surely a real, life-like display, adapted to the needs of the child, should be of at least equal value.

An educational museum is often a necessity even in communities which have other museums which may contain very complete and detailed collections. Many times an extensive collection of objects is very distracting and confusing to all but the most advanced student of a subject. Such an extensive collection may nullify any interest which may have been aroused in a student before a visit to the museum. On the other hand, a smaller collection, carefully assembled and interestingly arranged according to the best educational practice, may be the means of arousing a genuine desire to know more about the subject. Such aroused interest can then usually be satisfied at a nearby museum which may have a very extensive collection.

For those communities which have no museum an educational museum is a real necessity and such a museum will fill a real need in the school life of the community. Such a museum also offers much to the people of the community. The value of an educational museum in a community is becoming more apparent as the teaching program is becoming more complex and as the need and value of objective material is more fully realized.

The relation of the educational museum to the school should be one of whole-hearted cooperation for the mutual benefit of all concerned. The assistance and material supplied by the museum to the schools, should improve the teaching and at the same time increase the interest of the pupil in the particular museum and in museums in general. In other words, it should make a boy or girl "museum conscious" or alive to the opportunities and advantages which the museum has to offer. The museum should not attempt to take the place of the teacher and neither should the schools pass over the responsibility for the actual teaching to the museum. The museum should not attempt to assume such responsibility but should assume the position that the true purpose of the museum is to aid in making all forms of teaching more vivid, interesting, and vital.

Whether an educational museum should be a separate department in the school system or whether it should be a division of some other school department or whether it should be part of some cooperating

agency of the schools, must be carefully considered. One of the factors which will aid in determining this question, is the purpose of the museum. If the purpose of the educational museum is certain of the more important functions, such as, to set up exhibits at the museum or to send exhibits to the schools, it is perhaps best if it is part of some cooperating agency. If, however, its purpose is to include as many functions as possible, it is perhaps best if it is part of some other school department, or a separate department.

The establishment of a separate educational museum department within a school system has certain advantages. Its chief advantage is that it is in a position to cooperate directly and intimately, and arrange its material for the most effective use of the schools. There is, however, the danger that such a department may assume undue responsibility or overestimate its purpose and importance. It is also a plan which requires considerable money for its execution if a worthwhile educational museum is to be set up and, therefore, a plan which can only be afforded by the more wealthy school systems. Perhaps the outstanding educational museum as a separate department of a school system is the St. Louis Educational Museum. However, as even this museum is largely based on traveling exhibits, it seems to be more truly a department of visual aids, rather than an educational museum.

The two departments, within a school system, under which an educational museum is usually placed, is the library department or a department of visual aids. The department under which it should come must be determined by a consideration of certain factors.

In school systems which have a well organized library department, as an integral part of the school system, it is possible by certain minimum changes to organize an educational museum. Such a department might include both intra-mural and extra-mural services or activities. An arrangement of this nature is particularly well suited to such systems as do not wish to establish a separate department for an educational museum. It requires the addition of certain highly skilled workers if the department is to build and make up its own exhibits and models. It is, also, important under this arrangement that the library department fully realize the importance and value of an educational museum if it is to become more than a mere side line of the library.

Whether an educational museum should be part of a department of visual aids is largely a matter of whether the term "department of visual aids" or "educational museum" is the broader scope. From an educational viewpoint it would seem that the term "department of visual aids" which would include an educational museum as one of its major divisions, is

the most suitable term. A department of visual aids could include many activities which could not very well be delegated to an educational museum, such as, school publicity by means of visual material, keeping photographic records of important school events, training teachers to use projectors, and other types of service.

In the larger school system it would seem best to establish a separate department of visual aids with a major section as an educational museum. With such an arrangement, emphasis can be placed on such subjects and materials as are stressed in the regular course of study. The department could cooperate to the fullest extent with all the teachers, supervisors, and others in the school system for the assembling of material which is most worthwhile. Furthermore, there would be no divided responsibility as may happen under an arrangement of several separate departments or agencies cooperating with the school. Also, the department can build up such phases as are not well represented in other museums. A separate division under a department of visual aids does not mean that the material available in other museums should be neglected but, on the contrary, the department should cooperate with other museums for the most effective use of their material. The department should seek the good will and cooperation of all other city, county, state, and private museums for the most economical use of its funds and collections. It will prevent needless expenditures on duplicating material which is well represented in other nearby museums and thus allow for the best use of its funds. It will enable the educational museum to equip and arrange its material to best meet the needs of the children and teachers of the school system.

An educational museum should not attempt to set up large and elaborate collections dealing with any one particular subject. Instead it should devote its energy and funds to the collection and arrangement of such materials as are necessary to properly aid the teacher in presenting the subjects in the course of study. The educational museum should not attempt to compete with any other museum in the size of its collections. It is obviously poor policy to spend any considerable sum of money for material which is to be used by relatively few children. It is a better and wiser policy to limit all collections and expenditures to such as can be adequately and advantageously used by the average pupil. An educational museum should be operated as an adjunct, and wholly for the benefit of the school system and should be chiefly concerned with setting up such illustrative material as shall best meet the needs of the school children and teachers.

How County Extension Agents Look at Visual Aids

C. H. HANSON

THE United States Department of Agriculture is conducting a series of studies of the visual aids, projection equipment and methods which its 4,354 county agents are using and their estimates as to results. A questionnaire has been the basis of the study but in nearly all cases the data has been obtained by personal interview. Selected agents in eleven States have been visited. The information presented in this article, however, is based on a summary of the study in only nine States, the work of summarizing the data from the other two States not having been completed.

This study so far reveals that county agents are more interested in motion pictures than in any other type of visual aid. Of the county agents interviewed, 40 stated that they used motion pictures, 33 used film strips and 28 used glass slides.

A more intimate picture of what these agents think of the relative merits of motion pictures, slides, and film strips for certain purposes is shown in the following summary of their replies:

PURPOSE	Motion Pictures	Glass Slides	Film Strips
A. To increase attendance at meetings.....	30	5	6
B. To increase membership in farm organizations	11	2	4
C. To increase active interest in extension work	15	10	16
D. For propaganda purposes.....	22	5	7
E. For teaching new ideas and practices	11	14	18
F. For getting people to adopt new practices	10	14	20

Further light on this phase of the study was obtained from their replies to the question "Which do you prefer, glass slides or film strips?" Twenty-nine expressed a preference for film strips and five for glass slides. This is in line with our records in the Department of shipments of glass slides and the sale of film strips made up from Department negatives. The demand for Department glass slides has decreased while the demand for film strips has doubled each year since 1928, until now, the annual sale of our film strips is in excess of 8,000 copies. The principal reasons given by the agents interviewed for their preference for film strips were that film strips are more convenient, more economical and easier to transport than glass slides.

How many slides should be used and how long should an illustrated lecture be are questions which are asked so frequently that they were included in the questionnaire. An average of the replies shows that these agents believe that a half hour talk illus-

trated with about 35 slides or frames gives the best results.

4-H club work occupies a very important place in cooperative extension work and therefore we asked, "In what ways should the selection of illustrations differ in slide series for adults and for boys and girls in 4-H club work?" A large majority replied that no essential difference in illustrations was required. A small number of the agents stated that in club work they preferred to use pictures portraying club boys and girls and their activities, rather than pictures illustrating the work of adults.

The U. S. Department of Agriculture, like all other institutions distributing motion pictures, is vitally interested in adapting itself to meet changing conditions in the field and therefore the agents interviewed were asked, "What is the indicated demand for 'talkies' in extension work?" The replies were surprising. Thirty-three of the agents reported little or no demand; one said that "talkies" are too expensive; and only one reported a marked demand for sound pictures.

Another important question was, "Has the introduction of 'talkies' made silent educational pictures ineffective?" Here again the replies were rather unexpected. Twenty-four agents replied, "No;" three said, "Yes;" seven thought that it had made them ineffective to some extent. In general, their opinion was that the silent educational film is still effective when used in the open country.

A third question on sound pictures was, "Could you hope to get equipment for the local presentation of sound pictures, assuming that an outfit could be obtained for \$1,000 or less?" Thirty-eight agents replied, "No;" one replied, "Yes;" and two expressed themselves as doubtful.

Information was also sought on methods of using motion pictures. The majority of the agents were of the opinion that they obtained the best results when they used only 2 or 3 reels of motion pictures at a meeting. They also reported a preference for showing these films during the latter part of the program.

The opinion of the county agents was also sought as to the relative value of certain types of motion pictures for use in extension work. The following list of types of motion pictures is arranged in the order of their indicated preference:

1. Films of local extension activities.
2. Straight educational.
3. Educational Comedy.
4. Educational Romance.
5. Industrial Educational.
6. Straight Comedy.
7. Straight Romance.

Only a small proportion thought that the agent should do any talking during the showing of the film while the vote was nearly two to one in favor of the agent giving a short talk on the subject matter of the motion picture before showing it.

The Effectiveness of Visual Instruction in Teaching Safety*

RITA HOCHHEIMER

PERHAPS you are thinking "What has Visual Instruction to do with Safety Education." My purpose is to tell you of one project in the use of visual aids in safety teaching. Through the Bureau of Visual Instruction of the Board of Education of the City of New York, visual aids in safety education were circulated last year in 53 schools, reaching approximately 31,275 children. This was made possible through the very active and helpful cooperation of the Safety Education Demonstration and especially of the Director, Dr. Herbert Stack. I shall present for your information our method of organizing this and supervising it and some general conclusions and recommendations which have grown out of this experience.

The visual aids themselves consist of a motion picture, lantern slides and posters. In order that you may have some first-hand appreciation of this experience, we shall see these aids.

(Film showing—*Why Be a Goose*)—This is a film that was produced by the Bureau of Visual Instruction of the City of Los Angeles, California, in cooperation with the Director of Safety Education in the schools of that city. The film was largely prepared by the children themselves in the form of stories and was re-submitted to classes of children from time to time in various stages of production. It is interesting, incidentally, to notice that this film made an instant appeal to our children. This in spite of the fact that the situations presented are typical of the West Coast and in a considerable degree foreign to our experience. This was doubtless because of the genuineness and soundness of its psychological appeal.

With the film we distributed, as part of our visual instruction unit on safety education, lantern slides accompanied by "story descriptions." These were specially prepared slides produced by the National Safety Council. They show typical New York City experiences. They fitted definitely into our safety situations and depicted those which Dr. Stack in his survey had found to be most frequent. In addition to the film and the lantern slides, the posters of the National Child Welfare Association, "The Simple Family," were distributed and a copy of the current number of the Safety Magazine with the enclosed chart.

This was the material as Dr. Stack brought it to us. Our part was to see that it reached a large proportion of our metropolitan school population in appropriate grades and that it functioned pedagogically as well as possible.

A letter was sent to the District Superintendents, our field officers, calling their attention to this material and asking whether they would be interested in having it presented to the principals of the schools under their jurisdiction. We received enthusiastic replies from a considerable group of District Superintendents and a schedule was drawn up for the term. At a conference of the Principals, held by the District Superintendent, the visual aids were shown. Dr. Stack explained their general purpose and a representative of our Bureau discussed the method of organization in the schools and the pedagogy of their presentation. Usually, after some discussion, the district superintendent appointed a committee of principals to arrange the routing of the material from school to school and to have general charge of minimizing physical difficulties that might present themselves.

Accompanying the materials in the visual instruction unit on safety we found it necessary and helpful to prepare definite teaching aids for the teachers' use. These suggested points to be stressed in the film and a check list of questions both on the film and on the slides. In addition to this the Principals were given mimeographed sheets describing approved pedagogical methods in the use of lantern slides and films in teaching. The technique of method was discussed with them in some detail. We find in general in our work that this is the crux of the success of visual instruction. It is important that the school people not only have material but that they utilize it as a teaching device, not as a show. We therefore stressed this need in the use of the safety education material and urged the Principals to stress it with the teachers. In addition, Principals were given report blanks which were returned to us after the showing.

The tabulation of these reports was exceedingly significant. It demonstrated beyond question that our schools found the visual instruction unit in safety education truly valuable. There were constructive criticisms made of individual slides and Dr. Stack has in each case acted promptly and most helpfully to improve the material, where these criticisms seemed valid. The nature of the criticism of the teachers shows their own thoughtfulness in using the slides and a very real desire to assist in making them function as well as possible. While, of course, there were some of these that seemed unreasonable or impracticable, it was gratifying and interesting to see the unanimity with which our teachers found the weak spots in this material and the concurrence of opinion as to the great general value of this type of instruction. This was evidenced by repeated criticism of the same detail by people miles apart. It is our plan to con-

*Address delivered before the 21st annual Safety Congress of the National Safety Council, meeting in New York City in October.

tinue this in additional schools and in all likelihood, we shall go back to some of the districts which have already presented this visual instruction unit in visual education. Since our organization calls for showing this to children of a definite school grade, the same material could now return to the same schools and be shown a different group of children who were not in the appropriate class a year ago.

In addition to the material itself, our plan of organization has proven in general sound and of benefit to our school system in general in the matter of visual instruction. Schools which did not previously come into close contact with the Bureau of Visual Instruction became acquainted with our work and the use of other visual aids in these schools was carried on more intensively and in a more pedagogical manner, because of the experience with this safety material. Difficulties were encountered and were not entirely overcome—first and foremost, lack of proper darkening facilities in some of our schools and lack of projection equipment. Also it is true that the schools have complained in some instances that the material was not left with them a sufficient length of time. While it would seem off-hand that a month with a district superintendent is ample time, it has not proven so always in practice. Scheduling had to be too close with the result that in some instances the material was in a given school only long enough to get in the next school. These difficulties, however, do not appear to be insuperable. Considering the very great number of children that we reached as a result of ten months' activity on our part, it is obvious that this was far from the general situation. My feeling is that this cooperative venture was exceedingly helpful and valuable.

The results in general have been most gratifying. This is due in large measure to the whole hearted interest in safety education which had already been aroused by Dr. Stack. It is also due to the readiness with which our school people of all types—District Superintendents, Principals, teachers—cooperated with the Bureau. But results of this nature are obviously difficult to measure at all accurately. The real underlying purpose was to inculcate habits of safety. As with all means to habit formation, we cannot really tell how far we have accomplished what we set out to do. We believe that the teachers have been led to think more about safety problems. It seems fairly certain that they have acquired certain knowledge with regard to safety. How far any of this carries over into action on the part of the children, how much more it does so because of the visual presentation, we have no really scientific means of evaluating. On the other hand, the consensus of opinion among teachers and principals is that there has been a carry-over. Again, how much of this opinion results from good manners on the part of the school people, is a little difficult to tell, since they know that we naturally desire this result. This is especially true because the thing was

made official for them through the participation of the District Superintendents. At the same time, there is considerable freedom in our large school system, and if this particular activity were burdensome or seemed to a large group a waste of time, past experience leads me to believe there would be no hesitancy on the part of the District Superintendents to say they did not wish the material. We have no way of forcing them in this respect.

The Board of Superintendents of our school system has just adopted a course of study in Safety Education for our schools. The experience we have during the past year convinces me thoroughly that as part of this, there should be visual aids carefully graded and correlated, available for use in our schools, to be distributed through our Bureau, through the District Superintendents and through them to the schools. It is my hope that there may be some way found to bring this about.

The Production of Animated Diagrams

(Concluded from page 7)

footage, unless the camera used has a single-frame attachment, some allowance should be made, at least at first, for runs which occur when the stopping mechanism fails to stop the camera after one frame is taken, so that several frames of the same drawing are taken. If the single frames have proper exposure these runs will be under-exposed noticeably. They have to be cut out and the film spliced; this can be done without much difficulty, however, with a splicing outfit. Before loading the camera it is well to test it in this regard by practicing taking single frames a large number of times. It is found that if the spring is not wound tightly there is less trouble with runs.

(6) Processing or developing. The cost of processing Safety Film is included in the purchase price. This film is regularly developed first to a negative then reversed to give a positive as is necessary for photographing of usual objects. In this case having the processing stopped when the film is in the negative stage, so that black lines show white and the white background shows black, may give better contrast. For most projects the positive is considered to be preferable, however.

References and Topics for Investigation

A useful reference, giving the background of this method, is *Animated Cartoons*, by Edwin G. Lutz (Scribners, 1920, \$3.00).

Possible developments which appear to be worth considering include (1) the extensive use of rubber or linoleum stamp and of pencils to reduce the time required, (2) the use of "regular positive (safety) film" which costs about half as much as panchromatic film but which can be finished only as a negative and which requires about eight times the exposure, (3) the making of films by a class or Science Club as a group project.

GOVERNMENT ACTIVITIES IN THE VISUAL FIELD

CONDUCTED BY MARGARET A. KLEIN

A School Journey to Washington

IN THE last issue of THE EDUCATIONAL SCREEN, I stated that I would describe in this month's issue some of the exhibits in the National Museum relating especially to the social sciences.

When you visit the National Museum, you must remember that its exhibits are housed in two buildings, the displays being divided according to subject and the buildings being named according to the nature of the exhibits. One of these buildings is the Natural History building containing natural history exhibits while the other building is called the Arts and Industries and contains many exhibits of the highest interest relating to history and invention.

In the gallery of the Arts and Industries building we find a collection of exhibits which I do not think will be found to any extent or on the same scale in any other museum. This collection is located in the Hall of Health and is devoted to teaching such community problems as hygiene, sanitation, hospitalization, and many other problems that affect the life and social welfare of the community.

Health education is closely connected with all social science education. In fact, none of the social science subjects—history, sociology, psychology, civics—can be taught without including health education. Since a wide range of subjects is included in the exhibition, I feel that it is a most important collection of exhibits.

Most of the models contain the three essentials of all exhibits, namely light, color, and motion. Electric switches have been conveniently placed so that one may turn on the current and start the motion of his own accord. As soon as the hand is taken away from the switch, the motion stops and this assures an economical use of electricity. This method might well be emulated for all public displays where electricity is required for motion.

The exhibits may be divided into two groups. First, those pertaining to the world we live in and involving community problems as well as social welfare, and, second—those relating to personal health. Both groups are equally important in our social development.

The exhibit includes models of various types, posters, transparencies and, as one enters the wing of the building where this exhibit is located, you will find an automatic projector equipped with a film strip depicting various phases of health education.

Visual educationalists generally agree that poster-making is a very valuable way to teach any lesson. When the child works on a plan to visualize a certain truth, the basic idea must be carefully thought out in

order to properly portray it. Thus by working with the idea, the child becomes very familiar with it and he will remember it better because he has thought a great deal about it. In this hall of health, both teachers and students will find many suggestions for posters on social science subjects in the very comprehensive selection of posters on display. There is now being added a new selection, the gift of the Metropolitan Life Company.

The healthful home, pure water, pure milk, recreation, hospitalization are some of the community problems cleverly depicted in well designed models. An historical "health progress" exhibits by pictures the development of modern methods of preserving and promoting human health. The nature of disease, its insect and animal carriers, the methods of combating filth, bacteria, and other insidious enemies of health, are graphically depicted.

It would be impossible to describe all the exhibits on display and I shall have to limit my descriptions to a few which will represent various phases of social welfare problems.

Since the well planned home is the basis of good community life as well as of good citizenry, it would be appropriate to describe the model of the beautiful home. This model traces the development of the home from the cliff dwelling of the Indian, through the log cabin period of the pioneer's home building activity, to the present day home with its many sunlit windows, play space for the children, artistically planned lawn and modern conveniences that tend to make better citizens, better communities, and a better nation.

Pure water and pure milk are two problems long connected with proper city government as well as proper rural planning. How a well may be located, constructed, and operated so that it will not be free from microorganisms which cause disease, is cleverly depicted in a model of a farm house with the well located in a very convenient but decidedly unsanitary place. By means of arrows and certain descriptive text, one realizes that it would have been possible to place the well in a better location so that it would be free from the drainage which carried disease into the drinking water.

Recreation, which is a community problem as well as an individual problem for the family, is stressed in a clever model, well lighted and pleasingly colored and which was recently lent to the Museum by the Children's Bureau of the United States Department of Labor. A swimming pool, children playing on slides and other play apparatus are seen in the foreground

(Concluded on page 28)

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Educator Emphasizes Cultural Value of Motion Pictures

Boris V. Morkovin, Ph. D., of the Department of Cinematography of the University of Southern California, in an address before the Men's Faculty Club of the University of Southern California, urged the recognition of motion pictures by professors as a powerful instrument of social control. He says:

"To ignore cinema and radio, these two great principal inventions of the age would be as ill advised as to ignore the printing press, electricity, and machines. If we do not control machines, they will become our masters. And yet the bulk of our intellectuals, educationalists, and professionals entertain a negative attitude toward motion pictures.

"Without mastering the cinema technique, this peculiar language of imagery which needs long study and training, educationalists lose more and more the opportunity of constructive influence upon motion picture industry and even upon the tastes of youth in motion pictures.

"The educational values of motion pictures have been recognized by the leading authorities of this country. U. S. Commissioner of Education Tigert, expresses this in a very definite form. 'Within the celluloid film lies the most powerful weapon for the attack against ignorance that the world has ever known.' Dr. Thurston's study proved that the motion picture is an effective instrument for establishing and changing attitudes (emotional responses). It is used successfully in language teaching to guide the adolescent in the choice of a career, to stimulate agriculture, to spread information among peasants about soil cultivation, in France, and especially in Italy and Russia. Films are used very effectively in health and child welfare propaganda, in service of religious thought, as historical culture of the world.

"Disconnected, unrelated work of scientists and educationalists should be co-ordinated in order to make this new medium the servant of national progress. The permanent central organization, the National Film Institute should be established in America to unify the haphazard attempts of institutions and individuals. Analogous institutions have already been established in different countries. The International Institute of Cinema, an organ of the League of Nations, co-ordinates the work of national film organizations.

"At the tide of this growing international movement for a wider utilization of cinema in education and culture comes an effort to organize a film institute in America. This institute will be an outcome of the national congress of educational and cultural organizations planned for the next year. It is natural that initiative comes from Los Angeles, the center of the greatest motion picture industry, the concentration of the best experts of cinema. The University of Southern California which has been interested in cinematography for several years and has established the first

department of cinematography is very vitally interested in the promotion of this idea."

Schools Install Radio and Sound Systems

An important indication of the recent trend in educational institutions of enlisting the aid of the radio loud-speaker to supplement the traditional blackboard, was seen in the announcement that the City of Providence, R. I., has contracted with the RCA Victor Company for the installation of advanced centralized radio and sound distribution systems in six new Providence public schools.

The opening of each new school term finds an increasing number of schools being equipped with radio apparatus, even in these stringent times, to take advantage of the wealth of musical and other educational material being offered over the air. Ever since the tremendous impetus provided several years ago by the broadcasting efforts of Walter Damrosch in furthering musical appreciation in the schools by radio, and which have since been continued with increasing effect, school authorities all over the country have been awaiting the opportune moment for providing their institutions with the facilities for adding the special services which radio can provide to their regular curriculum.

The equipment ordered by the City of Providence calls for the installation of centralized radio systems providing a choice of two programs at any time through the loudspeakers installed in the classrooms, the auditorium, gymnasium, music room, cafeteria and principal's office. Especially powerful loudspeakers, as differentiated from the classroom type, will be installed in the auditorium and music rooms to provide the full volume and timbre of a large orchestra. This feature was thought especially desirable in helping the work of the music student. In addition, a microphone arrangement in the principal's office will permit that official to address any or all of the classrooms at will. Equipment making it possible to pick up sound from the stage of the auditorium and from the music room is expected to be a valuable aid in the development of musical and dramatic talent among the students. The latest type of automatic electric phonograph equipment which can be moved from room to room as desired and plugged into a wall socket, is also to be provided. A special record library will be maintained by the schools to provide access to a study of the musical classics.

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A recent addition to the list of schools installing sound motion picture machines is the Lincoln High School of Provo, Utah.

Experiments in Film Evaluation

The National Council of Teachers of English have undertaken an extensive nation-wide experiment with 10,000 high school pupils to measure their progress in critical photoplay appreciation. The work is under the supervision of William Lewin of the Central High School, Newark, New Jersey, who is chairman of the steering committee.

Selected films are shown to two groups of students of 500 each. The "control group" receives no guidance in connection with such films, but the other, the "experimental group," is given training in appreciation and discusses the films after they are shown. At the end of the showings, both groups will vote on the films viewed, and tested to determine whether the experimental group students are superior to those who saw the pictures without study or discussion. If this proves to be true, it is probable that the Council of Teachers of English will advocate the viewing of films as part of the regular work in high school literature classes.

The pictures suggested for use in the experiment are: *Rebecca of Sunnybrook Farm*, *Tom Brown of Culver*, *Congorilla*, *Once in a Lifetime*, *You Said a Mouthful*, *With Williamson Beneath the Sea*, *The Vanishing Frontier*, *A Successful Calamity*, *Smilin' Through*, and *Six Hours to Live*.

The experiment, which so far includes more than 100 high schools in 25 states, began October 15th and will continue until March 15th.



A similar activity is planned in Ohio by the state department of education and the State University to whom the Payne Fund of New York has made a grant of \$10,000 for studies in teaching children to judge the value of motion pictures. Experiments in criticism of motion pictures will be made in connection with high school pupils in English and groups of adults. This study in taste discrimination will continue for a year.

Statistics Visualized in Museum

The Vienna Museum of Sociology and Economy is an international center for picture pedagogy, and is doing much to popularize statistical science and increase knowledge regarding the world in general. Its work has resulted in the greater use by educators of picture symbols instead of numbers in the presentation of statistics to children. In this way the story is told with a minimum of word explanations. The idea underlying it is that the object should always be represented by the same symbol, and that an increasing number of objects can be represented by additional symbols of the same sort.

An account of the activities of the Vienna Museum,

appearing in a recent issue of *The Christian Science Monitor*, states that investigations already carried out have shown that picture statistics have enabled children to acquire ten times as much knowledge as by lectures and textbooks. In addition, it is stated that this method meets also the visual requirements of the worker to whom the spoken word means little or nothing. He forgets figures, but the visual impression remains.

The museum contains two large, ever-growing archives, the one giving a historical survey of all that has been done in the way of picture statistics, and the other, dealing with developments of this institution itself. The former shows the general movement from the cave designs of primitive man to the modern child's textbook and advertisements.

Much help is given to foreign cultural institutions by supplying them with picture materials and arranging exhibitions. Dr. Otto Neurath, its founder and present director, has recently returned from Moscow where he had been invited by the Soviet Government for the purpose of establishing a similar museum there.

Anyone may submit to the museum his ideas upon a certain line of development, with a rough sketch of how he considers it should go. From this, a comprehensive series of picture statistics can then be developed.

Motion Pictures Aid Psychology Classes

Members of the Psychology Department at Ohio State University have thought for a long time that movies could be used as a serious method of instruction, but it remained for Dean George F. Arps, chairman of the department, to put the theory into practice.

A motion picture textbook, depicting the fundamentals of human behavior, is now in use in elementary courses. Advantages of the new method are many. Experiments can be presented on the screen which are impossible to perform in reality before a large group of students. Eye movements, for instance, can be seen only in close proximity unless greatly magnified and projected on a screen.

Other films made by the university include pictures of the reactions of young infants to various stimuli, the reactions of white mice, and laboratory equipment.

Cost of making the films is expected to be covered in part by the sale of pictures to other colleges in the state. Several other universities, among them Michigan, Chicago and Southern California, have copied the idea, and an exchange system is expected to be established. In this way students can observe experiments performed in other schools without leaving their own campus.

DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

Branch Activities

California

The Visual Aids Section of the California State Teachers Association, Southern Section, met on Thursday, December 22, to discuss various phases of visual instruction work and opportunities. The program included the following:

1. "California History in the Cornwell Murals as Shown in the Los Angeles Public Library" (Illustrated with slides)—Dean Cornwell.
2. "New Visual Conceptions through Aerial Photography" (Slides)—Leon T. Eliel.
3. "The Use of Visual Aids in the Development of Literature"—Miss Ettie Lee, assisted by Students of Mount Vernon Junior High.

Following the program, a personally conducted trip through the new Doheny Library was made.

Massachusetts

The Winter Meeting of the Massachusetts Branch of the Department of Visual Instruction will be held on Saturday, February 11, 1933, at the Brookline High School, Greenough Street, Brookline, Massachusetts.

The theme of the meeting will be "The Use of Teaching Aids." There will be a speaker of note for the morning session, an interesting display of teaching aids used by the teachers, and in addition a commercial display of teaching aids made by those commercial houses who care to present an exhibit at that time. An opportunity will also be given for a complete inspection of the new John C. Packard Laboratories where the most modern building planning and science equipment have been installed.

All teachers and administrators, whether members of the Department of Visual Instruction or not, are cordially invited to attend. The President, Mr. Krasner, under whose able direction last year's meeting in Quincy proved so successful, is very busily engaged in planning a program for this meeting which will offer many things of value to every teacher present.

An attempt will be made to notify the commercial houses that space for exhibiting will be allowed them without cost, and any company interested in securing the details of this will be requested to communicate with the secretary, Mr. J. V. Jewett, Brookline High School, Brookline, Massachusetts.

A more detailed notice will be published later, but it is hoped that this advanced notice will enable those interested to reserve the date of Saturday, February 11, 1933, for this meeting.

Oregon

The Department of Visual Instruction of the Oregon State Teachers Association met on Thursday and Friday, December 29-30 at Portland, Oregon. The program was under the direction of U. S. Burt, Chairman of the Department and Director of Visual Instruction for the General Extension Division of the Oregon State System of Higher Education. Miss Carolyn Brown of the Portland Public Schools is secretary of the Oregon Department. The program included the following.

Thursday, December 29

Preview of Motion Pictures—George Washington Bicentennial Pictures, Mother Goose Rhymes, Life Functions of Animals—The Frog.

The Evolution of the Book—A library demonstration given by Shattuck School (Portland) students.

Business discussion regarding relation of Department to that of National Visual Instruction Department of N. E. A.

Friday, December 30

Preview of Films and Slides—The Byrd Antarctic Expedition, "Life in Little America and on the Trails"; General Science Series—Plants, Animals.

Joint Session with Geography Department—Illustrated lecture on Alaska by Professor Warren D. Smith, University of Oregon.

The Possibilities of Pupil Made Lantern Slides—illustrated by Linden McCullough, Northwestern Representative of Keystone View Co., Corvallis, Oregon.

The Unified Visual Instruction Service of the Oregon System of Higher Education—Dean Alfred Powers.

A Trip through the Holy Land—A Geography Demonstration given by Sabin School, Portland (6B students under the direction of Grace Sweeney).

Discussion.

Preview of Films—A Microscopical View of the Blood Circulation, The Holy Land, Christmas Carol.

New York State

The New York State Branch of the Department of Visual Instruction met at the County Center, White Plains, New York, on November 6. Homer G. Shattuck of the Rye Public Schools acted as chairman of the meeting.

The program included a demonstration of the use of home-made slides by Miss Ruth Furlong of Fox

Meadow School, Scarsdale, New York. In addition there was a demonstration of the making of photographic lantern slides by Mr. John Gass, professional photographer, of Tuckahoe, New York.

The Westchester County Group under the direction of Mr. Shattuck has been meeting regularly and is doing much to encourage further and proper use of visual aids among the schools in that section.

New York City

The November meeting of the Metropolitan-New York Branch, Department of Visual Instruction of the National Education Association of the United States was held at the American Museum of Natural History on Friday evening, November 18, at 8:15 p. m.

Mr. Albert R. Brand, Associate in Ornithology, at the American Museum of Natural History, addressed the meeting on "Learning Bird Calls." He described the pioneer work he has done in recording on film and phonograph records the songs of field birds, and demonstrated how the teacher may effectively and economically employ these records. A sound motion picture made by Mr. Brand was also shown.

Chicago

Reports from the Secretary of the Metropolitan Chicago Branch of the Department indicate that an active year is planned. In addition to the monthly meetings of the Branch, plans for the annual meeting of the Department in Chicago next July are receiving considerable attention. The membership roster of the Branch is increasing from month to month, which is due, perhaps, to the enthusiasm of the individual members as much as to the carefully planned program of the officers.

Introductory Membership Offer

The total membership of the Department of Visual Instruction of the N. E. A. has increased steadily since the merger of the two leading visual instruction groups. The majority of the directors of visual instruction have joined. However, there are still a few directors and many teachers using visual aids extensively who are not familiar with the many advantages of membership.

In order to give these persons an opportunity to find out for themselves the true value of the Department of Visual Instruction of the National Education Association, an introductory membership for a period of six months is now available. It will cover the period from January 1 to June 30, 1933, during which period all such members will receive the services extended to active members regularly. The membership

fee for this period will be \$1.00. Each member will receive the following in return for payment of the membership fee:

January to June issues of "The Educational Screen"	\$1.50
1933 Visual Instruction Directory.....	1.50
Special discounts on publications of "The Educational Screen, Inc." (Estimated)	1.00
Reports, Announcements and Bulletins of the Department (Estimated).....	1.00
Actual Value	\$3.00 to \$5.00

In addition to services mentioned above, each member is entitled to the Clearing House Service of the Department. This service is available at all times for the use of those who may desire special information or assistance in solving visual instruction problems.

This offer is made only for the purpose of acquainting those who are not members with the services of the Department. Obviously, it cannot apply to renewal memberships. Furthermore, the remittance for \$1.00 must accompany the application for the short time membership, as it would not be possible to open such small ledger accounts.

The blank which is provided below should be used in applying for either regular or January-June memberships.

Membership Application Blank

Office of the Secretary,
 Department of Visual Instruction,
 1812 Illinois Street,
 Lawrence, Kansas.

Date.....

I herewith make application for membership in the Department of Visual Instruction of the National Education Association, as indicated below.

- January 1 to June 30, 1933.....\$1.00
- December 15, 1932 to December 31, 1933...\$2.00

Name

Position

Residence

City and State.....

I am a member of the
 I am not National Education Association

Note: Make checks payable to the Department of Visual Instruction.

FILM PRODUCTION ACTIVITIES

The aim of this new department is to keep the educational field intimately acquainted with the increasing number of film productions especially suitable for use in the school and church field.

Films on Character-Building and Health

The Social Work Publicity Council reports two new film productions which should interest our readers. *A New World of Adventure* interprets character-building activities for the child in home and community. The film briefly describes the transition in the thinking of the child of decades ago and the child of today, and shows the new situations which the parent must master and share with the child if the two are to go forward together. It next shows the ideal home encouraging initiative, free self-expression and creativeness in the child; then the community interests available to the parent and the child. These include the zoo, neighborhood playgrounds, the art center and the church; then character-building projects such as the nursery school, summer schools for children and summer camps for boys and girls. The Social Hygiene Society, 1020 McGee Street, Kansas City, Missouri, will furnish additional information on this subject.



The 1933 *Early Diagnosis* motion picture tells by way of animated cartoons and photographs the story of Professor Ichabod Buggs, inventor of a device that makes germs talk. The tuberculosis germ tells the professor his life story. Fantastic cartoons of Professor Buggs and the germ carry the thread of the story while episodes of educational value are depicted by actual scenes taken in the dispensary and the sanitarium. More detailed description is available from the National Tuberculosis Ass'n, 450 Seventh Avenue, New York City.



Georgia Warm Springs Foundation, whose board of trustees is headed by President-Elect Roosevelt, has available for rental or sale, four 16mm motion pictures concerning the Springs and the curative results achieved, which they have produced with a Bell & Howell Filmo camera.

Two of the pictures are for the laity. *Short Story of Warm Springs* (200 feet)—a synopsis of life at Warm Springs, shots of treatment, pools, Meriwether Inn, etc.; *The Story of Warm Springs* (400 feet)—visualizing the layout of the Foundation and the different activities which are possible for the patients, friends, relatives and visitors.

The other two are edited for doctors and physiotherapists. They are: *Physiotherapy at Warm Springs* (600 feet)—detailed description of the exercises as

they are given under water; *Corrective Walking* (500 feet)—a description of the different methods of teaching corrective walking to handicapped people.

Pictures of Mr. Roosevelt, who staged his physical comeback in a great measure at the Springs, are to be seen in certain of the films.

Historical Picture Sought for State Archives

Several members of the Colorado Association have expressed a desire to obtain from First National a print of the recently released motion picture, *Silver Dollar*, for the state archives of Colorado. They regard the production as an important and authentic record of the history of their state. Its period is the eighties and nineties of the last century, and it deals mainly with the career of the late Haw Tabor, "Silver King" of Denver and Leadville, whom Edward G. Robinson impersonates. The picture is adapted from the book by David Karsner which bears the same title.

4-H Club Tour Photographed

The National Committee on Boys and Girls Club Work has available for distribution a 2-reel silent motion picture entitled *4-H Club Tour to Shrines of American History*, which visualizes the trip given to the four girl winners in the 1931 Style Dress Revue Contest conducted by that Committee. Among the spots visited are Barbara Frietchie's home in Frederick, Maryland, famous landmarks in Washington, and the historical old towns of Alexandria, Fredericksburg, Richmond and Williamsburg.

The picture is available in both 35mm and 16mm without charge except for transportation costs. It will be distributed to schools, churches, colleges, organized groups of all kinds and to nearly one million boys and girls who belong to over sixty thousand 4-H Clubs in rural America. All requests should be made to the National Committee, 430 South Michigan Avenue, Chicago.

A Source for Foreign Films

Kinematrade Inc., New York City, has acquired the synchronization rights to the *Armored Cruiser Prince Potemkin*, the famous Russian silent picture which has made Serge M. Eisenstein world famous.

An unusual feature entitled *Soviets on Parade* will be the second subject to be released. This is in line with the company's policy to acquire for distribution outstanding foreign productions.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

Journal of the Society of Motion Picture Engineers (November) "Standards and Requirements of Projection for Visual Education," by Chauncey L. Greene, discusses an important phase of visual education, and one that is too often neglected. Much attention has been paid to choice of material, planning of sequences, photography, and editing of the finished product, but not enough to the projection of the finished product. This neglect often results in eye-strain, which may induce drowsiness or otherwise retard the mental processes so that much of the advantage of the visual method of presentation may be nullified.

The conditions for good projection are the same for educational as for theatrical projection: such as, proper choice of screen, proper illumination of screen and room, proper contrast in the brightness of all objects within the field of view, clear definition of the screen image, absence of graininess, and steadiness of the screen image. But, in most cases, the classroom imposes in addition the following handicaps: short viewing distance, unfavorable viewing angles, unfavorable equipment locations, improper illumination due to location of lighting units and the curtaining of windows. The writer analyzes these problems and offers some suggestions for their solution.

As the average classroom is unsuitable for fulfilling the requirements for good projection, the author urges the designing and constructing of special rooms for this purpose which could be made optically and acoustically perfect.

A Correction

The October issue carried what we understood to be an accurate report of an interview with Dr. Samuel Renshaw of the Department of Psychology of The Ohio State University. We are glad to present here Dr. Renshaw's own corrections regarding same.

"The major statement attributed to me concerning our own investigation that my 'work was not complete and the article published in *McCall's* is full of half-truths which are very misleading' was never made, to this man or to any other person. Contrary to his assertion, the references to our work made by Mr. Forman in the September *McCall's* are correct. They were read by me before publication. Will you kindly print in the section 'Among the Magazines and Books' of an early number of your journal this correction of Mr. Aughinbaugh's statements which create an entirely erroneous and misleading impression of my position?"

Catholic School Interests (December) Mr. William H. Johnson, Loyola University, Chicago, concludes his discussion of "The Place of Visual Education in the Elementary School," the first installment of which appeared in the previous issue, with a consideration of the lantern slide which, he states, "is probably the most valuable of the various visual aids," motion pictures, maps, globes, charts and graphs, giving the principles governing the use of each and the purposes which they serve. He feels that the chart and graph, while extensively used in the business and industrial world, are too little studied and used in the classroom. The rest of the article presents some concrete illustrations of how the lantern is used in first grade teaching and in fifth grade geography, and how the stereograph is used in history or geography.

The High School Teacher (November) In "The Effective Use of Visual Aids in Science Instruction," Mr. L. Paul Miller, Director of Science and Visual Education at Central High School, Scranton, Pennsylvania, emphasizes the importance of pupil-activity in teaching with visual materials. Science especially offers opportunities for creative learning and science teachers have been among the largest users of visual aids.

The article lists the main types of visual material which can be planned and constructed by the pupils, and some references to consult for helpful directions. In addition, publications containing sources of ready-made visual aids are named.

Sierra Educational News (October) The visual field is well represented in this issue by two writers, Anna V. Dorris of San Francisco State Teachers College, a pioneer in the field, and Helen Eloise Hicks of San Diego. In her article, "World Unity Through the Motion Picture," Miss Dorris recognizes the motion picture as one of the greatest educational forces in contemporary life and stresses the need of it to bring about a program of education for World Peace. She deplores the wrong impressions and prejudices that American entertainment films form throughout the world, both of Americans and our foreign neighbors, and their tendency to depict the evils in life, the peculiarities and differences of peoples, rather than their likenesses and the ideals and standards of groups which would tend to inspire and unify peoples of different races and nationalities. She urges educators and motion picture producers to cooperate on a con-

structive program and assemble definite sets of pictures which will teach the truth.

Miss Hicks discusses "The Stereograph as a Visual Aid," describing in detail the appearance and use of stereoscopes and stereographs. This type of aid, she claims, "makes teaching more effective in that it conveys the most realistic and vividly accurate concepts to the minds of the pupils. This is due largely to the illusion of the third dimension which gives form and perspective and a feeling of intimacy." Miss Hicks gives some examples of how such pictures may be incorporated in the study of practically every subject in the curriculum and the methods of presenting them to various age groups.

Virginia Journal of Education (December) "Notes on Visual Education for French Classes," by J. E. Armstrong, George Washington High School, Danville, is a brief report on projection material available for French classes. The film slide is particularly recommended by the writer as it is inexpensive and any picture or title may be held as long as desired. This feature is especially advantageous in using film slides prepared in France, which are easily obtained, since it permits the class to study French titles.

Book Reviews

KNOW YOUR MOVIES, by Welford Beaton. Howard Hill Publisher, Hollywood. Price \$2.00.

This book is an informal and extremely interesting resumé of the trenchant ideas, theories and arguments advanced, developed and reiterated in the pages of *The Film Spectator*, which was published for so many years under Mr. Beaton's brilliant editorship, and which suspended publication during the past year to the intense regret of everyone who ever read and knew that unique magazine. The industry has probably never had so close a student of its problems, so keen and fearless a critic, so constructive a mentor for its policies, so devoted a friend and adviser as Welford Beaton. The industry may yet regret its failure to give more heed to his warnings.

Know Your Movies is stimulating reading. It will provoke thinking in anyone, regardless of how much or how little he may know about movies, and it will convince many that Beaton is right as to what has brought moviedom to its present precarious state. There is incessant repetition in the book, done deliberately by the author to drive home his message. It is decidedly overdone—it irritates—but few will fail to read the stimulating volume to the end. It gives Beaton's answers to numberless questions, such as: What is a motion-picture? Why different from any other art form? The importance of "illusion"? What are filmic motion and physical motion? How important is acting in a true motion-picture? Why did the silents succeed and the talkies fail? Relation be-

tween stage and screen? True place of sound, music and dialog in pictures? Are color and third dimension important? Internal faults of the industry organization? How important is the Box Office? Why certain films failed? Relation of cost, waste and profit in production? What will happen to the Industry unless it heeds the handwriting on the wall? What will save the Industry—why, how and when?

And Beaton closes his last chapter with this characteristic, vigorous prophecy and summary: "Not one of the major producing companies in the United States has a production program outlined that will keep it from going into the hands of a receiver within twelve months. All of them are facing disintegration and complete loss to shareholders. Nothing is surer.

"Why not make a last-minute effort to get back on the right track and avert disaster?"

"Why not take to heart this great truth: The kind of picture that will restore prosperity to the film industry is that which would lose practically none of its story value if presented on the screen without its sound track?"

N. L. G.

COMMONSENSE APPLIED TO MOTION AND TIME STUDY, by Allan H. Mogensen. Published by McGraw-Hill, Chicago.

In this book, Mr. Mogensen summarizes the field of motion and time study from the viewpoint of the best method for the particular problem. While Mr. Mogensen's work has been mainly in the application of motion pictures to eliminating waste time and motion in industry, he is broad enough in viewpoint to realize and to stress the places where other methods are to be used. At the same time he is very definite in his conclusions that the motion picture camera and projector have a much greater utility in the field of industrial management than has heretofore been recognized or appreciated.

Throughout the book, reference is made to various applications of motion picture making equipment, and there are valuable specific suggestions for securing result with this method. Mr. Mogensen has included in his book, which, by the way, is very easy to read, conclusions and suggestions by a number of other time and motion study authorities.

We consider this book a sincere attempt to cover the present state of the subject treated, and recommend it with confidence to all those who are interested in improving the efficiency of their industrial operations.

R. F. MITCHELL.

AN APOLOGY

In our December issue we stated the publisher of the McClusky Report on Visual Instruction as being the McCall Publishing Corporation. This was an error. It should have been Mancall Publishing Corporation, 7 W. 44th Street, New York City.

THE FILM ESTIMATES

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

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

Animal Kingdom, The (Ann Harding, Leslie Howard) (RKO) Excellent triangle drama, sophisticated, dignified, and beautifully acted, showing fine, sensitive hero's choice of true love, ideals and hard work with lovely mistress, rather than mere passion, wealth and ease with charming but worldly wife.
A—Excellent Y—Unsuitable C—No

Big Drive, The (Composite of government films) Grim, convincing pictures of real war as photographed by various nations, carefully combined for continuity from original films. Good anti-war argument, but suffers somewhat as old stuff and from traveling-voice accompaniment in mediocre English.
A—Fair Y—Serious C—Hardly

Blame the Woman (Adolphe Menjou) (Made in England) Not much of a story about two incurable crook pals, stealing incessantly whenever and however possible. Menjou's French "Count" is very good. Unobjectionable save that it makes crookedness as engaging as possible.
A—Mediocre Y—Hardly C—No

Breach of Promise (Chester Morris, Mae Clarke) (World Wide) More melodrama of the sordid class. Heroine does not like her position in life, so wins \$50,000 in breach of promise suit against innocent man, but is sorry and confesses, etc., etc. Not worth producing.
A—Trash Y—No C—No

Cynara (Ronald Colman, Kay Francis) (U. A.) Theme of mature sophistication, convincing dignity and truth, delicately told and beautifully acted, about infidelity and its effects upon very happily married couple of intelligence and quality. Not for the immature or the unintelligent.
A—Fine of kind Y—Unsuitable C—No

Devil is Driving, The (Edmund Lowe, Wynne Gibson) (Paramount) Thrilling, hodge-podge melodrama of auto-theft racket, full of booze, murder, general thuggery, violent accidents, mother love, child pathos, with detailed seduction of mechanic hero by mistress of big boss. Sensational and cheap.
A—Trash Y—Decidedly not C—No

False Faces (Lowell Sherman) (World Wide) Usual smooth acting by Sherman as swindler-hero who seduces women as a sideline. A suave, unscrupulous, brazen cad, he reaps fortune from fake beauty treatments and almost defeats justice at his trial. Supposed to be anti-quack doctor propaganda.
A—Depends on taste Y—By no means C—No

Farewell to Arms (Helen Hayes, Gary Cooper) (Paramount) Hemingway's famous book well screened with only minor changes and tragic ending kept. Helen Hayes does beautiful work and Cooper outdoes himself in such company. Ardent romance amid grim war setting with human interest always dominant over war.
A—Interesting Y—Better not C—No

Fast Life (William Haines, Madge Evans) (MGM) Fast, lively farce-comedy with typical smart-aleck role for Haines as ex-navy grov with speed-boat invention that finally proves good. Much hokum, sure-fire humor, risqué element relatively slight. Cliff Edwards fine in second role. Built for laughs and excitement.
A—Good of kind Y—Very amusing C—Probably good

Flesh (Wallace Beery, Karen Morley) (MGM) Fine character work by Beery in unsavory story about ex-jailbirds, German beer gardens, much wrestling. Girl, just out of jail, expecting illegitimate child, marries hero, then helps old lover's plans to swindle husband. Some very amusing scenes.
A—Mediocre Y—Unwholesome C—No

Half Naked Truth, The (Lee Tracy, Lupu Velaz) (RKO) Much exaggerated burlesque of the theatrical publicity racket, ably done by

Estimates are given for 3 groups
A—Intelligent Adult
Y—Youth (15-20 years)
C—Child (under 15 years)
Bold faced type means "recommended"

Tracy as the brazen loud-mouthed promoter of cheap, rural carnival-show who invades Broadway and wins out on sheer nerve and preposterous cleverness. Snappy and often vulgar.
A—Hardly Y—Better not C—No

Island of Lost Souls (Charles Laughton, Kathleen Burke) (Paramount) Grim horrors and morbid thrills on uncharted South Sea island where arch-villain scientist conducts fantastic experiments in turning animals into humans. Visiting hero and "panther woman," one of villain's products, supply weird sex interest.
A—Hardly Y—Unhealthy C—No

Lawyer Man (William Powell, Joan Blondell) (Warner) Powell as clever lawyer rises from East Side to Park Avenue—beaten by rotten politics—turns shyster for spite—but finally returns to dignity, success and marriage. Snappy dialog, plenty of sex element, good cast.
A—Good of kind Y—Better not C—No

Madame Butterfly (Sylvia Sydney) (Paramount) The classic of stage and opera modernized and "modernized" in a way to add nothing to its charm or reputation. Sydney fairly good, but rest of acting is without distinction save Charles Ruggles' sure comedy work. Hero is colorless.
A—Fair Y—Doubtful C—No

Match King, The (Warren William) (First Nat'l) Headline spots in Ivar Kreuger's career lavishly pictured, with many spots added for sex interest. A heartless big-business genius is suavely played, from depths to heights and back to suicide—but it is still merely William Warren in a role he likes.
A—Perhaps Y—Unwholesome C—No

Me and My Gal (Spencer Tracy, Joan Bennett) (Fox) Cheap conduct by cheap people, made as convincing and appealing as possible. Risqué dialog, terrible English, incessant wisecracking. Crude love-affair between hard-boiled cop and equally hard-boiled, gum-chewing cashier. Life vulgarized for amusement.
A—Cheap Y—No C—No

Men Are Such Fools (Leo Carrillo) (RKO) Heroine is immoral woman who is generously helped by hero but ungratefully repays him by bringing about his imprisonment. False and distasteful stuff not worth producing and still less worth seeing.
A—Worthless Y—No C—No

Midnight Morals (Charles Delaney) (Mayfair) Police sergeant careful of his policeman son, cheap cabaret dancer who keeps "straight" in low surroundings. Hence three-cornered drama among rather common people, and the hero wins the girl! Not objectionable, nor at all distinctive.
A—Feeble Y—Hardly C—No

Mummy, The (Boris Karloff) (Universal) Strong, weird thriller on reincarnation, with gruesome scenes but some rational points of interest. Modern girl with soul of Egyptian temple virgin, mummy coming to life, many deaths from old curse, striking ceremonies—are chief elements.
A—Depends on taste Y—Not the best C—No

No Man of Her Own (Clark Gable, Carol Lombard) (Paramount) Card shark hero, who knows no other means of livelihood, opens firm by walking out on present mistress. Half the picture is devoted to Gable's glamorous methods for seducing the heroine. She suc-

cumbs. Then he whitewashes his past and "true love" triumphs.
A—Depends on taste Y—Pernicious C—No

Penguin Pool Murder, The (Edna May Oliver, James Gleason) (RKO) Amusing and mystifying detective murder-mystery laid in New York's Aquarium, with Edna May Oliver irresistible as Iowa school teacher whose keenness and originality lead to the solution, and to marriage with detective chief. Cheap touch or two, but negligible.
A—Amusing Y—Amusing C—Probably amusing

Saddle Buster, The (Tom Keene) (RKO) A Western that is rather different. Gives intimate picture of rodeo life and training, with plenty of thrill but less sensationalism than usual. Hero rides, falls, loses nerve—but finally makes triumphant come-back.
A—Hardly Y—Good C—Probably good

Scarlet Dawn (Doug. Fairbanks Jr., Nancy Carroll) (Warner) Weak and hackneyed melodrama concerning hardships of an officer in the Czar's Guard and a peasant servant girl who escape to Constantinople at the start of the Russian Revolution. Actors not very convincing as Russians.
A—Mediocre Y—Better not C—No

Secrets of the French Police (Gwili Andre) (Radio) Tense detective thriller about Russian arch-villain hypnotist passing off kidnapped girl as princess, until French Surete catches him by complex methods and interesting help from clever crook. Involved, nerve-fluttering, but well-done of kind.
A—Good of kind Y—Better not C—No

Silver Dollar (Edward Robinson, Aline McMahon) (First Nat'l) Colorful, historical drama laid in Colorado at time silver was discovered and currency deflation followed. Hero is engaging egotist, a failure till luck made him rich. Flings money, reveals in publicity, divorces loyal wife—then financial ruin and death.
A—Interesting Y—Interesting C—Perhaps

Sport Parade (Joel McCrea, Marian Marsh) (RKO) Football-wrestling hash about two gridiron pals after college. One goes straight in journalism, other drifts into crooked professional sport. Girl, loved by both, chooses and saves the weaker to be the film's hero. Much action but no acting worth watching.
A—Mediocre Y—Better not C—No

Stoker, The (Monte Blue) (First Division) A Peter B. Kyne story screened for maximum melodramatic thrill. Hero goes to South America to forget a woman, but meets a Senorita who prevents the forgetting. Lively adventure, romance, and fights a-plenty, including the Marines.
A—Hardly Y—Perhaps C—No

They Call It Sin (George Brent, Loretta Young) (Warner) Another country girl, city man, big city, theatrical producer, another married man. But she doesn't "sin" and finally marries still another man, very sympathetically played by Brent. Not sexy in spite of the title. Merely trite, with too little wheat in the chaff.
A—Mediocre Y—Not good C—Not for them

Virgins of Bali (Native cast) (Principal) Perhaps the best and most convincing picture to date of simple, wholesome, happy life in Bali island. Charming and informative, tries for truth rather than sensation, and accompanying travelog voice is satisfactory. Anthropology, not drama.
A—Fine of kind Y—Excellent C—Very good

With Williamson Under the Sea (Principal) Very unusual scientific picture of actual conditions beneath the sea, the teeming life, seabed formations, sunken wrecks, securing of museum specimens. Remarkable photography, some in color, by unique apparatus, also described in the film. Unique to date.
A—Interesting Y—Excellent C—Very good

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

Plans for Financing the Purchase of Projectors for Churches

We are indebted to the Bell & Howell Company for a number of plans for financing the purchase of motion picture projectors for church purposes. One or another of these plans is reasonably sure to provide a method for almost any church to secure a projector.

Here are the plans:

Plan No. 1—The Work-Day Plan (Time Payment). Fifty or more Sunday School students each earn \$1.00 in some unusual way to make the first payment. Successive payments are taken care of by weekly entertainments.

Plan No. 2—The Refund Plan. The Church Board or Sunday School Board guarantees payment for the projector, and Sunday School students refund the money out of profits from running entertainments.

Plan No. 3—Stock Plan. Twenty or more church members underwrite the purchase of the motion picture machine. Stock or receipts are issued to each member. Public showings are given, and stockholders are paid back as the money is earned.

Plan No. 4—Work-Day Plan (Cash Payment). Two hundred or more Sunday School students pledge themselves to earn one dollar in an unusual way. Proceeds are collected, and projector is purchased for cash.

Plan No. 5—The Lyceum Plan. Sunday School students sell \$1.00 tickets for a series of four motion picture entertainments. An energetic ticket sale will easily sell enough tickets to cover the cost of projector, films for entertainments, and leave a tidy profit. This plan has the advantage of securing all the money before the first entertainment is run.

Plan No. 6—Wholesome Movie Plan. The church or Sunday School board advances the money for a projector for educational purposes. On certain afternoons after school an entertainment is given for the benefit of the children of the parish. Ten cents admission is charged. The profit from these shows is returned to the board. Parents are strongly in favor of this plan, as nearly all children go to the commercial movies. The afternoon show takes the place of the regular theater, and thus parents know the children are seeing good wholesome pictures.

Plan No. 7—The Memorial Plan. One of the large Sunday School classes usually makes some present to the school. Make that present a useful and lasting gift by presenting the school with a projector. If it is not possible to purchase the projector outright, the

class can make the first payment, and the rest of the student body may pay for the machine by use of one of the previously mentioned plans.

Plan No. 8—The Gift Plan. The Men's Club, the Missionary Society, or other church auxiliary organization, can purchase the projector out of funds on hand and easily reimburse themselves out of earnings from public showings of good films once or twice a week.

Plan No. 9—The Supper Plan. The Missionary Society can defray entirely, or help defray, the cost of a projector by giving a series of weekly suppers, profits to go toward a motion picture machine. Missionary societies can use pictures to fine advantage by showing movies of foreign mission activities.

Plan No. 10—Underwriting Plan. A square chart labeled "Movie Projector Fund" is blocked off into 200 (or the required number of) squares. Each square represents \$1.00. The chart is placed in some prominent place, and everyone who agrees to subscribe to the projector writes his or her name in as many squares as he subscribes dollars. This visual presentation of the growth of funds creates a rivalry that invariably puts the proposition over.

"Screen and Projector in Christian Education"

The Westminster Press of Philadelphia has just published *Screen and Projector in Christian Education*, by H. Paul Janes, director of the Division of Visual Aids, Presbyterian Board of Christian Education, Philadelphia. It is a fine contribution to a field that has greatly needed such a work, by an author preeminently qualified from his knowledge of both the subject and the field.

The book opens with a discussion of fundamental reasons why the Church should adopt the means and methods of education and recreation which have already proved their value in the school and commercial fields. In eleven chapters following, the author treats the major aspects of the subject, using illustrations freely as needed. Chapters I, VII, X and XI are concerned with the materials and equipment of projection—slides, film-slides, opaque projection, motion pictures both silent and sound, both 16mm. and 35mm., sound-on-film and sound-on-disk, stereopticons and movie projectors of various kinds, technical elements of projection such as electric current and its control, screens, lighting, acoustics, sound reproducers, hand-made slide materials, and finally the new developments in talking pictures which offer such great

possibilities for the near future. Chapters III, IV and VI discuss sources, selection and adaptation of visual materials for the church field, the recreational uses possible, and a detailed presentation of the technique of teaching with visual aids which is essential for their efficient use in any field.

Then the major consideration, exactly how to use visual aids in church programs, is ably covered in Chapters II, V, VIII and IX—equipping the auditorium, preparation of program, lighting, mood, atmosphere, emotional relation of music and pictures, coordination of all elements into a harmonious ensemble that will achieve the perfect results desired. Finally come very valuable, specific suggestions regarding the proper and effective methods for advertising and promoting visual programs in full keeping with the dignity and high purpose of the church.

All denominations of the church field should welcome such a book, serious, practical, richly informative, and meeting so exactly a long-standing need.

New Mission Films

The Board of Foreign Missions of the Presbyterian Church, 156 Fifth Avenue, New York City, has available on a rental basis the following 16mm films:

China Today (a series of three reels)—Reel 1, *Everyday Life*; Reel 2, *The Church at Work*; Reel 3, *Young China Takes a Hand*.

Babes in Chinaland—(1 reel).

Siam—The Land of the White Elephant—(2 reels).

The movies were made on 35mm film and have been reduced to 16mm for use with home movie projectors.

Mrs. Verna Lotz of the Board's Visualization Bureau states: "These films are the finest we have yet produced. We have film on three other countries which we hope to have ready for release within the next six months."

Clergyman Interested in 16mm. Talkies

Reverend Father S. O. Yunker of Springfield, Illinois, is a pioneer 16mm. movie maker. He began making amateur pictures almost as soon as any equipment was manufactured. He says that he owned one of the very first Bell & Howell Filmo cameras.

He has a Lithuanian parish in Springfield, and has had excellent success in staging and filming pageants depicting epochs of Lithuanian history. These he shows on the screen in the Parish House, and always to big audiences. In fact, any important parish happening is sure to be filmed by his movie camera, and to be reproduced on the screen for the entertainment of the parish and also kept for record purposes.

Last summer Father Yunker went to Europe, visit-



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CAMERA CRAFT PUBLISHING COMPANY

703 Market Street, San Francisco, California

ing eighteen countries.' He took movies everywhere he went, and now is showing the pictures to audiences in various parishes and to groups in hospitals, orphanages, etc.

Father Yunker is particularly interested in sound reproduction. He sees a big future for 16mm. talkies in the church field, especially for entertainment purposes.

Contributors to this Issue

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SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

Director, Scarborough School, Scarborough-on-Hudson, N. Y.

Visual Education in the English Class

JOSEPH D. WALSH

FROM the Latin meaning of "video-videre-vidi-visus" (see) we are able to determine the scope of the term, Visual Education. Included should be all materials, attitudes and novelties which enable the pupil as well as the student to "see" the lesson of the day.

Disregarding the effect of the climax of Caesar's memorable words, "Veni, vidi, vici," I am inclined to place much importance on the middle term, vidi (I saw). This "seeing" process was the vital link in Caesar's program. Without having "seen", his arrival would have been ineffective and no result would have been secured without that vital observation on the Roman leader's part. Too, the pupil comes to school; but he will never conquer unless he "sees".

With the curriculum crammed as it is at present a high school pupil feels the pressure of social, athletic, scholastic affairs rather acutely and the instructor must, whether he admits it or not, place the emphasis on study and educational results if the prime purpose of school work is to be in evidence. Thus, the task of the teacher is to have the subject matter appear as real as a touchdown or a prom.

When a French teacher has a skilled pupil (who has worked all vacation as a carpenter) build a small house and has each of the pupils describe it, tell of its location, its imaginary inhabitants, their home life as associated with this house, I believe the French class is as lively as many baseball games. When the civic class examines the county jail in a city as large as Scranton, Penna., I believe the lesson on crime and criminals is remembered as long as many touchdowns. When the science class forsakes the laboratory to see the actual mining and preparation of anthracite coal at the Marvine mines, one of the most modern mines and breakers in the hard coal fields, I believe the guide's explanation of the formation, the value, the importance is as realistic as any coach's football jargon.

All high school subjects are alive with visual education possibilities. However, my particular field is English. Far too often English teachers stop at the dramatization station on their journey to Visual Education land. This depot is very good, but there are other spots which afford as much interest if we will travel to them.

In the building of a vocabulary, objects lend invaluable aid to an alert instructor. As we read Stevenson's "Sire de Maltroit's Door" in freshmen English several weeks ago we chanced upon the word fossil.

A few synonyms, a little explanation, a typical sentence usage but I was not satisfied. Fossil . . . fossil, oh yes! There was a boy in the eighth grade who had been absent for several days picking coal and I remembered that at his appearance in the principal's office he had a bit of slate found on the culm banks which dot our valley with the shape of a fern easily discerned.

"Ask Alex Raleski of room 16 to give you that piece of slate he has," I casually remarked to a pupil near the door as I went on to give further usages, the derivation, explanations of the word. Soon each pupil was able to see in his or her own hand a perfect fossil found on a piece of slate right in the vicinity of the school.

I was student-teaching at the East Stroudsburg Junior High School, training school of the State Teachers' College of that city, and the subject called for adjectives. My lesson plan had been approved by Miss Oliver, my critic teacher. It was a rather warm day in early spring and the windows had been opened. I am ready to agree that adjectives offer none too pleasant an aspect but to add to my discomfiture into the room buzzed loudly a large dragon fly. I felt lost. The class was all attention—to the intruder. Smiles flashed on their faces. Fingers instinctively pointed to the "darning needle." Eyes followed each movement of the uninvited teacher—for such the dragon fly became.

Like a preserver to a drowning man—or make your own simile as you realize my position—the idea came. Before they knew they were answering in groups, in unison, individually, all ways to my questions.

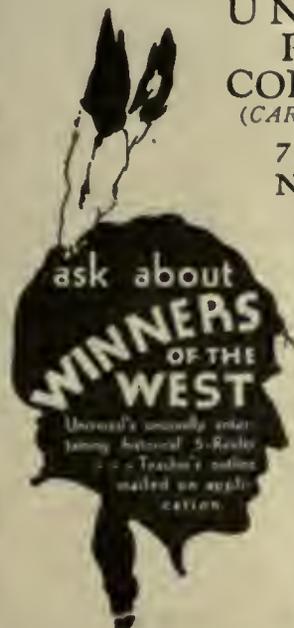
"What color is that?" and came the answers, "Shiny," "Green," "Glittering." I jotted them down with lightning speed the best. "It is very large, isn't it?" "No. It's tiny," "small". It flew here and there. "It is playful," I volunteered. "And happy too." "Yes and restless," "and noisy." "Strange sound." "Waving wings." "Curious time to come here." Comments which I kept under fair control, as I scribbled on the slate. Then, politely the guest drifted from the room. There was the front blackboard filled with the pupils' adjectives—modifying, limiting, descriptive, numeral—all I needed. From that lesson I think I helped my A plus mark in student teaching.

Recently a chalk box served the purpose of making my sophomore class "see" the word, "dovetail". Fre-

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quently the word appears in the oral or written work of the class, which evidently knows the word forever. Everyone of them saw just how one side fitted exactly into the other side after I had broken the box into its parts. Dovetail was visible.

One of the hardest parts of speech to teach is the preposition. Those small words — of-on-over-under-between-near — seem so entirely insignificant. Of course the rule is clear in stating that “ a preposition is a part of speech which shows the relation of its object to the word which the phrase limits.” Still no child can “see” even after memorizing that terse definition.

In our sixth grade without naming my purpose I asked the youngsters, “Is there any difference between the position of this stick of chalk now and now?” As I said the first “now” I held the white crayon several inches above the box and at the second “now” held it several inches below it.

“Certainly,” came from all. One boy volunteered that, “It’s over the box first and under it next.”

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Send me 16mm. Apparatus Bargaingram.

Send me 35mm. Camera and Projector Bargaingram.

Send me Bass 16mm. Film Rental Library Catalog.

“Fine, Jim. Suppose, Mary, you write just what Jim said on this blackboard.” Mary did.

“And now does it differ?” Again I shifted the chalk to several positions near, in, on, beside the box. All the time Mary wrote the sentences which were identical except one word, the preposition. Someone “saw” that and from then on my task was easy.

Carefulness and versatility on the part of the English teacher, grade or High school, will bring unique and practical objects for the class to see in word study, poetry, grammar, composition, et al. No better descriptions were ever written by my classes than after a visit to “The Cut”, a miniature canyon made by excavating steam shovels. They depicted that artificial “Grand Canyon” in a splendid fashion. One boy right on the floor of the Cut claimed that it was, “an ancient fortress looming with its sinister arms above me.” Others “saw” the power of description.

Utilize the visual education method in your English classes. Plan when you can; but be open-minded for any chance to improve the lesson by switching in anything that will cause these “seeing” creatures called pupils to “see” what is being presented.

School Using Operalogues

Educational’s series of six Operalogues, announced in a previous issue of THE EDUCATIONAL SCREEN, has been made a requisite of the curriculum of the School of Music, Huron, South Dakota. As a practical means of teaching music appreciation, the school, through the South Dakota Federation of Women’s Clubs, has arranged for its students to see each of the Operalogues at their local theatre. In addition, the society has issued special rate tickets to all Junior and Senior High School students and to music students and teachers generally.

In this series the producers, Kendall and DeValley, have endeavored to present the world’s finest operatic music, and schools would do well in following the South Dakota school’s example.

History’s Use of Tin Puppets

A teacher of mathematics at a municipal high school in Haarlem has introduced a method of teaching history and ethnology by making use of delightful little period tin puppets, correct in every detail of clothes and bearing, made by German tin puppet manufacturers.

The pupils have taken an active part in constructing and putting together 17 dioramas, for which the teacher drew and painted backgrounds and scenery, representing historical scenes from ancient times to the nineteenth century. These dioramas are peopled with the tin puppets in a remarkably impressive and realistic way, showing what was the social life, land-

scape, architecture, dress and customs of a particular period. New dioramas are being planned for use in connection with history lessons.

The idea is that one or more pupils will be detailed to make the necessary researches to find out the exact architectural form of the different parts of the scen-

ery to be constructed. Another pupil of the group, advanced in the art of drawing, will then draw and paint the background and sides, according to the information given by the research-workers. Appropriate puppets will then be ordered and added to the different scenes.

Project for George Washington Celebration

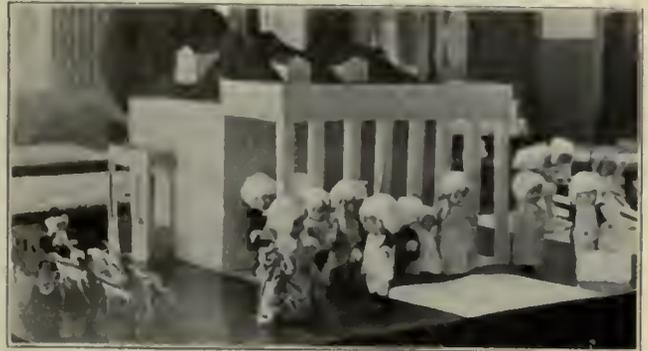
GRACE GOODHUE

THE following unit of work was planned and carried out by a sixth grade history class. It was initiated by the children after an inspiration had been provided by the picture study of the illustrative material listed below:

- I. The Spirit of '76—by Willard.
- II. Martha and George Washington Entertaining Guests at Mount Vernon—by Dunsmore.
- III. Betsy Ross and the First Flag—by Ferris.

The children decided to represent on the sandtable the scenes depicted in the pictures named above. For the completion of the unit, they required a period of three weeks.

The boys painted the shoes and stockings of the dolls, and made the drums, the coach, and the horses.



A Reception at Mount Vernon

The girls dressed the dolls and made the flag similar to that of Betsy Ross. The children donated all of the materials.

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BALOPTICON KOSB, newest product of our 28 years of experience in making still projection equipment, is of the translucent screen type and projects either slides or opaque objects.

"Daylight Projection" is made possible by the powerful illuminating system. Even with opaque objects, this projector gives excellent results in a room light enough to take notes without eyestrain.

The teacher faces the audience, and besides dispensing with the necessity of an assistant, the KOSB enables him to hold attention more closely.

Projects standard glass slides and opaque material up to six inches square. The holder for opaque objects has been especially designed to carry such large material as heavy books, if it is desired to show some illustration or part of the text in them. Illumination of opaque objects and slides has been balanced so that there is no sudden change and consequent eyestrain when changing from opaque to slide projection or vice versa.

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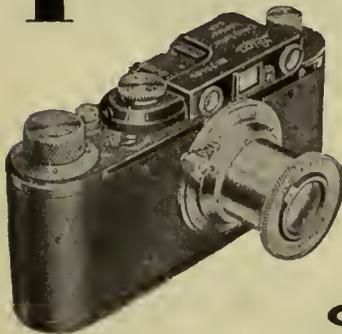
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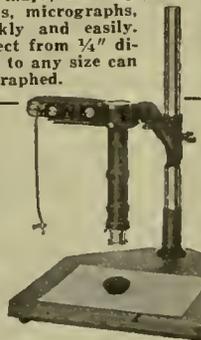
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NEW YORK

A School Journey to Washington

(Concluded from page 13)

of the model while in the background the village is shown, which makes one realize that rural communities need playgrounds as well as cities.

One of the very interesting exhibits is that of the transparencies around the four sides of the gallery showing many phases of hospitalization. The first transparency shows the oldest active hospital in America, the Pennsylvania Hospital in Philadelphia, instituted by Benjamin Franklin under a charter granted by King George in 1751. By way of contrast the next transparency shows the Pennsylvania Hospital as it stands today with its magnificent building and including the original building. The other transparencies show many activities of the hospital such as the care of the mentally ill, the Bradford frames for little tuberculous spines, the well known and much used sun bath for delicate little children, the work of the social service department where many maladjusted lives are saved to usefulness and happiness, and many other activities too numerous to mention.

Individual health is not neglected. There is the child hygiene exhibit planned to attract the attention and arouse the interest of children in the elementary grades so that they will have a personal interest in health. Appropriate objects with just enough hidden meaning about them to require a little thinking on the part of the child, call attention to good health habits such as sleep, bathing, exercise, fresh air, proper food, cleanliness, freedom from worry, avoidance of disease, and healthful surroundings. There are also exhibits showing the care of the teeth, proper diet, and good posture. A model of a health center, lent by the Children's Bureau, shows the importance of health examinations for children and expectant mothers.

Many other exhibits, such as the model showing the activities of the public health nurse, the industrial hygiene model lent by the Women's Bureau of the U. S. Department of Labor, the social hygiene model and the model showing laboratories equipped for physical examinations, stress many phases of the social welfare of the community and are invaluable in visualizing social science subjects.

I should like to admonish teachers and students both to carry notebooks with them when they visit this exhibit as they will want to make many notes about the many suggestions which may be obtained from these exhibits for visualizing social science subjects.

In the next number of THE EDUCATIONAL SCREEN, I shall describe some of the industrial exhibits in the National Museum.



Nature's scenic masterpieces are revealed by the swift, sweeping comprehensiveness of motion pictures, in such films as *Yosemite National Park*.



Involved bodily functions are interestingly shown by Eastman Classroom Films. Above: the bell-jar demonstration of diaphragm action, from *Breathing*.

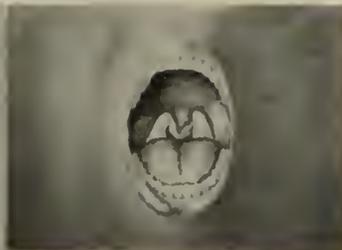


The mining and refining of the world's most glamorous metal are permanently impressed upon pupils' minds by the Eastman Classroom Film, *Gold*.



Nature's marvelous processes are actually demonstrated by such films as *Wild Flowers*, in which flowers sprout, grow, and die before pupils' eyes.

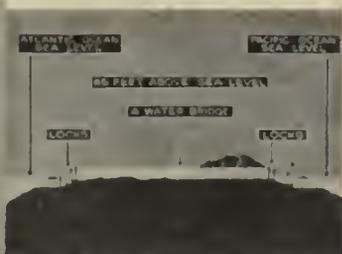
Difficult to Explain SIMPLE TO SHOW.



Motion picture photography and animation are potent factors in health education. Above: animation of a diphtheritic throat, from *Diphtheria*.



How many children understand the processes that bring fresh milk to their breakfast table? These processes are fully explained in *Wisconsin Dairies*.



The mechanics of man's engineering triumphs are illuminated by action pictures. Above: animation of a famous "water bridge," from *The Panama Canal*.



These films represent quick field trips into many regions and industries otherwise inaccessible. Above: Preparing a blast, from *Anthracite Coal*.

These outstanding films help to teach pupils more in much less time

"The motion picture has been given a careful trial in both elementary and high school classrooms in our city. As a result, we have revised our courses of study so as to introduce the frequent use of motion pictures as one of the most valuable aids in modern teaching. The motion picture gives the pupil an exact knowledge in a way that cannot be secured by a written description. Our teachers do more successful work in less time since the motion picture has been placed at their service."



(From the letter of a Superintendent of Schools in a prominent American city using Eastman Classroom Films.)

EASTMAN Classroom Films show life itself...in action, in its natural surroundings...by means of easily understood photography and animated diagrams. In a few minutes they give vivid, concrete knowledge of many difficult subjects that are a part of every school's curriculum.

As each living story flashes before the pupils' eyes, their interest is aroused, their attention held, and the facts retained.

"They save time." "They give pupils a keener understanding, by supplementing textbooks and teachers' explanations." Such statements appear in reports on

Eastman Classroom Films from superintendents, supervisors, and teachers who are using them.

Eastman Classroom Films cost little to buy and, with careful handling, last for years. The Kodascopes for projecting these films, as well as entertainment and personal films, cost as little as \$50. They can readily be operated by any teacher. Screen costs are nominal. Write for complete details and descriptive list of films. Address: Eastman Teaching Films, Inc. (Subsidiary of Eastman Kodak Company), Rochester, New York.

Eastman CLASSROOM FILMS

AMONG THE PRODUCERS

Where the commercial firms—whose activities have an important bearing on progress in the visual field—are free to tell their story in their own words. The Educational Screen is glad to reprint here, within necessary space limitations, such material as seems to have most informational and news value to our readers.

Leica Valoy Enlarging Apparatus

All miniature camera owners will be glad to learn of an improved enlarger which is more versatile than former models. This new model is known as the Valoy Enlarger and may be equipped with masks for single movie frame negatives ($\frac{3}{4} \times 1$ inch), Leica negatives ($1 \times 1\frac{1}{2}$ inches), and roll film miniature camera negatives ($1\frac{1}{4} \times 1\frac{5}{8}$ inches). An ingenious device assures that the negatives remain perfectly flat during the exposure. Yet, when the film roll is to be shifted to another picture, a lever is merely pushed and the film is free to be pulled through the gate in either direction without danger of scratching or removing from the gate. This action facilitates rapid working and will be found of great value.

The condenser acts as the pressure plate and holds the film firm and flat during exposure. It is easily removed for cleaning.

A roomy lamp house encloses the 75-watt opal lamp which is adjustable as to distance from the condenser. Large cradles are mounted on each side of the gate which serve to hold the film roll while the enlargements are being made. The lamp house unit and the film cradles are finished in black crystal enamel.

A nicked metal pillar supports the lamp house unit over the generous baseboard. The electric cord is carried inside of the pillar, thus being concealed and kept out of the way. The cord runs under the baseboard, hence can never interfere.

Four different paper-holders are available which may be placed upon the baseboard. These hold the paper flat by means of thin metal strips which are adjustable for any size enlargement. The strips further act as masks, by means of which a neat, white border can be obtained around the print.

An interesting feature of the Valoy Enlarger is that the various Leica lenses may be used in it. The Elmar F:3.5 lens is suggested for all-around use as longer focus lenses demand a greater working distance from the paper. A flange can be supplied which clamps onto the camera lens, taking care of



Leica Enlarger

diaphragm adjustments. A ruby filter may be attached which swings directly under the lens. This filter is useful when it is desirable to focus directly upon the sensitive paper below. A magnifying glass, mounted upon a universal joint can be mounted on the baseboard. It serves to assist in obtaining critical sharpness of the image on the paper.

Since its introduction, the Valoy Enlarger has proven exceedingly popular. A more detailed account of this apparatus may be obtained direct from E. Leitz, Inc.

The New Keystone Lantern Slide Ink

One of the most interesting developments in the field of visual instruction during the past two years has been in connection with the promotion of the use of pupil-made lantern slide material by the Keystone View Company. Teachers and pupils in almost every city are familiar with the very interesting opportunities in connection with their activity programs offered by the possibilities of making up their own lantern slides.

One of the weak aspects of this project has been the lantern slide ink. After more than a year of study and research, the Keystone View Company has placed on the market a new ink, which will apparently meet all the objections made to the old ink and should be a splendid stimulus to the use of this material. The new ink provides brilliant colors that will not fade under the heat of the lantern and that will not crack or scale off. The fastness of the colors makes it possible to blend the six different colors into all sorts of color combinations in making up slides that may have permanent and artistic value.

Electrical Research Announces Reduced Rental Prices On Films

Due to economies resulting from increased distribution and more efficient distributing facilities, Electrical Research Products has announced a reduction in rental prices for all pictures in its catalogue of non-theatrical talking motion pictures, effective October first, according to J. R. West, Sales Manager of the Non-Theatrical Department.

All pictures will be released at a daily rental of \$5 per reel under this new price schedule. Formerly prices ranged from \$7.50 to \$10 a reel.

The complete catalogue covers subjects in Civics,

Chemistry, Mathematics, Music Appreciation, Natural Science, Physical Education, Physics, Religion, Social Science, Teacher Training, Vocational Guidance and Travel Subjects.

Under the new distribution system, pictures may be obtained directly through the Educational Film Exchanges in Seattle, Los Angeles, Chicago and New York.

Sound Accompaniment for Lantern Slides

A new product has appeared which performs a familiar function by novel means. The Phonopticon, offered by Jenkins & Adair of Chicago, possesses features which will attract and merit most careful consideration by the educational field. It is a combination of the Bausch & Lomb Balopticon with a unique disk-record mechanism, which permits the automatic and continuous projection of standard lantern slides accompanied by a voice in perfect synchronization. The pictures may be shown on a small translucent screen which forms an integral part of the equipment, or they may be thrown on screens in assembly halls of any size desired.

The method of synchronization is unique and necessarily perfect. At every point in the speaker's address that change of slide is desired, it is done by the disk record itself. At such points, an "inaudible tone" (of a frequency outside the audible range) is recorded in the disk record itself, by special process. When the needle encounters such a "tone," the changing mechanism is set in motion, the picture dissolves and the succeeding slide moves into position. Obviously, the change must occur at the same exact moment with every running of the disk, and inevitably in the same relation to the words of the speaker. The dissolving also is so smoothly and deftly done that no unpleasant glare or confusion of images affects the eyes of the spectators. The extreme simplicity and infallibility of operation make the Phonopticon a machine of exceedingly interesting possibilities in church, school and commercial fields.

Victor Supplying Powerful New 500 Watt Lamp

A new Mazda Lamp of 500 Watt-100 Volt rating has just been perfected by the G. E. National Lamp Works. Although by far the most powerful T-10 size lamp yet developed, it is understood that dissipation of the heat generated by the 500 Watt-100 Volt lamp makes its use impractical except in a projector equipped with a highly efficient lamp house ventilating system.

So far, the only 16 mm. projector to be offered

with this powerful new lighting equipment is the Victor Model 10FH Premier Hi-Power, which was originally equipped with the 400 Watt-100 Volt G. E. Lamp. According to a statement issued by the Victor Animatograph Corporation, the Model 10FH, which has built-in lamp resistance in the base, will accommodate the new 500 Watt Lamp without any alterations.

Inasmuch as it is said that the 500 Watt lamp gives even too much light except for very large picture, long throws and daylight projection, Victor will continue to supply the 10FH with 400 Watt Lamps except when the 500 Watt is specified. When equipped with 400 Watt lamp the Premier Hi-Power Projector will be designated as the Victor Model 10FH-400, and when equipped with the 500 Watt, as the Victor 10FH-500. The 10FH-500 will carry a list price of one dollar more than the 10FH-400.

The T-10 Size 500 Watt G. E. Mazda Lamp should not be confused with the T-12 Size 500 Watt-110 to 120 Volt lamp which has been on the market for some time. It is a much more powerful lamp than the latter.

The 500 Watt G. E. Mazda lamp will also be available with 110, 115, and 120 Volt ratings for use in the Victor Model 10 Regular Projector. These lamps, of course, are not as powerful as the 100 Volt lamp.



Do You Teach Geography?

If you teach or direct the teaching of Geography, you will want to investigate *The Journal of Geography*, an illustrated monthly magazine owned by the National Council of Geography Teachers, and published especially for teachers.

THE JOURNAL GIVES YOU—Supplementary material for students and teachers . . . confidence by enabling you to know the best and thus keep several leagues ahead of the non-subscribers . . . success to teachers and students who sincerely want it.

If you are not familiar with this splendid magazine pin this ad to your letterhead and the next copy will be sent to you **FREE** of charge.

THE JOURNAL OF GEOGRAPHY

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A Trade Directory for the Visual Field

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- Carlyle Ellis (1, 4)
53 Hamilton Terrace, New York City
Producer of Social Service Films
- Eastman Kodak Co. (4)
Rochester, N. Y.
(See advertisement on outside back cover)
- Eastman Teaching Films, Inc. (1, 4)
Rochester, N. Y.
(See advertisement on page 29)
- Edited Pictures System, Inc. (1, 4)
130 W. 46th St., New York City
- General Electric Company (3, 6)
Visual Instruction Section,
Schenectady, N. Y.
- Herman Ross Enterprises, Inc., (3, 6)
630 Ninth Ave., New York City
(See advertisement on page 28)
- Ideal Pictures Corp. (1, 4)
26 E. Eighth St., Chicago, Ill.
- Modern Woodmen of America (1, 4)
Rock Island, Ill.
- Pinkney Film Service Co. (1, 4)
1028 Forbes St., Pittsburgh, Pa.
- Ray-Bell Films, Inc. (3, 6)
817 University Ave., St. Paul, Minn.
- Society for Visual Education (1, 4)
327 S. LaSalle St., Chicago, Ill.
- United Projector and Films Corp. (1, 4)
228 Franklin St., Buffalo, N. Y.
- Universal Pictures Corp. (3)
730 Fifth Ave., New York City
(See advertisement on page 25)
- Williams, Brown and Earle, Inc. (3, 6)
918 Chestnut St., Philadelphia, Pa.
- Y. M. C. A. Motion Picture Bureau (1, 4)
347 Madison Ave., New York City
19 S. LaSalle St., Chicago, Ill.

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2839 N. Western Ave., Chicago, Ill.
(See advertisement on inside front cover)
- Bass Camera Co. (6)
179 W. Madison St., Chicago, Ill.
(See advertisement on page 26)
- Bell & Howell Co. (6)
1815 Larchmont Ave., Chicago, Ill.
(See advertisement on inside back cover)
- Eastman Kodak Co. (4)
Rochester, N. Y.
(See advertisement on outside back cover)
- Edited Pictures System, Inc. (1)
130 W. 46th St., New York City
- Ideal Pictures Corp. (1, 4)
26 E. Eighth St., Chicago, Ill.
- International Projector Corp. (3, 6)
90 Gold St., New York City
- Regina Photo Supply Ltd. (3, 6)
1924 Rose St., Regina, Sask.
- United Projector and Film Corp. (1, 4)
228 Franklin St., Buffalo, N. Y.
- Victor Animatograph Corp.
Davenport, Iowa.
(See advertisement on page 2)
- Williams, Brown and Earle, Inc. (3, 6)
918 Chestnut St., Philadelphia, Pa.

SCREENS

- Da-Lite Screen Co.
2721 N. Crawford Ave., Chicago
(See advertisement on page 1)
- Williams, Brown and Earle, Inc.
918 Chestnut St., Philadelphia, Pa.

SLIDES and FILM SLIDES

- Conrad Slide and Projection Co.
510 Twenty-second Ave., East
Superior, Wis.
- Eastman Educational Slides
Iowa City, Ia.
- Edited Pictures System, Inc.
130 W. 46th St., New York City
- Ideal Pictures Corp.
26 E. Eighth St., Chicago, Ill.

- Keystone View Co.
Meadville, Pa.
(See advertisement on page 25)

- Radio-Mat Slide Co., Inc.
1674 Broadway, New York City
(See advertisement on page 26)

- Society for Visual Education
327 S. LaSalle St., Chicago, Ill.

- Spencer Lens Co.
19 Doat St., Buffalo, N. Y.

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

STEREOGRAPHS and STEREOSCOPES

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- Bausch and Lomb Optical Co.
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- E. Leitz, Inc.
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- Regina Photo Supply Ltd.
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Unified Department of Visual Instruction

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Use of Foreign Talking Films in Language Instruction

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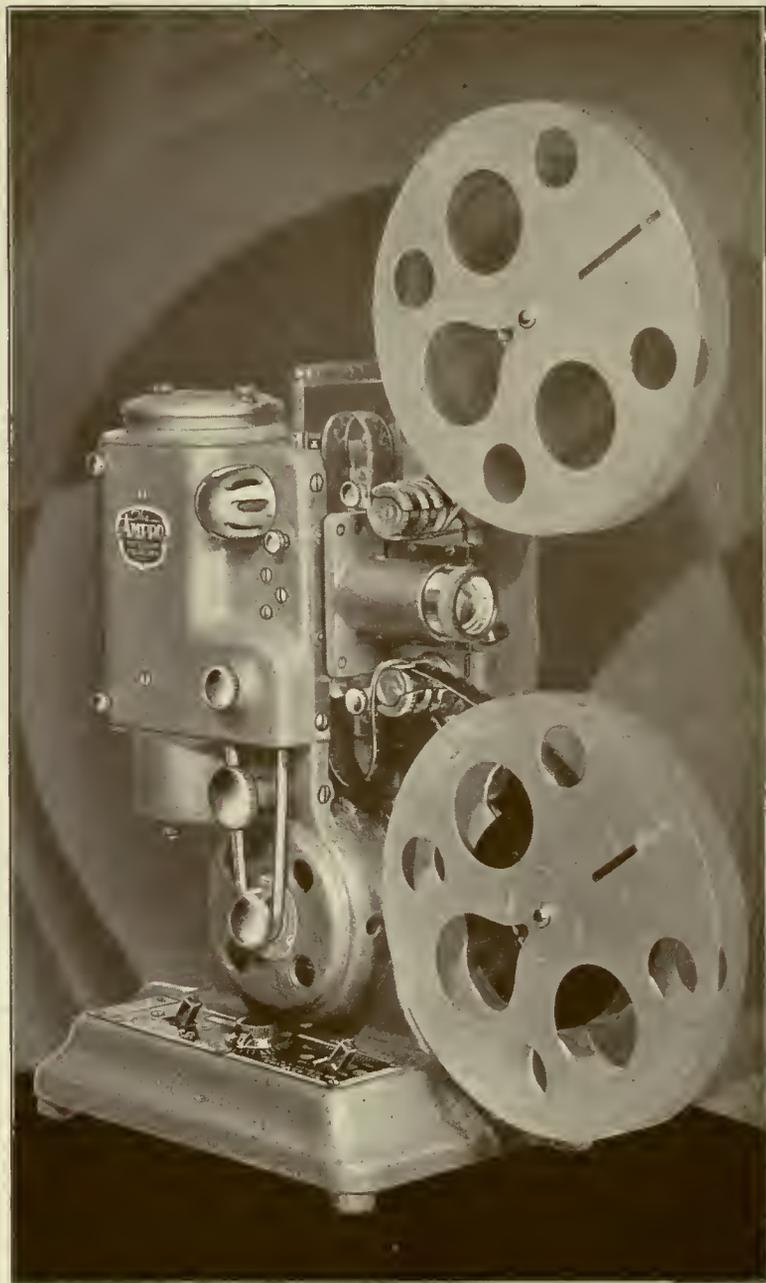
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Visual Instruction News

FEBRUARY, 1933

VOLUME XII

NUMBER 2

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THE EDUCATIONAL SCREEN, Inc.

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EDITORIAL

AT THE annual meeting of the Department of Superintendence of the National Education Association at Minneapolis this month there is to be no meeting of the Visual Instruction Department of the N. E. A., the one national organization in the visual field. This breaks a venerable precedent, unfortunately, but the decision to omit the usual session was doubtless sound and dictated by present conditions. The February meeting is to be combined with the session next June. This concentration of effort upon one meeting should result in a finer session than any previous. Further, it will be held in Chicago at the very gates of the Century of Progress Exposition. This fact can be highly important for the June session of the Department.

The Century of Progress Exposition will be unquestionably a masterpiece of visual instruction at its best, a colossal example of what can be accomplished through the eyes for huge masses of people. The Exposition is to be distinctly new in spirit, purpose and method. Previous "fairs" have been largely vast collections of objects put on view, the visitors being left to themselves to see, or fail to see, connection or continuity between the objects shown. Previous expositions have been relatively static; the 1933 Exposition will be dynamic. Machines and processes will be shown in motion—not "this is the machine that does the work," but "here is the machine doing the work." As never before, exhibits are carefully and expertly planned to show developmental sequence, not isolated steps in achievement. Visible evolution will be the primary motif in countless displays, whether it be transportation from ox-cart to airplane, electricity from Franklin's kite to modern dynamos and household appliances, domestic economy from wigwam to modern home, or industrial economics from home-manufacture of all commodities to modern mass production.

Attendance at the combined visual meeting in June should break all records. A powerful added attraction should be the opportunity for studying at close range the visual presentation of such a variety of subjects on such a scale. The Department can turn the Exposition to great advantage for its visiting delegates by a systematic selection, made carefully in advance, of the finest examples of visual presentation therein contained. Chosen with particular reference to their suggestive value for school procedure, scheduled and routed so as to require minimum visiting time, personally managed by the Department appointee who has worked out

the program, these "school journeys" during the convention week should be among the richest values ever given to its membership by a national visual instruction organization at its annual meeting.

THE HEAD of a department in one of the largest High Schools in the Middle West dropped into our office the other day. He had not known there was any magazine in the field of visual instruction—and we do not care for the thought that there are many more thousands of teachers like him in the country—he had never heard of THE EDUCATIONAL SCREEN and came in to find out what it was all about. He looked over some back issues, expressed his delight, ordered two subscriptions, and we expressed ours.

But the important thing was what he said next: "Of course we do not need the magazine to sell us on visual education. We are forced to use it all the time at ——— High School, or we should never get the work done with our over-crowded classes. But we do need it to know what all the rest of the schools are doing throughout the country, and so do the rest of the schools."

The phrase, "forced to use it," is thought-provoking. Necessity, even more than conviction, is likely to bring about universal use of sensory aids in teaching. Our record-breaking depression is making this necessity more acute than ever. Increase in population means inevitably larger classes in schools, for diminishing building funds mean that classroom capacity cannot keep pace. Decrease in tax revenues means fewer teachers to handle the larger classes, which means shrinkage in educational efficiency. The teaching technique of five hundred years—through language, the spoken and the written word—has long since learned to do its best. Its results were necessarily considered the norm of educational achievement under normal conditions. The growing economic complexity of the modern world is putting and will continue to put an overload on the old technique, and the results are certain to suffer. The way out, and the only way out now visible, is to expand the educational procedure to include the visual as well as the aural approach. Progressive schools have long since begun the expansion, but it is hardly more than a beginning of the expansion that is to come. It cannot wait for the conversion of teachers still indifferent to the visual idea. "Orders" will come from school authorities, and the teachers will have to get busy on a new and still more interesting job, namely, learning to use sensory aids in their classrooms. Visual instruction not merely ought to come. It must come.

Unified Department of Visual Instruction

Oregon State System of Higher Education

U. S. BURT

THE Department of Visual Instruction for the entire System of Higher Education is now operated from one office located on the campus of the Oregon State College at Corvallis.

All educational motion pictures, lantern slides, microscopic slides, film slides, charts, exhibits, projection equipment, rock and mineral ore collections, and similar material heretofore distributed by the Oregon State College and the University of Oregon may now be obtained from the single office at Corvallis.



U. S. Burt

A more complete service at less cost to the users as well as more economical to the taxpayers is possible through this combination plan whereby all the material representing the educational services of all the cam-

puses under the direction of the Board of Higher Education is handled through the single office. While most of the material has been available without charge except for transportation and slight service fees, such fee charges and rentals have been further reduced.

A new 72 page printed visual aids catalogue listing all of this material is now available from the Corvallis office for use of churches, clubs, granges, lodges, schools and other individuals or organizations which make frequent use of the service offered from the Department of Visual Instruction. From the office at Corvallis there is now available 300 motion picture films, 951 sets of lantern slides, and many microscopic slides, charts and exhibits.

Subjects available included in these visual aids are agriculture, art and architecture, civics, college and university life, famous men, 4-H Club work, geography, health, history, holidays, home economics, juvenile subjects, literature, mathematics, nature study news films, "Our Gang" comedy, public safety, reading, religion, scenic, many branches of science, songs, George Washington, Yale history films of America.

The history of this department in so far as related to the College dates back to 1915 when a very limited attempt was made to furnish a service of lantern slides and charts. The new combined department was organized July 1 of last year by action of the Board of Higher Education in developing its program of unification. The combined department so far is operating with the same amount of help as was the office at Corvallis before and with a very much less

budget financed about equally by both federal and general extension funds.

The office is located at 139 Agriculture Hall and consists of three rooms with a large storage room and a fire proof vault for storage of motion picture films. A limited number of projection machines is owned by the department which are loaned out on a rental basis. Mrs. Ruth Adams is secretary of the department with part time helpers as follows: Cassius Beardsley, sign and chart work, Howard Beard, film inspecting and repairing.

Types of services offered by the department include projection equipment recommendations and demonstrations, loan and rental of 35 mm. and 16 mm. motion pictures, film slides, glass slides, microscopic slides, suggestions and directions for making visual programs, charts, exhibits, and personal direction of all off-campus institutional exhibits.

In addition to the above services the department takes, edits, and directs the making of educational motion pictures, keeping in close contact with the various commercial motion picture news reel companies. During the past thirteen years we have directed and edited the making of 41 standard motion picture films for the College, all of which are listed in the new catalogue of visual aids. Some of the subjects of these films cover 4-H Club Work, 400 Hen Flock, Oregon News Reels, Angora Goats, Oregon Bankers Milking Contest, Liver Flukes in Sheep, Salmon Poisoning in Dogs, College Activities, Nursery School, and "Making an Oregon Farmer" for the State Vocational Education Department.

The contacts made with the news reel companies have developed a wide avenue for distribution of educational data from Oregon. During the past few years 88 news reel stories have been released by the following companies: Fox, Pathe, Paramount, International News, and Universal News, through cooperation with the department. These stories have been given not only state and national but in some cases international distribution.

The Rook bonfire which was taken a few years ago was the first time the crackling of fire was ever heard over the Fox sound motion picture news reel and the taking of one of the girls' swimming classes was the first reverse sound news picture by Pathe.

During the past report year closing November 30, 1932, the records show that the following use has been made of materials from the department: Motion picture films were used 1259 times at 476 meetings with

(Concluded on page 41)

I Can't See Geometry

GEORGE A. BOYCE

NO SUBJECT is more dependent upon visual aids than geometry. For every theorem and for every exercise one must have a diagram in a book, on the blackboard, or in one's mind. Yet probably no subject has shown less progress in creating improved visual techniques.

Is it any wonder that a stream of students still says, "I can't see geometry"?

To fire pupils' imaginations, to bring geometry closer to everyday things and to the youngsters' own level of interest, to improve their ability to generalize—in short, to get them geometry conscious—it is my conviction that much more animated materials are needed than can be found even in recent texts and problem books.

For example, although newer texts have a few photographs in them, the scenes are chiefly of church windows, bridges, and decorative patterns. These merely convey the idea that in some fashion geometry probably had something to do with design.

In place of such pictures, why not introduce more human interest by showing pupils actually using ancient, medieval, and modern measuring instruments? There is at least a score of surveying instruments of simple construction which are not only of historical interest but which also clearly illustrate common propositions of geometry as applied to the actual world. Figure 1 is merely a sample of what sort of thing can be done. Until texts publish such, I suggest that teachers have pupils make their own working models. Photograph them and save the pictures and models for other pupils to see.

Another possibility for concrete visual material is the making of model scenes to illustrate text book problems. Strips of newspaper soaked in glue and water make excellent papier mache. Paint, colored crayons, bits of wood, glass, and weeds handled with imagination can be

transformed into most interesting and beautiful diminutive scenes with strings laid out to represent the geometrical part of the problem. This may give some pupils their first actual picture of plane geometry applied to our three dimensional world. It is the best substitute I know of for out of door measurements when time and space are lacking. Figure 2 shows one of these models.

Still another hunch for better visual material is the step by step drawing. Textbook drawings for many practical problems represent too many steps. They are complicated and so difficult to dope out that even the ablest students are discouraged. Teachers can again help students to see better by a series of blackboard drawings or by having pupils prepare for future classroom use a similar series on large sheets of paper. If only the last stage is shown, slower pupils have real difficulties.

Another suggestion is to capitalize the cartooning skill of some of the pupils in illustrating animated problems. Material of this sort on the youngster level is most helpful in stimulating interest and a visual understanding of geometric applications. Sketches with simple pictorial backgrounds can go a long way in bringing geometry visibly close to everyday things

provided there is not so much detail as to detract from the geometry involved.

Many teachers have discovered that the use of colored chalk at the blackboard is of surprising help particularly to beginning students. The day ought not be far distant when publishers will use color to mark the salient features of geometric drawings.

In this connection,

I hope that some day somebody will tackle the problem of creating movies for geometry classes. Most youngsters lack the opportunity of seeing surveyors, carpenters, astronomers, and other geometers actually using their geometric skills. Such stuff has



(Courtesy of Western Reserve Academy, Hudson, Ohio)

Fig. 1. Experimenting with a stadia measurer of their own makes geometry real.

romance and possibilities for excellent movie material.

Finally, every geometry teacher should start building a mathematics laboratory. Some of the suggested equipment would be shears, cardboard, glue, plumb bobs, magnetic compasses, a small bubble level, a carpenter's square, steel tape, blackboard protractors, wooden stakes, a drawing board, T-square, draughtsman's triangles, and a hundred or

so feet of plumb line. Pupils can contribute much of this and a few dollars will purchase the rest. Without these things how can the class possibly be prepared to do some first-hand experimenting efficiently?

One more thing I have found helpful has been a rotating blackboard made by the pupils out of wallboard painted black. With it a geometric figure



(Courtesy of Western Reserve Academy, Hudson, Ohio)
Fig. 2. A model scene under construction to show how ships measure distance from shore.

can be turned upside down and shown in all positions. Such a fundamental concept as that all triangles have *three* altitudes is not completely grasped by many students until very late in the course. I haven't found any device so effective as the rotating blackboard for this sort of thing.

These illustrations and very brief suggestions are selected from a collection of photographs, drawings, cartoons, and nearly

five hundred mimeographed projects and problems based upon four years of experimental work in humanizing geometry and presenting more stimulating problem situations. It is hoped that they may be helpful hunches to other teachers in creating and using greatly needed visual aids in the teaching of geometry.

Unified Department of Visual Instruction

(Concluded from page 39)

film attendance of 200,102. There were 24 Oregon counties using motion pictures, 6 other states, with one shipment to Cuba.

The records show that lantern slide sets were used 1476 times at 1313 meetings with slide attendance of 71,667 in 29 Oregon counties and 7 other states.

There were 211 charts made by the department during the year and 4 off-campus exhibits were prepared and directed, including Oregon State Teachers Convention, Progress Exposition at Albany, Poultry Show at State Fair, Truth-in-Meats Exhibit at Pacific International Livestock Exposition, Portland, Oregon.

The film slide, a more recent type of visual aid, is rapidly becoming one of the most popular. The department has worked out plans whereby these film slides can be produced on the Oregon State College campus at a very low cost. During the past few years five filmstrips have been produced covering the fol-

lowing subjects: County Agent Work in Benton County, Artistry in Dress, Irrigation in the Willamette Valley, Thinning out, Pruning, Marketing and Production of Oregon Prunes.

It is hoped to develop plans now under way which will make it possible to bring television to the use of radio programs broadcast over KOAC through the use of the film slide. This plan known as the "Ohio Plan" when completed will result in great financial saving in transportation costs of speakers who heretofore have had to travel into the various counties, while by this method through the use of a radio set their lecture over the radio will be picked up at various meetings and illustrated by use of the film slide in a number of meetings given at the same time in a number of different counties.

An Opinion

A recent issue of *The Visual Talkie* gives the opinion of a leading educator on the value of talking motion pictures. Dr. Henry Johnson, professor of history at Columbia University, in an address before students of education at Teachers College, predicted that within ten years sound films would be as common in schools as libraries are now.

The Use of Foreign Talking Films in Language Instruction

IRA M. FREEMAN

A NUMBER of high schools, colleges and universities are now using regular theatrical foreign talking films as a supplementary part of their instruction in modern languages. With the universal adoption of the sound film, and the increasing availability of foreign product, language instructors and educators have begun to realize that such films provide a highly effective medium for the teaching of a foreign tongue.

Periodic attendance at foreign sound-film showings offers the intermediate and advanced language student advantages which cannot be supplied by any other form of classroom instruction. Perhaps the greatest advantage is that of giving the student an opportunity to hear native pronunciation of the language; he hears the tongue spoken by a number of characters, and can thus evaluate personal peculiarities of pronunciation and diction, enabling him to discover the true norm. It is often possible, too, to follow the lip movements of the players, and observe the method of producing the various sounds with the organs of speech.

But there is a wider aspect of the matter. Learning a new language implies more than merely acquiring facility with words,—it should mean the assimilation of a new culture. The language of a country is inseparably connected with the customs and usages peculiar to that nation. The foreign film offers the student a language in its natural setting; he hears the language from the lips of players clothed in their national costumes, against a background of scenes characteristic of that country. No amount of classroom instruction can supplant these vivid impressions, which maintain the student's interest and demonstrate to him the practical, living qualities of the tongue he is endeavoring to master.

Experience has demonstrated that films for instructional showings should be chosen with exceptional care, and that certain qualities must be demanded if the film is to serve its purpose with maximum effectiveness. In the first place, only those pictures which involve considerable dialog can be used advantageously. The plot should, in the main, be "carried" by the dialog. In this connection it must be mentioned that secondary effects,—gestures, facial expressions, situations,—aid even those who are unable to grasp the speech portions in their entirety to supply the non-understood passages. The desire to follow the plot at all costs is a valuable incentive in this case, and is one of the advantages of regular theatrical films for the pres-

ent purpose. For this reason, the entertainment value of a film is an important consideration.

It is hardly necessary to emphasize the fact that films involving a large amount of dialect, or other corruptions of the language, should not be considered. Their use will serve only to confuse the student. For example, German films replete with Bavarian dialect, or Italian pictures containing a large proportion of Neapolitan idiom should not be chosen. There is now sufficient product obtainable—in the more popular languages, at least—so that a fair selection of films measuring up to the proper standard is available without too much search.

The educational use of so-called "versions", i.e., pictures produced in a language other than that intended for the original script and cast, is to be discouraged. It is not unusual, for example, for German studios to make French, English, Italian and even Hungarian versions of some stories, after completing the German continuity; and this is often done with the original German cast. These films, the writer has found, are generally considered unsatisfactory, both by educators and by theatrical exhibitors, and their use for instructional purposes is certainly not recommended.

Relative to the type of story considered most suitable for language showings, it has been found that wholesome comedies and comedy-dramas are most in demand. Historical dramas, which thus serve a double instructional purpose, are also in general favor.

It is of prime importance that the film used be in perfect condition, and that the sound reproducing apparatus be of good quality and properly operated. Unless this is the case, a certain proportion of the spoken words, from their very nature unfamiliar to the student, will not be understood. Faultless sound and picture projection relieves the spectator of much distracting effort and nervous tension, and enables him to devote his entire attention to the assimilation of the material presented.

The actual plan to be adopted for conducting a language instruction series depends, of course, on such factors as the number enrolled, the facilities available, and so on. The following scheme has been found best adapted to the needs of most schools:

If the institution possesses sound projection equipment, the showings can be given in a lecture-hall or auditorium of the school. The students are

(Concluded on page 47)

The Educational Museum

(Continued from January)

ARNOLD W. REITZE

THE operation of an educational museum by some co-operating agency of the school is also a possibility. The two institutions in a city most likely to consider such a proposal are a library department, which is not an integral part of the school system, and a regular museum. There may be some difficulty in establishing a real educational museum in connection with an independent library or museum. This is especially so in the case of a library which would consider an educational museum as merely one phase of their work. In all fairness the project might be so considered, as the library has nothing particularly to gain. It would mean that the funds of the library must be divided and shared with the educational museum and this may mean that the museum would receive only such money as the library felt it could spare. Furthermore, a library is organized mainly for the purpose of circulating books and for reading at the library, which in many ways totally differs from the purpose of the educational museum. To add an educational museum to a library would require additional workers and also certain highly skilled artisans if it were to include the building of models and similar aids. In view of this it is doubtful whether a library department would care to assume the additional responsibility of an educational museum. There may also be some difficulty due to a lack of understanding as to the fundamental principles of an educational museum, by the two governing bodies, namely, the school authorities and the library authorities. It would be a case of divided authority, which is not particularly advantageous in a school system.

There are, however, a number of highly successful educational museums which have been established as an adjunct of a library department, such as at Erie, Pennsylvania, and Kalamazoo, Michigan. Where there is no possibility of a city establishing a separate department it is well worthwhile to co-operate with the library for the establishment of such a museum.

Another co-operating agency which may be induced to establish an educational museum is a regular museum in the city. An educational museum as part of a well organized museum offers many possibilities as difficultly as they have an abundance of extra material the co-operation between the museum and the school can be made mutually beneficial. A museum can usually establish an educational museum without much which can be readily set up in a special section. They also have the necessary skilled workers needed to effectively set up the material. With a museum it is usually a matter of the educational authorities seeking their co-operation and working with them by suggesting suitable material to be set up for exhibits. It

may also be a matter of assisting in financing the educational museum section, which may be more advantageous for the city than to attempt to establish a separate department within the school system. The primary advantage of co-operating with a museum is the fact that they usually have the needed material as well as the working organization necessary to use such material to the best advantage.

It is also possible for the schools to use the full facilities of the museums in addition to the educational section. This may mean a considerable saving to the school system even though it contributes to the financing of the educational museum. There may be some difficulty in working out a satisfactory arrangement between the school and museum authorities, but as most museums are extremely willing to co-operate with the schools, in so far as possible, this difficulty should be easily overcome. On the whole, the museum seems to be in a much better position, than is a library, to co-operate with the schools in the establishment of an educational museum. The museum has much to gain through the continued good will of the children whom they may interest in the museum exhibits and it offers them a splendid opportunity of presenting the museum to the public through the school children. There are a number of outstanding museums in the country which have done extremely fine work in co-operation with the schools, such as, the American Museum of Natural History of New York City, and the Commercial Museum of Philadelphia.

Regardless of the type of organization of an educational museum, be it a separate department of the school system or part of a cooperating agency, there are numerous functions which it can perform for the benefit of the schools. Some of these services are such as can be given by museums in general as well as by educational museums, although there are certain functions which are particularly suitable for an educational museum. Some of the more important functions of an educational museum will be briefly discussed. Some of the described activities of an educational museum may not necessarily fall to the educational museum under all types of organization nor will all of the functions be part of an educational museum in certain types of organizations. However, the functions which are described are those which are performed by certain outstanding museums throughout the United States. Such services usually fall into two divisions of intra-mural and extra-mural service, or service at the museum and outside of the museum.

An important phase of the work of an educational museum is the acquiring and preparation of models and exhibits of many types and forms. At the edu-

ational museum center there should be set up such exhibits as can not readily be transported to the schools but which can be shown to the best advantage at the center. These include scale and full size models of machines, habitat groups, and panoramas and dioramas of many kinds. Such exhibits as are set up at the center should be arranged, at all times, from the viewpoint of the child. The educational museum must also collect and make up such models as can be circulated to the schools for the direct use of the pupils. The distribution of such models and exhibition cases can perhaps best be handled by the department of visual aids delivery service, or in the case of a library, by the library delivery service.

The building of models and exhibits at all times requires careful work and only well built and assembled models or exhibits should be used. Whenever possible, models and exhibits should be built to full scale and carefully executed as to color and form. They should represent as nearly as is possible the actual object or scene after which they are modeled. They should, also, be arranged in as naturalistic and realistic setting as it is possible to obtain, through the use of carefully reproduced panoramas or dioramas and through skillful use of artificial lighting effects. This is especially true in the case of habitat groups which is probably the most effective method of displaying animals, and birds. Through a well executed habitat group, it is possible to study not only the particular animal, but also the section of the country which it inhabits, the form and type of plant and smaller animal life related to the main group, the topography of the country, and many other valuable points. The use of full scale models for this type of work is highly desirable and should be used whenever convenient and economically possible.

When scale models smaller than full size are used, it is usually more important to ascertain that the general plan of the model is faithfully reproduced than it is to have all of the details included. This is particularly true in the case of models representative of historical or geographical scenes where extreme attention to detail may distract from the observation and understanding of the model as a whole and in its relationship to the scene it represents. This is especially the case of models which are to be used by young children whose power of concentration is not particularly high, and to whom much of the detail of a carefully constructed model would be lost. In such models the panorama and diorama as well as skillful use of artificial light can also be used to great advantage. In all scale models it is extremely important that the scale be clearly indicated and that the person viewing the model fully realizes that the scale is either smaller or larger than the actual object.

In preparing scale models, such as of insects or parts of the body, which may be larger than actual size, care must be exercised that all parts of the

model are enlarged proportionally in order that there may be no misinterpretation of the model. In the matter of coloring, care also must be taken if the model is to serve its purpose effectively. If it is necessary or desirable to use other than natural color to emphasize certain parts of the models, such color should be clearly indicated.

The matter of lighting should be given very careful consideration as it is possible to greatly heighten the effect and to increase the interest and educational value of an exhibit through a skilful use of artificial light. Whenever possible such lights should be of the concealed type. With the proper lighting the illusion of depth, which is often highly important, can be greatly increased and a much more realistic exhibit can be achieved, than if the exhibit depends upon natural light. Furthermore, artificial light is much less injurious to most materials used in creating an exhibit and as artistically created exhibits are expensive, such consideration is of importance. Artificial lighting should also be considered for certain exhibits which are to be circulated to increase their interest and educational value.

On the whole, the criteria for setting up exhibits, particularly such large exhibits which are placed in the educational museum center, should be quality and faithful representation rather than cheapness and quantity production. A few carefully executed models and exhibits are of greater educational value than a large number which do not faithfully represent the subjects they are to show. Again, a poorly made model or exhibit may easily give a child a false impression of a subject, which it may be rather difficult to change. Every model and exhibit which the educational museum places on view at the center or which is sent out should be the best which it is possible for the museum to obtain, all factors entering into the matter being considered.

(Concluded in March)

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GOVERNMENT ACTIVITIES IN THE VISUAL FIELD

CONDUCTED BY MARGARET A. KLEIN

Industrial Exhibits

IF ONE should doubt the effectiveness of visual presentation of facts, I should suggest that he defer his final decision in the matter until he has had an opportunity to visit the exhibits in the Arts and Industry division of the Smithsonian Institution of Washington, placed there by the various industries and manufacturers.

For here can be seen in miniature complete layouts of basic industries with each step in the process of manufacture consecutively numbered and labelled so that the entire process can be easily followed. In fact, a short visit will enlighten the student on a number of industries in considerably less time than it would take him to make a single tour through an actual plant.

The models are beautifully made to scale and in complete detail with roads, railroads, docks, boats, buildings, pipe lines, workman, and many other details too numerous to mention. The size of the models is generally 12 feet square and many of them are in glass cases. The ground line of the models is usually about three feet from the floor of the museum so that the entire model is conveniently visible.

In two places the visitor to the museum will find complete sections of a mine reproduced. One of these models is a section of a coal mine while the other is a section of a copper mine. The models are so realistic that it is like visiting the mine itself.

A student in a geography class learns that gold is mined but after a visit to the museum he knows that there are several ways in which it is mined, according to a very interesting model showing the various processes. The first process is that known as the hydraulic process in which powerful jets of water are driven against the side of the hill thus washing down the earth and rock in which the gold dust and nuggets are found. This dislodged earth is washed down to a pool where it is held until a panning operation removes the gold.

At the opposite side of the model we find a replica of placer mining by hand panning of the waters of a small stream. The panning operation is simply scooping up a pan of sand with water from the bottom of the stream, the sand being gently washed back and forth in the pan until the lighter earth is flushed away leaving the shining gold dust in the bottom of the pan. The gold being heavier than the earth will always stay at the bottom of the pan.

In the center of the model will be seen a river with a dredge handling the gold bearing earth in a wholesale quantity. This is the method used today in

California for these dredges make profits from very low grade sands. On the top of the hill to the left one can see the process of deep mining where the quartz rock is blasted out, broken up in a crushing mill and passed through a cyanide process to recover the gold.

At another place in the museum you will find a small model of a deep mining operation in gold bearing sands in Alaska. A shaft is constructed and the sand is dug out and hoisted to the surface where it is stored above ground during the winter months and it is not panned until summer when water is available.

Another interesting mining exhibit is that of the copper mining, the gift of the Utah Copper Company, Bingham, Utah. It shows a mountain which is three miles around the base and one-quarter of a mile high. A placard with the model informs us that it is the greatest ore producer measured by tonnage of any mine in the world. Another placard states that in 1917 when the model was prepared the mine had been in operation for ten years and had produced a total amount of copper sufficient to make a telegraph wire that would go around the earth 500 times. The mountain was terraced and in various places small houses had been added to the model which added interest to it.

• Another interesting copper mining model is that of the Copper Queen Mine at Bisbee, Arizona, operated by Phelps, Dodge and Company. In a small model of a cube representing a 200 foot block of earth deep underground, a certain stope is marked which is shown nearby in a full sized model, actually taken from the mine and built into the museum. Here one can see actual ore faces, timbering, and tools, and overhead is a miner digging out the ore.

The other full sized model mentioned in a previous paragraph, is a section of a bituminous coal mine showing the entry which is the main haulage way connecting the room of the mine with the shaft leading to the surface. The installation is not yet complete but there is enough of it to show just how the entry of a coal mine is constructed.

This model is part of a very comprehensive exhibit dealing with the coal industry which occupies an entire room and shows in addition to the actual mining, equipment used by miners, various grades of coal, charts indicating the coal resources of the world and a frieze of transparencies depicting the evolution of coal from turf through peat, lignite, sub-bituminous, bituminous, semi-bituminous, semi-anthracite, anthracite, graphite-anthracite and graphite.

(Continued in March)

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Boston University Second Semester Visual Courses

"Leading Movements in Education" is the name of a new course created for school teachers by Harvard-Boston University Extension Service, and includes the advantages made possible by the use of the new teaching aid, the sound motion picture. It is an unusual exploratory course to new students of education in that it presents the various specialty fields available for study. To teachers in service it brings some of the latest developments in the field of education.

Many outstanding educators will present their viewpoints in the field of their specialty, illustrated with sound motion pictures, which realistically bring controlled situations before the audience.

The method to be followed in conducting this course includes the presence of a leader selected, from Harvard University or Boston University Schools of Education, as an exponent of the subject to be discussed at the particular meeting. It will be the leader's task to prepare the teachers for the efficient use of the film. He will introduce the subject to be considered and direct attention to principles and practices, explained and illustrated by the film lecturer and the motion pictures. After the film is shown the leader will answer questions aroused by the film; will discuss the subject matter more thoroughly; will bring the most recent developments in the field before the teachers and will offer assignments for further reading.

This course will be offered to the teachers of the Quincy, Mass., Public Schools on Thursday afternoons at the Senior High School Building from 4:15 to 6:00 beginning February 9th.



"Visual Education—Management" will be conducted by Mr. Abraham Krasker, Director of Visual Education, Quincy Public Schools. It will include: Selection of materials, methods of filing and distribution, planning buildings, training teachers to correlate the materials with the courses of study; methods of use; financing; operation, upkeep and repair of machines; screens; safety vs. inflammable films. Each teacher prepares for the use of visual aids in the classroom and for the management of a visual aid program for a school system. A few trips to organized departments of Visual Education will be arranged.



"Nature Study for Elementary School Teachers," under Professor Earle Brooks, is primarily a subject matter course for teachers of the elementary schools.

Methods of teaching with use of motion pictures will be discussed and demonstrated, and many one-reel nature study films used.

New York Visual Division Resumes Slide Service to All

In response to the hundreds of letters received from schools desiring continuance of the slide service, the New York State Education Department has decided to restore to the Visual Instruction Division part of the staff which was not provided at the beginning of the school year because of the financial situation. With this added help the Division is again able to lend slides to all schools in the state on the usual one-week period.

With the staff reduced 30% in September the Division had to confine its loans to schools that had classes registered to use slides intensively and systematically in classrooms provided with standard lantern equipment, denying the service to approximately 1200 schools that used slides now and then as a purely supplementary aid in teaching and for special exercises.

Because of the small staff and limited supply of slides, however, principals are cautioned to supervise visual instruction with a view to making it a positive educational aid rather than a means of occasional entertainment.

Another "Talking" Experiment

Dr. C. C. Clark of the New York University School of Commerce has announced the results of his two-year study of the value of talking motion pictures in instruction. Dr. Clark and his associates conducted experiments on 1200 students in the course in general science who were unaware of the investigation. The purpose was to determine the relative values of sound and silent pictures and lecture demonstrations as a means of conveying concrete knowledge or information, for developing the ability to think and to reason more soundly, and for stimulating and maintaining interest.

The study showed that when the picture is of the news-reel type and an unseen "voice" accompanies the picture, it is not as effective as a silent picture with printed captions. However, Dr. Clark found that sound films of the type in which sound is a vital and realistic part of the picture are as effective as are identical lecture demonstrations in conveying information.

In spite of Dr. Clark's conclusions concerning the high value of silent pictures and of lectures, he believes that sound films, carefully prepared and having a technical excellence equal to those shown in the theaters, will prove to be a very important adjunct in schools. Dr. Clark's findings will be put to use at New York University in developing a special series of talking motion pictures for use in instruction in the outlines of science course in the School of Commerce.

Pictorial History of Iowa

The Visual Instruction Service of Iowa State College is collecting material for a number of lantern slides showing the industries of Iowa, and is interested in obtaining illustrations of the history of the state. Anyone having pictures that might be of value is urged to communicate with the Visual Instruction Service. Plans are being made so that the pictures may be copied, thus insuring prompt return of all illustrations.

Similar movements are on foot in other states, such as Kansas and Wisconsin, reports of which appeared in previous issues of THE EDUCATIONAL SCREEN.

D. A. R. Film Activities

The Motion Picture Committee of the National Society of the Daughters of the American Revolution in New York State makes varied and frequent use of motion pictures, especially since the advent of the 16 mm. film, according to a report in the January issue of the *National Board of Review Magazine*. They have compiled films, showing activities of D. A. R. committees, and patriotic celebrations in Washington at the D. A. R. Congress for screening at chapter meetings.

Gifts of motion picture outfits have been made to two mountain schools founded, operated and controlled by D. A. R. members. Pictures taken at these schools are shown with resulting interest of members of the Society in the splendid type of American mountain children, and the instruction in agriculture, home-making and organized recreation which is given to them at these schools.

Because the impression made upon children by teaching films has been demonstrated by many tests, it is the plan of the Approved Schools Committees to institute a teaching film lending library for the use of the mountain schools on the D. A. R. list of approved schools.

Two films have been purchased: *Baby Beavers* for nature study, and one of the American Statesman series for history and civic interest. These will be held by each school on the list for a certain period and used as an aid to the teaching of these subjects then passed to the school next on the list, keeping up the chain of film study.

Virginia Adds to Visual Collection

The latest additions to the library of visual teaching aids acquired for the Virginia schools by the Extension Division of the University of Virginia, are two new and complete sets of the Yale Chronicles' of America Photoplays in 16 mm. size. These historical subjects have been circulating throughout the state heretofore only in the standard 35 mm. width. Supplementary teaching materials for each picture are also included.

Included in the University's collection of picture materials, begun only recently, are several excellent groups of slides on nursing education, Alaska, Norway and the Virginia caverns, and commercial and historical subjects. For art appreciation there are five exhibits of famous paintings.

Use of Foreign Talking Films

(Concluded from page 42)

asked to pay a nominal admission fee to defray the rental and operating costs. Certain language departments allow their students class credit for attending such showings, and at the class meeting following the performance, conduct an oral or written quiz on the vocabulary embodied in the film.

Students and faculty members in other departments may be admitted at these performances, resulting in additional profit to the department conducting the showing. If others are to be granted admission, it is advisable to give considerable attention to publicity, both by means of displays and announcements in the campus publications.

If a sound projector is not available, it is often possible to arrange with the owner of a theatre near the campus to run a special showing at some hour of the day when his house is not in regular use. This generally implies a degree of perfection in sound, projection, and seating facilities not attainable in a lecture hall with the commonly available portable equipment.

In a recent article on "Foreign Films at the University of Washington,"* Mr. Glenn Hughes has enumerated details of his own foreign language film program, which is now in its sixth year of successful operation. While the showings at the University of Washington are not primarily for purposes of language instruction, Mr. Hughes points out that the members of the French and German classes in the high schools and colleges in Seattle have contributed much to the support of these programs. It is interesting to note that a net gain of more than a thousand dollars a year is realized on this series, and this profit is appropriately employed in supporting University publications and libraries.

*News Bulletin, Institute of International Education, New York. VIII, No. 1, pp. 6, 7, Oct. 1932.

FILM PRODUCTION ACTIVITIES

The aim of this new department is to keep the educational field intimately acquainted with the increasing number of film productions especially suitable for use in the school and church field.

RCA Starts 16mm Sound-on-Film Library

An important step toward the further development of the non-theatrical sound motion picture field, has been made with the announcement of the creation of an extensive 16 millimeter sound-on-film library by the RCA Victor Company.

The Camden recording laboratories are now actively engaged in building up a considerable catalog of different subjects under the general classification of Detective Stories, Aviation, Natural History, Sports, Travelogues, Comedies, Music Appreciation, Animated Cartoons and others. Recently, Burton Holmes Lectures, Inc., announced that it would begin the immediate production of 16 millimeter sound-on-film pictures for non-theatrical exhibition. The creation of the new Camden library together with the potential output by Burton Holmes from an extensive and important library of 7,000,000 feet of negative, is expected to provide an important incentive to schools, churches, clubs and lodges, as well as homes, to provide themselves with the equipment for utilizing the wealth of material which is being made available to them.

The RCA library films, which will run approximately 400 feet of film to the reel and provide eleven minutes of playing time, are to be sold direct to dealers in the various cities who will set up and maintain their own libraries for the purpose of either renting or selling the films in their localities. According to RCA Victor officials, new subjects will be released periodically and the scope of the library greatly enlarged as the market develops.

An Industrial Subject

Copies, an unusual educational motion picture on the operation of the mimeograph, has been recently completed and released for circulation in the non-theatrical field. The important part the mimeograph plays in the efficient and successful operation of both business and educational institutions is graphically illustrated by actual demonstration scenes showing the many uses of the equipment.

Extensive views taken in Japan show the manufacture of long fibred stencil paper, a vital factor in the mimeograph process. The film follows the hand processing of the paper from the pulp of the kozo tree, which is found only in the mountainous plateaus of Japan, to the delicate, yet durable completed product.

Every type of mimeograph, from the hand operated

to the automatic, is shown in operation, illustrating the tremendous speed with which copies of many kinds of printed matter are made. The picture excellently portrays the value of the mimeograph in schools, and illustrates how time and money can be saved in the printing of programs, lecture notes, maps, and any kind of line drawing for classroom use.

The film is available to all educational institutions in both 16 mm. and 35 mm. widths and is one reel in length. *Copies* was sponsored by the A. B. Dick Co., but is available directly from the producer, Atlas Educational Film Co., Oak Park, Ill.

Milk Association Production

Modern Milk, a one-reel 16 mm. silent film on the history, packaging and uses of evaporated milk, is being widely exhibited by schools throughout the country.

The reel has historical shots of the caveman and his milk goat, of Nicholas Appert, the French experimenter of Napoleonic days who was the first to discover a process for preserving milk, and of the operations in a modern evaporated milk plant. There are a number of animated drawings that clearly explain some of the more complicated processes. The balance of the picture concerns infant feeding with evaporated milk, and its use in the kitchen. There are mouth-watering closeups of foods being prepared.

A report has reached us that the film has already been enthusiastically received by a total audience of 269,677 in 1,642 school showings. The prints can be obtained free by writing to the Evaporated Milk Association, Chicago.

Prepare Near East Film

An educational motion picture, produced throughout Egypt, Persia, Palestine, Iraq, Turkey and Syria, is being prepared for release by the Oriental Institute of the University of Chicago. It is expected that one of the large distributing companies will handle a theatrical version of it.

Mentor Pictures to Import Films

A new company, Mentor Pictures, Inc., was recently incorporated for the purpose of importing scientific, educational, novelty and feature motion pictures from Europe. Temporary offices are at 220 West 42nd street, New York.

Dr. N. I. Stone, New York, is treasurer of the corporation. Joseph L. Young is secretary, and W. E. MacKee is vice-president. All have been active previously in the industry. Hans von Fraunhofer, of

(Concluded on page 52)

DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

Pennsylvania State Education Association Program

The Visual Education Roundtable and the Science Section of the P. S. E. A. met in joint session in the State Museum auditorium, December 29. E. O. Morrison, Vice President of the Science Section, presided.

The following program was rendered:

I. Object-Specimen-Model Collection as developed for use in the schools by the State and City Teachers Colleges—

Professor Wilber Emmert, State Teachers College, Indiana, as the representative of the various institutions, explained that the purpose of the collection was to assemble and have on hand materials that teachers could readily use when occasion demands. He called attention to the prevalence of verbalism and stated that the use of these materials in connection with instruction will give children correct initial concepts, and arouse the principle of self-activity. Most of the materials contained in this collection were assembled without cost; the others, at very little cost. It is hoped that this may serve as a model and that every school in the State will have a collection by this time next year.

II. Some Uses of Visual Aids in Teaching the Social Studies—

Doctor H. H. Shenk, State Archivist, stressed the value of original source materials in visualizing the teaching of history. He used the Charter of King Charles II to William Penn, the Charter of William Penn to the People, and the Indian Deeds, signed pictorially rather than by letters, as illustrations of the interest element of materials that can be seen and handled. He pointed to the Museum Collections, especially the evolution of lighting, the evolution of transportation, the evolution of the arrow, fish hook, and utensils as the Indians fashioned them, as materials that enrich and vitalize history in a way that the printed or spoken word cannot.

III. Demonstration of Microprojection Apparatus—

Doctor Georg Rømmert, Munich, Germany, as part of his demonstration projected on the screen bacteria as found in a drop of stagnant water, drinking water, on a stone, a piece of

moss, a root of water plant, and a piece of cheese. He showed the actual breeding of a snail from the embryo to the full grown snail, and the mites in cheese as they roamed about unseen to the naked eye.

IV. The Revised Course in Chemistry—

Professor David Pugh, Pennsylvania State College, gave a comprehensive outline of the revised course in chemistry which will soon be printed by the State Department of Public Instruction.

V. School Journeys in the Field of Science—

Doctor John A. Hollinger, Director of Science and Visual Education in the Pittsburgh Public Schools, pointed out the values of school journeys in the various fields of science and used slides and films to show activities in the field of Nature Study and a technique for school journey use generally. He referred to the opportunities for teachers in the courses that are given at State College, Slippery Rock State Teachers College, and other such institutions.

VI. Business Session (Wilber Emmert, presiding)—

The following officers were unanimously re-elected: President—James G. Sigman, Philadelphia; Vice President—L. Paul Miller, Scranton; Secretary—C. F. Hoban, Harrisburg.

Massachusetts Program

The meeting of the Massachusetts Branch of the Department of Visual Instruction was held February 11 at the Brookline High School, as announced in the January issue of THE EDUCATIONAL SCREEN. We are glad to give below a copy of the program which has just been received.

Morning Session (Abraham Krasker, Presiding)

Address of Welcome—Mr. Ernest R. Caverly, Superintendent of Brookline Public Schools.

Music—By a Sound Motion Picture—"The String Choir."

Address—"Result of Experimental Investigation of the Teaching Value of Sound Motion Pictures"—Dr. Phillip J. Rulon, Instructor in Education, Harvard University School of Education.

A Science Film, "Oxidation and Reduction"—a Sound Motion Picture. Produced by Chicago University.

Address—"Measuring the Effectiveness of Sound

Pictures as Teaching Aids"—Dr. V. C. Arnspiger, Director of Research, Electrical Research Products, Inc.

The afternoon session was devoted to an exhibition of Teaching Aids in the classroom and also a commercial display of machinery, equipment and material useful to the teacher.

Chicago Branch Meets

The Second Meeting of the Metropolitan Chicago Visual Education Association, affiliated with the National Education Association, Department of Visual Instruction, was held Saturday, February 11, 1933, from 10 A. M. to 3 P. M., at the McCormick Branch of the Young Women's Christian Association.

All persons interested in the wider and more effective use of lantern slides and motion picture films in schools, churches, clubs, and public libraries, were invited to be present. The program included the following:

Forenoon Session at 10:00 A. M.

Dr. H. Ambrose Perrin, Superintendent of Joliet Public Schools, presiding.

- 1. Opening remarks by the President.
2. Address and Demonstration: "Slides Made in the Class Room"—Miss S. Naomi Anderson, Visual Instruction Department, Chicago Board of Education. Discussion.

3. Address and Demonstration: "Teaching Primary Reading with Lantern Slides"—Miss Marie E. Cuddy.

4. Business Session.

Luncheon at 12:00 Noon

Paul G. Edwards, Visual Instruction Department, Chicago Public Schools, Presiding.

Short Talks at Lunch

Topic: "Some Progress Observed in Visual Instruction"

Speakers—Dr. Dudley Grant Hays, Miss Stella E. Myers, Nelson L. Greene.

Afternoon Session at 1:30 P. M.

Dr. Perrin, Presiding.

5. Address: "How a County Superintendent Uses Educational Motion Picture Films"—W. C. Petty, County Superintendent of Public Schools, Waukegan County, Illinois.

6. Address: "Teaching Dental Health by Play Project Method"—William F. Kruse.

A projection of the film "Grandfather Molar," loaned through the Courtesy of the Chicago Dental Society, will be made.

7. Address: "University Program of Educational Talking Pictures"—Dr. Frank N. Freeman, School of Education, University of Chicago.

A projection of some of the sound pictures made with the co-operation of the University of Chicago will be made.

Membership Application Blank

Office of the Secretary, Department of Visual Instruction, 1812 Illinois Street, Lawrence, Kansas.

Date.....

I herewith make application for [] Active [] Associate [] Institutional [] Contributing Membership in the Department of Visual Instruction of the National Education Association, combined with the National Academy of Visual Instruction, covering the period of one year from date.

Check below the preferred date for payment of dues. [] Remittance attached [] First of next month. []

Name

Position

Residence

City and State.....

I am [] a member of the
I am not [] National Education Association

Note: Make checks payable to the Department of Visual Instruction.

Special Visual Department Meeting in June

The two-meetings-a-year practice of the national visual instruction organizations in the past will be changed for 1933. The usual February meeting will be combined with the summer meeting, and will be held concurrently with the summer session of the National Education Association at Chicago next June. This concentration of effort should mean a still more significant program than at preceding semi-annual sessions.

Film Production Activities

(Concluded from page 50)

Fraunhofer and Company, Berlin, is European representative of Mentor, with offices in Berlin, Hamburg, Budapest and Vienna. He is also general manager of Photochrome Company, Inc., which controls the Wolfe-Hiede process of natural color production in both 35 and 16 millimeter.

The first releases of Mentor Pictures in the educational and scientific fields will be available March 15. Sound tracks for the American market will be recorded in New York. Silent versions will be edited by Thomas Hogan, formerly with Pathe Audio Review, who also will be in charge of all recording.

THE FILM ESTIMATES

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

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

Afraid to Talk (Eric Linden, Sidney Fox) (Universal) Politics at its rottenest, with gang murders, brutal third degree stuff, framing of the innocent, conscienceless double-crossing. Contemptible characters made glamorous. Ugly, depressing, proves nothing, offers nothing. Pure sensationalism running amuck.

A—Depends on taste Y—Probably bad
C—Very bad

Billion Dollar Scandal, The (Robert Armstrong, Constance Cummings) (Para.) Tough jail-bird hero and pals, talking gutter-English—wealthy, crook-politician and his ring doing a government off swindle. The boss ruins hero to end love-affair with his heavy-drinking daughter. Hardly a reputable character or action throughout.

A—Hardly Y—Better not C—No

Bitter Tea of General Yen (Barbara Stanwyck, Nils Asther) (Columbia) East vs. West romance laid in Shanghai during recent warfare. Beautiful missionary girl falls into power of philosophical Chinese General. Each learns how different are their viewpoints and he commits suicide as only solution. Excellent work by Asther.

A—Rather good Y—Doubtful C—No

Central Park (Joan Blondell, Wallace Ford) (First Nat'l) Lively romantic melodrama about boy and girl from the country, meeting by chance in Central Park, drawn into a series of exciting adventures that finally turn out happily. Hilarious, improbable hokum but human enough to be really amusing.

A—Good of kind Y—Amusing C—Amusing

Death Kiss, The (Bela Lugosi, David Manners) (World Wide) Easy-going detective story, wholesomely thrilling and romantic, with no vulgarisms lugged in. Star la murdered in midst of a Hollywood production. Rather engaging hero smoothly solves mystery which baffles the dumb Inspector. Good light entertainment.

A—Good Y—Very good C—Good

Frisco Jenny (Ruth Chatterton) (First Nat'l) Fine work by Chatterton as cabaret-courtesan in old Frisco, costumes of the '90's. Climaxed by disreputable mother heroically keeping her identity secret from her illegitimate son, who becomes unknowingly her prosecuting attorney. Seamy, tragic, depressing.

A—Good of kind Y—Unwholesome C—No

Hello Everybody (Kate Smith) (Paramount) Wholesome, simple, realistic little picture exploiting Kate Smith and her radio songs. As leading spirit in her native farm community Kate wins fight against water company through her success on the radio. Interesting chiefly for her particular radio public.

A—Hardly Y—Good C—Good

Hot Pepper (Lupe Velez, Edmund Lowe) (Fox) Lupe good as impetuous, very unconventional little Spanish cabaret-dancer. Usual wrangling roles by Lowe & McLaglen with booze-racketeering and night club life as background. Mostly same old stuff with risqué dialog and cheap English.

A—Mediocre Y—Better not C—No

Kid from Spain, The (Eddie Cantor) (U. A.) Semi-musical, nonsense comedy made expressly for the Cantor public. Hilariously ridiculous bull-fight, usual bathing beauty chorus, and incessant wisecracks sometimes risqué but given in brisk, burlesque manner probably harmless. Striking dance ensembles. Very funny for those who think so.

A—Depends on taste Y—Amusing C—Exciting

King's Vacation, The (George Arliss) (Warner) A very modern king, hating royal pomp, approving revolution, abdicates throne and queen to resume life and love as he knew them twenty years before. Poignant disillusion, and the queen proves his true love after all. Subtle, restrained, charming.

A—Excellent Y—Very good C—Beyond them

Laughter in Hell (Pat O'Brien) (Universal) Sensational concoction of low-life family feud, vulgar sex stuff, and revolting chain-gang tortures. Crude hero unknowingly marries cheap wanton—kills her and her lover. Finally, after murdering three people, hero finds new love and happiness.

A—Trash Y—Unwholesome C—No

Estimates are given for 3 groups

- A—Intelligent Adult
- Y—Youth (15-20 years)
- C—Child (under 15 years)

Bold faced type means "recommended"

Man Against Woman (Jack Holt) (Columbia) Underworld drama with Holt as topnotch detective who carries no gun but an incredibly potent fist. In rather original climax he wins out with the heroine over villain and handsome young crook-rival. Villain well played by Walter Connolly.

A—Hardly Y—Perhaps C—Hardly

Men and Jobs (Russian cast) (Amkino) More propaganda—slow, ponderous, but very earnestly acted. Supposedly shows Russian progress under Soviet rule in learning to use modern machinery. Glorifies the steam shovel and Russian efficiency in its use. Mildly interesting as usual.

A—Perhaps Y—Hardly C—No

Men of America (Chic Sale, William Boyd) (RKO) Over-violent picture of gang-methods, machine-gun murders, and activities of vigilantes in peaceful little California valley. Supposed to show how sound citizenry will crush gangsterism when it gets too rough.

A—Hardly Y—No C—No

Monkey's Paw, The (Louise Carter) (RKO) Horror picture about the superstition that a monkey paw will grant wishes but the wisher will inevitably regret the wish. Resultant gruesome tragedies are the main feature of the hodge-podge.

A—Worthless Y—By no means C—No

Nazana (Melvyn Douglas, Tale Brell) (Universal) Conquest of sleeping sickness in the supposed theme. Sensational and highly improbable hash of medical heroism, pseudo-science, gory battles of wild animals, weird jungle superstitions and ceremonies, labored romance—all laid in darkest Africa.

A—Hardly Y—No value C—No

No Living Witness (Gilbert Roland) (Mayfair) Villain swindles simple-minded racetrack gambler, but is killed by husband he has outraged, and so the young people can get married after all. A dictaphone does the most praiseworthy work done by the cast. Just another movie.

A—Mediocre Y—Hardly C—No

No More Orchids (Carole Lombard, Lyle Talbot) (Columbia) Well-acted society drama showing close family ties quite laudably. Much casual drinking, unconventional conduct by heroine, and dialog heavily smart and wise-cracking. Heiress-pauper-prince triangle. Louise Clouser Hale excellent as ultra "modern" grandmother.

A—Perhaps Y—Unwholesome C—No

No Other Woman (Irene Dunne, Charles Bickford) (RKO) Irene Dunne only redeeming feature in sordid story of rise of hard-boiled steel-worker from mill-town to wealth and back again. Hero too crude for heroine's devotion to be credible. Wholesale perjury at divorce trial big feature.

A—Mediocre Y—Better not C—No

Past of Mary Holmes, The (Helen MacKellar) (Radio) Dramatic story of former opera star who lost her voice, now living in drunkenness and aqualor, known as the "Gone Woman." Seeking publicity she unwittingly involves her illegitimate son in a murder. Star gives fine performance.

A—Interesting Y—Doubtful C—No

Red Haired Alibi (Myrna Kennedy) (Tower) Small town girl la involved with gang-leader-racketeer, is innocently forced to pose as his wife, then marries the hero without telling him the past. Hence blackmail by racketeer, murder, and happy ending achieved with great difficulty.

A—Mediocre Y—No C—No

Second Hand Wife (Ralph Bellamy, Sally Eilers) (Fox) Triangle drama, with audience sympathy with the Secretary, for whom husband divorces his selfish, dissatisfied wife, thereby losing custody of his prodigy daughter—until problem is happily solved. Only mildly interesting.

A—Perhaps Y—Unsuitable C—No

She Done Him Wrong (Mae West) (Paramount) Mae West strutting, singing and slinking as the luxurious, vulgarlan night-club queen, with maximum wealth and no morals. Sex stuff in its most brazen and offensive form made as alluring as possible for the public that likes it.

A—Depends on taste Y—Pernicious C—No

Sign of the Cross, The (All Star cast) (Paramount) Costly, colossal super-spectacle with gorgeous sets and notable acting. Sufferings and heroism of early Christians finely shown but religious value submerged in glorified exposure of luxury, licentiousness, cruelty and bestiality of degenerate Rome under Nero.

A—Fine of kind Y—Decidedly not C—By no means

Son Daughter, The (Helen Hayes, Raymond Nuvarro) (MGM) Sensational, romantic, tragic melodrama of Frisco's Chinatown during Chinese war. Helen Hayes fine as Chinese fiancee of republican prince but forced to marry royalist arch-villain. Plots, murders, Oriental rites, novel and charming love scenes. Oland good as villain.

A—Good of kind Y—Probably good C—No

Strange Justice (Marian Marsh, Reginald Denny) (RKO) Good cast wasted on hodge-podge story of romance of hat-check girl and a young chauffeur of bank president, who also loves the girl and frames hero for murder. After the usual amount of suspense, the hero is rescued from the electric chair.

A—Hardly Y—No C—No

They Had to Get Married (Zasu Pitts, Slim Summerville) (Universal) Two servants fall heir to master's fortune, marry, and their efforts to adjust to new position make some excellent farce-comedy. Vulgarized by long drawn out scenes of sex and drunkenness which detract greatly from the real comedy.

A—Perhaps Y—Unwholesome C—No

Thirteenth Guest, The (Ginger Rogers, Lyle Talbot) (Monogram) Undistinguished, though at times fairly engrossing mystery with old house again the scene of murders, victim being electrocuted. Usual scare devices absent, but one or two gruesome shots. Tangled plot with many loose ends.

A—Fair of kind Y—Fair C—Exciting

Tonight is Ours (Claudette Colbert, Fredric March) (Paramount) Delft, sophisticated comedy on "queen and commoner" love affair, finely acted by whole cast and beautifully set. Engaged to marry a broad-minded prince for state purposes, the queen gives her wedding eve to her lover. Intelligently amusing.

A—Good of kind Y—Unwholesome C—No

Trailing the Killer (Lobo, the dog) (World Wide) Fine scenery, interesting animals, and many engaging bits of action—but crude story, mediocre acting, endless faking, and much gratuitous cruelty to animals make potentially interesting nature-study more harrowing than entertaining or instructive.

A—Hardly Y—Hardly C—No

Vanity Street (Charles Bickford) (Columbia) Tells the romance of gruff but big-hearted policeman who befriends desperate little chorus-girl. "Punch" is sought by adding some detective work and a stage star so mistreated by her lover that she has to kill him.

A—Mediocre Y—Better not C—No

Virtue (Carole Lombard) (Columbia) Sordid doling of cheap people with illiterate minds, dollars and sex their only thoughts. Glorifies supposed lofty love affair of wise-cracking, crude taxi-driver hero and blonde street-walker. All other girls in cast in the same business. Gutter English.

A—Trash Y—Pernicious C—No

Pictures as Teaching Aids"—Dr. V. C. Arnspiger, Director of Research, Electrical Research Products, Inc.

The afternoon session was devoted to an exhibition of Teaching Aids in the classroom and also a commercial display of machinery, equipment and material useful to the teacher.

Chicago Branch Meets

The Second Meeting of the Metropolitan Chicago Visual Education Association, affiliated with the National Education Association, Department of Visual Instruction, was held Saturday, February 11, 1933, from 10 A. M. to 3 P. M., at the McCormick Branch of the Young Women's Christian Association.

All persons interested in the wider and more effective use of lantern slides and motion picture films in schools, churches, clubs, and public libraries, were invited to be present. The program included the following:

Forenoon Session at 10:00 A. M.

Dr. H. Ambrose Perrin, Superintendent of Joliet Public Schools, presiding.

- 1. Opening remarks by the President.
2. Address and Demonstration: "Slides Made in the Class Room"—Miss S. Naomi Anderson, Visual Instruction Department, Chicago Board of Education. Discussion.

3. Address and Demonstration: "Teaching Primary Reading with Lantern Slides"—Miss Marie E. Cuddy.

4. Business Session.

Luncheon at 12:00 Noon

Paul G. Edwards, Visual Instruction Department, Chicago Public Schools, Presiding.

Short Talks at Lunch

Topic: "Some Progress Observed in Visual Instruction"

Speakers—Dr. Dudley Grant Hays, Miss Stella E. Myers, Nelson L. Greene.

Afternoon Session at 1:30 P. M.

Dr. Perrin, Presiding.

5. Address: "How a County Superintendent Uses Educational Motion Picture Films"—W. C. Petty, County Superintendent of Public Schools, Waukegan County, Illinois.

6. Address: "Teaching Dental Health by Play Project Method"—William F. Kruse.

A projection of the film "Grandfather Molar," loaned through the Courtesy of the Chicago Dental Society, will be made.

7. Address: "University Program of Educational Talking Pictures"—Dr. Frank N. Freeman, School of Education, University of Chicago.

A projection of some of the sound pictures made with the co-operation of the University of Chicago will be made.

Membership Application Blank

Office of the Secretary, Department of Visual Instruction, 1812 Illinois Street, Lawrence, Kansas.

Date.....

I herewith make application for [] Active [] Associate [] Institutional [] Contributing Membership in the Department of Visual Instruction of the National Education Association, combined with the National Academy of Visual Instruction, covering the period of one year from date.

Check below the preferred date for payment of dues. [] Remittance attached [] First of next month. []

Name

Position

Residence

City and State.....

I am [] a member of the
I am not [] National Education Association

Note: Make checks payable to the Department of Visual Instruction.

Special Visual Department Meeting in June

The two-meetings-a-year practice of the national visual instruction organizations in the past will be changed for 1933. The usual February meeting will be combined with the summer meeting, and will be held concurrently with the summer session of the National Education Association at Chicago next June. This concentration of effort should mean a still more significant program than at preceding semi-annual sessions.

Film Production Activities

(Concluded from page 50)

Fraunhofer and Company, Berlin, is European representative of Mentor, with offices in Berlin, Hamburg, Budapest and Vienna. He is also general manager of Photochrome Company, Inc., which controls the Wolfe-Hiede process of natural color production in both 35 and 16 millimeter.

The first releases of Mentor Pictures in the educational and scientific fields will be available March 15. Sound tracks for the American market will be recorded in New York. Silent versions will be edited by Thomas Hogan, formerly with Pathe Audio Review, who also will be in charge of all recording.

THE FILM ESTIMATES

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

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

Afraid to Talk (Eric Linden, Sidney Fox) (Universal) Politics at its rottenest, with gang murders, brutal third degree stuff, framing of the innocent, conscienceless double-crossing. Contemptible characters made glamorous. Ugly, depressing, proves nothing, offers nothing. Pure sensationalism running amuck.

A—Depends on taste Y—Probably bad
C—Very bad

Billion Dollar Scandal, The (Robert Armstrong, Constance Cummings) (Para.) Tough jail-bird hero and pals, talking gutter-English—wealthy, crook-politician and his ring doing a government oil swindle. The boss ruins her to end love-affair with his heavy-drinking daughter. Hardly a reputable character of action throughout.

A—Hardly Y—Better not C—No

Bitter Tea of General Yen (Barbara Stanwyck, Nila Asther) (Columbia) East vs. West romance laid in Shanghai during recent warfare. Beautiful missionary girl falls into power of philosophical Chinese General. Each learns how different are their viewpoints and he commits suicide as only solution. Excellent work by Asther.

A—Rather good Y—Doubtful C—No

Central Park (Joan Blondell, Wallace Ford) (First Nat'l) Lively romantic melodrama about boy and girl from the country, meeting by chance in Central Park, drawn into a series of exciting adventures that finally turn out happily. Hilarious, improbable hokum but human enough to be really amusing.

A—Good of kind Y—Amusing C—Amusing

Death Kiss, The (Bela Lugosi, David Manners) (World Wide) Easy-going detective story, wholesomely thrilling and romantic, with no vulgarisms lugged in. Star is murdered in midst of a Hollywood production. Rather engaging hero smoothly solves mystery which baffles the dumb Inspector. Good light entertainment.

A—Good Y—Very good C—Good

Frisco Jenny (Ruth Chatterton) (First Nat'l) Fine work by Chatterton as cabaret-courtesan in old Frisco, costumes of the '90's. Climax by disreputable mother heroically keeping her identity secret from her illegitimate son, who becomes unknowingly her prosecuting attorney. Seamy, tragic, depressing.

A—Good of kind Y—Unwholesome C—No

Hello Everybody (Kate Smith) (Paramount) Wholesome, simple, realistic little picture exploiting Kate Smith and her radio songs. An leading spirit in her native farm community Kate wins fight against water company through her success on the radio. Interesting chiefly for her particular radio public.

A—Hardly Y—Good C—Good

Hot Pepper (Lupe Velez, Edmund Lowe) (Fox) Lupe good as impetuous, very unconventional little Spanish cabaret-dancer. Usual wrangling roles by Lowe & McLaglen with booze-racketeering and night club life as background. Mostly same old stuff with risqué dialog and cheap English.

A—Mediocre Y—Better not C—No

Kid from Spain, The (Eddie Cantor) (U. A.) Semi-musical, nonsense comedy made expressly for the Cantor public. Hilariously ridiculous hull-fight, usual bathing beauty chorus, and incessant wisecracks sometimes risqué but given in brisk, burlesque manner probably harmless. Striking dance ensembles. Very funny for those who think so.

A—Depends on taste Y—Amusing C—Exciting

King's Vacation, The (George Arliss) (Warner) A very modern king, hating royal pomp, approving revolution, abdicates throne and queen to resume life and love as he knew them twenty years before. Poignant dalliance, and the queen proves his true love after all. Subtle, restrained, charming.

A—Excellent Y—Very good C—Beyond them

Laughter in Hell (Pat O'Brien) (Universal) Sensational concoction of low-life family feud, vulgar sex stuff, and revolting chain-gang tortures. Crude hero unknowingly marries cheap wanton—kills her and her lover. Finally, after murdering three people, hero finds new love and happiness.

A—Trash Y—Unwholesome C—No

Estimates are given for 3 groups

A—Intelligent Adult

Y—Youth (15-20 years)

C—Child (under 15 years)

Bold faced type means "recommended"

Man Against Woman (Jack Holt) (Columbia) Underworld drama with Holt as topnotch detective who carries no gun but an incredibly potent fist. In rather original climax he wins out with the heroine over villain and handsome young crook-rival. Villain well played by Walter Connolly.

A—Hardly Y—Perhaps C—Hardly

Men and Jobs (Russian cast) (Amkino) More propaganda—slow, ponderous, but very earnestly acted. Supposedly shows Russian progress under Soviet rule in learning to use modern machinery. Glorifies the steam shovel and Russian efficiency in its use. Mildly interesting as usual.

A—Perhaps Y—Hardly C—No

Men of America (Chic Sale, William Boyd) (RKO) Over-violent picture of gang-methods, machine-gun murders, and activities of vigilantes in peaceful little California valley. Supposed to show how sound citizenry will crush gangsterism when it gets too rough.

A—Hardly Y—No C—No

Monkey's Paw, The (Louise Carter) (RKO) Horror picture about the superstition that a monkey paw will grant wishes but the wisher will inevitably regret the wish. Resultant gruesome tragedies are the main feature of the hodge-podge.

A—Worthless Y—By no means C—No

Nagana (Melvyn Douglas, Tale Birell) (Universal) Conquest of sleeping sickness is the supposed theme. Sensational and highly improbable hash of medical herolam, pseudo-science, gory battles of wild animals, weird jungle superstitions and ceremonies, labored romance—all laid in darkest Africa.

A—Hardly Y—No value C—No

No Living Witness (Gilbert Roland) (Mayfair) Villain swindles simple-minded racetrack gambler, but is killed by husband he has outraged, and so the young people can get married after all. A dictaphone does the most praiseworthy work done by the cast. Just another movie.

A—Mediocre Y—Hardly C—No

No More Orchids (Carole Lombard, Lyle Talbot) (Columbia) Well-acted society drama showing close family ties quite laudably. Much casual drinking, unconventional conduct by heroine, and dialog heavily smart and wise-cracking. Heiress-pauper-prince triangle. Louisa Clouser Hale excellent as ultra "modern" grandmother.

A—Perhaps Y—Unwholesome C—No

No Other Woman (Irene Dunne, Charles Bickford) (RKO) Irene Dunne only redeeming feature in sordid story of rise of hard-boiled steel-worker from mill-town to wealth and back again. Hero too crude for heroine's devotion to be credible. Wholesale perjury at divorce trial big feature.

A—Mediocre Y—Better not C—No

Past of Mary Holmes, The (Helen MacKeller) (Radio) Dramatic story of former opera star who lost her voice, now living in drunkenness and squalor, known as the "Goose Woman." Seeking publicity she unwittingly involves her illegitimate son in a murder. Star gives fine performance.

A—Interesting Y—Doubtful C—No

Red Haired Alibi (Myrna Kennedy) (Tower) Small town girl is involved with gang-leader-racketeer, is innocently forced to pose as his wife, then marries the hero without telling him the past. Hence blackmail by racketeer, murder, and happy ending achieved with great difficulty.

A—Mediocre Y—No C—No

Second Hand Wife (Ralph Bellamy, Sally Eilers) (Fox) Triangle drama, with audience sympathy with the Secretary, for whom husband divorces his selfish, dissatisfied wife, thereby losing custody of his prodigy daughter—until problem is happily solved. Only mildly interesting.

A—Perhaps Y—Unsuitable C—No

She Done Him Wrong (Mae West) (Paramount) Mae West strutting, singing and slinking as the luxurious, vulgarian night-club queen, with maximum wealth and no morals. Sex stuff in its most brazen and offensive form made as alluring as possible for the public that likes it.

A—Depends on taste Y—Pernicious C—No

Sign of the Cross, The (All Star cast) (Paramount) Costly, colossal super-spectacle with gorgeous sets and notable acting. Sufferings and heroism of early Christians finely shown but religious value submerged in glorified exposure of luxury, licentiousness, cruelty and bestiality of degenerate Rome under Nero.

A—Fine of kind Y—Decidedly not

C—By no means

Son Daughter, The (Helen Hayes, Ramon Novarro) (MGM) Sensational, romantic, tragic melodrama of Frisco's Chinatown during Chinese war. Helen Hayes fine as Chinese fiancée of republican prince but forced to marry royalist arch-villain. Plots, murders, Oriental rites, novel and charming love scenes. Oland good as villain.

A—Good of kind Y—Probably good C—No

Strange Justice (Marian Marsh, Reginald Denny) (RKO) Good cast wasted on hodge-podge story of romance of hat-check girl and a young chauffeur of bank president, who also loves the girl and frames her for murder. After the usual amount of suspense, the hero is rescued from the electric chair.

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AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

New York State Education (December) C. F. Hoban, State Director of Visual Education, Pennsylvania, contributes an article on "The School Journey as a Visual Aid" as the third in this series, the first two of which were reviewed in previous issues of THE EDUCATIONAL SCREEN.

Scientific experiments have demonstrated the value of the school journey in enriching, vitalizing and improving the quality of instruction and they are becoming a common practice in many progressive European countries, particularly Germany.

In a few brief paragraphs, Mr. Hoban outlines the use of this visual-sensory aid in teaching such subjects as art, geography, literature, music, mathematics, nature study and science, vocational education, civics and history, and points out the opportunities offered for correlating the various subjects. He gives the following essential steps in school journey procedure: "evaluate all the advantages and the purposes for which the journey is to be conducted; make necessary arrangements; the journey proper; instruction enroute; the lesson at the object of knowledge; relating the information."

The National Geographic Magazine (December) "The Story of the Map" is a long and fascinating discussion, with plenty of illustration, upon a subject of particular interest to educators using visual aids in the presentation of geographical subjects. We recommend it to our readers who are in need of fresh material in their visual presentations.

The New York Times Supplement (November 13) "Effects of Class Movies Tested" is a report upon the work of Miss Josephine Matthews, an instructor in the Junior High School at Great Neck, L. I. Miss Matthews has again tested the film as a means "to stimulate ideas that lead pupils into extensive studies."

Four boys and four girls were chosen from members of the class participating in the experiment to see what projects they would undertake after seeing a series of pictures.

The series of movietone films by Professor Henry Johnson of Columbia University were used, those telling the history of famous American songs, "America," "Dixie," "Yankee Doodle" and "Columbia, the Gem of the Ocean."

In the newspaper account no details are given as to the control of the experiment. Too, general assertions, based on so small a number of trials, are unwise. Nevertheless, the results obtained in each

case stand for themselves, and there is no good reason why such results would not be the rule rather than the exception, providing the instruction could, in all picture use, be as thoughtful and expert.

"Two girls," Miss Matthews says, "were greatly impressed by the idea of movies entering the teaching profession. Curiosity prompted these girls to replace movie magazines with teachers' college catalogues salvaged from all parts of the country. A study of the history of public schools together with biographies of leading figures in education followed. Both girls requested to do 'practice teaching' after school hours with retarded children. Two boys and one girl noticed that the songs were written at moments of great stress in the life of the country. They were curious to know what songs modern nations were producing under similar conditions. Russia was chosen for study. This topic became the centre of controversy for the semester and resulted in many debates, dramatizations and illustrations of Russian affairs. One boy and one girl made a study of American cultural life during the Revolutionary period. The remaining boy, a problem child, marks average, a general tendency toward being sullen, proved most reluctant about revealing his real thinking and had to be dealt with outside school hours. He liked the song pictures but objected to one 'emphasizing a war spirit and not patriotism.' After two weeks of mysterious waiting he produced a ponderous black notebook which assailed the futility of war, the interpretation of patriotism and 'racketeering.'"

Safety Education (November-December) These two numbers carry an article on "Home-Made Slides" by H. Louise Cottrell, Vice Principal, Stockton School, East Orange, N. J., who tells how a sixth grade helped in teaching safety to the school children by means of a lecture illustrated with slides they made from pictures of actual danger situations which they themselves selected and posed. This method was found to be very effective in arousing the interest of the children.

In the second part of her article Miss Cottrell gives specific directions for making various types of slides: paper cut outs, pencil-made, ink-made, cellophane and photographic.

The Journal of the National Education Association (December) In this issue appears the third article in a series of nine on better teaching of geography by Zoe A. Thralls, president of the National Council of Geography Teachers. It discusses "The Use of Maps in Geographic Instruction."

Everyone will doubtless agree with the writer's statement that maps have a distinctive function, as they present certain types of information better than any other medium. Her first rule for training children to read maps is that every map symbol introduced must be visualized first and, therefore,

the first symbols introduced should be those for which he has imagery. She goes on to outline further steps in the development of abilities and understandings in map instruction.

The *High School Teacher* (December) Mr. B. A. Aughinbaugh, Department Editor of Visual Instruction for this periodical, gives his attention to "Debunking Visual Instruction." He regrets the use of the terms, "visual instruction" and "visual education," and says whoever originated them perpetrated a great wrong for they have beclouded the facts. We quote a few of his statements:

"Motion pictures are to be used just as books are used. They have no greater, and no less function than books in education, or in any other human activity, where recorded communication is required. . . . Passivity and activity have nothing to do with the story. The difference lies solely in the efficiency quotient between the book and the cinema. . . . The superiority of the cinema lies in the fact that it can do more than one thing at a time. . . . In this way the cinema gains time."

Two things he believes are needed—the production of motion pictures which have the same continuity of subject matter as textbooks, and the assembling of these films into collections at convenient points for distribution at low cost.

The *Journal of Geography* (December) "Teaching Climate in the Elementary School," by Clarence E. Koeppel, State Teachers College, Springfield, Missouri, and "The Use of Photographic Material in Teaching Elementary Geography," by Malcolm J. Proudfoot, University of Chicago, are two resourceful discussions for teachers of this subject. Articles of theory are always suggestive enough, but those which offer clear conceptions of methods and application, as do these two discussions, are of particular value to a teacher.

The *Illinois Teacher* (November) "Technique of Teaching with Motion Pictures," by John A. Hollinger, Director of Nature Study and Visualization in the Pittsburgh City Schools, is a short outline of teaching procedures when motion pictures occupy a major and minor position in the development of the learning unit.

Parents' Magazine (December) "Is Your Child a Home Movie Star?" by Albert E. Waugh, is a delightful and helpful presentation of its subject. The best means at the disposal of the parent for making good films, the best times at which to approach the child for filming, as well as the titling of home movies, are some of the aspects of the subject offered.

NOW READY

Dr. McClusky's Report on

VISUAL INSTRUCTION

•
Its Values and
Its Needs
•

THIS REPORT, made at the request of Mr. Will H. Hays, summarizes the author's ten years of intimate study in the field of Visual Instruction from the research angle. Dr. McClusky's first contact with Visual Instruction was at the University of Chicago where, under the guidance of Dr. Frank Freeman, he wrote his doctor's thesis in that field. Since that time as chairman of a National Educational Association sub-committee and as President of the National Academy of Visual Instruction he has made a number of surveys of the use of visual aids in the educational field, thus giving him a wide background of rich experience for this study which is reported herewith.

In other words, this report summarizes in succinct form the results of over ten years of intensive study of Visual Instruction and answers the question "What is the Present Status of Visual Instruction?"

Other questions answered in this report are: How many courses in Visual Instruction are offered in the schools of our country? How many teachers in training are being instructed in the methods of Visual Instruction? What is the annual expenditure of city school systems for Visual Instruction? What are the immediate needs of Visual Instruction? What can industry do to cooperate with educators in furthering the advantages of this new medium of teaching? It is the only authentic and up-to-date study of its kind ever made.

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THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

Suggestions From the Religious Motion Picture Foundation

HOW to Stimulate Greater Activity in Your Church through Motion Pictures" is the title of a very interesting and informative booklet just issued by The Religious Motion Picture Foundation, Inc., 140 Nassau Street, New York City. The booklet not only contains many worthwhile observations in relation to the general topic of motion pictures in church work, but also helpful suggestions with regard to making and projecting motion pictures, together with a directory of religious and educational films distributed by the Foundation.

We would strongly advise clergymen and other church leaders to write to the Foundation for a copy of the booklet.

Under the heading "The Church as a Contributor to Inspirational and Educational Motion Pictures," the booklet comments, among other things, as follows: "The Foundation cannot emphasize too strongly the importance of having techniques for motion picture production, and for the use of films, developed as rapidly as possible by leaders of religious thought and practical church life. Theirs is the breadth of knowledge and that crystallized sense of life's inner values. Once they become visually minded, the rich possibilities of this Twentieth Century medium for communicating ideas and stimulating to action will be revealed.

"There is too great a spirit of negation in the world today. We tend to approach life and its problems with 'no' and 'not'. The Church can, if it will, use the motion picture to point to examples of affirmation in action. It can bring to a weather-beaten world a way of life that will take root and yield increasingly abundant harvests of purposefulness and joy.

"Every church should be a potential contributor to the supply of motion picture material. With a steady supply of stimulating pictures interpreting the Church in action, the Spirit of Christ at work in the world will live and grow. Young people's guilds can, if they will, put their creative talents to work in this field for the benefit of millions instead of hundreds. And in doing so, they will have the satisfaction of artistic and constructive achievement.

"The business of the Church, and of the motion pictures designed for its use, is to help us experience that true spiritual emotion which gives meaning to life, and arouses us to action and service. The audience in the theatre is essentially passive, while in a church service supplemented with films, unless the congregation is

moved to thought and action, the effort has fallen far short of its mark.

"Ministers who have been using motion picture programs in the church as a substitute for the local 'show' have failed to grasp the great essential possibilities of this medium, nor are they weaving it into the warp and woof of the church fabric. They are like people building a house of expensive imported material, not necessarily suited to the climate and landscape, when at hand there is an unlimited supply of native material that will prove most effective if properly prepared and used."

Here is another fine thought, one which relates to the financial side of church programs:

"While it is true that there are a large number of very excellent motion pictures for advertising purposes, worthwhile pictures made by the Federal Government and certain other groups, with no charge for rental other than the forwarding costs, it cannot be expected that new material particularly suitable for church use can come into being continuously and be made available without reasonable rental charges. . .

"It is not satisfactory, as a rule, to 'pass the plate' every time a picture is shown. If the motion picture is to have a regular place in church programs and not simply be frosting put on the cake occasionally, a fund should be set aside in an organized way for this purpose."

The following suggestions are made as helpful to church groups that are endeavoring to get projection equipment, and that plan for the use of pictures as a regular part of their church life:

1. Inclusion of motion picture item in annual church budget.
2. Special paid motion picture programs in church or parish house.
 - a. Weekly features.
 - b. Weekly children's program, such as travel, history, educational, recreational motion pictures accompanied preferably by leadership and attendant activities.
 - c. Monthly special features.
 - d. Occasional road show benefit motion picture performances where a church does not have sound equipment, or where pictures are on tour.
 - e. Family recreational picture nights.
 - f. Young people's nights.
 - g. Travelogue series.

3. Sponsoring special or periodical "selected" program nights at local motion picture theatre—in co-operation with local exhibitor on a percentage basis.
4. Special fund raising activities, not motion pictures, under auspices of young people's societies or guild.
5. Fairs and benefits by women's aid societies.
6. Special motion picture collections.
7. Securing of individual patrons for motion pictures among church members.

Clergyman "Shoots" Camp Movie

Rev. George I. Melhorn, Trinity Lutheran Church, Bedford, Pa., writes that during the months of July and August he was asked by the Parish and School Board of the United Lutheran Church to make a movie of their Summer Camp located at Biglersville, Pa. This Mr. Melhorn did, with the aid of his Filmo camera, and the completed film has been made available to any United Lutheran church. The title of the film is "A Day at Nawaka." There are over 200 feet of camp activities. In a chronological order one witnesses a complete day at the camp. Mr. Melhorn says the camp officials are more than pleased with it.

Stereopticon Lectures on Religious Education

"Religious Education in Character Building" is the title of the new stereopticon lecture just released by the Division of Religious Education in the Local Church of the Board of Education of the Methodist Episcopal Church. Conditions which tend to dwarf life, and the activities in religious education which will counteract these and build Christian character are illustrated by the lecture. The manuscript for the set was prepared by the Rev. Frank A. Lindhorst, assistant in local church and field supervision, and the slides were produced by the Stereopticon Department of the Church.

The set, which is available to pastors and leaders of the church merely upon payment of transportation charges, will be distributed from the regular stereopticon distribution offices at 740 Rush Street, Chicago, Illinois.

Priest Makes Travel Film

Rev. Leon M. Linden, pastor of the church of Our Lady of Good Counsel at Aurora, Illinois, is a veteran amateur movie maker who has made over 16,000 feet of pictures. He went to Europe in 1928 and again in 1932 and both times shot some unusually interesting travel films. On his last trip he attended the Eucharistic Conference in Ireland and states that his Conference pictures are particularly fine. When time permits he gives lectures on his travels to the accompaniment of his movies. He has movies of his parish covering a number of years.

Film Announcements

The Board of Missionary Cooperation of The Northern Baptist Convention have added a few 16 mm. motion pictures to their list recently. They have acquired *A Michigan Miracle*, an eight-reel story of a rural church in southwestern Michigan, the making of which was reported in the May, 1932 issue of THE EDUCATIONAL SCREEN.

Sunrise for the Mono is a 16 mm. edition of the story of the progress of mission work among the Monos east of Fresno, California.

A two-reel 16 mm. movie on the work of the Christian Center has also been completed. Most of the photography was done around Chicago showing a large farm that was cut up into little garden plots for the unemployed, and the work in the Center itself.



National Sound Service studio has contracted with Fidelity Pictures for the synchronization of *Onward for the Queen*, dealing with the Chinese Catholic Mission and produced by Rev. Richard Ranaghan in China. The picture will be roadshowed in Catholic churches.



Reliance Film Exchange has acquired rights to the Eucharistic film for the U. S. with the exception of New York, New Jersey, Pennsylvania and California.

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SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

Director, Scarborough School, Scarborough-on-Hudson, N. Y.

Some Uses of Pictures

MYRTLE SEXAUER

PICTURES valuable for geographic instruction classify themselves into three large groups. First are the pictures of *high geographic value* that show some type of man's activity, the type of place in which the activity is going on, and suggested reasons why the activity is carried on in its particular setting. A picture of this type might be one taken along the Monongahela River. It should show the steel mills on the river bank, the railroads close at hand, and the barges available for shipping raw materials. A child will readily note that manufacturing of iron and steel is the most important type of activity shown; that the river and the level land near the river suggest certain facts concerning the environment in which the activity is carried on; and that the railroad and river barges suggest how easily raw materials can be transported from their place of origin to their place of use. Pictures of this type are of unlimited value in the teaching of geography and should serve as basic source material.

The second group of pictures, those of *medium geographic value*, are ones that show either a cultural activity, such as manufacturing, without the natural environment to help suggest why this activity is carried on; or a natural feature without any related cultural activity. Pictures of medium geographic quality are of value to give children correct concepts of cultural and natural items. They may be included in the study of a region, provided they are carefully used to lead to a relationship of man's activity to his natural environment. Care should be taken that only those necessary for the development of concepts needed in reaching an understanding of geographic relationships are included. The third group consists of pictures of *low geographic quality*. This type of picture includes exterior and interior views of buildings, groups of people, etc., without any relation to the natural environment. A very limited number of these pictures should find their way into the geography classroom; and then, only when they are correlated with other pictures or textual materials in an attempt to understand the adjustments of man to his natural environment.

There are many phases of picture-study that are worthy of consideration, but the *use* of pictures of geographic quality is by far the most important. It has already been suggested that pictures should serve as basic source material rather than as supplementary

material. A child will get from a picture exactly as much value as the importance and the amount of emphasis placed on the picture. Therefore, the desire to help the child realize the importance of picture-study is just as vital as any amount of training that will enable him to gain information from his text or elsewhere, and should be a definite goal for each geography teacher.

A study of the specific uses of pictures reveals many ways in which they serve as an excellent means of gaining worthwhile information.

1. A group of carefully chosen pictures may be used for orientation or a reconnaissance survey. This is one of the few instances where a fairly large number of pictures may be introduced at one time. Care should be exercised to choose several pictures showing the most important kinds of activities and only a few showing the activities of less importance; this will help the child place his emphasis upon an interpretation of the activities that are characteristic of the region, rather than lose himself in the details of minor activities. The relationships suggested by pictures used in this way should be further strengthened by maps, other pictures, and reading.

2. A motivation lesson based upon an intensive study of one or two pictures showing activities that are characteristic of a region is one of the most interesting ways of introducing a unit. As with pictures that are used for orientation or a reconnaissance survey, the ideas gained from pictures in a motivation lesson should be strengthened by maps, statistics, and reading.

3. Pictures may be used to introduce a new concept, especially if the understanding of the concept would involve a lengthy word-picture. Some concepts require long word-pictures that leave the child with a much less vivid image of the concept than a few minutes work with pictures. This use of pictures will place the concept in the child's mind for permanent use—to be further strengthened by its re-appearance in other pictures, maps, or reading.

4. Pictures can be used as a problem-raising and problem-solving device, and no use of pictures is of greater value than this. Intensive picture-study often reveals disconcerting data and helps the child raise worthwhile problems. If the child uses the suggestions in the picture to help solve the problem he raised, he is *reading out* of a picture suggested relationships

of man's activities to his natural environment. If he uses another picture or another source of information to help solve the problem, he is *reading into* the picture suggested relationships of man's activities to his natural environment. This use of pictures readily trains the child, not only to raise good thought questions, but to seek their solution, first in the picture itself and then in other sources of information.

5. When a child has been carefully trained to raise problems and seek their solution he will unconsciously make another use of pictures. He will begin to use them as a check against the information he has gained from maps, graphs and statistics, and reading—and in turn will check pictures with other sources of information. When this habit has been firmly established, he will no longer generalize with insufficient data.

6. Last of all, pictures may be used as a testing device. Tests take on a form of definite teaching when pictures are used as a source of information, and they change from the dreaded formal tests to ones the children enjoy.

Visualizing Music In Light

It is safe to say nothing has been done before like this production by Oscar Fischinger in Berlin, distributed in this country by Universal Film Exchanges. In a brief but exceedingly original film he seeks to give an interpretation in light as an accompaniment to a musical classic. The sound track gives a Brahms Hungarian Dance, while the screen supplies a play of moving light forms, endlessly varied, perfectly synchronized, giving a visible counterpart of every audible effect produced by the orchestra. Tempo, rhythm, crescendo, climax, shading, phrasing—in short, all the elements involved in musical expression.

A single light motif at a time may occupy a small fraction of the screen—groups of lines, bands, points, curly-cues, or geometrical shapes—or a combination of motifs may cover the whole area momentarily. A half-dozen short parallel lines of light may appear at a lower corner of the screen, move upward, bend diagonally, thicken, spread apart, draw together again, curl back on themselves and stream downward. A broad arc of light may enter from the side, move across the screen followed by other bands of parallel curvature but varying in width according to the rising or falling volume of the music. A cluster of points may appear, elongate into lines, take on arrow points, enlarge swiftly, and vanish suddenly at a crashing climax. A full pause is matched by a dark screen.

All is continuous flow and incessant movement—swift, slow, straight, spiral, wavy, tremolo—always in the exact rhythm of the music. It is movement in harmonic accord with sound. It is rhythm made visible and vivid. There is no limit to the range and variety that can be created in this film genre if it proves to be a thing of value to the music world.

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Position

Educational Possibilities of Films in Art Courses

ELIAS KATZ

MY THESIS began with the blind conviction that motion picture films are valuable in the appreciation of art as taught in secondary schools. Since that time no opinion has denied this basic premise, while, more eloquent than expressed words, has been the encouragement I have received from every quarter.

Originally I had planned to prove this value. Immediately the following problems arose:

1. How define "art appreciation"?
2. How measure "art appreciation"?
3. How measure the effect of a film upon an observer?
4. What films can affect appreciation?

First I studied process films, which show the steps in the process of artistically manipulating various materials. These are valuable for a knowledge of a technical process, but are wholly removed from the emotional and aesthetic thrill of actually creative art.

By good fortune I contacted with films which I believed might be of great stimulating value to those who observed them. Knowing little of the history of the films, I arranged a showing in a New York City High School, and invited a number of artists, art teachers, and film makers. In the audience were members of the Fine Arts Faculty of Teachers College, Columbia University. With Professor Charles Mar-

tin and Professor Sallie Tannahill I arranged a second showing of the films in Horace Mann Auditorium, Columbia University, which took place on Tuesday evening, January 17, 1933, under the auspices of the Fine Arts Department. This showing was extensively advertised. Our audience was between four and five hundred.

We had three purposes in mind in inviting those present:

1. To stimulate thought and arouse interest over the educational possibilities of films in art courses.
2. To very concretely contrast films which *had* been made for art use with films which *can* be, and *should* be made.
3. To obtain some indication of the effect of one of the films upon the audience.

The first, *Making of Wrought Iron*, was a typical process film.

Process films are the majority of those produced for art use today. The assumption which underlies all such films is that a greater appreciation of art quality may be gained through a knowledge of the process involved. That such an assumption is wholly unjustified and possibly untrue, has never seemed to have occurred to the makers of process films. Indeed, so much *beyond* mere knowledge of the process

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is necessary for true appreciation!

In the next two films, *Diagonalsinfonie* by Viking Eggeling, and *Rhythmus* by Hans Richter, we come closer to factors which may influence appreciation. Here the movement of abstract designs becomes a visual experience highly stimulating to the creative imagination! As in listening to music, we are *emotionally* stimulated, and if appreciation is basically an individual emotional response, then we may conclude that the film has influenced appreciation.

The next two films, *Plant Growth* by Electrical Research Products, Inc., and *Surf and Seaweed* by Ralph Steiner, showed beautiful images of nature. The first was a purely scientific observation film, the second an observation film creatively controlled. Such films may be of great value and stimulation for art students.

Diagonalsinfonie concluded the program.

Directly following the performance, we held a spirited discussion, among some specially invited guests. Certain concrete proposals as to the content of films which might be used for educational purposes in art courses were set forth. Questions on the original reason for the creating of the films, on the effect of the films both emotionally, and upon possible aesthetic growth, and other most interesting comments and criticisms were made. The varied and often contradictory opinions showed how evocative of thought, are films of this nature.

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A questionnaire was passed out directly following the showing of the last film on the program. In this I attempted to objectively record opinions, preferences, and general emotional reactions. Although it is a crude attempt, its simplicity and ease of scoring may make its further investigation and refinement a worthwhile contribution to the problems of measuring the effect of works of art upon the beholder.

Many tasks are yet to be done. The four problems I stated at the beginning may never be solved, but I hope that by setting them forth plainly, and by showing my own efforts to attack a minute phase, there may be a heightening of interest and thought over the whole question of films and art appreciation.

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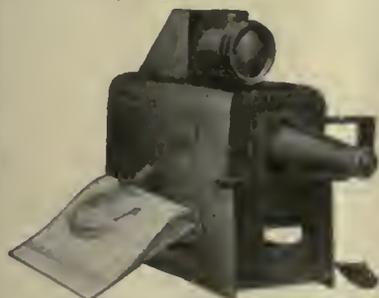
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AMONG THE PRODUCERS

Where the commercial firms—whose activities have an important bearing on progress in the visual field—are free to tell their story in their own words. The Educational Screen is glad to reprint here, within necessary space limitations, such material as seems to have most informational and news value to our readers.

Photography by Heat

In a totally dark room in the Kodak Research Laboratories, the bust shown in the accompanying photograph was set up in front of the camera, faced by two electric irons. After an hour's exposure, the photograph resulted—with the bust "illuminated" by heat from the irons.

As electric irons do not glow, there, therefore, was no visible illumination. In a previous experiment, when a group picture was taken in the dark in one second, the room was actually flooded with infra-red rays from a battery of sixteen 1000-watt lights covered by a filter that permitted only the invisible infra-red ray to pass. In the case of the present photograph there was no such source of infra-red rays; but, infra-red rays are associated with heat. Therefore, when the heat was turned on, infra-red was



Heated Irons Furnish Illumination for Photograph

radiated and an emulsion produced by the Kodak Research Laboratories to be very sensitive to the infra-red was able to record the rays.

The practical usefulness of the new infra-red-sensitive photographic materials at present is principally in the field of astronomy. The annual report (for 1931-32) of the Mount Wilson Observatory remarked that the Kodak Research Laboratories' efforts in producing greater sensitivity to the infra-red portions of the spectrum "have made possible researches previously quite impractical, and have extended spectroscopy into a new and most important region."

Bell & Howell Animation Stand

The Bell & Howell Company has developed an Animation Stand which provides a very complete, efficient, easily used unit for making, on 35 mm. film, animated drawings, maps, mechanigraphs, etc.; producing film slide negatives; photographing titles; also copying documents, books, and records

of any kind—document copying being a new field for the motion picture camera with single exposure device.

This stand will be particularly worth while for industrial film laboratories, for it will facilitate their title work and enable them to cut costs while getting excellent results. Moreover, at a comparatively slight cost, it equips them ideally to handle other classes of work which, though in good demand, are not done in many studios and hence offer a new source of profitable business.

Bass Film Service

The Bass Camera 16 mm. film rental library catalog offers a wide variety of news events, sports, comedies, cartoons, entertainment features, travel and educational films at moderate rates. It also includes a few sound subjects for use on 16 mm. disc apparatus. The films are available for rental only in the following states: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, New York, Ohio, Pennsylvania, South Dakota, West Virginia, and Wisconsin.

Another catalog, the Bass Bargaingram, offers many fine bargains in both new and rebuilt 16 mm. and 35 mm. equipment.

New Victor Products

To meet the growing demand for a 16 mm. projector with a film capacity of up to 1600 feet, Victor Animatograph Corporation, Davenport, Iowa, has designed such a projector, which is said to meet the problem of equalizing and controlling the film tension so as to prevent serious damage to the film.

The regular Victor Model 10FH Projector body and base are employed in this model. The 1600 foot reel arms, with pulleys attached, intermediate take up unit, cut-out base-board and special carrying case may be obtained as attachments and adapted to any Victor 10FH or 10RH now in use, without interfering with its use as a 400 foot equipment.

Another Victor improvement is a new type of spreader lens for still projection with the Model 10 Series of projectors, which is claimed to result in a tremendous increase in illumination. The spreader lens is mounted in a safety shutter which automatically drops into place between lamp and film when the operating lever is moved into "still projection" position. By dissipating heat with the spreader lens and automatically increasing the flow of air through the lamp house, the projector produces an unusually bright still picture without danger of blistering the film.

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MARCH, 1933

VOLUME XII

NUMBER 3

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EDITORIAL

THIS issue goes to press just after rich America has lifted its ever-to-be-memorable bank moratorium. In the brief period since, certain favorable indications are multiplying rapidly. This country seems to be reaching definite conclusions regarding the nonworthwhileness of chronic "depressioning," and emphatic decisions regarding the resumption of constructive activity. When one has wallowed long enough one merely gets up, cleans up and moves on. It has been a long wallow. Now for the wallop!

IF WE ever had any doubt as to the need of a magazine for informative purposes in this visual field, letters like the following would dispel said doubt instantaneously. This one was sent by a School Superintendent, in a state notably progressive in education, to his State Director who is notably efficient in his work in the visual field. The writer's name is mercifully omitted.

"Dear Sir,

"Since the adoption of Visual Education in the Schools of, I am rather anxious to know what the minimum requirements are. We have been having on an average two reels of educational pictures each week. Occasionally a company sends us three reels. In order to save varied interruption in classes and extra operations, and through the fact that our films have been quite educational and adaptable to various ages, we assemble grades and high school together once each week for this visual education.

"Now, the reason for the above explanation with the subsequent inquiries by me is that a member or two of our Board of Education wonder if we don't have too much visual education, and whether or not it is as valuable as Arithmetic and other subjects since pupils do not get credit for it.

"The thing I should like to have from you is a statement denoting: (1) About the amount of visual education that you require. (2) A statement of approval of our present plan, if acceptable. (3) Additional suggestions you think advisable."

We are indented to the live-wire Director for sending on to us this pitiful masterpiece of abysmal non-comprehension, with his own comment of "Ye Gods!" We agree utterly. And as long as there are still thousands, in positions of authority in the educational field, who are capable of such so-called thinking on the visual idea, *THE EDUCATIONAL SCREEN* must go on. It has an unlimited job to do.

ANOTHER letter comes direct to us from a subscriber who has read the last two issues only, out of our eleven years or more of publication. We learn that we look like the "trade organ of motion-picture supply houses. No government films

are listed, although the magazine ' ' finds material to list. No travel films are listed, although good ones are at hand. I have seen excellent ones in theatres, 'The Bay of Naples' and 'The Blue Danube' recently. Thirty commercial films are listed in one number and thirty-three in the other. Seven of them are for children. That is, ninety per cent of your page is used for non-educational material. I question the pedagogical value of such a list. I regret the waste of space that could be used to list the things I should like to learn about."

This is by no means the only correspondent to put us in our place regarding attention given to "theatrical films." And such defense as we offer in our replies doubtless seems quite feeble to these correspondents. We can but remind them that we furnish detailed information on thousands of non-theatrical films annually, in the magazine and in *1000 and One Films*, from every known source in the country; that these films are listed, classified, reviewed or summarized, and the exact source given where they may be had; that the non-theatrical material given by the magazine mentioned has been printed by us six months to six years ago and much of it many times over; that all the non-theatrical films, carefully reported to us each year, by all known producers and distributors for the past ten years, stand safely and accessibly in our files of tens of thousands of cards.

The charge of "waste of space" involved in printing theatrical movies "not for children," instead of wholesome travelogues, interests us still more. We suspect that it is an infinitely greater service to any child to spare him seeing those fifty-six undesirable movies than to show him the Bay of Naples. In fact, we could name many among the fifty-six, any one of which will do more permanent harm to a normal youngster than fifty-six Blue Danubes could possibly counteract.

ANOTHER correspondent, however, finds our Film Estimates still more objectionable—and for the opposite reason—seven recommendations out of sixty-three apparently stamping us as a tool of the Industry. The Film Estimates are syndicated in various publications, including certain outstanding magazines in the Church Field. This correspondent asked two of the latter if they were "paid for running those Film Estimates" as an advertising service to the Industry (!), received no answer, and asks us. Our only suggestion would be that the correspondent, in a particularly brave moment, asks the Motion-Picture-Industry to pay for reprinting the Film Estimates anywhere—and hear or feel their answer.

NELSON L. GREENE

Adapting Visual Aids to Class Routine

I. Preparation of Visual Tests

CLYDE STEWART

A GREAT many commercial films, slides and film slides are unfit for classroom use. They are primarily advertising medium material which oftentimes does not fit in with the class work, is not available at the time it is needed, or is not organized and written up from the pedagogical point of view. These objections have caused visual material to fall into disfavor among some educators. A careful use of right visual material will pay large dividends in student motivation and learning. In these articles I am attempting to sketch briefly some ways of using visual material more effectively and some ways of making improved visual material. (The cost of materials is comparatively low.) My illustrations are based on the teaching of science but might be applied to agriculture, history, or some other branches of work.

To combat the entertainment idea that a few students have regarding screen visual material, tests should be given on all material the same as on the regular class work. I think a carefully prepared test should accompany every box of slides, film slides, and motion picture film. Students should be urged to take notes on the material. This promotes closer attention to details which might otherwise escape their notice.

There are several methods of testing that can be practiced with slides or film slides. Our method is to project material on to the screen, having students answer questions about it orally or on paper in the semi-darkened class room. The views can also be projected on a blackboard, the pupils writing with chalk directly on the pictures or diagrams. For instance, suppose you were teaching the location of certain important geographical centers. A blank map of the United States can be projected on the blackboard and pupils asked to step up to the board and write in names of the important cities or states. In all forms of testing with a projector too dark a room should be avoided. If the projector is not suitable for semi-darkness such testing methods are perhaps questionable.

Another method that can be used successfully is to set up the projector after school and project a diagram on to the blackboard, then, while the image is on the board, trace it in with chalk leaving out certain essential points. Oftentimes some student from another class who is interested in drawing will do the tracing for the teacher. Parts of the diagram are then labeled or numbered and it can be used the next day as the basis of a test. (See the diagram and test Figure 1.)

Tests from film slides can be placed on a mimeograph stencil with much the same method. If the projector has a lens mount that will permit the lens

to move forward quite a distance so a small image can be formed, this image can be projected on to a mimeograph stencil or duplicator paper and traced in. Thus a great number of copies of the test can be prepared. If the students are then required to put their answers to questions on a separate sheet of paper given and saved for next year's work.

the test questions can be collected after the test is

With lantern slides the diagrams are often large enough to be transferred directly to the mimeograph stencil without enlargement with the projector. This can be done very easily by putting the slide up to a window with the stencil over it. Enough light will shine through so one can trace the diagram. The whole test should be made largely or entirely objective, whenever possible, to simplify the marking

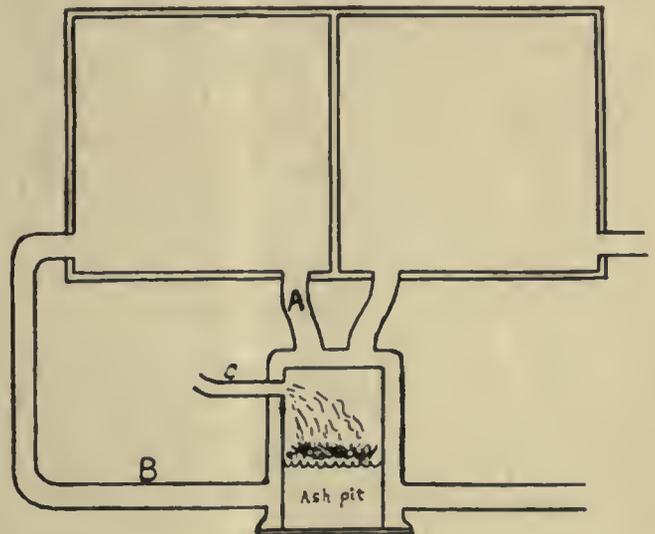


Figure 1

of papers. When the tests are to be used year after year a teacher feels justified in spending more time and making up tests carefully. Such tests should be carefully filed for future use.

Below is given an example of a blackboard or mimeograph test that makes use of a partly completed diagram given in Fig. 1.

A Visual Test on Heating Plants

1. The heating plant illustrated above is (1) a pipe-less system (2) a pipe hot air system (3) a steam system
2. The air at (A) is moving (1) up (2) down
3. The air at (A) is (1) hot (2) cold (3) average temperature
4. The air at (B) is moving (1) to the right (2) to the left

5. The circulation of the air in this system is described by scientists as a current.
6. Is there any connection between pipe (C) and pipes (A) and (B) Answer yes or no.....
7. Is this system of heating cheaper to install than a steam heating plant? Answer yes or no

Many of the questions will tie up with the text book and it is desirable that text material should be taught before the visual work is given. This test was used for a daily quiz with a diagram traced on the board.

II. Making Photographic Copies of Visual Material

If a teacher has an elementary knowledge of photography¹ a great deal of visual material can be copied for permanent use. Permission can be obtained from the producers in most cases to make photographic copies when they are not to be sold. By copying slides and film slides a school can build up a permanent visual library and material is then available at a moment's notice. The expense of copy material is not very high. A cheap photo-finishing outfit can be purchased for as little as two dollars. With this outfit, and a projector, most of the things described in this article can be accomplished. It is quite possible, of course, to do better work and get special effects by further study and more equipment.

Suppose you wish to make copies of some valuable lantern slides. You can buy from a photo supply house some lantern slide plates. They cost about 50 cents a dozen. These are unexposed glass plates with a surface that is sensitive to light. With the aid of your photo-finishing dark lantern a package of these plates can be opened for use in a dark room. Any room can be used at night, of course. The procedure for copying a slide is much the same as used in making a photographic print on paper. The slide to be copied is placed in the printing frame with the cover glass up. If there is printing on the slide it will be readable from the back of the frame. When the slide is in this position it will bring the emulsion surface very close to the emulsion of the unexposed slide. If the exposing light is placed at least ten feet away from the printing frame, a fairly sharp copy can be made. If a sharper copy is desired the cover glass of the slide must be removed so that the two emulsion surfaces lie in actual contact during the printing. The unexposed lantern slide is laid on top of the slide with the dull side down. (The side that appears dull by reflected light is the sensitive side or the emulsion side as it is commonly called.)

The frame is then clamped together and exposed to

a white light for a time of five to twenty seconds. This time of exposure must be found by experiment and will vary considerably according to the density of the slide, intensity of the light and its distance away. In general it is best to use a twenty-five watt bulb at a distance of about ten feet. After some experience the exposure can be judged fairly well.

The slide is then ready for development. There are a number of developers that can be used depending on the nature of the material to be copied. If one does not care to mix developers they can buy a prepared developer called nepera solution. This developer is easier to mix than the common tube of powders. It can be used for all of the work described in this article. Better results can be obtained where diagrams are to be copied by the use of special developers such as the Eastman D-9 line developer.² The slide should be developed for about one to three minutes. If the exposure was correct the development will be complete in about two minutes. Some trials will be necessary to tell when exposure and development are correct. If the slide becomes unusually black it indicates that it has been exposed too long or developed too long. Conversely if the slide is too transparent it indicates that not enough exposure or development was given.

As soon as the slide is developed it should be rinsed in water for a few seconds and placed in a fixing bath. The fixing solution comes with the photo-finishing outfit. More fixing solution can be purchased quite cheaply from dealers in photo supplies. The slide should be left in the hypo fixing bath until the yellow unexposed part of the surface has dissolved away. This requires about three or four minutes. No damage will result however if the slide is left in the bath for a longer period. It is well to allow the slide to fix for some time after the visible yellow has gone to be sure that it is completely dissolved. After fixing, the slide should be washed in running water for about fifteen minutes. It should then be set up on edge to dry in a fairly dust free room.

It will be observed that everything that was black on the original slide is now transparent on the copy. In other words we have a negative of the original slide. To get a positive the negative slide must be copied using the same procedure as before. This will reverse the blacks and whites and give a slide like the original. If diagrams are copied the negative slide can just as well be used because it makes little difference if the blacks and whites are reversed.

After the slide is dry the emulsion side can be covered with a cover glass and the two glasses bound together with lantern slide binding tape. This protects the emulsion from becoming scratched with use.

1. One of the best books for elementary use is "The Fundamentals of Photography" for sale by The Eastman Kodak Co. Price \$1.00.

2. Formulas of various kinds are fully described in "Elementary Photographic Chemistry" for sale by The Eastman Kodak Co. Price 50 cents.

If the slides are carefully handled, however, binding is not necessary.

The negative slides can be used to make prints on paper by putting photographic printing paper over the negative and exposing to white light in a printing frame as before. With paper the exposure must be many times that required for lantern slides. The printing frame can be exposed for five or twenty seconds a few feet from a one hundred watt bulb for the average negative. The development and fixing process is much the same as before except fixation will require fifteen or twenty minutes with paper. Washing should also be somewhat longer, about twenty minutes at least. The paper can be dried by laying it face down on towels, or a glossy finish can be obtained by drying it face down on ferrotype plates prepared for that purpose. The paper should be placed on the plates and covered with an old newspaper to absorb the water. A roller should be run over the newspapers to press the paper firmly against the plate and remove the excess water. The plates are then allowed to stand in a warm room until the paper dries. It will then pop off the plates by itself.

A great many uses will be found for the paper copies. Since they can be produced cheaply they can be handed out for study or posted on the bulletin boards for observation. They also furnish excellent means for review or make up work. If a student misses a class in which a visual lecture was presented the main points can often be given to him by the use of these paper copies and the manuscript. The present tendency in visual work is to present only a few well selected slides at a time with more intense study of the material, hence the number of copies made will be fewer. Large copies made as described below can be framed and hung on the wall if so desired. For instance a good picture of Thomas Edison placed in the middle of a large picture frame and surrounded by smaller pictures showing various phases of his life and some of his many inventions will furnish study for some time. A short typewritten account of his life and work can also be put into the frame with the pictures. Such pictures lend atmosphere to a classroom. Some students may also want small copies of some pictures or diagrams to paste in their note books.

(To be concluded in April issue)

The Use of Motion Pictures to Promote Community Relations

O. H. OLDFATHER

SAINTE DAVID, Arizona, is a rural community of about five hundred population located about sixty miles from Tucson in the Northwestern part of Cochise County.

The need of entertainment and recreation is similar to that of other rural communities similarly located at distance from theatres and other entertainment. There is no motion picture theatre nearer than Bisbee, forty-five miles away or Tucson, sixty miles away.

Last May the local school board gave its consent to the District's purchase of a 16 mm. projector. It was understood that the projector was classed as a non-essential in a time of economic stress but the Board agreed to issue a warrant in full with the understanding that other school activities should contribute toward the repayment of the expenditure.

The price of admission was an item for consideration. It was planned to charge an amount only sufficient to pay for the films. It had to be low enough to permit most of the people to attend each week. Ten cents for individuals and fifty cents for the entire family, was agreed upon. The picture, the machine and the price evidently met with universal approval since every Saturday night since the first feature on May 13, 1932, about one hundred and fifty people have attended the show.

At the price of ten cents for individuals and fifty cents for families it was soon discovered that there

was an excess amount each of from two to five dollars each week. Recently the family rate has been reduced to forty cents with still a substantial profit each week.

The films were, until recently, rented from a film library in Los Angeles. A five or six reel feature with a one or two reel comedy, or travel, or scenery, cost on the average about twelve dollars, including transportation costs. Such features as the following proved very popular: *The Covered Wagon*, *Behind the Front*, *The Red Raiders*, *Code of the Sea*, and any picture featuring the dog, Rin-Tin-Tin.

The weekly community show has great value in promoting pleasant cooperative spirit and good will in the community. People have opportunity to visit or to exchange greetings before the show which occasion they often would not have otherwise. Then, too, there is created a common ground of interest and conversation. Films of local boys' projects in Agriculture have been shown which created added interest and pride in the local enterprise. This stimulates others to attempt similar projects.

The real purpose of the film service to the community, namely, to provide clean entertainment, educational pictures to students, recreation, a distraction from the cares of the economic situation, and to create a consciousness of social-interdependence has been highly realized in this project thus far.

Broadening the Horizon of Visual Instruction

W. BRUCE ADAMS

TO THE pioneers in the field of visual education, the intense interest now being evidenced by teachers in the use of the numerous visual aids must be a source of great satisfaction. No longer can the employment of motion pictures, stereographs, models, and the like, be looked upon as a passing fad, for their value in creating vivid, lasting impressions has been scientifically proved, by both research and practice.

The very fact, however, that so many converts are being added to the ranks of enthusiasts makes it imperative that those to whom they will look for assistance should themselves have a broad, unrestricted knowledge of the field.

Although it may savour somewhat of impertinence, the writer ventures to suggest that perhaps too much emphasis has in the past been placed upon the solely "visual" type of aid, to the neglect of another extremely important type which may be termed "auditory" aids. These include the phonograph, the radio, sound equipment and the like. It is true that these have been accorded quite as enthusiastic support as have visual aids, but the tendency on this continent has been to treat them as fields that are entirely separate and distinct.

In this age of specialization it may be asked why the visual educationalist, whose field covers a great number of teaching aids, should encroach upon that of the aural educationalist. The answer is simply that it is extremely hard, if not impossible, to find any definite line of demarcation between the two. Indeed, in some cases, they are combined, as witness the talking-picture, where the visual appeal is amplified by the aural.

Consideration of the talking-picture brings us to another point. If, as seems probable, the installation of sound equipment in schools is to become more common, will it be necessary for Boards of Education to depend entirely upon outside engineers for advice, or would it not be reasonable to expect that the Director of Visual Education should be qualified to act in an advisory capacity? It must be remembered that properly designed sound equipment will perform many more functions than the projection of talking-pictures. A trained educationalist who understood sound reproduction would obviously be in a better position to give advice on school installations than would a sound engineer not conversant with educational problems.

There is another reason for considering visual and aural aids as being in the same category. The

results of experiments designed to test the efficacy of visual aids seem to point to them as being particularly valuable in the teaching of backward pupils who lack the mental background necessary to acquire definite impressions from the spoken word. On the other hand, the aids that are limited to the aural appeal seem to benefit the brilliant pupil, whose interests are surely as important as those of his less gifted classmate. The two types of aids would appear, then, to be complementary,—the visual aid supplying the dull pupils with the interpretation of the words used by the teacher, and the aural aid giving the clever pupils an opportunity to stimulate their imagination, and at the same time providing them with a means of escape from the deadening repetition needed to teach the slower section of the class. In this latter connection the radio is proving to be of great value, since considerable supplementary material can be brought to selected pupils listening either through headphones in the classroom, or through a loudspeaker in a special room.

The educational work being done by the two great broadcasting companies is conclusive proof of the value of this medium of instruction. However, to be of the greatest value, the lessons should be received in the classroom under normal teaching conditions, rather than in an auditorium. Such a procedure will necessitate the use of amplifying and distributing equipment, with loudspeakers in each room. Already several schools have installed such equipment, and are putting it to good use. The addition of a microphone and its complementary equipment opens up new ways of using the amplifiers, while the addition of a talking-picture projector and unsynchronized turntables still further enlarges its scope. Such equipment would enable a school:

1. To supply phonograph music for marching or drills.
2. To enable the principal to speak to all classes simultaneously.
3. To experiment with the various types of radio presentations such as dramatization, recitation, reading, newscast, concert, etcetera.
4. To permit class listening, under usual conditions, to educational broadcasts.
5. To permit the showing of talking-pictures.

The phonograph can perform a valuable function in the classroom, particularly in the teaching of music and languages. The foremost recording companies are beginning to issue records that will be useful in such subjects as literature (readings by

famous actors and actresses of well-known passages), science (talks by famous men), and history (music typifying certain periods). The modern phonograph has a tone sufficiently large to fill a classroom, with an entire absence of the "tinny" sound which successfully spoiled most lessons with the old machines. Furthermore, it can use the new long-playing records which make possible the recording of entire scenes or plays. Already the phonograph is extensively used in subjects for which records are available, because it has one unique power—that of repeating over and over any desired selection or part of a selection. The advantage of this in the teaching of a foreign language, for example, is obvious.

A new field of interest closely allied to the phonograph is that of home-recording. Up to the present, the results obtained from making records on aluminum or composition discs have scarcely been of professional quality, but the latest machine designed for this work does give reproduction that is quite good. The near future should witness the appearance of a recording machine that will enable the teacher to make a permanent collection of outstanding compositions, musical numbers, and the like.

The aforementioned teaching aids do not exhaust

the list by any means, but since the purpose of this article was merely to awaken interest along these lines, perhaps enough has been written to accomplish this end. Now comes the problem of choosing a name that will embrace the many types of aids that are in use. The term "visual and aural aids" seems rather awkward, although it has been used. In England the term "mechanical aids to learning" is used, but this too is open to criticism. Perhaps best of any that have been suggested is the term "sensory aids".

However, to the practical teacher, the name is a matter of small importance, and the choosing of it can safely be left to those who enjoy arguing about such matters. What really is important is the knowledge each teacher possesses regarding the many aids that can be put to good use in the classroom. As has been said, the field is a broad one, and will require considerable study, but quite apart from the fact that the use of such aids will result in vitalized teaching, the experimenter has the added satisfaction that he or she is travelling along uncharted, or at best meagerly charted, paths—paths where one's own ideas are quite apt to be as good as those of any other experimenter, and paths that show every evidence of leading toward the teaching of the future.

The Educational Museum

(Concluded from February)

ARNOLD W. REITZE

ANOTHER phase of the work of an educational museum is in regard to docents or museum instructors which may be provided for the most effective use of the educational museum. The duties of such docents are to conduct lessons at the educational museum center through the use of the illustrative material available at the center. Such lessons may take the place of a regular school lesson which is transferred to the museum merely because of the available material. Again, they may be lessons on topics of general interest but not necessarily in the course of study. The lessons may be given during regular school hours, which is the usual custom at an educational museum, or they may be given outside of school hours. It is the duty of the museum instructors to cooperate with the individual teachers to the fullest extent in arranging such lessons as will be most worthwhile to the pupils. A more limited form of docent service is in furnishing docents or guides, who are thoroughly acquainted with the educational museum, to conduct classes through the various sections. Such guides do not do any actual teaching but leave such matters to the class

teacher. Such service is highly desirable for the most effective use of the educational museum. There is usually a need for both types of services, namely the docent or museum instructor, and the museum guide.

The educational museum should provide an opportunity for the training of teachers in the effective use of the material available at the center. This may be done through a regular teacher's training course conducted at the educational museum or through teachers meetings conducted at the center. Full opportunity should be given for any individual teacher to obtain such information and assistance as may be needed for the best use of the educational museum's facilities. All teachers should be encouraged to make their needs known to the museum in order that material which is most worth-while can be obtained.

The educational museum should cooperate in establishing friendly relationship between nearby museums and the schools for the mutual benefit of the museum and the schools. In this way the schools may receive the advantages of the collections which are probably far more extensive than it is

possible or desirable to set up at the educational museum center.

The educational museum can render much valuable service to the school children after school hours through many different activities. One of these activities, which is used quite extensively, is the "story hour" at which time a story is related, based on museum objects or exhibits. These stories may take the form of single unrelated stories or they may be in the form of a series of related stories. Museum games in which the children study the exhibits and then answer a series of questions based on them is another device used frequently. In both of these activities a reward, such as a picture or booklet bearing on the subject studied, may be given for the successful completion of the answers. Such service is usually given by the docents or museum instructors after school hours or on Saturday. Such service has many desirable and valuable features which make it well worthwhile. It is a means of giving information of a worthwhile nature to those whom are interested enough to attend the educational museum after school hours and it is also a means of developing a worthy use of leisure time. The educational museum may also become a center for various types of clubs as nature study, stamp, photography, geology, or mineralogy clubs. Such clubs should be supervised by the museum docents, but they should be run by the children. A room at the center may be set aside for the use of such groups as Boy Scouts, Campfire Girls, and similar organizations who are interested in nature study or in related fields. It is also possible for the museum docents to conduct field trips to nearby points of educational value.

The educational museum may arrange for illustrated talks on general scientific subjects, which might be given by members of the school's teaching staff. In most school systems it is usually possible to find teachers who are familiar with certain scientific subjects, either through teaching or as a hobby, who would be pleased to give such talks. They might be on such subjects as Weather, Astronomy, Animals, Photography, and other similar subjects and presented not from a highly technical angle but from the popular viewpoint. These talks may be given to groups of pupils as well as to the general public. In presenting such lectures however, care must be exercised in the selection of the speaker in order that he may give only information which is authentic. Illustrated talks can also be given for the benefit of the public, on the activities of the schools. By these means it is possible to establish the museum as a cultural influence for the public at large.

The educational museum center should also serve as a place to display the various materials which

are available for the use of the teachers. Such a display would serve as an illustrative catalogue where all the material could be actually seen by the teacher and thus make it possible for the teacher to more fully realize what material is available and just what material she could use to advantage. It should also serve as a center to display and demonstrate newly acquired material. Exhibits can be made from time to time of ways in which the museum material is actually used in the schools and for showing teachers how they may make exhibits for their own particular need and use.

While an educational museum is primarily for the benefit of the schools, the public in general should be made welcome at the educational museum center and be given an opportunity to make such use of the material as can be done without interfering with the major work of the museum. This is especially desirable in those communities which have no regular museums. There are many opportunities for an educational museum to be of real service and value to the community at large. It may well serve as the contact point between the schools and the public through exhibits and lectures pertaining to the work of the schools.

Through contacts with the public it is often possible to receive considerable aid through gifts of collections or of money with which to further the work of the educational museum. However, care must be exercised in the acceptance of such gifts of collections to prevent the educational museum from becoming a depository for all sorts of odds and ends which may have little educational value. The acceptance of all gifts of collections should always be upon a written agreement that the museum shall have full power to use or dispose of any or all parts of such collections, if in the judgment of the museum it is to its advantage to do so. Such disposition may be made through sale, exchange or gift, but in any event any article acquired in its place should be credited to the first donor. In the case of money donations its acceptance is usually dependent upon the legal points which may be involved regarding public institutions and gifts of money. However, there is usually some legal opening which makes it possible to accept such gift. Gifts of this nature may well be used to set up a certain section of the educational museum, and the donor of the money can be given due credit.

There are certain other functions, such as, the distribution of slides and films which under some types of organization might be part of the educational museum. However, no attempt has been made in this article to include all possible functions of an educational museum or those functions which

(Concluded on page 76)

GOVERNMENT ACTIVITIES IN THE VISUAL FIELD

CONDUCTED BY MARGARET A. KLEIN

Industrial Exhibits

(Concluded from February)

A MINIAURE colliery and coke plant, the gift of the Consolidated Coal Company, well illustrates the operation and setting typical of the bituminous mining industry in general. The machinery is in operation for three minutes every quarter-hour. Another colliery model, the gift of the Pittsburgh Coal Company, is an actual reproduction of the first pool No. 2 at Willock, ten miles from Pittsburgh.

In the show cases are actual articles showing the equipment used by the miners. There we see the miner's first aid kit; the miner's self reserve, a breathing apparatus which will permit him to breathe in spite of carbon monoxide in the air following an accident; the miner's "hard-boiled" hat, made stiff to protect the miner's head from falling rock and coal fragments; and miner's safety oil lamps with magnetic locks which permit them to be opened in the mine and with sparking igniter which permits them to be relighted without being opened.

The mining and preparation of commercial salt from the time it is taken from the salt well to the pan house where the water is evaporated off and then through the various refining processes, is demonstrated in a model donated by the Worcester Salt Company.

A pictorial chart in which a tree is used as the medium for showing the derivation and uses of soda, forms an interesting as well as a very useful part of the exhibit donated by the Solvay Process Company of Syracuse, New York. A soda manufacturing plant completes the exhibit. I should like to mention, in connection with this exhibit, that the explanations of the various steps in the display are very well expressed in the accompanying placards.

From the forest to the newspaper is the theme of an exhibit of the wood pulp and paper making industry. The complete process is pictured including the cutting of the trees, floating them down the river to the mill where they are cut into small pieces, the barking, grinding, the sulphur process, the digester, and finally the paper mill and shipping the finished product.

Another model worth mentioning is that of a wood preservative plant for creosoting railroad ties, etc., in a vacuum tank. Nearby is another exhibit showing the complete process of manufacturing turpentine from taking the sap from the

trees to the distilling and packing of turpentine in barrels.

The National Lead Company has provided a very interesting model showing the process of making white-lead as used in paint. White lead is made by corroding metallic lead in clay pots, the corroding agents being acetic acid and carbon dioxide. The acetic acid (practically vinegar) is placed in the clay pots with lead pieces, and the carbon dioxide gas is generated by the fermentation of spent tan bark in which the pots are buried. The process takes about four months to complete. In order to expose a large surface of lead to the action of the corroding agents, the lead as received from the smelter is melted and cast into perforated discs about five inches in diameter and one-eighth of an inch in thickness. These are called buckles. About a dozen buckles are placed in a clay pot with a small portion of weak acetic acid. Hundreds of these pots are packed closely on a level bed of tan-bark. A loose board flooring is placed over the pots, then more tan bark, more pots, another floor, etc. until the entire room is stacked to the ceiling with the pots of buckles. Fermentation of the tan-bark starts immediately and generates heat up to 180 degrees, Fahr. This heat causes the acetic acid to volatilize. Its fumes attack the lead buckles changing the surface metal to a thin film of lead acetate. At the same time the fermentation of the tan-bark produces carbon dioxide gas which acts on the lead acetate and converts it into lead carbonate, which is the white lead of commerce. The chemical process now repeats itself. When the film of lead acetate is attacked by the carbon dioxide gas, the original acetic acid is set free and this then acts on the pure metallic lead beneath the first film. This in turn is converted into lead carbonate, etc., until the lead buckles have been entirely corroded.

Every step of the process from casting the buckles, packing the pots and filling the rooms is shown. Next, we see the process of emptying the jars of the corroded buckles, the grinding of the lead carbonate water, drying, sifting through fine screens of silk bolting cloth (with 27,000 perforations to the square inch) and finally grinding with linseed oil to make the complete Dutch Boy White Lead in Oil ready to ship to the paint maker.

One of the very complete manufacturing exhibits is that of a very commonplace but useful commodity, namely, the exhibit of woods and wood products. It is amazing to learn the number of kinds of wood used in manufacturing all sorts of

things and if it were not for the samples of finished and unfinished woods shown in this display one would be inclined to doubt it. The selection of the right kind of wood for a certain article is demonstrated by the exhibit of tennis rackets, base ball bats, and other athletic equipment shown in the display of A. G. Spalding & Bros.

How limestone rock and powdered coal is combined to make cement is clearly shown in the model cement plant, a gift of The Atlas Portland Cement Company. First, one sees the limestone rock in the ground, then the crusher house where it is broken into stones of one inch size, which are dried out, pulverized, and put into kilns and burned. The burned rock, called clinkers, is fed into coolers. Finally, powdered coal is blown into the kilns, gypsum is added and it is all burned together to make cement. The cement sidewalk assumes a new interest after one has seen this model.

From the pretty colored shingles on the roof of an attractive model of a bungalow to a lake of natural asphalt in Venezuela, is a decidedly interesting story told in the exhibit showing the uses of asphalt. It is a fantastic story but this is what the placards tell us, that this lake which is known as Pitch Lake and situated on the island of Trinidad just off the coast of Venezuela, covers 100 acres and has a maximum depth of 140 feet. It is constantly fed from an underground source and it has an overflow outlet. As the material comes up from the asphaltic springs below, it is an emulsion of asphalt, clayey matter, and water. The emulsion breaks down, the asphalt particles coalescing to a consistency similar to an asphalt pavement on a hot summer day. In adjoining cases may be seen samples of products made from asphalt, such as asphalt roofing shingles, pavement materials, moulded forms, storage battery jars, and samples

showing how asphalt is used in paints, enamels, and printing inks.

There is neither time nor space to describe all the exhibits but I should like to name a few more in order that you may understand how completely the many industries are visualized in this museum.

Other exhibits include a model of a charcoal blast furnace; sulphur mining; land pebble phosphate mining as practiced in Florida; the manufacture of carborundum, alundum, and other abrasives; the Atcheson processes of carborundum and graphite manufacture, showing the electric resistance furnace that develops a heat of 4,000 degrees Fahr.; all kinds of textile manufacturing; the manufacturing of sewing machines; the various kinds of farm machinery; all sorts of transportation vehicles; the manufacture of buttons; in fact, almost every industry is represented in some way.

From the description of this section of the Smithsonian Institute, one can readily see that it contains a great many exhibits of interest to students of science, geography, and the social sciences.

I think a word of tribute should be said about the donors of many of these exhibits. It is realized that they are placed there by commercial companies but there is no doubt that these companies have made a decided contribution to education in general and to visual education in particular.

The Educational Museum

(Concluded from page 74)

might better be handled by some other department.

In conclusion, it would seem that an educational museum is very much worthwhile as an adjunct of any school system and that it can best be organized as a major division of a department of visual aids. It should be under the direct supervision of the director of the department of visual aids, or such a person whom he may designate. Its primary functions should be:

1. To provide objective material for the use of the pupils, both at the museum and at the individual schools.
2. To acquire and make up such models and exhibits as are essential to effectively teach the course of study.
3. To provide for teachers training in the use of museum material.
4. To provide museum instructors and guides for the effective use of museum material and exhibits.
5. To cooperate with other nearby museums for the use of such material as is not available at the educational museum.
6. To render the best possible service, first to the schools, and second to the community.

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NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Visual Aids Service Urged for Nebraska

At the last Nebraska State Teachers Association meeting, held in November, the Committee on Radio and Visual Education advised the organization of a Visual Instruction Service, located in the Extension Department of the University of Nebraska, similar to that of other states, through which the necessary materials and supplies might be circulated in order that radio and visual education might properly function in the schools of the state. The Committee looks upon these two aids as means of enriching all regular school work.

At the present time the schools of the state are securing their visual aids from the Visual Departments of the University of Kansas and University of Colorado.

Report on Business Film Showings

According to information from the United States Department of Commerce, over 90% of a year's total attendance at business film showings are credited to 4 of 18 places of exhibition, namely, theatres, schools, exhibitions, and conventions. But, on a basis of average annual attendance per concern, show windows assume first place with an average attendance of 302,832. Exhibitions are second with 189,517 persons, and schools third with 158,308. The remaining 15 places of exhibition rank as follows: conventions, theaters, branches, foreign countries, churches, general meeting places, dealers conventions, clubs, factories, colleges, miscellaneous, trade organizations, stores, residences and offices.

Of the 1202 exhibition reports received over 99.5 per cent found the showings profitable.

S. M. P. E. Meeting in April

The regular Semi-Annual Spring Meeting of the Society of Motion Picture Engineers will be held at the Pennsylvania Hotel, New York, April 24 to 28. W. C. Kunzman, of Cleveland, Chairman of the Convention Committee, has appointed Herbert Griffin of the International Projector Company, Chairman of the Local Arrangements Committee and plans are already underway for the meeting. The meeting will cover five full days, due to the abbreviated convention held last fall and the mass of valuable material that has accumulated as a result.

The exhibition of newly developed equipment is expected to be of particular interest and magnitude since an entire year has elapsed since the last exhibi-

tion was held. Rear screen projection is expected to enter into the discussions. Interest in this development has been intensified by success of the Trans-Lux system. Bausch & Lomb also is understood to have developed a lense which is proving successful for this type of projection.

American Lumber Film Shown in Europe

For the past three years, the National Committee on Wood Utilization, in cooperation with commercial attaches of the Commerce Department, has arranged for the showing of the Long-Bell lumber film depicting the felling of the gigantic Douglas fir timbers on the Pacific Coast, their conversion into lumber in mammoth sawmills, and the application of this product to a variety of industrial and construction uses.

From all parts of Europe the National Committee on Wood Utilization has received grateful testimony from lumbermen, engineers, architects, builders, educators, and industrialists stating that this film has enabled them to visualize the problems involved to a far greater extent than they could before with their scant knowledge of American conditions.

There are hardly any virgin forests left in Europe, according to Axel H. Oxholm, Director of the National Committee on Wood Utilization, who supervised the showing of the film in Europe. The audiences were thunder-struck upon seeing trees 200 to 300 feet high falling before the axes of what seemed in the picture to be pygmy lumbermen. Gigantic, electrically operated machines tumbled these huge logs as if they were match sticks. They were carried on trains to the sawmills, and without the touch of human hands were cut up into lumber and timbers.

The greatest interest undoubtedly was shown in Germany, where the film was constantly circulated for more than a year and a half. Visitors from every corner of the globe heard of this film and requested to have it shown in their native countries. Thus the film was shown before governmental bodies, important educational institutions, and professional societies in England, Sweden, Norway, Denmark, Switzerland, Austria, Germany, the Netherlands, and other countries. The climax was a request from Oxford University where the film was shown before the student body of that world-renowned institution of learning.

On an official trip to the Panama Canal Zone, requested by the Governor, Mr. Oxholm demonstrated this film before Canal engineers at a special meeting called for the purpose.

The film was placed at the disposal of the National Committee on Wood Utilization by the Long-Bell

Lumber Company, showing the operation of their logging camps and sawmills in Longview, Washington.

Head Masters Discuss Visual Education

The last monthly meeting of the head masters of the various high schools of Northern New Hampshire held February 6th at Littleton, was devoted entirely to visual instruction. Mr. Hays, manager of the Bausch and Lomb Optical Company at Boston, demonstrated various types of their still projectors, and Mr. C. Urban Shorey, of Lancaster, New Hampshire, followed with a demonstration of Bell and Howell equipment.

College Plans Course in Study of Motion Picture

The College of the City of New York has instituted a course on "The Art of the Motion Picture," to be conducted by Irving A. Jacoby, intended for "the intelligent movie-goer, the student of comparative art, and members of the motion picture industry who seek the proper perspective of films."

Sixteen lectures will be given in the course, each lecture to concentrate on a different phase of the motion picture. The course is to be supplemented by showings of important pictures no longer exhibited. The history, present trend and probable future of the motion picture will be considered.

Central Information Bureau for Educational Films

The Central Information Bureau for Educational Films has been formed in England to render service to the teaching profession and to social and industrial organizations in Great Britain, the Dominions, India and the Colonies who are interested in cinematography from their respective standpoints.

Mr. J. Russell Orr of the Bureau was for seventeen years Director of Education in the Colonial Service for the British, Dutch, Indian, Arab and African peoples in the Colony and Protectorate of Kenya. Since he returned to England in 1928, he has devoted his energies to the study of visual education and in 1930 accepted appointment as Secretary of the Commission on Educational and Cultural Films where he was brought into contact with all aspects of the educational film both at home and abroad. His experience, therefore, of the education of different races and of the progress of educational cinematography is considerable.

He is also fortunate in the collaboration of Mr. H. W. Samson whose travels in the Far East have brought home to him the immense service which cinematography can render to the less civilized communi-

ties of the Empire by the teaching of agriculture, afforestation and irrigation; child welfare, hygiene and sanitation; and the maintenance of law and order.

The aim of the Bureau include the following:—

- (a) The encouragement of the use of cinematography as an incentive to individual initiative: as an invaluable aid to scientific and industrial research; and as an attractive medium of education for all races within the British Commonwealth of Nations.
- (b) The maintenance of a register of non-theatrical projectors and of films illustrative of education, science, industry and social welfare.
- (c) The provision of a reference library of English and foreign books dealing with cinematography.
- (d) The organization of lectures in Great Britain on cinematography in all its aspects.
- (e) The distribution to subscribers of the monthly journal "The International Review of Educational Cinematography."
- (f) The building up for circulation among subscribers of a library of approved 16mm. films.
- (g) The organization of a centre to which teachers may submit for the guidance of film producers scenarios of films which are in conformity with the school syllabus.
- (h) Exchange of information with foreign film institutes and periodical exhibitions of the best foreign films of non-theatrical interest.
- (i) Co-operation with amateur cinematograph societies.
- (j) And, above all, supporting the findings of the Commission on Educational and Cultural Films as set out in the concluding chapter of their Report "The Film in National Life."

Talking Films Urged as College Economy

"Kinetographic pedagogs" to relieve what ails both education and the unemployed during depression were proposed by Dr. Ernest Seeman of Duke University, Durham, N. C., in a report to the educational committee of the Southeastern council, an association of educators.

"Kinetographic pedagogs" are talkies designed, under Dr. Seeman's ideas, to reduce teaching costs to fit falling taxes, and at the same time to give virtually free to unemployed an opportunity to satisfy "a boundless thirst" for technical and cultural knowledge. The films would be made by the master minds among educators, scientists, economists and famous leaders of men. They would combine the dynamic "close-up" of the movie with instruction suited both for teaching in schools and for giving the unemployed first hand lessons in technology, trades, commerce, history, hobbies—a practical and useful way of spending enforced leisure time.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

Science Education (February) An experiment, conducted by Professor C. C. Clark of New York University, to determine the value of "Sound Motion Pictures as an Aid in Teaching Science," briefly reported in the February issue of *THE EDUCATIONAL SCREEN*, is more fully described in this publication.

In comparing the advantages of sound motion pictures with those of silent motion pictures and identical lecture demonstrations, Dr. Clark found that the lecture type sound film was inferior, but sound films in which the sound is a vital part of the picture, are more effective than the silent film.

Another experiment involving visual aids is reported in this issue, on the value of "The Micro-Projector Compared with the Individual Microscope in Teaching High-School Biology," by Allan Strathers of the Weston, West Virginia High School. In addition to the initial saving in equipment, slides and time achieved by the purchase of a micro-projector, the results of the tests favored the use of the micro-projector as an improved teaching device. It provides for a correct detailed observation with group discussion under the direction of the instructor.

New York State Education (January) The fourth article in the Visual Education Series appearing in this periodical is "Pictures in Education," by J. J. Jenkins, Director of Visual Education of the Bronxville, New York, Schools. It is a short and concise discussion devoted primarily to the use of photographs, photographic reproductions, prints, and posters, suggesting methods for filing, mounting, and use.

Regardless of the size of the picture, the teacher is advised that the intensive study of a few pictures will bring far more effective results than looking at a large number.

Journal of the National Education Association (January) Miss Zoe A. Thralls of the University of Pittsburgh, contributes further helpful material for geography teachers with her article on "Globes, Graphs, and Museum Materials," all of which have their distinctive and specific functions. In teaching children to interpret and use globes, graphs and statistics, the same fundamental principles apply as in picture and map instruction.

The writer feels that museum materials have not been properly used in geographic instruction. Their value depends upon their selection and appropriate guidance in their use. She cites the exhibits of the

Buffalo Museum of Science as illustrations of effective exhibits.

The Atlantic Monthly (January) "Will Hays and What the Pictures Do to Us," by Norman Hapgood, reviews his Subject's background against which, eventually, the world saw Mr. Hays as potential Czar of Moviedom. Opinions vary anent that gentleman's activities as much as they always must in judging the program and theory of any individual placed in so acutely responsible a position. It is not the place here to express either agreement or disagreement with Mr. Hapgood's appraisal of his subject. Suffice it to say that the article is comprehensive, steady in its tone, and certainly fair.

Hundreds of thousands have some image in their minds of the Will Hays of slight frame, quick step, blue eyes, and ears outstanding. How many undertake to conceive clearly the soul behind the blue eyes, the active temper, and the friendly contact? To comprehend Hays, and what he means in the element of American life in which he is the leader, is not only to understand his influence justly, but also to understand the strata in our country that Hays instinctively represents.

Mr. Hapgood then reviews in detail, from his birth in Indiana to the acceptance of the difficult movie job, those influences of home, church, school, lodge and, finally, the professional and political activity, that molded Will Hays.

Those, however, who were to pay his salary suffered not at all from reflections on the moral effect of their productions. The benefits they hoped from the services of the cabinet officer were several and definite:—

1. Movements toward censorship were vigorous in a number of states. It was thought that Hays, as well as anybody in the country, would be able to present the passage of such legislation. He has done it.

2. Behind the political impulse toward censorship lay certain bodies of opinion, notably the churches. In understanding such moral opposition, and dealing with it, Hays was judged by the picture magnates to be second to none. In my opinion, the best tribute that can justly be paid him is to say that in forming groups inside his organization to keep in touch with every kind of expressed opinion, he has done all that circumstances have permitted.

3. The United States Post Office, the largest distributing agency in the world, was being handled with ease by its head. The picture business, in its three branches of production, distribution, and exhibition, was in utter confusion, and needed an executive with prestige and talent to give it unity. Nobody doubts that he has accomplished this work with skill.

Too much has been expected of him by the 3 per cent

(Concluded on page 86)

DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

Plans for Summer Meeting

The annual meeting of the Department of Visual Instruction will be held in Chicago on July 5 and 6, 1933. Dr. C. F. Hoban, President of the Department, has outlined a series of luncheon and afternoon meetings, leaving the mornings open for the general sessions of the N. E. A.

A committee has been appointed to complete details of a meeting place, local entertainment program, and the like. This is known as the Committee on Arrangements, and is composed of the following: Dr. Frank N. Freeman, University of Chicago; Paul G. Edwards, Director of Visual Instruction, Chicago City Schools; and Ellsworth C. Dent, Secretary of the Department. Tentative arrangements have been made and this committee plans an early meeting to complete all details.

As soon as a definite meeting place has been reserved, there will be suitable announcements in this section, as well as direct mail notices to all members of the Department. Printed programs will be available for general distribution.

The central theme for the summer meeting will be, "Relating Visual-Sensory Aids to the Curriculum." Prominent visual instruction workers and other educators are being invited to participate. Among those who have accepted places on the program to date are Superintendent R. G. Jones, Cleveland City Schools, Cleveland, Ohio, and Miss Elda Merton, Waukesha City Schools, Waukesha, Wisconsin.

It is expected that the 1933 meeting of the Department will be one of the most interesting and the largest in the history of the organization. Plans are being made to accommodate five hundred at each of the sessions, and additional space can be secured as needed. Those who plan to attend the luncheon meetings will do well to make reservations as far in advance as possible. It will be advisable, also, to make room reservations far in advance. The general demand for rooms among those who come to Chicago for the World's Fair, as well as the demands of those attending the National Education Association sessions may cause inconvenience to those who wait to make reservations after arrival.

The Committee on Arrangements will expect to give each member of the Department an early opportunity to reserve rooms at the headquarters hotel, as well as tickets for the luncheon meetings. Prompt attention to correspondence concerning

these matters will make the meeting more pleasant and profitable to all who may be concerned.

In addition to taking care of all personal reservations promptly, each member should assist those who are not members, but who may desire to attend the meetings of the Department of Visual Instruction. It is hoped that those who attend may desire membership as well, but the meetings will be open to all—with the exception of executive sessions—regardless of membership affiliations.

Encouraging News from Massachusetts

The following are quotations from a letter to the Secretary of the Department, written by Mr. Abraham Krasker, President of the Massachusetts Branch of the Department of Visual Instruction. It is hoped they may indicate, to a considerable degree, what could be done in other sections under similar direction.

"We had a very fine program at our annual meeting last Saturday. (See program in February issue of this magazine.) The same program not only served our annual meeting but was also repeated at the Massachusetts Schoolmaster's Club.

"We had a very stormy day—the greatest snowfall we have had for the past five years. In spite of this, we had an attendance of about 125 people. The hospitality extended to us by the Brookline Public School was very gratifying. The building was beautifully decorated for the purpose. The classrooms had many fine displays showing the use of visual education as an aid to instruction. There was an unusually large group of exhibitors. Many expressed the feeling that it was very successful, although the attendance was not as great as had been expected.

"One of the signs of the growth of the movement may be the increase in the number of courses in this field being offered by educational institutions. Enclosed is a complete list (see below) of the courses offered by various institutions, and the instructors in charge. This is a distinct growth in the past year and is a good sign of the rapid growth to be expected in the very near future.

"The new course about which I wrote you, *Leading Movements in Education*, operated by means of sound motion pictures, had its introduction last Thursday. It was a thrilling, new experience. We offered this as a Harvard-Boston University extension course to the teachers of Quincy. Of the five hundred teachers employed in Quincy, over

one hundred attended the first meeting of this course. About eighty enrolled for it. There was unanimous agreement that the course was unusually worth while. Those attending were thrilled with the experience and expressed their feeling of the unusual possibilities such a method provides.

Teacher-Training Courses Increase

It is interesting to note the rather rapid increase in the number of teacher-training courses being offered in the field of visual instruction. The lead taken by Pennsylvania in requiring such courses for certification has served to bring the matter to the attention of educators in other sections of the United States, particularly those who are charged with the training of teachers for service among the public schools.

Teachers in Massachusetts are now being offered eight residence and three extension courses in visual instruction, one of which is designed primarily for religious workers. The institutions, courses and instructors are listed below:

Institution	Course	Instructor
Boston College	Visual Education	Mr. John Hennessey, Director of Visual Education, Boston Public Schools.
Boston Teachers College	Visual Education	Mr. John Hennessey
Boston University, School of Education	The Use of Teaching Aids	Mr. Abraham Krasker, Director of Visual Education, Quincy Public Schools.
	The Management of a Teaching Aids Department	Mr. Abraham Krasker
	Visual Aids for Teachers of Science	Dr. George Roemmert, Biological Museum, Munich, Germany.
Boston University, School of Religious Education and Social Service	Teaching Aids in Nature Study	Dr. Earle Brooks, Professor of Education, Boston University School of Education.
	Motion Pictures in the Church	Dr. Howard M. LeSourd, School of Religious Education and Social Service, Boston University
Harvard University, School of Education	Sense Aids in Education	Dr. Phillip J. Rulon, School of Education, Harvard.
Harvard-Boston University Extension	The Use of Teaching Aids	Mr. Abraham Krasker
Mass. Dept. of Education, University Extension	Visual Education	Mr. John Hennessey
	The Making of Visual Aids	Mr. Burdette Buckingham, Instructor of Physics, Senior High School, Quincy.

An Instructor in Visual Education, member of the Department of Visual Instruction, will be available at the end of the present school year. He is qualified to conduct teacher-training courses in Visual Instruction, teach methods of research and supervision of student publications. An instructor of photography during the war, he is familiar with all forms of photography including motion pictures. He may be communicated with through THE EDUCATIONAL SCREEN, 64 East Lake Street, Chicago, Illinois.

It is quite probable that a good part of this emphasis upon the training of visual instruction workers in Massachusetts is due, in part, to the efforts of the very active Massachusetts Branch of the Department of Visual Instruction, of which Mr. Abraham Krasker is President.

Several schools in the Rocky Mountain area are planning visual instruction courses for the summer sessions of 1933. Those which have such plans, tentative or completed, include the University of Colorado; Colorado Agricultural College; Brigham Young University; New Mexico Normal University; and the Arizona State Teachers College at Flagstaff.

Membership Application Blank

Office of the Secretary,
 Department of Visual Instruction,
 1812 Illinois Street,
 Lawrence, Kansas.

Date.....

I herewith make application for Active Associate Institutional Contributing Membership in the Department of Visual Instruction of the National Education Association, combined with the National Academy of Visual Instruction, covering the period of one year from date.

Check below the preferred date for payment of dues.
 Remittance attached First of next month.

Name

Position

Residence

City and State.....

I am a member of the
 I am not National Education Association

Note: Make checks payable to the Department of Visual Instruction.

FILM PRODUCTION ACTIVITIES

The aim of this new department is to keep the educational field intimately acquainted with the increasing number of film productions especially suitable for use in the school and church field.

Eastman Releases Lincoln Picture

A motion picture life of Lincoln for classroom projection is currently announced by Eastman Teaching Films, Incorporated. In two reels the motion picture conveys a remarkably lucid story of Abraham Lincoln's career, against an authentic historical background.

The motion picture, bearing simply the title *Abraham Lincoln*, is characterized by brief sequences revealing significant episodes in the Lincoln history. The brevity of the episodes rather than detracting seems to add clarity to the screen biography by moving the story of Lincoln's life rapidly forward.

Boyhood, young manhood, early political experi-



The President Visits General Grant

ences, the debate with Douglas, and election to the Presidency occupy the first reel, Civil War problems, flashes of the war itself, the end of the war (symbolized rather dramatically by a close-up of the clasped hands of Lee and Grant after the surrender); the rejoicing that the nation was preserved, and Lincoln's assassination—these scenes fill the second reel.

Throughout the motion picture, scenes reflect the kindly, sagacious Lincoln whom his country men revere. George Billings, whose appearance is remarkably close to Lincoln's, plays the part. Grant and Lee are other characters represented with close fidelity to the originals. The film has been made historically authentic in every detail by exhaustive investigation on the part of the Eastman Teaching Films staff.

Although *Abraham Lincoln* was prepared for classroom purposes, with the teacher leading discussion

before or after the projection, the film, like last year's motion picture life of George Washington, is expected to appeal also to patriotic societies and similar organizations.

Culver Academy Filmed

Three 35mm sound-on-film pictures dealing with the activities of the boys at Culver Military Academy have just been finished by Chicago Film Laboratory.

Culver Woodcraft emphasizes educational recreation showing the camps and established routine during the eight weeks Summer School which Culver offers to the older boys in its Naval and Cavalry Schools and to the younger boys in its Woodcraft School. The picture portrays the work of the Handicraft Class, including Basket Weaving, Cane Weaving, Making of Moccasins, Building of Model Air Planes and other studies. The athletic side of the Woodcraft School showing boxing, baseball, swimming and various games, is also brought out. The unusual care which the boys are given is definitely brought out including the watchfulness which predominates at Culver.

Naval and Cavalry School Picture deals with "Organized Vacation" which was pioneered at Culver in 1902, showing the very complete facilities at Culver for this type of activity. The picture portrays the training which the boys receive in taking Sounding, Reading the Sextant, Sailing by Chart and Compass—controlling mechanical crafts in the water, and particularly the enjoyment which goes along with this teaching. Sports in the water are also shown as sports play a large part in the lives of the boys at Culver.

The Cavalry side of the picture shows the mounts of the famous Black Horse Troup and includes the many interesting activities which the boys go through in their eight weeks course in the saddle.

Youth in Action opens with scenes of Founder's Rock at Culver as this Rock was the favorite seat of Henry Harrison Culver who founded the Academy in 1894. The estate is over 1000 acres with 21 impressive buildings rising above the leafy oaks. The film brings out the fact that in June 1932 the Culver family gave to education this \$6,000,000 plant which is now a trust foundation. The picture proceeds to show the life of the cadets from the Boom of the Morning Gun to the end of the day, including shots of classrooms and various sports. Then follows the life of a cadet in the infantry,

showing him marching to parade and learning precision, teamwork and cooperation. The picture ends with the graduation exercises.

All of these films are accompanied by a narrative voice and musical background, and are extremely interesting for practically every type of audience. Information regarding the securing of these films can be had by writing direct to Major J. W. Henderson, Director of Enrollment, Culver Military Academy, Culver, Indiana.

Pictures for Special Days Planned

The RKO Studio is preparing a series of productions appropriate for showing in connection with holidays and birthdays of important people, such as Paul Revere, Thomas Edison, Abraham Lincoln, George Washington, and Alexander Bell. Saint Valentine's Day, Saint Patrick's Day and Flag Day will also be pictorially illustrated.

This announcement should be welcome news to the non-theatrical field, which is constantly seeking material on such subjects.

New Dairy Lecture Film

When the Cows Come Home, a new 35 mm. sound-on-film motion picture just released by the U. S. Department of Agriculture, shows, according to studies and records made and compiled by the Bureau of Dairy Industry, that cows that freshen in the fall and winter win out on an average in production of butterfat over all others; that registered cows excel the grades in production and income. It is brought out that feed records favor clover, alfalfa, grain, and good pasture. Types of high-producing cows, and of low-producing cows, pass in review.

The lecture is by Dr. J. C. McDowell, chief of the dairy herd-improvement investigations of the Bureau of Dairy Industry.

Adventure Series Completed

The Vitaphone Studio announces the completion of the second series of thirteen *World Adventures* short subjects, photographed and edited by E. M. Newman, the famous lecturer and traveller. This series, each subject of which contains the strange customs and habits from all over the world, includes the following: *Dancing around the World*, *Transportation of the World*, *An Oriental Cocktail*, *Curious Customs*, *From Bethlehem to Jerusalem*, *High Spots of the Far East*, *Main Streets*, *Beauty Spots of the World*, *Workers of the World*, *Wonder Spots of the World*, *Costumes of the World*, *Peculiar Ceremonies*, and *Tall Spots of the World*.

Mr. Newman, who has spend more than forty years traveling over two million miles through every country in the world in search of material, still con-

tinues his "travel habit" of spending six months every year in foreign climes and the other half in assembling his material into film form for the lecture platform. His latest films, taken between Mexico and Colombia, include scenes from Guatemala, British Honduras, Salvadore, Nicaragua, Costa Rica and Panama.

Vitaphone subjects are available through the exchanges of Warner Brothers.

New Industrial Productions

Among recent industrial releases available free of charge are the following:

East Meets West, a 1-reel 16mm sound subject produced by J. Alexander Leggett for the No Mend Hosiery Mills of Philadelphia, showing the manufacture of silk hosiery.

Westclox Wake the World, a 3-reel subject available in 16mm and 35mm from the Western Clock Company of LaSalle, Illinois, produced by Atlas Educational Film Company. The film tells the complete story of the manufacture of clocks.

Brakes, a 6-reel sound film in 16mm and 35mm produced and distributed by DeFrenes & Company, Wilkesbarre, Pa., showing various types of brakes and their care.

Pocahontas, a 3-reel film available in 16mm and 35mm sound on the mining of coal, produced by Visu-graphic Pictures for the Pocahontas Fuel Company of New York City, from whom it may be secured.

Two Releases from Educational

Educational announces the acquisition of a two-reel spectacle showing an awe-inspiring under-sea volcano, in action. The picture will be released under the title *Krakatau*. The island of Krakatau, between the islands of Java and Sumatra, is one of the world's worst hot-beds of volcanic eruptions and earthquakes. Both above the ground and under the sea are many ever-threatening craters. When the great under-water crater near Krakatau recently broke loose, J. H. Bekker and his associate scientists were ready with their cameras. While the natives and the wild animals in the volcanic vicinity fled in terror, these men turned their lenses on this marvelous sight from every point of vantage, taking their lives in their hands by flying perilously near the crater.

The Iceless Arctic is a film record of a trip to Alaska, showing the land-locked harbor of Sitka, and the famous city of Skagway, which had a population of 30,000 during the gold rush of '98 and now has a scant 300. Just below the Arctic Circle a farmer is seen busy with his spring ploughing. The journey is concluded with a visit to the salmon traps near Ketchikan.

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

A Survey of Motion Picture Uses in the Church Field

A FAIRLY comprehensive resumé of the uses of 16 mm. motion pictures in church work has recently been issued by the Bell & Howell Company. We have been setting forth these various uses from time to time in this department, but it occurred to us that our readers would be glad to see various applications assembled in one grouping.

Naturally the uses given are not exhaustive and there are undoubtedly many others which are quite important, but those set forth are distinctly worthy of consideration. They are as follows:

1. Sermon illustration, both by Biblical and secular film material.
2. Entertainment, for the raising of funds and the enlivening of meetings of church auxiliaries.
3. Promotional films showing work of congregation on building or publishing activities, relief work, maintenance of charitable institutions, etc., thereby increasing financial support for such work, and enlisting new workers.
4. Preservation of historical record of congregation and its activities.
5. Education—for classes in Sunday Schools, or parochial schools, where the latter are maintained.
6. Mission work is illustrated in an incomparable manner.

The usefulness of the motion picture is no longer questioned. The modern 16 mm. projector is entirely safe from all fire hazard, simple enough for a child to operate, powerful enough to give pictures of theatrical brilliance even in larger auditoriums. An abundant supply of suitable film is obtainable, provided general educational material is used to supplement the strictly religious material. Of the latter, too, there is more than is commonly supposed. A fairly complete list is obtainable from THE EDUCATIONAL SCREEN.

Many churches buy their projector as they would any other piece of essential equipment. Others,

especially in localities hard hit by economic distress, have worked out interesting and effective special methods of raising funds for the purchase of 16 mm. projection equipment—both for silent and for “talkie” films. The amount involved is not beyond the resources even of the small church. Silent projectors cost from \$135.00 to \$298.00, with “talkie” outfits approximately doubling this cost. I should be pleased to help any clergyman by supplying information with regard to financing plans.

Church Movies in the Depression

What about movies in the church field during the depression? We hear of several clergymen presenting motion picture programs and giving the proceeds to charity. One of our clerical friends has been putting on such programs for the last month several nights a week. Sometimes the offerings have not been staggering in amount, but there has always been something to pass on to those who are in misfortune.

We hear also of churches putting on free movie programs to keep up the morale of their members and friends. This does not mean that these churches are offering unfair competition to the neighborhood movie houses, because the type of program is entirely different, but it does mean that they are doing what they can to offer a clean type of amusement and recreation to people who are depressed.

As we have mentioned several times in this department, there is now available a fairly satisfactory volume of free commercial films which are suitable for showing in church auditoriums. There is available especially a number of travel films which can be secured from various travel organizations and steamship offices.

We should be pleased indeed to hear from our clergymen friends with regard to whether or not they are doing work of the above character. It seems to us that here is a very good chance to use the motion picture projector to help in building up morale, which after all is one of the most important things in this current depression.

THE FILM ESTIMATES

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

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

Estimates are given for 3 groups

- A—Intelligent Adult
- Y—Youth (15-20 years)
- C—Child (under 15 years)

Bold faced type means "recommended"

Broadway Bad (Joan Blondell, Ricardo Cortez) (Fox) Virtuuous chorus-girl mother, with had reputation, wins stardom from scandalous divorce. Converts her gift-jewelry into cash for trust fund and accepts atigma in court to save her child's future. Joan Blondell good in rather mediocre story.

A—Possibly Y—Unsuitable C—Not for them

Cavalcade (Diane Wynyard, Clive Brook) (Fox) Great motion picture material greatly presented. Poignant history of great events in last 33 years and their effect on true English people. Merely tensely human episodes, with little dramatic connection, vividly portray social heroism and the outrageous tragedy of war.

A—Notable Y—Excellent C—Good but heavy

Child of Manhattan (Nancy Carroll, John Boles) (Columbia) Taxi-dancer heroine is mistress of socially prominent millionaire, who offers marriage when child is born. Baby dies and heroine nobly runs away to arrange for divorce, but hero finds her in time for happy ending. Largely false and improbable.

A—Hardly Y—By no means C—No

Deception (Leo Carrillo) (Columbia) Attempt to cash in on the crookedness of the "wrestling game." Easy appeal for followers of the prize-ring, with ringside English, cheap romance of cheap people, and very violent and convincing wrestling bouts.

A—Hardly Y—Better not C—No

Employee's Entrance (Warren William, Loretta Young) (First Nat'l) Hard, unscrupulous head of Department Store well played by William. He preaches "take 'em and leave 'em." Heroine gets job by visiting his apartment—goes again after she has married a decent chap. Sex kept thoroughly in foreground.

A—Possibly Y—Pernicious C—No

42nd Street (Warner Baxter, Bebe Daniels) (Warner) Good musical comedy drama, with striking ensembles and notable trick photography, well acted, directed and cast. Back stage life made interesting and glamorous. Much wisecracking, drunkenness, and very gay romance. Some sincerity and much sophistication.

A—Depends on taste Y—Better not C—Not for them

Hallelujah, I'm a Bum (Al Jolson) (U. A.) Rollicking, human picture with Jolson engaging as the non-working, much-singing Central Park hobo, intimate friend of big politician. Both being unknowingly in love with same girl brings complications, and pathos. Rhymed dialog painful at times.

A—Rather good Y—Amusing C—Amusing

Handle With Care (James Dunn, Boots Mallory) (Fox) Inadequately written and directed, slow tempo, thin plot, and El Brendel's comedy work feeble. But uttery clean, wholesome picture, with much human interest, swarms of children, engaging hero and heroine, and notable work by child actor, Buster Phelps. Fine "family" stuff.

A—Fairly amusing Y—Amusing C—Very good

Hard to Handle (James Cagney, Mary Brian) (Warner) Fast, peppy story of high-powered, unscrupulous but engaging young promoter—fake advertising, quick profits—good warning against fake publicity, but bad example of advertising ethics. Free of sex save a vulgar one-night affair lugged in.

A—Lively Y—Doubtful C—No

King of the Jungle (Buster Crabbe, Frances Dee) (Para.) The "Lion Man," physical Apollo and mental child, reared by lions in their native wilds, is captured with them for circus. Charming Frances Dee redeems him. Highly incredible but largely wholesome and healthily exciting. Much animal interest.

A—Rather good Y—Entertaining C—Mostly very good

Ladies They Talk About (Barbara Stanwyck) (Warner) The beautiful, hard, notorious heroine, pal and moving spirit among bank bandits, adored by young reformer, does term in jail. Prison life and inmates shown picturesquely and amusingly. She planned vengeance upon release, but married her adorer instead.

A—Perhaps Y—Better not C—No

Lucky Devils (Bill Boyd, Dorothy Wilson) (RKO) Picturizes Hollywood activities of the stunt-men who risk their necks for \$50 a week. Obvious exploitation, with thrills and romance carefully worked in. Some human-interest attained. But acting is mediocre and dialog crude.

A—Hardly Y—Fair C—Very exciting

Luxury Liner (George Brent, Zita Johann) (Para.) Showy but feeble story, laid on board great ship during Atlantic crossing, supposed to give cross-section of life from first to third cabins. Interesting for background and travel atmosphere, but the "life" consists mainly of conglomerate of sex affairs.

A—Mediocre Y—Unwholesome C—No

Parachute Jumper (Douglas Fairbanks, Jr.) (Warner) Merely sensational picture about two care-free super-brave aviators who leave the Marines, hunt jobs, and meet the down-and-out heroine. Thoroughly spiced with cheap sex stuff and run-running by air, before hero finally settles down.

A—Mediocre Y—Certainly not C—No

Rasputin and the Empress (The Barrymores, Diana Wynyard, Ralph Morgan) (MGM) Excellent historical picture, true in major features, about Russian royalty, the Great War, and the sinister Rasputin's great role therein. Splendidly acted, thrillingly entertaining, with some very violent scenes. Only defect, Rasputin is made over-melodramatic, wholly repugnant and unhuman.

A—Notable Y—Very strong C—Too strong

Robbers' Roost (George O'Brien) (Fox) Another Western of usual ingredients, such as cattle-rustling, frontier romance, violent heroes and beautiful scenery. Morally objectionable and adequately thrilling to satisfy those who hunger for this sort of thing.

A—Hardly Y—Good C—Exciting

Secret of Madame Blanche, The (Irene Dunne) (MGM) Fairly convincing story, well acted, with Irene Dunne as young chorus-girl and finally old hostess in a dive, having remained decent throughout. Long-lost son—finally reunited. Many charming scenes but several questionable. Lionel Atwill does fine role.

A—Fair Y—Unsuitable C—No

So This Is Africa (Wheeler and Woolsey) (Columbia) Perhaps crudest and craziest hash to date by these "stars." Burlesque African exploitation with burlesque sex stuff which is cheap, vulgar and ridiculous. Humor stale, dialog stupid, plot idiotic, taste ribald. Not even good "box office."

A—Trash Y—Trash C—No

Speed Demon (William Collier Jr.) (Columbia) Speed-boat-racing melodrama, lively thriller, full of hokum, in which hero loses race and girl through drinking, adopts a walf, loses him to gangsters—but finally makes

national come-back to win walf, race and wife.

A—Hardly Y—Hardly C—No

State Fair (Will Rogers, Janet Gaynor) (Fox) Homely, human, appealing picture of country life. Mostly wholesome entertainment, as devoted family of four set out for joyous week at the Fair, with prize hog and mince pies. But for "punch," son and daughter crassly deceive loving parents to achieve clandestine love-affairs, one very dubious.

A—Good of kind Y—Mostly fine C—Mostly good

Topaze (John Barrymore, Myrna Loy) (RKO) Masterful work by Barrymore as French chemistry professor, sincere, honorable, credulous. Tricked into lending his name to spurious product, he learns truth, leaves school and cynically turns tables on the dishonest politicians. Continental mistress in east, but no objectionable actions.

A—Excellent Y—If mature, good C—Beyond them

20,000 Years in Sing Sing (Spencer Tracy) (First Nat'l) Realistic, prison life based on Warden Lawes' famous book. Tracy is big shot prisoner who expects favors but gets none. He learns better and finally gives his life for another. Lots of toughness and crude romance.

A—Perhaps Y—Perhaps C—No

Vampire Bat, The (Lionel Atwill, Fay Wray) (Majestic) Fantastic tale of mysterious murders, supposedly by vampire bats, until half-mad doctor-scientist is revealed as murderer, seeking human blood for his experiments. Usual scare effects agreeably absent, but ghouliah murderer becomes known too early and interest wanes.

A—Hardly Y—Perhaps C—No

Private Jones (Lee Tracy) (Universal) Comic war picture, rather second rate on the whole but much of it amusing. Tracy good as brazen, irrepressible private, drafted against his will. Old mother dying and sister in power of lecherous old boss, make him willing to go, but he is a rebel to the end.

A—Hardly Y—Perhaps C—Hardly

What! No Beer (Buster Keaton, Sebrozzle Durante) (MGM) Crude, ribald, stupid hash of stale gags and familiar slapstick which tries to play up the near-at-hand return of legal beer. Probably poorest Keaton picture to date. Benighted attempt at amusement.

A—Stupid Y—Poor C—No

Whistling in the Dark (Ernest Truex, Una Merkel) (MGM) Good, well-acted light comedy from the stage play with Truex as star. Mystery-story writer and his fiancée fall accidentally into power of gangsters. Forced to devise a murder as price of freedom, he still saves the victim. Cheapened by supposedly necessary bed-room scene.

A—Amusing Y—Doubtful C—Hardly

Wild Women of Borneo (Travelogue) (Television Co.) Some interesting shots of animals and of primitive human life and customs in Borneo wilds. Made in 1931, now re-edited, patched, with naive vocal accompaniment added. Much obvious faking, and the publicity attempts sensational appeal which is cheap and false.

A—Mediocre Y—Perhaps C—Hardly

Woman Accused, The (Nancy Carroll, Cary Grant) (Para.) Another society "drama" wherein heroine with scarlet past murders for good cause her racketeer ex-sweetie—then goes on "boat trip" with sweet young lawyer, who saved her from chair, as pre-wedding honeymoon. Usual "moral" ending as would be expected.

A—Depends on taste Y—Unwholesome C—No

Among the Magazines

(Concluded from page 79)

(to use his own estimate) who go to the theatre for originality, ideas, and literature. He does what he can for them. But he knows that he is dealing with 97 per cent; that nine out of ten enter the theatre for what is commonly called amusement; and that what amuses them is naive, romantic, and forced. Hays never dreamed he could make the pictures satisfactory to people whose pleasure is gained in the higher thinking. He did have, and still has, the wish to have the pictures do no harm to the moral sense.

"When Hays took the presidency, the Motion Picture Producers and Distributors of America, Inc. included eight producers and one distributor, and it produced 60% of American films. By 1930 of twenty-five members, twenty-one were producing companies, three were manufacturers of equipment, one was engaged in distribution, and it was a subsidiary of a producer; and, of the twenty-one producers, three were also distributors and one was a

Dr. McClusky's Report on VISUAL INSTRUCTION Its Values and Its Needs

THIS REPORT, made at the request of Mr. Will H. Hays, summarizes the author's ten years of intimate study in the field of Visual Instruction from the research angle. Dr. McClusky's first contact with Visual Instruction was at the University of Chicago where, under the guidance of Dr. Frank Freeman, he wrote his doctor's thesis in that field. Since that time as chairman of a National Educational Association sub-committee and as President of the National Academy of Visual Instruction he has made a number of surveys of the use of visual aids in the educational field, thus giving him a wide background of rich experience for this study which is reported herewith.

Among questions answered in this report are: What is the Present Status of Visual Instruction? How many courses in Visual Instruction are offered in the schools of our country? How many teachers in training are being instructed in the methods of Visual Instruction? What is the annual expenditure of city school systems for Visual Instruction? What are the immediate needs of Visual Instruction? What can industry do to cooperate with educators in furthering the advantages of this new medium of teaching? It is the only authentic and up-to-date study of its kind ever made.

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manufacturer of equipment." Mr. Hapgood then indicates the kindness and gaiety with which Mr. Hays goes about his difficult work. "In arbitration he has been brilliantly successful . . . As Hays has undoubtedly strengthened the combination it is fair to ask . . . if he has hurt the . . . progress of the cinema."

Mr. Hapgood then speaks of the Brookhart Bill, which will eliminate the blocking system if passed, but which is doomed not to pass (very likely) because two arguments will be offered to defeat it. The first will concern the inadvisability of risking large sums of production expense with no secured market, and the second will suggest that there is no sign whatever that the local manager would reflect a taste higher than that exhibited by the producers. The second of these two considerations is the one that will concern the family with children. It will, in general, harmonize with the facts, but in some localities it will not.

Mr. Hapgood next discusses at length Mr. Hays' "Department of Public Relations" which includes all those cooperative activities with clubs, churches, community organizations and Parent Teachers Associations to present better films in their respective communities.

Space does not permit of further quotation from this very important and significant article. Mr. Hapgood closes his fair and comprehensive discussion with wise and objective commentary upon those matters so long before the attention of serious students of the film as it affects its observers, particularly children. He mentions the many attempts to furnish children's matinee programs, the over-emphasis of sex and crime as affecting or not affecting young audiences, accordingly as authoritative viewpoints are offered by experts representing both assertions, and, finally, he views the opinions of such men as Mr. Ramsey McDonald, Stanley Baldwin, Mussolini and John Galsworthy, in their feeling about the influence of the film upon foreign relations.

Journal of the Society of Motion Picture Engineers (December) Charles E. Fraser's paper, "Motion Pictures in the Navy," may astonish many in that it presents so vividly the importance of the film in the general program of morale. The author states that, as a peace time equipment, the film furnishes 45% of the recreational activity. "The navy maintains the largest entertainment enterprise in the world—over 300 'theatres,' three large distribution exchanges, and 1000 feature programs constantly in circulation. Much of the equipment is purchased with private funds collected from the Navy personnel." The article is a long and informative discussion of the facts, mechanical and executive, involved.

SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

Director, Scarborough School, Scarborough-on-Hudson, N. Y.

Our Bird Sanctuary---A Project

ETHEL M. HILL

OUR AIM was to demonstrate to the pupils the presence of all art elements and principles in Nature as well as in studio work, and to bring a touch of Nature into the classroom to children who know all too little about it.

This involved much preparation and research work of the most interesting and fascinating type. As an initial start we visited a rock garden which had been set up by well known nurserymen in our largest department store. Here the class made notes of the kinds of plants, the nature of the soils, and the practical utility of the elements of design in the structure of the garden.

Then, as is usual in most of our work, the class was divided into congenial groups, each of which had a special assignment of its own choice. One consulted books at the library on the construction of bird sanc-

tuaries, rock gardens, etc. Another studied some of our commonest birds in relation to their habitat especially. All the pupils at different times studied an excellent collection of mounted specimens at the Museum. Then in our art room we had available at all times during the development of our problem the Audubon bird charts and a few well mounted specimens of birds.

made a special study of the nests of the birds to be placed in our garden.

From a number of plans drawn one had been chosen to be followed and under the supervision of the manual training department some of the boys had constructed a waterproof base. Soil, plants and shrubs were secured from a nurseryman. Then the work began in earnest. Each group applied itself assiduously to its part of the work and everything progressed happily. It was a revelation to the teacher to note the deep and almost reverent interest displayed by those who set up the sanctuary. Each shrub and each plant seemed to speak a message to those who had the pleasure of placing them in their assigned places. After the planting of the first group of plants the teacher decided then and there that each pupil must have the opportunity before the completion of the garden to place one plant — no matter how small. After all one touch of Nature *does* make the whole world kin.

Not one child had ever modeled birds, and again the teacher felt rather than saw the intense feeling with which each pupil handled the clay and studied the beautiful specimens and pictures. The result was a delight to all.

In the estimation of the teacher and of those who were especially interested, it was a worthwhile project for it made a deep impression upon our pupils. It aroused great interest, especially in Nature and the relation of design to Nature. It stimulated independent thinking and individual work. It developed confidence in the children of their native ability and certainly gave them the habit of research work.

One group indicated sufficient interest to start a small sanctuary in the home yard of one boy in the class and several declared their intentions to make birdhouses to place in trees in their own yards.

At a demonstration of Visual Education in our school this class had the responsibility of interpreting the problem to visitors. Their interpretation in their own words follows:

"Our aim was to make our Bird Sanctuary consistent in structure, color and purpose. We placed our plants and shrubs with the idea that it should look natural—not artificially created. And in order that this might be true we knew that design and pattern must be considered so a plan was drawn.

"We tried for order and beauty by following the



The Completed Project

Another group essayed the study and construction of birdhouses to be used in the completed sanctuary. Bird baths was the problem of one group and several

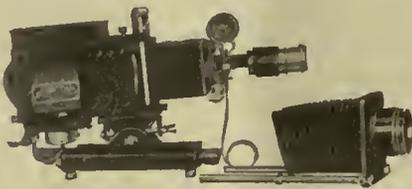
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Classroom Lanterns

A Real Necessity

In these days of curtailed finances every dollar must do double duty—Dollars invested in the combination glass slide, film slide and microscope slide lantern—Model DC—will bring more than double returns to both the teacher and the pupils.

The use of these visual aids increases interest, reduces failures and repeaters, and brings to the students a much more comprehensive understanding of the subject they are studying.



In Model DC you are getting a three-purpose lantern at a very low cost. It has a number of special features built in to the lantern for the convenience of the teacher—all are listed in booklet K-78, sent gratis.

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laws of design and therefore Nature's way of design. This gave us proportions pleasing to the eye.

"Since another aim in the construction of our Sanctuary was to provide a home for our birds we found there had to be a variety of planting areas for which we selected the proper plants — shrubs in the background for shelter, flowering plants for some birds, like the humming-bird, for instance, and greenery and water for all.

"We found it a real art to attempt to occupy space without taking away from space.

"In Nature we know that birds quickly adapt themselves to their surroundings in habit, form and color so we modeled our birds with that in mind and the result in the completed bird we found to be true to all laws of color and design."

"There is a lesson in each flower,
A story in each stream and bower,
In every herb on which you tread
Are written words, which rightly read,
Will lead you from earth's fragrant soil
To hope and holiness and God."



In connection with the work described in the above article, we are glad to offer the following information regarding the Audubon colored bird-pictures and leaflets furnished to school teachers and pupils by the National Association of Audubon Societies.

The plan is very simple. The teacher may explain to the pupils that they are going to form a Junior Audubon Club and have a few lessons, from time to time, about some of the more common North American birds. The teacher will also explain that each child wishing to be enrolled must bring a fee of ten cents in return for which he will receive a set of six beautifully colored bird-pictures made from original paintings by America's leading bird-artists. Accompanying each of these pictures, there also will be a leaflet with four pages of text, written by well-known authorities on bird-life.

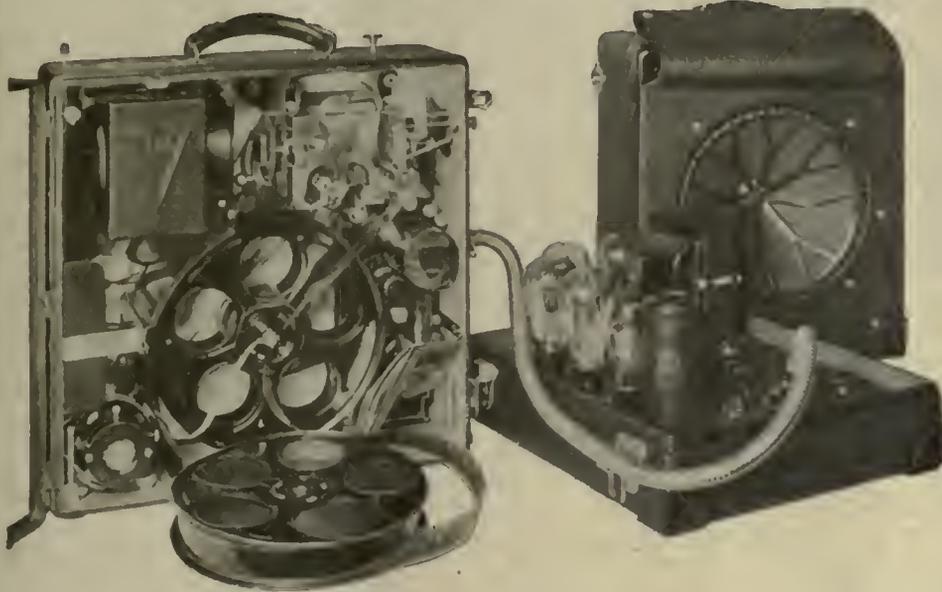


The Morning Dove

Every teacher who is successful in forming a club of twenty-five or more receives free a year's subscription to the magazine *Bird-Lore*, which is the world's leading, popular periodical devoted entirely to Birds.

LACK OF SCHOOL FUNDS HAS FORCED THE SCHOOLS TO A POLICY OF SELF HELP

"Self Liquidating Equipment" Is the Need of the Hour



The Chicago School System has been harder hit than any other — but read these letters:

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"Our admission price is 10 cents and outsiders are excluded. The sale of tickets and advertising is limited to the school and is handled through our school organization 'The All-Calumet Civic League'. We have run a successful show with as little as four days notice. We selected DeVry equipment after trying _____, _____, _____." (Four leading competing machines.)

Yours truly,
(Signed) Amerigo R. Sansone
The Calumet High School (Chicago)

"We usually arrange for a show once a week and run three performances due to the enthusiastic support of our students. As there is an unlimited supply of really good educational motion pictures, our programs are never dull.

"When we first conceived the idea of using talking motion pictures as an educational medium, we frankly were afraid of the obligation, but your statement that a 'DeVry pays for itself' has held true.

"We decided on your equipment after witnessing demonstrations by practically every other portable and semi-portable equipment on the market. We sincerely and heartily recommend it to any similar institution."

Yours truly,
(Signed) Wm. G. Just, Electrical Dept.
Roger Sullivan Jr. High School (Chicago)

The Depression isn't all Bad. It has driven the schools to do now what they should have done years ago—use Visual-Sound methods in all departments of the school—and in the Auditorium. By buying 35mm Sound-on-Film equipment, regular theatre talkies can be shown, to raise money for paying for the equipment, and to raise money for other purposes as well.

Give Regular Theatre Talkies as soon as it is installed. Afterwards, show Educational films in all departments of the school. The DeVry Sound-on-Film Projector guarantees to furnish as good sound and pictures as any theatre in America.

DeVry also converts your old 35mm projector into professional quality sound-on-film at low cost.

Write for similar letters from Crane, Emerson and other schools. Send for free booklet: "Raising Funds with DeVry Talkies." HERMAN A. DeVRY INC. 1111 Center St., CHICAGO

The bird-study material is supplied the children where as many as ten are enrolled.

Junior Audubon Clubs have become very popular in many of the schools in the United States and Canada, and altogether more than four and one-half million members have been enrolled in bird-study under this arrangement. Many teachers make a practice of renewing the work every year, as they have found by experience that far better results are obtained where the work is given continuity. For instance, a child who every year for five years, has brought his fee of ten cents has had the opportunity of studying thirty birds, and if properly instructed has saved all his leaflets and colored pictures which have been bound together in a little book. Last year 161,384 boys and girls were members of Junior Audubon Clubs.

The headquarters of the Audubon Societies is located at 1775 Broadway, New York City.

County Cooperative Educational Film Library

Nine Berks County (Pa.) schools have combined into a "Visual Educational Library Association" for making available 16 mm. educational films. The action was initiated by J. L. Appenzellar, Supervising Principal of Wyomissing School District. Mr. Appenzellar writes: The response to the movement has been very encouraging. At the beginning we had set as a goal six contributing schools. A number of other districts have rented films from us, and I believe that, with the assistance given them by members, they are becoming interested in visual education. Our projector has been used extensively by neighboring schools that are unable at the present to purchase one." (*Filmo Topics Magazine.*)

A Geography Lesson With Visual Aids*

SUE BISHOP

I. Lesson Statement

In Asia much of the work is done by animals and people rather than machines.

II. Aims

Immediate—To get acquainted with different types of labor in the Orient.

Ultimate—To discover that these types of labor depend largely upon—

1. Surface of country
2. Climate
3. Density of population

III. Methods Used

- A. Slides—Commercial and made by pupils.
- B. Moving Pictures.
- C. Geographic Pictures
- D. Note Book Work—with oral check up
- E. Written Check Up Test

IV. Introducing the Lesson (Use black-board)

By questions draw upon pupils information gained through past experience, reading, and observation as follows:

A. List animals commonly used in—

(On board) (From pupils)

1. Deserts and dry lands Camels-Yaks
2. Hilly regions and high plateaus
 Donkeys-Mules
3. Warm, swampy parts
 Elephants-Water Buffaloes
4. Cold regions Dogs-Ponies-Horses
5. Farms Oxen-Bullocks-Donkeys

B. Coolie labor would be found mostly

1. In cities . . Porters-Ricksha Men-Peddlers
2. On rivers
 Poling boats-Loading and Unloading
3. On farms . . Plowing-Reaping-Threshing

V. Presentation of Hand-Made Slides by Pupils

1. The Ricksha Man
2. The Furniture Mover
3. Beating Out Grain
4. A Sedan Chair
5. A Yak
6. A Chinese Wheelbarrow
7. Carrying Tea
8. A Samoan
9. A Water Buffalo
10. An Ox Cart of India

*Editor's Note — We are indebted to Miss Sue Bishop of the Wollaston School, Quincy, Mass., for this detailed working outline for the teaching of a specific lesson-topic with visual aids.

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Cleveland, Ohio
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Portland, Oregon

187 Spring St., N. W.,
Atlanta, Ga.

Special Distributor—
*Department of Visual Instruction,
University of California,
Berkeley, Calif.

*A small service charge is made for films ordered from this office.

GENERAL ELECTRIC

- VI. Presentation of Keystone Slides by Pupils
1. Sawing Lumber in Manchuria
 2. Road Making in China
 3. Bactrian Camels from the Mongolian Deserts
 4. Chinese Boys Plowing in Northern China
 5. Making Woolen Shawls in India
 6. Coolies Hauling Grain
 7. Mongolian Ponies

- VII. Preview of Moving Picture to Show Contrast Between East and West
1. Irrigating Rice Fields; 2. Loading Boats;
 3. Hauling Lumber; 4. Hauling Freight;
 5. Carrying Mail.

- VIII. Note Book Work
- Materials—Map of Asia showing various regions given in the introduction to this lesson—(Pupils did this work in a previous lesson)
- ASIA—By Nellie B. Allen
- Crayons—Checked Paper—Pencils—Rulers
- What to do—
1. Make eight frames 1½x2 in. above, beside, below map.
 2. Print titles in order beginning with frames above map.
 - a. Donkey; b. Camel; c. Horse; d. Coolie;
 - e. Sampan; f. Elephant; g. Water Buffalo; h. Yak.



For Screen Projection

Write for free samples.

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1674 Broadway, New York, N. Y.

3. Use page references after each title—then find the regions—then draw arrows from pictures to regions—use region color for arrow.
4. Draw and color pictures according to titles under frames.

- IX. Oral Check of Note Book Work
- X. Check Up Test
- Fill Blanks

1. Horses are used in the.....regions.
(Cooler-Warmer)
2. The swampy regions of Asia are mostly in the
(North-East-South-West)
3. Water buffaloes are used on the....farms
(Northern-Southern)
4. The freight car of the desert is the.....
(Coolie-Camel-Donkey)
5. The densely populated regions in Asia are in the
(Northwest-Southeast)

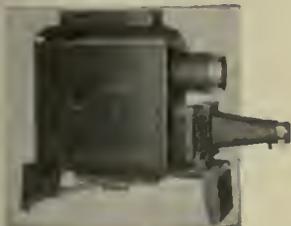
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KOSB Balopticon

B BALOPTICON—projects slides only. It is a handy, efficient instrument for the classroom and is one of the most widely used instruments for still projection. Attachment for strip film available. Model BDT is the same instrument but equipped with a tilting base.



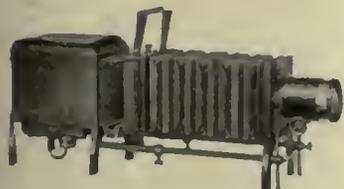
LRM Balopticon

LRM BALOPTICON—projects either slides or opaque objects onto an opaque screen at distances up to 18 or 20 feet. Extremely simple to operate. Projection quality is unexcelled. Easily portable.

KOSB BALOPTICON—newest product of 28 years of experience of making still projection equipment, is of the translucent screen type and projects either slides or opaque objects. The powerful illuminating system projects the subject through the screen which stands between it and the audience. The teacher faces the audience and no assistant is necessary.

The complete B&L line includes the Brief Case Sales Projector, the Overhead Projector, the Triple Purpose Micro-Projector, etc.

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The National School of Visual Education

HERE is another triumph for Visual Education. The importance of Home Study, in the educational system of this country, is well proven by the establishment of "Extension Divisions" by many of the leading colleges and universities. Large numbers of men and women of all ages, unable to attend regular day or evening classes, find it necessary to continue and complete their education by mail.

Neglecting the extravagant claims made by some commercial schools of this type, the main objection to individual study at home has been the lack of classroom atmosphere and personal contact with

the instructor. No matter how well written the text may be, there is always the possibility of a wrong interpretation by the student.

To overcome this objection, the DeForest's Training Division of the National School of Visual Education have prepared a series of motion picture films which are supplied to each student together with a small but efficient projector. The arrangement of the films and design of the projector are such that the student has a combination of stereopticon and motion pictures available. In fact, any individual frame of the film can be studied for any length of time.

In addition, each film is accompanied by a "Reel Lesson" which not only gives a detailed synopsis of the subject matter but tells the student where to



Equipment Furnished for Home Study

run the projector fast, slow, stop or reverse in order to obtain the greatest possible information. In addition, references are made to the regular text material, the explanation of which is supplemented by the films.

For example, in the subject of Radio, a judicious selection of photography and animated diagrams allows the student to not only see the actual equipment in operation, but also to follow the action by diagram. Thus, the usual classroom lecture is duplicated in the student's home but he has the completed lecture in printed form and thus need not take notes. He can see a much greater variety of equipment than the usual classroom has available. He has full benefit of the instructor's black-board sketches with the added advantage of seeing them in finished and animated form.

Thus, the combination of carefully written texts and specially prepared films gives the home study student as many, if not more advantages than the regular student. This type of instruction was not only originated but has been used exclusively by the National School of Visual Education and DeForest's Training for about five years and has proven a most efficient method of teaching such technical subjects as Electricity, Radio, "Talkies" and Television.

Every Photographic Need Served by One Camera!

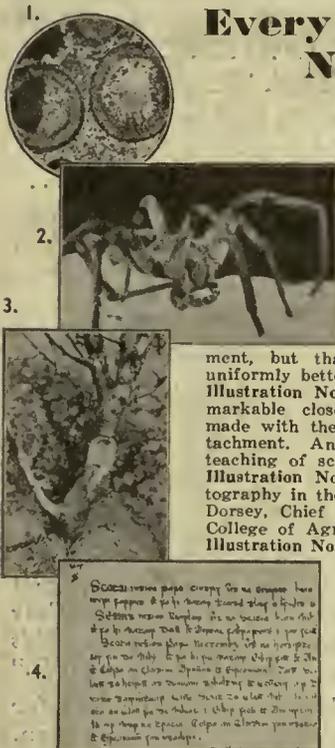
Here are demonstrated a few of the many educational uses of the LEICA Camera.

Illustration No. 1 is a photomicrograph made by attaching the LEICA Camera to a microscope. Albert Johannsen, Professor of Petrology, says: "I find that I can not only take the photomicrographs much more quickly with a Leica Camera than with a larger instrument, but that the resulting photographs are uniformly better."

Illustration No. 2. The "Wolf-Spider". This remarkable close-up by James M. Leonard was made with the LEICA Camera and Copying Attachment. An example of LEICA's value in the teaching of science.

Illustration No. 3. An example of LEICA photography in the research work conducted by M. J. Dorsey, Chief of Pomology, University of Illinois College of Agriculture.

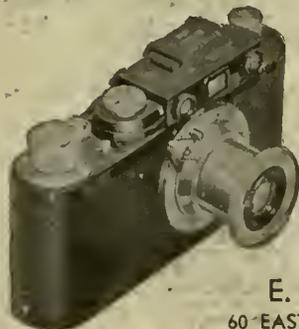
Illustration No. 4. Section of a manuscript copied with the LEICA Camera and copy attachment. Dr. D. L. Bendikson of the Henry E. Huntington Library and Art Gallery, San Marino, Calif., uses the LEICA for the reproduction of books and manuscripts; for the making of colored lantern slides; for photomicrography as well as all general photography.



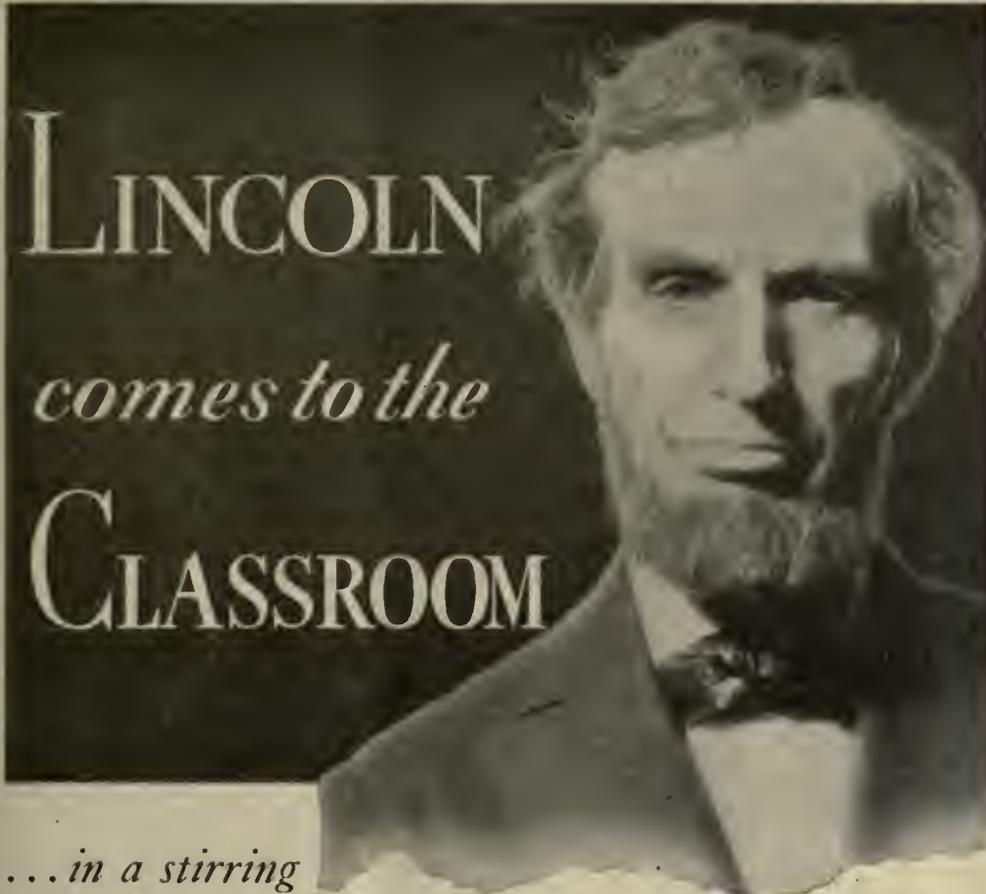
The LEICA Camera has 7 interchangeable lenses and nearly 300 accessories which adapt it easily to any photographic requirements. LEICA's negatives may be printed on positive film for projection. The UDIMO Universal Projector, for all single frame, LEICA double frame, 3x4 cm. film and glass slides, is specially recommended.

The Leica takes up to 36 pictures on a single roll of cinema film. Built-In Short Base Range Finder gives you perfect focus without guessing. Focal Plane Shutter gives you speeds of 1/20th to 1/500th second, and takes the fastest action pictures without blur. Easy and quick to operate. LEICA is small, compact, weighing only 19 oz.; can be conveniently taken anywhere. Price with 50 mm. ELMAR f:3.5 lens, \$92.50. 2 year guarantee certificate.

Write for Free Illustrated Booklet—"Why LEICA?" Monthly bulletin, "Leica Photography", sent to all registered LEICA owners.



E. LEITZ, Inc., Dept. 257
60 EAST 10th STREET NEW YORK



...in a stirring
2-reel motion picture prepared
especially for the school children of America

ANOTHER great historical motion picture by Eastman Teaching Films, Inc., gives living meaning to a great American personality.

The title role of this new release, now ready for delivery, is played by George Billings—undoubtedly the most outstanding impersonator of Lincoln. Endowed with a striking likeness to the great president, and fortified by exhaustive study of his life and character, Mr. Billings not merely acts the part of Lincoln—he is Lincoln.

The picture is completely authentic from beginning to end. Seeing it, pu-

Inexpensive Kodascopes, for projecting Abraham Lincoln and other Eastman Classroom Films, can be obtained from dealers everywhere. Screen costs are nominal.



pils will re-live Lincoln's life as a vivid, first-hand experience. Not only will it supplement other teaching material for the classroom study of the Great Emancipator's life and times, but it will also serve to inspire character and patriotism in the heart of every child, from the lowest grade to the highest.

The Eastman Classroom Film, *Abraham Lincoln*, consists of two reels. Their total running time is about 30 minutes, so that they can be shown in the usual class period. Prices (delivered): 16-millimeter, \$70 complete; 35-millimeter, \$150 complete.

Not available on the rental plan. For prompt delivery, send your order now. Eastman Teaching Films, Inc. (Subsidiary of Eastman Kodak Company), Rochester, New York.



Young Lincoln's stepmother shows interest in his "sums"



The future president as clerk in Offut's store



"Honest Abe" meets Douglas in fateful debate



Battle scene in the war between the states



"Fourscore and seven years ago"...the immortal address



Lee surrenders to Grant at Appomattox

EASTMAN Classroom FILMS

AMONG THE PRODUCERS

Where the commercial firms—whose activities have an important bearing on progress in the visual field—are free to tell their story in their own words. The Educational Screen is glad to reprint here, within necessary space limitations, such material as seems to have most informational and news value to our readers.

Self Liquidating Visual Education Equipment

Herman A. DeVry, Inc., calls attention to a phase of school financing which seems to be of great importance to progressive schools in these times of depleted funds, namely, the Self Liquidating Character of a type of School Talkie Equipment, which is capable of giving shows of regular theatre quality. Since this is the 35 mm. sound-on-film type of equipment, it can use the better features made by the big producers. They attract larger crowds than the usual school audiences, and at small admission fees, a few shows soon raise enough money to pay for the equipment.

After this period of "self liquidation", the equipment becomes the easiest of all means to raise money for other worthy purposes. Most other types of school entertainment, such as concerts, and school plays, require long periods of rehearsal, and some expense in the way of costumes and scenery. The "talkie" has a complete program of the most elaborate entertainment, both music and action, already on the film itself, and at the touch of a button, the riches of modern opera may be poured upon a delighted audience for an hour or more. A number of high schools have bought this equipment, and all of them report that the liquidation came through successfully, or that it is rapidly coming through. And the attendance has increased, instead of decreased, as the shows continued—which, in these times, is "news".

However, if these were all the possibilities of this equipment, it would not be justified as school equipment. The advantage of the arrangement is that such equipment is equally of value for more strictly educational purposes, either in the classroom or auditorium.

Undoubtedly, certain silent films of unusual educational value will survive; but most of them have had their day. The "Talkie" now has the call, and schools, ever alert to use the most up-to-date instruments of instruction, must inevitably equip themselves to handle the new vogue in "talkies". Now that they can do this, without spending regular school funds, they are indeed fortunate, and may thus find the depression a real stimulus to discover methods of self help and independent resource, which they did not know they possessed.

The DeVry Company has just published a booklet—"Raising Funds with DeVry Talkies," which is free for the asking.

Increased Light for Eastman Projectors

The Eastman Kodak Company has announced the completion of two new 16-millimeter projectors with illumination, respectively, of 500 watts and 750 watts. The Kodascopes K, Models 50 and 75, as the new machines are designated, set new standards for projection brilliancy. The increased illumination and crisp focussing of the new projectors not only produce brighter, sharper pictures on average-size screens but also they permit projection on much larger screens, with Kodacolor movies as well as with black and white.

Outwardly alike, the new projectors are light in weight, smart in appearance, compact, and sturdy. They project 400 feet of film with a simple threading, and they rewind the film by motor in less than 30 seconds. Levers cause the film to reverse at will or to project a "still."

Despite their unusually brilliant illumination, the Kodascopes K do not overheat. A powerful fan, forcing a steady stream of air through a newly designed cooling jacket, keeps these projectors surprisingly cool at all times. In the case of the Model 75, a rheostat and an indirectly illuminated voltmeter protect against overloading the projection lamp, thereby increasing its life and yet assuring the full and correct amount of illumination.

Both models come equipped with a fast 2-inch projection lens. Lenses of other focal length, providing for longer or shorter "throws," are available as extras, as are the lens and filter necessary to equip the projectors for Kodacolor.

Leica Developments

A new model Udimo film slide and glass slide projector is now available from E. Leitz, Inc. This model includes several new devices which were lacking in older models, the most important change being the method of film transport. Another interesting feature is the fact that any of the Leica Camera lenses can be used as the objective in this projector.

Film slides of two popular sizes can be accommodated, the single-frame movie area ($\frac{3}{4} \times 1$ in.) and the double-frame area ($1 \times 1\frac{1}{2}$ in.). Besides this, the increasingly popular glass miniature slides measuring 2×2 in. square. The use of these glass slides permits the making of slides from all miniature camera negatives direct, up to 3×4 cm. An automatic slide-changer is also available for use with the 2 in. square glass slides by means of which up to fifty slides can be shown in rotation without manual insertion of each slide.

E. Leitz, Inc., also announce a more extensive service bureau for Leica owners. This department will offer advice, suggestions, and answer any questions regarding the use of the Leica Camera. A helpful bulletin will be issued every month and sent to Leica photographers.

The service department will be under the direction of Willard D. Morgan and Karl A. Barleben, Jr., F.R.P.S., both well-known as authorities in photography. Mr. Morgan is a writer, lecturer, and photographer of note, while Mr. Barleben is well-known for his monthly departments in the various photographic magazines. Mr. Barleben, after having completed his sixth year as instructor of cinematography at the New York Institute of Photography, has accepted the post offered by the new service department.

This service is unique in that it is one of the very first of its kind to be sponsored by any firm. Those interested in this project and desirous of receiving the new bulletin will do well to write to E. Leitz, Inc.

S. O. S. Purchases Government Equipment

What is said to be one of the largest deals made in recent years on motion picture equipment was the recent purchase of projectors by the Sales On Sound Corporation, New York City, from the U. S. Government. This transaction represents the new policy of liquidation placed in effect by the Salvage Departments of the Army, Navy and Marine Corps.

The lot, it is said, consists of 76 Projectors of various types including well known makes such as Simplex, Holmes, Acme, Baird, and others. Most of these were in use by the U. S. Navy on ships that have been taken out of commission or shore stations that have been discontinued.

Upon arrival the machines will be immediately taken down, every part measured with micrometers, and any part not just properly lined up or fit to use in conjunction with a new one will be discarded, and the necessary parts supplied. All sprockets, gears, shoes, and intermittent cams will be replaced where necessary, so when these mechanisms are ready for the market, a one year guarantee against electrical and mechanical defects in material and workmanship will be placed upon the assemblies.

S. O. S. has one of the largest repair departments in the Motion Picture Industry, their plant being almost one city block long. More than half of it is devoted to reconditioning and rebuilding used apparatus that is purchased from time to time.

Bell & Howell Title Writer

For the amateur movie maker who wants to make professional-like film titles, including tricky animated ones, a new Bell & Howell Character Title Writer, for use with Filmo cameras, has just been developed.

For making the movable-letter animated titles

Educational Field Representatives Wanted

For home study courses in Radio, Talkies and Television. Taught by motion pictures in the student's home. Full or part time. Courses are easy to sell, liberal commission.—Write to DeForest's Training, Inc., 1109 Center St., Chicago, Ill.

which have become so popular, the new Title Writer may be used in a vertical position. The letters may be moved at will on the then horizontal title card. They do not have to be fastened to the card or otherwise supported.

This new unit makes use of two 100 watt, 110-115 volt lamps that are silvered on one side, and so provide their own reflectors. Also, the lamps are of a more or less spherical form, which affords necessary ventilation around the filament to permit their use in the horizontal position which the lamps assume when the Title Writer is used vertically. The new model can be used in a horizontal position for filming ordinary titles. There is also provision for the angle position for titles which show the hand as it writes.

New Portable Public Address System

The development of a portable "public address" system which provides improved quality of reproduction, simplicity of operation and is housed in a single self-contained carrying case, has been announced by the RCA Victor Company.

The new apparatus, according to the announcement, was designed to fulfill the varied requirements of an increasingly wide field of application for public address and sound reenforcement systems. In addition to the usual public auditorium and banquet work, modern sound reenforcement systems are called upon to augment the volume of an orchestra or of a stage presentation in the theater, or concert hall. They also provide facilities for making announcements and for paging work in schools, large industrial organizations, or wherever sound is to be picked up at its source, amplified and projected to either a collective or individual audience.

The new "velocity" ribbon microphone, radically different in principle from all previous microphones, is an integral part of the new RCA Victor system. Heretofore, this microphone has only been available for the delicate sound work in connection with motion picture and high quality disc recording. It is provided with an adjustable desk or table stand. The amplifier is an exceptionally "high gain" unit utilizing Class "B" amplification and providing an output of 20 watts. Two electrodynamic type loudspeakers are mounted behind grilled openings in the front half of the carrying case, with a 30-ft. extension cable which, together with the 30-ft. cable connected to the microphone, permits of placing the loudspeakers at any desired point from the microphone.

HERE THEY ARE!

A Trade Directory for the Visual Field

FILMS

- Bray Pictures Corporation (3, 6)
729 Seventh Ave., New York City.
- Carlyle Ellis (1, 4)
53 Hamilton Terrace, New York City
Producer of Social Service Films
- Eastman Kodak Co. (4)
Rochester, N. Y.
(See advertisement on outside back cover)
- Eastman Teaching Films, Inc. (1, 4)
Rochester, N. Y.
(See advertisement on page 93)
- Edited Pictures System, Inc. (1, 4)
330 W. 42nd St., New York City
- General Electric Company (3, 6)
Visual Instruction Section,
Schenectady, N. Y.
(See advertisement on page 90)
- Ideal Pictures Corp. (1, 4)
26 E. Eighth St., Chicago, Ill.
- Modern Woodmen of America (1, 4)
Rock Island, Ill.
- Pinkney Film Service Co. (1, 4)
1028 Forbes St., Pittsburgh, Pa.
- Ray-Bell Films, Inc. (3, 6)
817 University Ave., St. Paul, Minn.
- Society for Visual Education (1, 4)
327 S. LaSalle St., Chicago, Ill.
- United Projector and Films Corp. (1, 4)
228 Franklin St., Buffalo, N. Y.
- Universal Pictures Corp. (3)
730 Fifth Ave., New York City
(See advertisement on page 66)
- 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 (1, 4)
347 Madison Ave., New York City
19 S. LaSalle St., Chicago, Ill.
- Bell & Howell Co. (6)
1815 Larchmont Ave., Chicago, Ill.
(See advertisement on inside back cover)
- Eastman Kodak Co. (4)
Rochester, N. Y.
(See advertisement on outside back cover)
- Edited Pictures System, Inc. (1)
330 W. 42nd St., New York City
- H. A. DeVry, Inc.
1111 Center St., Chicago, Ill.
(See advertisement on page 89)
- Ideal Pictures Corp. (1, 4)
26 E. Eighth St., Chicago, Ill.
- International Projector Corp. (3, 6)
90 Gold St., New York City
- Motion Picture Accessories Co. (3, 6)
43-47 W. 24th St., New York City.
- Regina Photo Supply Ltd. (3, 6)
1924 Rose St., Regina, Sask.
- United Projector and Film Corp. (1, 4)
228 Franklin St., Buffalo, N. Y.
- Victor Animatograph Corp. (6)
Davenport, Iowa.
(See advertisement on inside front cover)
- Williams, Brown and Earle, Inc. (3, 6)
918 Chestnut St., Philadelphia, Pa.

- Radio-Mat Slide Co., Inc.
1674 Broadway, New York City
(See advertisement on page 91)
- Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
- Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 88)
- Victor Animatograph Corp.
Davenport, Iowa.
(See advertisement on inside front cover)
- Williams, Brown and Earle, Inc.
918 Chestnut St., Philadelphia, Pa.

STEREOGRAPHS and STEREOSCOPIES

- Keystone View Co.
Meadville, Pa.
(See advertisement on page 66)

STEREOPTICONS and OPAQUE PROJECTORS

- Bausch and Lomb Optical Co.
Rochester, N. Y.
(See advertisement on page 91)
- E. Leitz, Inc.
60 E. 10th St., New York City
(See advertisement on page 92)
- Regina Photo Supply Ltd.
1924 Rose St., Regina, Sask.
- Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
- Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 88)
- Victor Animatograph Corp.
Davenport, Iowa.
(See advertisement on inside front cover)
- Williams, Brown and Earle, Inc.
918 Chestnut St., Philadelphia, Pa.

SCREENS

- Da-Lite Screen Co.
2721 N. Crawford Ave., Chicago
(See advertisement on page 65)
- Motion Picture Accessories Co.
43-47 W. 24th St., New York City.
- Williams, Brown and Earle, Inc.
918 Chestnut St., Philadelphia, Pa.

SLIDES and FILM SLIDES

- Conrad Slide and Projection Co.
510 Twenty-second Ave., East
Superior, Wis.
- Eastman Educational Slides
Iowa City, Ia.
- Edited Pictures System, Inc.
330 W. 42nd St., New York City
- Ideal Pictures Corp.
26 E. Eighth St., Chicago, Ill.
- Keystone View Co.
Meadville, Pa.
(See advertisement on page 66)

MOTION PICTURE

MACHINES and SUPPLIES

- Ampro Projector Corp. (6)
2839 N. Western Ave., Chicago, Ill.
- Bass Camera Co. (3, 6)
179 W. Madison St., Chicago, Ill.
(See advertisement on page 90)

REFERENCE NUMBERS

- (1) indicates firm supplies 35 mm. silent.
- (2) indicates firm supplies 35 mm. sound.
- (3) indicates firm supplies 35 mm. sound and silent.
- (4) indicates firm supplies 16 mm. silent.
- (5) indicates firm supplies 16 mm. sound.
- (6) indicates firm supplies 16 mm. sound and silent.

IS YOUR firm represented here? It should be. Continuous insertions under one heading cost only \$1.50 per issue; additional listings under other headings, 50c each.

Educational SCREEN

COMBINED WITH

Visual Instruction News

C O N T E N T S

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Can Educators Profit from Industry's Experience
With the Motion Picture?

How to Conduct a Worship Service With Visual Aids

A Filing System for Visual Aids

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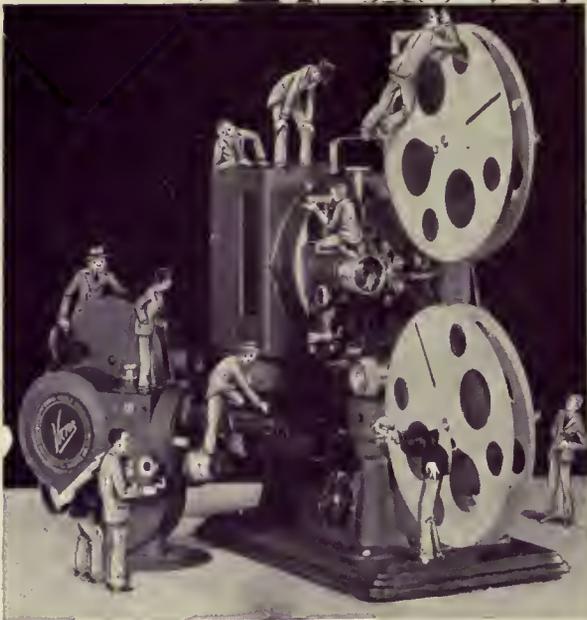
APRIL

1933

16MM BUYERS



are weighing
VALUES!



INFINITE PRECISION is a VICTOR Watchword. Perfect performance is not possible without it. Precision alone, however, is not enough! You want, in addition, the many advancements which VICTOR has created — many of which still are not to be had in any other equipment at any price!



IT IS BECAUSE 16 m/m Buyers are so earnestly getting down to fundamentals that VICTOR'S reputation for giving the exceptional in values is growing by "leaps and bounds."

VICTOR'S pioneering of the nontheatrical movie equipment industry started a quarter century ago. The most outstanding of 16 m/m camera improvements, such as Multiple Operating Speeds, Revolving Turret Front, Visual Focusing, etc., originated with VICTOR.

VICTOR has also led the way with 16 m/m Projector refinements. Maximum Simplicity, Brilliant Illumination, Guaranteed Performance, and such ingenious features as Positive 4-Point Film Protection and the Adjustable Shuttle which insures Permanent Freedom from the development of "jumpy" pictures are only a few of the fundamentally sound reasons why the consistently priced VICTOR is today's leading projector value.

To get down to fundamentals is to tip the scales in VICTOR'S favor.

ASK ABOUT THESE NEW VICTOR PRODUCTS
Reverse Action for Victor Cameras — Continuous Projection Attachment — 1600' Film Capacity Projector — 16 m/m Sound-on-Film Projector — The Cama-Cane (Looks like a cane, serves as a tripod) — Simpson "Eye-Easy" Editor.

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Demonstrations will gladly be arranged

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DAVENPORT, IOWA

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650 So. Grand, Los Angeles

The **WORLD'S FINEST 16MM MOTION PICTURE EQUIPMENT**

Educational Screen

Combined with

Visual Instruction News

APRIL, 1933

VOLUME XII

NUMBER 4

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Your Guide to the Biggest and Best in Current Motion Pictures!

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A one-reel, sound-on-disc, picture showing the high lights of Vatican City, scenes of the Basilica, the new Vatican railway, the governing offices, the Pope's office and incidental departments. You see and hear the famous bells of Vatican Square. You see the Pope, for the first time, meeting the actual ruling head of a government when he greets Mussolini and Victor Emmanuel. The lighting of St. Peter's Cathedral is also shown.

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THE JOURNAL OF GEOGRAPHY

3333 Elston Ave.

Chicago, Ill.

Adapting Visual Aids to Class Routine

II. Making Photographic Copies of Visual Material

(Concluded from March)

CLYDE STEWART

FILM slides can also be copied much cheaper than lantern slides. For this purpose a long printing frame³ should be constructed such as the one shown in figure 2. The length can be altered if desired but the width of the film track should be 35 mm. or 1 3/8 inches. The ends are left open so that extra lengths of film can project out when a long film is copied. A strip of opaque paper can be pasted along each side of the film track so that the perforations along the side of the film will not print black on the negative copies. The raw unexposed film can be purchased from the Eastman Kodak Company for about two dollars and fifty cents per hundred feet. Nothing but safety positive film should be used for copying. Negative film is too fast for copy work. The exposures and development are about the same as for lantern slides.⁴ After washing, the excess water on the film can be wiped off with a damp chamois skin before the film is hung up to dry. This avoids any possibility of water stains caused by a great amount of mineral in the tap water.

Paper copies of film slides can be made in the same way as the paper copies of lantern slides. The paper should be purchased in rolls from the photo supply house and cut into 1 3/8 inch widths and of a suitable length. The copies are rather small however for most uses.

To make enlarged paper copies from film slides a slotted printing frame such as that shown in figure 3 can be used. The frame that comes with the photofinishing outfit mentioned above can be used. It will not spoil it for other work. The frame should be screwed to a wood base (D) and have two slots (S) cut in the side as shown in the figure. The length of the slot will determine the largest width of paper that can be used. I have found that about 2 1/4 inches makes a very convenient width to use with a four by five inch printing frame, which is the size furnished with most photofinishing outfits. Other sizes of course can be used.

To make use of the outfit the negative film slide is put into the projector (P), and the image is focused on the frame at (B). This is done in a room dark enough to avoid exposing the printing paper. A twenty-five watt red bulb makes plenty of light to work

with and will not expose the paper. The unexposed paper is rolled up and held in a roll by a clothes pin as shown in figure 3 at (A). If a piece of red glass is available it can be leaned up against the projector lens and the image of the film can be focused on to the printing paper through the glass (E). This insures a sharp focus and will not make an exposure until the glass is removed. The first view is pulled into place in the projector and an exposure of the proper length is made. The red glass (E) is then placed to cover the lens of the projector, or the projector lamp can be turned off while a fresh section of paper is pulled into place. The upper half of the clamp on the printing frame is loosened during this operation. A pencil mark placed on the back of the paper enables a person to tell when he has pulled the paper the proper distance. The exposed paper (C) should be rolled up and held in place with a clothes pin the same as (A). This protects it from stray light that might come from the projector lamp house. The next frame is then pulled into place in the

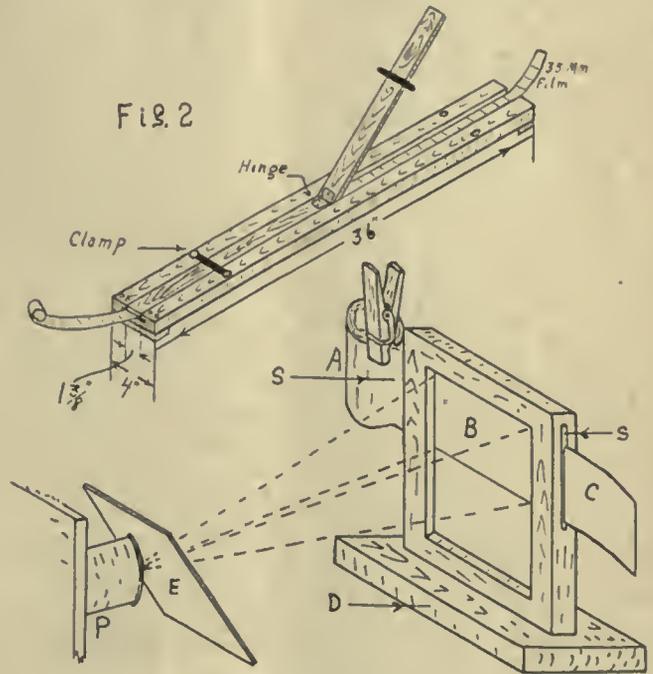


FIG. 3

projector and exposed. When all the frames or as many as one wants are exposed the paper is taken out and developed in the usual way. Before starting the exposures a small strip of paper should be placed in the frame and a trial exposure made so that the proper length of exposure can be

3. A printing frame for 35 mm. films can be purchased from the Agfa Ansco Corporation of Binghamton, New York.

4. A free booklet entitled "Developing, Printing, Enlarging Leica Pictures" giving valuable information about the handling of 35 mm. film can be obtained from E. Leitz Inc., 60 East 10th Street, New York City.

determined. If the lens mount on the projector can be moved ahead far enough lantern slides can be copied on to rolls in much the same fashion. The proper sequence is then preserved and the rolls are very easily stored when not in use.

Lantern slides or film strip pictures can be enlarged for framing by this method. If the printing frame is not large enough to take the size paper you wish to use, it can be fastened to a bread board with thumb tacks while the exposure is made.

In all photographic work great care must be taken to keep all equipment clean or stains may result. Do not allow your fingers to dip into the fixing bath. Use a glass rod to manipulate materials in the bath. If any hypo is carried back into the developer it may cause stained prints.

III. Making Your Own Slides and Film Slides

If a school cares to invest a little more money in equipment it is easy for a teacher who is interested to produce some excellent slides or film slides. The equipment for producing slides is much cheaper than that required for producing film slides. Conversely the cost of materials is about twenty times as much per picture for slides as it is for film slides. If the school can make some of the equipment the cost can be cut down considerably. I have constructed most of the equipment we use here and the cost of materials was well under fifty dollars. There is a great deal of satisfaction in being able to organize your own visual material into slides or film slides. There is no loss from undesirable material when this is done.

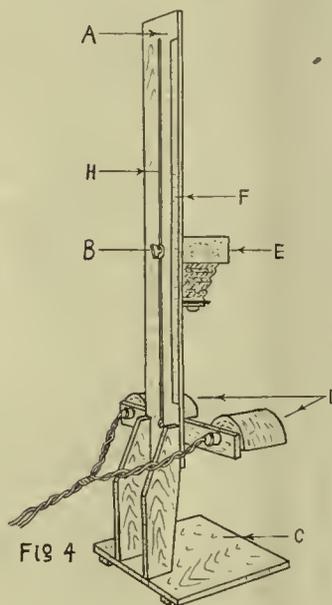
To make lantern slide plates by copying diagrams or pictures from books requires a good plate camera. The best size to purchase is a $3\frac{1}{4} \times 4\frac{1}{4}$ inches since slides are $3\frac{1}{4} \times 4$ inches. It should have a double extension bellows, otherwise it will be impossible to focus on near objects such as diagrams in books. The lens should be an anastigmat of good quality. Cameras of this type range in price from about twenty dollars and up for types that are suitable for lantern slide copy work.

For any kind of copy work a copying stand should be constructed or purchased. A vertical type such as the one shown in figure 4 is far more convenient than the horizontal types. The construction of a satisfactory stand is not difficult. The camera (E) slides up and down the vertical board (A) and can be clamped at any position by the screw (B) in the slot (H). The work to be copied is laid on the base (C) and illuminated by two frosted bulbs (D) of about 75 or 100 watts inclosed in reflectors. The reflectors can be cheaply made by soldering brass lamp sockets into the halves of a syrup pail. The inside of the reflectors should be painted a dull white to give a soft even light from both sides of the copy stand. This

helps to eliminate glare and shadows. No dimensions for the stand have been included since the size of the camera used and the probable size of copied material must be considered.

To copy a picture or diagram from a book the camera plate holder can be loaded in a dark room with an unexposed lantern slide plate. A lantern slide can be used in place of a plate by not pulling the plate holder slide all the way out during an exposure. This will keep the plate from dropping out of the holder since the plate will be a little short for a $3\frac{1}{4} \times 4\frac{1}{4}$ inch camera. Better copies of diagrams can be obtained by using process plates. If plates are used for pictures the Eastman Universal plate will do good work. The procedure of copying is simple. Suppose we wish to copy a diagram. The diagram is placed on the base and illuminated with the copy lights. The camera shutter is set on T and opened. An image of the diagram will then appear on the ground glass back of the camera. Adjustment of the camera up and down the vertical board will enable you to get the proper size

image. At the same time the image should be brought into sharp focus by racking the bellows in or out. After the proper size image is in focus the camera is clamped firmly to the board and the shutter is closed. The plate holder can then be inserted and an exposure made. In making an exposure the diaphragm stop of the camera should be set at about F 11 or 16. This slows up the exposure and also takes care of any slight errors in focusing.



The shutter should be left on T. The time of exposure must be determined by experiment but it will probably be from ten to thirty seconds. After an exposure the dark slide is inserted in the plate holder and the plate is then ready for development as described in part two. The negative obtained is then printed on to a slide or may be used as it is if the subject matter was a diagram. Of course not all negatives will be copy work. The camera can be used for outdoor pictures the negatives of which can be printed on lantern slides.

The average commercial film slide on 35 mm. film is technically known as a single frame slide. The actual size of the picture is about $\frac{3}{4} \times 1$ inches. It is possible to prepare pictures on the same film of double frame size that are $1 \times 1\frac{1}{2}$ inches. One of the

(Concluded on page 113)

Can Educators Profit From Industry's Experience with the Motion Picture?

HOWARD A. GRAY

SHORTLY after his first successful experimentation with motion picture equipment, the late Thomas A. Edison predicted that in time educational institutions would come to use the film as an effective instructional device. His prophecy was repeated in 1900 at the Paris Exposition of Instruction by delegates who viewed the first educational motion picture—a film made up of ten negatives glued end to end and portraying scenes in the municipal schools of Paris for a period of forty-five seconds on a small plate of ground glass.

During the next twenty-five years, the somewhat limited use of the silent film for classroom instructional purposes led to experimentation in testing its effectiveness. The results objectively substantiated Edison's opinion since it was found that children learned and retained more factual knowledge, voluntarily did more supplementary reading, and, from their vicarious experience, were able to express a greater number of ideas when appropriate motion pictures were made an integral part of their instruction. In addition, the film was recognized as being an effective stimulus by which attitudes might be permanently changed and conduct modified for better or for worse.

Experiments with sound motion pictures have yielded even more favorable results. In June, 1931, a testing project, supervised in part by the United States Office of Education, revealed the sound picture to be approximately twice as rich in instructional values as its predecessor, the silent film. About the same time, an independent investigation conducted at Columbia University with adult graduate students as subjects, showed a twenty-minute sound picture to be a significantly more effective learning aid in two different subjects than longer periods of time spent on discussions, readings, and lectures. More recently concluded experiments both in England and America have yielded convincing quantitative data regarding the efficacy of sound films in teaching the subjects of geography, literature, civics, music, and natural science.

Irrespective of the abundant evidence favoring the use of such materials, educators have been tardy in developing the medium for classroom purposes. Similarly, we only have begun to utilize it in dealing with our many other problems.

It may be profitable, therefore, for us to take cognizance of the many industrial uses to which the motion picture has been put, and to consider its applicability to current educational projects apart from regular classroom instruction. Then too, it should be of general interest to learn that the preparation and projection of films on various phases of industrial

projects has become an important and far-reaching activity.

The Motion Picture Division of the Bureau of Foreign and Domestic Commerce estimates that over two thousand firms in the United States are using motion pictures in some manner at the present time. In fact, every industry is now represented by at least one motion picture, including technical, educational, advertising and other films for use within industries themselves and for contacting the public with the object of securing its good-will and patronage.

During 1912, the initial attempt to develop motion pictures for technical purposes indicated that many economies could be effected by photographic analyses of workers' movements. Later experiments have tended to corroborate these findings and particularly stress the value of the film for operation analysis and correction where other means are inadequate. One experimenter, after photographing and analyzing the movements of machine operators, was enabled to recommend changes which resulted in reduced unit costs of 28%. At the same time he increased production 60%, reduced fatigue on the part of the workers, and increased the latter's earnings 9%. In a New Jersey factory a saving of over two thousand labor hours per year followed a motion picture study of a single operation in box making, and a similar analysis made possible a 45% reduction in the time required to handle small parts in an electrical manufacturing plant.

Other technical pictures taken with ultra-speed cameras have yielded valuable results in the field of dynamics. Truck spring performance, revolving propellers, welding processes, rolling operations, airplane wing stress, and defects in high speed machinery are among the many engineering problems which have been studied by such means.

Slow-motion and time-lapse photography also have proven to be effective industrial aids. Slow-motion pictures of rapid machine operations train workers for difficult production tasks. During the construction of the building for the Panama-Pacific Exposition in 1913, a motion picture camera focused on Machinery Hall clicked every five minutes to make a permanent record of the progress of various stages of the work. Recently, the construction of a suburban library was similarly photographed and afforded the solution of a number of architectural problems confronting the builders. Banks now regularly employ the camera to make photographic records of checks and other negotiable paper passing through their hands. One New York institution alone reported a saving of

\$12,500 in a year's time through the prevention of frauds, clerical errors, duplication of effort, and other costly procedures which otherwise would have occurred without such records.

Technical Films for Education

Educational research groups to some extent have begun to employ technical talking pictures as a scientific approach to such studies as child development, diagnosis of subject matter disabilities and methods of instruction, but many avenues of fruitful activity remain unexplored. Among the numerous problems which suggest themselves as being peculiarly suitable to analysis by such a technique are included growth and muscular development, problems in speech and hearing, human and animal learning, the study of physically handicapped children, and the reactions of the mentally atypical child. In addition to furnishing the solution of specific problems, another type of technical sound picture would be valuable for the training of professional workers and for the guidance of lay groups concerned with school problems. The technical aspects of school buildings, equipment, administrative methods, personnel management, pupil accounting, and other subjects, if made available in a series of sound pictures would do much to vitalize training programs and reduce educational waste. The cost of such a series of pictures could probably be defrayed by the savings realized in single state's school building or professional training program.

Industrial Uses of Educational Pictures

Industry has been using the film for instructional purposes for nearly a quarter of a century. As early as 1909 it was advocated to employ motion pictures as an inexpensive means of apprentice instruction. Since that time employee vocational training has been accomplished by a number of firms. Claims are made that the efficiency of older workers is kept up to standard by periodically filming their activities for later viewing by the workers themselves. The most recent contributions to the field of industrial vocational training are two sound pictures produced by a parcel delivery service to give its employees a more vivid and dramatic idea of problems and methods in developing and preserving the public's good-will.

In 1913, the National Manufacturer's[®] Association sponsored the production of two motion pictures on accident and fire prevention. These were shown with a positive effect on the employees of the two companies, as well as being projected in 7,500 theatres throughout the country for the benefit of the public. A similar program was sponsored sometime later by another large industrial organization in an effort to cut down waste of materials by its employees, with the showings resulting in a steady saving as well as an increased output. Many additional pictures of this type have been made, among the latest being a sound production by a midwestern railway for educating its

workers on the conservation of fuel. The practice has grown to where one business organization has made the film an integral part of its public relations and management activities. At present it maintains a complete laboratory, theatre, and studio accessories for producing pictures, as well as having acquired a library of over 800,000 feet of positive prints.

Abroad, efforts are being made by several industries to use the film in many unique undertakings. Efficiency programs involving posture studies, accident prevention, working conditions, the effect and prevention of fatigue for different types of occupations, together with other projects are being undertaken. It is suggested that business executives and plant efficiency experts profit from the inter-exchange of ideas by means of a series of pictures on problems of management peculiar to certain manufacturing operations. Last year the Federation of British Industries announced the production of a series of films on English production and distribution problems for promoting business knowledge among its membership and different labor groups. In this connection, the Fourth International Congress of Scientific Management, held at Paris in 1929, selected the motion picture as the most promising aid available for the objective study of factory management.

The Federal government is probably the largest single sponsor of industrial educational motion pictures in America. The Bureau of Mines, the Department of Agriculture and other government departments have prepared an enormous amount of picture material for imparting information on matters with which they are concerned. Without doubt, the government's activity in this field has been of great value to many industries and individual workers throughout the world. The Department of Agriculture itself loaned over 10,000 films during 1930 to various organizations, including schools, colleges, and universities. In addition, more than 400 films were sold to American educational institutions and over 200 to foreign organizations for instructional purposes. Recently, the department has produced a number of talking pictures to be distributed for general information at home and abroad on agricultural subjects.

Our own government's activity in this field may be contrasted to that of Soviet Russia in the latter's effort to expediate its industrial revolution. American production and operation methods are being filmed in great detail and shown to the workers. Modern railroading, manufacturing and agricultural activities are of particular interest to the Soviet Union, and 50,000 feet of film portraying the operation of an American railroad were sent to Moscow during 1930. In order to strengthen its foreign credits and to spread the doctrine of Communism, the Stalin government has produced several Russian industrial pictures for theatrical showings in other countries.

(To Be Concluded in the May Issue)

GOVERNMENT ACTIVITIES IN THE VISUAL FIELD

CONDUCTED BY MARGARET A. KLEIN

A Filing System for Visual Aids

THE April, May and perhaps the June articles for this department will deal with a phase of visual education work, which I consider very important. The efficient functioning of a visual education division depends greatly upon the proper set-up of the division and the proper set-up in turn includes most decidedly an adequate filing system, and that is the phase of visual education that I shall discuss in this article and subsequent ones.

A very good reason underlies the decision to discuss this problem. First, let me say that practically all government departments and semi-official agencies that distribute material use with, perhaps, a few variations the system which I am going to describe and have found it very efficient.

From time to time visual-education workers have asked me about the set-up for a visual-education division and I am convinced that their greatest need is a workable filing system.

Visual education, or education by means of graphic presentation, is based on two fundamental principles, which are (1) adequate information about all kinds of visual material, and (2) proper distribution of visual material so that it may be used to the best advantage and accounted for at all times.

Some of the things one needs to know about visual aids are: What they are; where they may be obtained; how they may be used; various kinds of material used in constructing models; kind of cardboard and paper needed for posters; how to use crayon, water colors, poster paint, colored inks, etc., properly; information about photographs and photographic material; knowledge of various kinds of projectors; a knowledge of electrical appliances for lighting effects of motors and other appliances which will produce motion, and various kinds of building materials; information about museum exhibits, the specimen-object-model, the school journey, and a working knowledge of present day advertising displays and methods.

In order to have all this information in usable form and to properly conduct the distribution of visual material it is quite necessary to have an adequate filing system, which should have, at least, six separate files as follows:

1. The distribution file
2. The stock file
3. A temporary file for the shipper
4. The card-information file
5. The materials-information file
6. The photographic file

In describing the above files I shall use the color codes and set-up now in use in the majority of visual-education divisions in official and semi-official agencies. Also, I shall describe the set-up of each file separately since each one has a distinct function.

The Distribution File

The purpose of the Distribution File is to provide an adequate record of the distribution of material and involves (1) a record of shipments so that they may be made at the proper time, (2) a means of locating material whether it is out on loan or in the stockroom, and (3) the complete history of all material distributed during the year.

The Distribution File should be divided by salmon-colored guide cards into five main divisions (which for the sake of brevity we shall refer to as "sections"), with the following designations on the tabs of the guide cards:

1. Send, 2. Tentative, 3. Future, 4. Out, 5. Closed.

The subdivisions and their functions are as follows:

1. The "Send" section of the Distribution File must contain 31 blue guide cards numbered from 1 to 31 consecutively which correspond to the days of the month. When a loan is made, an index card which we shall call the shipping card is made out and is placed in back of the number corresponding to the date on which the material is to be shipped. For example, if some material is to be shipped to Miss Black on November 16, her card (which is the shipping card) is placed in back of the blue guide card designated "16". The "Send" section is consulted each morning and the material scheduled for distribution on that date is prepared for shipment the first thing in the morning so that it will be ready when called for. The daily inspection of the "Send" section on November 16 would disclose the fact that some material was scheduled for shipment to Miss Black on that day.

2. The "Out" section of the Distribution File consists of 26 blue guide cards lettered from A to Z. As soon as Miss Black's shipment is made on November 16 her shipping card is removed from the "Send" section and, after all notations are made on it, is placed in the "Out" section back of the blue guide card noted as "B". The "Out" section is a record of all the material while it is out on loan.

3. The "Closed" section of the Distribution File consists of salmon-colored guide cards that separate each year's work and contains all the shipping cards filed after the material has been returned. For example, when Miss Black returns her material, her card

is taken from the "Out" section and after the proper notations have been noted, the card is placed in the "Closed" section. The guide cards in the "Closed" section indicate the year for which the material has been lent. The "Closed" section is actually a complete record of that year's work.

4. The "Tentative" section of the Distribution File is a record of material that is tentatively reserved. Sometimes the borrower does not understand the terms under which the material may be secured and it is necessary to make a tentative reservation until the doubt surrounding the loan is removed. A shipping card is made out as in case of a definite reservation. If the borrower finally decides not to use the material, the card is destroyed but if he decides to use it, the card is put in the "Send" section in back of the date on which the material is to be sent.

5. The "Future" section of the Distribution File takes care of all reservations not scheduled to go out during the current month. It is a good plan to put future reservations in the "Send" section after the tenth of the month so that future shipments in the early part of the succeeding calendar month will not be overlooked. Sometimes future shipments are scheduled several months in advance and in that case, the card is retained in the future shipments until the tenth of the month preceding the date of the shipment.

How to Use the Distribution File

In order to understand clearly how the "Distribution File and the various cards are used let us consider a concrete example. For instance, Miss Mary Black of the Central High School, Rush Center, Colo., phones to the visual education office on October 8, 1931, that she wants to use a motion picture entitled "Diet" and some posters on the same subject for a health education exhibit in her school on November 23-25, 1931.

The answer to her letter informs her that the material will be sent to her about November 16, which will be in time for her exhibit. A shipping card, the ordinary 4 by 6 white index card (unruled) is made out as follows:

BLACK, MISS MARY	November 16, 1931.
Central High School,	
Rush Center, Colo.	
Diet No. 14	
Diet Standards No. 2	
A Healthy Diet No. 5	

As will readily be seen, this card (which is the shipping card) shows the person to whom the material is to be sent; the address to which it is to be

sent; the shipping date (when it is to be shipped) on the upper right hand corner of the card; and the material to be shipped is noted on the body of the card.

On the reverse side of the card are made the following notations:

Purpose: Health exhibit in school room,
November 23-25.

Return date: November 30, 1931.

This card is filed in the "Send" section of the Distribution File back of the blue guide card numbered "16". On the morning of the 16th of November a glance at the "Send" section discloses the fact that the material is to be shipped that day. Tags are made for the shipping case and a letter which is called the "shipment letter"—is sent to Miss Black telling her of the shipment.

The shipping card is then filed in the "Out" section in back of the blue guide card marked "B". With the shipment letter is sent an acknowledgment form for Miss Black to fill in and return to the office of the visual education division when she receives the material. This acknowledgment form is filed in the office correspondence files when it is received in the office and the shipping card is stamped "Shipment received by borrower." The purpose of the acknowledgment form is to provide a record of the fact that the borrower received the material. An example of the acknowledgment form generally in use is as follows:

School.....
Date

Director,
Visual Education Division,
Rush Center, Colo.
Dear Sir:

The package containing { charts
film of whose
model
slides
shipment you notified me } has
has not been received.

When the material is reserved a notation is made on the stock cards. (This will be discussed more fully later.)

After Miss Black has returned the material to the visual education division, it is examined and if in good condition a notation should be made on the card "Returned-Examined-O. K." A letter is written to Miss Black informing her that the material has been received and the shipping card is filed in the "Closed" file in back of the guide card indicating the year to which it belongs. If the material is not returned in good condition, further correspondence is necessary to adjust the matter and an excerpt of the important facts in the case is typed on the card. The shipping

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FILM PRODUCTION ACTIVITIES

The aim of this new department is to keep the educational field intimately acquainted with the increasing number of film productions especially suitable for use in the school and church field.

Founding of Woodmen Society Filmed

Modern Woodmen of America, the largest fraternal insurance society in America, have used motion pictures as publicity since 1911 and have released this year a historical film of the Society's fifty years of existence. This film called *Woodcraft's Golden Anniversary* is two reels in length and available in either sound or silent versions, (sound-on-film only). Modern Woodmen of America was founded in Lyons, Iowa, fifty years ago and the film re-enacts the founding of the society with scenes made at the exact locations where the historical events took place. Characters representing the founders, actual buildings used as early offices are seen, with a special musical score and dialog accompanying the film. Actual motion pictures made in 1911, 1914, 1917, 1921 and on up to 1932 are shown in review and present one of the most interesting historical documents ever presented on the screen. This film is available from the Motion Picture Department, Modern Woodmen of America, Rock Island, Illinois, or from Ray-Bell Films, Inc., the producers.

Two Scenics

After six weeks in Glacier National Park last summer for the Great Northern Railway when nearly 15,000 feet of negative was exposed, Ray-Bell Films, Inc., have just completed two releases for the Great Northern Railway on the Park. These two subjects, one a two reel film *Land of Shining Mountains*, and the other a one reel film *A Fisherman's Paradise* are available free of charge in either 16 mm. or 35 mm. size. The beautiful ruggedness of Glacier National Park and the wonderful scenic beauties of a four-day trip through the Park are covered in the two-reel subject. *A Fisherman's Paradise* presents various fishing spots in the Glacier National Park country where real fishing and scenic beauty are combined.

Child Health Film

Dr. David B. Hill, First National Bank Bldg., Salem, Oregon, has produced a 500-foot 16mm film called *The Life of a Healthy Child* which portrays the events of a child's day, from early morning to bedtime at night—how the child walks, breathes, plays, brushes its teeth, sleeps, and everything it eats. This film has been shown extensively in the schools of Oregon and Washington, and before a number of dental societies throughout the country. It has been praised highly in authoritative quarters for its informative, wholesome subject matter, its positive teaching force, its excellent photography, and the naturalness of its

caste. The Marion County Public Health Association, of which Dr. Hill is president, in the interest of child health, is offering prints of this film at cost to schools, dental societies, and health organizations.

—(Filmo Topics)

Two More Films Ready in University of Chicago Series

Electrostatics and *Energy and Its Transformation* are the titles of the latest releases in the Physical Science series of talking pictures produced by the University of Chicago in cooperation with Erpi Picture Consultants, Inc. The first two subjects, *Oxidation and Reduction*, and *Molecular Theory of Matter*, were reviewed in the December issue of THE EDUCATIONAL SCREEN.

Electrostatics deals with static electricity as fundamental to an understanding of the modern theories of electricity. It explains how positive and negative electrification are produced and by animated drawings shows the part played by insulators and conductors.

In *Energy and Its Transformation*, potential, kinetic and radiant energy, as manifested in mechanical, chemical and thermal form, are vividly illustrated and explained. The principle of conservation of energy, and the terms "power" and "work" are demonstrated in experiments. Sources of energy are reviewed.

All four films may also be obtained in silent version. 35 mm. or 16 mm.

Army Sound Productions

The U. S. Signal Service have recently completed two 16 mm. sound productions at their Washington, D. C. studios. The subjects were Training in Chemical Warfare, and were filmed as silents at Fort Monmouth, the sound accompaniment being done in Washington. Captain A. H. Jervey, U. S. A. Signal Corps, directed the productions, which deal with practical war problems and use of chemical gases in warfare. Arrangements are being made to distribute these films to the various army posts of eight army corps areas.

Preparation of Food Shown in Short

The fine art of preparing food will be the subject of a new short subject titled *Menu*, to be filmed by the Metro-Goldwyn-Mayer studios in the world-famous kitchens of the Ambassador Hotel at Los Angeles, Calif.

The presiding chef, Henry Vassetti, renowned for his culinary skill, will be shown at work. Secrets of cheffdom are to be photographed in close detail so that any housewife may attempt them in her own home.

DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

Annual Meeting of Department

The next convention of the Department of Visual Instruction is to be in Chicago on July 5 and 6, 1933. The sessions will be held in the beautiful Florentine Room of the Congress Hotel. The Congress is almost at the gate of the Century of Progress Exposition and the foyer outside the Florentine Room overlooks the northern section of the Exposition. The Congress is within two short blocks of the Stevens Hotel, which will be headquarters for the National Education Association and will contain the exhibits.

Special convention rates will apply to room reservations at the Congress and reservation cards will be mailed to all members of the Department of Visual Instruction, as well as to all others who may request this service. The excellent convention facilities of the Congress have been placed at the disposal of the Department for its meetings.

Interesting Program Planned

The program of the 1933 Convention includes many interesting features. The Chicago Public Schools will present a demonstration of radio-vision, as used regularly among various schools. There will be a visit to Adler Planetarium and much information concerning educational exhibits of the Century of Progress Exposition.

Secretary, Department of Visual Instruction,
1812 Illinois Street, Lawrence, Kansas.

Date.....

Check

Below

- I am planning to attend the Chicago meeting of the Department.
- I desire membership in the Department. (\$2.00 annually.)
- I am a member of the National Education Association.
- I wish to order a copy of the 1933 Directory. (\$1.50, postpaid.) (Directory is free to members in good standing.)
- I shall attend the luncheon at 12:15 noon, July 5. (\$1.25)
- I shall attend the luncheon at 12:15 noon, July 6. (\$1.25)
- I shall want a room reservation at the Congress Hotel. (If checked, reservation card will be mailed to you.)

Name
Address
City..... State.....

Purposely, the program of the Department of Visual Instruction has been arranged to avoid conflict with the general sessions of the National Education Association. The first meeting will be a luncheon at the Congress Hotel, 12:15 noon, Wednesday, July 5. The central theme for discussions will be "The responsibility of teacher-training institutions for visual-sensory aids courses." Superintendent R. G. Jones, Cleveland Public Schools, will discuss the topic from the standpoint of the school superintendent. The teachers' college standpoint will be presented by President Albert Lindsay Rowland of the State Teachers College at Shippensburg, Pennsylvania. Miss Elda Merton, Waukesha, Wisconsin will present the viewpoint of the teacher.

The next session is scheduled for two o'clock in the afternoon of the same day, in the same room. There will be no evening meeting, other than the meetings of the various working committees, and the next feature of the program will be the visit to Adler Planetarium at nine o'clock Thursday morning.

The third regular session will be another luncheon at 12:15 on Thursday. The discussions will center around visual-sensory aids and the economic situation. The fourth session will be concerned with relating visual-sensory aids to the curriculum. During this session, a demonstration of radio vision will be presented by Miss S. Naomi Anderson, of the Department of Visual Education, Chicago Public Schools.

The combined attractions of the Century of Progress Exposition, the annual meeting of the National Education Association, and the meeting of the Department of Visual Instruction seem to justify the anticipation of the largest visual instruction meeting ever held in this country. Undoubtedly, the hotel facilities will be crowded. It will be necessary, therefore, to make plans much farther in advance than usual. For this reason, the accompanying blank is provided for your use in making the necessary reservations for the luncheon meetings, requesting membership in the Department, ordering a copy of the Directory, etc. It will be to your advantage to check it and mail it without delay.

Department Membership

Membership in the Department of Visual Instruction of the National Education Association is open to anyone who may be engaged in educational service, among schools, churches, government departments, or industrial organizations. Members receive, in addition to the Directory, a subscription to the combined "Educational Screen and Visual Instruction News."

Such other reports or bulletins as may be published by the Department are distributed among members. Members receive generous discounts on certain books and monographs, as well as a special subscription rate to the "International Review of Educational Cinematography."

The cost of either Associate or Active membership in the Department is but \$2 a year. The services extended to members would cost more than twice this amount, if purchased separately. Those who are members of the National Education Association become Active members and all others are Associates. The services extended to both types of members are the same, but Associate Members have no voice or vote in the affairs of the Department.

1933 Directory Ready

The Visual Instruction Directory for 1933 is now ready for general distribution. Complimentary copies have been mailed to all members of the Department of Visual Instruction and will be mailed to those who may join in the near future. It is the most complete directory of its kind ever issued, containing in its eighty pages the names and addresses of more than 3,500 directors of visual instruction and other visual instruction workers.

The Directory is divided into six parts. Part I contains a list of officials in charge of state visual instruction service. This list should be helpful to all those who are interested in securing visual aids on loan.

Part II is a list of the officials in charge of city, district and county departments of visual instruction. This list will indicate, to a certain extent, the very rapid progress toward definitely organized programs of visual instruction among the leading school systems.

Part III includes a list of those in charge of visual instruction service as offered by the various city, state and national museums. In many instances, these museums have extensive visual instruction service available for the use of schools.

Part IV contains the longest of the six lists. It is made up of names of those who are using visual aids in connection with the educational plans of their schools, but who may not be designated "Director of Visual Instruction." The list includes the names of teachers, principals, superintendents, church workers, and others who have shown an interest in the improvement of instruction through the proper use of visual-sensory aids.

Part V is a list of the teachers of university extension divisions. Those whose divisions are offering visual instruction service of any type are so indicated.

Part VI is made up of a list of the institutions which are offering visual instruction courses, including, in most instances, the names of the instructors in charge. There has been much demand for this

information from among those who desire further training in the use of visual-sensory aids for the improvement of classroom instruction.

As indicated above, those who are members of the Department receive the Directory without charge. Those who may apply for membership at this time and pay the annual dues of \$2 will receive it. Others may purchase the Directory at \$1.50 the copy, postpaid. Requests for the Directory or applications for membership in the Department of Visual Instruction should be mailed to the office of the secretary, 1812 Illinois Street, Lawrence, Kansas.

International Review at Special Rate

Dr. Luciano de Feo, Director of the International Institute of Educational Cinematography, has approved the extension of the library subscription rate to directors of visual instruction and boards of education in the United States. This is construed to mean that any active member of the Department of Visual Instruction may subscribe for the *International Review of Educational Cinematography* at a discount of 20%.

The magazine is published monthly, averages about seventy-two pages to the issue, and is attractively bound. It is full of pertinent discussions of the educational uses and possibilities of the motion picture. For example, the following topics are discussed in the January and February issues of 1933—

The Revolutionary Fifth Estate
 What England is Thinking About the Cinema
 Films in the German Schools
 The Development of the Sound Film
 The Progress of Educational Cinematography in Great Britain.
 Language Teaching and the Talking Film
 The Edinburgh Scholastic (Film) Inquiry
 Instructions in Cinema Technique for Teachers
 The Use of Films for Preventing Accidents
 How Much of a Sound Picture Should be Talk?
 Filming the Aurora Borealis

In addition, there are numerous brief news notes and reports, citations of books and magazine articles, and announcements of outstanding new film productions in various countries.

The Review is published in Rome and is available in any one of five languages; Italian, French, German, Spanish or English. The annual subscriptions rate is \$4, including a beautifully tooled Florentine leather binder for the annual volume. The discount would reduce this to \$3.20. It is quite probable the January, February, March and April issues can be furnished to those who might desire to subscribe as of January 1, 1933.

Subscriptions may be forwarded directly to the International Institute of Educational Cinematography or may be ordered through the Department of Visual Instruction. If ordered through the Department, a charge of 30c per subscription will be assessed to cover the cost of an international money order, postage, etc. The total cost, therefore, will be \$3.50 for the year's subscription. Orders through the Department should be mailed to the secretary's office, 1812 Illinois Street, Lawrence, Kansas, where they will receive prompt attention.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

New York State Education (February) This issue offers as the fifth article in its Visual Instruction Series, "The Stereograph in Education," by George E. Hamilton. It is a concise summary of the contribution this device may make to the visual program. Because of its illusion of depth and space relationship, the stereograph gives the looker a very important impression of reality, which in turn creates greatest interest.

Other advantages which make this type of aid desirable are: its relative inexpensiveness, the ease with which it may be used for individual study, and its practical indestructibility.

"The Value of Educational Exhibits," by Julius C. Braun, Director of the Department of Industrial Arts, Hamburg, New York, in this same issue emphasizes the importance of school exhibits to acquaint the public with the general aims and requisite information concerning school courses. Too often inadequate and misleading information reaches school patrons, resulting in adverse criticism of the school.

Ohio Schools (January) Mr. B. A. Aughinbaugh, State Supervisor of Visual Instruction in Ohio, relates some "'Believe It or Not' Stories" regarding visual instruction, which throw new light on the problem of testing the value of visualization. He mentions a study conducted in Ohio a few years ago which approached its objective by examining the ability of each of the two forms of communication—visual and verbal—to convey messages in the four rhetorical divisions—description, narration, exposition and argumentation. To accomplish this work, it was found necessary to discard the use of commonly accepted forms of tests for any one of the four cases except exposition, since the type of testing generally used does not reveal the importance of visual representation—a situation which he claims has done much to produce the slow pace by which visual aids have been introduced into school work.

The American Cinematographer (January) "Schools Strongly Favor Pictures in Education," writes Marian Evans, Head of Visual Education Department of the San Diego Schools, but, like all other school equipment, they must be selected with care to fit the needs and interests of the students and must be effectively used by the teacher. She summarizes the service offered by the Visual Instruction Center and suggests a representative staff

for a well-rounded program for a city of 150,000 to 200,000 population. Regarding the visual education budget, she considers the most satisfactory method to be that of figuring a percentage basis of per pupil average daily attendance to cover all expenses except that of installation of equipment permanently placed, such a rate to parallel the amount allowed for books.

Mind and Body (January) "Visual Aids to Health Education," by Howard L. Conrad, Supervisor of Physical and Health Education of the Philadelphia Public Schools, is the title of a series of articles beginning in this issue. The series will attempt to point out the values and methods of usage of various visual aids as they apply to health education.

The writer devotes his first instalment to the values of blackboard illustrations, which are stated to be: they aid in the establishment of atmosphere, in making the aim of the lesson more tangible, in the presentation of new material, and in pupil participation. "In this visual aid," he says, "there is practically no limitation to the inventiveness, initiative, and originality that may be displayed by the teacher in presenting phenomena more or less complex."

(February) In his second instalment Mr. Conrad considers the use of "Films, Charts, and Posters as Visual Aids to Health Education," quoting some of Mr. J. J. Weber's statements regarding the values of films and ways in which they can be used in a given lesson. He helpfully suggests some features to look for in selecting suitable health films.

The writer regards charts as great time-savers in health instruction and tells of two kinds, the commercial printed or lithographed charts and pupil or teacher-made charts. Posters are very popular and can be secured from various welfare and health associations, and dairy councils. Practically all Art courses provide instruction in poster-making.

Sierra Educational News (February) Addie L. Wilkinson, Whittier School, Long Beach, California, gives a concrete example of the "Use of Slides in First Grade Reading," which resulted in general interest and enthusiasm on the part of the class. The slides were projected on the blackboard, rather than a screen, so that words for study could be written on the board, and remain when the picture vanished.

THE FILM ESTIMATES

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

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

Big Cage, The (Clyde Beatty) (Universal) Unusual, absorbing, thrilling, human portrayal of wild-animal-training by youngest trainer and first to handle lions and tigers together. Beatty impresses as engaging hero of really fine accomplishment. Some crude vulgar comedy mars an otherwise splendid film.

A—Excellent Y—Excellent
C—Fine but exciting

Blondie Johnson (Joan Blondell, Chester Morris) (Warner) Stereotyped gangster-melodrama, but with main "big shot" a girl, cleverly acted by star. Main theme, "nothin' counts in life but dough, see?" Smart-aleek wisecracks, terrible English, booze, sweeties, double-crossings, shootings, and vulgarian life in general.

A—Trash Y—Pernicious C—No

Christopher Strong (Katharine Hepburn, Colin Clive) (RKO) Sophisticated love-triangle, of modern, intelligent people, rather heavy in both dialog and action, but well acted. Notable for fine work of Miss Hepburn as aviatix-heroine, whose love for the married hero much her senior, leads to her suicide.

A—Good of kind Y—Decidedly not C—No

Clear All Wires (Lee Tracy, Helta Hume) (MGM) Brisk newspaper-correspondent runs hectic, wisecracking career in Paris and Moscow, glorifying himself by sensational news, whether true or not. Affair with mistress of his boss brings trouble and final failure. Breezy entertainment in Lee Tracy style.

A—Depends on taste Y—Doubtful C—No

Crime of the Century (Jean Hersholt, Stuart Erwin) (Paramount) Entertaining and decidedly "different" murder-mystery that does not resort to scare-devices for thrills. Picture stops for moment to give audience chance to solve. Interesting and suspense is well maintained, plot convincingly worked out, and acting good.

A—Good of kind Y—Good C—Perhaps

Dangerously Yours (Warner Baxter, Miriam Jordan) (Fox) Deft acting by the stars, as gentleman crook and lady detective, operating in English society and getting into many professional and romantic complications. Makes crime rather alluring but avoids offensive scenes. Melodramatic and improbable but mostly amusing.

A—Good of kind Y—Doubtful C—No

Devil's Playground (George Vanderbilt) (Cameo) Picturizes private Snuth Seas fishing trip. Fairly good pictures of game-fishing with clumsy faking for story sake. Off-stage voice tries to glorify "George" and add thrills by getting excited itself. Much over-statement, poor English, and ridiculous humor.

A—Hardly Y—Harmless C—Perhaps

Face in the Sky (Spencer Tracy, Marjorie Nixon) (Fox) Fairy-tale mixture of rural-life comedy, crude melodrama, incredible adventures and poetic whimsy. Super-conceited, wise-cracking, sign-painter saves country heroine from brutish home. Has brief success in New York, then back to rural life with his devoted little wife.

A—Fairly good Y—Amusing C—Good

From Hell to Heaven (Carole Lombard, Jack Oakie) (Paramount) Exploitation of race-track life. Various characters, good, bad and colorless, seeth about betting windows, each playing the game with different motives. Much futile activity and emotion with some labored comic relief by Jack Oakie.

A—Hardly Y—Hardly C—No

Gabriel over the White House (Walter Huston) (MGM) Powerful, significant picture of what a President of the United States with will and courage could do to solve national

Estimates are given for 3 groups

- A—Intelligent Adult
- Y—Youth (15-20 years)
- C—Child (under 15 years)

Hold faced type means "recommended"

and international problems and save civilization. Outstanding film with perfect cast. Whole nation should see Walter Huston's masterful portrayal.

A—Outstanding Y—Excellent C—Excellent

Girl Missing (Ben Lyon, Mary Brian) (Warner) Two chorus-girls, one very cheap, slangy and amusing, are left with only their wits to pay Palm Beach hotel bill, when supposed "sugar-daddy" deserts. Murder, fake-kidnapping, some quick thinking—and they defeat villainous chum and her gang. Lively and unobjectionable.

A—Hardly Y—Probably amusing C—No

Great Jasper, The (Richard Dix) (RKO) Utterly common, crudely amorous, hard-drinking vulgarian is offered as hero. Neglects devoted wife and son, begets another by seducing young wife of aged boss, and finally does drunken spree with the two sons when they are grown up. Excellent bad taste, more offensive than amusing.

A—Trash Y—By no means C—No

Her Mad Night (Irene Rich, Conway Tearle) (Mayfair) "Mother love" story, heavily loaded with melodramatic trash about daughter with key's to many men's apartments, a sex-obsessed villain, a murder, a death march to execution chamber—and runaway mother comes back and saves daughter!!

A—Trash Y—Thoroughly bad C—No

Keyhole, The (Kay Frances, George Brent) (Warner) New York and Havana furnish glamorous background for exotically gowned heroine and her loves. Brent likable as detective who falls in love with heroine he was hired by husband to shadow. Still preceding husband makes the trouble. Clean dialog and action.

A—Depends on taste Y—Not the best C—No

King Murder, The (Conway Tearle) (Chesterfield) Above average mystery story about solution of murder of blackmailing, gold-digger mistress. No scenes of violence or scare. Plot involved but interesting. Cast satisfactory with exception of murderer. Probably wholesome excitement for average youth.

A—Rather good Y—Probably interesting
C—No

Men Must Fight (Diana Wynyard, Lewis Stone) (MGM) Heroine's two-day lover killed in Great War, she marries devoted old Major to give child his fine name. Then film becomes strong, confusing propaganda for peace, still showing war as inevitable and preparedness essential. War in 1940 as climax.

A—Unusual Y—Very doubtful C—No

Mystery of the Wax Museum (Lionel Atwill, Glenda Farrell) (Warner) Another horror-thriller with some new shocks and shudders, over wax figures that are not what they seem. Well-motivated leading role played with dignity by Atwill, and Farrell's whirlwind wise-cracking comedy make above-average-mystery film.

A—Good of kind Y—Doubtful C—By no means

Obey the Law (Leo Carillo) (Columbia) Italian barber takes out papers and becomes a super-patriotic, effusive American. He blunders into complications with gangs and crooked politicians, but finally gets his eyes open and is the means of defeating the gangsters. Sentimental and bombastic.

A—Mediocre Y—Hardly C—No

Our Hettlers (Constance Bennett, Gilbert Roland) (RKO) American heiress, with unfaithful English husband, turns hard and becomes as heavily sex-appealing as possible. Sneers at America, dominates decadent English society, and leads her set in brazen conduct. Sex-saturated high life in lavish setting.

A—Unsavoury Y—Pernicious C—No

Outsider, The (British Cast) (MGM) Heavy, slow-moving story of crippled daughter of great surgeon. Supposed incurable until non-medical hero, with new-fangled electrical device, treats her, but she still cannot walk. Thinking her beloved hero is leaving her, she runs to him, cured.

A—Ponderous Y—Hardly C—No

Perfect Understanding (Gloria Swanson) (U. A.) Trite and uninspired story about difficulties of remaining faithful in marriage. Elementary production, supposedly laid among English society, with elaborate London and Riviera backgrounds. Gloria's acting and voice disappointing.

A—Mediocre Y—Unwholesome C—No

Pick Up (Sylvia Sidney, George Raft) (Paramount) Unconventional but decent love affair, without sex exploitation, between a prosaic, honest taxi-driver and fine little heroine down on her luck. Sophisticated situation, but cleanly told and well acted. Wholesome elements dominant and total effect probably good.

A—Fair Y—Probably good C—Hardly

Rome Express (Conrad Veidt, Esther Ralston) (Universal) Excellent English-made melodrama at La Grand Hotel, all action confined to Paris-Rome through train. Many human types, theft, murder, and illicit romance with novel lesson, are included. Plot, suspense, acting, setting, details—all notably good.

A—Very good Y—Probably good C—No

Sailor's Luck (James Dunn, Sally Eilers) (Fox) Riotous, rowdy farce-comedy about sailors and their doings in various ports, with slapstick and horse-play almost swamping the Dunn-Eilers love story. Artificial and absurd misunderstandings keep story going. A chronic drunk and a bathing-suit clown are features!!

A—Absurd Y—Hardly C—No

Soviets on Parade (Native Russian Film) (Amkino) Elaborate news-reel of recent celebrations and personalities in Russia, military displays, opening of new huge industrial dam, etc. Presented with great enthusiasm for the glory of the Soviets and national mass action. Explanatory accompaniment in English.

A—Perhaps Y—Probably good C—No

Strange Adventure (Regis Toomey) (Allied) Murder-mystery of scare-thrill type, highly melodramatic and improbable, merely seeking to draw crowd to box-office by hair-raising devices. Only original touch, revealing method of crime merely by shifting angle of camera to scene in question.

A—Mediocre Y—Doubtful C—No

Uptown New York (Jack Oakie) (World Wide) Oakie plays likable character as the clumsy, naive, but devoted lover of a heroine in love with another man. In most other respects, the film is mediocre, with trite plot, wobbly motivation, and the utterly obvious ending.

A—Poor Y—Better not C—No

White Sister (Helen Hayes, Clark Gable) (MGM) The old F. Marion Crawford story beautifully screened, with Helen Hayes excellent as heroine and Gable measuring up well to a serious role. Pictures convincingly a great, true love grimly thwarted by disaster of war. Church scenes done with fine dignity and impressiveness.

A—Excellent Y—Mature but fine
C—Beyond them

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

How to Conduct a Worship Service With Visual Aids

REV. H. PAUL JANES

A GREAT many people have asked me: "How do you conduct a worship service with visual aids?" In the next several issues of THE EDUCATIONAL SCREEN I am going to try to describe a series of worship services in which visual aids are used.

Here are some suggestions for a service entitled *The Call to Greater Heights*.

Pictures are used in this service to perform at least two primary functions: (1) to recall experiences vividly in order that God may be revealed most vividly. (2) To stimulate vicarious experience in order that those who may not have had the desirable experiences may also identify God and understand the Christian gospel interpretation. *Note this:* The service makes no attempt at interpretation. That is the function of the one who conducts worship—the minister or the teacher.

The church is in semidarkness. The only lights visible are dark blue bulbs and fixtures at the entrance to the nave. A lighted "center of interest" should be supplied for the eyes of the congregation. This may be easily done by an appropriate slide on the screen, by a lighted stained glass window, or more elaborately as follows. A spotlight covered with blue gelatin, placed at the foot of the chancel out of sight casts the shadow of a cross upon the motion picture screen at the front of the church. The effect is that of a cross on a hillside silhouetted against a deep blue sky. The function of this religious "center of interest" is to stimulate the religious set of the gathering congregation in preparation for worship.

While the congregation enters, soft familiar music is played on the organ, piano or electric sound reproducer. This music continues until the prelude, and its function is to reduce prejudice and quiet the emotions.

Ushers use dim flashlights to light the way to seats as persons coming into a dark church are temporarily unable to see. Flashlight beams are kept on the floor and do not flash across the room or in the faces of the people. Persons entering are not allowed to cross the beam of light running from projector to screen. Soft lights are provided for musicians and pulpit but these are hidden from the view of the congregation. As the hour for worship arrives the musician leads into the prelude.

Suggestions: "Largo" from Handel's "Xerxes" (V. R. 35958-A); "Meditation" from "Thais" by Massenet (V. R. 6844-A).

It is just as effective to use electric sound reproducer or phonograph with good phonograph records as to play the organ or piano, but if a sound reproducer is used it must be a good one, so good that the congregation will not be able to tell which is the organ and which is the sound reproducer. If the service is not held in the church, then less efficient equipment can be used.

About one minute before the prelude is finished, "fade out" the "center of interest" and project theme picture, "Flowers in a Meadow." As the prelude is finished "fade out" the theme picture and restore the "center of interest."

(If possible it is desirable to use a double rheostat between the stereopticon projector and the "center of interest" so that one can be "faded" out as the other "fades" in. This does away with the flashing on and off of lights. The rheostat is not essential, however, and most churches experimenting will not have it available.)

The organist should swing from the prelude to the adoration hymn, playing it through once before the congregation begins to sing. As the last few notes of the hymn are being played the light on the "center of interest" should be put out and the adoration hymn projected. At the end of the hymn, light the "center of interest" again and take off the adoration hymn.

The scripture lesson is read from the lectern or pulpit. A reading lamp with not over 10 watts illumination is needed. Keep the lamp from glaring in the eyes of the congregation. A few verses from the Psalms are suggested: Ps. 19:1-3; Ps. 121:1-2; Ps. 24:1-2; Ps. 96:11-12; Ps. 95:1-7; Ps. 66:1-5. The "center of interest" remains lighted during the scripture reading, and during the prayer following. It is well to emphasize the theme of the service—"That God may reveal Himself through His majestic and beautiful creation." At the close of the prayer the organist begins to play the theme hymn.

As the theme hymn is taken from the screen, begin to project the motion picture. The organist can swing from the theme hymn to the music for the motion picture. In case instrumental selections suggested on the cue sheet are not available substitute other selec-

tions of the same type. Often hymn tunes can be found which will provide the musical background needed. Most hymn tunes, however, are associated with lyrics which people are accustomed to sing and this is sometimes distracting to the congregation.

For this service *Trees* by Joyce Kilmer (V. R. 1525-A) has been selected as the special number. As the film ends the light on the "center of interest" is turned on. The organist as quickly as possible swings to the music of the poem. After playing it through once the soloist begins to sing the first verse—and the projectionist puts the theme picture on the screen and turns the light off the "center of interest." As the first verse is ended the light comes on at the "center of interest" and off the theme picture. As the second verse is begun the picture "Tree by a Pool" is projected and the light on the "center of interest" is turned off.

As the soloist sings "Poems are made by fools like me" begin to light up the "center of interest" again so that when the soloist sings "But only God can make a tree" the light on the picture "Tree by a Pool" can be turned off, leaving only the "center of interest." If the reflected cross is used, the effect is beautiful. Here is an identifying of the orthodox Christian idea with the God of Creation which provides a worship realization of great importance to your service.

Then, the sermon. Its general tenor may be suggested by the following paragraph:

"If you have stood on a mountain side in the morning and watched the sun push aside the clouds to let in a new day; if you have reclined beside a camp fire and watched the stars come out one by one, growing to their magnitude; if you have ever stood by a waterfall and silently listened as the water broke itself into a fairy veil and floated by you; friend, if you have done these things, you know what it is to be still and listen to God." Usually the only extra light used during the sermon is a reading lamp on the pulpit (10 watts). The "center of interest" remains lighted.

After the sermon a prayer of thanks to God who speaks to us through His beautiful creation, calling us to "greater heights" is in order. The organist then begins the response hymn, playing it through once as the light goes out on the "center of interest" and the response hymn is projected for singing. At the end of the hymn the "center of interest" is lighted again. The theme picture is projected during the offertory. "Morning" from "Peer Gynt Suite" by Edward Grieg (V. R. 35793-A) may be played or the choir may render a number, but the music must be appropriate to the theme picture or else it will not be appropriate to the worship service—a thing which too often happens in worship. If announcements must be made—make them now—and pronounce the benediction. Use "Prelude in G Minor" by Rachmaninoff (V. R. 35951-B) as a postlude—or some similar num-

ber—leave the "center of interest" lighted—do not turn on any other lights—allow the congregation to visit in the foyer—not in the sanctuary.

Slides and Film for this Service are:

1. Theme Picture, *Flowers in a Meadow*; 2. Adoration Hymn, "Fairest Lord Jesus"—2 vs.; 3. Theme Hymn, "God Who Touchest Earth with Beauty"—4 vs.; 4. "Tree by a Pool"—the picture to illustrate Kilmer's poem *Trees*—second verse. First verse is illustrated with theme picture; 5. Response Hymn, "This Is My Father's World"; 6. Film, *The Call to Greater Heights*—a trip made by a group of devout young people to a lake in the mountains.

Cue Sheet—for musical accompaniment to film.

Begin with *Triumphal March* by Grieg—V. R. 35763-A.

Cue: Title—"God give us hills, and strength for climbing."

Air de Ballet by Herbert—V. R. 9147-B.

Cue: Watch!—scene a beaver dam.

At the Brook by Boisdoffre—V. R. 20344-B.

Cue: Title announcing vesper service.

Liebestraum by Liszt—V. R. 35820-B.

Cue: Title—"There's fun around the camp fire."

Air de Ballet by Herbert—V. R. 9147-B.

Cue: Title—"All too soon it's over."

Cavalleria Rusticana Intermezzo by Mascagni
V. R. 20011-A.

Note: Letters and numbers (V. R. 20011-A) indicate Victor records which may be used with electric phonographs or sound reproducers to provide musical backgrounds for this film. If the musician is unfamiliar with the type of music suggested, hearing the record will aid in selecting a substitute number.

Government Activities

(Concluded from page 104)

card should be held in the "Out" file until the matter is finally adjusted.

A request for attendance should always be made in the shipment letter and this information as well as any other information regarding the material which the borrower chooses to send is typed on the reverse side of the shipping card. If the attendance is not given when the material is returned, a second request should be sent for it as the information is quite valuable when making up the monthly reports of the work accomplished. Criticisms of the material are also invited and this information typed on the reverse side of the card.

From the above description of the use of the Distribution File, it will be seen that the entire history of the loan is carried on the shipping card and at the end of the year a perusal of these cards will give a very definite report of the year's work as far as the distribution and usefulness of the material is concerned.

(To be continued)

SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

Director, Scarborough School, Scarborough-on-Hudson, N. Y.

Demonstration In Use of Visual Aids

WE ARE glad to pass on to our readers the following program of a demonstration of teaching technique in the use of visual aids, developed by Mr. A. G. Balcom of the Department of Visual Instruction, Newark, New Jersey. This demonstration, the third of a series, was held at the Lafayette Street School, March 8th, and the next one is scheduled for May 9th at the Burnett Street School.

Auditorium (second floor)—9:30 to 10:08 a. m.

1. Home-made song slides.
2. Home-made slides on "Safety".
3. Motion picture film (35mm), "Peter Stuyvesant," from "Chronicles of America." Explanation of correlated use in written language of all grammar grade classes.
4. Art Slides—Association of painting with literature and music.

10:08 a. m. to 10:35 a. m.

GRADE	ROOM	TYPE OF LESSON	VISUAL AID USED
5A	409	Geography — Coal and coal mining.	Stereoscopes and stereographs; library pictures; museum exhibits.
7B	205	Art Appreciation—Art Textiles and Pottery	Slides from Dept. of Visual Ed.
Opp. 7-8	406	New England States —Industrial	Slides from Keystone "600"
4A	304	Oral Language "Holland"	Blackboard illustrations
7A	208	Music Appreciation —Stephen Foster	Slides
6A	410	Health—Foods	Com. exhibit; home-made exhibit
3A	307	(a) story-telling (b) silent reading	Still-film and slides from Primary "300" Set
1A	207	Health Lesson	Pictures & posters
3B	305	Silent Reading	Illustrated mimeographed materials

10:35 to 11:03

GRADE	ROOM	TYPE OF LESSON	VISUAL AID USED
8B	405	History—Westward Movement	Lantern slides
6A	101	Manual Training Lumbering	Motion picture film (35mm)
8A	403	Geography—Development of Transportation	Home-made slides

Opp. 5-6	210	Hygiene	Film slides
2A	310	Silent Reading	Illustrated silent reading material
3A	306	Oral Language	Library pictures
1B	311	Primary Reading	Slides from Primary "300" set; home-made slides
4A	306	Geography—Holland	Motion picture film (16mm)
5AB	209	Arithmetic—Common Denominators	Film slide

11:03 to 11:30

GRADE	ROOM	TYPE OF LESSON	VISUAL AID USED
6AB	408	Social Science—"Egypt"	Stereographs and stereoscopes; museum objects
7A	401	Geography—Iron and Steel	Film Slide; graphs; maps
8B	402	History—Civil War Period	Lantern & slides
5A	407	Geography—Middle Atlantic States, Salt	Commercial exhibit
2A	308	Nature Study—The Farm	Motion picture film (16mm)
4B	303	Silent Reading on Unit of Work—"Congo Region"	Lantern slides; mimeographed silent reading material
5B	302	History—Period of Exploration and Settlement	Maps; home-made exhibits
Kdgn.	102	Oral language; vocabulary building	Flim-slides
8A	404	Literature—"Snowbound"	Lantern and slides

Slides On "The Awakening of Spring"

TWO 1A and 2B Classes, combined with two 1B and 1A Classes saw colored slides on "The Awakening of Spring" followed by colored slides of animals that were familiar to the children. A little girl in the fourth grade told the German story connected with the nature study slides of the coming to life of the flowers, butterflies and other insects. At the conclusion of the animal pictures it was asked that the nature study story picture be shown again so as to give the children an opportunity to express themselves and to see their reactions to the pictures.

Another object of repeating the slides was to correlate a nature poem they all knew with these particular pictures and to correlate the different flowers and insects they knew in these pictures. The correlation of

the nature poem with the pictures was developed in the following way:

Teacher: "These pictures remind me of a poem we all know. Can anyone tell us the one we're thinking of?"

The different parts of the poem that the teachers had in mind were mentioned voluntarily by the children with evidence of a close association made between the poem and the slides.

Child: Recited the poem, "In the Heart of a Seed . . ."

Teacher: "Let's all say it together."

In the heart of a seed,
 Buried deep so deep,
 A dear little plant,
 Lay fast asleep.
 "Wake," said the sunshine
 And creep to the light."
 "Wake," said the voice
 Of the raindrops bright."
 The little plant heard,
 And it rose to see,
 What the wonderful outside world
 might be.

The children then discussed the similarities between the slides and the poem and brought out the differences with equal emphasis.

Adapting Visual Aids

(Concluded from page 100)

greatest objections to film slides is overcome by making double frame pictures. In projection the single frame pictures must be enlarged linearly about 72 times to produce a 6 foot picture while a double frame only needs to be enlarged 48 times to produce the same size picture. Now if the same amount of light is thrown on the two films the double frame pictures will be twice as bright as the single frame since it has twice the area. The only practical limit imposed on the enlargement of either size is the amount of light one can use without burning the film. The single frame film slide owes its popularity to the fact that it can be used in combination film slide and motion picture projectors. I think educators should carefully consider the possibilities of the double frame slide for class room use. With a good projector results can be obtained that are nearly as good as lantern slides.

During the last few years manufacturers of 35 mm. still cameras have done a great deal to make amateur copying a success. The Agfa Ansco Corporation have special methods of using their memo camera for copy work. This is a single frame camera ranging in price from twenty dollars up. The Leica Camera—a double frame instrument—also has accessories that make it possible to produce good copies. Both manufacturers build projectors to take their film. The double frame projector can also be very easily used for single frame pictures by masking off part of the aperture plate.

For our use here I have constructed an attachment



For Screen Projection

Write for free samples.
RADIO-MAT SLIDE CO., Inc.
 1674 Broadway, New York, N. Y.

for the back of the plate camera that uses 35 mm. film. It can be used for copying on to single or double frames. Excellent copies have been obtained with this attachment on to double frame films.

In using a copy camera for film use it is important that all frames receive the same printing density. Otherwise some frames will be too opaque and others too transparent. An exposure scale can be calculated and fastened to the back of the copy stand. It is not essential for lantern slide work but must be used for films. Such a scale can be calculated on the basis of the law that the relative exposure required with a given diaphragm opening is proportional to the square of the distance from the optical center of the lens to the film. These distances can be measured directly or can be calculated by the well known lens

$$\frac{1}{D_0} + \frac{1}{D_i} = \frac{1}{F}$$

formula; — + — = —; where D_0 is the distance

from the optical center to the copy and D_i is the distance from the optical center to the film. F is the focal length of the camera lens which is usually printed on the front of the lens or can be determined from the maker of the camera if it is not given. Slight errors in the measurement of D_0 and D_i are unimportant. Thus it is seen that the closer the camera is to the copy the longer the exposure must be. The correct exposure for any camera distance above the base can be marked at the place where the screw (B) comes. This exposure scale is shown at (F) figure 4.

Trying to copy colored material with ordinary positive film must be done with caution if good results are expected. Red will photograph black and blue will show white. In making titles or printed matter to copy a black ink should always be used. Good titles can be prepared by using a typewriter with a black ribbon. A glossy white paper should be used and borders around a title can be put in with India ink. Halftone illustrations from magazines or books can be copied, but newspaper halftones use too coarse a halftone screen to make good copies. All material should be carefully organized and should not be too long.

Summary:

1. Tests should be given on all visual material.
2. Projectors can be used to make or give tests.
3. Photographic copies of diagrams and pictures used in visual material are valuable for make up work and review.
4. Slides and film slides can be easily and cheaply copied for permanent use.
5. With a little greater investment schools can make some of their own visual material.

AMONG THE PRODUCERS

Where the commercial firms—whose activities have an important bearing on progress in the visual field—are free to tell their story in their own words. The Educational Screen is glad to reprint here, within necessary space limitations, such material as seems to have most informational and news value to our readers.

Additions to Victor Equipment

The Victor Sound-on-Film head has been condensed to a single unit measuring only approximately 4" x 6" x 3". In case of attachment to silent projectors now in use, it will, of course, be necessary that the projector mechanism be converted from the 16 frame per second speed to the talking picture speed of 24 frames per second.

It is claimed that the new Animatophone has a frequency range which insures accurate and natural reproduction of the recording. The volume and illumination may be reduced to living-room requirements or stepped-up to meet the needs of school or church auditoriums. With the Victor Hi-Power Optical System and high intensity lamps, nine-by-twelve foot or slightly larger images and projection throws of a hundred feet or more are easily possible.

Provisions are being made to permit the use of the Victor Continuous Projection attachment and of the Victor Intermediate Take-up unit, which accommodates 800 and 1600 foot reels with the Animatophone.

A new type of editing device is the "Eye-Easy Editor," which projects a large "still" of the frame being inspected and thereby relieves eye-strain and speeds up editing. It is equipped with a special prism and projecting head which permits the picture to be projected any convenient distance and viewed right side up. It is also equipped with a rewind which may be used with or independent of the projector head and the built-in splicer which is also a part of the standard equipment. Available as an extra item is a small film pack camera which attaches to the editor in place of the prism.

Two new Projectors have been added to the Victor Model 10 Series to meet the demands of certain communities that must provide for both 32 and 110 voltages in connection with the use of picture equipment. Model 10C is a combination 32V-110V projector equipped with a 165 W-30V lamp. In foreign countries particularly, line voltages range all the way from 105 to 250 volts. To meet this condition Victor has announced the 10E Projector which is equipped with a variable resistance rheostat in the base for reducing A. C. or D. C. of up to 250 Volts to the 100 Volt rating of lamp and motor. The lamp provided is the new 500 Watt-100 Volt Biplane Filament.

ERPI Issues New Film Catalog

A new form in instructional motion pictures has been developed, according to an announcement by Erpi Picture Consultants, a subsidiary of Electrical Research Products. These new films are listed and described in a catalog just published by the company.

The new pictures are for use with silent projectors but differ from the usual type of silent motion picture. They contain no sub-titles. Consequently, much more motion picture instructional material is contained in a one reel picture than is found in the usual silent subject. Each picture is supplied with a printed lecture which may be read by the teacher to accompany the showing of the film, giving the teacher an opportunity to play an even greater part in the teaching and learning activity. The absence of sub-titles, it is said, makes the film more coherent and eliminates the frequent break in thought and action heretofore present in the silent film.

The catalog lists a total of forty-five educational talking motion pictures consisting of fifty-five reels. There are twenty pictures in the field of Natural Science, including both plant and animal life, three pictures in the field of Social Science, five in Music, one on Mathematics, two in Vocational Guidance, ten in the field of Teacher Training, and four which were produced in cooperation with the University of Chicago for use in Physical Science courses. According to the catalog, all pictures may be bought outright or rented on a daily basis. Among those for use with silent projectors are the twenty pictures in the field of Natural Science, the three Social Science pictures and the University of Chicago series.

The value of these instructional motion pictures in the classroom has been established by careful experimentation carried on by this organization, Harvard University and other organizations. The experimental tests conducted by Erpi Picture Consultants in which approximately 2,000 pupils and teachers were involved indicated a 25 per cent increase in learning for students who have had the advantage of the talking pictures as compared to the learning of students having ordinary forms of classroom teaching. These findings are almost concurrent with those resulting from a study conducted by Harvard University, the detailed results of which are to be released in the near future.

Educational SCREEN

COMBINED WITH

Visual Instruction News

C O N T E N T S

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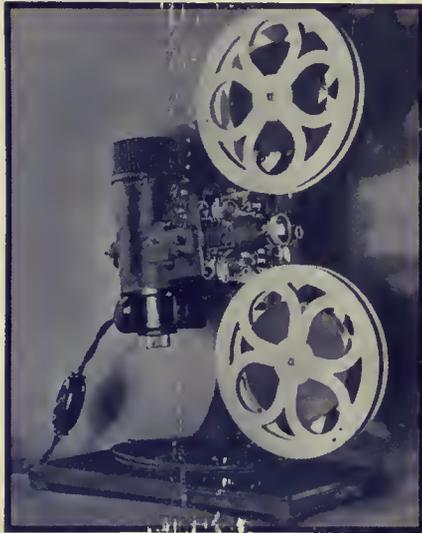
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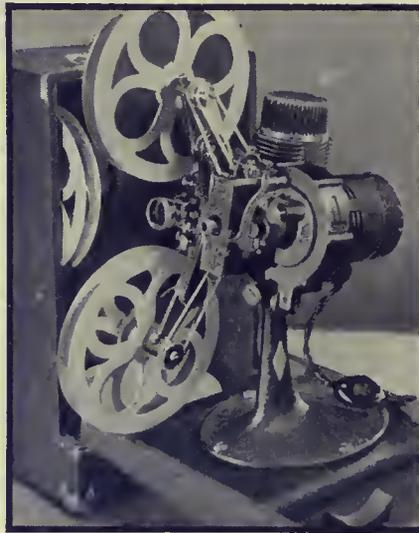
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FILMO Model R
*A more powerful model
for larger rooms*

Like Model M, the new Filmo Model R Projector is basically the same as the Filmos which have proved to visual educators that they provide the finest picture quality at the lowest cost per projection year.

Model R has a 500-watt 110-volt lamp which, with this projector's most efficient direct lighting system, provides theater-brilliant pictures. An improved cooling system gives this high-powered lamp unequalled cooling which prolongs its life and gives maximum efficiency. A refined reflector adjustment furthers screen brilliance.

A power rewind rewinds a film in less than a minute. A manual framer is provided for out-of-frame pictures. A clutch permits still picture projection, and a reverse switch makes possible running film backward to repeat a scene.

Filmo R Projector, with carrying case, \$195. Without case, \$180. Without rewind, clutch, reverse, and case, \$145.



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*Ideal for the larger
auditoriums*

Filmo JL is the finest 16 mm. projector to be had, and is recommended to schools for use in the auditorium. There it will do the work for which a professional machine was formerly required, and do it with a greatly lower cost and a total elimination of fire hazard and of the need for a skilled operator and a space-consuming booth.

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PROFESSIONAL RESULTS WITH AMATEUR EASE

Educational Screen

Combined with

Visual Instruction News

MAY, 1933

VOLUME XII

NUMBER 5

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THE EDUCATIONAL SCREEN, Inc.

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The Hall of Science is the largest structure undertaken thus far, enclosing nine acres of space. The building is "U" shaped 700 feet long and 400 feet wide, with two stories and a mezzanine. Two wings descend by terraces from the main structure, to a lagoon opening into Lake Michigan, forming a great courtyard. At the southwest corner of the building is a carillon tower.

Hall of Science, Chicago Century of Progress Exposition.

Hall of Science at the Century of Progress

ONE of the most marvelous buildings of the Chicago 1933 World's Fair is the Hall of Science, which contains exhibits portraying the wonders of the basic sciences of chemistry, physics, mathematics, biology, geology and astronomy.

The basic theme of the Exposition will be dramatized in the Hall of Science by scientific exhibits prepared by the staff of the Exposition and through the cooperation of scientific and industrial institutions. The theme is: that industries which have transformed living conditions in the past hundred years, owe their existence and present development to the basic sciences.

Manufacturers of chemicals, scientific equipment, medical products, pharmaceuticals, laboratory equipment, instruments and supplies, who serve millions of customers throughout the United States, are developing exhibits of their products and processes which will be shown in the Hall of Science.

The petroleum industry, representing an investment in the United States alone, of \$12,000,000,000 will participate with a scientific exhibit in the Hall of Science, sponsored by the American Petroleum Institute. The industry, which began, and has grown to its present mammoth proportions during the hundred years which will be celebrated by the Exposition, will present displays dealing with the geology and chemistry of oil.

A working exhibit shows what happens before the white-clad attendant at the filling station can fill the motorist's gasoline tank. The exhibit will tell how, where and why petroleum occurs in the earth and the many interesting chemical processes that must be followed through before its hundreds of products are ready for the ultimate consumer.

With the scientific story of oil as a background, various oil companies are planning to portray to the millions of visitors their particular developments and contributions to the production of gasoline and other petroleum products. The Pure Oil Company has already contracted for exhibit space in the General Exhibits Group, now under construction on the Fair grounds.

The petroleum industry's exhibit had its origin in the report of a committee which recommended to the American Petroleum Institute at its meeting in Chicago last winter, the participation of the petroleum industry as a whole in the Exposition.

The story of the advancements in the medical sciences also will be told by means of dynamic, moving exhibits.

The Pasteur Institute of Paris will demonstrate

Pasteur's contributions to the science of bacteriology which have been of incalculable benefit to mankind. The Robert Koch Institute of Berlin will show Koch's discovery of the tubercule bacillus, the cause of tuberculosis.

The "Transparent Man," loaned by the Mayo Clinic, will enable the visitor to study the human anatomy as though he possessed X-Ray eyes.

How the chemist has developed the world's raw materials—air, water, coal, cellulose, rubber and oil for man's benefit will be shown. Other exhibits will tell how the chemist has produced ammonia and nitric acid for the preparation of medicines, explosives, fertilizers, etc. and how by the application of the principle of absorption, he has purified sugar, oil, air and water.

A novel feature of the exhibits is the dioramas, which may be described as pictures in three dimensions, with the foreground modeled in perspective and blending into a painted background, thus giving the illusion of distance. All the exhibits, even those visualizing the most abstract principles, are in dramatic form.

Among the companies who have contracted for exhibit space in the Hall of Science are: Abbott Laboratories; American Optical Co.; August E. Drucker Co.; Bausch & Lomb Optical Co.; Borden Sales Co., Inc.; Burroughs Wellcome & Co., Inc.; Chicago Pharmacal Co.; J. C. Deagan, Inc.; Dentists Supply Company of New York; Eastman Kodak Company; Gaertner Scientific Co.; General Electric X-Ray Corporation; Hanovia Chemical and Manufacturing Company; Hynson, Westcott & Dunning, Inc.; Iodent Chemical Company, Inc.; Kendall Company (Bauer & Black); Mallinckrodt Chemical Co.; Merck & Company, Inc.; E. R. Squibb & Sons, Inc.; Union Carbide and Carbon Corporation; Victor Chemical Works; Vitamin Food Co., Inc.

The following scientific and industrial institutions and organizations are either furnishing or cooperating in the preparation of exhibits in Basic Science and Medicine:

American College of Surgeons; American Medical Association; American Society for the Control of Cancer; Bakelite Corporation; Baker & Company; Bausch & Lomb Optical Company; William Beebe; Boyce-Thompson Institute; Callite Products Company; Chicago Dental Centennial Congress; Clay-Adams Company; Cleveland Clinic Foundation; Copeland Products Company; Corning Glass Works; Cutler-Hammer Company; Thomas J. Doe & Company; Fansteel Products Company;

Firestone Tire and Rubber Company; General Biological Supply House; G. M. Laboratories, Inc.; Goldsmith Bros. Smelting & Refining Co.; Grigsby-Grunow Company; Illinois State Department of Health; International Filter Company; Johns-Manville Company; Charles L'Hommedieu & Sons; Mallinckrodt Chemical Company; Mayo Clinic; McGill University; Merck & Company; Metal & Thermit Company; Milwaukee County Hospital; Milwaukee Public Museum; Museum of Science

and Industry; National Academy; Pasteur Institute of Paris; The Perser Corporation; Rand McNally Company; Simoniz Company; Spencer Lens Company; Standard Brands, Inc.; Texas Gulf Sulphur Company; The Thermal Syndicate; Union Carbide & Carbon Corporation; University of Chicago; University of Illinois; Victor Chemical Company; W. M. Welch Mfg. Company; Wellcome Institutions of Medical Science, London; Westinghouse Electric & Mfg. Company.

The Museum of Science and Industry

VISITORS to Chicago during the World's Fair Year 1933 will be interested to know that the great masterpiece of the Columbian Exposition of 1893—the Fine Arts Building—has been restored with stone and steel. This is the building Augustus St. Gaudens, a foremost American sculptor, described as "The finest thing since the Parthenon." This structure will house Chicago's youngest institution which promises to become world famous, The Museum of Science and Industry, founded by Julius Rosenwald.

The vast interior of this building, designed to accommodate the planned exhibits, will not be com-

tion in the park on Lake Michigan is due east of 57th Street. Its collections will trace the technical ascent of man from primitive times to the present day. Eleven miles of exhibit will tell in three dimensional forms the story of man's use of tools and machines from the stone hatchet to the complicated machines of today. Visitors will operate most of the machines by pushing buttons or pulling levers.

On July first a large section of the Museum floor space will be open to the public. It will contain interesting exhibits to give the visitor a cross-sectioned picture of what the completed Museum will ultimately be like. Chief among these exhibits will be a full sized and operating bituminous coal mine of three thousand tons a day capacity. In addition to the coal mine, with its underground workings and huge operating machines, there will be many other exhibits relating to the geology, production, economics, and utilization of coal.

Following the conclusion of A Century of Progress many of the important World's Fair exhibits will be placed in the Museum, and at that time the other sequences will be opened. These will consist of a series of exhibits on the fundamental sciences of physics and chemistry, and on geology, mining, agriculture, forestry, power, transportation, architecture and city development, and printing and graphic arts.

In each division of the Museum full sized operative equipment, scale models, still and motion pictures, slide and film-strip projectors, and other visual aids will be utilized in presenting the discoveries in science, engineering and industry. While the past achievements in these fields will be stressed to some extent, they will not be over emphasized. The past will be shown more as a complement to the mechanical wonders of today, and modern equipment and practice will take precedence over historic relics.



The New Museum of Science and Industry

pleted until 1935. However, a large area, unfinished as to tile and plaster but impressive as to sturdiness and space, has been prepared to welcome the visitor during 1933 and present the initial exhibits where entertainment, education and inspiration provide a new avenue of recreation and study.

The Museum of Science and Industry, as the building is now known, is situated on the northern edge of Jackson Park, on the outer drive. Its loca-

EDITORIAL

SINCE that moment of all moments in the remote past, when there first emerged in the biologic cosmos a mind that could be called human, the progress of racial intelligence has depended upon the conveying of thought from individual to individual. For any generation to achieve an advance, it had to receive its mental inheritance from the preceding generation. From this higher vantage point only could the new generation climb on higher.

For this conveying of thought, fact or fancy, the only path from mind to mind has been, and must always be, "the senses." The sense of sight operated from the start, and from long before the start, to give the primitive mind its truest knowledge of realities. The sense of hearing became vastly important after the supreme imaginative achievement of the infant race—the making of specific articulate sounds to mean specific things. The human voice could not speak the things, nor reproductions of the things, but only sound symbols for the things. When primitive man would discuss something out of eye-shot he resorted perforce to the symbols; what he could not "show" visually he "described" orally. (The elite few who could, drew pictures). Sight was the great medium for grasping all that could be seen—hearing for the things not visible. Sight and hearing remained the chief avenues for the transfer of ideas and thought down through the elemental aeons of human progress. Sight gave the truest transfer but was limited to what was within visual range of both informer and informed. Hearing gave truth—if the sound symbols were correctly used by the speaker and correctly interpreted by the hearer—for things remote or abstract, but only for an audience within aural range. The value of verbal transfer gained somewhat on visual transfer as language increased its range of expression. Printing expanded the verbal reach of the speaker to the ends of the earth and for 400 years the "word" was the thing. The priceless sense of vision came to be used chiefly for "reading," not for "seeing."

Then came Photography, only 100 short years ago, and the visual sense came into its own. No longer was vision limited by horizons. The camera could bring, from the ends of the earth or the depths of space, realities to our eyes without need of interpretation of verbal symbols. Printing developed the half-tone and kindred processes, and these realities could be passed on to all other eyes. And last, the motion-picture came to capture and preserve scenes of life and motion at will, and make all the peoples of the world eye-witnesses of those scenes.

Since Niepce and Daguerre, the world has been rapidly learning the power of visual representation.

Millions of pictures a day are doing more than twice their acreage in printed words could possibly do. Industry, commerce, journalism, advertising, entertainment — all use pictures on an enormous scale, to their enormous advantage. Education—the field where swift and accurate conveying of information is supremely important—probably benefits least from visual presentation. Education alone is content with its own traditions, content to miss such values and keep its dignity. The comfort is that more and more thousands of teachers are showing the path which tens of thousands more will follow.

THE greatest visual demonstration of what the eyes can mean to the mind will be held in Chicago this summer. It is called the Century of Progress Exposition, and opens May 27th, next, in spite of doubt, drought or depression. To most of the millions who will attend, it will be merely a "big show", albeit the biggest and most impressive the world has yet seen. To those who view it and reflect upon its tremendous significance for the educational field, it will be the greatest stimulus yet furnished toward nation-wide development of the visual idea in education. Thousands of teachers will visit this exposition, return to their schools, and begin ladling out to their classes verbal descriptions of the marvels they, the teachers, saw. But other thousands—Praise be!—will be inspired to use thereafter, as they never used before, the young, keen, hungry eyes that throng America's classrooms. If visual presentation, even amid the teeming distractions of a "World's Fair," can do for teacher minds what this great Exposition will inevitably do, consider what visual methods can do for pupil minds in the ideal learning situation of an American classroom!

The Chicago Exposition will be "visual education" on a gigantic scale for the millions who will see it. No teacher, who believes there is such a thing as educational progress, can afford to miss this supreme visual experience of a life-time.

NELSON L. GREENE.

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Are You Interested in Visual Education?

Six objectives for the organization and development of a Visual Education Department in the elementary schools

ELSIE I. CHAMBERS

VISUAL Education is a new subject in school only in name. Progressive teachers have always emphasized the gaining of knowledge through the senses of sight, hearing, and touch, and have always realized that the greatest number of pupils are visual minded.

This method of correlating the study of pictures with the text lessons and then following the demonstration with the development of a project or with an exploratory field trip so fixes the lesson to be learned in the mind of the child that he never forgets it.

The method might be called the seeing, hearing, doing method but as this is a longer way of defining it we simply call it Visual Education and then proceed to spend endless time in explaining that by visual education we do not intend to give all instruction by the means of pictures.

There should be a supervisor of the visual department, one who selects the equipment, gives demonstrations as to its use, prepares the exhibits, and trains the classroom teacher to use the material to the best advantage. The supervisor, with the assistance often of classroom teachers, should prepare a course of visual study for each grade in the school. Visual work, to be most effective, should have an allotted period on the program of every classroom and these periods should be as strictly observed as periods of any subject in the curriculum.

For the visual equipment one may use glass slides, still films, films and glass slides, picturals, motion pictures, stereopticon pictures, prints, of both wall and desk sizes, charts, blackboard drawings, models, marionettes, industrial exhibits, toy motion picture boxes, strip theatre boards, film strips, costume dolls, and soap and clay modeling.

There are a few important objectives that every teacher should know and observe in the care and use of equipment.

Rule One: Keep all equipment clean, attractive, up-to-date, and in good condition for use.

When using slides, films, and motion picture films in a darkened or partially darkened room, be exceptionally careful about the ventilation of the room, the placement of chairs, screens, and machines. The ventilation of a darkened room is a problem each visual department must solve. Chairs should be at least twenty feet away from the screen. If using a silvered screen no outside light should fall upon the screen. The larger the picture that is thrown upon the screen, the darker the room should be to give a

clear cut picture. Avoid throwing the white light of the machine upon the screen when threading or changing films. Many directors and classroom teachers prefer the beaded daylight screens; these should be considered when other conditions are favorable. Machines should be firmly placed on their stands or tripods to eliminate vibration. Pictures should be focused until the edges are clear cut, not blurred. The framing of the picture should be even, as it is irritating to the observer to see a streak of white light or a part of another frame.

Children should be assigned places where each can see the screen well without optical or posture strain. They should not be required to raise their eyes more than thirty-five degrees from horizontal or move them more than twenty-five degrees from right to left. Each child should take the same selected chair each time he views films. From this we formulate

Rule Two: A darkened, or partially darkened room, well ventilated, machines on solid bases, pictures clear cut and well framed, chairs in correct position and children in healthful positions.

In the classroom, pictures should not serve to amuse, but to educate. They should be wholesome as to family relations and emotions aroused. Their purpose is to build character and to appeal to the attitude of good behavior. The subject matter must be accurate and well portrayed. The film should be previewed by the teacher to select two or three elements which she wishes to bring out in the lesson. Children, also, should be prepared for the film lesson in advance. New words should be explained to them; questions given that will tend to focus their attention.

The film may be used as an introductory lesson, correlating with the text lesson, explanatory of the text, or as a review of the text lesson.

When a film is shown for recreation it should be wholesome, its material positive, its titles grammatical. It should be in good taste, modest, clever. It should improve the standards of living in the home and in the community.

Rule Three, as seen above, sums up the kind of films to use, the preparation for the lesson, and the correlation of the picture films with the text lesson.

In the use of stereographs, prints, and charts, teachers may employ many methods. The materials should be carefully selected and may be placed in the hands of the children for a class lesson and recitation; on the browsing table for their reference and enjoyment; as a review of a lesson; or as an incentive for a written composition.

Rule Four: In the use of the stereographs, prints, and charts, choose for picture content; see that the light falls properly on the picture; and do not use too many pictures at one time. One or two pictures often serve to point the lesson. Never use more than ten or twelve at one time.

Blackboard drawings, or a dramatization of a lesson with the crayon in the hand of the skillful teacher are sources of joy and instruction to an entire class. And the attempt on the part of the student to dramatize a text lesson with a drawing or a series of drawings is given constructive criticism for accuracy by the other members of the class. Good models of plants, birds, animals, and insects may be used to great advantage in visual demonstrations. The models may supplement lessons with live objects or with pictures and films and should be used in all grades. Models of the human head, torso, and of the separate vital organs are of inestimable value in teaching bodily health and posture to the older students.

Use occupational or industrial exhibits to correlate with films showing the occupation or to use as a review after an exploratory field trip. Children of all grades love marionettes and puppets and these may be used to teach a great variety of lessons on manners and morals, safety first lessons or to dramatize lessons in history, civics, and literature.

Rule Five urges teachers to use models, exhibits, marionettes and puppets as tools in teaching the social sciences, physical education, and vocational subjects.

Toy theatres, toy motion picture boxes, strip theatre boards, film strips made by students, dolls in national costumes, and modeling are listed as labora-

tory work and each may be used in developing a project or activity that had its inspiration from the film, set of pictures, or text lessons. Each will serve to keep the interest high until the lesson is thoroughly learned. Each piece of laboratory work should be an inspiration to carry over its high interest to the development of the next lesson to be learned. This, then, is *Rule Six*.

I have left the best of all visual aids until the last—the exploratory field trip. Take your pupils to the industries, factories, museums, the zoo, libraries, departments of government, historic places, to every worth while place where men and women carry on their occupations. Teach the boys and girls the right conduct to observe on the field trips—courtesy to each other and to their guides. Teach them to ask intelligent questions; to take mental and written notes; and teach them how to use this material in laboratory work upon their return to the classroom.

Rule Seven: Take the students on field trips. Take every class from Kindergarten through every grade they are in school. Explore nature life, the home, the neighborhood, and the community, in the Primary grades. Have the Intermediate and the Senior High School students explore to find how the world is housed, fed, clothed, and governed. Perchance you may be the means of helping the students in selecting their life occupations.

This is Visual Education—the “Seeing, hearing, doing method”—as the Department of Visual Education at the Huntington Beach Elementary Schools, in California, interprets the subject.

Can Educators Profit From Industry's Experience with the Motion Picture?

HOWARD A. GRAY

(Concluded from April)

CASTING aside any resentment which we might experience at the suggestion that we have failed to avail ourselves properly of an instructional medium within our reach, let us evaluate the following suggestions by way of analogy.

Is it impractical to weigh the values existent in sound picture programs of vitalized safety education, public school relations, pupil conservation, the organization and administration of progressive schools, when the effectiveness of comparable programs has been demonstrated by industry in the fields of accident prevention, public relations, the conservation of fuel, and the study of factory management? Or would it be socialistic to advocate governmental participation in education to the extent of further providing our schools with audio-visual materials similar in nature to those already distributed by the Department

of Agriculture? To balanced judgment the answer is obvious when, in addition to the criterion of effectiveness, the elements of cost and economy of time in learning are taken into account.

Then there is the more general problem of adult education with which private agencies and public institutions of higher learning have been concerned for some time. These organizations have been seriously handicapped in their efforts to provide a comprehensive and effective program because of limited instructional facilities. The suggestion is here given that the cultural level of the American people can be wholesomely elevated if they are extended the privilege of periodically viewing sound picture productions in the arts and sciences; music, literature, painting and sculpturing; Americanization work, home making, parental education, and the use of leisure time; biology, psychology, political economy, and almost every other branch of human knowledge and

activity can be made available for purposes of adult education. Industry has demonstrated the practicability of the medium with much less interesting subjects.

Mass Motivation

To grasp fully the significant influence which motion pictures have on social groups, let us review the development of the advertising film. While few such pictures existed before 1912, American theatrical films circulated over the world had already given American products thousands of dollars worth of free publicity. The Department of Commerce estimated that every foot of theatrical film exported sold a dollar's worth of American goods before it was worn out, destroyed, or returned to the home exchange.

It has been proved in several instances, that many of the early Western thrillers and other motion pictures, primarily intended for home consumption, acted as silent but effective sales promoters in many foreign countries where they were viewed more out of curiosity than for entertainment. Through such pictures the first American sewing machine came to be sold in Dutch Malasia; a railroad water tank to be acquired in Khastun Sudan; an endless chain conveyor to be purchased in Santos, Brazil; Mexican horse-saddles to sell in Australia and Argentina; a steam yacht to strike the fancy of a Sumatran Sultan, and an automatic conveyor to find a buyer in Montevideo. Similarly, barber supplies came to have an appeal to Tasmanian bushmen; broadaxes found a new market in Paraguay; sidehill plows and buckets came to be used in the Malay Peninsula, and as a final achievement, the theatrical film is given credit for the suggestion which led to the installation of a hydro-electric plant in Bolivia. News reels have since introduced many other American goods to foreign consumers and the end is not yet. Unfortunately, such a record is not without a blemish. Labor troubles were experienced in Paris following the projection of an American silent drama. A group of stenographers are alleged to have called a walk-out after their employer had refused to grant their demands for office equipment such as they had seen in operation in a Hollywood office set!

In 1912, a dynamite manufacturer photographed his experiments in blasting tree stumps from untillable land in Missouri. Interested onlookers requested to see the finished picture. The news spread and the film was subsequently sought and shown at farmer's institutes, land shows, schools, and colleges in Missouri and other states. Stump-blasting became a popular way of clearing land and dynamite sales increased many fold. During the same year, a borax company released a picture of its products through five road crews equipped with portable projectors. A tour of the nation included over 300 cities, and showings to nearly a million people were made in theatres, hotels, auditoriums, clubs, camps and other locations at an

average cost of two and nine-tenths cents per capita.

There followed in rapid succession films on golf balls, tires, soap, automobiles, fashion shows, pavement materials, pottery, tooth paste, lead pencils, toys, candies, paint, bricks, motorboats, fire extinguishers, iron pipes, typewriters, food preparations, chemicals, sewing machines, batteries and other commodities. By 1914 several studios were devoting their entire time to the production of advertising films.

The sixteen millimeter projector replaced many sample cases carried by traveling salesmen. These early projectors were operated with arc or gaslights before the day of incandescent lamps. They sold products and services which otherwise could not be easily demonstrated and with them indifference was conquered and good-will built up.

Merchandise difficult to transport from prospect to prospect was easily demonstrated in far away corners of the earth. Intricate machine assemblies were made relatively simple for field men and customers alike. Valuable furs and dresses were adequately displayed, often to better advantage. Such pictures saved time and words, corroborated a salesman's statements, and showed the relative merits of products with ideas and settings which verbal description could not convey. They likewise revealed new uses for many articles and tied up local dealers with central offices.

Our railroads were one of the pioneer groups to use advertising films. Scenic wonders along their routes were vividly portrayed to an interested public and received a wide distribution. Pictures on the historical development of certain rail systems perpetuated the memory of leading railroad workers, types of equipment, and principles of operation. Safety pictures reduced accidents among employees and secured the attention and cooperation of the public. Colonization was promoted in unsettled areas and agriculture developed by means of films on dry-farming opportunities and methods.

Other organizations, both at home and abroad, have sold the ideas of good roads, store fixtures, tunnel bond issues, and a further array of projects, including the consumption of Swiss cheese and kippered herring. As early as 1914, such films were being prepared for showing in the theatres of Great Britain as well as at trade exhibitions, fairs, and other public assemblies. Three pictures, telling the story of shoes, cocoa, and the tailoring of a popular brand of men's suits, were sufficiently dramatized to be well received by theatre audiences throughout England. In 1919 the Federation of British Industries resolved to follow the example set by American industries by adopting the motion picture as a part of an international advertising enterprise. Pictures on the installation and operation of printing press machinery, processes of smoking fish, industrial uses of an English made automobile, and the story of a world-wide sales organization are among the many which have been

produced. Since the depression, efforts have been doubled by this organization to increase the number of such films.

With the coming of the sound picture, advertising groups quickly recognized the additional advantages which the new medium possessed. Owing to the scarcity of sound projection equipment at that time, no sound advertising pictures were produced until the latter part of 1928, when an automobile sales organization instituted the practice. With a road crew and portable sound projection equipment, the picture was shown to over 300,000 people in 220 cities during a period of ten weeks. A short time afterward a piston ring manufacturer in two months made 450 showings to nearly 22,000 people at projections arranged by their dealers, jobbers and distributors, employing an early model of a portable 16 millimeter sound projector. To date the same organization has increased its sales 52% after projecting the picture for a total audience of 118,000 persons.

Industrial sound pictures are being made even in greater numbers as sound projection facilities continue to increase. A nationally known automobile manufacturer, with a sound feature picture arranged for the sales instruction of its dealers, reduced the cost of their district meetings one-third. Over 95% of the dealers put ideas suggested by the pictures into local practice with a marked increase in sales. Automobile manufacturers after testing the new advertising medium, planned extensive sound picture programs to counteract the effects of the existing depression. The major oil companies are utilizing similar pictures to train the station attendants, and several organizations have helped to bring about better personnel relations among their employees.

There are at present over one hundred and fifty industrial sound pictures produced for advertising and selling real estate developments, airplane trips, cement, telephone, automobiles, baking powder, medical supplies, travel tours, railroad equipment, press service, coal, coffee, dairy products, insurance, steel, refrigerators, wearing apparel, watches, soft drinks, bakery products, tapestries, trolley buses and many other products and services.

In keeping with such a program, efforts are being made to raise the quality of the pictures. An international advertiser's association has drawn up a code governing advertising activities with the film, and a research organization has developed a set of standards which assure the elimination of objectionable and unethical features and practices.

The Inference for Education

Let it be understood that the preceding paragraphs are not intended to advocate or to justify the use of commercial advertising films in American education. However, as educators we must not fail to recognize the potency of the sound film as a device for mould-

ing and crystalizing public opinion, which in the past has regulated educational progress to a significant extent. Also, we can review the evidence and note where we might have furthered the cause of education by the more extensive use of the motion picture.

Instead of merely creating a foreign market for American products it is a sad commentary that our theatrical releases incidentally did not give evidence of America's desire for international cooperation and good-will. Or, that the philosophy of John Dewey could not have been presented by motion pictures to educators in foreign lands as an invitation for the exchange of educational viewpoints.

While the American public was being informed of the advantages of borax and dynamite, the reorganization of our secondary school system was being attempted. But no effort was made to awaken the interest of the laity and obtain the united support of the educational profession by providing a motion picture interpretation of the need for such a reorganization.

The plea for funds to create good roads, tunnels, and waterway improvements gained public attention and approval throughout the nation by means of the motion picture. Meanwhile, only a fraction of the same population was made aware of the necessity for school medical service, adequate school buildings, and better trained teachers by the isolated pleas of school workers in widely separated communities.

Through the medium of the sound picture new business concepts and research findings of industrial laboratories are reported to the employees of those industries operating throughout the world. Convention costs are reduced substantially and delegates return to their work inspired with new ideas to assist them in solving their problems. Workers not able to attend national conventions receive the same stimulation by the later projection of the pictures at local meetings. An interested public becomes informed of changed trade policies, and the merits of the new products. The content of such pictures has been carefully arranged to convey a vivid, stirring message with realistic appeal but with an economy of time and absence of verbal redundancy.

The programs of our educational conventions likewise could be considerably enriched by sound picture presentations of significant research findings determined from time to time. In fact, this innovation already has been introduced. However, additional pictures reflecting contemporary theory and practice on problems of vital interest and value to the profession are sorely needed. After being shown at the national conventions they could be profitably utilized at state, county, city, and institutional gatherings. Parent-Teacher Associations, and other civic organizations interested in the welfare and progress of the schools could intelligently become informed on edu-

(Concluded on page 131)

Modern Tendencies and Procedures In Biology Instruction

ARTHUR H. BRYAN

ONE OF the most popular subjects in a high school curriculum, which offers a pleasing and varied appeal to the average student's interest (that is if every modern teaching method is employed) is biology. This paper is written with the idea of presenting a few modern concepts in the practice of applied pedagogy calculated to keep the biology student vitally interested throughout the course in this subject. The demand for biology within the last two years in two high schools in Baltimore, has quadrupled itself, in one instance an increase from 200 to the present total of 850 pupils electing it. The writer believes that the one word in pedagogy which spells success in the class-room is "interest." It certainly is the dominant factor in the surprising demand for biology evidenced at the four high schools in this city where the subject is taught and where a similar increase in enrollment has taken place.

No subject offers greater opportunity for putting into practice the various methods of teaching, approved in modern educational circles, than biology, with its infinite wealth of possible subject matter and its adaptability to the various methods of presentation. If variety is the spice of life, biology can be made a spice subject of real interest and value to the students, by utilizing every modern means at our disposal for revealing the subject matter to the students. If the moving picture machine with endless biological subjects adaptable to the class room; the revealing powers of the microscope; the study and dissection of interesting flora and fauna; experiments by the students; collections and study of life by the students on their trips into the country; stereopticon lectures and demonstrations, along with the regular class room procedures—if all these fail to interest the students, then the modern concepts of theory and practice of teaching are wrong.

Biology aims to instruct the pupil in the fundamental principles governing plant and animal life, with emphasis on the economic importance and civic values as applied to agriculture and human welfare; hence the subject matter includes practical applications of bacteriology, botany, physiology, hygiene and zoology, and in so doing answers many questions of vital interest and value to him in later life. Vocational aims are legion, for the subject reveals dozens of possible fields for further study of which biology is the fundamental subject. Medicine, including its ramifications of public health, bacteriology, gardening, biochemistry, horticulture, dentistry, veterinary medicine, pharmacy, nursing, etc.; agriculture including forestry, agricultural chemistry, dairy and live stock

industry, entomology, agronomy, etc.; industry including commercial enterprises engaged in food, clothing supply, etc.; such are the opportunities revealed directly or indirectly in the subject matter.

The socialized recitation stands high as a method to be used in presenting non-technical lessons, such as the "Economic Importance of Plant and Animal Life," "Forestry, the Lumber Industry, and Forest Conservation," "Current Problems in Agriculture," etc. In this type of lesson the teacher is merely an observer in the back of the room, the students leading the discussion, by presenting short oral reports on any related topic in which they are interested followed by controlled discussion.

One half, at least, of all the work done in biology is, of course, in the laboratory and quite a fair percentage of this phase of the study in making drawings of various biological specimens with or without the aid of the microscope, and in making dissections of plant and animal forms with reproductions of them in drawings in the notebook. In addition, field trips and other excursions can be undertaken to make the work still more interesting.

The infinite wonders and glories of nature can be revealed to the students partly through specialized and varied biological topics presented as lecture demonstrations. The interests of the student should be developed along biological lines and his every means of perception trained to appreciate these marvels of life and living matter through every teaching method available.

The project-problem method also finds its place as a method of instruction. The classes called upon to work out the functions of the leaf learned how the leaf is the world's day-light food factory. Various diagrams and picture puzzles in one of the older text books are given to the students to work out in terms of leaf photo-synthesis, and interpretations of leaf function. After some supervised study of these picture problems, the students present orally or at the blackboard the solutions, with free discussion by the class.

Argumentation and debate become absorbingly interesting towards the end of the year when the students begin to appreciate the significance of heredity and environment, and each student presents his reasons for believing either one or the other to be the dominant factor in life, the text giving a splendid basis for numerous thought provoking questions of a debatable nature.

When the students tire of ordinary lecture and recitation methods, bring on the biological stage, dem-

onstrations and visual aids. Illustrate forestry, with beautiful stereopticon slides, or any of the dozen and one films on the various phases of forestry and forest conservation to be obtained from your State Forester or from the United States Forestry Service, Washington, D. C. The wonders of bird life can be revealed beautifully by the use of colored slides which are actual photographs made by a foremost Baltimore Ornithologist, Mr. Brumbaugh, a former City College instructor, or any State Ornithological Societies. Swepson Earle, the State Conservation Commissioner of Maryland has available for loan some excellent slides and films of the various resources of Chesapeake Bay, such as "Chesapeake Bay Blue Crabs," and "Oysters of the Chesapeake."

The Baltimore City Health Department and likewise most large City Health Departments are ever ready to co-operate with the class-room, with their slides and films on public health topics, dental hygiene, etc. Dozens of films have illustrative material in the form of actual specimens, films, and slides which are available for the asking; for example, the American Red Cross, the Metropolitan Life Insurance Co., the International Harvester Company, the United States Tire and Rubber Company, Parke Davis and Co., etc. Talking films are available with free demonstrations using the company's machine and operator, notably those from the General Electric Co. and the International Harvester Co. The various branches of the U. S. Department of Agriculture, Bureau of Mines, Fisheries, Bureau of Animal Industry, and Forestry, etc., have catalogues of free film and slide services obtainable for schools and colleges. Also many state departments of agriculture have film and slide service available. The UFA studios have marvelous biological films catalogued, but they are available at a reasonable rental charge.

The finest biological films yet seen by the writer are known as the "Science of Life" series of twelve reels, produced by the United States Department of Health, Washington, D. C., in cooperation with Bray Pictures Corporation, from whom the films can be obtained. Some titles follow: "Protoplasm, the Beginning of Life," "Reproduction in Lower Forms of Life," "Reproduction in Higher Forms," "Interdependence of Living Things," "How Plants and Animals Cause Disease," "How Disease is Spread," "How to Prevent Disease," "How the Mosquito Spreads Disease," "The Fly as a Disease Carrier," "Personal Hygiene for Young Women," "Personal Hygiene for Young Men," and "General Personal Hygiene."

An important point in showing films in the class room is that unless the student is required to make a written or oral report on the film following the showing, he does not concentrate his attention on the film sufficiently. Films, in the opinion of students, are primarily for relaxation and pleasure and are too apt to be forgotten quickly. The questions and dis-

cussion which follow fix in his mind the important lessons and facts that the film has presented.

Students like to do things themselves, which is the primary objective of the laboratory work in biology. Here the students, emulating the microbe hunters of the past, delve into the wonders of life in a drop of water, or pieces of plant or animal tissue, using the instrument that reveals new worlds of living things—the microscope. Stained slides and specimens are studied and reproduced in drawings from microscopic observations. The students germinate their own seeds, make daily observations of growth, dissect the various parts, and observe selected sections under the microscope. They are encouraged to bring in their own material, thus extending the classroom work to the country side, stream, swamp, and bay, where the wonders of nature await the keen observer. Interesting animals like the sponges, jelly fish, tape-worms, earth worms, insects of all kinds, star fish, clams, the sea squid, fish, frogs, birds, reptiles, and mammals are all studied in the laboratory.

The students of the writer's classes undertook as a project recently to identify the trees on the campus and label them. The survey by the students has revealed valuable information, as several interesting tree hybrids have been found, as well as some diseases of the trees which need the services of the Municipal Tree Surgeons to save them. The classes are trying to discover the causes of death among some of the best trees this year. In addition to this project, we include practical instruction in first aid in the last month of the work in biology, in co-operation with the American Red Cross. Students completing the course and taking the prescribed practical examination will be eligible to receive the first aid certificates and buttons of the American Red Cross.

Finally the criteria for judging the value of a subject lies in its application to the seven cardinal principles of secondary education. Biology meets the demands of all seven:—

1. Health through physiology and hygiene instruction.
2. Command of fundamental processes, through drawing, observation, and dissection.
3. Ethical character, through practical applications of sociology, and the love and respect for the laws of nature.
4. Worthy use of leisure—nature lore and study as a hobby.
5. Social civic values in conservation of natural resources, forestry and bird life, etc.
6. Worthy home membership, in developing the home garden, and in understanding the principles of dietics, first aid, and home hygiene.
7. Vocational aims in the presentation of dozens of possible vocations.

The transfer values of biology are important, for the subject bears some relationship, directly or indirectly, to almost every other science.

GOVERNMENT ACTIVITIES IN THE VISUAL FIELD

CONDUCTED BY MARGARET A. KLEIN

A Filing System for Visual Aids

(Continued from April number)

BEFORE proceeding with the description of the second section of the filing system which I am describing in this series of articles, I want to insert an example of the "shipment letter" mentioned in the previous installment of this article.

The following shipment letter contains the information usually included in such letters. Notice that a request for attendance is included and this is important data to have when you compile your monthly reports.

November 16, 1931.

Miss Mary Black,
Central High School,
Rush Center, Colo.

My Dear Miss Black:

In accordance with my letter of October 11, we are sending you today, a copy of the motion picture "Diet" and a set of each of the posters "Diet Standards" and "A Healthy Diet." The material has been examined since it was last used and I think you will find it in good condition. We shall depend upon you to have it carefully handled.

Inclosed are an acknowledgment form and a self-addressed envelope. Upon the receipt of the material, will you please fill out the form and return it to us.

The material should be returned so that it will reach the office no later than November 30. We shall appreciate your co-operation in carrying out this schedule, since it causes us a great deal of inconvenience if the material arrives even one day late.

We shall be glad to receive a report of the attendance at the showing of the material.

Very sincerely yours,

inclos.

II. The Stock File

The purpose of the "Stock" file is to have an accurate record of all material available for distribution in connection with the visual education work of the school system.

The "Stock" file will have as many main divisions as there are kinds of material and as many subdivisions as there are copies of films, sets of slides, sets of posters, and individual pieces of material.

The main divisions usually found in a stock file are as follows:

- Film strips
- Models
- Machines
- Panels
- Posters
- Slides (glass slides)
- Motion pictures (16 mm.)
- Motion pictures (35 mm.)

These captions should be noted on the tabs of the salmon colored guide cards that separate the main divisions.

Each main division is subdivided when necessary by blue guide cards. For example, let us suppose that your visual education bureau distributes four motion pictures entitled "Posture," "Good Health," "Diet," and "Exercise." Accordingly the motion picture section is subdivided by four blue guide cards with the titles, Posture, Good Health, Diet, and Exercise noted on the tabs of the guide card.

The subdivisions contain an index card for each individual article, motion picture, film strip, etc., or as in the case of the posters and slides, for each individual set of material. For an example of this division: Suppose your bureau has available for distribution 14 copies of the motion picture "Diet." Accordingly there are 14 index cards numbered from 1 to 14 filed in back of the blue guide card noted "Diet," and each card is an individual record of an individual copy of this particular motion picture.

The index card known as the stock card is a 4 by 6 white card with a line across the top two spaces below the top of the card. On the line three things are noted: (1) On the left hand side is stated the kind of material; (2) in the center is the purchase date of the material, and (3) on the right hand side is the number. (See illustration of stock card.)

Two spaces below the first line is another line on which are noted also three notations: Lent to: Date: Returned: (See illustration of stock card.)

A glance at the stock card indicates whether that particular piece of material is available. The purchase date helps to determine whether the material is too old for distribution and is also an indicator of the wearing quality of the material. Since the number of loans are indicated on this card by the reservations listed under the caption, "Lent to:" the usefulness of the material can be determined to a certain extent.

Stock cards should not be made for the individual posters, charts, and panels in each set, nor should the sets be broken for distribution as it involves considerable clerical work to keep track of individual articles of this nature. Accordingly posters, panels, and charts are loaned and recorded only as sets.

When a reservation of material is made, the notation is typed on the stock card under the proper

captions as follows:

Lent to:	Date:	Returned:
Black	11/16/31	

Stock card for motion picture

"Diet"	Bought May, 1930	No. 14
Lent to:	Date:	Returned:
Gray	5/31/30	Ret.-Ex.-O.K.
Brown	7/10/30	Ret.-Ex.-O.K.
Williams	11/28/30	Ret.-Ex.-O.K.
Hanson	1/26/31	Ret.-Ex.-O.K.
Black	11/16/31	

Before shipment is made

"Diet"	Bought May, 1930	No. 14
Lent to:	Date:	Returned:
Gray	5/31/30	Ret.-Ex.-O.K.
Brown	7/10/30	Ret.-Ex.-O.K.
Williams	11/28/30	Ret.-Ex.-O.K.
Hanson	1/26/31	Ret.-Ex.-O.K.
Black	11/16/31	Ret.-Ex.-O.K.

After shipment is returned

Stock card for a set of posters

Diet Health Habits	Made Sept., 1931	No. 2
Lent to:	Date:	Returned:
Black	11/16/31	

Before shipment is made

Diet Health Habits	Made Sept., 1931	No. 2
Lent to:	Date:	Returned:
Black	11/16/31	Ret.-Ex.-O.K.

After shipment is returned

As has been previously said a glance at the stock card (see illustration) will show whether that particular piece of material is available for distribu-

Stock card for a set of charts

Diet Standards	Made Oct., 1931	No. 5
Lent to:	Date:	Returned:
Black	11/16/31	

Before shipment is made

Diet Standards	Made Oct., 1931	No. 5
Lent to:	Date:	Returned:
Black	11/16/31	Ret.-Ex.-O.K.

After shipment is returned

tion. In the case noted on the cards illustrating the motion picture, "Diet," No. 14 is not available for loan after November 16 until the notation "Returned-Examined-O.K." is stamped under the caption "Returned." This is also true of the poster lent for this particular exhibit.

IV. The Information Files

(The card-information file and the materials-information file.)

In order to be informed about the various methods of presenting facts by means of visual presentation it is necessary to collect information from many sources. This is accomplished by being on mailing lists, by personal contacts, and by writing to agencies and organizations that publish visual material. When information about visual material is received in your Visual Education Department, a notation is made on a small index card as to the name of the firm and the kind of material. This file is called the "Card-Information" file. The circulars, catalogues, etc., are filed in a regulation size filing cabinet and this file is known as the "Information-Materials" file.

The index cards in the "Card-Information" file are grouped under various headings so that information will be accessible for any one subject. For instance, cards under "Slides" indicate the address of slide producers; the slides available on various

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NOTE: All illustrations are smaller than the cards. Actual size of card is 4 by 6 inches.

FILM PRODUCTION ACTIVITIES

The aim of this new department is to keep the educational field intimately acquainted with the increasing number of film productions especially suitable for use in the school and church field.

Women's Guild Film Series

Based on the sound theory that it is much more effective—and far more interesting—to see something done than to read or hear about it, an organization known as The Women's Screen Guild has been formed to acquaint women, through visual education, with the latest developments in home-making and household management.

Through a series of talking pictures now in production, the new organization will dramatize every home subject, beginning with the kitchen and all its modern equipment, and carrying on through house and garden. One can readily see that a wide range of subjects vitally interesting to women and teachers of household economics can be offered in such a program. Nor does this give an adequate scope of the series, for it will include such topics as entertaining, child training, budgeting, beauty culture, personal charm and dress—a comprehensive sweep through the entire gamut of feminine interest.

Good taste, accuracy and authenticity are assured each picture produced by the Guild by the close supervision of an Advisory Board composed of women who represent the best traditions of American social, artistic and home life. The chairman of the board is Emily Post, noted arbiter of etiquette, whose books are accepted as final authorities on social usage and home management. Other members of equal prominence in their respective fields are Edna Woolman Chase, editor of *Vogue*, and Nancy McClelland, who is an authority on interior decoration, antiques and murals, and was made a Chevalier of the Legion of Honor for her work in France. Decorations and settings for the pictures will be under the supervision of Mrs. Tony Sarg, Mrs. Joseph Urban and Mrs. Ben Ali Haggin, whose husbands have won world-wide fame as artists.

The pictures of The Women's Screen Guild are not to be confused with the usual commercial films, those interested in the new project hasten to explain. Each picture will tell a complete story of home life, and where newly-developed time and labor savers become part of the story, they will be introduced naturally and unforced. Each picture will be shown at a convenient hour for three mornings every other week in de luxe motion picture theatres throughout the country. There will be no fee charged at these showings, but admission will be upon invitation only. Cooperating women's clubs, many of which already have gone on record as being heartily in accord with the aims of the Guild, have offered to take charge of the distribution of tickets.

The first of the Guild pictures to be shown will be *Kitchen Magic*, which covers the entire subject of the modern kitchen from standpoints of efficiency, economy and beauty. Emily Post will appear in the introductory sequences of this picture, and each subsequent production will feature a leading authority on the subject treated.

Executive Offices of The Women's Guild, Inc., are at 205 East Forty-second Street, New York City.

New Firm Announces Three Films

The recently organized Progress Film Company of Chicago is completing the following productions.

Ether is an 8-minute silent film on the story of Anaesthetic Ether, produced for the Mallinckrodt Chemical Works, St. Louis, Mo. The film treats with the subject from three points of view, marking an interesting departure from usual presentation. First, Ether is shown being made at the factory, animation being used to show the cycle of action. Second, the structural formula of Ether is shown in animation, the breaking down of alcohol and sulphuric acid molecules into crude ether which is then refined. Third, the chemical process is then dramatized in animated cartoon in which the heat, alcohol and sulphuric acid are personalized. It is available free in 16 mm. prints for classes in chemistry, physics, pharmacology, etc.; exhibitor paying only shipping charges both ways.

1500 Fine Chemicals is an advertising film, all in cartoon, 3 minutes in length, silent, showing the world wide distribution of chemicals manufactured by the Mallinckrodt Chemical Works. Available only in 16 mm. size, free of rental charge.

Nature—Builder of Teeth, is a one reel sound picture being produced for the Chicago Centennial Dental Congress in association with the American Dental Association and Northwestern University Dental School. In animation the developmental growth of the teeth is shown from birth to the 18th year. The actual movement of the teeth is shown; the development of the temporary teeth; their eruption; the absorption of the roots; the permanent teeth then coming in; authentic presentation of the relation between the proper development of teeth and the shape and contour of the face.

The film, while authentic in scientific treatment, is being produced for lay presentation and will be featured at the Dental Exhibit at A Century of Progress. It is part of a program of public education in which mothers will be informed of the importance of the care of children's teeth.

After the World's Fair, it is intended to circulate

the picture through the American Dental Association and its 36,000 Dentist members through the country. At present, the film is available only in 16 mm. sound on disc form.

Warner Inaugurates Non-Theatrical Department

One of the large theatrical producing firms, Warner Brothers, announces that it is now able to supply schools, churches and other non-theatrical groups with a comprehensive list of features and short subjects which have previously been unavailable.

Included in the list are the excellent George Arliss films, such as *The Millionaire*, *Disraeli*, *Alexander Hamilton*, *The Man Who Played God*, etc. Among the short subjects particularly suitable to this field, are the *Newman Travelogues*, Ted Husing *Sport Thrills*, *Booth Tarkington Boys' Series*, the Bobby Jones series *How I Play Golf*, *Adventures in Africa*, and Ripley's *Believe It or Not* series. All are 35 mm. sound-on-film.

16mm Sound-on-Film

Arnold Audio Associates have re-recorded and have ready for sale and distribution a 16 mm. sound-on-film version of the classical fairy tale, *Puss in Boots*, which is based on the story of the same name. They claim that this is the first all-talking 16 mm. sound-on-film feature. Nat Schilkret's Orchestra provides the music and a very intelligent cast of children enact the play.

They have also reproduced a one-reel musical poem entitled *Out West* in which scenic views have been set to music and singing.

Two Timely Subjects

Universal Pictures Corporation has prepared a five-reel pictorial record of the career of Franklin D. Roosevelt, entitled *The Fighting President*, which presents him as the boy, the youth, the man, and the president. The picture traces his notable career, from his first taste of politics during the campaign of 1912, as assistant secretary of the navy, through successive campaigns to his own victory.

He is seen with his family at home, in the swimming pool, at his summer home in Georgia, the inauguration, with his dynamic speeches recorded, and the signing of the notable measures of the past few weeks.



Metro-Goldwyn-Mayer has also just released a two-reel subject on *Roosevelt, the Man of the Hour*, which includes the highlights of his public life, from the time when he first thought of a career in statecraft to the first days in the presidency.

Family snapshots, domestic scenes and other human interest material will be found in the film, which aims to express the "action" personality of the new President in relation to the various environments and increasing responsibilities against which he has been placed.

Intimate glimpses of other public personalities such as Alfred E. Smith, Josephus Daniels and the late Theodore Roosevelt are shown.

New Subject Visualizes the Metals of a Motor Car

The Metals of a Motor Car, a new two-reel "silent" educational motion-picture film, prepared under the supervision of the United States Bureau of Mines in cooperation with an automobile company, is the latest addition to the Bureau's list of films visualizing the mineral and allied industries. It shows the way in which metals and alloys are used in the construction and operation of many parts of a motor car.

The film visualizes the necessity of constructing various parts with a combination of metals which will withstand heat, oppose wear, and resist shock, and explains why numerous parts are made especially to withstand strain and twist, while others are designed to give qualities of hardness and toughness, or resistance to shock and corrosion. The construction of the automobile engine and chassis itself is interestingly portrayed, together with the assembly of the axles, steering knuckles, connecting rods, transmission gears, universal joints, differential, and other parts of the car.

Copies of this film in both the 16-millimeter and 35-millimeter size, may be obtained for exhibition by schools, churches, clubs, civic and business organizations and others, without charge except for transportation costs.

Can Educators Profit from Industry's Experience?

(Concluded from page 125)

educational effort, culminating in a closer bond being established between the home, the school, and the community. The exchange of such pictures between educators in this and foreign lands would advance international educational relationships and understanding.

Unknowingly, industry has issued a challenge to modern education. A challenge which professionally minded workers cannot ignore since it concerns the welfare of school children, taxpayers, and teachers alike. It is the challenge of efficiency of method; tested, paid for, and proved by industry.

The three billion dollar American educational enterprise is experiencing sharp budgetary curtailments. We are expected to maintain educational standards established on more liberal monetary appropriations; to provide better or equally as good educational facilities for lesser expenditures. By answering industry's implied challenge we may be better able to discharge our obligation without sacrificing standards and quality too precious and too long in the process of creation to be discarded as an economic expediency.

DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

1933 Directory in Demand

The Visual Instruction Directory for 1933, which was released last month, is being requested by many who desire to announce service of different kinds. Although the Directory should be of interest to all who are using or directing the use of visual aids, it is of greatest value to those who desire an up-to-date mailing list of the leading visual instruction workers throughout the United States.

Inasmuch as the unusual demand for the Directory was not anticipated, it is quite probable the quantity printed will not take care of all requests. It is suggested, therefore, that those who desire copies forward their orders immediately, using the blank provided in the lower left hand corner of this page.

Department Membership

Membership in the Department of Visual Instruction is increasing steadily, but should be ten times its present total. It costs but \$2 a year, and includes services which would cost approximately twice that amount. It is the best "bargain" among all memberships offered to teachers, administrators, and others interested in the use of up-to-date and effective teaching methods. Use the accompanying blank to join the Department, make reservations for the annual meeting, or order a copy of the 1933 Visual Instruction Directory.

Secretary, Department of Visual Instruction,
1812 Illinois Street, Lawrence, Kansas.

Date.....

Check
Below

- I am planning to attend the Chicago meeting of the Department.
- I desire membership in the Department. (\$2.00 annually.)
- I am a member of the National Education Association.
- I wish to order a copy of the 1933 Directory. (\$1.50, postpaid.) (Directory is free to members in good standing.)
- I shall attend the luncheon at 12:15 noon, July 5. (\$1.25)
- I shall attend the luncheon at 12:15 noon, July 6. (\$1.25)
- I shall want a room reservation at the Congress Hotel. (If checked, reservation card will be mailed to you.)

Name
Address
City..... State.....

Rush Reservations!

A short time ago, approximately a thousand announcements of the summer meeting of the Department of Visual Instruction were mailed to members of the Department and others who might be interested. Several have made use of the blank provided for the purpose of making room reservations at the Congress Hotel, reserving places at the luncheon meetings, and requesting Department membership. The blank is provided on this page for the benefit of those who have not forwarded reservations or who may not have received the announcement folder.

These blanks should be properly checked and forwarded to the office of the Secretary without delay. It will be necessary to know, well in advance, the approximate number of those planning to attend the luncheon meetings, especially. If information is desired which is not provided for on the blank, a letter or a postal card will bring it.

Complete Program in June Issue

A complete and detailed program of the annual meeting of the Department of Visual Instruction of the National Education Association will be printed in this section of the June issue. It will reach all regular subscribers at the usual time and those who are not subscribers may secure copies at the meeting or at the visual instruction exhibit of the Century of Progress Exposition.

Briefly, the meetings will be held in the beautiful Florentine Room of the Congress Hotel; many interesting features will be presented, including a demonstration of radio-vision as employed in the Chicago public schools and a conducted visit to Adler Planetarium; the sessions of the Department avoid conflict with the general sessions of the N. E. A.; and the meetings will be open to anyone who may be interested, regardless of whether or not they may be members of the Department.

The first meeting will be a luncheon at the Congress Hotel, starting promptly at 12:15, noon, Wednesday, July 5. The principal speakers will be Superintendent R. G. Jones, of Cleveland; President Albert Lindsay Rowland of the State Teachers College at Shippensburg, Pennsylvania; and Miss Elda Merton, of Waukesha, Wisconsin.

The next session will be held in the afternoon, in the same room. This will be followed by the visit to Adler Planetarium on Thursday morning. The Thursday luncheon will be held at the same time and place as on Wednesday, followed by the general program and business session in the afternoon.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

Journal of Chemical Education (February) "An Experiment in Visual Education," by J. O. Frank, State Teachers College, Oshkosh, Wisconsin, presents some conclusions as to the kinds of slides which are most effective as teaching aids.

Because of the variety of results and conclusions reported from studies of the effectiveness of the use of slides in teaching chemistry, the writer conducted his own investigation to determine their teaching value. He found that such conflicting findings were partially due to the differences in the values of the slides themselves, and in the method of presentation. Several sets of slides were especially prepared on the basis of his conclusions, the use of which rendered a 14% gain in the accomplishment of his classes.

Another article of interest in this issue tells how to make "Cellophane Roll Films for Slide Lanterns." The authors are Ross Bonar, Floyd Bonar, and Earl C. H. Davies, the latter professor of physical chemistry at West Virginia University. No extra lens system or alteration of the projection lantern whatever is required for the projection of the cellophane roll film. The slide carrier is merely withdrawn and the roll carrier inserted.

Sierra Educational News (March) In his article, "Use of Film in Education," Robert S. Johnson of the Department of Visual Instruction, University of California, Berkeley, points out that the auditorium and classroom require their peculiar type of film and method of presentation.

He gives the following directions for the correct use of films in the classroom: select those which will assist in solving a particular problem; use them either to introduce or summarize a problem; time their showing accurately; integrate film and verbal instruction; employ devices to aid students to retain the knowledge gained. He also states certain general rules which apply to auditorium films.

Child Welfare (January) "Better Movies," by Catherine Cooke Gilman, Chairman of the Committee on Motion Pictures, National Congress of Parents and Teachers, is a "stimulating explanation of the new Congress plan with regard to motion pictures." The old and futile methods of cooperation with the industry itself are discussed clearly and without prejudice. The plan of the National Congress of Parents and Teachers is then outlined with full directions for getting into prompt communication with source material and executive help. A copy of this issue should be in every teacher's and parent's hands.

Journal of Education (April 17) "Visual Aids at Little Cost," by George W. Wright, Principal, Far Hills, New Jersey, should prove helpful and stimulating to both rural and city schools which cannot afford mechanical visual equipment, as it suggests how to make effective use of available aids, such as school journeys and field trips, pictures in textbooks, magazines and newspapers, cartoons, blackboards, charts, maps, sandtables, plays and pageantry.

The writer recommends the purchase of the five mechanical types of visual equipment—stereographs, stereopticon slides and lantern, film slides, still films, and a motion picture machine—as quickly as circumstances permit, selecting that type which best serves their needs.

Nebraska Educational Journal (March) "Why the Geography Picture?" asks Superintendent Floyd A. Cropper, Tilden, Nebraska, and proceeds to answer the question. "Pictures and geography have become synonymous. Approximately twenty per cent of the space of the modern elementary textbook in geography is devoted to pictures." He states that the results of tests involving the use of flat pictures indicate a gain of 15% in knowledge of subject matter. The writer himself has conducted a study in which an evaluation was made of the increased ability of the class to interpret geography textbook pictures after picture instruction.

International Review of Educational Cinematography (March) Under a new typographical set-up this estimable publication offers its usual contents of valuable report and discussion in the film field. "Language-Teaching and the Talking Film," "Internationalism and the Film," and "The Use of the Cinema in Occupational Instruction" are among the articles presented.

Parents' Magazine (March) "Better Week-End Movies," by Lillian McKim White, offers one of the many efforts of communities to protect their children at the Saturday and Sunday movie. The writer feels that the plan "will work under conditions as they are without antagonizing theatre owners." This is often the case, but frequently it is apt to be otherwise.

The Living Age (January) "The German Cinema," by Louis Chéronnet, translated from *Le Crapouillot*, a Paris Literary Monthly, offers a sympathetic appraisal of the film in Germany as a "symbolic vision that reveals the evolution of a whole people." One may not agree with the writer's condemnation and praise, both granted with equal enthusiasm, but one does recognize an astute analysis of a subject.

Book Reviews

DEVELOPING ATTITUDES IN CHILDREN. The University of Chicago Press, Chicago, Illinois. 1933.

This published proceedings of the Mid-West Conference of the Chicago Association for Child Study and Parent Education, March, 1932, offers an excellent resumé of the discussions, findings and conclusions of the organization. "The Effect of Motion Pictures on the Social Attitudes of Children," by Ruth C. Peterson, reports the experiments conducted on this subject under the direction of Professor L. L. Thurstone and financed by the Payne Fund. A group of students was measured, for attitude, by means of an attitude scale. They were then shown selected motion pictures and were re-measured. The most important social attitudes were definitely and undeniably affected. Statistically supported, this report leaves but one impression upon the reader. He knows again, with sharp emphasis, the value and the danger of this all-reaching art.

THE 1933 FILM DAILY YEARBOOK, Jack Alicoate, Editor and Publisher, 1650 Broadway, New York City. 1024 pages.

The Fifteenth Annual Edition of Filmdom's encyclopedia and book of reference has recently appeared. It presents comprehensive data on all phases of the motion picture industry—production, distribution, organizations, exploitation, and financing. The Awards of the Academy of Motion Picture Arts and Sciences since 1927 and the Ten Best Pictures of 1932 (and previous years since 1922) are given prominence in the front of the book.

The Section on Production includes information on 1932 features, both American and foreign; a list of all pictures released since 1915; original titles of books and plays made into films under titles other than the original; a list of serials since 1920; facts on directors, players, writers, editors, cameramen and recording engineers; names and addresses of producers and distributors, together with their Exchange address in key cities; a list of motion picture publications and books on the industry.

Addresses and members of state and local censor boards are noted. A resumé is given of the 1932 activities of such organizations as the Motion Picture Producers and Distributors of America, the Academy of Motion Picture Arts and Sciences, Society for Motion Picture Engineers, National Board of Review, Motion Picture Theatre Owners of America; the theatrical and non-theatrical motion picture work of the various United States government departments; the name and personnel of societies, clubs, guilds and other organizations associated with the industry.

The Section on Exploitation offers suggestions to exhibitors regarding a public relations program to secure cooperation from clubs, schools, churches and public libraries. A feature of this section is a compilation, by states, of all motion picture theatres, totalling 18,533.

The last part of the book is devoted to the foreign field, listing the names and New York address of importers and exporters of film, and covering briefly production and distribution in various countries. In this connection appears a survey of the work of the Motion Picture Division of the United States Department of Commerce.

Government Activities

(Concluded from page 129)

subjects; information about home-made slides; various kinds of slide projectors, etc. It is of course necessary to have subdivisions under such comprehensive titles as "Posters", "Motion Pictures", "Slides", etc., as there is a great deal of this material on the market and consequently general headings such as slides are subdivided by blue guide cards with such titles on the tabs as Slide Producers; Slides (home-made); Slide Projectors; and the subject name of the slide series such as "Teeth", "Diphtheria", "Diet", "Sleep", etc.

There are also many details in connection with the organization of a visual education division such as the "Budget", "Reports", etc., and it will be quite helpful to keep these details on index cards and file them in the Card-Information file.

The main headings found in most card information files are as follows:

Artists	Novelties
Drama	Pageants
Film strips	Panels
Machines	Posters
Producers	Poster making
Glass slides	Publications (relating to visual material)
Machines	Photographers
Producers	Printers
Lithographers	Programs
Machines (not projectors)	Sand table projects
Maps	Show cards
Mechanical equipment	Show card makers
Motion pictures	Special projects
Model makers	Stereographs
Models	Window displays

Other headings which will be useful are:

Budget.	Reports
Criticisms	Reimbursements

The main divisions may be subdivided as follows:

Motion picture photographers
 Motion picture producers
 Motion picture (subjects)
 Motion picture projectors: 16 mm.
 Motion picture projectors: 35 mm.
 Motion picture projectors: sound

(To be continued)

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Visual Aids Offered by University of Arizona

In his address delivered at the Arizona Education Association meeting last fall, Mr. Max Vosskuhler, Director of Arizona University Extension Division, described the service offered by the Division to the public schools of the state.

"The selection of films and slides available is so comprehensive that it should satisfy almost every need for educational as well as recreational purposes. The total library of the Visual Education Bureau now comprises over 350 reels of film in standard, 35 mm., and narrow, 16 mm., widths, about 100 rolls of film slides, and 80 sets of glass slides aggregating more than 2,000 individual slides.

"A complete set of the well known Chronicles of American Photoplays in 35 mm. width is being offered this year at a reduced rental. These films have achieved an enviable reputation for excellence among educators as aids in the teaching of History, Geography, Civics and Americanization. Apart from this they also have a very definite value as entertainment material because of the authenticity, beauty, and dramatic handling of the engrossing story of the United States from the time of the discovery of America until the close of the Civil War.

"Provision has been made for those desiring entertainment moving pictures in a collection of 35 mm. animated cartoons, comedies, and clean, standard dramas available at a nominal rental. In the 16 mm. field a service is offered providing a six-reel entertainment feature film at two week intervals throughout the school year,—a total of fifteen features. These features are recent, high-class theatrical films which have been especially selected and edited for this service.

"A miscellaneous service library of some 200 reels of film has been collected dealing with a wide variety of subjects. The majority of these films are 35 mm. in width; but a library of 16 mm. subjects has been definitely begun and is now also available for use.

"The film slide and glass slide libraries are especially extensive this year. The film slide collection is particularly strong in foreign countries, foreign industries, and so forth, providing excellent material for the study of Physical and Economic Geography, Sociology, History and related studies. The glass slide library, among other sets, contains notable collections of industrial slides, geological subjects, and a number of beautifully colored sets dealing with domestic and foreign travelogs, peoples, industries, etc.

"The entire library of the Visual Education Bureau is listed and described in a printed bulletin which may be secured upon request from the Extension Division. In accord with the times charges for the use of films and slides have been set at a minimum. In general, the Bureau is offering two types of films—rental and service. Rental films are available upon payment of the specified rental charges, while Service films may be secured for as little as 25 cents per subject. Film slides and glass slides are also available at 25 cents per roll or set. For those exhibitors utilizing large numbers of visual aids a special annual enrollment fee of \$10.00 has been provided which allows them unlimited use of all service films, both 35 mm. and 16 mm., for the academic year. Similarly an enrollment fee of \$10.00 allows unlimited use of film slides and glass slides for the year. Exhibitors are asked to pay transportation charges on all films and slides from and to the Bureau in addition to the service or rental charges. Funds secured by the Bureau of Visual Education will be used to enlarge the film and slide library."

S. M. P. E. Program

The program of the spring meeting of the Society of Motion Picture Engineers, held April 24-28 in New York City, offered many interesting papers on a variety of subjects. One of the most significant was delivered by William Short, director of the Motion Picture Research Council, which has been engaged in film research work for the past five years under the sponsorship of the Payne Fund. "Unoccupied Motion Picture Fields" which he considered of greater importance than any that have yet been cultivated include: teaching pictures, juvenile entertainment, entertainment for adults, educational work, documentary work, and scientific work. The Council's researches have dealt chiefly with the effects of movies on children, and Mr. Short pointed out that pictures contain too much crime and sex for young audiences.

No less important was the paper on "Photoplay Appreciation in the Nation's Schools," by William Lewin, outlining the experiment which the National Council of Teachers of English has been engaged in during the past six months to determine whether the movie habits of adolescent America can be improved significantly through the medium of the English classroom. Data in regard to the reactions of 5,000 representative boys and girls involved are now being compiled.

Other addresses of particular interest to this particular field were: "Motion Picture Aesthetics," I. A.

Jacoby, College of the City of New York; "The Sound Film Program of the United States Department of Agriculture," R. Evans, Division of Motion Pictures; "An Introduction to the Experimental Study of Visual Fatigue," P. Snell, University of Rochester; "Military Training and Historical Films," F. W. Hoorn, U. S.

A Report from Wisconsin

Mr. J. E. Hansen, Chief of the Bureau of Visual Instruction at the University of Wisconsin, in a recent communication informed us that during the past year the Bureau photographic laboratory, which is also the official University laboratory, has made many thousands of slides for the University's use. He also reports that, although the circulation has fallen off on other aids, the Bureau's 16 mm. film circulation increased 15% during the past eight months over that of the same period last year.

Signal Corps.

Talking Book for Chicago Exposition

Something quite new in books—a talking book—will be introduced by the Federal Office of Education at the Chicago Century of Progress Exposition. Every 15 minutes the Talking Book will speak. It will address visitors at the Office of Education exhibit in the Department of the Interior display at the Federal Building.

Those who come to the exhibit will see a large book bound in red leather lying on a chromium plated reading desk. On the quarter hour the cover will slowly open and the pages will turn one after another revealing a series of brilliantly colored illustrations. There will be practically no text with the illustrations. The text will be spoken.

From concealed loudspeakers on either side of the book the words of the book spoken by United States Commissioner of Education William John Cooper will reach the ears of the visitors. The "talk" will tell the work and service of the Federal Office of Education. It will be synchronized with the turning pages so that the illustrations will illustrate the spoken words. The "talking time" of the book will be two and a half minutes. The book will close automatically until the next time for it to talk.

While the application of this idea to education can only be conjectured, it is pointed out by the Office of Education that it reduces eye strain to a minimum.

New York Newsreel Theatre Inaugurates Student Plan

In order to stimulate widespread interest in its educational programs of current events, the Embassy News Reel Theatre, New York City, offers a special admission rate of 15 cents to students. These tickets can be obtained from the Visual Education Depart-

ment, the Current Events teacher or Principal's Office.

To further concentrate the attention of current events classes on these programs, the Theatre is conducting a Weekly Prize Essay Contest on the subject, "Which is the most significant event presented on the Embassy News Reel Theatre Program this week?"

Foreign Film Activities

We are indebted to the United States Department of Commerce for the following notes on non-theatrical motion picture activities abroad.

Brazil. At the educational motion picture convention held in Rio de Janeiro in January, the first meeting of the kind to be held in Brazil, a high appreciation of the value of educational films was shown, and a number of proposals advanced all looking toward the development of visual instruction. Due to the lack of educational film material, the project of compelling theaters to show a certain percentage of such subjects, was abandoned.

England. The 21st Annual Conference of the Educational Association, held in London, was the occasion for the display of several of the most recently produced educational films, including a number of 16 mm. sound films, and a new series made by British Instructional Films in close cooperation with school teachers, embracing such subjects as natural science, geography and elementary physics.

Germany. The Prussian Minister of Public Instruction has recommended the 16 mm. film as the best suited for school use. Since the issuance of the decree of 1922, promoting the use of visual education, the use of films in schools has undergone considerable extension. In Prussia, 2,000 schools possess their own film projectors and 25,000 schools are using films for tuition purposes.

Italy. The use of educational and cultural films is increasing in Italy. The general management of the GUF, the national university organization, has created a film committee the purpose of which is to supply educational film material for use in high schools, universities and at special shows. The first year of the committee's activities is to be a test year; and if this proves successful, it is planned that the GUF institute a film archive and organize a film exchange with student organizations abroad.

Rumania. In response to the request of the Rumanian Academy, the Minister of Public Instruction has arranged for cultural film showings with explanatory lectures at regular intervals for the pupils of elementary and medium schools. These shows will be considered as regular tuition and will take place during school hours, with entrance free to pupils. Programs will include travelogues of leading cities, countries and provinces of Europe and other continents; also pictures on natural history, hygiene and sports.

THE FILM ESTIMATES

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

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

Estimates are given for 3 groups

- A—Intelligent Adult
- Y—Youth (15-20 years)
- C—Child (under 15 years)

Bold faced type means "recommended"

Air Hostess (Evalyn Knapp) (Columbia) Heroine an air-hostess on coast-to-coast air line, hero a young inventor with big ideas for expanding air travel. Vamping widow causes usual complications which lead to hectic and sensational thrills. Just another movie. A—Mediocre Y—No C—No

Barbarina. The (Ramon Novarro, Myrna Loy) (MGM) Highly sexed romance, hero an Arab prince, acting as dragoman in Calro, brazenly specializing in physical and financial conquest of traveling ladies. Then comes heroine, "real love," sensuous desert adventures, false emotional reversals, but hero wins out. A—Depends on taste Y—Pernicious C—No

Red Time Story. A (Maurice Chevalier) (Para.) Maurice is still the great philanderer, but now gives up his loves for the love of a foundling. He and baby delightful together. Some very sophisticated and suggestive situations as usual, but film is entertaining as a whole. A—Fine of kind Y—Doubtful C—No

Be Mine Tonight (Jan Kiepura) (British-Gaumont-Universal) Refreshing foreign-made musical comedy, very un-Hollywood in its conventional cast, manner, dialog, sets, beautiful Swiss backgrounds and fine singing. Clever little heroine notably good. Some over-acting by villain. Clean, amusing, human, rhythmic. A—Entertaining Y—Excellent C—Good

Central Airport (Richard Barthelmess, Sally Eilers) (Warner) More air heroics and parachute thrills woven into love-story not very interesting or credible. Dubious situation of hero and heroine not offensively shown. Rather weak supporting cast, especially the "kid" brother who steals and marries hero's girl. A—Hardly Y—Doubtful C—No

City of Song (Jau Kiepora) (Associated Sound Films) Beauty of Naples and Capri are background for musical love-story of boy with glorious voice and wealthy English girl. She would buy his way into European opera but he, offended, returns to his Naples sweetheart. Foreign cast. Fine singing. A—Interesting Y—Good C—Fair

Cohens and Kellys in Trouble (Sidney-Murray) (Uoi.) Crude, slapstick farce by the old comedy pair in usual, harmless manner. "Pat," the tug-boat captain, invites "Nathau" on board as guest and troubles begin. Romantic complications, drunken moments, and the same grimaces and mannerisms. Funny of its kind. A—Perhaps Y—Probably funny C—Probably funny

Daring Daughters (Marian Marsh) (Capitol) Cheap production about innocent cigar-counter girl and rich pent-house owner—complications supplied by her sister, country-boy hero, rich uncle, city playboys, sweeties, roués, etc.—with insipid dialog and usual happy ending. A—Trash Y—No C—No

Destination Unknown (Pat O'Brien, Ralph Bellamy) (Unl.) Crude and hectic sea-melodrama, exploiting toughness, cruelty, and perils of the sea to the utmost—then having the effrontery to introduce a "stowaway," supposedly the Christ, who smooths and solves all miraculously. Brazen attempt at religious allegory. A—Crude Y—No C—No

Ex-Lady (Bette Davis, Gene Raymond) (Warner) Another modern marriage vs. "career" situation with and without benefit of clerky, achieving many bedroom scenes and sex-exploiting moments. Both husband and wife have other "affairs." Moral ending when fun is over. More fuel for flaming youth. A—Mediocre Y—Pernicious C—No

Grand Slam (Paul Lukas, Loretta Young) (Warner) Labored attempt at comic satire on bridge-playing and its exploitation by "experts," fake and otherwise, too obvious to be clever. Story preposterous, characters improbable. Dialog and action largely absurd. A—Stupid Y—Little interest C—No

Humanity (Ralph Morgan, Boots Mallory) (Fox) Very human and appealing study of fine old doctor and his service to mankind. Son, prepared to join father's work, lured into evil practices by gangland's easy money.

Exposure brings disgrace and death upon the old doctor, finely played by Ralph Morgan. A—Fair Y—Fair C—No

Infernal Machine. The (Genevieve Tobin, Chester Morris) (Fox) Unconvincing attempt at mystery and drama aboard ship, where an infernal machine has supposedly been planted. Much conversation, little action. Suggestive situation involving hero and heroine turns out harmless and amusing. Far-fetched and unconvincing. A—Mediocre Y—Better not C—No

King Kong (Robert Armstrong, Fay Wray) (RKO) Grotesque thriller with absurd story, but masterful, photography and trick effects. Prehistoric monsters, greswome situations. Scorns all probability for maudlin sensationalism and succeeds. The makers of "Grass" and "Chang" now turn splendid talents to this. A—Notable of kind Y—Doubtful C—Very bad

Kiss Before the Mirror. A (Nancy Carroll, Paul Lukas, Frank Morgan) (Univ.) Fine acting in sensational, incredible, high pressure sex story of infidelity and the unwritten law. Brazen young wives of two fine, faithful men play merrily with lovers until caught. Then jealous murder, hectic defense trial, and surviving wife is supposedly reformed. A—Depends on taste Y—Pernicious C—No

Lady's Profession (Alison Skipworth, Roland Young) (Para.) Impoverished English family recoups its fortunes by running speakeasy in America. Absurd situation of cultured but naive people trying to deal with underworld made more or less amusing by skillful actors—largely wasted in such a hair-brained story. A—Perhaps Y—Doubtful C—No

Looking Forward (Lionel Barrymore, Lewis Stone) (MGM) Splendid, timely film, masterfully acted and directed. Genuine, charming characters, caught in grip of depression, work out their salvation with loyal help of the younger generation. Human heroics at their best in intelligent, wholesome drama. A masterpiece. A—Notable Y—Excellent C—Mature

Midnight Warning. The (William Boyd) (Mayfair) Mediocre mystery stuff, well enough acted, but with banal dialog and amateurish direction. Plenty of suspense and nothing objectionable except exceedingly greswome scare stuff with heroine locked in among corpses in a morgue. A—Mediocre Y—Worthless C—No

Mind Reader (Warren William) (First Nat'l) Glorifies incurable, contemptible, cheap faker as hero, who finally adopts mind-reading as best paying racket. He even repays love of sincere heroine by cheating, lying, and deserting her to face murder trial in his place. Final "cure" does not cure film. A—Hardly Y—Better not C—No

Murders in the Zoo (Lionel Atwill) (Para.) Greswome murder thriller, with Zoo background of raging lions, tigers, snakes, etc., about madly jealous director who stabs supposed rivals with snake venom and throws his wife to mau-eating alligators. Aims only at spine chilling, and succeeds for those who care to furnish their spines. A—Hardly Y—Worthless C—By no means

Musolini Speaks (Lowell Thomas and News Reels) (Columbia) Skillful composite made from sound-news-reel shots, with well-written voice accompaniment. Comprehensive, impressive study of man and methods that have meant so much to Italy since great War. Rings true, and is distinctly educational for anyone. A—Very good Y—Excellent C—Very good

Officer 13 (Monte Blue, Lila Lee) (1st Division) Realistic little picture of policeman's life at home with family, and on duty at grips with gangsters. Thrilling action and

exitement, yet not enough to outweigh human interest. Avoids being propaganda for either side. Dialog and action undistinguished. A—Mediocre Y—Fair C—Perhaps

Parole Girl (Mae Clarke, Ralph Bellamy) (Columbia) Little to recommend in far-fetched story of crookedness and vengeance, except fine work by Mae Clarke as innocent heroine tricked into crime and prison, who then exacts relentlessly punishment for the wrong she suffered. Direction, plot, motivation faulty. A—Fair Y—Undesirable C—No

Phantom Broadcast. The (Ralph Forbes) (Monogram) Famous radio voice, supposedly from handsome six-footer but a contemptible cad, comes really from a hunchback of genuine talent and voice. True but hopeless love brings him only death. Improbable, and acting mediocre save ad, fine, appealing role by Forbes as hunchback. A—Hardly Y—Doubtful C—No

Pleasure Cruise (Roland Young, Genevieve Tobin) (Fox) Artificial farce-comedy about married couple, really devoted but needing vacation from each other. She takes ocean trip "alone", but he goes incognito as ship's barber. As climax she spends night in cabin with her husband, supposing him new lover! A—Only fair Y—Decidedly not C—No

Racing Strain (Wally Reid, Jc.) (Maxim) Elementary melodrama about boy hero, skilled race-driver for autos or airplanes, but inhibited by horror of having seen father killed at same game. He wins out, however. Fact that hero is played by son of Wallace Reid is only element of interest. A—Poor Y—Hardly C—No

Secreta (Mary Pickford, Leslie Howard) (U.A.) Utterly charming love story with genuine sentiment, delightful humor, beautifully costumed and mannered. Two fine leading roles faultlessly played, though hero's character not wholly credible. Intelligent entertainment of the best. A—Excellent Y—Probably very good C—Beyond them

Smoke Lightning (George O'Brien) (Fox) A Western based on the Zane Grey story, "Canyon Walls," with George O'Brien as the likable hero who protects a small orphan girl and her ranch from the villains. Distinguished by the presence of little Betsy King Ross. A—Hardly Y—Entertaining C—Exciting

State Trooper (Regis Toomey, Evelyn Knapp) (Columbia) Fair excitement and romance for the young, elementary for adults. Ex-State-Trooper hero leads in oil-price war against dishonest competitors, defeats bomb plot, saves plant, and wins boss' daughter—but why he wants her we don't know. A—Hardly Y—Fairly good C—Passable

Sweepings (Lionel Barrymore) (RKO) The Chicago fire and 40 years after: showing rise of merchant, grimly obsessed with one idea, the store. He wins wealth, but loses four children, deservedly. In parts human and realistic, but often tedious and depressing. Probably too much Barrymore. A—Fairly good Y—Doubtful C—Beyond them

Today We Live (Joan Crawford, Gary Cooper) (MGM) Stern, depressing war-story of English heroine and American hero, demanding heavy acting and much less sex than usual in Crawford films. Some tense, grim drama, strong human appeal, striking war scenes and super-tragic ending. Well done by all concerned. A—Good of kind Y—Better not C—No

Unwritten Law. The (Greta Nissen, Lew Cody) (Majestic) Murder mystery, with considerable suspense and thrill about a contemptible old rone whose specialty of seduction and wife-stealing earns him death by murder. Decidedly adult material for adults who want that kind. A—Hardly Y—By no means C—No

Working Man. The (George Arliss, Bette Davis) (Warner) Arliss dominant and delightful as hard-fighting, but always fair-fighting, manufacturer who wins success over strong competition. Finally fights own company to straighten out two wild young people who need it. Strong, wholesome character-drama. A—Excellent Y—Excellent C—Good though mature

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

Will Motion Pictures Pay Their Own Way?

H. PAUL JANES

THESE is a prevalent feeling among many church workers that the motion picture has not proved to be of any benefit to the church—that is to say, to individual churches. Several examples could be pointed out of ministers of the most successful and unsensational type who are turning people away from their doors—not on an evening when entertainment is expected, but on Sunday evenings when people are supposed to be doing everything else but going to church — if you listen to our proficient modern pessimists.

There is very good reason to believe that the reason people are not going to church in the evening is because churches have cheapened their evening services instead of enriching them. The men who are using motion pictures and stereopticon slides successfully and consistently have learned a new language—no less than that—and if one is to use the visual method he must likewise learn.

In future articles the writer hopes to tell the almost unbelievable tales of how some of these men have learned to use pictures. In this article consider the motion picture projector as a means of providing clean entertainment for 300 children every Friday afternoon and as a means of buying a pipe organ! This is literally what one projector has done for Rev. Chas. Evers, pastor of Woodlyn Presbyterian Church, Camden, N. J.

Rev. Mr. Evers is pastor of one of those difficult parishes near a shipyard. People poor, often unschooled and without the facilities of the average suburban community where the most successful churches are located. If you knew Mr. Evers you would say at once that there is one good reason for the success of the enterprise—for although he is the father of four children, all married, and although his hair is grey there is a living, vital twinkle in his eye—the seasoned, understanding twinkle of an old campaigner—and Mr. Evers not only has been but is now one of the most energetic men in South Jersey church work. Being in the locality where people depend mostly upon the motion picture theatre for their entertainment you would expect to hear the minister complain that in a purely social program the church can not compete—what has happened?

F. S. Wythe, who built the DeVry School Films, used to say there is only one kind of people: human people. The people in Woodlyn are discriminating people just as everywhere there are many of them.

They want their children to have the advantage of discriminating entertainment. Mr. Evers provides the entertainment. Last Friday there were 300 of them — 37 were on the free list, of course, but the others gave something to the lady standing at the door, with a sack to catch the coins, pennies, nickles and dimes—and it is this and this only that has been paying for a pipe organ. Of course the projector paid for itself a long time ago. And could this sort of program be kept up indefinitely? Rev. Evers has been doing it only 13 years — shall we wait to see?

Friday evening programs at Woodlyn are varied—the average cost is \$5.00. There is always a comedy, a commercial, and a travelog and sometimes a two or three reel feature. Five reels or one hour and fifteen minutes is the very longest program. The children never tire—an important lesson! The commercial pictures show how tooth paste is made as well as microscopic pictures of the little “bugs” that should be cleaned off or another shows how wheat becomes bread. Often the travelogs are free commercials from some railroad or resort. In this way Mr. Evers secures enough free film so that he can concentrate his funds on a reel or two of comedy or a good feature.

Yes, it takes lots of work and Mr. Evers is a genius at showing people their responsibility and teaching them how to carry out. Lots of people working together can do splendid things even in a parish where people are poor, supposedly undiscriminating, and where they don't have a pipe organ or clean recreation for their children, but want both!

The Ministry of Healing

It is impossible in this brief space to describe completely the successful use of a set of four or five slides and a one reel motion picture in a worship service. For a complete description of the latest technique being used in conducting worship services with pictures one should secure a treatise on the subject such as “Bulletin 100-Revised”, available from the Presbyterian Board of Christian Education, Philadelphia (50c). The film and slides are also available from the same source and upon request you will be sent a complete outline of a service. The rental cost for the slides is \$1.00 and for the film \$3.50.

A realization that every gift of healing is from God is the aim of the service. It begins in semi-darkness with a dim cross reflected against the screen. As the prelude progresses a picture of Jesus holding the hand of a sick child appears and fades again as the prelude ends.

Then the congregation sings "At evening the sun was set" by Twells. The scripture is read and then there is a prayer. During the hymn there is a picture of a sunset; during the scripture and prayer only the cross is seen.

"Christ for the world we sing" by Wolcott is the theme hymn. The film comes with a cue sheet so that there is no excuse for not having a beautiful musical background. The sermon may hold up the unselfish healing ministry of Albert Schweitzer as typical of God's modern healing ministry. A competent leader will find little difficulty in providing adequate responses such as the hymn "Immortal Love, Forever Full" by Whittier. Other prayers and responses will suggest themselves.

At the conclusion of such a service a man came to the minister and gave him a ten dollar bill to be given to healing work—the minister had forgotten to take an offering, which should, of course, conclude such a service.

The film is one of 13 on the life of Jesus provided by the Religious Motion Picture Foundation, N. Y. C., and is listed in "1001" together with distributors. The slides are available only from the Presbyterian Board of Christian Education in Philadelphia.

H. P. J.

Baptist Women's Foreign Mission Society Uses Movies

While on a trip abroad, Mrs. H. E. Goodman, of Chicago, president of the Women's American Baptist Foreign Mission Society, made 16mm. movies in Japan, China, the Philippines, Burma, India, and the Belgian Congo. The films were taken with a view of showing them to the people at home, and the pictures include travel and scenic "shots" as well as views of mission work.

"The pictures were shown in one of our western states," writes Mrs. Goodman, "where they convinced some of the doubtful churches of the worth-whileness of our mission work. A year ago they were shown in about fifty churches in one of the states in the Ohio Valley, with great profit.

"Duplicates have been made for the denominational headquarters, and they are listed in the catalog of motion pictures available. On several occasions they have been shown in the Exhibit Room of our Northern Baptist Convention. Recently duplicates were also made for a Hospital Association from which several missionaries have gone out to the foreign field."

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Museum Adventures In Geography

LAURA O'DAY

BYOND the rim of the Arctic Circle stands the city of Hammerfest—the most northern city in the world. At 70 degrees north latitude the winters are long and cold. The snow is deep. Yet in and out of the busy ocean harbor of Hammerfest ships carry the commerce of many nations all through the winter months. Strange though it is, this northern port of Hammerfest is more icefree than the harbor of New York City.

April, May and June mean spring to us whose homes are north of the lands where it is always summer. But let us travel south an equal distance to the other side of the equator where our spring months change to autumn. April, May and June point to the approach of winter in the southern hemisphere. It would be a curious experience for us of the northern half of the world to go skiing on the fourth of July! — stranger still if Christmas came in summertime.

We of the industrial United States think a good deal of our daylight saving time. It conserves the precious hours of sunlight for us and enables us to work in our gardens, play a set of tennis or go swimming after work. But what would Egypt say to the introduction of daylight saving time?

Facts such as these are half the story of geography. To a geographer the important question may be summed up in three letters—"Why?" Why is the harbor of a city beyond the Arctic Circle more free of ice in winter than the harbor of New York? The southern hemisphere works and plays outdoors while the northern half of the world digs itself out of a snow bank. Again the question is "Why?"

Geography looks to facts of climate, location and position of the sun to find an answer to these questions. The workshop of the geographer is the whole great world—its people and their setting. How these people earn their living—what they do—is part of the story. Why they do things in the ways that they have chosen is the rest. How vastly different this is from the geography of fifty years ago!

Although our workshop in geography is the world how many of us can travel from pole to pole or sail around the globe? What can be done about it?

The Buffalo Museum of Science thinks it knows the answer to this question. At least we are experimenting with a plan untried by other museums. What the outcome of the adventure will be cannot be predicted with certainty. It has not yet been measured by impartial statistical methods. We shall have to wait awhile for that. But for the present—on with the adventure.

Suppose you are a fourth grade pupil ready to study Japan. You might first open a book containing the "essentials of geography" and read that Japan is a group of islands off the east coast of Asia, that the area of the islands is 261,300 square miles and that by far the greater part of the area is rugged and mountainous. This information is accurate in its description of Japan. But do abstract facts and figures paint a vivid picture of Japan for you?

Now let pictures take the place of words and see how clear your first impressions of Japan become.

Here is a view of rice fields; from our hilltop they

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look like a giant patchwork quilt. The broad tract looks pale green and silver in the springtime with the fresh new rice blades showing above their watery blanket. In autumn these same rice fields turn to yellow-brown and Japanese girls and women cut the tall, dry stalks with sickles to prevent their being spoiled for weaving into mats and baskets.

Here is another picture: Japanese girls picking tea leaves on a gently sloping hillside. How neat and trim the dark green bushes are! They remind one of well kept hedges in an English garden. And now another picture: A clump of trees growing on a corner of land too steep and rough for rice paddies. They are mulberry trees with pretty heart-shaped leaves picked for hungry, growing silk worms.

These pictures with others contribute definite ideas characterizing the people of Japan and their far eastern home. Each view portrays a separate bit of landscape. When fitted together the pictures comprise a miniature tour through Japan and briefly summarize life in the island Empire.

Carefully compiled sets of pictures are available at the Visual Education Division of the Buffalo Museum of Science, ready to introduce the pupils of the Buffalo schools to the geography of an area. Each set is something more than a collection of geographic views. In reality, each picture set is a game or puzzle and is accompanied by a card outlining the chief features of an introductory tour of a country. Thus pupils may become well acquainted with geography while enjoying the fun of the always popular puzzle.

Have you ever tried to see how many things you could learn just by observation? Play the game with me a minute. We will take as a very simple illustration, life on the Sahara desert.

Our pictures show a flock of goats nibbling at scrubby desert grass; a broad expanse of barren, treeless wasteland; an oasis of tall palm trees; Arabs resting before their tents of goat and camel's haircloth. How much such pictures tell! Do the pictures make you think this is a land of much or little rainfall? What two signs of scanty rainfall can you find suggested by the pictures? Are the Arabs shown in the pictures nomads? How can you tell?

The training afforded by a game like this develops powers of observation and reasoning. A little practice and a tent home becomes a sign of nomadic life while flat-roofed houses become evidence of little rainfall. Picture sets, however, are only part of our experiment.

In a moist, hot valley of Mexico at the foot of snow-capped Orizaba there grows a luxuriant vine with dark green, slender leaves. A plump, green pod looking much like an unripe banana replaces an exquisite orchid blossom in late spring. The pod

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turns yellow and becomes spotted with irregular patches of brown. Then it is picked. After hours of exposure to the tropic sun, guarded by the vigilant care of native workers the watery pods are transformed to slender, glossy, brown beans resembling thin, candy cigars. Have you guessed what the brown pods are? Perhaps not and a picture would not help you. But suppose I give you one of the pods. As you handle it you catch a whiff of its luscious odor. There is no longer any doubt left in your mind. You recognize the fragrance of vanilla — the bean from which vanilla extract is derived.

Another brown pod comes from the tropic forests of Ecuador in South America. It too is plump, resembling a giant pear in shape. Its shell is hard and brittle. This pod is the fruit of a small tree to which it is attached in a curious manner. Unlike any of the fruits with which we are familiar the brown pods do not grow at the tips of the branches of the tree. Instead they grow directly from the tree-trunk around which they cluster in profusion

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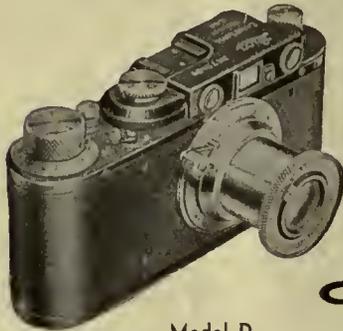
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—a habit that accounts in part for their successful cultivation in the windless tropic zone. Since the pods could not swing with the branches of the tree a wind would quickly snap them off and destroy one of our valuable low-latitude crops. When the pods have been cut down the natives split them open. The fat brown beans inside are the treasure demanded in large quantities by the candy-loving people of the temperate parts of the world. No doubt you know by now that these pods are the fruit of the cacao tree and contain the cacao beans from which we make chocolate.

One may borrow cacao beans from the Museum. One may study the curious sweet pod of the vanilla vine in addition to a list of many other items. There are, for example, bolls of snow-white cotton from

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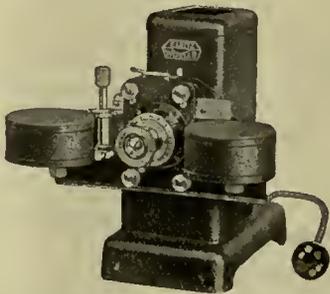
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the South and fuzzy, dark gray cotton seeds. There are sections of sugar cane and stalks of bamboo; copra, jute and wheat. And yet we think that these are not enough. Our adventure in geography assumes a second form.

Geography is not concerned alone with the fact that chocolate is made from a dark brown bean we import from Ecuador or that vanilla beans of high grade quality are grown in Mexico. Knowledge of the raw materials alone or the process that manufactures the finished product of industry does not constitute geography. Rather geography demands a knowledge of these working facts as tools and then sets out to find the reason why. Mounted pictures are invaluable in the study of geography but objects make their meaning more complete.

The Visual Education Division of the Buffalo Museum of Science has prepared geographic charts which Buffalo teachers may borrow for classroom use.

There is a chart on coconuts for example, relating specifically to the coconut crops of the Philippines. At the top of the chart there is an 8 by 10 inch picture taken in the Philippine Islands. The picture shows tall coconut palms — their fine, straight trunks shooting up for 60 or 100 feet into a plume-like cluster of long, fringed leaves. At the left a native hut is shown with its steeply sloping roof of palm-leaf thatch. At the right a Filipino lad follows along behind a lumbering water Buffalo hitched to a two-wheeled cart loaded with coconuts. You would hardly know that they were coconuts unless you had seen them as they were taken from the tree, encased in their bulky, fibrous husks. Beneath the picture on the chart there are specimens of fresh coconut meat, the grated meat and copra; there are coconut milk and oil and the brown pulpy residue so good for cattle food. Accompanying the chart is a coconut in the tough, thick shell in which it grew.

This chart with its guiding puzzle card has an educational story to tell. From it you learn that the coconut palm thrives in a tropic environment of heavy rainfall. The lush vegetation and steep roofed house of thatch agree in pointing out these facts. You learn that coconuts are the fruit of the coconut palm and grow just below the plume of leaves at the top. They are picked by native Filipino men and floated downstream to the coast for export. The husks that have protected the nut inside are removed before the cargo is stowed away on board. Although many coconuts leave the Philippines to be sold as food in distant lands coconut meat is valued chiefly because of the oil that it contains. The densely-peopled industrial nations of the world buy vast amounts of partly dried coconut meal—the *copra* of commerce.

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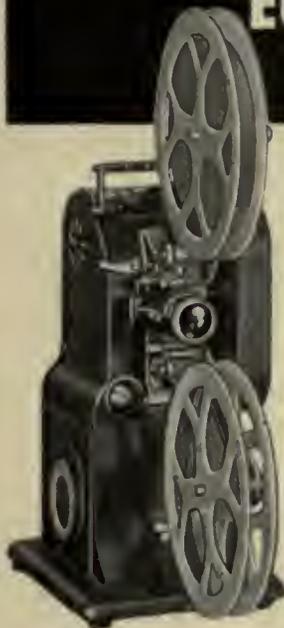
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Rocky Mountain Conference and Summer Courses

The Third Annual Rocky Mountain Visual Education Conference will be held July 7, 8 and 9, at the Colorado Agricultural College, Fort Collins. Ells-

worth C. Dent, secretary of the Department of Visual Instruction of the N. E. A., will be present and will lead several of the discussions during the conference. He will teach two courses in the College summer session during the three weeks immediately following the conference.

In addition to demonstrations and exhibits of the latest types of visual aids, projection and photographic equipment, the conference will discuss such subjects as: Planning the visual instruction program; classroom procedure; sources of films and film supplies; making your own visual aids; use of visual aids in the elementary grades, junior high and high schools; visual aids in a general activity program; costs and relative values of visual aids as compared with other forms of instruction, etc.

Anyone who is planning to attend the conference and may desire to have other subjects discussed should write to I. G. Kinghorn, editor of publications at the College. He is in charge of arrangements and will be pleased to adjust the conference discussions to the needs and desires of those who may attend.

Teachers, school administrators and amateur movie fans from all over the West and Middle West attend these conferences. Those who wish to see some of Colorado's scenic attractions while there may join any one of several groups on the last day, Sunday. One group will go trout fishing; others will go on a 165-mile tour of Rocky Mountain National Park, over the famous Fall River Pass, Willow Creek Pass and Cameron Pass, returning by way of Cache la Poudre Canon; or on a geological tour of the old Indian camps, with their interesting tepee rings, fire pits, etc., north of the city; or on hiking or nature-study tours, as they may desire.

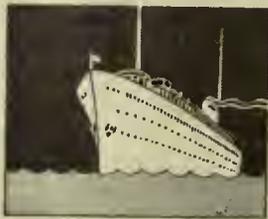
Visual instruction courses will be a part of the usual summer session schedule, and will be listed in the catalog as follows:

Ed. 116—Visual Instruction.—Two hours daily, two credits. Second three-week period. 8:00—10:00—Room 200, Physics Building. *Mr. Dent.* The purpose of this course is to present a broad picture of the philosophy, psychology and pedagogy of the use of visual aids to education in the classroom. The methods of using various types of visual aids and their comparative advantages will be discussed.

Ed. 117—Special Problems in Visual Instruction.—Two hours daily, two credits. Second three-week period. 10:00—12:00—Room 200, Physics Building. *Mr. Dent.* The purpose of this course is to provide an opportunity for individuals or groups to work out their own specific problems in the field of visual instruction. Emphasis will be placed upon the construction of courses of study, making use of the various types of visual aids. This will include research and coordination of the films and materials that are available in the particular territory where the teacher is located. Attention will be given also to the technique of handling machines of various types, both motion and still photography, and the preparation of scenarios for local school films or sets of slides. Afternoon field trips will be arranged in connection with this course.

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Films For the Noon Hour

GEORGE CARL WELLER

NOON hour around a high school, especially on rainy days, is a noisy, boisterous place. Few students care to spend the time directly after lunch for study. Some do, of course; the majority do not. The noon hour is spent in playing, shouting, running, and playing pranks. The results of these activities are not always desirable for the sake of the building nor for the students themselves.

Films during the noon hour! That's the solution to the problem at the South Francisco Junior-Senior High School, a school of 650 enrollment, with students from the seventh to the twelfth grades inclusive, a great many of whom bring their lunches, and a greater number who return to school early from lunch.

The lunch hour is from twelve to one o'clock. The last twenty minutes are used to project a film. The students are given an assembly call by the gongs, and they come to the auditorium. Here they see a film, listen to the radio, and engage in quiet conversation with their friends. This plan is thoroughly enjoyed by all, and something is accomplished in the twenty minutes which otherwise would be wasted.

The films are educational in nature, and most of them are obtained free of charge, except for trans-

portation. The Bureau of Mines of the Department of Commerce has a supply of films sufficient to last any school for a year or more, depending upon how rapidly the school wishes to show them. The Bureau has thirteen offices scattered about over the United States, and each one can supply industrial educational films both in 35mm and 16mm widths.

In addition, a number of the moving picture manufacturers have free films available. Railroads, steamship lines and factories have films which they are glad to loan for showings. But why stop with free films? The school budget should include a certain amount to be spent for the rental or purchase of films. Here in California we are particularly fortunate in having a great depository of films at the University of California. These films are rented for as low as 50c per reel. The University has a 136 page catalog of films, together with a brief description—films on all subjects.

A famous college president once said, "Don't let books interfere with your education." He was right. These films bring to the students' eyes the impossible, the unreal, the gigantic, the wonderful. And all so inexpensively, and with just a little effort on someone's part—someone who will order the films, thread the machine, take some time out of the lunch hour, return the films—all so little, and yet so much for the education of modern youth.

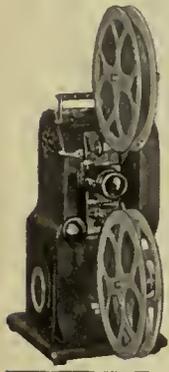
AMONG THE PRODUCERS

Where the commercial firms—whose activities have an important bearing on progress in the visual field—are free to tell their story in their own words. The Educational Screen is glad to reprint here, within necessary space limitations, such material as seems to have most informational and news value to our readers.

The Modern Magic Lantern

W. J. ZUCKER, Vice President
The Stewart-Warner Corp., Chicago

TRAVEL lectures illustrated with stereopticon views, so highly regarded in my youth, would scarcely appeal to young folks today. But the news reels and scenic shorts shown in the movie houses whet their desire for knowledge of far places and strange people just as the old-fashioned magic lantern did ours.



The foremost educators recognize and endorse the force and power of moving pictures in the classroom. Visual instruction is almost unlimited in its scope.

Silver screen presentations stimulate interest in dry subjects. History, geography and even the sciences can thus be dramatized and taught most understandingly. The development of scientific films, visualizing in slow

motion, actions and reactions in chemistry, physics and botany, is attracting widespread attention.

By means of films, city children have all the advantages of field excursions, prohibited by circumstances and expense, and those in rural schools absorb knowledge and information from a great diversity of industrial films.

The increasing number of educational films available today at small cost, makes a projector an essential part of school equipment. Many have found the new Super Power, 500-watt, 16 mm. Projector made by Stewart-Warner, ideal for this purpose. Outstanding features, such as interchangeable speeds; brilliant illumination; automatic fire screen; ball bearing, self-oiling motor; duraluminum gears and centralized oiling combine to make this modern magic lantern an invaluable aid in imparting instruction.

A Treasure House of Historical Photographs in Motion Picture Stills

RECOGNITION of the treasure house of excellent and historically accurate pictures available in motion picture stills has led to frequent inquiry from Visual Directors throughout the country regarding the possibility of securing this material.

Through the exclusive cooperation of the Motion Picture Producers and Distributors of America, Inc., and a board of Visual Directors who have assisted in the careful selection and editing of the material, it is now made available in educational form by Educational Research Studies, Ltd., of Hollywood, California, who have used great care to select only such pictures as are historically accurate and which will broaden the child's vision of the high points of the period studied.

The basis of a good education must include a knowledge of what the world is like today and also an imaginative re-creation of past events, peoples and places, based on exhaustive research. We have too long depended upon word pictures, both written and oral, to supply the information to the child.

Following the new trend in visual education, carefully selected photographs should be more and

more used to supplement the text. Leading Visual Directors point out that these are the most valuable of all classroom visual aids. Obviously the use of pictures of such quality and historical accuracy will result in active individual participation by the child, greater stimulation to the imagination, and an enrichment of his vocabulary.

In line with the new project method of teaching social subjects, these photographs have been grouped to cover certain periods. Clear, concise and inspiring text material is attached to each picture as an integral part of it, thus aiding the child in his research and building a continuity of the outstanding events of the period in such a way as to give him a comprehensive view of the whole.

The following sets are now ready, with others in preparation: *Westward Movement*, *Roman Life*, *American Revolution and Organization of Government*, *Civil War Period*.

There are about fifteen 8 x 10 photographs in each group dry mounted 9¼ x 11, and boxed. For prices and descriptive folder covering this new visual aid material write to Educational Research Studies, Ltd., 5400 Hollywood Blvd., Hollywood, California.

A New Producing Organization

Progress Film Company, Chicago, is engaged in the business of planning, producing and exhibiting motion pictures for educational, advertising and public relations purposes.

The Company was organized in February, 1933, by Morris A. Epstein, A.B., LL.B., (Ohio State University) an experienced advertising and motion picture executive, formerly Director of Sales and Advertising for Chicago Film Laboratory, Inc., Chicago, Illinois.

Associated with Mr. Epstein in the organization of the company are: J. Manley Phelps, Educational Editor (Well known Educator and Teacher of Better English and Better Speech; President, Phelps Institute of Speech, Chicago); John A. Maloney, Scientific Editor (For the past five years Assistant to the Director, Museum of Science and Industry (founded by Julius Rosenwald); formerly on the Staff of New York Times; popular writer on scientific subjects; Colonel Ira L. Reeves, Public Relations (Soldier, Statesman, Civic Leader; Western Manager for the "Crusaders"); Mary L. Hutton, Executive Secretary (Former Hollywood screen luminary); Catherine Denny, Art Director (Formerly with Chicago Civic Opera).

This company is now completing three motion pictures of educational character for World's Fair Exhibitors. They will be made available for showing before educational groups everywhere. A description of these subjects appears in the department "Film Production Activities" in this issue.

Filmosound Reproducer for 16mm Sound-on-Film

The Bell & Howell Filmosound, a highly perfected unit for reproducing 16 mm. sound-on-film movies, has just been announced. Its simplicity and compactness render it entirely suitable for home, school, church, or any other non-theatrical purposes, offering as it does ample picture size and adequate sound volume for audiences up to 1000 or more.

The projector, which is of the same basic design as the Filmo silent projectors, is mounted upon a Bell & Howell Sound Head of entirely new and unique design. The amplifier chassis forms the base for the combined projector and sound reproducer. The sound reproducing head contains the sound drum to which is attached an inertia storage wheel. This mechanical filtering system is said to produce a film movement possessing an exceedingly high degree of uniformity. This head also carries the sound sprocket, exciting lamp, a highly efficient optical system, photoelectric cell, and the first amplifier tube, which is of the latest design.

The remainder of the amplifier is mounted on a

Again Available!

A limited second edition of
VISUAL AIDS IN EDUCATION

By Joseph J. Weber, Ph.D.

The author's latest and finest work in the field in which he has pioneered and specialized and in which his purpose was "to compile for the progressive educator a balanced summary of the available scientific evidence on the values and limitations of visual aids in education, and then elaborate upon this evidence by way of generalization and application so as to inspire this educator in making a common-sense adaptation of visual materials and methods to the purposes of the school."

The book contains a wealth of material divided into three parts. Part I, under 22 chapter heads, discusses "The Values and Limitations of Visual Materials and Methods in the Work of the School."

Part II presents, in six chapters, the use of visual aids in teaching, Geography, History and Civics, Health and Hygiene, Science, Literature and Language, and miscellaneous subjects. Part III discusses needed research in the visual aids movement. The book closes with a very detailed and complete index, giving accurate and instant reference to the mass of invaluable material packed into its 220 pages.

Price \$2.00

THE EDUCATIONAL SCREEN

64 East Lake Street, Chicago

cast aluminum base, providing a high degree of strength with a minimum of weight. Provision is made for a microphone and also for a turntable (78 or 33 1/3 R.P.M.) pick-up. The 33 1/3 R.P.M. Filmophone turntable may be adapted to the Filmosound Projector when so desired, thereby giving both disc and film reproduction.

The entire apparatus is contained in two exceedingly compact cases, weighing together only 60 pounds. The speaker case has provision for four 1000-foot reels, speaker cord, reel arms, one spare tube of each type, spare photoelectric cell, exciting lamp, etc. The projector, amplifier, and sound mechanism are all mounted in one case, the controls of which are illuminated and accessible with the case closed.

Eastman Reduces Film Prices

A marked reduction in the prices of all its 16-millimeter classroom films has recently been announced by Eastman Teaching Films, Incorporated.

The wide acceptance of classroom films in the United States, as well as in more than thirty foreign countries has made it possible to reduce the cost of production greatly. This saving the company has decided to pass on to its customers in the form of a thirty per cent reduction in prices, thus bringing the films within even easier reach of the schools.

The new advertised prices are:

	Formerly	Now
Full reels (approximately 400 feet).....	\$35.00	\$24.00
Three-quarter reels	28.00	18.00
Half reels	20.00	12.00
Quarter reels	11.00	6.00

HERE THEY ARE!

A Trade Directory for the Visual Field

FILMS

- Bray Pictures Corporation (3, 6)
729 Seventh Ave., New York City.
- Carlyle Ellis (1, 4)
53 Hamilton Terrace, New York City
Producer of Social Service Films
- Eastman Kodak Co. (4)
Rochester, N. Y.
(See advertisement on outside back cover)
- Eastman Teaching Films, Inc. (1, 4)
Rochester, N. Y.
(See advertisement on inside back cover)
- Edited Pictures System, Inc. (1, 4)
330 W. 42nd St., New York City
- Ideal Pictures Corp. (1, 4)
26 E. Eighth St., Chicago, Ill.
- Modern Woodmen of America (1, 4)
Rock Island, Ill.
- Pinkney Film Service Co. (1, 4)
1028 Forbes St., Pittsburgh, Pa.
- Ray-Bell Films, Inc. (3, 6)
817 University Ave., St. Paul, Minn.
- Society for Visual Education (1, 4)
327 S. LaSalle St., Chicago, Ill.
- United Projector and Films Corp. (1, 4)
228 Franklin St., Buffalo, N. Y.
- Universal Pictures Corp. (3)
730 Fifth Ave., New York City
(See advertisement on page 143)
- 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 (1, 4)
347 Madison Ave., New York City
19 S. LaSalle St., Chicago, Ill.
- Edited Pictures System, Inc. (1)
330 W. 42nd St., New York City
- Ideal Pictures Corp. (1, 4)
26 E. Eighth St., Chicago, Ill.
- International Projector Corp. (3, 6)
90 Gold St., New York City
- Motion Picture Accessories Co. (3, 6)
43-47 W. 24th St., New York City.
- Regina Photo Supply Ltd. (3, 6)
1924 Rose St., Regina, Sask.
- Stewart-Warner Corp. (6)
Educational Dept., Chicago, Ill.
(See advertisement on page 143)
- United Projector and Film Corp. (1, 4)
228 Franklin St., Buffalo, N. Y.
- Victor Animatograph Corp. (6)
Davenport, Iowa.
- Williams, Brown and Earle, Inc. (3, 6)
918 Chestnut St., Philadelphia, Pa.

PHOTOGRAPHS and PRINTS

- Educational Research Studies, Ltd.
5400 Hollywood Blvd., Hollywood,
Cal.
(See advertisement on page 140)

SCREENS

- Da-Lite Screen Co.
2721 N. Crawford Ave., Chicago
- Motion Picture Accessories Co.
43-47 W. 24th St., New York City.
- Williams, Brown and Earle, Inc.
918 Chestnut St., Philadelphia, Pa.

SLIDES and FILM SLIDES

- Conrad Slide and Projection Co.
510 Twenty-second Ave., East
Superior, Wis.

- Eastman Educational Slides
Iowa City, Ia.

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

- Ideal Pictures Corp.
26 E. Eighth St., Chicago, Ill.

- Keystone View Co.
Meadville, Pa.

- Radio-Mat Slide Co., Inc.
1674 Broadway, New York City
(See advertisement on page 141)

- Society for Visual Education
327 S. LaSalle St., Chicago, Ill.

- Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 141)

- Victor Animatograph Corp.
Davenport, Iowa.

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

STEREOGRAPHS and STEREOSCOPES

- Keystone View Co.
Meadville, Pa.

STEREOPTICONS and OPAQUE PROJECTORS

- Bausch and Lomb Optical Co.
Rochester, N. Y.
(See advertisement on page 144)

- E. Leitz, Inc.
60 E. 10th St., New York City
(See advertisement on page 142)

- Regina Photo Supply Ltd.
1924 Rose St., Regina, Sask.

- Society for Visual Education
327 S. LaSalle St., Chicago, Ill.

- Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 141)

- Victor Animatograph Corp.
Davenport, Iowa.

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

REFERENCE NUMBERS

- (1) indicates firm supplies 35 mm.
silent.
- (2) indicates firm supplies 35 mm.
sound.
- (3) indicates firm supplies 35 mm.
sound and silent.
- (4) indicates firm supplies 16 mm.
silent.
- (6) indicates firm supplies 16 mm.
sound.
- (6) indicates firm supplies 15 mm.
sound and silent.

IS YOUR firm represented here? It should be. Continuous insertions under one heading cost only \$1.50 per issue; additional listings under other headings, 50c each.

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A Filing System for Visual Aids

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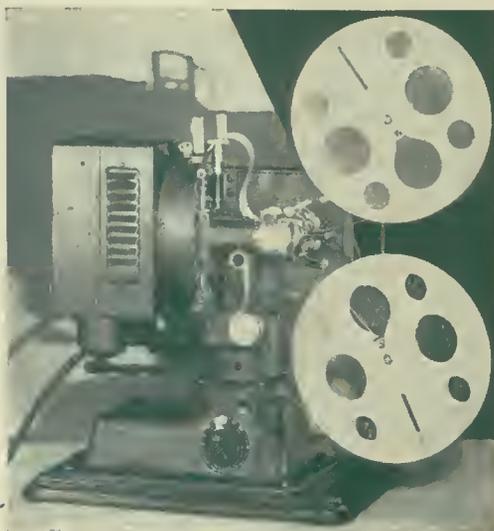
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JUNE

1933

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 ILLUMINATION



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Educational Screen

Combined with

Visual Instruction News

JUNE, 1933

VOLUME XII

NUMBER 6

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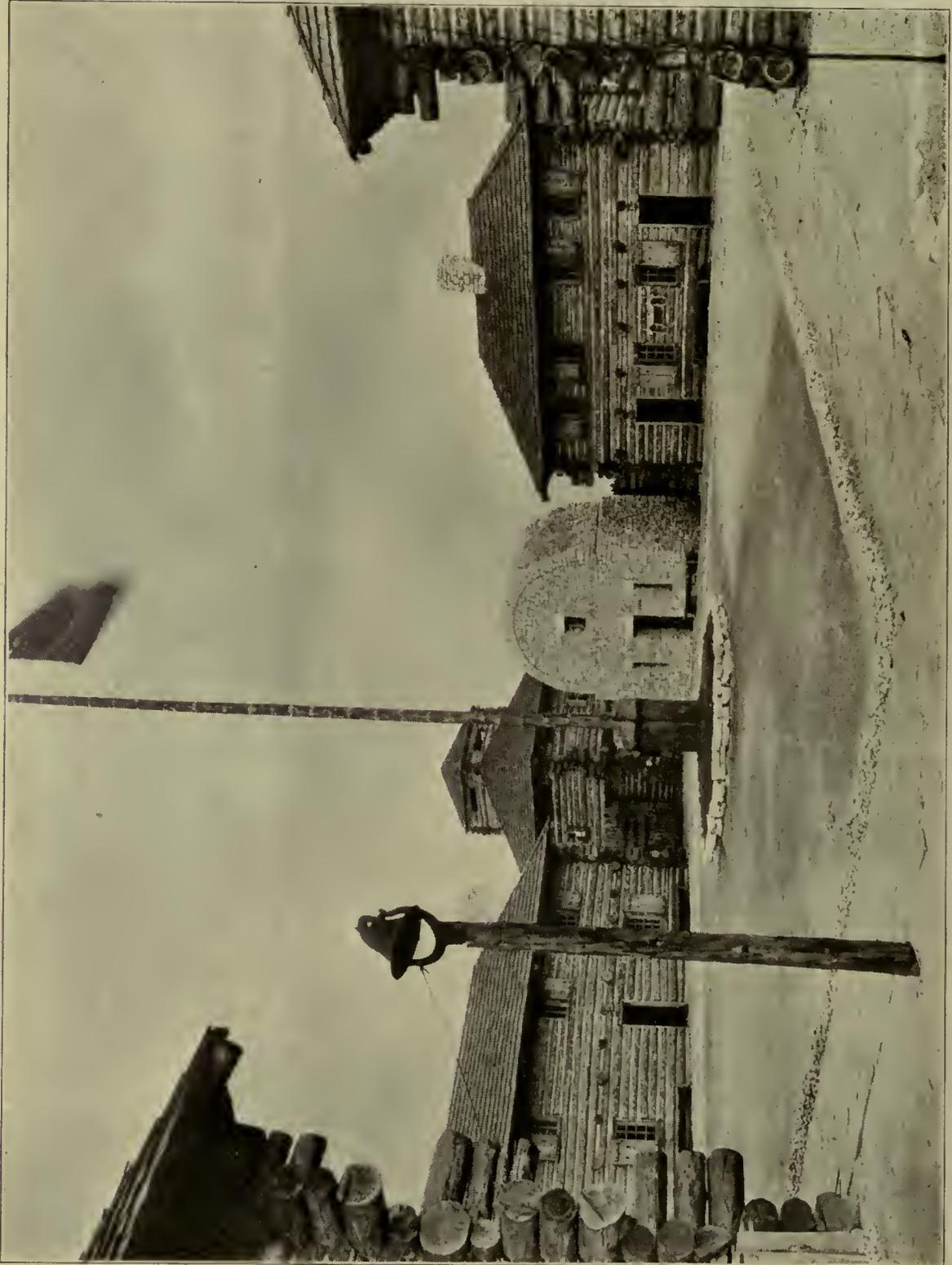
THE EDUCATIONAL SCREEN, Inc.

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This replica of Fort Dearborn, one of Chicago's most thrilling historical monuments, was constructed on the shore of Lake Michigan at Twenty-sixth street for the 1933 Century of Progress Exposition. Near here, a century ago, stood the original Fort Dearborn, and still nearer occurred in 1812 the massacre by Indians of the brave inhabitants of the Fort.

The photograph shows, left to right, the officers' barracks, a corner of the blockhouse, the powder magazine, soldiers' barracks. The corners of two other barracks appear on either side of the picture.

Fort Dearborn, Chicago Century of Progress Exposition

EDITORIAL

THERE is one debt, owed by every teacher to himself or herself, that should be placed at the top of the list for payment—namely, to spend a few days at least in Chicago this summer, and mostly inside the grounds of the Century of Progress Exposition. Any teacher who lets anything prevent that experience will be permanently poorer for it. Educators should come *en masse*, not only for what they will learn personally, but for what they will learn about learning. Fortunately, the annual meeting of the Visual Instruction Department of the N. E. A. also takes place the first week of July, in conjunction with the N. E. A. Convention in Chicago—making that the ideal week for said visit.

The great World's Columbian Exposition of 1893 was perhaps the finest effort of this country to date in the monumental presentation of American life and culture, in an unforgettable setting of classic beauty, dignity and charm. The nation has changed greatly in forty years. The new Century of Progress Exposition seems accurately to reflect and typify the change. It is still greater in physical extent, in its vast collections of materials, in its scientific methods of educational presentation. It portrays power and achievement, leans away from art toward industry, aims at mass rather than vista, is relentlessly modern instead of classic. Its riot of garish colors, its reckless combinations of bulk and line, its bold unconventionalities in shape and arrangement, and the whole bathed and permeated with electricity—it may all be more eye-filling than inspirational, but it is an irresistible command to "look and learn."

The great exposition, in the months ahead, will thrill millions of Americans with a new vision of the physics, the mechanics, the chemistry that are the bases of material life as we live it today. They will know the process behind the product, the inner reasons for results, the fascinating causes for things that have been mere commonplaces to them before. For millions the great fair will transform matter-of-fact into marvel, replace stolid acceptance with eager appreciation, set them on the highway to understanding.

For the teacher, the Century of Progress holds far more than this. We have merely to walk the endless corridors attentively and thoughtfully. Pause when an exhibit offers something for ourselves personally. But above all, let us study the throng of learners and the exhibits that are teaching them; realize that we are seeing in operation concentrated visual instruction on a colossal scale; and consider what it is accomplishing for millions *through their eyes alone*. If visual education can do this in wholesale, impersonal fashion, what will it accomplish under ideal conditions in American classrooms, with a few dozen pupils under

the expert direction and control of an understanding teacher who knows what human eyes are for?

ONE "inducement" recently offered to the public by the Century of Progress is irresistibly comic, we suppose unintentionally so. The public is cordially urged to buy a season-ticket of admission for \$15.00. The simple arithmetic, exceedingly simple, of the Fair authorities proves this to mean a 10-cent-a-day admission for the 150 days of the exposition. The final master touch is to declare this season-ticket "non-transferable."

Before they read the last line, there were probably tens of thousands of Chicagoans—helplessly awaiting summer "visits" by relatives and friends in colonies and droves—who were ready to rush to purchase. But that last line! Obviously \$15.00 would allow 30 personal admissions at the regular retail rate, and the most insatiable fair-goer could hardly achieve so many. The only human being to want the 150 admissions would be he who needs to "work" daily the ever-changing populace within the gates with glib tongue or fluent fingers. We would suggest to the Police one real use for that \$15.00 season-ticket. Whenever one is purchased, arrest the purchaser on sound suspicion as a pickpocket or con-man. Instead of hunting out the crooked gentry, merely wait for them at the box-office.

The idea of tapping the vast store of theatrical picture material, accumulated for a generation past, to select the wheat for educational purposes, has long been the fond dream of many educators. Such selection, in order to make synthetic motion pictures thoroughly suitable for classroom use, presents many grave difficulties. But "stills" are a different matter. Thousands are made yearly, by expert still-camera men, beautiful 8 x 10 prints. Many of these are of genuine educational value—perfect records of costly sets, backgrounds, costumes, and characteristic scenes of many lands and times, made accurate by meticulous research and built regardless of costs. Such pictures, at the enormous expense involved in creating the sets, would be impossible for the school field from any other source than moviedom.

Elsewhere in this issue is described a promising start on this salvage process. The first results are gratifying. Selections are evidently made from a distinctly educational view-point. No reference whatever is made to the producer or the original film concerned. Close-ups of well-known stars, or other elements which would identify the film and thus distract the learner, are carefully avoided. If such policy is maintained, and if free access to the storehouse is allowed indefinitely, a continuous stream of pictures invaluable to schools may result.

NELSON L. GREENE

Sciences Visually Demonstrated at Century of Progress

Biological Sciences

HOW LIFE begins and develops—evolution from the primitive cell to its highest organization in man—visualized for the non-scientific observer, is the purpose of the comprehensive biology section in the Hall of Science at A Century of Progress. The simple cell, unit from which all living forms, both animal and plant, are constructed, is the foundation. A complete biological laboratory is at work. Cell activities are demonstrated and illustrated by models of magnified cells. Methods of scientists in isolating and studying the cell are shown in utmost detail.

Physiology

A complete story of the development of the human being from the cell is told in the Embryological exhibits. Moving magnified cells illustrate how cells of different characteristics from both parents unite to form a new individual. To illustrate heredity through cell combinations, a series of cages of healthy guinea pigs, of different colors and with rough and smooth fur, show how these characteristics are transmitted and combined in successive generations. Photographs and charts show how the same results follow in human families. Moving models of the developed human being show the finished physical machine in its internal action. A life sized model of a man exhibits the circulation of the blood, a magnified heart pumping, showing the action of the valves, red blood flowing out through the arterial system and blue blood returned by the veins. A simplified mechanical reproduction of the digestive system portrays the absorption of food elements by the body.

Two moving models of outstanding interest display the physical mechanism of speech and thought. A model of the chest and throat shows the different characteristics that produce high or deep voices. A magnified model of a human brain shows the areas in operation in the acts of speaking, hearing, seeing or writing.

Botany

Marriage of plant cells is shown in action by an exhibit depicting gigantic dahlia stalk twelve feet tall. How food is produced in plants only in daylight is portrayed by a series of moving models of the cell structure of a corn stalk. Circulation through the cells of oxygen, carbon-dioxide and water vapor shows the plant breathing out oxygen while the combination of the water and carbon dioxide produces glucose. Two phases are shown, day and night. At night the plant gains size but food ele-

ments are formed only under sunlight and not by specific rays but the natural complete radiation of all the sun's rays.

How trees grow is shown by one of the most remarkable moving models in the Exposition. A section of a Basswood twig, magnified to seven and one-half feet in diameter, representing a branch three years old, adds a year of growth in seventy-five seconds, becoming nine feet in diameter by the accretion of new material.

Biology

Central feature of the section of marine biology will be the actual bathysphere in which Dr. William Beebe, the famous deep-sea explorer, descended to the depth of 2,200 feet, the steel globe being required to sustain a pressure of 1,000 pounds to the square inch. A model of Dr. Beebe's famous oceanographic ship, the *Arcturus*, will be shown afloat with reproductions of the special nets and pipe drags bringing up specimens from 3,000 feet. Sea and amphibian life of the present day, but presenting almost the characteristics of prehistoric ages, is to be shown in a diorama in color in three dimensions of one of the islands of the Galapagos group.

Micro-Vivarium

Considered by scientists one of the most remarkable exhibits in the biological section is the micro-vivarium. Microscopic marine life is shown in actual life enlarged thousands of times. Pin point drops of water are the theatre. Powerful microscopes will look through them and throw the living scene upon the screen, showing the weird and monstrous creatures swimming, eating, making love and fighting in their infinitesimally minute world. Comparative with this, a bacteriological laboratory will be in operation, showing the technique of science in rearing and studying bacteria.

Distribution of plant life over the globe will be shown by an illuminated glass map indicating in color the seven great vegetation areas over the world's land masses. Detail paintings of these areas will be shown in this section, featuring the dominant animal life with the characteristic plants of the regions, from arctic tundras to tropical jungles.

To sum up the field of knowledge covered by this vital department of science a Synoptic Review of Biology is planned by Dr. Jay F. W. Pearson, in charge of the Biology Section of A Century of Progress. By this display, making use of lantern slides and preserved materials, the subject will be rounded up in a brief survey of human knowledge of evolution at the present day.

Physics

PHYSICS is the Aladdin's lamp which, during the past century, has brought electric power into home and factory to do the work of millions of slaves, has given us light without flame and heat without fire, and has enabled us to talk across oceans and to fly swifter than eagles. For without the fundamental knowledge physicists have obtained about the various kinds of energy and about the constitution and properties of matter and electricity, the remarkable achievements of most modern inventors and engineers would have been impossible.

At the Century of Progress Exposition, a series of automatically operating exhibits are demonstrating, in a clear and intensely interesting way, many of these fundamental phenomena and relations. These ninety exhibits are placed on the main floor of the Hall of Science just north of the Great Hall. They are arranged in sequence so that, when seen in proper order, they are equivalent to a series of experimental lectures covering the most fundamental physical phenomena. The exhibits will be placed on tables five feet high so that all who pass in front of each exhibit may see it before going on to the next. They will be clearly numbered so that they may be seen in proper sequence, and placards will be provided which can be read ten feet away.

The first group (Molecular Physics) will deal with expansion of gases, evaporation, refrigeration, etc. It will suggest answers to many questions in the general public's mind. How does the air in tires hold up so much weight? Why does steam exert such great pressure when in contact with heated water? How can electric power such as is used to heat electric irons and toasters, produce cold in refrigerators? The exhibits will not only demonstrate the pressure exerted by compressed air and steam, but include a working model with steel balls instead of molecules showing how the pressure is due to bombardment of the walls by molecules which have the speed of rifle bullets.

The second group (Sound) explains nature of sound, including music and speech. Sounds are of great practical importance whether classified as speech, music, jazz or noise. The exhibits in the Sound section explain how sounds are produced, how sound

waves travel; when resonance occurs, what determines the pitch of a sound, how speech sounds differ and how talking films reproduce sounds. The visitor sees a large tuning fork apparently vibrating very slowly through a large amplitude; he hears four tubes of different lengths ringing in succession and sees at the same time the image of the vibrating flames within the tubes, reflected by a rotating mirror as flaming saw teeth; he sees a magnified image of the sound track on a movie film and at the same time hears the corresponding sound. In the final exhibit of this group, speech sounds are transmitted on a light beam which the visitor may intercept if he wishes.

The third group (Electricity) begins with a diorama of Franklin and his kite. Electricity, now our wonderfully convenient and efficient servant, was merely a curiosity a hundred years ago. Its astonishing development is demonstrated in a series of exhibits, which will explain the fundamental principles of the dynamo, transformer and motor. We do not know why an electric current affects a magnet or why a moving magnet may induce a current in a nearby coil; but the exhibits demonstrate these effects and show how modern electrical machinery makes use of them.

The fourth group (Valve Tube and Radio) explains radio broadcasting, the modern miracle, undreamed of thirty years ago. The key to the mystery is the valve tube. Exhibits demonstrate the action of the filament, grid and plate and show how sounds are amplified and how the continuous oscillations necessary for broadcasting are produced by use of such tubes. Spark signal sending and carrier wave sending are visually demonstrated.

The fifth group (Light) shows effects, nature and properties of light. By the use of lenses in telescopes and microscopes the eye is enabled on the one hand to see glories of the heavens, otherwise invisible, and on the other to study the minute structure of metals and microbes. The refraction or bending of rays of light by means of a lens is shown in an exhibit, also the way in which a lens forms an image. Another exhibit shows how eyeglasses correct defects of the lens of the eye. The beautiful colors of soap films tell us that light is a wave motion similar to radio and the frequency of vibration of green light is higher than that of red. An exhibit shows in a simple way how we know that the wave-lengths of light is about twenty millionths of an inch. The electric eye, the photocell, is a modern genie produced by scientific research. Exhibits show the fundamental phenomenon and also applications to the reproduction of sound. Without the photocell television would be impossible.

The last group ("Rays") deals with the various "invisible" rays. Physicists discovered the electron and the proton, building stones of all atoms. These tiniest of particles cannot be seen individually, but when given speeds of 100 to 100,000 miles a second they are



The Electrical Building, Century of Progress

(Continued on page 158)

The Importance and Role of Visual Education In Our Schools^{*}

W. J. HAMILTON

LIKE many progressive ideas, visual education has suffered from the extravagant claims of proponents more interested in the commercial than in the educational aspects of the subject. Like radio at the present time, visual education, especially the moving picture, has been heralded as a substitute for the teacher, the classroom instruction, and the organized school as we now know it. This over-statement of the place of visual education, has resulted in disillusionment and disappointment. Visual education has now passed the experimental stages. Scientific studies in education have corrected many of the disappointments found in the early years of the use of visual aids. The present finds us in a position to approach a solution of the problem of visual education in a sane and scientific manner.

There are at least seven significant aspects of visual instruction which come to mind in the consideration of the importance and the role of visual education in the modern school. These are but a few of many and are presented in the following order as being worthy of consideration by those in a position to study this interesting technic in education.

- 1—From the psychological standpoint, what is the status of visual education?
- 2—What is its place and function in our educational program?
- 3—What types of visual aids are now available for use in the schools?
- 4—What has experimental research contributed to the more intelligent use of visual aids?
- 5—How adapt visual education to the typical school situation?
- 6—Upon what basis can suitable visual aids be provided for school use?
- 7—What is the contribution of visual education to the ultimate ends of education?

(1) Students of psychology have in recent years given considerable time and attention to the study of visual perception. Extensive experimentation has not only determined the importance of visual perception in the general adjustment of the individual to life situations, but the elaborate studies of its relation to reading, to personality development, and to emotional stabilization, have made teachers more and more sensitive to its place in the psychology of learning.

Dr. Charles H. Judd has pointed out the fact that in the treatment of the general subject of perception, "educational psychology has emphasized vision more than any other sense." This is due first to the fact

that the phenomenon of vision is more easily investigated than any other sense, and second, that vision plays so important a part in human experience. Quoting further from Dr. Judd we find that "On the practical side the importance of vision is obvious even to the casual student of human life. The animals depend in a large measure on smell and taste and touch to guide them in their contact with the external world. In human life the three senses mentioned sink into insignificance as compared with vision. The superiority of vision arises in part out of the fact that it is a distance sense, that is, it brings to the individual sensory impressions from remote objects, and thus facilitates deliberate reactions which can be formulated during the approach of the object. Further, the highly differentiated character of vision makes it possible to distinguish qualitative shades of sensation which permit the most minute adjustments of reaction. Hearing is a social sense and permits the developing human being to come into relations with his fellows. But hearing is not a suitable sense with which to explore the physical world, because bodies are for the most part emitting sounds. But all bodies are constantly reflecting light, and hence the importance of vision as a sense is greater than that of hearing."

(2) As to the place and function of visual education in our educational program, we have only to observe the extent to which the subject has received attention from all levels of instructional service. Since the days when Johann Comenius introduced his "Orbis Pictus" on down to the present time educationalists have been interested in the improvement of visual aids in education. Especially during the last century do we find a marked increase in the use of maps, charts, natural objects, models and other visual aids in classroom teaching. The introduction of scientific technic and the laboratory method of instruction have added greatly to the purposeful employment of visual technics. In the study of natural science we have constantly been confronted with the problem of bringing the pupil into personal contact with the thing studied in order that facts may be based upon primary evidence and first hand information. The success of the laboratory method in the teaching of science has been transferred to other fields of school work and the use of visual aids have been greatly extended. As a result of improved pedagogical methods visual aids have gained wider use, included a wider range of materials, and passed from the exclusive use for demonstration by the teacher to use by the pupils themselves. Observation of teaching practice in any progressive school will show a wide variety of use

^{*}Address delivered before the Metropolitan Chicago Branch of the Department of Visual Instruction.

made of visual aids in laboratories, lecture rooms, museums, and general classroom situations.

(3) As to the types of visual aids, the question cannot be answered without attempting to define what may be accepted as a visual aid. In the broadest sense, a visual aid has been defined as "any device used to objectify and thus to clarify the impressions or thought of the learner." This will include anything from a field excursion to the presentation of photographic reproductions by the use of charts, stereographs, lantern slides, or moving pictures. In the literature of visual education we find four types or classes of visual aids, each having a distinct and definite place in the work of the school. These have been designated as:—

- 1—Objects themselves—which are actual, not representative.
 - Sticks, tablets, mechanical instruments, chemicals, plants, shrubs, insects, models, etc.
- 2—Pictorial substitutes—which are representative of the actual objects.
 - Photographs, lantern projections, drawings, etc.
- 3—Schematic representations—which represent only the essential qualities of objects for which they stand.
 - Maps, globes, reliefs, scientific drawings, plans, diagrams, etc.
- 4—Symbolic substitutes—which are not like the objects for which they stand.
 - Graphs, diagrams, curves, outline, stereograms, etc.

It is necessary that the teachers employing visual aids in instructional service shall be conversant with the aids listed and seek to become familiar with the methods to be employed in their use. Nothing is more unfortunate for the advancement of the cause of visual education than the misuse of the devices and materials available in the several fields.

(4) Mention has previously been made of the value of scientific studies in the field of visual perception. Studies by Freeman and others who have followed his line of investigation have served to clarify our thinking and have aided in the recognition of the educational values of motion pictures, and other visual aids in the classroom.

(5) Students of visual education now realize that visual aids must be used with intelligence and in accordance with the scientific findings now available. There must be a definite plan of procedure in the mind of the teacher, and the apperceptive background of the learner must be given careful consideration. The use of visual aids must be preceded by outlines and other forms of preparation to prepare the pupils for the understandings to be developed in the teaching activity. The teacher is still the most important factor.

The adaptation of visual education to typical school situations has been greatly aided through the extension of a knowledge of the character of visual aids, their place in the curriculum, and the values in using them. It has been necessary to devote much time and con-

sideration as well as money to the preparation of visual aids suitable for classroom use. The problem that confronts the teacher is one of selection. Some of the materials offered for teaching service are of inferior quality and not well suited for the work in hand. Methods of distribution are as yet poorly developed. Outlines and aids to study are not carefully prepared. The techniques of classroom presentation are greatly in need of development and refinement. It is thus to be seen that an extensive field of investigation and research is open to students of scientific education.

(6) The value of visual aids is large and the teacher of today has not begun to make adequate use of the resources in this field. Training in the ability to judge pictures and to evaluate other materials of visual instruction is greatly needed. The trained teacher will be able to select and use pictures intelligently. She must be able to determine the character of the picture and the manner in which it shall be used in the teaching period. This point has been well illustrated by an article in *School Progress*, a journal published by The Mankato State Teachers College, May 1932, entitled "The Use of Pictures as an Aid in the Teaching of Geography." The author, Mary Gwen Shaw, calls attention to the fact that "the selection of pictures to be used in a unit of work on geography must depend upon the use to which they are to be put. Pictures may be used in many ways. The following groups and examples illustrate what is meant."

- a. "Pictures may be used to introduce and motivate a new unit of work. A picture showing the flat land, the long, built-up canals, and the windmills of Holland will interest the child so that he will wish to find out why the canals are higher than the surrounding land and what the windmills are for."
- b. "As a part of the assimilative material which a child uses in obtaining the understandings of the unit, pictures are invaluable. It is very difficult, for instance, for the child in Minnesota, without being able to see the various steps by which the industry operates, to obtain an accurate realization of the importance of the banana industry in Central America. The statement that 'frequently within two weeks after the banana has been cut, we have it for breakfast' takes on new meaning when he can see the many processes through which the banana must go during these two weeks."
- c. "As checking exercises during the assimilative period, the use of pictures frequently introduces the play element into the lesson, thus avoiding inhibitions upon the part of some children who are unable to recite or discuss topics to advantage in the ordinary question and answer lesson."
- d. "As a means of testing concepts in geography, pictures can be used very effectively either singly or in groups."

In the use of photographic materials in our own school system, there is a definite sequence in presenting the same to the class. Stereographs, lantern slides, film strips, and motion pictures are employed. The method of use is as follows:

- a. The stereograph and other photographic materials are

used for study purposes during the assimilation periods. Their use is similar to that of a reference book and may be used in the library or in a classroom situation under the direction of the teacher in a teaching situation. Pupils are urged to study the stereograph in detail and ample time is given to meet the variation in pupil ability to grasp and understand impression gained thru the eye.

- b. The lantern slide is used in situations of group review and is frequently placed in the hands of the pupils. This means that the pupils of the class, organized in working committees, select the slides, operate the projection apparatus, frequently prepare the slides by developing original drawings and diagrams, and explain the important understandings developed thru the study of the slide. The lantern slide is a splendid device for the review⁸ of units of work previously studied.
- c. The motion picture is employed as a summarizing activity following the completion of the unit. By its use an integrated experience is provided and the relations of factual material may be observed in a natural setting.

It will be noted from the foregoing statement, that the several types of photographic materials are used with definite purposes in mind. Too often visual materials are presented as forms of busy work for entertainment purposes. It is to be regretted that this practice is so common.

One of the handicaps to the use of visual aids is to be found in the difficulty in obtaining the right kind of material. The Keystone View Company of Meadville, Penn., has greatly assisted in the solution of the problem in so far as the use of stereographs and lantern slides are concerned. Several producers have made available excellent and convenient material on film strips and an increasingly large number of teachers are making use of the same.

It is in the supply of the motion picture subjects where the greatest difficulty is to be found. Service organizations are in a position to supply certain types of motion pictures, many of the subjects having been produced by business corporations for advertising purposes. Some of these studies are valuable as educational subjects, others are of little or no value. We are all familiar with the Yale Chronicles and the new series of 16mm. films available through Eastman Teaching Films of Rochester. The most satisfactory method of film distribution for school work is to be found in the extension service which has been developed in several of the States. The larger cities have been able to organize and support their own film exchange, but the smaller communities must depend upon booking service.

(7) The romance of visual education is to be found in the fact that more and more the world is accepted as a laboratory. This can only be realized to the extent that it is possible to bring the learner in contact with actual world conditions. All pupils cannot travel to discover the knowledge of the world through adventure, but a wonderfully vivid experience is provided through the use of visual aids which brings

the world into our school rooms and within the vision of our pupils. Out of this kind of education there will come attitudes of understanding and appreciation which may break down the deadly provincialism of the present social order. Out of it may come an intelligent interest in world problems, aiding citizens in the ability to rationalize upon the basis of an apperceptive background developed through visual perception.

Douglas Fairbanks, in describing the objectives and something of the technical difficulties incident to his presentation of "The Black Pirate," directs our thinking to the aesthetic values in the motion picture. He concludes with this paragraph: "I suppose I shall always be making romances which run toward the extraordinary and the extravagant rather than the 'realistic' pictures woven out of the homespun of every day life. Not only do I think that the romantic province particularly belongs to the screen, but that in the human mind there is always a flickering revolt against the stifling actualities of life and a desire to escape from them. You can say, if you like, that the real things of life are bread and how to win it, real estate, subway trains and the vicissitudes of domestic life. But I prefer to think they are the dreams we live with."

Upon the basis of the foregoing statement, we as teachers may find in the presentation of the motion picture in the classroom, an adventure in learning which borders close upon romance. It has frequently been reported that the late William Rainey Harper, first president of the University of Chicago, could teach Hebrew in a manner that would make it appear as a series of hairbreadth escapes. The romance and realism of visual instruction when intelligently selected and skillfully presented, will undoubtedly stimulate, motivate, and make vivid the teaching in the modern school. Visual education has arrived. It remains for the teachers to refine and utilize the resources available.

Sciences Demonstrated at Fair

(Concluded from page 155)

called cathode, canal, alpha or beta rays and produce effects which can be seen. Exhibits show luminous effects due to cathode and canal rays in vacuum tubes, also tracks of single alpha rays from radium, and the properties of x-rays which are produced when cathode rays strike a target. Finally a "hodoscope" designed by Dr. Johnson of the Bartol Institute will show the paths of individual cosmic rays by means of flashing neon lamps.

To watch each of the ninety physics exhibits go through its cycle of operations will take a visitor about two hours. In this time, any person will inevitably acquire a better understanding of the fundamental phenomena underlying some of our greatest industrial developments and a fuller appreciation of the debt of our present civilization to Basic Science.

The Versatile Lantern Slide

W. T. R. PRICE

INCREASE in the use of visual aids in our schools has naturally brought about an increase in available material. New pictures, charts, maps, models, stereographs, lantern slides, motion picture films, etc. are constantly being added to the collection.

There is, in fact, such a wealth of material that there has arisen some confusion and uncertainty as to just what visual aid might be best suited to the problem at hand. Some of the material is poor and should not be used at all, while some is well suited to specific purposes and should not be used for others.

A Central Source of Information

In passing, it may be noted that this condition points to the desirability of a central clearing house where visual aids could be listed and information regarding all types of equipment and materials be available. This should not be entrusted to a commercial concern, but should properly be under the control of an unprejudiced authority on visual education.

Certain kinds of visual aids require for their presentation more or less expensive apparatus which may not be within the school budget. Specifically, the motion picture projector, lantern slide projector and reflector come under this head. Wall maps and other visual aids are also often expensive in themselves.

The matter of sufficient funds to carry on an extensive program in visual instruction was a problem presented to Scarborough School at the beginning of the year. It was the opinion of the director that more definite results could be obtained by concentration on some one type of visual material which would cover the greatest number of requirements.

Importance of the Lantern Slide

Among the great variety of materials available for visual instruction, it is doubtful if any one can cover so great a field or lend itself to such varied uses as the lantern slide.

The scope of the motion picture is definitely limited to the portrayal of motion. The still film is limited to those subjects near at hand which may be easily photographed. Charts, maps, and other printed matter cover a limited field of subject matter which is governed more or less by the publishers. Actual objects or models of them cannot always be obtained, and in any case can be made to illustrate only a small part of the ever growing requirements of visual instruction. Within its limitations, each of these mediums has a distinct function in presenting to the student a certain kind of

visual image, and it is not intended to underestimate their value or to assume that any one type of visual aid can be made to answer all purposes.

The lantern slide, until recently, has been limited in its technique almost entirely to photography, and there is available an enormous variety of valuable material of this character. A large proportion of these photographic slides is confined to historic scenes, depicting cities, buildings, ancient ruins, street scenes, interiors, etc. Another large group is concerned with photographing reproductions of objects of art—such as sculpture, paintings, and other material from museums and private collections. A smaller group, but one which is growing with the advance of visual instruction is the photographic reproduction of maps, charts and diagrams. There is also the school-made photographic lantern slide, which is in much the same class as the still film, except that it is somewhat more costly. Where a school is already equipped with lantern slide projection apparatus, this slide is a valuable addition.

It is probable that there is a lantern slide to fit almost any condition where a lantern slide could be used. The procurement of the particular slide, however, may present difficulties. This, again, points to the need for a central clearing house where such information could be obtained from an unprejudiced source.

It may be gathered from the foregoing that the lantern slide covers a wide field of information and that its proper use can be made to fill many of the needs of visual instruction. It was not this assumption, alone, however, which governed Scarborough School in the choice of the lantern slide as a medium of instruction on which to concentrate its attention. Quite recently a new type of lantern slide has come into prominence, and it is this new slide which has appealed particularly to the Scarborough faculty.

The Hand-made Lantern Slide

Here is a medium of expression for the student in which he may share with his fellow students, in a definitely dramatic fashion, his knowledge and his art. The making of a lantern slide and the projection of it on the screen before the teacher and the class carries with it a certain fascination which is productive of unusual effort—not only in artistic technique, but in the accurate portrayal of special study and research which may have been necessary for the accomplishment. The artistic effect of these efforts may or may not be altogether satisfactory from the adult point of view. In either case the study and research have been well worth while, and it is interesting to note that most of the student criticism is constructive and that ridicule of the

artist's efforts is very rarely in evidence. Contrary to expectation, a large proportion of the student-made slides present a creditable appearance on the screen and many are admitted to the permanent collection of the school.

Kinds of Lantern Slides

The following tabulation will summarize the foregoing remarks on photographic slides and indicate some possible subjects for hand-made lantern slides.

PHOTOGRAPHIC		HAND-MADE	
(a) Professional		(a) Pupil-made	
(b) School-made		(b) Teacher-made	
SUBJECTS		SUBJECTS	
(1) Pictorial		(1) Original drawings	
Scenic		(2) Copied drawings	
Portraits,		(3) Tracings	
etc., etc.		(4) Lettered or typed	
(2) Reproduction		(5) Mounted specimens	
Drawings,		(6) Superimposed colors	
Maps,		(7) Anything that may be	
Charts, etc.		painted, etched or ap-	
		plied to lantern slide	
		material.	
TREATMENT		TREATMENT	
Black and white,		Black and white, or	
Tinted		Colored.	

Referring again to the photographic slide, it is patent that many of the subjects treated could not be reproduced effectively in hand-made slides, even by an experienced artist. Their whole value from an educational point of view lies in the accuracy of photographic reproduction. A good photograph of a tiger, Raphael's Madonna or Hong Kong harbor is more convincing than even a very excellent drawing, and these subjects would most certainly present difficulties to the amateur.

While correct representation is desirable and often essential in the pupil-made slide, its greatest value lies in its ability to express ideas.

Some Advantages of Pupil-made Slides

(a) *Opportunity to express and share ideas.* By far the most important pupil-made slide is the original drawing in which the pupil expresses an idea and shares it with the class under ideal conditions. The usual distractions are removed with the darkening of the room and the attention of the class is concentrated on the screen.

(b) *Stimulation to research.* There have been numerous instances at Scarborough where pupils have improved their standing in certain courses entirely through their interest in making lantern slides.

(c) *No extraneous material shown.* In the pupil-made slide it is possible and desirable to present only such information as pertains directly to the subject. This is not always the case in photographic slides which may include distracting elements.

(d) *Drawings are perfected before presentation.* A criticism of hand-made slides has been "Why not

make the drawings on the black-board and save the expense and bother of projection?" The answer is that the black-board drawing is done under pressure. The work is hurried and often unsatisfactory, whereas the lantern slide may be done at leisure and perfected. Also, black-board technique usually comes off poorly in comparison with lantern slide projection.

The Teacher-made Slide

The functions of the teacher-made slide are similar to those of the pupil-made slide; the main difference lying in the better organization of material and improved technique, though slides made by students with artistic ability frequently surpass the efforts of the teacher.

The hand-made slide is extremely valuable to the teacher as a means of supplementing text-book material or other visual aids and covers a range from the simplest pencil diagrams or text to carefully executed maps in full color. It is safe to say that there is no subject in the school curriculum where the teacher-made slide could not be used effectively in specific instances.

Materials Used for Hand-made Slides

(1) *Pencil on etched glass.* The simplest slide is made by writing or drawing on etched glass with a hard pencil. The technique involved ranges from very simple line drawings made by six year olds in the first grade to intricate tracings and original works of art in the high school.

(2) *Black Ink on Clear Glass, Etched Glass, Protectoid, Traceolene or Cellophane.* Waterproof India Ink may with great care be used on glass, but it was found advisable to prepare ink specifically for this purpose. Ordinary drawing ink can be used easily on Protectoid and Traceolene.

Ink drawings are found practical for certain pupils in the fifth grade and higher. Protectoid ("non-flam" celluloid) is by far the most satisfactory medium for ink drawings and is much less expensive than etched glass. This material is available in both clear and etched surfaces. Interesting effects are obtained on etched protectoid by the use of a stylus. The pointed end of a knitting needle may be inserted in a pen-holder or other handle and used as a pencil. The effect produced is similar to that of a black-board drawing, though of more delicate contrast caused by the lighter background.

(3) *Color.* Black and white drawings, while excellent for certain kinds of work, leave much to be desired in many cases. Color is essential:—

(a) where it will aid in contrast or differentiation (such as in maps, charts, etc.).

(b) where it will aid in correct representation.

(Concluded on page 176)

GOVERNMENT ACTIVITIES IN THE VISUAL FIELD

CONDUCTED BY MARGARET A. KLEIN

A Filing System for Visual Aids

(Continued from May number)

V. The Photographic File

PHOTOGRAPHS are an important part of visual education. Especially are they useful in making posters and illustrating compositions.

Photographs and negatives may both be kept in the same file. When a new picture is received, it should be catalogued and one copy mounted on a guide card with the title and index number at the top of the guide card. Extra copies of the photograph should be placed in a large envelope and the caption and index number noted on the outside of the envelope. The negative should be placed in another envelope with the same information on the outside. Both envelopes should be filed in back of the corresponding guide card. The title and index number are noted on all copies of the photograph and also on the negative.

Every photograph should have a caption on the reverse side.

VI. Rubber Stamps

Rubber stamps will save considerable time in a visual education section. I should suggest the following selection as necessary for the proper functioning of the work:

1. Visual Education Division
Rush Center,
Colorado.
2. Collect
3. Shipment received by borrower
4. Returned-Examined-O.K.

Sometimes material is lent to an out-of-town borrower provided he is willing to pay transportation charges both ways. This arrangement necessitates the stamping of the shipping tags with the name and address of the visual education division in the upper left hand corner and the word "Collect" in the upper right hand corner.

When the acknowledgment form is returned to the division, shipping card is stamped "Shipment received by borrower."

As soon as the material is received in the office and examined, both the stock card and the shipping card should be stamped "Returned-Examined-O.K."

VII. Cards Used in the Various Files

For all files except the "material-information" file and the "photographic" file, the salmon-colored guide cards should be used for the main divisions, the blue guide cards for the subdivisions and the white 4 by 6 index cards for the stock cards and the shipping cards.

The regular large sized guide cards should be used

for the materials-information file and the photographic file.

VIII. History of a Loan

The following outline is a complete resumé of a "loan" of visual-education material:

1. Reservation of material made.
2. Reservation noted on shipping card.
3. Reservation noted on stock card.
4. Shipping card filed in "Send" section of the Distribution File.
5. Material shipped on date scheduled.
6. Shipping card placed in "Out" section of the Distribution File.
7. Shipment letter sent to the borrower on same date as the material is shipped.
8. Acknowledgment form is inclosed with shipment letter.
9. Acknowledgment form received from borrower.
10. Notation made on shipping card "Shipment received by borrower."
11. Acknowledgment form sent to central correspondence files.
12. Shipment received in bureau.
13. Examined and report made concerning the condition of the material.
14. If material is all right, shipping card is stamped "Returned-Examined-O.K."
15. Borrower is notified of return of shipment and condition of material.
16. Report of attendance and other information about the material submitted by the borrower is typed on the reverse side of the shipping card.
17. Shipping card filed in the "Closed" file.
18. Notation made on stock card "Returned-Examined-O.K."

With this outline in mind let us make a shipment card so that we might "visualize" the procedure. The shipment card will be made as follows:

1. This is an illustration of how the shipping card is prepared when the reservation is made.

Black, Miss Mary	November 16, 1931
Rush Center, Colo.	

Diet No. 14
Diet Health Habits No. 2
Diet Standards No. 5

Front view

Purpose: Health exhibit in schoolroom
November 23-25
Return date: November 30, 1931

Reverse side

- II. (a) After acknowledgment form is received from borrower.
(b) After shipment is returned and examined.

Black, Miss Mary November 16, 1931
Rush Center, Colo.

Diet No. 14
Diet Health Habits No. 2
Diet Standards No. 5

Shipment received by borrower
Returned-Examined-O.K.

- III. Reverse side of card after transaction is entirely completed.

Purpose: Health exhibit in schoolroom
November 23-25.
Return date: November 30, 1931
Shipment letter and acknowledgment form
11/16/31.
Comment: "The film was shown on three different days to about 1500 pupils. It is a very instructive film."
The posters were displayed in the halls and the pupils studied them carefully.
Report acknowledged 12/2/31.

NOTE: All illustrations on this page are smaller than the cards. Actual size of cards is 4 by 6 inches.

The May issue of the EDUCATIONAL SCREEN contained illustrations of the stock card which, with the

Principal Makes Weekly Use of Talking Pictures

Norman B. Hinds, principal of the Standing Rock Indian Boarding School, Fort Yates, N. D., has established a weekly program of talking pictures in his school. Mr. Hinds worked on this problem in the course, "The Talking Picture in Education," given last summer at Teachers College, Columbia University, by Dr. Max R. Brunstetter of the Research Staff of Erpi Picture Consultants, Inc. The afternoon showing in the schools is followed by an evening program for parents.

illustration of the shipment card and the illustration of the temporary card for the shipping clerk, completely visualizes the entire filing system.

IX. The Temporary File for the Shipper

A small shipping card is made for this file with just enough information on it to enable the shipping clerk to collect the material and to check it when the material is returned. Usually the name of the person to whom the material is being shipped and the list of material is sufficient. To illustrate, in the case of the shipment sent to Miss Black, the following card, 3 by 5 inches, would be made out.

Black, Mary Nov. 16, 1931
Rush Center, Colo.

Diet Film No. 14
Diet Health Habits No. 2
Diet Standards No. 5

After the material is packed and shipped, the shipping clerk files the card in a small filing box. When the material is returned, he takes the card from the box, checks the material and replaces the card in the box for the time being. At the end of the month, the card is useful in reporting the number of shipments, after which it may be destroyed.

The extra card for the shipping clerk is not absolutely necessary as he could use the shipping card in the Distribution File, if he were an intelligent person and reliable enough to be trusted with the cards when out of the file. However, there is danger of the card being misplaced and also of it becoming very much soiled by handling in the shipping room. For these reasons, the small temporary shipping card is much better.

If you have kept the articles from this department, published in the April and May issues of the EDUCATIONAL SCREEN, you will have a complete filing system for your visual education department.

Contributors to this Issue

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DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

Program of Chicago Meeting of the Department of Visual Instruction

July 5 and 6, 1933, Congress Hotel

President, C. F. Hoban, State Museum and Visual Education, Department of Public Instruction, Harrisburg, Pennsylvania.

First Vice-President, F. D. McClusky, Director of Scarborough School, Scarborough-on-the-Hudson, New York.

Second Vice-President, W. W. Whittinghill, Director of Visual Education, Detroit Public Schools, Detroit, Michigan.

Secretary-Treasurer, Ellsworth C. Dent, Bureau of Visual Instruction, University of Kansas, Lawrence, Kansas.

Local Chairman, Paul G. Edwards, Director of Visual Instruction, Chicago Public Schools.

Wednesday, July 5, 9:00 A. M.—Meeting of the Board of Directors.

First Session

Luncheon, 12:15 P. M., Wednesday, July 5

Theme: *Responsibility of Teacher Preparation Institutions for Visual-Sensory Aids Courses from the Standpoint of*

- (a) A Superintendent of Schools—R. G. Jones, Superintendent of Schools, Cleveland, Ohio.
- (b) President of a Teachers College—Albert Lindsay Rowland, President, State Teachers College, Shippensburg, Pennsylvania.
- (c) A Teacher—Miss Elda Merton, Assistant Superintendent of Schools, Waukesha, Wisconsin.

Second Session

2:00 P. M., Wednesday, July 5

I. *What Minimum Realia (objects-specimens-models) May Be Assembled Without Cost or at Very Little Cost to School Districts in*

- (a) Geography—Edwin H. Reeder, Associate Professor of Education, Teachers College, Columbia University, New York.
- (b) Elementary Science—Mrs. Grace Fisher Ramsey, Associate Curator, American Museum of Natural History, New York City.
- (c) Junior-Senior High School Science—Wilber Emmert, Director of Visual Education and Science, State Teachers College, Indiana, Pennsylvania.
- (d) Social Studies—Daniel C. Knowlton, Professor of Education, New York University, New York City.

II. *What Recent Scientific Experiments Show with Reference to Visual-Sensory Aids (A Summary)*—

Frank N. Freeman, Professor of Educational Psychology, University of Chicago, Chicago, Illinois.

III. Discussion

Thursday, July 6, 9:00 A. M.—Visit to the Adler Planetarium, under the leadership of Nelson L. Greene, Editor, *The Educational Screen*, Chicago, Illinois.

Third Session

Luncheon, 12:15 P. M., Thursday, July 6

Presiding: A. G. Balcom, Assistant Superintendent of Schools, Newark, New Jersey.

Theme: *Visual-Sensory Aids and the Economic Situation from the Standpoint of*

- (a) Producers—(A Symposium)
- (b) Supervisory Officials—A. J. Stoddard, Superintendent of Schools, Providence, Rhode Island.
- (c) Visual Education Directors—(A Symposium).

Fourth Session

2:00 P. M., Thursday, July 6

Presiding: W. W. Whittinghill, Director of Visual Education, Detroit Public Schools.

I. *Radio-Vision—Demonstration of a Typical Program*

Directed by Miss S. Naomi Anderson, Field Supervisor, Visual Education, Chicago, assisted by Station WMAQ, Chicago, Dr. William D. Johnson, Principal of Volta School, Chicago, and Miss Florence Evans, also of Volta School.

II. *Relating Visual-Sensory Aids to the Curriculum*

- (a) A Unit of Geography and History, C. C. Barnes, Director of Social Science, Detroit Public Schools, Detroit, Michigan.
- (b) A Unit of Reading—Mrs. Mildred Smith, Principal of Elementary Schools, Detroit, Michigan.
- (c) A Unit of Elementary Science—Miss Mabel D. Vernon, Graduate Department, University of Chicago, Chicago, Illinois.
- (d) A Unit of Junior-Senior High School Science—John A. Hollinger, Director, Department of Science and Visual Education, Pittsburgh, Pennsylvania.

III. *Business Session.*

A MESSAGE

To the National Education Association

From the World's Oldest and Largest Manufacturers of Motion Picture Projectors

It is gratifying that we are to be represented during the Convention of the National Education Association at Chicago, Illinois, in July, and again have an opportunity to show Simplex products to the members of this great organization. The National Education Association, collectively, and its members, individually, have been pioneers in the use of motion pictures for visual instruction and a large part of the progress made in this field has been due to their efforts. Recent surveys now confirm the facts they have acquired through practical experience and we are glad to have this opportunity to recognize the pioneer work of those who have for many years realized the value of motion pictures for educational purposes.

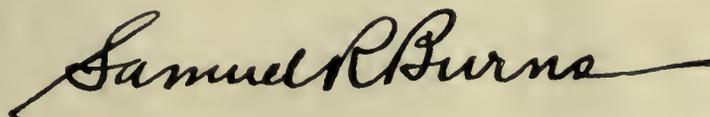
As the world's oldest and largest manufacturers of motion picture equipment, the International Projector Corporation has maintained a commanding leadership since the inception of the motion picture industry. The early users of motion picture equipment for professional as well as non-theatrical purposes to a very large extent depended upon Power's, Simplex or Acme Projectors and we have had some considerable part in the solving of their many technical problems. Although we have discontinued the manufacture of Power's Projectors thousands of theatres, schools, colleges, churches and public buildings throughout the world are still using these machines and protected in their use by our continued manufacture of genuine Power's parts.

In the manufacture of our noted products, Simplex Projector, Simplex-Acme Sound Projector and Simplex Pockette Camera, we continue those standards of manufacture and design created and maintained by this Company during the past quarter of a century. These standards are for your protection. It is unfortunate that so many fail to realize the importance of precision workmanship in the manufacture of motion picture projectors. These men, methods and materials, that so greatly contribute to the reputation we have established, are an assurance that Simplex Projectors will give better projection, are under all conditions more dependable and will give a greatly increased length of service. Simplex Projectors are made to exact standards, comparable only to those used in the manufacture of fine, scientific instruments, and we will be glad to have members of the National Education Association visit our plant so that we may have an opportunity to substantiate the claims we make.

The writer has been connected with this Company, in various capacities, for nearly twenty years and many others have been with us from ten years to over a quarter of a century. The manufacture of motion picture projectors calls for highly specialized knowledge and it is essential to have a thoroughly experienced personnel. Our personnel has the full understanding of the exacting requirements of the manufacture of motion picture projectors and we shall continue to produce and develop motion picture equipment on the highest possible plane regardless of conditions.

With the confidence based upon the facts which you have acquired through long experience and the findings of recent surveys, we firmly believe that there is to be a vast expansion in the use of motion pictures by schools, colleges and all educational institutions. Motion picture projectors are the working tools of motion pictures for visual instruction and we give members of the National Education Association a full assurance that they will receive from us complete cooperation in the splendid efforts they are making to utilize motion pictures as an essential auxiliary in their work.

Cordially yours,

A handwritten signature in cursive script that reads "Samuel R. Burns". The signature is written in dark ink and has a long, sweeping underline that extends to the right.

PRESIDENT

INTERNATIONAL PROJECTOR CORPORATION, NEW YORK

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Interesting Movies at Fair

Educators in attendance at the N. E. A. Convention in Chicago, will have the opportunity of seeing over sixty movie theaters at the Chicago Exposition, according to the Educational Department of Bell & Howell Company, Chicago. These movie theaters range from the theaters of "Hollywood-at-the-Fair" where visitors can witness the making of regular professional movies, to educational and industrial film showings in the exhibits of commercial firms and railroads, and in displays made by a number of U. S. Government departments and several of the states.

For instance, Libby, McNeill & Libby show motion pictures giving a vivid idea of how various of their food products are prepared in different parts of the world. Among other progressive industrial companies using movies at the fair are the Union Carbide Company, International Harvester Company, A. B. Dick Company, Household Finance Corporation, Guide Lamp Company, Kerr Glass Company, Felt & Tarrant, Pittsburgh Glass Company.

The Rock Island and Illinois Central railroads are also showing interesting movies; among the latter company's films are two reels on Mexico, showing every day life and scenery of this picturesque country.

In addition to the film showings by exhibitors there is a daily program of educational motion pictures illustrating the physical and biological sciences in the South Lecture Room of the Hall of Science, arranged by the University of Chicago Press.

Sound Film Experiments and Reports

"Measuring the Effectiveness of Sound Pictures as Teaching Aids" is a detailed report of a comprehensive experiment conducted by Dr. V. C. Arnsperger,¹ Director of Research, Erpi Picture Consultants. This study determined first, the relative effectiveness of teaching with and without sound films and second, the relative importance of the various elements involved in the composition of a film.

Approximately 2400 pupils and 64 teachers in the public schools of five cities participated in this experiment. One-half of the classes, (the control group) were taught by the ordinary classroom methods, their teachers utilizing any visual aids they deemed desirable except the sound pictures. The other half of the classes (the experimental group), as part of their allotted class time, viewed sound pictures, each of which presented in ten minutes a vivid, realistic, and compre-

hensive survey of the unit studied. Instruction for each unit extended over a period of two weeks. Four natural science and four music units were studied.

The superiority of those groups taught with the aid of sound films over those groups taught the same subject-matter without the aid of sound pictures ranged from 18 to 34 per cent in the individual units. For the natural science units combined the superiority was 26%; for the music units combined, 27%.

The specific contributions to learning made by the sound pictures alone were determined by comparing the groups on those test items the answers to which were furnished directly or indirectly by the pictures as well as by the study units. On these test items the experimental or film groups exceeded the control groups by 52 per cent in the case of the combined natural science units and by 31 per cent in the case of the combined music units.

The study also pointed out that the most important elements of composition involved in producing an effective educational sound picture are the proper integration of audio-visual elements, a generous use of the "close-up," excellent lighting of scenes, and judicious repetition. Extraneous factors in a picture, even though inconspicuous, definitely detract from the good effects.

Dr. Arnsperger discusses a number of problems in the field of educational sound pictures which are important for future research. "These problems," he says, "will depend for their solution upon the co-ordination and integration of the work of the philosopher, the sociologist, the psychologist, the student of method, the subject matter specialist, the educational administrator, and the expert sound film technician. It will be through this co-ordination of effort that the educational talking picture will assume its proper position of usefulness in the field of education."



Another study to determine the contribution of educational sound pictures in teaching natural science and music to large groups of pupils is being investigated by Mr. A. J. Stoddard, Superintendent of Schools in Providence, R. I. Fifth and sixth grade classes are being used in this experiment.



Dr. Howard M. LeSourd, Professor of Religious Education at Boston University, is experimenting with the use of talking pictures in a program of character training. He has used a film which presents life situations involving distinctions in moral conduct, as a basis for discussion in groups of young people.

¹ Bureau of Publications, Teachers College, Columbia University, New York, 1933.

FILM PRODUCTION ACTIVITIES

The aim of this new department is to keep the educational field intimately acquainted with the increasing number of film productions especially suitable for use in the school and church field.

Anchor Line Releases Travel Pictures

Two new motion picture films have just been released by the Anchor Line which together provide the first really comprehensive travel film of Scotland available in the United States. The new films are *The Highlands of Scotland* in four reels and *The Lowlands of Scotland* in five reels.

For depiction of scenery and the actual life and customs of Scotland the new Anchor Line films are unequalled. The subject matter of the nine reels includes: Aberdeen, Dunkeld, Killiecrankie, Culloden Moor, Inverness, Strone Ferry, Ben Nevis, Fort William, Pass of Glencoe, Loch Lomond, The Clyde, Glasgow, Dumoon, Cowal Gathering, Melrose Abbey, Edinburgh and other points of interest.

At the same time two additional reels have been released: *Northern Ireland* and *Northern England*.

Those who wish to arrange showings before local clubs, churches and similar organizations should make application to the nearest Anchor Line branch office.

The films are loaned without charge to responsible persons and on certain occasions the Anchor Line will provide an operator and full equipment. All the subjects are available in 35 mm. safety stock, and the Scottish films may also be secured in 16 mm.

Talking Picture Tells Use of Municipal Power

Showing how a municipally-owned electric system generates and distributes power for the stimulation of local industry, *Power and Industry*, a talking picture, has been produced for the Bureau of Power and Light of the City of Los Angeles by Metropolitan Industrial Pictures of Hollywood.

The film has already been given extensive theatrical and non-theatrical distribution in the territory served by the Bureau. During the first three weeks of circulation, the picture was played by first runs and seventeen subsequent-run theatres in the City of Los Angeles, and is now continuing to be shown in neighborhood districts. Also, by the use of portable sound projection equipment, the Bureau is exhibiting the film to group meetings of varied types of organizations throughout the territory.

The picture includes sequences which show the source and creation of electrical energy, construction activity at Boulder Dam, how power is distributed over an area greater than that of any other city, and how electrical energy at low rates adds to employment by encouragement of industry. Scenes were made showing typical industries, such as tire manufactur-

ing, motion pictures, clothing, fish canning, lumber, furniture, oil, and retail and export trade. A descriptive talk accompanies the sequence of scenes.

Game Conservation Portrayed

The Department of Conservation of the State of Minnesota is releasing through Ray-Bell Films, Inc., four new one-reel films on Conservation of Wild Life in Minnesota. These reels are titled *Wild Plumage*, *Nimrods of the North*, *Trails of the Hunted*, and *Fishermen's Fortune*, and contain extraordinary scenes made in the state on various expeditions into the game country. Many scenes are in natural color, employing the Multicolor process. Beautiful color close-ups of the golden pheasant, black pheasant and other species of game birds are shown complete with the story of how wild life is being preserved in the state through the scientific management of the Game and Fish Division. The presentation of the films is made under the supervision of Wm. D. Stewart, the Commissioner of Game and Fish, and are booked through that department. Ducks, deer, moose and fish sequences are presented within the four reels.

Recent Industrial Subjects

From Field to Food is the title of a two-reel educational-industrial film produced by Ray-Bell Films, Inc., for the Minnesota Valley Canning Company of Le Sueur, Minnesota. This film, available in either 35 mm. or 16 mm., is a complete story of the growing and canning processes of peas and corn. The audience is taken through a modern canning factory where one million cases of corn and peas are canned each season by this company. Bookings can be secured through either the sponsor or the producer.

◆ ◆ ◆
DeFrenes & Company have recently produced two films in silent form, which are available for free distribution through non-theatrical channels.

The Full-Fashioned Knitting Machine (2 reels) shows the process of weaving the tiny threads into full-fashioned stockings. The film contains slow motion pictures and animated drawings of the formation of the loops and the narrowing device which gives the stocking its form. *The Home of the Full-Fashioned Knitting Machine* (2 reels) shows all details in the manufacture of the Knitting Machine itself.

They have also just produced a film entitled *Energy* on 16 mm. width with sound on film, but this is for distribution only for specialized audiences in the automotive trade.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

School Executives Magazine (April) "Planning Instruction with Classroom Films," by Dr. George W. Hoke of Eastman Teaching Films, Inc., is a straightforward challenge to teachers. Further, the article presents clearly a specific method of procedure in a given film presentation, together with general conclusions rounding out this presentation. This article should be in every teacher's hands who wishes to use visual material intelligently and constructively.

The Christian Century (May 3, 10, 17, and 24th) Mr. Fred Eastman reports in a series of splendid reviews, entitled respectively "Your Child and the Movies," "The Movies and Your Child's Health," "The Movies and Your Child's Emotions," and "The Movies and Your Child's Conduct," the findings of that inestimable study made under the direction of Mr. William H. Short and his committee known as the Motion Picture Research Council, financed by the Payne Fund. The method of the study made and the wisely formed conclusions from a breadth of viewpoint and a depth of understanding rarely known furnish valuable reading to teachers, parents, and all those vitally concerned with the problems involved.

The author of this series has not confined himself entirely to the material of this research but has, in his comments, included "other sources for data wherever he felt pertinent material of equally authoritative value was available."

Quotation from any one or all of the series would present but disconnected and general commentary, but the editor again wishes to emphasize the importance of the forthcoming volume in school, church and home libraries.

New York State Education (March) Mr. Ellsworth C. Dent, of the Bureau of Visual Instruction, University of Kansas, discusses "The Value and Economy of the Film Slide" in the sixth article to appear in this Visual Instruction Series. Other names for this visual device are "film strips," "strip films," "film rolls," and "picturols."

The advantages and limitations of the film slide are set forth briefly and clearly. It is economical, both in cost of materials and in cost of projection equipment, and offers a simple method for home-made illustrative class material. Many and varied subjects are available from the commercial firms. Perhaps the greatest disadvantage, as the writer points out, is the limited amount of light which may be projected through the film slide. Another limitation is that the pictures are in fixed sequence.

(May) In this issue Mr. Daniel C. Knowlton of New York University discusses "The Motion Picture in Education," the primary advantage of which, he states, is that the element of motion is added to the strictly pictorial element. To appreciate its effectiveness as a teaching medium he suggests the instructor analyze the construction of an actual motion picture designed for school purposes, and cites one of the *Chronicles of America Photoplays* as an example.

Book Review

The latest contribution to the literature of the visual field is to appear this month—a book entitled *The Educational Talking Picture* from the pen of F. L. Devereux, Vice-President of Erpi Picture Consultants, published by the University of Chicago Press.

As modestly stated in the preface, this is a most welcome effort to "present preliminary solutions to some of the more important problems encountered in adopting the talking picture to the service of education." Six chapters deal with the experimentation already done, the fundamentals of production, and some further problems to be solved by future research. The remaining six chapters deal with the practical and effective utilization of film in educational procedures.

The invention, development and perfecting of a new machine may easily be a shorter process than the creation of adequate material for use with the machine. Film production for educational purposes is an extremely complex affair. There must first be organized research in curriculum content and trends and in current teaching procedure; before selection of material, preparation of continuities and the technique of actual production can begin. Throughout the entire process it is essential to integrate and harmonize the activities of the subject-matter specialist, the teacher, the continuity expert and the technician. The best use of such products in classroom is again a matter of continuous research and experimentation in the years ahead, which will in turn react upon and inevitably modify production as it is now operating.

Colonel Devereux's book is vastly informative, not only as to the principles and problems underlying a proper future development of the talkie for schools, but also as to the elaborate activities already under way in the field. He details the steps necessary in building a true teaching film; gives complete working continuities for films already produced and for others planned; describes the teacher's guides that must accompany each film; lists school equipment. In short, the field has here a completely detailed, comprehensive and authoritative treatment of a subject of supreme importance to American education now and in the years ahead—the Educational Talking Picture.

NELSON L. GREENE.

THE FILM ESTIMATES

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

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

Below the Sea (Ralph Bellamy, Fay Wray) (Columbia) Sensational thriller about tragic hunt for sunken gold, with heavy-handed villainy, some thin romance, dull dialog, vapid characters—but also notable under-sea photography and some informational value. Certain thrills too strong for sensitive children.
A—Perhaps Y—Fair C—Doubtful

Black Beauty (Esther Ralston, Alexander Kirkland) (Monogram) The fine old sentimental story clumsily "modernized" by Hollywood. Children will find some interest in animal scenes, but unskillful direction, amateurish plot and continuity, some mediocre acting, stamp it as unintelligent production.
A—Crude Y—Passable C—Fair

Bondage (Dorothy Jordan, Alexander Kirkland) (Fox) Pretended preachment about supposedly fine heroine yielding to ridiculous radio-crooner, an utter cad. Depressing maternity home, baby dies, frenzied attack on matron, insanity trial, freed and salvaged by lawyer hero. Apes "Maedchen in Uniform" but alma at box-office.
A—Hardly Y—Unwholesome C—No

Cheating Blanches (Thelma Todd) (Capital) Twin sisters exchange identity so that one, a successful cabaret singer, can be free to marry and have a child. Subsequent complications include murder. Nobody cares when the silly mess is straightened out. Futile and absurd production.
A—Trash Y—Worthless C—No

Devil Commands, The (Alan Dinehart, Mae Clarke) (Columbia) Successful lawyer, with cultural background, becomes obsessed with mad passion for fiancée of another man—commits two murders, and almost a third—and some really good acting is employed in making the unpleasant mess.
A—Mediocre Y—Decidedly not C—No

Devil's Brother, The (Laurel and Hardy) (MGM) Absurd and hilarious burlesque-opera. Incongruous mixture of Laurel and Hardy nonsense clowning, singing by Dennis King as the romantic bandit-chief-tain, and Italian costumes and settings of centuries ago. Entertainment value uneven, but thoroughly laughable in spots.
A—Good of kind Y—Amusing C—Fair

Diplomaniac (Wheeler & Woolsey) (RKO) Craziest stuff yet from these supposed stars, mostly stale, crude, labored and uninspired. Utter burlesque of Peace Conference at Geneva is central idea if there is one. Bad taste and vulgarity, some conscious but more unconscious, dominates.
A—Absurd Y—Cheap C—No

Eagle and the Hawk, The (Fredric March) (Paramount) Grim, realistic war picture, with natural tragic ending, showing revulsion of glorified aviator-hero to the killing business. Brooding brings suicide for hero. Sex element brief and unimportant. Fine acting by March makes strong anti-war argument.
A—Very good of kind Y—Good C—Too strong

Elmer the Great (Joe E. Brown) (First Nat'l) Crazy farce. Small-town hall-player, impossibly conceited, crashes suddenly into big league ranks. Innocently involved in gambling scandal, he blunders out of jail in time to bat his team to world-series victory and win his country sweetheart. Overacted greatly but often thoroughly funny.
A—Depends on taste Y—Amusing C—Very amusing

Eleventh Commandment, The (Marian Marsh) (Allied) Sensational stuff about desperate efforts of two unscrupulous crook-lawyers to get a fifty million dollar inheritance. Mistaken identities, false heirs, stolen evidence, murder, hokum, etc. Tries to capitalize recent case made notorious in the press.
A—Mediocre Y—Trash C—No

Estimates are given for 3 groups

- A—Intelligent Adult
- Y—Youth (15-20 years)
- C—Child (under 15 years)

Hold faced type means "recommended"

Fast Workers (Mae Clark, John Gilbert) (MGM) Raw, unpleasant mess of artificial thrill, crude sex and loose characters. Heroine a blasé street-walker, hero a brazen, boorish, tough-guy steelworker. Hero's sideline is proving to his dumb pal that there are no "good" girls, which furnishes the "comedy."
A—Trash Y—Pernicious C—No

Fighting President, The (Composite Newsreel) (Universal) Well chosen newsreel shots from career of Roosevelt from beginning of his public life to Presidency. Well edited, good vocal accompaniment, presenting well-rounded and wholesome picture of worthwhile attainment by greatest national figure of the day.
A—Interesting Y—Worthwhile C—Good

Gambling Six, The (Ruth Hall, Grant Withers) (Freulen) Brave heroine inherits sporting father's instincts and racing stables, and at first carries on incredibly well. Finally gambles away her fortune, but marries the "right man" and happiness crowns her futile career. So stupid that it is probably harmless.
A—Stupid Y—Waste of time C—No interest

Girl in 419, The (James Dunn, Gloria Stuart) (Paramount) Police emergency hospital is background for lively action and suspense in gang murder mystery. Beautiful heroine innocently involved. Exposure of murderer and protection of heroine solved by Doctor's assistant through unusual twist at the end.
A—Perhaps Y—Mostly good C—No interest

Hell Below (Robert Montgomery, Walter Huston) (MGM) Submarine-war picture of 1918, notable for good acting and lively action, and decidedly entertaining. Stress of war again accounts for heroine-hero liaison, but romance is rather submerged in tense battle scenes, good comedy and extraordinary photography.
A—Interesting Y—Questionable C—Very exciting

High Gear (James Murray, Joan Marsh) (Goldsmith) Race-driver loses nerve after smash, drives taxi to keep orphaned boy in school, and later regains confidence, of course. Simple, homely little tale, nothing in it outstanding, but with real human appeal and natural interest in racing scenes and boy's school life.
A—Hardly Y—Fairly good C—Good

I Cover the Waterfront (Clandette Colbert, Ben Lyon) (U.A.) Tough, California waterfront, gin-soaked melodrama about smuggling of Chinamen. Young reporter, trading usual insults with his boss in nasal slang, solves problem and wins heroine who is the big villain's charming daughter. Incredible story but some real human values.
A—Fairly good of kind Y—Doubtful C—No

International House (Peggy Joyce, radio stars, etc.) (Paramount) Feeble, far-fetched story about a television invention in China, built to parade well-known names and faces of screen and radio. Vulgar humor and suggestive wisecracks. Heroine has nothing to contribute but the notoriety of her name.
A—Absurd Y—Cheap C—No

Lily Turner (Ruth Chatterton, George Brent) (First Nat'l) More low-life character made heavily impressive by Miss Chatterton. She starts by marrying lying cad who is really a cheap vaudeville mountebank, then on to other lower and more sexy affairs—with happy ending dragged in to end the depression.
A—Hardly Y—By no means C—No

Made on Broadway (Rob't Montgomery, Sally Eilers) (MGM) Smart-aleck publicity expert leaves wife, is tricked by gold-digger whom he rewards by bolting her to Follies stardom. Finally disillusioned, he goes back to worthy wife supposed still to love him. Montgomery's conceited "cuteness" getting tiresome.
A—Hardly Y—Unwholesome C—No

Of All Night (Zasu Pitts, Slim Summer-ville) (Universal) Largely copy of "They Had to Get Married" with added fine work of Laura Hope Crews as dominating mother-in-law who goes with newlyweds on honeymoon. Rather amusing farce-comedy dotted with some suggestive situations and dialog of doubtful taste.
A—Fairly amusing Y—Doubtful C—No

Peg O' My Heart (Marlon Davies) (MGM) Hartley Manners' old play about Irish fisher lass who inherits fortune, goes to England, but finds money does not surely bring happiness. Close sympathy of father and daughter finely pictured. Irish atmosphere and song and dance appealing and amusing.
A—Pleasing Y—Very good C—Fairly good

Picture Snatcher (James Cagney) (Warner) Cagney in a typical role—rowdy, breezy, slangy, ex-gangster who decides to go straight and becomes unscrupulous photographer on unethical tabloid paper. Fast, exciting action involving gangsters, reporters, and police. Some suggestive scenes and usual rough tactics with girls.
A—Hardly Y—Better not C—No

Reunion in Vienna (John Barrymore, Diana Wynyard) (MGM) The clever, highly sophisticated Sherwood comedy carefully and faithfully screened. Holds much of the charm and wistful sadness of the original, even though hero is more Barrymore than Rudolph. Chief fault, that it was first played by Lunt and Fontanne.
A—Good of kind Y—By no means C—No

Song of the Eagle (Charles Bickford, Richard Arlen) (Paramount) Fine loyal German-American brewer loses son in war and faithfully keeps brewery closed until prohibition brings on bootlegging. Repeal of Volstead law and some strenuous fighting beat gangsterism and racketeering. Much human appeal and character value by Hersholt and Dresser.
A—Good of kind Y—Doubtful C—No

Story of Temple Drake (Mirlam Hopkins) (Paramount) Brazen sex exploitation at its worst, showing "well-bred" heroine preferring bestial love of revolting and lecherous racketeer to marriage with worthy hero. Sordid, depressing stuff, still much tamed down from pernicious novel selected for screening.
A—Offensive Y—Pernicious C—No

West of Singapore (Betty Compson) (Monogram) More hectic tropical melodrama about young Englishman developing oil fields, smashing and lashing his way through all obstacles. Various villains and a faithless sweetheart finally drive him back to former mistress. Dull dialog and unhealthy conduct by entire cast.
A—Trash Y—Trash C—No

When Strangers Marry (Jack Holt) (May-fair) Typical, sensational, tropic melodrama about engineer-hero building railroad in fever-ridden East Indies jungle against impossible odds. Heavy villainy, vacuous doll wife, evil-intentioned lover—but grizzling bravado of two fisted Holt overcomes all, as usual.
A—Stupid Y—Possibly C—No

Zoo in Budapest (Loretta Young, Gene Raymond) (Fox) Skillfully made picture about lonely boy brought up in Zoo with animals his only friends, and orphan girl thrown by chance under his protection. Notable photography, charming boy and girl love story, with great human as well as animal interest.
A—Fine Y—Excellent C—Very good though exciting

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

How to Illustrate Hymns With Pictures

H. PAUL JANES

MANY a church service in which pictures were used has failed, not because the pictures were so poor or because they were so crudely projected but because they were not appropriate. Either they did not contribute to the theme of the service or else the leader simply "jazzed" up the service by introducing a number of light songs, cutting out the sermon and putting on some random motion picture in order to "get by cheap." An inexpensive motion picture is not necessarily a cheap one but without intelligent planning any picture may be made to look cheap no matter how brilliant its theme and construction.

In previous articles in *THE EDUCATIONAL SCREEN* principles involved in using pictures in worship have been discussed. Keeping these in mind we may turn to the consideration of specific facts regarding the use of pictures to illustrate hymns.

Hymns selected for a worship service must be appropriate to the theme of the service which, before the hymns are selected, should have been expressed in a picture. This picture is called the theme illustration or picture. It is usually used with the prelude, which is selected to emotionalize it, and with other special musical numbers on the worship program. (See Bulletin 100—Revised. Westminster Press, Phila., 1933)

The Theme Picture guides in the selection of the hymns of which there are to be, let us say, three: adoration, theme and response. The general and specific principles which should guide in the selection of a picture to illustrate a hymn do not seem to vary with the type of hymn, or with its use in a service or with the service in which it is to be used. Years of experimentation indicate only a very few cases where the proper illustration of a hymn was not appropriate wherever the hymn was really appropriate.

Heretofore the principles involved in selecting pictures for hymns have been listed as three general and four specific. In this statement it has seemed more logical to discuss the same principles as four general and three specific. These principles should be memorized by any one who would make the most of his work of illustration.

General Principles

First, *only one picture should be used with a hymn and usually only one slide.* Hymns cannot be projected successfully with motion pictures because either the words will remain too long on the screen or else the congregation will sing too slowly and the words will be on the screen too briefly. Again there are

exceptions. More than one slide has been used with a hymn rather successfully and hymns have been projected by motion pictures. In general this has not been very successful for very obvious reasons.

One of the most distracting features of many filmed hymns is the mechanical method of leading hymn singing. Jumping dots and waving hands have no place in a dignified worship service especially when they crowd out all significant illustration of the hymn—such methods are bad enough when pictures are not used. There are only two known ways to lead the singing of hymns in a dignified service of worship: by means of a choir or a musical instrument such as an organ or piano. In these cases either the musician at the instrument must know how to lead or else the choir director, who has previously trained his choir to sing the hymns, may lead the choir. The distraction of an individual mechanically directing the congregation must be discarded just as the seating of people in their pews during prayer or the singing of a hymn has already been discontinued. Communion between God and man should not be hindered by the introduction of mechanical distractions.

Why only one picture with a hymn—and why only one slide? More than one picture used in the short time of the singing of a hymn is distracting. Hymns are to be sung with meaning, not as vocal exercise. A good picture requires more than a moment of time to deliver its message. Again the elimination of distraction gives us the reason for using only one slide. Four verses can be used on a slide and additional verses are usually tiring. A long hymn is like a long prayer or sermon.

Often a hymn has more than one theme—it should not—and in this case the distracting verses should be eliminated. On rare occasions it is necessary to use more than four verses, in which case two slides must be used. If a dissolving stereopticon is used, then the distraction of shifting slides is eliminated and one slide may be used for each verse if convenient.

Some have complained that words of a lyric of four verses illustrated are too small to read. In that case use a larger screen. Recently a service was held in Second Presbyterian Church, Germantown, in Philadelphia, a church nearly 100 feet long. The words of the hymns were easily read but the screen was eighteen feet wide. Incidentally a motion picture of beauty and brilliance was projected the same distance by a 16 mm. motion picture projector and the picture was over 16 feet wide on a cloth screen.

Second, *pictures used with hymns should have meaning in themselves or when associated with the words of the hymn.* Watt's Sir Galahad might be considered an exception but should not be used unless the story it is associated with is well known to the group singing. Unfamiliar pictures which depend upon unfamiliar stories or legends for their meaning should be avoided.

Third, *artistically good pictures should be used.* No amount of effort will correct the bad impression of a poorly executed artistic idea. Fortunately the feelings will guide in the selection of good pictures. If a picture is not satisfactory to you, do not use it.

Fourth, *pictures of Christ should be used with chronological hymns only—never with a prayer hymn.* Wise men have long since ceased to try to describe God in words. All efforts to picture Deity are just as futile. But it is just as logical to picture the humanity of the Lord as it is to describe it. Words are but symbols. In the mind they stand for a conglomeration of pictures and sounds known as images. The use of a picture of the Deity with a prayer hymn is avoided because: (a) such a picture may limit the conception of the Deity and (b) it may become an image or idol.

With the hymn "Tis Midnight" by Tappan, one might use Hoffman's or Copping's "Christ in Gesthemane." With Croly's beautiful "Spirit of God, descend upon my heart" one can only illustrate the attitude of the singer of the hymn, or perhaps the text.

Specific Principles

Keeping the above general principles in mind let us turn to the specific illustration of a few hymns.

First, we may *illustrate the theme of a hymn.* Take Babcock's hymn: "Be Strong, We are not here to play, to dream, to drift." Obviously the theme is "strength" and there are many beautiful representations of strength among the works of the artists.

Second, we may *illustrate the attitude of the singer of the hymn.* Here one might use Pettie's "The Vigil" with Babcock's lyric, for in the figure of the young man pledging his sword at the altar we see not only ourselves in devotion but ourselves as a strong young man. Thus the theme and the attitude of the singer are both illustrated. Such a happy combination is stronger and more useful than an illustration involving only one of the principles.

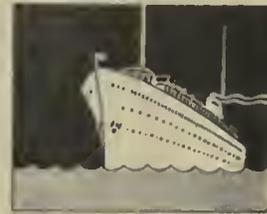
Third, we may *illustrate the text of the hymn.* "Fairest Lord Jesus" (anon) may be illustrated with a picture of a mountain with trees and a meadow full of flowers in the foreground. Here the text is illustrated but also the theme, "beauty." This is far more effective than to illustrate "Where Cross the Crowded Ways" by North with a picture of Wall street looking toward Trinity Church in New York—the scene which is said to have inspired the hymn. And yet the latter picture is effective with the hymn.

These principles have been tested in hundreds of ways and throughout years of careful experimentation. They are not final, of course, but they represent the best we know at the present time.



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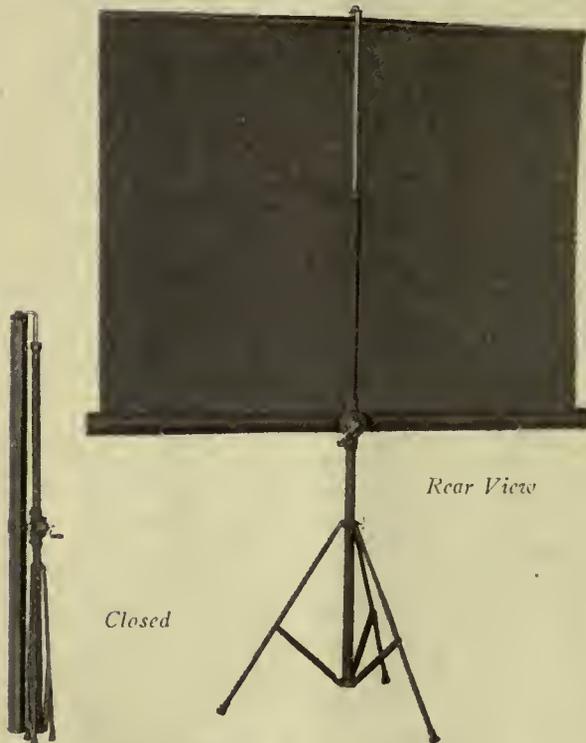
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SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

Director, Scarborough School, Scarborough-on-Hudson, N. Y.

Little Rock's Use of Stereographs and Slides

VICTOR L. WEBB

FOLLOWING a survey of the use of the Keystone 600 and 300 sets of views and slides in the schools of Little Rock, it appears that the following suggestive procedure may lead to their more effective use.

1. *Scopes*—Only a few scopes are needed in each room, from 2 to 5.
2. *Number of Pictures*—Only a few pictures, seldom over five on any one subject being studied by a class, should be available at one time.
3. *Choosing the Pictures*—The pictures may be chosen just as supplementary books would be chosen if they were kept in a library. Choose them at the beginning of the work on the subject, topic or project.
4. The Social Studies teachers have the list of numbers given for each country and other teachers have lists they have made from time to time. It would be profitable to make a list of pictures available for subjects that will be studied during the next month of two.
5. *Presenting to Class*—This will vary just as the presentation of any supplementary material will vary.
 - a. Recommend the pictures.
 - b. Make the pictures a part of the assignment.
 - c. Assign pictures to certain pupils for special reports.
 - d. Place on the reading table, desk, or case with the scopes to be used during study period the same as other supplementary material.
 - e. Train pupils to see what is in a picture.
 - (1) By asking questions.
 - (2) By having observations written down.
 - f. When the pictures are valuable enough to warrant the procedure use them as the basis for the lesson. However, it is seldom that a lesson can be made on a few pictures.
6. Making use of the material by the children—is the same as with any other part of the assignment, or other supplementary material. The pictures in the textbooks are valuable, and should be used as parts of the assignment. Use these pictures the same way.
7. What pictures to use in the auditorium on visual instruction day. The classroom teacher owes an obligation to the auditorium teacher to give her a

list of the slides to be shown. This can be done by a monitor.

8. Discussion of pictures in auditorium. The pictures should be discussed and explained by the children with the help of the teacher. The language on the cards is too difficult for most children. It is wise to ignore them or at least require that the pupils report in their own language. Spontaneous discussion is best anyway.
9. If you have a lantern but no auditorium, use it once a week or two weeks in the classroom showing the slides of the same views as used in the class time.



The College of Engineering, New York University, is conducting an investigation on the value of visual instruction aids, especially 16 mm films, in that phase of the educational field.

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An extensive review of past experimentation, suggestions for future research, and practical help to administrators, supervisors and teachers for setting up local programs of audio-visual instruction.

Illustrated. \$2.00

The University of Chicago Press

Historical Photographs

The two pictures below, greatly reduced from their actual size, are samples from a new series of still-picture sets, designed expressly for teaching purposes in schools. The photographic prints are 8x10 inches, average 15 to a set and are dry-mounted on heavy board to ensure an absolutely flat picture for handling in classes or on reference tables. This feature also makes for maximum ease in filing, economy in filing space, and assures minimum effort in selecting the picture or pictures desired for use on any given occasion. Each set comes in a separate, labeled carton of convenient size and shape for handling or filing.

Technically these pictures are a delight to the eye

School Installs Sound Equipment

The Alamo Heights High School of San Antonio, Texas, has recently installed talking motion picture equipment to be used in connection with the various courses of study. Purchase of the equipment was made possible with the aid of the Parent-Teacher Association of the school. This organization plans to put on Friday night shows, the proceeds of which will help pay for the equipment. Pictures for these entertainments will be selected by a committee to insure obtaining suitable subjects.

of both teacher and pupil. They are the work of Hollywood's most expert photographers, using the finest still cameras to record the finest moments of action and background throughout the entire process of motion picture production. Tens of thousands of such "stills" have been produced in connection with the making of motion pictures from the beginning to date. The critical and painstaking selection, from this vast store of photographic art, of subjects thoroughly suitable for educational purposes, is the task undertaken by Educational Research Studies, Ltd., Hollywood. The sole purpose of the company is to make available to the teaching field picture-material of a quality and range obtainable from no other source in the world.

The crucial point is, of course, the selection of the right material from such a mass. Most of the action and setting of the theatrical movies is of no educational value, to say the least. An examination of the pictures so far issued will satisfy on this point. The merely sensational or striking have been sedulously avoided, close-ups are generally eliminated and no reference whatever to the movie from which the still derives appears on the finished picture.

Four sets are now ready, of about 15 pictures each—*Roman Life, The Westward Movement, The Revolution and Organization of Government, and The Civil War Period.*



Two weeks after the Battle of Brandywine, 1777, George Washington and his army of 11,000 men arrived at Lancaster, Pennsylvania. There, under the great elm tree still standing, he took charge of the American forces. They were raw and poorly armed but they were hard fighters.

Within a year this army was mustered, trained, and had driven the enemy across the river into England. This early success on the part of the colonists led quickly to the declaration of their Independence.

5-AurRev 1940



Fifty wagons in a train made up a large community to be managed. Before a train left Independence, a captain was elected and the caravan was divided up into small units of eight or ten wagons each. Each unit took its turn at blazing the road. The men cut down trees to make way for the large wagons or they filled in gulches. Horses were seldom used, except to be ridden, as five yokes of oxen or a span of ten mules were found stronger and tougher.

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"Well-chosen news-reel shots from career of Roosevelt from beginning of his public life to the Presidency. Well-edited, good vocal accompaniment, presenting well-rounded and wholesome picture of worthwhile attainment by the greatest national figure of the day."

Also

The screen story of Franklin Delano Roosevelt's INAUGURAL. History in the making—the event of the Century, in 16 mm. silent only.

"The Voice of the Vatican"

A one-reel, sound-on-disc, picture showing the high lights of Vatican City, scenes of the Basilica, the new Vatican railway, the governing offices, the Pope's office and incidental departments. You see and hear the famous bells of Vatican Square. You see the Pope, for the first time, meeting the actual ruling head of a government when he greets Mussolini and Victor Emmanuel. The lighting of St. Peter's Cathedral is also shown.

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The Picturol Projector is being used by many schools to supplement oral instruction. Pupils are enthusiastic over this modern method of teaching. Knowledge which passes through the eye is not easily forgotten!

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1. S.V.E. Picturol films ("stills" on film strips) are used with Picturol Projectors.
2. Films projected on screen or blackboard.
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Also S.V.E. motion picture film library available (16 mm and 35 mm width). Films for purchase or rent.

*Let us help you persuade your school board!
Literature on request. Address Dept. 663.*

The Versatile Lantern Slide

(Concluded from page 160)

(c) where it will increase interest or appreciation through better artistic value.

The psychology of color is far reaching and must not be over-looked in Visual Instruction where everything depends upon making an impression on the mind through the eye.

"The human eye loves color. Whether they know it or not, all people react or respond to the influence of color. The degree of this reaction varies greatly—but all are susceptible to its influence. Color has power to attract attention, to stimulate emotion, to cheer and animate, or to quiet and subdue."—(Bonnie E. Snow and Hugo Frochlich in "The Theory and Practice of Color.")

At this point the first serious problem arose in the making of lantern slides at Scarborough. No color could be found that would work satisfactory on glass or cellophane. The Japanese transparent water colors which are so effective on photographic emulsion would not stick to the glass and were not even satisfactory on glass specially prepared with gelatine or other solutions.

The faculty committee on Visual Instruction, after some chemical experimentation, finally evolved a brilliant transparent color which was dubbed "Scarborite." This material in seven colors and white can be used on clear glass, etched glass, cellophane, Protectoid, Traceolene, or practically any surface. It dyes quickly and is easily removed with a special solvent. It is permanently transparent, water-proof and has withstood the heat and light of a 500 W. projector for a continuous period of two hours without disintegrating or changing color.

Scarborite color opened up a new world to the lantern slide makers at Scarborough, and many beautiful slides in full color have resulted.

The superimposed color slides listed under "Kinds of Slides," were made possible and it is believed that this feature may be of practical use in the study of color. Two slides are made with blocks of primary color so arranged that when one slide is moved over the other, the colors will blend. The over-lapping yellow and blue will fade into green, red and yellow into orange, etc.

A successful set of slides has also been made to illustrate the three color process. Three slides were made in yellow, blue and red respectively. These were superimposed on each other in pairs and finally all together, resulting in a finished picture with all of the color shades of a three-color print.

The making and using of lantern slides took on such proportions that the demand for projectors soon became greater than the supply, and it was found that several classes frequently needed the same lantern at the same time. The Director had

expressed a hope at the beginning of the year that each class might eventually have its own projector—and this hope has been almost realized in a period of eight months. There are now fifteen lantern slide projectors in the school. A few were bought new, some used or rebuilt and some were made at the school from stray parts. All of the class rooms are equipped with dark window shades.

Summary

Some of the more important advantages of the lantern slide as a visual aid are as follows—

1. Wide range of material already available.
2. Wide range of hand-made material possible.
3. Supplements many types of instructional material.
4. Induces pupil expression.
5. Induces pupil participation.
6. Dramatic presentation.
7. Ideal concentration.
8. Ease of manipulation.
9. Small storage space.
10. Small cost.

The value of the lantern slide as a visual aid has been forcibly demonstrated to the faculty of Scarborough School during the present school year, and it is hoped that the material presented in this paper may be of benefit to others who are experimenting along similar lines.

News and Notes

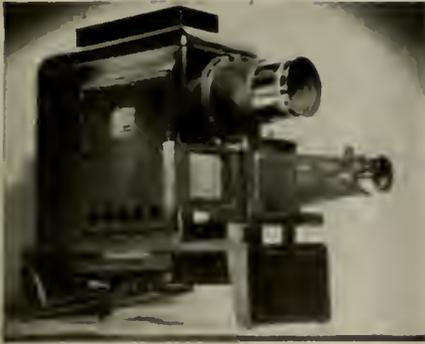
(Concluded from page 166)

Results of the recently completed Harvard experiment with talking motion pictures, sponsored by the Carnegie Foundation for the Advancement of Teaching, indicate that children taught with talking films learned one-fifth more than those taught without films.

The films were supplied by J. A. Haeseler, Director of the University Film Foundation, an organization associated with Harvard University and devoted to the production of scientific and educational motion pictures. Certain films produced by Erpi Picture Consultants were also used.

The study was conducted by Dr. P. J. Rulon, of the School of Education, with three groups of ninth grade pupils equal in previous instruction in general science and in their scores on a standardized test in the subject. One group, the "control group," studied the textbook in the usual manner. The second group, the "film group," studied the same text, but for fewer hours per week, devoting the remaining time to looking at films illustrating the text.

In tests given immediately after the six weeks period of instruction, the film group exceeded the control group in its total score by 20.5 per cent. In tests given three months later the film group exceeded the control group by 38.4 per cent. Dr. Rulon's final report will be published during the year as one of the Harvard Studies in Education.



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many B & L instruments that will enable you to carry out your program of visual instruction in keeping with today's budgets and with maximum efficiency.

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Bausch & Lomb Exhibit at Fair

It is doubtful whether any single group of instruments has contributed as much to the last century of progress in science as have optical instruments. The exhibit of the Bausch & Lomb Optical Co. therefore takes an important place in the Hall of Science at A Century of Progress.

Designed by America's foremost industrial designer, Mr. Walter Dorwin Teague, the exhibit is modern and dignified in its conception. In and on its silver and black cases, pillars and tables will be assembled the most comprehensive display of optical instruments and products ever attempted by any optical company. Some of these instruments will be on demonstration and others will be set up for the visitor to see.

Two particularly interesting features of the exhibit will be huge models of a pair of eyeglasses and a microscope. The microscope, standing 7 feet high, is to be mounted on an attractive revolving platform and will occupy a commanding position in the exhibit. Every one of its parts duplicates in magnified proportions the standard instrument. The giant eyeglasses feature the new Loxit mounting developed by Bausch & Lomb which eliminates the use of screws.

Every division of the extensive B. & L. line of optical products will be shown, including intricate research instruments which never before have been displayed at a public exposition. Not only microscopes will be shown, but also representative types of those many instruments which have played such an important role in the dramatic progress of industry and science during the last one hundred years. Accompanying each instrument will be a card explaining its use, and in many cases photographs of what is seen through the instrument will be shown. Around the back of the Bausch & Lomb Exhibit will be a photographic mural depicting the use of optical instruments in science and industry. There will also be a long panel of interesting photomicrographs made under exceptionally high magnification, which will be of interest to the layman and scientist alike.

In addition to B. & L.'s prominence in the Hall of Science, the Rochester institution will be identified with the Exposition in many other ways. Observation towers in the great Sky Ride, one of the most spectacular features in the entire fair, are to be equipped with B. & L. Telescopes.

Nearly half a hundred of their Coin Operated Telescopes will be located at points of interest throughout the fair grounds. Besides in its own booth where

several Automatic Balopticons will give projected continuous stories of different phases of optical manufacture. Balopticons will also be found in service at many of the booths of other manufacturers and in prominent instructive roles in the exhibits sponsored by both educational institutions and state governments. Photomicrographs, made by Bausch & Lomb instruments, will be found telling the "inside" story in many educational and manufacturers' exhibits.

New Bell & Howell Equipment

The Filmo 70-E, an all-purpose personal movie camera at a moderate price, has just been announced by Bell & Howell. It has four indicated film speeds, 8, 16, 24 and 64, and is equipped with a Cooke one-inch F 1.5 lens and a 216 degree shutter, giving it six and one-half times the speed of ordinary F 3.5 cameras. The super speed feature will be just the thing for football, baseball, tennis, and other sports, and for taking industrial pictures, as, for example, time and motion study shots. It permits taking pictures indoors with a minimum of light, or outdoors at super speed even in poor light. The F 1.5 lens is fine for Kodacolor, also, and is instantly interchangeable with other special purpose lenses.

Bell & Howell has also recently brought out a new Filmo projector, the Model R, complete with such fine features as 500-watt illumination, automatic power rewind, reverse switch for running film backwards, clutch for still projection, manual framer, etc., yet selling in the moderate price range. 300-, 400-, and 500-watt 105- to 120-volt lamps may also be used with this model.



Another development in this firm's line is an attachment for use with a Bell & Howell 16 mm. motion picture camera and any ordinary microscope for taking microscopic pictures. The device consists of a horizontal tube mounting a split-beam prism which deflects about 90 per cent of the available photographic light in a parallel ray, into the regular standard 1" F 3.5 camera lens, which remains set at infinity. The remainder of the light passes up the microscopic tube, set at 160 mm., over which fits a finder-sleeve fitted with a mask which shows the user the limits of the field being photographed by the camera. This reduced amount of light reaching the eye makes it easy to observe the object that is being photographed and to keep it in sharp focus by means of the fine adjustment of the microscope itself. An adjustable camera stand raises and lowers the camera.

Sound-on-Film Animatophone on Market

Victor Animatograph Corporation announces the appearance of the new Sound-on-Film Animatophone. Notable features of this model are its simplicity and its compact arrangement. Threading and operation are no more complicated than with a silent projector. The Sound head is side-mounted on the support base of the projector and occupies a space of only 2½"x4¼"x6". The highly developed amplifier is mounted at the rear of the projector and occupies little space. Auditorium speaker and 50 foot cord are housed in a removable side of the projector carrying case. The entire equipment in carrying case weighs only fifty pounds.

Several optical, mechanical and phonetic features have been developed which have made possible clear sound reproduction and picture illumination. The high frequency range which has been attained appears to be a particular source of pride to the makers.

It is understood that this initial model of the S-O-F Animatophone may be followed with a "Blimp" model, and possibly a combination model which will include the sound-on-disc equipment of the original Sound-on-Disc Animatophone. The Animatophone will run silent as well as Sound film.



Reverse action will be included as a regular feature of the Model 5 Victor Camera henceforth with no increase in price. It is also available to present Victor users. This feature permits the film to be backed up for making lap-dissolves or double exposures. Both feed and takeup reel shafts are power-motivated and equipped with friction clutches. Film action is reversed by means of a hand crank, which facilitates counting of film frames.

A Circulating 16 mm Film Library

Among the unusually rapid growing branches of the advertising industry was its adaptation to radio broadcasting. The advertisers were quick to recognize the unusual advantages gained through sponsoring radio programs and reaching the buying public at a time when it was assembled for relaxation.

Today sponsored 16 mm. films place various educational and entertainment reels within the reach of homes and various groups owning 16 mm. projectors. The Associated Film Libraries, Inc., of Chicago for the past fifteen months have been actively engaged in this field. They have gathered together many fine educational and industrial films and completed the much-needed idea by adding comedies, scenics, sports and other entertaining reels.

The library is sustained by the various advertisers who pay a nominal yearly sum for the care and distribution of their films, and a small fee of \$3.00 per year is charged to each library member.



For Screen Projection

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1674 Broadway, New York, N. Y.

Many of the leading industrials of the country, including such organizations as Westinghouse, General Electric, Atchison, Topeka & Santa Fe Railway, National Carbon Company, and others have taken advantage of the distribution that the Associated Film Libraries, Inc., offer. Public, private and parochial schools as well as many churches, social groups, boys' clubs, etc., are using the service of the Associated Film Libraries, Inc. The time will come when such an organization will be national in scope and distribution will be available in leading cities throughout the United States.

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SEPTEMBER, 1933

VOLUME XII

NUMBER 7

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EDITORIAL

THE Century of Progress—now quite resigned to hearing itself called the “World’s Fair,” as was inevitable—continues to “go over” in a big way. For more than 100 days, at this writing, paid attendance has averaged more than 150,000 people daily. Scarcely two score cities in the whole United States can claim a population as large as the throng that surges avidly and earnestly through the great exposition every day.

As this national tide sweeps thru the gates—day after day, week after week, month after month—what do the clicking turnstiles say? It depends on who is listening. To the private individuals who are the promoters, backers and bondholders of the great project—approximately heroes to have carried through in such times—the turnstiles sing success in getting back a gigantic investment with perhaps a modest interest properly due for use of the huge funds. To the concessionaires who were not too ambitious in the amount of space contracted for, it means a reasonable return on money and hard work expended. To the “eat, drink and be hurried” establishments, from pretentious all-but-cover-charge Casinos down to the redolent hamburger huts that sprout wherever nothing else can thrive, it means real profits despite high rents and hectic competition. To the college boys, toughening their young muscles and callousing their poor feet behind a roller chair or in front of a rickshaw, it means another semester or two at Alma Mater. Yes, the turnstiles sing “dollars,” and happily so, or there could be no “Fair.” But the financial success, fundamentally essential as it was, is only part of the song, the obvious and elementary part.

The great fact proved by the success of the Century of Progress is this: the human race loves “visual education.” It loves to acquire new experience and prefers to get it through the eyes. Seeing is receiving. The Exposition represents the most colossal visualization of the facts and processes of life ever concentrated in one place. Its appeal is primarily to the eyes. This is the appeal that draws multitudes as no other appeal known to man can draw them.

Writers on education are moved more or less often to point out and emphasize the importance of other senses than sight in the learning process. It gives an appearance of greater breadth, keener insight or sheer profundity, perhaps, to stress touch, taste, smell and hearing, for fear lesser thinkers may overstate the case for sight. Yet no array of objects, foods, perfumes, or sounds articulate or inarticulate could ever draw a fraction of the millions that now come tramping from

the ends of the country and the earth *to see*. The deaf come by the thousands, and what they lose in auditory values is perhaps amply made up in missing the roar and hubbub, the loudspeakers and barkers’ bawlings. Total lack of touch, taste and smell might easily prove a blessing to the World’s Fair pilgrims. A smiling little old lady in Chicago—84 years old, deaf, half paralytic, with one hip recently broken—has just completed her third visit to the Exposition this summer. She rides nine miles by street-car to get there, her invalid chair folded up on the back platform. She can scarcely hear, taste, smell or move unassisted, but she loves her Fair. She can see. The one thing that is unknown, the one inconceivable phenomenon among the far-traveling millions visiting the Exposition, is a blind man.

Many are still concerned over “proving” the value of the visual idea by research and experiment. It was proved aeons before research was born, before the human race could possibly appear. When the first little reptiles crawled out of the estuaries and looked out upon the land with eyes, there was incontrovertible proof. Visual education was already working. Without eyes those humble conquerors would never have left the ooze and set forth upon their conquest of the world. The Century of Progress is but the latest link in an unbroken chain of evidence on the incalculable power of the eye in the march up from slime to civilization.

THE beginning of another school year—during which we insist upon hoping for big things from the NRA and the American spirit—is an appropriate time for reminding our readers of a fact so obvious that it is easily overlooked. The fact is this: The subscription price paid by the reader does not cover the cost of fulfilling his year’s subscription to the EDUCATIONAL SCREEN.

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NELSON L. GREENE

Visual Experience and Social Progress

ALBERT E. OSBORNE

IN DEMOCRATIC countries it is taken for granted that the primary purpose of public education is to prepare the young for intelligent citizenship. It is our purpose in this article to consider, in the most general terms, the ills of humanity today; to give some reasons in support of the point of view that a surprisingly large share of these ills is due, not to innate evil or the limitations of human nature, but rather to the fact that we have failed to prepare people for wise and effective citizenship — in other words to the fact that vast possibilities of people generally for interest in and understanding of one another have never been developed. We shall then turn to the work of public education to consider, again in the most general terms, some fundamental reasons why nations have failed and are still failing to develop these vast possibilities of human nature; and finally we shall consider some things that need to be done and might be done in the schools of every nation in order that people may be prepared to act more wisely and effectively as citizens of a common world.

Unquestionably there was never a time in history when so many hundred millions of people were harried with fear, because they feel that the very foundations of society, as they have known it, seem to be crumbling under their feet. Africa is a tinder box; Europe is smouldering; Asia is on fire; revolution after revolution has recently overturned governments in South America; millions of people are out of work in the United States. Could these appalling conditions have been prevented? Can these tremendous problems be solved?

History shows that humanity has never satisfactorily solved the problem of social change. The past is a long ghastly record of revolution after revolution. Can evolution be substituted for revolution? Progress may result from revolution, but always at great and unnecessary cost, not only of material values but also of human life and suffering. Evolution can mean progress with the least material waste and with the least cost in human suffering and death. One writer in close touch with world affairs says, "For the next hundred or two hundred years the world will be in the grip of revolution." (Paul Hutchinson, "World Revolution and Religion.") Students of human affairs say the very structure of civilization is threatened. Are there any outstanding facts about present-day world conditions that might serve to guide us in finding a solution to our tremendous social problems?

For one thing the World War, as well as a continuing series of subsequent events, ought to make us all realize that the world today, largely as a result of the Industrial Revolution, has evolved into one great interdependent industrial, commercial and social organism. As might be expected, therefore, it is being found that with the present world organization of humanity, narrow selfish individualism, whether exhibited by individuals, classes, nations, races, or religions, is increasingly impractical and suicidal. With our remarkably improved means of production, transportation and communication we have rushed ahead in binding the world together into a great network of commercial and other relationships; and yet most of us, grown up in comparatively narrow surroundings, remain predominantly provincial in our interests and outlook. There is much evidence on every hand that this general provincial-mindedness is the main cause of our worst problems and the main hindrance to the solution of these problems.

Some, considering symptoms rather than causes, say that the chief trouble of the world today is over-production. It does appear that with our present day knowledge of the forces of nature and our machine equipment no one need want for food, clothing or shelter, or even for leisure and many of the so-called luxuries of life. And yet there are still hundreds of millions in dire need, and people everywhere who have wants far beyond what they can satisfy. Clearly the trouble today is not over-production. Rather, as has often been pointed out, the main source of the world's ills is to be found in our unsatisfactory and irrational human relationships. While we have developed an industrial and commercial organization that is international in its functioning, humanity is still divided up into a lot of narrow national and other social organizations that are continually competing and fighting rather than cooperating.

Clearly our present interdependent world organization of humanity cannot be run by narrow provincial-minded people. Indeed it is becoming more and more evident that there is today a rapidly increasing and even tragic need for bigger men and women in every nation, men and women of vastly wider knowledge of our common humanity, of vastly wider interests and understanding and sympathy, capable of world wide cooperation. With even a minority of such people in each nation, there is ground for believing that what would now be considered as wonderfully desirable but still impossible Utopias, would become actualities. Many different

panaceas are offered as a cure for the world's ills, but it is not too much to say that a sufficient number of bigger men and women is the outstanding need of the world today, and the development of such men and women is a matter of supreme importance to the world's future.

Can a sufficient number of such men and women be developed? Many think not. Indeed there are prominent thinkers who say that human nature is innately selfish and evil and that therefore the mass of people will always be so self-centered and selfish with relation to class, nation, religion or race, that the old democratic ideal of government of the people, by the people, for the people, is increasingly impractical. Others hold that democracy is impractical because the mass of people have not the capacity for such breadth of interest and understanding as would enable them to solve the world's increasingly complex social problems. Indeed Selfridge, a business leader of England, said recently, "I came back from the United States strengthened in my belief that democracy as a system of government is an absolute failure. It cannot possibly succeed in a great country where there are a great many people . . . I believe that in a hundred or two hundred years there will be no more democracies in existence."

On the other hand, there are other thinkers who insist that the trouble is not due to the innate evil and selfishness, nor to the limitations, of human nature, but rather to people's ignorance about themselves and one another, and to the fact that vast possibilities of human nature for wider knowledge and sympathy have never been developed.

Here then are questions of truly fundamental importance. If humanity hasn't the capacity to solve its tasks, if human nature is innately evil and selfish, if these views of human nature that have been handed down by tradition, and that are held by a materialistic science are sound, then they should be taught to everybody and should be definitely taken into account in the preparation of the young for citizenship. However, in so far as these views of human nature are taught and believed, it must follow that each person's respect for himself and for others must be undermined, and a pessimistic and a more or less hopeless attitude with regard to social progress must inevitably appear. But if there is any real question whether these materialistic and traditional views of human nature are true, then it is certainly important, especially in preparing the young to perform their tremendous tasks of citizenship today, that they should have put before them some at least of the existing evidence that disproves these theories, then, leaving each one free to accept whatever theories of life he prefers.

Thus, youth should have its attention called to

evidence—available even as long ago as Drummond's "Ascent of Man"—that it is not the Struggle for Life, the Struggle for Self, or selfishness, but rather the Struggle for the Life of Others, that has played the predominant part in the development of the various forms of life on the earth. Drummond eloquently set forth the undeniable facts that the most precious product of each vegetable or animal life is for its offspring; that all seeds and grains, nuts and fruits, and milk and eggs are provisions that each life makes for another life than its own. If man is predominantly selfish it would appear that he is an alien in the realm of organic life.

With regard to the often repeated references to man's "beastly" instincts, it would be well to consider the wealth of evidence that Dr. Kropotkin gives in his "Mutual Help," which shows that even though much warfare exists between animal species, mutual help is the prevailing attitude between individuals within species. As one among numberless instances, he notes the action of a herd of deer that arrange themselves in a circle when attacked by a lion, their antlers acting as a protection in every direction. As to man's "savage" instincts, it would be well to consider the wealth of evidence showing that mutual aid rather than selfish struggle is the predominating trait between individuals within primitive tribes or clans. Scientific investigation reveals, to use Dr. Kropotkin's words, "that though a good deal of warfare goes on between different classes of animals, or different species, or even tribes of the same species, peace and mutual support are the rule within tribe or species; and that those species that know best how to combine, and to avoid competition, have the best chances of survival, and of further progressive development. They prosper while the unsociable species decay."

Certainly there are many weighty reasons for denying the oft expressed statements that our vast social ills are due to the innate evil and the limitations of human nature. And if human nature is not innately evil and predominately selfish, it is of first importance that people the world over should know it. The general recognition of this truth must be an important first step if people everywhere are to substitute helpful co-operation for destructive competition and war.

Here then, on the one hand, we have the world's really tragic need for bigger men and women, big enough to understand and cooperate with their fellow human beings everywhere; and, on the other hand, millions of people everywhere with vast possibilities, as many authorities believe, for sympathetic response to such understanding and cooperation. Why then have not more of these possibilities been developed? We believe an investigation that is within the reach of any ordinary citizen will

show that the mass of children and adults always have been and still are mentally and socially starved, with all the dwarfing of humanity's larger possibilities that this mental and social starvation entails.

Here is a question that ought to interest every citizen and every parent, especially every mother. What an astounding amount of activity and effort on the part of society is put forth in providing for our physical needs—particularly by mothers in seeing that the physical needs of their families are provided for. And yet it is an elementary truth that these bodies have no value apart from the minds and spirits that develop in connection with them. It follows therefore that this immense effort in providing for bodily needs will be wasted if the needs of the mind and spirit are overlooked. How vitally essential it is that every citizen and parent, especially every mother, should give more concern to the needs of the mind and spirit.

It is not hard to understand why these questions have in the past failed to receive anything like the attention their vast importance deserves. First of all, it is natural for man to look out before he looks in. Thus it has often been pointed out that man's first science was the science of the stars. That is where man got his first ideas of law and order in the universe. Then he developed his science of the earth, geology; his sciences dealing with vegetable and animal life, and his various sciences leading to the control of the forces of nature. Finally man's scientific interest turned within. Thus man's latest and infant sciences are about himself and his fellows. And yet it is predicted that the development of these human and social sciences will mean far greater advancement and blessings for humanity than has the development of our natural sciences, which have revolutionized life for large portions of the earth during the last 150 years. There certainly are cogent reasons why every citizen, especially every father and mother, should give careful attention that will show, we believe, that the mass of children and adults always have been and still are mentally and socially starved.

Now, in making this investigation, it will be well to begin with the child, and with this fundamental fact about every child—that physically, mentally, morally, as well as spiritually, he grows entirely from within. Immediately growing out of this truth, we find several fundamental truths about children's and people's development and education, about the development of their interests and understanding and sympathy, the development of their attitudes of suspicion and fear, their prejudices and hates—truths that are more or less evident from experience and that have been pointed out by educators for generations.

(1) No teacher ever transfers anything he has in

his mind into the mind of the child or adult as we transfer any material object from one place to another. One authority states the case thus: "All that is possible is to occasion the proper act of knowing. No error in teaching has occasioned more bad work than this assumption that knowledge can be transferred from one mind to another."

(2) How does the child or adult put anything in his mind? Does his mind just spin ideas out of nothing or grow in some magical way? No, his mind is like his body in being dependent primarily on food or building material—his mind builds anything and grows only by the use of raw materials or food that must be supplied.

(3) Where does the child or person get his food and building material of the mind? The answer stated over and over in books on education is that his food and building material is supplied by, or in connection with, our *sense experiences*,—experiences that we build up in connection with impressions made on our special sense organs of touch, taste, smell, hearing, sight, or in connection with our more general bodily sensations. While there is not space here to show in detail how these *sense experiences* provide mental "foodstuffs" or building material, yet scientific investigation has revealed that these experiences are just as primary a necessity for the growth of a person's mind, for the development of his knowledge, interests, understanding, sympathy, etc., as is his physical food a primary need for the growth and activities of his body. Perhaps we can get a suggestion as to the necessary importance of these sense experiences, if we remember that in this life we are embodied spirits and must always have a nerve and body state as an accompaniment of every mental state. Every mental state must involve a body state. In fact every mental state is really a "body and mind state." To try to build up the mind without building up or providing for the appropriate nerve states is like trying to build the second story of a house without building the first.

(4) We have noted that a child must build his own mind or whatever he has in his mind. Does he have much of a building job? He has to build nothing less than a world. Each person must build his own world of nature and humanity. Moreover his attitudes and acts will always be in accordance with or a reaction to, what constitutes *his world*,—this inner world he has built or is building. Indeed this inner world really constitutes his life. Other things being equal, in so far as a person's inner world is a limited or distorted duplicate of the outer world, in so far as will his life, the range of his interests, knowledge and understanding, be limited and distorted.

(5) Does nature give us any definite evidence as to the extent of each child's and person's needs for

sense experiences — these experiences that must supply the mental food or raw material out of which each must build his inner world? As all know, nature gives everyone a ravenous appetite for sense experiences. The child is impelled continuously to touch, taste, smell, hear, see, everything within his reach. Not only does the child try this with his immediate environment, but to satisfy his eager desire to see, every child should go around the world again and again with his parents and teachers, if possible. That is, we should note particularly that every normal child or adult has an eager appetite for a world range of sight experiences.

Now it can be taken as a matter of course that our various senses are of varying importance in helping us to build these inner worlds. We can only take space to state here what is generally recognized—namely, that by far the most important of our senses for this purpose is our sense of sight. Indeed in the use of this sense we have a really remarkable means of obtaining, with the least expenditure of time and effort, the widest range of accurate knowledge of the outer world of nature and humanity, of securing attention and arousing

dormant interests. And as we consider the immensity of the task involved if people generally are to build within themselves worlds that are approximately adequate duplicates of the outer world, we realize the need of enabling people to utilize this sense of sight as widely as possible. In fact, it is to be noted that while most of our needed experiences of touch and taste and smell may be gained in the home environment, with respect to the sense of sight every normal person has not only an eager appetite for, but a need for, a world range of sight experiences.

Finally, therefore, it ought to be clearly evident to anyone, as he thinks about it, that no child or adult has ever gotten or is getting today more than the merest fraction of the sight experiences of nature and humanity that his eager appetite craves. The need of satisfying the physical appetite that nature gives has never been questioned. Tremendous efforts have always been put forth in satisfying man's physical appetite. But this mental appetite has always been very largely ignored. In other words we find that with respect to the especially important experiences of sight, humanity has always been, and still is, mentally starved.

(To be continued in October)

Polynesian Puzzles In Visual Education

GORDON P. MILLER

DEMONSTRATIONS of American health films —which is the better method of teaching a primitive people good health practices?

This question is believed to have been solved by Benjamin O. Wist, dean of the University of Hawaii Teachers College, and Robert M. Faulkner, principal of Kawanakoa Experimental School in Honolulu. Dean Wist and Mr. Faulkner arrived at their conclusions after spending three months in American Samoa carrying on a teachers institute, which was under the direction of Dean Wist. The institute was sponsored by the Barstow Foundation which is interested in the advancement of the Samoan people.

The Samoan islands are formed by the peaks of a submarine chain of volcanic mountains and are located 2000 miles south of Honolulu on the route to Australia. The largest islands of the Samoan group, Upolu and Savaii, with several smaller islands, were mandated to New Zealand following the World War. American Samoa lies to the east of the mandated islands and comprises Tutuila and the Manua group. American Samoa has been governed by the Navy since it came under American control more than 30 years ago. In 1930, the population was 9876 persons, exclusive of the navy personnel. The people of Samoa are of the Polynesian race, believed by many anthro-

pologists to be an offshoot of the Aryan race. They raise yams, taro, and copra, and they fish within the reefs that surround their islands.

Outwardly, the natives are Christians and observe the rituals of their religion very strictly. Both the Catholic and Protestant faiths have followers in the islands. One village of 300 Protestants built a church at a cost of \$32,000 because a neighboring village of Catholics had erected a church costing approximately \$25,000.

Dean Wist and his party, which included William McCluskey, associate professor of Education in the University of Hawaii Teachers College, left Honolulu on the Monterey November 24, 1932, and arrived in Pago Pago five days later. Early in December, they opened the institute in Poyer School, across the bay from the Naval Station at Pago Pago.

Poyer School is the largest school in Samoa and the only one housed in a concrete building. It has three rooms, including an assembly room with a seating capacity of 200 persons. The concrete structure is supplemented by a frame building of two rooms and a "grass house." Samoan "grass houses" consist of frames of wood from the breadfruit tree, thatched with sugar cane or pandanus leaves.

Mr. Faulkner was in charge of agricultural, public

health and visual education. He took with him all the available health films in the film library of the University of Hawaii extension division, including films dealing with bacteria, the blood, breathing, circulation, circulatory control, digestion, diphtheria, living cells, posture, sewage disposal, tuberculosis, the skin, food and growth, and water. The films dealing with living cells and posture were not shown because of lack of time and facilities.

When the party arrived at Poyer school, it found that the school was not equipped with electric lights and that the pictures could not be shown there. This necessitated negotiations with the naval authorities for the use of the Naval Station theater and boats to transport the teachers across the bay. In view of the complications, it was thought best to show all of the films in three evenings. This precluded a comprehensive introduction and a discussion immediately following individual pictures.

On the first night, the 64 teachers and potential teachers attending the institute, the high or talking chiefs, and naval officials gathered at the theater to witness the showing of pictures on tuberculosis and sewage disposal. "The Virgin of Tau," a picture of Samoan life, taken by the late Frederic Duclos Barstow, Jr., was also shown.

The Samoan teachers, who witnessed the film, have an eighth grade education and receive salaries of from \$15 to \$40 a month, which is a large sum in Samoa. They sat in respectful silence while the health films were being shown. When "The Virgin of Tau" was shown, they laughed loudly and clapped their hands because the navy operator ran the pictures so fast that the dances shown appeared to be burlesques.

In spite of the hilarity with which the teachers greeted the film, the talking chiefs objected to having the film shown again. Their objections were that a half cast possessed a "Malietoa" name, a name possessed only by very high chiefs, and that a lesser chief had refused to give his daughter in marriage to a Malietoa. To them, the refusal of the girl's hand to a Malietoa was inconceivable.

Although the problems of tuberculosis prevention, and sewage disposal are very important in Samoa, the films had little value other than to impress upon the people the intricate devices used by highly civilized countries in helping to eliminate the problems. The films were too technical to be applicable to primitive conditions.

The tuberculosis film showed a huge sanitarium with rows of immaculate beds, children soaping themselves and washing in spotless lavatories, and other children drinking milk. The lessons taught by the film are impractical in Samoa. Samoans do not have beds. They cannot afford sanitariums nor running water in their grass houses. The only water in their homes is in a drinking pail, which is often accessible to the family dog. Milk is unobtainable, for American Samoa is

not suited to dairying and the only herd of cows is owned by the Navy. The milk is for the use of navy personnel.

The film showing sewage disposal pictures a disposal system built at the cost of several million dollars. The picture showed the passage of sewage down drains, through large water mains and into an elaborate plant, where it was sprayed with chemicals and eventually turned into fertilizer.

Such a system of sewage disposal can be nothing but a dream to Samoans for decades to come. Many Samoan villages do not have even a toilet of the crudest sort. The Samoans wait until night, when they visit the beaches to relieve themselves of bodily waste. Later visitors to the beach often contract hookworm from contact with the excreta. With a people in such a primitive state of development, only pictures of very elementary systems of waste disposal are practical.

On each of the two other evenings, five films were shown. They were run through without a break and with only a brief introductory talk. One of the most practical films dealt with the care of the skin. It showed magnified pictures of the pores, how the pores become clogged, and the skin troubles resulting from uncleanness. Because the film was easily understood and because skin diseases are common in Samoa, the picture was much more effective than any of the others.

The discussions which occurred in the institute on the days following the pictures indicated that the teachers had been interested in the films but had learned few of the primary lessons taught by the pictures. For instance, some of them copied and memorized the statistics regarding deaths caused by diphtheria in the United States but failed to notice any principles applicable in Samoa.

Dean Wist and Mr. Faulkner recommend that persons intending to use visual education among primitive people (1) equip themselves with a portable generator, (2) preview all available films and choose only the most elementary, (3) prepare talks designed to adapt the films to local conditions, and (4) show only one picture or two closely related pictures at a time.

Actual demonstration is a method of visual education much better suited to similar situations than is the use of the motion picture, according to the two educators. Their experiences with the use of demonstrations in teaching agriculture and health practices, such as artificial respiration, showed that demonstration was by far the most effective means of teaching. An oral description of the process of artificial respiration made little impression on the Samoans but, after witnessing a demonstration, they were able to perform the operation faultlessly. Because of the relatively low cost and the high flexibility of the methods of actual physical demonstration, Dean Wist and Mr. Faulkner believe that it is the most efficient means of educating primitive peoples.

Statistics For All

The Fact Picture from Vienna is a Significant Visual Aid

MARGUERITE E. SCHWARZMAN

THE CLEVER teacher is continually on the lookout for new devices to vitalize knowledge. She knows that the written word does not suffice and that visual aids make a more lasting impression. Progressive educators have gone further by insisting that experience is the best teacher and have been stressing activity programs. Briefly our educators have tried to make more indelible the funds of human knowledge which is increasing

need to be lifted out of the mass of confusing detail and must be interpreted in terms of human interest. (Fig. 1) The average mind can grasp and remember only a few details at a time and these must be made impressive.

Upon such fundamental principles, Dr. Neurath has based his fact pictures. He has effectively succeeded in "selling" rather tedious information and data. The original method of interpreting figures—and the most familiar one until recently—was the curve and trend line. These will never be wholly indispensable. Later attempts at popularization resulted in symbols representing larger or smaller areas. It became easy for the observer to distinguish between the two but it was quite impossible to determine exactly how much larger or smaller the quantities were. Exact figures scrawled either on, over or under the inexact symbols did not make the image more vivid. On the contrary.

One of Dr. Neurath's basic principles is to represent a larger number of objects by a larger number of symbols. To facilitate easier comprehension and

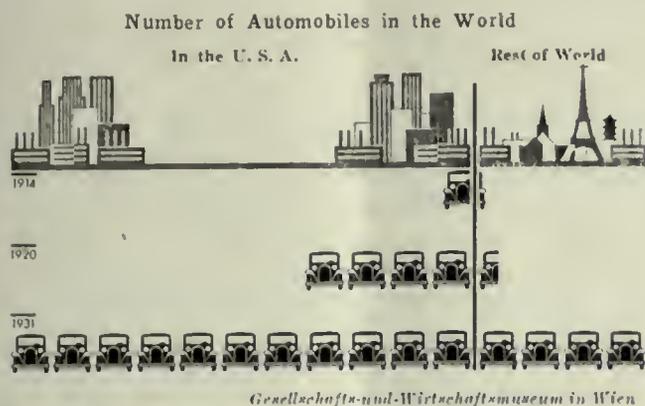


Figure 1. Each car represents 2,500,000 automobiles.

from year to year and are devising new techniques to make factual information as real as possible.

From Vienna comes a device which is both important and unique in the field of education. It is not merely a new form of illustration supplementing the printed word. It might easily take the place of text to a large extent. Dr. Otto Neurath, director of the Social Economic Museum of Vienna, has been working for ten years to perfect his pictorial statistics or fact pictures and his 'Vienna method,' as it has been called, has been receiving recognition in important educational centers abroad. His brief American visit in January gave educators in the metropolitan area of New York their first close contact with him and his work. They caught the spirit rapidly.

Dry statistics are not everybody's forte, yet comparative facts and figures undeniably play an important part in modern life and education. A tremendous amount of information is hidden in cumbersome lists of figures and the statistician is justly enthusiastic. What the statistician however usually fails to understand is that most people do not see the forest because of the trees. Essentials

Rural and Urban Population in Germany

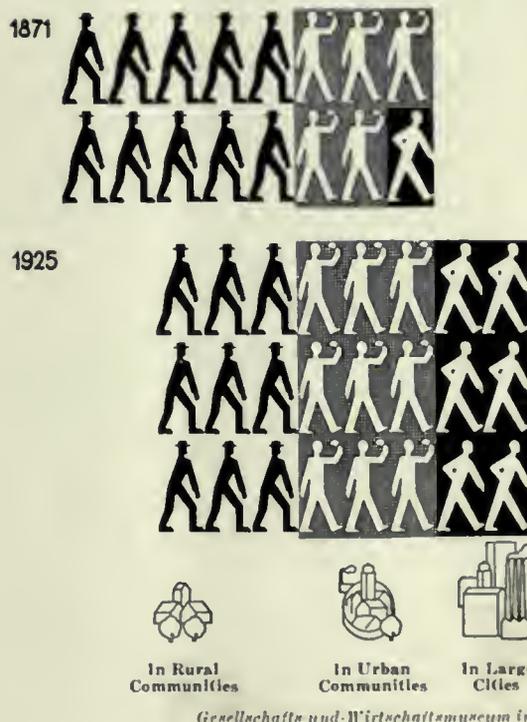


Figure 2. Each figure represents 2,500,000 persons.

Rubber Production of the World and the U. S. A.
(Yearly average before the crisis)

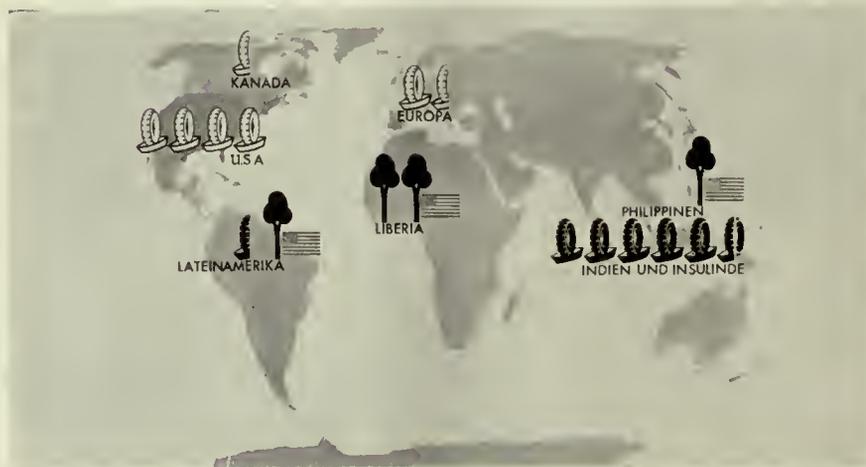


Figure 3.

Gesellschafts-und-Wirtschaftsmuseum in Wien

Each solid tire—100,000 tons of wild or cultivated rubber exported.
Each outlined tire—100,000 tons of wild or cultivated rubber imported.
Each tree—plantations under control of U. S. A. which will produce 100,000 tons of rubber a year after 1935.

stimulate interest, he chooses symbols that 'talk'. These are not just squares or circles which might mean anything: Indians living on government reservations or sugar imported from Cuba. The symbols must be carefully chosen so that they are universally recognized and, if possible, can be easily reproduced. This is important for schools since pupils, particularly in the lower grades, can produce their own statistical records.

Such fact pictures are so simply constructed that a young child can easily transform comparative data into graphic statistics by using symbols in rows of rectangles. The little Viennese girl who tells, by a "fact picture," the story of how her classmates spent their Sunday is becoming equipped to understand and interpret more complicated data and statistical facts later. Incidentally Dr. Neurath has found that young children make simpler and better symbols than most older children and adults.

The typical bar chart which is familiar to us all—and is generally not over enticing—becomes interesting when turned out by Dr. Neurath's workshop in Vienna. There is real life in the buoyantly shifting German population from rural to urban communities. (Fig. 2) Such a chart invites closer inspection and stimulates thinking. In fact, tests in the Viennese schools have shown that information conveyed by a fact picture is two and a half times more retentive than by reading alone.

It is evident that the average person, both child and adult, needs help to remember and in each Neurath chart only these elements are shown which are essential. Primary facts shall be of

prime interest. If the story of rubber production and distribution is to be told, the map merely indicates localities and, therefore, a blocked-in contour map suffices. In Figure 3 a detailed world map would deflect attention from the main point to be stressed, namely that the lack of planning in the rubber industry will result in another crisis after 1935.

There is ingenuity in these charts, you will grant, and the field for their application would seem limitless. In a colorful German edition of 100 charts* the versatility of these pictorial statistics is remarkably shown. These charts range from historical maps to data pertaining to the economic breakdown of our era. Few subjects of human knowledge are totally neglected. A similar series translated to the present needs of American

education would seem highly desirable. There is a great quantity of essential information which has not gotten across to the present generation, we are told. Might not attractive pictorial statistics assist in presenting an overview in many fields of learning?

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FILM PRODUCTION ACTIVITIES

The aim of this new department is to keep the educational field intimately acquainted with the increasing number of film productions especially suitable for use in the school and church field.

New Rental Plan for 16mm Sound-on-Film

Arnold Audio Associates, New York City, are arranging a rental distribution plan whereby it will be possible for schools, churches and other educational institutions to secure educational 16 mm. sound-on-film pictures in the 36 key cities of the United States.

The library includes such subjects as: *Puss in Boots*, a 4-reel musical film version of the fairy tale; *Out West*, a scenic musical poem; *Jungle Babies*, *Some Wild Appetites*, wild animal studies; *Trail of the Lonesome Pine*, a picture of Tennessee; and the following travelogues, *Sightseeing in New York*, *Canal Gypsies*, *Land o' Burns*, *Rock of Gibraltar*, and *Ancient Rome in Africa*. The series of Organlogues, particularly the reel on *Stephen Foster*, should prove valuable for musical study in schools.

16mm Films of the World's Fair

A series of 16 mm. films of exceptional interest are the Chicago Century of Progress subjects being distributed exclusively by Bell & Howell. The films were made by Burton Holmes, Inc., official cinematographers for A Century of Progress Exposition. Representing weeks of intensive work, these films include many scenes difficult or impossible for the personal movie maker to produce himself, and so are very desirable for splicing in with one's own scenes of the Fair, as well as for use just as they are.

A list of the films now available shows the wide variety of subjects covered. Other special subjects are being added as rapidly as they can be filmed and edited. The titles of those now obtainable are: *Around the Fair with Burton Holmes* (available in either 100 or 400 feet); *Opening Day Ceremonies*, *Streets of Paris*, *Indian Village*, *Wings of a Century*, *The Lama Temple*, *The Belgian Village*, *Enchanted Island*, and *The Fair at Night*—all 100-foot subjects.

Two New Natural Science Films

Erpi Picture Consultants, Inc., has completed and released two new educational talking movies as a part of its Nature Series. These are available in silent form also, 16 mm. or 35 mm.

Animals of the Zoo gives a splendid opportunity to see not only the animals themselves, but the different kinds of food they eat. For some of the animals the zoo has produced the conditions of their native homes.

Aphids deals with a little known but interesting creature. It shows that most aphids have no fathers or even grandfathers. Some are born alive, while others hatch from eggs; only a few have wings. Ants

keep them as cows, while the aphid itself secures its food in an unusual way. These scenes are supplemented by an animated drawing of the aphid's life cycle.

Industrial Releases

The Minimax Company, Chicago, has a new one-reel 16 mm. film entitled *Why I Use Minimax*, which tells the story of dental alloy in an effective manner, showing various steps in the manufacture of Minimax Alloys, and the laboratory procedure in testing their properties for compliance with Federal and American Dental Association Specifications.

The Oyster Industry in the Northwest, a 16 mm. motion picture produced by the Motion Picture Service of Seattle for Padilla Oyster Beds, shows the new oyster industry of the Northwest. Its running time is 30 minutes.

Films of Commerce, Inc., has recently completed two silent films on cotton which may be secured free of rental charge in either 16 mm. or 35 mm.

Cotton Textiles shows the growing of the crop and its manufacture into yarn, cloth and blankets. Spinning and weaving processes are portrayed by animation. This subject is particularly suitable for use in junior high schools. *Cotton* is a shorter version of the subject made for use in the elementary grades.

In the Dough is the title of a one-reel 35 mm. sound-on-film production being distributed by Standard Brands, Inc. It tells the history of bread making and emphasizes the scientific research behind the process.

Two Timely Short Subjects

Metro-Goldwyn-Mayer has recently issued *Inflation*, a striking short feature, which describes present-day economic trends and possible developments. The production was supervised by Dr. Gordon Watkins, Professor of Economics at the University of California in Los Angeles. The movements of the business cycle during prosperity and depression are illustrated with scenes and graphic charts to show the average citizen what has happened to his dollars.



A special two-reel film, entitled *The New Deal*, has been completed at the Vitaphone studio. Its purpose is to stimulate interest in President Roosevelt's recovery program and should be good material for non-theatrical showings.

Vivid scenes depict the reviving effects of the bank moratorium, the economy act, the return of beer, the farm relief and inflation bills, the Tennessee Valley

(Concluded on page 204)

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Visual Pioneer in New Field

Mr. H. W. Norman, formerly director of visual instruction at Indiana University, is now in charge of the new Hammond-Whiting-East Chicago Extension Center of Indiana University at the Roosevelt High School, East Chicago. His position at Bloomington has been taken by Ford Lemler, his former assistant.

Mr. Norman still retains an intense interest in the development of the visual field, however, and is offering a course in Visual Education, which will embrace a study of types of equipment and visual aids; methods and experiments in their use; technical and administrative problems.

The Center will also serve as a clearing-house for visual aids for school and community.

New Safety Lantern Slides Available to Schools

Two new series of lantern slides, one designed for the high schools on "What Price Accidents" which includes 35 slides on motor vehicle accidents and the other a series of 81 slides on street and highway safety, home accidents and safety in play and recreation have recently been prepared and are available for free distribution in the schools. The first set was prepared jointly by Dr. Herbert J. Stack of the National Bureau of Casualty and Surety Underwriters and the Travelers Insurance Company of Hartford, Connecticut, and the second set by the National Bureau through the Alletta Laurence Clarke Safety Memorial. Both sets of slides are accompanied by lectures and stories to illustrate the slides.

Schools may loan these slides without cost from the home offices of these companies or through State Departments of Visual Education.

Bureau of Mines Film Showings Increase

The Bureau of Mines of the United States Department of Commerce reports that for the fiscal year ended June 30 it received 34,638 requests for prints of non-theatrical films. These were shown to a total attendance of 2,995,898 persons. During this period there were 2,104 reels in the Bureau's library for circulation. The survey states that the demand for the Bureau's films has increased greatly during the past year and that the library is booked for two and three months in advance.

"We have received reports from heads of colleges stating that owing to economic conditions it was

impossible to take the student bodies to visit the mines, steel mills and manufacturing plants of the country and that they were using our films to advantage as a substitute for these trips," said M. F. Leopold, supervising engineer of the motion picture production section.

During the fiscal year just ended the Bureau's cooperators contributed approximately \$40,000, which was used for the revision of films and for additional prints.

Free Monograph on Making Medical Films

Physicians and surgeons who are interested in making medical, surgical or other scientific films will welcome a monograph entitled "The Motion Picture as a Professional Instrument," prepared by W. F. Kruse, of the Educational Division of the Bell & Howell Company.

Following are some of the topics discussed: The doctor his own cameraman; Developing the scenario; Sixteen mm. film vs. thirty-five; Why is interest in medical and surgical motion pictures increasing? What lenses? Lights or lenses? Focusing; Filters; Color pictures; Micro-motion study; Time-elapse films;; Cinemicroscopy; Animation; "Talkies"; Uses of motion pictures in medical schools and hospitals; Films in lay health education and professional societies; The individual practitioner.

The monograph consists of 28 pages and is both comprehensive and concise. It concludes with an extensive and valuable bibliography. It will be sent free of charge to doctors or hospital executives on application to the Educational Division, Bell & Howell Company, 1801 Larchmont Avenue, Chicago.

Buffalo Museum Exhibits at Fair

Various types of exhibit material have been loaned to the Chicago Century of Progress by the Buffalo Museum of Science, including "props" for the World Map, which displays the flora and fauna of the various regions, Newton's Rings for the Physics Exhibit, and a display in Comparative Embryology, showing the development of the egg of five animals through seven consecutive stages.

Probably their outstanding contribution, however, is a huge ten-foot model showing the circulation of the blood in man. Another important exhibition is the Body Book, a life-size model which discloses the inner workings of man.

New Source List of Visual Material

The Committee on Visual Education of the California Teachers Association, Southern Section, is preparing a 2-page mimeographed tabulation of free or low-cost sources of posters, exhibits and booklets on geographical, industrial and other topics, which teachers may obtain by sending a self-addressed legal-sized stamped envelope to the San Francisco or Los Angeles section headquarters.

The Association is indebted to Miss Hazel Nell Bemus, Director of Art and Visual Education, Santa Ana Schools, for this data which has been compiled from her files. The list includes sources for material on practically every country, and on 50 or more products of industry.

Canada Museum Extends Service

A library of 35 mm. motion picture films has been established by the National Museum of Canada as a branch of its educational and extension service. Most of the films were taken by members of the Museum staff during the course of field work, two have been donated and others have been acquired by long-term lease. The subjects are available for loan to educational institutions, clubs and societies, subject to certain conditions.

The Museum also has a large collection of photographs of Indian and Eskimo life, archaeology, mammals, and birds, and the Geological Survey, with which it is closely associated, has a collection of photographs of geological phenomena, physiography, palaeontology, mineralogy, and mining industries in Canada.

Another phase of the National Museum's activity is a series of Free Public Lectures for adults and children which are illustrated by lantern slides or specimens, and supplemented by motion pictures.

Film-Strip Prices Unchanged

The same low prices for United States Department of Agriculture film strips will prevail during the fiscal year 1933-34, according to an announcement recently issued by the Office of Cooperative Extension Work of the United States Department of Agriculture. The prices for film strips until June 30, 1934, will range from 14 to 85 cents each, depending upon the number of illustrations in the series. The majority of the 163 series that the Department has available will sell for 28 and 35 cents each. Film strips are available on such subjects as farm crops, dairying, farm animals, farm forestry, plant and animal diseases and pests, farm economics, farm engineering, home economics, and adult and junior extension work. Lecture notes are

provided with each film strip purchased. A complete list of subjects and instructions on how to purchase them may be obtained by writing to the Office of Cooperative Extension Work, United States Department of Agriculture, Washington, D. C.

Movies Used to Teach Golf

The use of motion pictures for teaching golf has been officially adopted by the golf department of the Carson, Pirie, Scott & Co. department store in Chicago. Walter Keller, in charge of the store's golf section, is using a Bell & Howell personal movie camera to take slow motion shots of his golf pupils' strokes to diagnose just what is wrong with their play; and then having located the weak points, he proceeds to apply the proper corrective instruction.

Mr. Keller reports excellent progress on the part of his pupils. He states that a comparison of the movies taken before the pupils begin their instruction with shots taken later on gives them a vivid idea of what has been accomplished. The fact that they are able to see in the earlier pictures just where their strokes are at fault enables the players to get down to cases at once and alter their style.

Metropolitan Museum of Art Announces Program

The Metropolitan Museum of Art offers for the season of 1933-1934 a varied and comprehensive program of lectures, gallery talks, study-hours, and story-hours planned for the interest and pleasure of the general public and of students concerned with the history and appreciation of art and with its practical application. Several courses are being given this year for the first time, and others have been extended in their scope.

Two groups of motion pictures will be shown at the Museum: those produced by the Museum, dealing with various phases and periods of art, on Thursdays; and those made by Yale University, the *Chronicles of America Photoplays*, on the first and third Tuesday of each month.

Sociologist Predicts Future for "Talkies"

A report of the Research Committee on Recent Social Trends, of which Dr. William F. Ogburn, professor of sociology at the University of Chicago is director, predicts important developments in talking picture lectures for school and college students of the future, and the probability of using talking books. The transmission of motion pictures into homes is also foreseen.

DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

Chicago Meeting Highly Successful

THE summer meeting of the Department of Visual Instruction, which was held at the Congress Hotel, Chicago, on July 5 and 6, was considered by many to be the most successful in the history of the organization. The accommodations at the Congress were excellent; the program had been well planned, and was presented according to schedule; and the attendance reached a new high total. It was estimated that more than eight hundred attended one or more sessions. Those who attended were teachers, school executives, visual instruction directors, and representatives of producers and manufacturers of visual instruction materials and equipment, gathered there from all parts of the United States.

The first session was a luncheon meeting at noon on Wednesday, July 5. At this meeting, the principal topic of discussion was the responsibility of teacher preparation institutions for visual-sensory aids courses, from the standpoints of a teacher and of a teachers' college president. The responsibility of the teachers' college for this type of training was presented ably by Dr. Albert Lindsay Rowland, President of the State Teachers College at Shippensburg, Pennsylvania. One would not need to listen long to Dr. Rowland to discover why Pennsylvania requires training in the use of visual-sensory aids for certification.

The attitude of the teacher toward adequate teacher-training for the use of visual-sensory aids was presented by Miss Elda Merton, Assistant Superintendent of Schools at Waukesha, Wisconsin. Although Miss Merton is now on the administrative staff of a well-organized school system, she has been known for years as one of the most effective classroom teachers in the field.

The afternoon meeting, which convened at two o'clock on Wednesday, was considered by many teachers present to be the most helpful to the average teacher in the average school situation. The discussions centered around objects, specimens, models, charts, and other visual aids which could be assembled for school use at very little or no cost. Mrs. Grace Fisher Ramsey, of the American Museum of Natural History, brought from New York a very complete assortment of materials for nature study and general science classes. This was followed with a demonstration lecture by Mr. Wilber Emmert, Director of Visual Education and Science, State Teachers College, Indiana, Pennsylvania. Mr. Emmert's dis-

ussion concerned materials which might be assembled for use in junior-senior high school science, and an exhibit of articles including almost everything from a piece of garden hose to a dentist's form for preparing bridge and plate construction. The discussion and exhibit indicated clearly that the teacher of general science who is not able to present the subject with pertinent illustrative materials must surely be in the clutches of that terrible disease, laziness.

Dr. Frank N. Freeman, Professor of Educational Psychology at the University of Chicago, gave a brief resumé of the recent scientific experiments in the field of visual instruction, calling attention to those which have been inclusive enough to give reliable indications of the potential value of visual-sensory aids, properly applied. This was followed by an open discussion of the problems of visual instruction and its value during periods of economic stress.

The third meeting was another luncheon, convening at noon on Thursday. Dr. C. F. Hoban, retiring President of the Department of Visual Instruction, presented a symposium on visual-sensory aids and the economic situation from the standpoint of producers of visual-sensory materials and equipment. Many special and sound reasons for the increased use of visual-sensory aids during this period were emphasized by the producers who reported. The entire discussion gave a rather clear indication of the unsung praises which should be due the individuals and organizations responsible for the production of effective visual aids in the face of almost certain economic loss. It was pointed out quite clearly that many schools, through the intelligent application of effective teaching devices, could accomplish more with even less expense than heretofore.

This report was followed by a discussion of the situation from the standpoint of supervisory officials. This discussion was presented by Dr. A. J. Stoddard, Superintendent of the Providence, Rhode Island, city schools. It was concerned chiefly with the results of the recent experimental use of sound pictures in the Providence schools. Dr. Stoddard was enthusiastic in his praise of the sound motion picture as an economical aid to the school or school system which is confronted with the problem of meeting an increased educational load with a decreased budget.

The high spot in the program, from the standpoint of interest and attendance, was a demonstration of

radio vision by Miss S. Naomi Anderson, Field Supervisor of Visual Education in the Chicago City Schools. A sixth grade class in geography was brought before the group assembled and given a lesson in the geography of the U. S. S. R. with the aid of carefully selected glass slides and a discussion presented by radio. The discussion was broadcast through Station WMAQ, and was presented by Dr. William D. Johnson, Principal of Volta School, Chicago.

During the luncheon program preceding the demonstration of radio vision, two of the sixth grade boys came to the lobby of the Congress Hotel to wait for the proper time to participate. While they were waiting and seemed to be more or less restless, one was asked if he were trying to find the radio lesson. His answer left no doubt as to the purpose he had in mind. It was, "No, sir. I'm looking for the geography lesson." His reply was a very clear indication of the way in which visual-sensory aids have been fitted into the work of the Chicago schools as a regular part of the class procedure, rather than as a novelty or in an unnatural situation.

Following the radio-vision demonstration, papers were presented which outlined the most effective methods for relating visual-sensory aids to the curriculum, in geography, history, reading, elementary science, and junior-senior high school science. The discussions were led by C. C. Barnes, of the Detroit Public Schools; Miss Mabel D. Vernon, University of Hawaii; Mrs. Mildred Smith, Principal of the Elementary Schools, Detroit; and Dr. John A. Hollinger, Director of Science and Visual Education, Pittsburgh City Schools.

The final meeting of the Department was the business session, which gave brief consideration to the usual business of the Department and elected officers for the academic year of 1933-'34. Mrs. Grace Fisher Ramsey, Associate Curator of the American Museum of Natural History, New York City, was elected President. The other officers elected were the following:

1st Vice-president—C. F. Hoban, Director of the Museums and Visual Instruction, State Department of Education, Harrisburg, Pa.; *2nd Vice-president*—Rupert Peters, Director of Visual Instruction, Kansas City Public Schools, Kansas City, Missouri; *Member of Executive Committee*—Robert Collier, Jr., Director of Visual Instruction, South High School, Denver, Colorado.

At the close of the meeting, the Executive Committee met and appointed as secretary-treasurer, Ellsworth C. Dent, Bureau of Visual Instruction, University of Kansas, Lawrence.

The suggestion was made to the Executive Committee that the next meeting of the Department of Visual Instruction be held concurrently with the meeting of the Department of Superintendence of the N. E. A.,

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but the time and place of meeting was left with the Executive Committee for later decision. Appropriate announcements of plans will appear in this section later in the year.

1933 Directory Available

The 1933 "Visual Instruction Directory," which was completed a short time ago, is still available for distribution. It is furnished without charge to all members of the Department, including those who may join during the fall months. Those who are not members may secure copies at \$1.50 each, postpaid. The Directory is the most complete available list of visual instruction workers and service agencies in the United States.

Membership Application Blank

Office of the Secretary,
 Department of Visual Instruction,
 1638 Illinois Street,
 Lawrence, Kansas.

Date.....

I herewith make application for Active Associate Institutional Contributing Membership in the Department of Visual Instruction of the National Education Association, combined with the National Academy of Visual Instruction, covering the period of one year from date.

Check below the preferred date for payment of dues.
 Remittance attached First of next month.

Name

Position

Residence

City and State.....

I am } a member of the
 I am not } National Education Association

Note: Make checks payable to the Department of Visual Instruction.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

New York State Education (June) "Sound Pictures in Education," by Homer Shattuck, Head of Visual Instruction of Rye High School, New York, is the ninth article in the Visual Instruction Series appearing in this publication. It is a timely summary of the outstanding studies that have been made to determine the educational value of sound pictures, and the findings of such researches. From these results the author draws certain definite conclusions and points out the need for many more such studies in other subjects than science.

Sierra Educational News (June) This number offers much material pertinent to the visual field. There is a brief account of "The Map Slide, Its Value and Application," by Wren Strange of the Longfellow School, Long Beach, California, telling how a 4A class made and used map slides in the study of mining.

"High School and Hollywood," by Bruno Lasker, Education Secretary, American Council Institute of Pacific Relations, New York City, discusses the need for correction of American films that misrepresent American life and that of other countries as well, citing some of the protests that have been made against them by other nations. He suggests three ways in which the American teachers can help eliminate these undesirable films.

Suggestions for utilizing free and low-cost sources of visual aids, which should be gladly received in these days of severely-cut budgets, have been compiled by the Committee on Visual Education of the California Teachers Association, Southern Section, under the title "Visual Aids March On." The organization and mounting of study prints from magazine illustrations is particularly recommended.

Journal of the Society of Motion Picture Engineers (July) The experiment on photoplay appreciation undertaken by the National Council of Teachers of English during 1932 and 1933 with 1500 high school boys and girls is described by William Lewin, chairman of the committee, in "Photoplay Appreciation in the Nation's Schools."

The purpose of the experiment was to determine whether the movie habits of adolescents can be improved through the medium of the English classroom; and whether desirable ideals and attitudes can be developed through the medium of well-selected current photoplays. To measure general growth in appreciation, the reactions of the various student groups as shown on questionnaires will be tabulated and announced at the convention of the Council in November.

International Review of Educational Cinematography (July) A very important contribution to this interesting issue is Walter Gunther's "The Future of the Sound Film in Teaching." The author is convinced that the sound and talking film should take its place in teaching alongside the lantern slide and silent film, and examines the subjects which can best be taught with such films.

The International Institute of Educational Cinematography is sponsoring a universal symposium on the teaching values of sound films, in addition to the scholastic symposium already proceeding among teachers and children on the question.

National Board of Review Magazine (May) "Teaching Language with Foreign Sound Pictures," by Edward M. Ginsburg, tells of a series of experiments which have been carried out with talking films in correlation with city high school instruction in modern languages through the cooperation of Dr. L. A. Wilkins, Director of the Department of Modern Languages of the New York City Board of Education, and the International Cinema League. These films have also been effective in giving the students a better understanding of those countries studied.

Book Reviews

OUR MOVIE-MADE CHILDREN, by Henry James Forman, published by MacMillan Company, New York City, 1933.

As arresting as its apt title, is this published resumé of a series of studies made in a "nation-wide four-year research by a group of scientists especially selected for the task. Undertaken by the Payne Fund, at the instance of the Motion Picture Research Council, this group of scientists, psychologists, sociologists, and educators has made the first comprehensive survey thus far attempted." Pre-eminent among those wide-scoped minds who have been delving into the difficult job of understanding human emotions is Dr. W. W. Charters, who writes the introduction for this volume. The clear-cut excellence of his two concise pages can be equalled only by the broad and clear-headed chapter, "Summary and Conclusion," by the author. And, despite the title of Dr. Forman's book, there is, in the evidence presented, much of the "movie-made adult".

"Disregarding," says Dr. Charters, "those differ-

ences in details of interpretation and individuality of style which are inevitable, I agree with the author in the fundamental position that the motion picture is powerful to an unexpected degree in affecting the information, attitudes, emotional experiences and conduct patterns of children; . . . that the commercial movies present a critical and complicated situation in which the whole-hearted and sincere cooperation of the producers with parents and public is essential to discover how to use motion pictures to the best advantage of children."

In the beginning of his final chapter of conclusion Dr. Forman asserts that "motion pictures, scarcely a generation old in our experience, have proved themselves to be one of those necessary inventions of mankind whose absence or deletion from our civilization is by now virtually unthinkable. At their best they carry a high potential of value and quality in entertainment, in instruction, in desirable effects upon mental attitudes and ideals, second, perhaps, to no medium now known to us. That at their worst they carry the opposite possibilities, follows as a natural corollary."

The author's last challenge is that "the aim of all the studies upon which the present book is based, as well as of the book itself, is to bring us face to face with the facts—and they are grave. Once in possession of the facts, the public, it is hoped, will find the remedies. . . . The Motion Picture Research Council, originally instrumental in causing these studies to be made, will watch the expressions and comments of the public with keen vigilance and, by a careful scrutiny of these against the background of the materials of the research, will doubtless formulate its own conclusions and even, possibly, propose remedies. At all events, the first great step has been taken and now, largely, the facts are known."

In the contents, "The Scope of Motion Pictures", "Who Goes to the Movies?", "What Do They See?", "How Much Do They Remember?", "Movies and Sleep", "Other Physical Effects", "Horror and Fright Pictures", "Unmarked Slates", "Movies and Conduct", "Moulded by the Movies", "The Path to Delinquency", "Movie-Made Criminals", "Sex-Delinquency and Crime", "Deterrent and Correctional", and "Movies in a Crowded Section", we find scientific data translated into vivid, popular and readable information. Quite regardless of our partial or complete agreement or disagreement with Dr. Forman's conclusion that the "facts are now, largely, before us", we must recognize that a colossal piece of work has been painstakingly accomplished and that this volume should be in the hands of every adult seriously interested in this field.

ORIGIN AND DEVELOPMENT OF VISUAL EDUCATION IN THE PHILADELPHIA PUBLIC SCHOOLS by James G. Sigman—a dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Education in Temple University—has just been published by Temple University.

This monograph of 249 pages should prove particularly helpful as a guide to large city school systems who are planning the establishment of separate divisions of visual education, as it is a clear, comprehensive treatment of all problems pertaining to the development of such a department.

The Introductory section gives some facts on the early beginnings of visual education and summarizes the research studies which have been consulted in the preparation of the handbook, the scope and values of visual education. In the second section the author traces the steps leading up to and following the initial organization of a separate department devoted entirely to visual education, from the beginnings of lantern slide service, museum instruction and school journeys, and illustrated lectures in the earlier Philadelphia high schools, to the organization of the Division of Visual Education in 1929. The third section of the dissertation outlines the developments of the division during the three years since its organization and its progress in carrying out accepted equipment and service policies.

Fifty pages of valuable appendices contain informative figures on equipment in use and circulation of aids, in the city's schools, museum visits, contents of city and state normal courses in visual education, and standard equipment in the Philadelphia public schools.



THE VISUAL FATIGUE OF MOTION PICTURES is a "world-wide summary and survey" of the subject, compiled and edited by Aaron E. Singer, Research Editor, Amusement Age Library Series, published by The Amusement Age Publishing Company, and printed by the Greeley Press, Inc., New York City, May, 1933.

Space does not permit even a listing of the chapters of this book-pamphlet, but every phase of the general subject is treated by experts in each specific field of the subject. Current conclusions of researches by the General Electric Company, Westinghouse Lamp Company, Bell & Howell Company, American Seating Company, American Academy of Optometry, National Institute of Interior Decorators, American Society of Cinematographers and the Radio City Theatres of RKO are included.

This is a publication which should be in the hands of every adult, particularly in the possession of those who teach or advise concerning children.

THE FILM ESTIMATES

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

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

(Film Estimates on releases during the past summer are available on the regular weekly cards, carrying seven films each, at four cents a card.)

A Nous la Liberte (Dir. Rene Clair) (French Production) Whimsical, subtle satire picturing adventures of two escaped convicts who take places in modern industry but find freedom still elusive. Brilliant direction, beautiful photography, deft acting. Crisp French dialog but fine pantomime carries story fully.
A—Exceptional Y—Amusing
C—Fairly amusing.

Blarney Kiss, The (Tom Walls) (B. & D. Prod.) Fairly entertaining British picture concerning the career of an Irishman who acquired the gift of speech from kissing the Blarney Stone in Youth. Sincere love story a pleasing feature. Dialog mediocre but cast good as a whole.
A—Passable Y—Fairly good C—Fair

Conquerors of the Night (Soviet Production) (Amkino) Russian film without propaganda, showing notable and daring adventures in the Arctic, including re-enactments of past feats by explorers of several nations, Graf Zeppelin and Nobile included. English dialog throughout, along with three other languages.
A—Notable Y—Interesting C—Beyond them

Dangerous Crossroads (Chic Sale) (Columbia) Fast moving and thrilling railroad melodrama with Chic Sale as the old-time engineer who assists hero to capture a band of freight thieves. Some incongruities in story but a few novel features and Chic Sale's usual dry humor help.
A—Depends on taste Y—Good
C—Too exciting

Emergency Call (Bill Boyd, Wynne Gibson) (RKO) Fast-moving melodrama of hospital life. Great metropolitan hospital, ruled by racketeers, gets new honest doctor who finally straightens out the mess, after thrilling adventures and after losing to the killers his best pal. Well-done for such a theme.
A—Good of kind Y—Probably good
C—Too strong

Goodbye Again (Joan Blondell, Warren William) (Warner) Author of sexy best-sellers on speaking tour with secretary-mistress becomes entangled with former sweetheart, now married. Farce comedy with unconventional situations, risqué dialog, and sex prominent throughout. William miscast in comedy part.
A—Hardly Y—By no means C—No

Headline Shooters (William Gargan, Frances Dee) (Radio) Hero is hard-boiled newsreel cameraman, with harrowing adventures as he covers earthquake, fire and flood. A romance with "sob-sister," already engaged, complicates his situation. Exciting drama with drink and slang considered typical of journalism.
A—Good of kind Y—Exciting C—No

Her Bodyguard (Edmund Lowe, Wynne Gibson) (Paramount) Absurd light comedy of gold-diggers and back-stage intrigue. Hero becomes hired bodyguard for stage star, whose jealous sponsor wishes her protected from rivals, and of course wins the girl to end the farce. Unimportant musical numbers.
A—Stupid Y—No C—No

It's Great to be Alive (Gloria Stuart) (Fox) Sophisticated musical comedy with slender, slow-moving plot and lack of memorable melodies. Pestilence kills off entire male population save lone hero who becomes prized possession of feminine world. Mediocre song and dance numbers fill in time.
A—Mediocre Y—Mediocre C—No interest

Love Is Like That (John Warburton) (Chestertfield) Heroine falls in love with photograph of rich bachelor, starts pursuit, and wins out through maze of obstacles combining mystery, romance and comedy. Amusing in spots, but entirely too complex and confusing for satisfactory entertainment.
A—Mediocre Y—Better not C—No

Lucky Dog (Chic Sale, "Buster") (Universal) Novel and interesting picture of dog life and the devoted friendship between dog and man which survives all vicissitudes. Finely photographed, human, convincing, but its intense pathos and near-tragedy are too strong for child enjoyment, unfortunately.
A—Good of kind Y—Good C—Very sad

Estimates are given for 3 groups

A—Intelligent Adult

Y—Youth (15-20 years)

C—Child (under 15 years)

Bold face type means "recommended"

Man Hunt (Mrs. Wallace Reid, Jr. Durkin) (RKO) Another well-intentioned effort at human and appealing drama about small-town boy's ambition to become great detective. Drags badly at times, sensational at others, thin throughout. Inadequate production in most respects.
A—Mediocre Y—Hardly C—No

Man of the Forest (Rsdolph Scott) (Paramount) Stereotyped Western melodrama, from the Zane Grey story in which the struggle for possession of timberland starts the bitter war between hero and bully. Beautiful scenery and family of tame lions are interesting features.
A—Hardly Y—Wholesome C—Exciting

Man Who Dared, The (Preston Foster, Zita Johann) (Fox) Idealistic portrayal of life of young Bohemian immigrant ("imaginative biography" obviously of Cermak) from coal-mining up through political steps to mayoralty and assassination. Interesting scenes of early Chicago. Hero and heroine engaging and convincing.
A—Good Y—Good C—Fairly good

Mary Stevens, M.D. (Kay Francis, Lyle Talbot) (Warner) Serious melodrama following medical careers of hero and heroine and their complicated personal lives—his marriage to another, divorce, and return to real love. Rambling story and over-emphasis on suffering of children. Kay Francis fine as earnest, successful doctor.
A—Fairly good Y—Doubtful C—No

Masquerader, The (Ronald Colman, Elissa Landi) (U.A.) Fine screening of the novel. Colman excellent in dual role of degenerate member of British parliament, and his double from the lower classes who ably replaces him. Landi fine as wife, and cast strong. Mature theme treated with restraint and intelligence.
A—Excellent Y—Mature but good
C—Beyond them

Moonlight and Pretzels (Roger Pryor, Mary Brian) (Universal) Exceptional musical comedy of backstage life, well acted, fast tempo, much character interest, real plot novelty, and notable camera technique. Plenty of semi-nudity, gambling, the usual evil-minded villain, etc., but total effect probably healthy amusement.
A—Fine of kind Y—Amusing C—Doubtful

Morning Glory (Katherine Hepburn, Fairbanks Jr.) (RKO) Rather slow-moving story made worthwhile by fine direction and notable work of Hepburn as naive stage-struck girl, determined to win success on Broadway, and achieving her triumph finally after heartache and bitter disillusionment.
A—Good of kind Y—Mostly good C—No

No Marriage Ties (Richard Dix, Elizabeth Allen) (RKO) Hard-drinking hero is unethical advertising expert and preaches freedom vs. marriage. Devoted mistress deserts him after he causes another woman's suicide and his fake business methods are exposed. Then he reforms and she returns. Waste of good cast.
A—Poor Y—Certainly not C—No

Oliver Twist (Dickie Moore, Irving Pichel) (Monogram) The Dickens classic screened faithfully and with much strength, excellent in settings and costumes, but crude direction makes it slow-moving, clumsy, and inadequate in spots. Over-acting and poor acting of some roles are serious flaws.
A—Fair Y—Good C—Pretty strong

One Sunday Afternoon (Gary Cooper, Fay Wray) (Paramount) Good screening of the successful stage play. Dentist-hero with chance for revenge on rival who stole his girl years

before, loses interest when he sees her and realizes his own wife's worth. Flashback tells story of love rivalry. Convincing and appealing.
A—Good Y—Good C—Mature

Savage Gold (Com. George Dyott) (Harold Auten) Outstanding film-travel chronicle of Dyott's thrilling Ecuador expedition to rescue lost explorer, captured and killed by head hunters. Instructive scenes of savage life and gruesome rites and orgies. Offered as authentic.
A—Very good Y—Very good
C—Good but strong

Secret of the Blue Room (Lionel Atwill) (MGM) Good murder-mystery thriller; minimum of hokum and scare devices, and maximum human interest. Decidedly well-written, acted and directed. Characters are quite normal human beings, and ending is agreeably logical and surprising. Good suspense.
A—Fine of kind Y—Good
C—Depends on child.

She Had to Say Yes (Loretta Young) (First Nat'l) Cheap, stupid mess about secretary in garment concern, assigned to entertain out-of-town buyers. Cheap situations and endless complications before hero is finally convinced of heroine's innocence. Vulgar, suggestive "humor" from Winnie Lightner.
A—Worthless Y—Unwholesome C—No

Silk Express, The (Neil Hamilton, Guy Kibbee) (Warner) Rather intriguing murder-mystery which takes place on trans-continental flyer. Well-acted, fast moving, suspense well sustained but plot somewhat involved and solution not entirely clear. Outstanding hit by Kibbee as slow-witted detective.
A—Fair Y—Entertaining C—Possibly

Sing, Sinner, Sing (Leila Hyams, Paul Lukas) (Majestic) Lurid and dreary mess about torch singer in love with faithless racketeer but marries alcoholic millionaire who commits suicide. Racketeer goes to electric chair to save her from being innocently convicted of murder. Hyams and Lukas miscast and wasted.
A—Worthless Y—Unwholesome
C—Certainly not

Song of Songs, The (Marlene Dietrich) (Paramount) Sudermann's tale of peasant girl who loved sculptor too well. Deserted, she marries unhappily, falls to status of cabaret wanton, and is finally saved by repentant sculptor-hero. Beautiful settings, but much uninspired acting, dragging action, and loose ends.
A—Depends on taste Y—Impossible C—No

Supernatural (Carol Lombard, Alan Dinehart) (Paramount) Fine cast spent on strained attempt at horror and morbid thrills through fake spiritualism and heavy pseudo-science. After execution of girl who strangled three of her lovers, her spirit enters worthy heroine, etc. Too fantastic for intelligent interest.
A—Hardly Y—Unwholesome
C—By no means

This Day and Age (Richard Cromwell, Judith Allen) (Paramount) Thrilling, improbable drama, well acted and produced. Brutal gang murderer of high school tailor, acquitted in court, stirs student body into action to prove guilt by kidnaping him and in sensational mob "trial" scene forcing his confession.
A—Perhaps Y—Doubtful C—Too exciting

Three Cornered Moon (Mary Boland, Claudette Colbert) (Paramount) Light character comedy—hardest to do—about widowed mother, of no business sense, throwing her family into sudden poverty. Boland delightful, Colbert good, but others hardly up to this genre. Clean, wholesome, and thoroughly funny most of the time.
A—Good Y—Very good C—Fairly good

Tugboat Annie (Marie Dressler, Wallace Beery) (MGM) Human, natural story of crude married couple whose tugboat is their life. Dressler fine as wife of drunken captain to whom she remains loyal in spite of conflict with son who is offended by crudities of parents. Fine photography and vivid sea action.
A—Very good Y—Probably good C—Doubtful

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

An Experiment In Visugraphic Religious Education

GEORGE A. MARK

FOR THE past two years I have been using visual aids as a method of instruction in the educational program of the First Junior Church in Leominster, which includes the young people of our parish between the ages of ten and eighteen years.

The service is held in the church auditorium and is conducted by the minister assisted by the church organist and the Junior Choir which is led into the church by two Standard Bearers.

The order of worship is as follows:

Organ Prelude

Processional Hymn—(The congregation rises as the Choir enters the Church and sings with the Choir the Processional Hymn).

Pledge to the Flag of the Christian Church—(Congregation standing at Salute).

"I pledge allegiance to the flag of the Christian Church

And to the cause for which it stands,
The worship of God in spirit and in truth,
The giving of myself in Service to Man."

Pledge to the Flag of the United States

"I pledge allegiance to the flag of the United States of America

And to the Republic for which it stands,
One Nation, indivisible,
With Liberty and Justice for all."

Selection by the Choir

Minister: This is the day which the Lord hath made.

Congregation: We will rejoice and be glad of it.

Minister: I was glad when they said unto me, Let us go into the House of the Lord.

Congregation: We will keep this place sacred so that we may learn to find many places sacred, and say of them all, Surely the Lord is in this place. This is none other but the House of God.

Declaration of Purpose—(In unison)

In this church we meet for the study and practice of religion. Here we learn the meaning of reverence. Here we renew our loyalty to the spiritual leaders of our race. Here we study the principles by which our lives are to be guided. Here we prepare ourselves for our future work in the church and in the community. In the love of truth and in the spirit of Jesus, we, the younger members of this church family, unite in the worship of God and the service of man.

Responsive Psalm (To be announced)

Lord's Prayer

Minister: I will praise thee, O Lord, with my whole heart.

Congregation: I will show forth all thy marvelous works.

Minister: I will be glad and rejoice in thee.

Congregation: I will sing praises to thy name, O thou most high.

Hymn (Standing)

Scripture

Minister: Give unto the Lord the glory due unto his name.

Congregation: Bring an offering and come into his courts.

Minister: The Lord is in his holy temple.

Congregation: Let all the earth keep silence before him.

Prayer

Organ Response

Hymn (Standing)

Offering

Story Sermon

Recessional Hymn (The congregation rises and sings as the choir leaves the church. At the close of the hymn the congregation faces the back of the church and when the choir is seated in adjoining room congregation marches in order and take seats there).

Lesson for the Day

Benediction

The "Lesson for the Day" (half-hour in length) is given by the minister. Last year it consisted of a study of the life and teachings of Jesus illustrated by the motion picture, "I AM THE WAY", which comes in thirteen reels. One reel was presented each Sunday with appropriate explanatory oral instruction. The second half of the year was devoted to stereopticon lectures on the life and journeys of the *Apostle Paul*. Two hundred beautiful and instructive slides were used during the year to illustrate this subject. At the close of this series of illustrated lessons two months were devoted to a complete review of the subject by the individual teachers with their classes. On the last two Sundays of the church year written tests were given on the subjects covered.

During the present year the study of the development of Christianity and the Christian Church has been continued. It has been assumed by teachers and pupils that everyone who professes the Christian re-

ligion should have at least an elementary knowledge of how our church and religion have grown. Illustrated talks have been given to the pupils. These outlined the history of the Church through the Middle Ages, the Protestant Reformation, the Coming of the Pilgrims and will end with a study of the growth of Unitarianism.

The visual aids used in connection with this study have consisted of stereopticon slides and four motion pictures as follows:

"The Story of the Wadensians" (6 reels); "The Life and Times of Luther" (8 reels); "The Bell of Atri" (1 reel) was used on Humane Sunday; and one reel on "The Isle of Shoals" is yet to be shown. For review work the teachers have used with their classes, "Movements and Men of the Christian Church" by Dr. Charles T. Billings.

For next year I am planning a course entitled, "Through Nature to God." It is hoped that through such a study the pupil may gain a comprehensive understanding of the world about him and how his individual life is related to the whole. Another helpful course would be one on Christian citizenship. These courses are offered as suggestions toward a program of planned instruction. There is no limit to the illuminating ways in which the visugraphic method may be used in religious education.

New Motion Picture Material For Religious Programs

The latest film catalog issued by the Religious Motion Picture Foundation shows many additions to their 16 mm. and 35 mm. film library. They have a new series of 10 reels on *The American Indian*, which is a serious and comprehensive portrayal of our native

Americans, the high idealism of their great traditions and history, their struggle for adjustment to white civilization, and their place in our culture and economic life of today; 8 reels on *China*, a sympathetic study of China as it is today with her background of rich culture, her struggle against poverty and dissention, and emergence toward the ideals of modern civilization; and 4 reels on *Brazil*, which should stimulate a greater knowledge and appreciation of our neighbor country. These pictures are called "Adventures in Understanding" and have been produced in the hope that they may contribute to the devotional life of the church, to a broader understanding of the working of Christian principles in the complex conditions of the present day, and toward a renewed activity in the church.

Complete programs have been built around the films in order to facilitate their use in church activities and to make a more dynamic use of them. These Lesson Helps or Reference Outlines are sent out well in advance of the film showing so that there is ample time for the leader using the films to arrange his program.

A Reference Outline for one of the American Indian pictures illustrates what has been developed for each picture. It gives a detailed story of the film and suggestions as to how it can be used in a worship service, or serve as the basis for discussion in the Sunday School, Women's Missionary Circle, or other church groups. Suggested musical accompaniment is also included.

The booklet, "Services of Worship for Young People's Groups," promoting the use of recorded music in connection with silent film services, contains many excellent services, prayers, litanies, and a list of suitable religious music records.

Film Showing at Hall of Religion

The International Hour, presented daily at eight p. m. at the Hall of Religion, Century of Progress, is sponsored by the following organizations: League of Nations Association, Mid-West Institute of International Relations, Peace Films Foundation, Inc., Women's International League, and Youth Peace Council.

The principal feature of the International Hour is the daily presentation of the all-talking motion picture "Must War Be?" This is the first of a series of pictures to be produced by the Peace Films Foundation, Inc., a non-profit membership corporation founded in 1932 by peace leaders in the East. The film is documentary, presenting an accurate pictorial and sound record of the most important and significant events in the history of mankind. It shows the progress of the peace movement since the World War, as well as the continuous preparations for future wars.

Each day the International Hour is in charge of a different local group and local leaders will speak briefly on international affairs. This program will be free to the public, as the costs are being defrayed by a special fund, now being raised.

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SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

Director, Scarborough School, Scarborough-on-Hudson, N. Y.

New Motion Picture Film Teaches Typewriting Technique

ELEANOR SKIMIN and ETHEL WOOD

COGNIZANT of the appreciation in visual education, the State College of Washington at its summer session has developed a five hundred foot 16mm. reel expounding Correct Typewriting Technique. This film, the first to have been developed on this popular subject, takes the student through the successive steps on through to the completion of letter typing at 500 strokes or 100 words a minute. The technique has been successfully applied at the State College of Washington, and this summer a beginning typing class was developed through this method. Results in this specific case showed that thirty words, or 150 strokes a minute were acquired in thirty days.

Use of the motion picture is of outstanding value in teaching skill subjects where it is difficult, if not impossible, to present actual techniques slowly enough for the inexperienced student to see clearly the process, and still fast enough that the expert technique is not lost.

Commercial teachers on the whole have been slow to realize the possibilities of slow motion picture presentation of the fundamentals of both shorthand and typewriting. They fail to appreciate the great capacity which most students have for imitating what they see. The beginner who sees on the screen correct typewriting operations readily transfers what he has seen into like movements of his own.

This new film, "Teaching Beginners How to Type-write," is intended for instructional use with beginning typists as supplementary to the regular demonstration work of the teacher. No extraordinary speed work is included, 100 words a minute being the fastest writing presented. Throughout the film, however, emphasis has been placed on ease, smoothness, and fluency of writing.

The first part of the picture shows the secretary from the time she inserts the paper, adjusts the margin stops, until the finished letter is removed from the machine, correctly placed on the page. The student readily locates the margin stops and the tabulator as the operator makes the necessary adjustments. He sees clearly the correct method of inserting and removing the paper; and proper posture becomes for him a simple matter of imitation.

Following this is a scene showing how *not* to do it; how time and effort are wasted by the lack of technique in unskilled writing. Lost motion attendant

upon poor posture, poor machine manipulation, and unrhythmic writing is clearly portrayed.

In sharp contrast, the third scene in this division shows a beginner, correctly trained, writing easily and smoothly, with a stroking rate of 150 strokes a minute—after only six weeks of instruction. The student who appears in this scene was chosen from a regular summer session class in beginning typewriting at the State College of Washington.

The second section of this film presents a detailed analysis of various machine operations. The third and final division of the film shows the result to be gained by correct practices, and the ease of action of skilled writing.

The time and effort saved in showing operations which heretofore have been talked about is well worth while from the standpoint of the teacher as well as of the learner, and the showing of this film has elicited much praise and enthusiasm from educators connected with universities, commercial colleges and high school commercial departments. It is a step in advance in the visual instruction of a most practical subject that bids fair to find its place in the curriculum of every progressive educational institution in the United States.



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The only Quick-Acting, Automatic Winding, Ground Glass Focusing Camera using Standard Roll Film. Good for all purposes. No Separate Parts or Attachments are Necessary!

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CHICAGO

DEPT. E.S.

A School Journey to the Beach*

SYBIL L. DANIELS

A TRIP TO the beach always appeals to the children and provides a teacher with many new and interesting subjects around which she may arrange valuable lessons. On one warm spring day, I took my Adjustment class, a group of twenty-five, to the beach during the last period of the afternoon—the time scheduled for Nature Study. In a preliminary discussion we considered proper conduct on the street. The children were instructed as to the work of a field trip and were given a few questions to assist them in making definite observations of the sea gulls.

All went well during the seven minute hike but upon our arrival we found the tide high. The sea gulls, usually so numerous, were nowhere to be seen. "Must we go right back?" the children asked with a

tone of disappointment. In reply I sent the boys and girls scampering along the water's edge in search of subjects for study. Each one was instructed to get something within a given time and return to me on signal.

Many forms of sea life were brought back, identified, and discussed, but perhaps the most interesting was the Irish sea moss, or carrageen, which had been washed ashore in large quantities during a heavy storm. In telling the children about it I mentioned the fact that many times I had gathered Irish moss for use in making a dessert or pudding called blanc mange. This appealed to them and it was amusing to see the hands and pockets full of sea moss as we started home. Many questions were asked and after an explanation of the very simple method of preparation it was suggested that we request Miss Dickson, the Domestic Science teacher, to instruct the girls in making blanc-mange. She had never used sea moss but was very willing to undertake the experiment.

The following day was a busy one. The girls made the blanc-mange and as soon as they returned to the home room the boys wished to hear all about it. Without thinking of it as an English period the girls gave some excellent oral compositions. We also searched through dictionaries, encyclopedias and nature books for information about Irish sea moss and blanc-mange. A study of the derivation of the latter word aroused a similar interest in other words.

The third day proved still more interesting. The pudding was ready to serve and the boys received an invitation to a "blanc-mange party" after school. This gave an opportunity for an effective lesson on courtesy and proved an incentive for noticeable improvement in personal appearance, especially among the more careless boys. After a seemingly long afternoon the appointed hour arrived and a most excited group was welcomed by Miss Dickson. Our principal, Miss Yeomans, told the boys and girls a story and then refreshments of blanc-mange and pineapple were served by the girls. Everyone thoroughly enjoyed the party and expressed his appreciation to Miss Dickson before leaving. I was happily surprised by the dignity and courtesy with which all conducted themselves.

What fun we had experienced with our Nature Study hike, discussions, research, cooking and party! Miss Yeomans had been interested in the activities but hadn't heard the entire story from beginning to

*We are indebted to Mr. Abraham Krasker for this interesting project developed by Miss Daniels in conjunction with the film lesson, "Beach and Sea Life," in Dr. Earle Brooks' course in nature study for elementary teachers given with the use of sound motion pictures, at Boston University.

Leica Round the World with Wiley Post



"I selected the LEICA as the only camera to carry on my round-the-world flight because it ideally combines so many important advantages. It is the only camera I could depend upon for a complete photographic record."

Wiley Post

New Model F Leica now offers Greatest Range of Shutter Speed in any Camera

For the first time—a camera with a focal plane shutter with speeds of 1, 1/2, 1/4, 1/8 seconds and intermediate speeds, in addition to regular speeds between 1/20th and 1/500th second. Instantly set, no confusing scales to adjust. Scope of shutter performance unequalled by any camera today. Other LEICA Features: Built-In Range Finder, giving you correct focus instantly, no guesswork, with Magnified Focusing Image for clear vision. 8 Interchangeable Lenses, including telephoto, speed, wide angle lenses, others. 300 accessories for every photographic need, including copying attachments, enlargers, stereo attachments, micro adapters, projectors for Leica and other slides, and many other economical devices for educational purposes. 36 pictures from one roll of cinema film. Sharp negatives (Enlargements up to 12x18 inches). Small, compact, fits the pocket. Write for free booklet "Why LEICA?" and Booklet No. 1216 "Leica Model F."

E. LEITZ, Inc., Dept. 353

60 EAST 10th ST., NEW YORK

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Now available for School Room and Auditorium.

Features Simplicity of design, rear shutter, straight line film travel. Uses 500, 750 or 1000 watt Mazda lamps. Easy to set up and operate.

This Syncrofilm Sound and Visual Projector maintains the high standards that have made the name Syncrofilm famous. It incorporates all the latest developments in sound and sight projection.

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The Creation of an English Word

THE story is often told of an Englishman who wagered a large sum of money that he could over-night create a new word for the English Language. A friend accepted and the Englishman won. This is how he did it:

Hiring all of the people that were available, he put them to work one evening. The next morning when London awoke a strange sight met its eyes. On the sidewalks, the sides of buildings, shop windows, doorsteps, in fact, in every space large enough to accommodate them, appeared the letters QUIZ. That day the word "Quiz" was on the tongue of every Londoner and everyone was questioning everyone else about its meaning. Hence the meaning, to question. Quiz is now in the dictionary.

Other words that have been coined have come into common usage and among them is the word "Balopticon." Because of the popularity of the B & L Balopticon its name has become a common noun. It is used synonymously with still projector.

Is not this fact equal to the testimony of thousands of satisfied users?



Bausch & Lomb Balopticons are serving many teachers as a means of visual instruction. Models for lantern slides or opaque projection or both are available. Different models are suited to any projection distance, in a small room or a large auditorium.

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Please send me your Balopticon catalog.

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Too Much Lecturing Often Confuses the Student



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Clarify Instruction

and start the beginner aright. Develop rhythm, accuracy, speed. For universities, colleges, high schools, commercial schools. 16 mm. 500 feet, including slow motion, in each reel. Introductory price, with explanatory manual, \$22.50 each.

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Write for free samples.

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end. Therefore, during the English period the next morning each one undertook the writing of a complete account for her. Some wrote compositions while others chose diaries or letters. All told of their good times or interesting information gained through the study and others expressed appreciation of the opportunity of having lessons out of doors. Thus we brought to a close an exceedingly interesting series of activities which had begun as the children ran along the beach in search of material for Nature Study.

Following the Demand for More Accurate and Better Prepared Historical Visual Aid Material

THESE PHOTOGRAPHIC SETS



FOR CLASSROOM USE

were selected and prepared from historical motion picture "stills" and edited for visual aids by historians and an advisory Board of Directors of Visual Education.

The following six sets are now available:

WESTWARD MOVEMENT
 ROMAN LIFE
 CIVIL WAR PERIOD
 AMERICAN REVOLUTION AND ORGANIZATION OF GOVERNMENT
 FEUDAL LIFE FROM ROBINHOOD
 PILGRIMS

Each group contains about 15 8x10 photographs dry mounted 9/4x11, boxed, with introduction and full descriptive text on each picture.

The material offered is of historical accuracy and high photographic quality and is made available by us through the exclusive co-operation and courtesy of the Motion Picture Producers and Distributors of America, Inc.

Write for prices and descriptive folder to:

Educational Research Studies, Ltd.

5537 HOLLYWOOD BLVD.

HOLLYWOOD, CALIF.

Film Production Activities

(Concluded from page 191)

project, the reforestation relief bill and the home mortgage refinancing bill. Action scenes follow with employee groups, employer groups and consumer groups tersely explaining the benefits each will receive from the National Industrial Recovery Act and its general effect on the entire nation.

Burnett Hershey, who wrote the script, made frequent trips to Washington to confer with officials as to the best manner of presentation and the material for the scenario. The short has the endorsement of the Administration.

Educational Movies at Fair

A new type of movie thriller in which the heroes hobble on crutches instead of riding bucking bronchos is being shown in the public welfare section of the Social Science Building at The Century of Progress. World's fair officials and Miss Isabella Dolton, assistant superintendent in charge of special schools division of the Chicago Board of Education, together with W. F. Kruse, head of the Educational Department of the Bell & Howell Company, cooperated in the taking of this 16 mm. film which depicts the work being done in the Spalding and Brown schools, in Chicago, for handicapped children.

The movie is in two reels and shows the progress made in training crippled, blind, deaf, and otherwise defective youngsters. A century ago society generally considered these children "not worth bothering with"; today, as evidenced by these movies, such children are the subject of serious study and effort.

Christian Science Publishing Co., in its own building on the mainland at about Twentieth Street, is showing a silent film devoted to creating interest in its daily newspaper, the *Christian Science Monitor*.

Hawaii, its scenery, customs, commerce, and tourist attractions, may be seen in motion pictures with appropriate sound accompaniment in Hawaiian Headquarters on the ground floor of the Federal building, in the north wing.

Colorado has devoted its entire hall in the Court of States to a theater in which sound movies describing the recreational, agricultural, and industrial advantages of the state are presented.

New York State is showing eight 16 mm. motion pictures of the various aspects of the state, using four Filmo Continuous Projectors. This state hall is distinguished by its extensive use of fine photographs.

Ohio, wishing to stress its important position industrially, is showing a number of motion pictures, each dealing with one industry and each complete in one reel. About half of these films are Kodacolor, and these are alternated with the monochrome films.

Your School Can Own The Best Portable Sound Projector made (**DeVry**)—right now—this Fall—without any Cost to the School Board.

After paying for its own purchase, it becomes a continuous and popular fund-raising machine for other school enterprises. Write for booklet --- "Raising Funds With DeVry Talkies" --- also letters from many schools using the plan successfully.

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Pictures Save Time Get Results

You can do just as this science teacher is doing — teach with the assistance of pictures, saving time and getting better results.

Pictures do tell a more comprehensive story than words can possibly do.

With the Spencer Four-purpose Projector you may use all types of material available—opaque—glass slides—film-slides—micro-slides.

It is inexpensive and gives remarkable results. Complete data sent gratis—write for VAC booklet.



Spencer Lens Company

BUFFALO, N. Y.

AMONG THE PRODUCERS

Where the commercial firms—whose activities have an important bearing on progress in the visual field—are free to tell their story in their own words. The Educational Screen is glad to reprint here, within necessary space limitations, such material as seems to have most informational and news value to our readers.

"Stills" for Visual Aids

Educational Research Studies of Hollywood, California, have added two more sets to their educational series of motion picture "stills," one on *Feudal Life* and the other on *Pilgrims*. Sets previously announced are: *Westward Movement*, *Roman Life*, *American Revolution and Organization of Government*, *Civil War Period*. They average fifteen photographs to the set, each with text and introduction, and may be obtained in two forms—mounted separately, boxed for classroom use; or bound in an easel-type, imitation leather, durable binder for use on the browsing table of school or public library. It is planned to cover all historical periods in this manner as rapidly as is feasible and to maintain throughout the highest standard of quality obtainable.

The teacher who succeeds today, recognizes the vital importance of the "seeing experience" and the need of supplying vivid and accurate pictorial material



The humanity and mercy of the great heart of Abraham Lincoln have become treasured traditions of American History. Had the problem of rebuilding the war-devastated South been Lincoln's, reconstruction might have been speeded and much bitterness averted by the sympathy which he would undoubtedly have shown toward a sick country. Here Lincoln is seen visiting the wounded in the Marine Hospital at Washington, a look of compassionate kindness on his face.

D. Ch. War—1917

A "Still" from the "Civil War Period" Series

which may be made an integral part of the lesson. Modern visual material, covering present-day customs and industrial processes, is useful and plentiful, but accurate historical material, which reconstructs the scenes and events of the past in the desired continuity, has always been difficult to obtain. The perfection of modern photography and the resources of the motion picture industry, which have made possible the scrupulous research and attention to detail regardless of cost, have placed in the hands of teachers the exact

means needed to bring this background and this wealth of experience, to the child.

The teaching economy of carefully selected and prepared visual aid material is acknowledged, for it naturally follows that results are more definite and more quickly obtained. Directors and leaders of Visual Education and those using these visual aids in connection with the educational program of their schools, have been enthusiastic in expressing their approval of the quality, uniqueness, and completeness of these prepared photographic studies, stressing the concentrated attention displayed by the children when they were used.

New Model Leica Camera

E. Leitz, Inc., New York City, announces the introduction of a new model F Leica Camera, one that includes, besides the usual shutter speed range of 1/20th to 1/500th second exposure, slow shutter speeds ranging from one full second to one-eighth second. An interesting feature of this device lies in the fact that intermediate shutter speeds may be secured by setting the index pointer between two calibrated speeds. The new shutter speed control consists of a tiny, calibrated knob and operates independently from the regular shutter. A new magnifier lens is built into the range and view finders which permits a larger image to be seen. Another point of refinement is the inclusion of eyelets, one on each side of the camera, to accommodate a special carrying strap equipped with snap-hooks, thus permitting the camera to be carried and used without the aid of a carrying case. Booklet No. 1216 describes the new Camera, and may be secured by writing to E. Leitz, Inc., or visiting local photographic dealers.

Bell & Howell Introduces New Reels

For those who are interested in securing continuous projection of 16 mm. sound pictures for periods of a half hour and 45 minutes, Bell & Howell Company has developed 1200-foot and 1600-foot 16 mm. film reels. Also the Filmound, the B & H sound-on-film 16 mm. projector, has been provided with 1200 and 1600 foot reel arms.

The new reels are of all-steel construction and are designed for maximum ruggedness as well as for lightness and facility of operation. They have the self-threading hub feature. The flanges have been cut out not only to reduce weight but also to provide ease in threading.

The DeVry Plan Fits the Economy Drive

Of the drastic cuts school and city officials have made in various school departments, it is gratifying to note that Visual Education Departments have been maintained. In the brief time that they have been operating *they have sold themselves to school authorities* as valuable school aids. They have suffered some reduced appropriations, but *they have not been dropped.*

Herman A. DeVry, Inc., has made a real contribution to this situation in their plan which enables schools to go right ahead with their visual education equipment—including Sound-on-Film outfits—without drawing on regular school funds. "Talkies," fascinating and popular, provide entertainments in the school auditorium at low admission prices, enabling the outfit *to raise its own cash*; and then later on actually *raise funds* for other school activities.

This in no wise interferes with the regular classroom and auditorium showings of strictly educational films to go along with the course of study.

A good example of how schools are doing this, is seen in the following letter:

We put these shows on either Friday afternoons or Saturday and charge 10c admission. The auditorium is usually large enough to take care of the enrollment of that particular school, therefore, it is not necessary to run more than one show. We do not advertise the shows outside our own schools but do encourage parents to come so they may know the type of show their children are seeing.

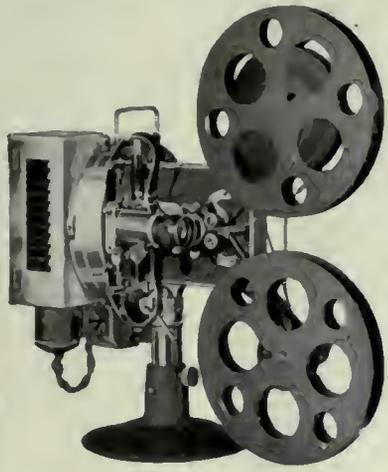
Our ambition is to bring about an appreciation for pictures of literary value. When mass satisfactions are raised to a higher level, there will be less need for censors. In other words, we are giving the parents an opportunity to say "See this show" rather than "Don't go to that show".

W. E. SWARTHOUT,
Principal, Emerson School, Maywood, Ill.

Eastman Developments

For several years photography by invisible infra-red radiation has received wide public attention through the newspapers and the scientific press, but until quite recently commercial photographers and advanced amateurs have been concerned only with photography by visible light. Photographic materials sensitive to visible light have amply met the requirements of these groups, even for distant landscapes—which were photographed with a panchromatic emulsion and a red filter for eliminating haze.

Plates sensitive to invisible infra-red light have been extremely useful to scientists, especially astronomers. Moreover, because this light penetrates through hazy atmospheres far better than visible light, such plates have been used successfully for photography at great



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Greatest
Bargain in
Projectors**

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VICTOR
Model 7H-V.C.
500 Watt—\$117.50
Model 3-V.C.
400 Watt—\$112.50
●

Only 18 Projectors.
While they last.
Rush your Order.

●
VICTOR Model 3-V.C.

We have made a special purchase of these 18 projectors—(8) Model 7H-V.C. and (10) Model 3-V.C. which list for \$200.00 and \$187.50 respectively, including case. These Projectors are BRAND NEW and carry a TWO YEAR GUARANTEE by the VICTOR FACTORY of DAVENPORT, Iowa.

write —



SUNNY SCHICK

"The Filmo Broker"

"Since 1925" FORT WAYNE, INDIANA

(mention Educational Screen when writing)

distances. They may also be used for fantastic night effects by daylight, or to produce a nearby landscape of unusual character.

Recent improvements in infra-red-sensitive plates, both in speed and sensitivity, make them more practical for the use of photographers who wish to take advantage of the special results and the unusual effects they offer. A current announcement by the Eastman Kodak Company states that three types of these plates are now standardized for this work.

Kodak Panatomic Film, a panchromatic film of exceedingly fine grain, for use with miniature cameras, is another new development. It has the same speed as N. C. Film in daylight and is twice as fast by artificial light. Panatomic Film is being manufactured in three types of rolls: F127, for cameras taking 16 pictures on the "vest pocket" roll; F117 for Rolleiflex cameras; and a 30-exposure daylight-loading roll for Leica cameras.

Simultaneously with the new film, the Eastman Kodak Company announced the addition of another miniature model to its line of European-type cameras—the Kodak Vollenda equipped with a Radionar Anastigmat f. 4.5 lens and a Pronto shutter with speeds up to 1/100 second and with bulb, time, and a built-in self-timer.

HERE THEY ARE!

A Trade Directory for the Visual Field

FILMS

- Arnold Audio Associates** (5)
11 W. 42nd St., New York City
- Bray Pictures Corporation** (3, 6)
729 Seventh Ave., New York City
- Carlyle Ellis** (1, 4)
53 Hamilton Terrace, New York City
Producer of Social Service Films
- Eastman Kodak Co.** (4)
Rochester, N. Y.
(See advertisement on outside back cover)
- Eastman Teaching Films, Inc.** (1, 4)
Rochester, N. Y.
- Edited Pictures System, Inc.** (1, 4)
330 W. 42nd St., New York City
- Ideal Pictures Corp.** (1, 4)
26 E. Eighth St., Chicago, Ill.
- Modern Woodmen of America** (3, 4)
Rock Island, Ill.
- Pinkney Film Service Co.** (1, 4)
1028 Forbes St., Pittsburgh, Pa.
- Ray-Bell Films, Inc.** (3, 6)
817 University Ave., St. Paul, Minn.
- School of Business Administration** (4)
State College, Pullman, Wash.
(See advertisement on page 203)
- Society for Visual Education** (1, 4)
327 S. LaSalle St., Chicago, Ill.
- United Projector and Films Corp.** (1, 4)
228 Franklin St., Buffalo, N. Y.
- Universal Pictures Corp.** (3)
730 Fifth Ave., New York City
(See advertisement on page 182)
- 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** (1, 4)
347 Madison Ave., New York City
19 S. LaSalle St., Chicago, Ill.
- Edited Pictures System, Inc.** (1)
330 W. 42nd St., New York City
- Herman A. DeVry, Inc.** (3, 4)
1111 Center St., Chicago
(See advertisement on page 295)
- Ideal Pictures Corp.** (1, 4)
26 E. Eighth St., Chicago, Ill.
- International Projector Corp.** (3, 6)
90 Gold St., New York City
- Regina Photo Supply Ltd.** (3, 6)
1924 Rose St., Regina, Sask.
- Sunny Schick** (4)
Fort Wayne, Ind.
(See advertisement on page 207)
- United Projector and Film Corp.** (3, 4)
228 Franklin St., Buffalo, N. Y.
- Victor Animatograph Corp.** (6)
Davenport, Iowa
- Weber Machine Corp.** (2)
59 Rutter St., Rochester, N. Y.
(See advertisement on page 203)
- Williams, Brown and Earle, Inc.** (3, 6)
918 Chestnut St., Philadelphia, Pa.

PHOTOGRAPHS and PRINTS

- Educational Research Studies, Ltd.**
5537 Hollywood Blvd., Hollywood,
Cal.
(See advertisement on page 204)
- William Thompson**
Malden-on-Hudson, N. Y.

SCREENS

- Da-Lite Screen Co.**
2721 N. Crawford Ave., Chicago
- Williams, Brown and Earle, Inc.**
918 Chestnut St., Philadelphia, Pa.

SLIDES and FILM SLIDES

- Conrad Slide and Projection Co.**
510 Twenty-second Ave., East
Superior, Wis.
- Eastman Educational Slides**
Iowa City, Ia.
- Edited Pictures System, Inc.**
330 W. 42nd St., New York City
- Ideal Pictures Corp.**
26 E. Eighth St., Chicago, Ill.
- Keystone View Co.**
Meadville, Pa.
(See advertisement on page 182)

- Radio-Mat Slide Co., Inc.**
1674 Broadway, New York City
(See advertisement on page 204)

- Society for Visual Education**
327 S. LaSalle St., Chicago, Ill.

- Spencer Lens Co.**
19 Doat St., Buffalo, N. Y.
(See advertisement on page 295)

- Victor Animatograph Corp.**
Davenport, Iowa

- Williams, Browne and Earle, Inc.**
918 Chestnut St., Philadelphia, Pa.

STEREOGRAPHS and STEREOSCOPES

- Herman A. DeVry, Inc.**
1111 Center St., Chicago
(See advertisement on page 205)

- Keystone View Co.**
Meadville, Pa.
(See advertisement on page 182)

STEREOPTICONS and OPAQUE PROJECTORS

- Bausch and Lomb Optical Co.**
Rochester, N. Y.
(See advertisement on page 203)

- E. Leitz, Inc.**
60 E. 10th St., New York City
(See advertisement on page 202)

- Regina Photo Supply Ltd.**
1924 Rose St., Regina, Sask.

- Society for Visual Education**
327 S. LaSalle St., Chicago, Ill.

- Spencer Lens Co.**
19 Doat St., Buffalo, N. Y.
(See advertisement on page 205)

- Victor Animatograph Corp.**
Davenport, Iowa

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

REFERENCE NUMBERS

- (1) indicates firm supplies 35 mm. silent.
(2) indicates firm supplies 35 mm. sound.
(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.

MOTION PICTURE MACHINES and SUPPLIES

- Bell & Howell Co.** (6)
1815 Larchmont Ave., Chicago, Ill.
(See advertisement on inside back cover)
- Eastman Kodak Co.** (4)
Rochester, N. Y.
(See advertisement on outside back cover)

IS YOUR firm represented here? It should be. Continuous insertions under one heading cost only \$1.50 per issue; additional listings under other headings, 50c each.

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OCTOBER

1933



Simplex PORTABLE

TRADE MARK REG'D.

35 M.M. SOUND PROJECTOR

A positive assurance of splendid tone and adequate volume in addition to a professional standard of visual projection, mechanical efficiency, dependability, ease of operation and simplicity



SIMPLEX
PORTABLE
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AMPLIFIER
AND
SPEAKER

For over a quarter of a century 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, in all the greatest cities of the world, Simplex Projectors are used in the largest and finest motion picture theatres. Simplex Projectors are extensively used in South America, Asia, Australia, Africa as well as throughout North America and Europe. In the isolated portions of the universe where dependability is absolutely indispensable, Simplex Projectors will be found. 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.

WITH UTMOST CONFIDENCE, WE STATE IN OUR ADVERTISING "SIMPLEX — THE INTERNATIONAL PROJECTOR — SUPREME ON LAND AND SEA," AND NOW WITH REAL PRIDE AND GREAT SATISFACTION WE TAKE PLEASURE IN INTRODUCING THE NEW

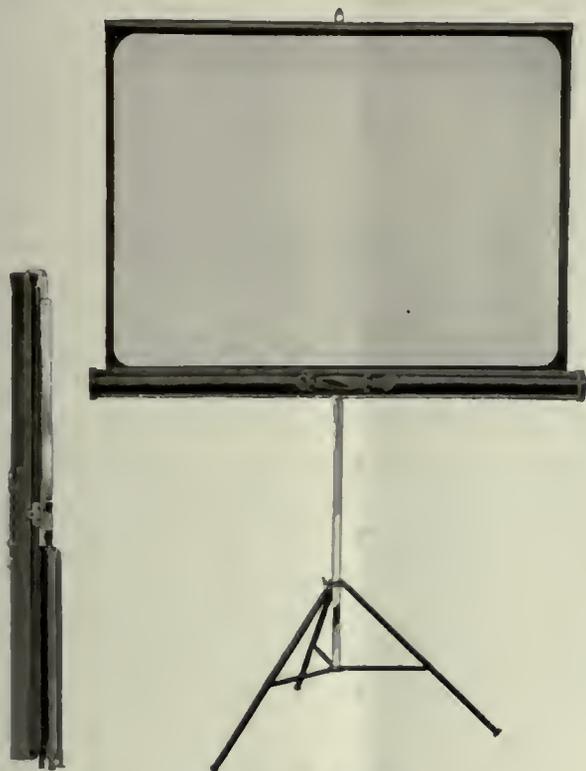
Simplex Portable
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35mm. Sound Projector

FULL DETAILS WILL BE SENT UPON REQUEST

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Motion Picture Screens Improve Your Pictures



The Challenger

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Motivating the Writing of Shorthand Through the Use of Motion Pictures

ELEANOR SKIMIN

THE STUDY of shorthand embodies the development of various skills. Before training can be given in the development of any skill, it is necessary that the precise nature of that skill be understood, and it is well for the teacher to study the nature, relationship, and relative importance of each of the requisite skills in shorthand and develop them with a minimum of time and labor.

It is my aim to obtain such interest on the part of my pupils as will guarantee attention and learning. Where there is no interest, there is no attention; and where there is no attention, there is no learning. This fact is true in any learning situation, but never more true than in learning the skills of shorthand. Unusual interest is usually accomplished by strenuous effort on the part of the teacher. Much of this effort will be obviated by the use of motion pictures to motivate the learning of correct writing habits. It is highly proper at this point to suggest that the guiding principle for the use of visual aids in the development of correct habits of writing shorthand is that of justification. In all shorthand texts we are told that it is advisable to develop correct habits of writing, and many teachers call the attention of the class to the need of such, but nothing is given to motivate the learning of correct technique.

Pupils are not averse to work if there is a definite purpose or motive back of all the work they are doing in the classroom. The philosophy that one learns to do by doing should be constantly followed in the teaching of shorthand. A great step has been made toward success when a good atmosphere has been created within which the pupils are to work. This atmosphere will be built around the interest and effort put forth by the teacher. I shall endeavor to explain to you how I attempted to build this atmosphere in my shorthand classes through purposeful motivation of the pupils' learning.

According to Morrison, the steps in teaching a skill are "setting the model, imitation, criticism, drill." On the part of the learner, the activities are, getting the idea of what is to be done, trying to do it, finding out whether the effort is successful or not, and drill, drill, which consists in repeated efforts to do the thing correctly. The reason for setting the model first is thus stated by Morrison: "The learner is set to practice with the goal itself as a focal content in consciousness. So long as he practices with intent to achieve the goal, he will eventually clear up his random movements and arrive, but the goal must be recognized and there must be intent to reach the goal."

Hence, as an initial step in the learning, the pupil must be made conscious of the goal by observing performances at the level of the adaptations sought. It is best to get an idea of what correct habits of writing are. Therefore, I had motion pictures made of good shorthand writers executing the various characters in Gregg shorthand. Until a pupil has observed such writing, he will have a very indefinite idea of what he is trying to learn to do. We all learn acts of skill much faster when we have a definite idea of what we are trying to accomplish.

In this discussion, I am concerned with the development of such writing habits as will produce habitual correct writing of shorthand from the beginning. This involves correct hand position, fluency of motion, and hand control in the execution of various strokes as the motion picture so well explains. The skillful person, whether he be a dancer, a golfer, or a shorthand writer, has acquired a series of smoothly functioning habits of action. He has technique, and technique is nothing more than habits of action. Our best habits are those we form consciously and correctly, attending to them when they are in the infant stage and bringing them up in the way they should go until they reach the age of maturity and can walk alone. A reaction becomes a habit when it has occurred so frequently that it is done automatically and with little attention.

Progressive teachers of shorthand are advocating early dictation. In the new order of teaching shorthand, there is no such thing as a theory class followed by dictation classes, but rather a program that blends the two, with close attention given to the development of all three skills—writing, reading, and transcribing.

Assuming, then, that the above statement is true, that early dictation hastens better results in the shorthand class, it is evident that attention must be given to correct habits of writing. If, as has been said, the emphasis today in teaching is upon guidance and stimulation, then the use of motion pictures in this connection should be useful. The teacher who has this fundamental objective in view all the time adjusts instruction, course content, and practice to the end in view. Morrison says: "In the great majority of classrooms which one visits and in the great majority of the courses of study which one needs, there are, strictly speaking, no teaching objectives set up. We are apt to find, instead, a list of things to be done, or a syllabus of ground to be covered, evidently in the hope that the student will learn something as he passes through the routine." Sometimes shorthand teachers

are guilty of thinking of their objectives as ground to be covered in the Manual; so many pages of practice work, etc. Again, we may have another idea of objectives. We may require our students to write a certain list of words correctly, or at the end of, say the third or fourth semester, to write eighty to one hundred words a minute. Such standards are useful, but, manifestly, these are not adequate statements of the objectives of the shorthand classes.

Explanation of Film

A point of primary importance in writing shorthand in the beginning stages of learning is position of body and arms. Certain positions of body and arms are more favorable to good writing, to easy and fluent movement. Directions for good position are self-evident in the picture. Sit straight, well back in the seat, feet flat on the floor, left foot slightly forward, both arms on the desk but not supporting the body to any extent. The left hand should be used to adjust paper, moving it upward as the writing continues, and to turn the page. Notebook should be placed on the table or desk at an angle of about thirty degrees. Slight variations in position are to be admitted, since entirely unvarying posture is hard for the person to maintain, but he should not maintain any habitual posture that is markedly different from the one which has been described.

The hand should be held with palm down and wrist level. In this connection observe illustrations in picture closely. The reason that the wrist must not be turned to the side is that this position prevents the hand from sliding easily across the paper. To make this sliding movement easy, the hand should rest upon the third and fourth fingers. The fingers slide upon the nails. In any case, the hand should not rest upon the side, or upon the base of the hand. These positions make it difficult to keep the hand moving sideward while the writing is being formed. The pen should be grasped easily and lightly, in a position which is natural to the form of the hand of the individual writer. The thumb and the first finger should not be drawn in or tightly pressed against the penholder. The finger should rest nearer the point of the pen than the thumb. It is well to test the looseness of the grasp occasionally by drawing the pen from the fingers and seeing how much resistance is offered.

We may distinguish between two aspects of the writing movement. The first has to do with the side-to-side progression of the hand across the page while the shorthand characters are being formed. Experimental analysis has shown that this is one of the most important aspects of the writing movement (moving picture brings this point out very clearly). Exercises should be given to develop this movement. When this sideward movement is not properly carried out, the hand becomes cramped and the shorthand forms cannot be easily executed. This sideward movement is very easily made alone, but slightly more difficult when

combined with execution of the shorthand characters. The important thing to be learned is to combine the two movements. Specific exercises will facilitate this combination of the sideward movement and shorthand character formation. The oval drill to the count of three, followed by p. b. p. also to the count of three, will develop the proper finger action in the formation of these characters—likewise with f, v, and the straight up and down strokes t, d, sh, ch, and j. (Motion picture illustrates these movements in the first penmanship drill.) The formation of the horizontal strokes calls for more of a hand glide, with the same sideward movement, the hand gliding on the third and fourth fingers. Some arm movement is used to carry the hand across the page, but the fingers are used for a great part of the formation of the shorthand characters—note the finger action in the first drill in the motion picture. Too much arm movement is not conducive to rapidity.

Another aspect of the writing movement which has not received much attention because it is difficult to observe, is rhythm. This is the organization of the movement in respect to its timing. In the early stages of the development of writing habits, we use a uniform rhythm in order to give the student a start, but as the movement becomes more delicately adjusted, we modify the rate. This rate is adjusted to the ability of the students. Some pupils will be able to adapt themselves to a faster rate when the writing in concert is abandoned. These individual adjustments can be made after they have become accustomed to rhythmic writing through class exercises. The good writer, as contrasted with the poor writer, writes smoothly and quietly. There is no excessive motion evident in his hand while writing—he has control over his hand and its movements. Incidentally, the untrained hand is working much harder than the trained one when writing rapidly. The objective is to acquire better writing with less effort, or in other words, establish an individual rhythm which will result in a thoroughly coordinated writing habit. (Note the difference in the trained and untrained writer in the moving picture.)

The fundamental principle of practice in learning a skill is repetition. Repetition, of course, may merely habituate the wrong way of performing the act, if the act is not properly done, or if the attention is not so directed as to bring about improvement. The greater part of the writing period in a shorthand class should be spent in writing under guidance of the teacher. This writing may consist of drills on common words, brief forms, or specially constructed penmanship drills, written in a single or double time, but the rule to remember is that the pupil should be actually writing the greater part of the time.

It is well to have a pupil practice continuously

for some length of time upon the improvement of some specific difficulty such as uniform slant, proportion of characters, etc. Practice which is directed to the improvement of some specific difficulty in the writing will be much more resultful than practice in which the aim is merely general improvement. While it is important that the pupil should practice with concentrated attention upon the improvement of the appearance of his writing, yet the attention is focused more upon correct movement. I believe we say that any act of skill is performed in good form. We mean by this that the position which is assumed is the one which has been found to be the best and that the movement is carried out in the manner which is recognized to be the best. Thus, in tennis, the left foot should be placed in front of the right foot and in golf the right hand should be placed below the left hand, and so on.

Such general features of movement as I have

mentioned should be taught by means of instruction and demonstration. (The moving picture used in this demonstration serves the purpose very well.) In the beginning, accuracy of movement is all-important and as the course progresses the pupil will find his characters taking on an accurate form.

Thus, when correct habits of writing have been established from the beginning, the daily work of the student will have been a pleasure to him. He is getting dictation down at the beginning, at the rate of sixty to eighty words per minute, with the greatest ease and skill yet the matter of speed has been given little emphasis. His mind can be directed now to what is being written. Thus he is brought into the proper attitude toward his work, and transcription of his notes on the typewriter can and should begin from the first days of learning.

Visual Methods in Teaching Foreign Language

GEORGE A. STRACKE

ANY FOREIGN language instructor with courage, enterprise, and a temporary disregard for dignity and tradition can—by following the visual methods here suggested—add much to the value of his teaching, make his class one of intense interest for his student, and, what is more important, instill in them a knowledge of and appreciation for that language, which is the ideal of all but the attainment of few teachers. First we may summarize some of the well known arguments for "direct method" teaching of language, and then show how visual aids are of particular value with this method.

It must be admitted that most students who are 'exposed' to a course in a foreign language never *learn* the language. They learn, perhaps, something of its philology, they obtain a respect for the marvelous intricacies of the grammar which Aristotle wrote for all languages twenty centuries ago, and they memorize a few foreign synonyms for English words.

At best they are mere translators. They "develop strong right arms," and as one educator has put it, "by turning the pages of the dictionary or to the vocabulary at the back of the text." The student spends half this time learning English, with the result that his procedure in class is somewhat as follows: (It is a French class) The instructor asks a question. The student at whom the question is directed mentally translates the question into English, formulates his answer in English, translates his answer into French, and then responds orally. What a tremendous waste of effort!

His interest in the language usually has been deadened at the start by rules, such as "This is true except in the five thousand cases where it is not!" The final result is that he memorizes a few glib phrases, which roll pleasantly around in the mouth, and may be used to impress others the fact that he has studied French, or Spanish, or Latin as the case may be. It is my honest belief that rules and grammar have done more to drive the study of Latin out of our schools than anything else.

It was stated earlier that courage, enterprise, and a temporary disregard for dignity and tradition are necessary. There is no royal road, and he who departs from the beaten path must have courage, for tradition is strong and there will be much opposition from administrators. But having set out on this new departure, one must find his own way. The method I shall suggest demands ingenuity, it demands a complete revamping of procedure, and it demands an application of the basic knowledge of life. The instructor will face a temporary loss of dignity, for the success of this method demands that he be a linguist, an actor, an artist, an artisan, and sometimes even a clowning fool. However, he will soon take on a new dignity, one which will arise out of the wholesome respect his students will have for ability.

Language is a living thing, it is growing, changing, expanding all the time. It cannot be bound by rules. Every person learned to speak his native language as well as he will ever speak it—except for a few superficial alterations—long before he

knew there was such a thing as grammar. Grammar is intended only to clarify our understanding of the vitality of language. Any English teacher will admit—privately, of course—that improving the command of language is almost a hopeless task, and that the study of grammar does little more than acquaint the student with the knowledge that such things as nouns, verbs, etc., do exist.

It should be obvious, then, that the best method of learning, and therefore of teaching, a new language is to follow the same process one used in learning his native language. That is, to *learn the language by using it*. If one wishes to learn or teach the refinements (?) of grammar he may do so after the language has been learned.

Now as to method. The following is a typical class in beginning French. As the students enter the room they observe that the instructor's desk is covered with a number of small articles, and that the stereopticon has been set up. They carry no text-books or note books, for the instructor appreciates that once a thing has been written down it becomes static.

"Bon jour, Mes élèves!"

"Bon jour, Monsieur!"—a quick note of vacant seats—which in this class are few—disposes of the roll. From this point forward no word of English will be spoken in the class room, but for the sake of clarity and understanding in this article all conversations will be in English.

"Today we shall discover and learn the appurtenances of French dining and perhaps something of French manners." The students do not comprehend all that is said, but they do understand a number of words and the smooth rhythm falls on accustomed ears.

"Et maintenant." A slide is thrown on the screen. It reveals a room in a typical French home, with the table prepared for a meal. The instructor points to each gross object in the picture and pronounces the French word—combined with the definite article, "the table, the chair, the napery, the window, the servant," etc. The class repeats each word after him. This maneuver is repeated several times until the class can identify each object readily.

Turning from the picture—which is withdrawn—to the desk, he identifies each object thereon, "the fork, the knife, the bowl, etc.," all or most of the small objects being characteristic of the French table. These are French objects—not American counterparts.

Please note—the students are learning French *words* for French *objects*—not French words for English *words*, not French *words* for American *objects*. So much for the objective material.

The instructor arranges the table ware, and in-

dicates in pantomime the arrival at the table of "maman, Pere Francois, petit Francois, Marie, etc.," interspersing his pantomime with the appropriate word for the action or person. Seating himself, he indicates and voices the processes of cutting, eating, serving and the like.

The reader will readily perceive the effectiveness of the method. Other typical lesson plans beyond those of the routine of individual and family life are:

A trip through the park and garden (actual)

A journey by railroad—slides, pictures, timetable, and pantomime

Shopping—slides, pictures, objects, coins

The Army—introducing foot and mounted soldiers, slides, pictures, war souvenirs.

Possibilities are limited only by the ingenuity and adaptability of the teacher. A safe way to begin is to use the lessons in the average reader-text, and secure visual material to fit these lessons. A change may gradually be made as material is obtained.

The resourceful instructor need not wait for objective material. Pantomime and simple black-board illustrations will serve as a beginning. A chair will do for a horse and the simple "I mount the horse" accompanied by swinging the leg over, and straddling the chair will convey the meaning clearly.

Visual methods are not limited to objective materials. Words of space and time relation are easily taught. A small bench may be placed on the desk; a book may be placed successively on, below, in front, behind, to one side, and to the other side of the bench. Time relations may be taught with a calendar.

All of the foregoing are merely suggestions. They are not hypothetical, but are drawn from actual class room practice. They are applicable to the teaching of any foreign language. Instruction which is vitalized along the lines herein indicated will meet with a ready response from students and bring that satisfaction which is the teacher's reward for work well-performed.

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A New Idea in Projecting Microscopic Slides

WILLIAM S. GREEN, JR.

THE AVERAGE biology laboratory, even in the most modern high schools, does not have the special equipment needed to project microscopic slides on a screen for group instruction. This aspect of visual education has great possibilities. The projection of microscopic slides enables the instructor to point out things that should be observed with the definite assurance that all the students shall see them.

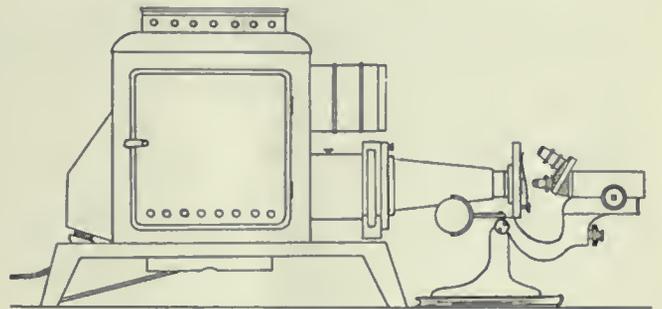
It is economical in several ways, both in time and money. Where microscopes are few this method enables the instructor to show slides to a large group all at the same time. It is often difficult to secure good enough material for making mounts for everyone in the class, especially where the classes are large. The object of this article is to explain how the projecting may be done without the use of special and expensive projecting equipment.

In the first place a standard projection lantern, the type ordinarily used for slides, is necessary. The author has successfully used a projector which is adapted to both slides and opaque illustrations. For microscopic slides the projector is set up just as if one wished to show ordinary glass slides. The next necessity is a microscope. The eye piece should be removed, which shortens the barrel and makes the illustrations on the screen larger. This may easily be unscrewed without damage to the instrument. Next bend the foot of the microscope back so that the barrel will be in line with the end of the projector. The projectors have a small conical nose which fits nicely into the iris diaphragm beneath the stage of the microscope. The mirror has already been pushed to one side as it is not needed. A wooden rack may be made to hold your microscope in this odd position, but it is not necessary. Books may be used and results are quite satisfactory. The illustration makes clear the method of arranging the apparatus.

This idea has a few disadvantages which should be set forth so that the anticipation of those who use it may not soar to too great a height. The stage of the microscope is in a vertical position which makes it difficult to use liquid mounts with a high degree of success. Mounts of plant sections in glycerine may be successfully used since glycerine is more viscous than water. The bright light going through the mount has a tendency to heat and kill protozoan mounts, so that the projections of these interesting animals will require skill and ingenuity on the part of the operator.

Regarding the advantages of the idea we should mention first the fact that only a projector, a microscope, slides and a screen are needed. This equipment is within reach of any school laboratory. A good stock of permanent microscope slides is a great help, but these can be made gradually by the instructor. Some of the slides you would like to try first would be cross sections of stems, compound eyes of insects, scales of butterflies' wings, textile fibers, cells of an onion skin, stomata, bread mold, leaf sections, to mention only a few.

With a clean slide, one previously washed in alcohol, it is possible to project the formation of crystals on the screen. There are many substances that can be used for this purpose. A good one to try first is sulphur dissolved in carbon disulphide. Put the clean slide under the stage clips of the microscope, then dip a toothpick or



Micro-Projection Apparatus composed merely of a regular stereopticon and a standard microscope.

suitable instrument in the solution and run it across the slide. The carbon disulphide soon evaporates leaving the crystals clearly projected on the screen. This phase of the work is most interesting to students of chemistry. It should be mentioned that greater success will be obtained when using a low power objective of your microscope. The light bulb in the average projector is not brilliant enough to give all the illumination desired when using the high power objective. This, however, is a common problem experienced by anyone who wants to use a microscope for individual peerings into the subvisible realm.

Finally regarding the screen it should be mentioned that good results in this work can be obtained when using a distance of about six to eight feet between the projection lantern and the screen. A very desirable type of screen may be made by using a piece of tracing cloth about three feet square fastened to a wooden frame. This frame

is made on a standard and can be placed a few feet in front of the instructor's desk. The object being shown is visible on both sides of a screen of this type and is convenient in that only the first row of students have to move back to see. The instructor may point things out while standing behind the screen and is not in the way of those looking at the front of the screen. The pointer appears as a very black shadow on the object.

Because economy is the paramount consideration in this method of visual instruction, it might be of interest to discuss briefly the preparation of permanent microscope slides. The materials needed are few in number and are available to most school laboratories. Ordinary glass slides and cover slips are the first consideration. If a microtome is not available for cutting sections, good results of many specimens may be made with a razor blade. With a little practice one will be surprised and pleased with the skill he develops when employing this primitive method of sectioning. Stained mounts show up much better on the screen and are more

beautiful. Eosin and gentian violet are two common and satisfactory ones to use. The eosin gives a more delicate tint and is perhaps desirable where intensity of color is not important. Alcohol is the best solvent to use in the final stage of slide cleaning, as it is an effective grease remover. After the section is stained and placed upon a clean slide it is ready to be mounted permanently. A drop of Canada balsam is placed upon it and then the cover slip is deftly set, excluding as many bubbles as possible. Your slide is now ready to label and becomes a permanent part of your assortment. The technique in making slides is variable since it depends on a good many different factors. Much splendid material has been written on this subject and is easily available to those who care to delve into this interesting field. Those who care to buy permanent slides will find that the biological supply houses have a wide variety of exceptional quality. There is, however, a certain satisfaction and pleasure in doing the job yourself, especially if you have the searcher spirit of science and enjoy working with your two hands.

Visual Experience and Social Progress

(Continued from September Issue)

ALBERT E. OSBORNE

AS A result of our investigation so far then we find that each person must build his own world of nature and humanity, and that this inner world of his is the only one he can react to or deal with. It inevitably follows therefore that *he can deal intelligently and wisely with the outer world of nature and humanity, only in so far as his inner world is an adequate and accurate duplicate of the outer world.*

Moreover we find that the mental food or raw material each must depend upon in building his inner world is gained only in connection with his sense experiences. And yet we find that no child or person has been able to get more than a mere fraction of the especially important sense experiences of sight, for which he has an instinctive appetite. This fact ought to make us realize that these inner worlds that people have been building and are building can be only extremely limited and inadequate duplicates of the outer world. But really no scientific investigation should be needed to establish this fact. No person of ordinary intelligence would doubt the fact that the inner worlds of people generally are not only pitifully limited in comparison with the outer world, but also that these inner worlds are ludicrously false and distorted duplicates of the outer world.

Indeed, in this limitation of peoples' inner worlds, we find an explanation for many of the unsocial acts,

the terrible social ills, for which mankind has been morally blamed. Here undoubtedly we find a partial explanation at least for the prevalent beliefs in the innate evil and selfishness of human nature. Unquestionably one of the greatest reasons for the lack of wider interests and understanding and sympathy and cooperation among people generally is because the vast mass of humanity has never really appeared in these inner worlds that most people have built. We live on practically oblivious to most of our fellow human beings because they have never appeared in our conscious world, or because our consciousness of them is so vague and shadowy.

There are many things each citizen should know, there are many habits and skills and professions in which the varied citizens need to be trained if each is to "carry his own load". There are in the world today many industrial, commercial, governmental, social, and other problems to be solved. But it is not too much to say that so long as peoples' inner worlds are such inadequate duplicates of the outer world, all time and effort spent in training people for these various trades and professions, in trying to solve these varied problems, will be largely ineffective and wasted.

Sir John Adams, LL.D., University of London, in his book "The Nature of Error," (pages 31 and 105) says, "This inner world of ours is an individual matter. Each of us has an inner world of his own, while the outer world is common to us all. We may speak

of the first as subjective and of the second as objective." . . . "So far as the two (worlds) fit into one another in the experience of the individual the result is satisfactory . . . every misfit in the interactions between the two worlds indicates an error somewhere and the need for the removal of that error." While there is such an utter discrepancy between these inner worlds and the outer world, it is mere foolishness to expect people to act wisely as citizens—it is mere foolishness to suppose that we can have those bigger men and women that are necessary for the solution of our vast social problems.

To summarize: If people must act with relation to the world that each has built within; if these inner worlds are such limited and distorted duplicates of the outer world; if the raw material for building each inner world is gained only from sense experiences; and if no one has been able to get more than a fraction of the sense experiences, especially the sight experiences, that he has an instinctive and eager appetite for; then clearly the primary problem open for solution, is how to provide a vastly wider range and a vastly increased amount of sense experiences for children and people everywhere. And in as much as most of the needed experiences of touch, taste, smell and hearing may be gained in connection with the home environment, the problem really is *how to provide a vastly wider range and a vastly increased amount of sight experiences for children and adults everywhere.*

Much is being said to-day about the wider and richer environment in which people now live due to the automobile, telephone, radio, movie, etc. This is true to some degree. But great as are the effects of these inventions, it still remains unquestionably true that, for the mass of people from childhood up, their eager appetite to see the world is not being satisfied, and that there is still a ludicrous difference between their inner worlds and the great outer world, especially the great interdependent human world with which they must constantly deal and which they must help to carry on.

Undoubtedly many would assume that sufficient provision is made for this need for visual experience, of the young especially, as far as the more advanced countries are concerned, in the schools. Unquestionably it is in the most important activity of civilized society where such provision should be made.

Let us turn therefore, for a few minutes, to the present day work in our schools, to inquire particularly as to what extent we are providing for this primary mental need for sense experiences, especially for the preeminently important sense experiences of sight, for the millions of oncoming children.

What do we find? Well, we find the children gathered in their various local communities into school classrooms. And what are the children doing during these vital growing years in these classrooms? In the

especially important primary and elementary grades the children spend most of their time in trying to master what are often called "tool" subjects, or "fundamentals"—the mechanics of reading, spelling, and certain fundamental processes in arithmetic. Then they spend their time on "content" subjects, (or the "social sciences"), geography, history and civics.

Now, in the first place, we should note that while humanity is the one thing, as far as we can see, that the world runs for, yet there is not a subject in our schools the specific purpose of which is to see that the oncoming generations become *really acquainted with the humanity of to-day.* In the so-called "social sciences" of geography, history and civics, the children are supposed to gain their knowledge of this wonderfully important humanity of to-day. But geography is primarily a study of man's relations to the earth. Even a recent Human or Social Geography gives this definition of geography,—"The function of modern human geography is to show how the activities of man are influenced by the natural environment." History is a study of humanity's past. Civics and sociology are as yet more a study of the machinery of society and government (along with some practice for the young in dealing with their associates in the local school or community).

Here is a matter to be profoundly pondered. It is generally conceded that great dangers threaten Western Civilization because of the extent to which we set up the material means of life, rather than life itself, as the chief aim of our thought and endeavor. For this great blunder our education, because of its extreme emphasis on the means of life, is in large measure responsible. There is no more profound ignorance in the world to-day than the ignorance of the mass of people of one country as to the mass of people in another country, and yet there is not a study in our schools the specific object of which is to see that the oncoming generation becomes really acquainted with the humanity of to-day. At a time when we can produce far more of the material means of life than the people can now buy, the young in the schools are still required to give far more of their time and attention to knowledge about the means of life than to life itself. At a time when the world is falling down particularly in its human relationships, there is little done in our schools to clear up the profound ignorance that people have of our common world-humanity.

In the second place, we find that in most of the immensely important years the children spend in the schools, they are spending their time *not in dealing directly through their senses with the great world of reality,* but in learning to deal with and dealing with spoken and written languages, *spoken and written symbols.* As Henry Fairfield Osborn says, "A student in obtaining his education to-day strives to get hundreds of facts from books to one fact from the world of reality."

Inasmuch as we are making the children depend so largely on spoken and written language as a means of developing their possibilities, of getting their knowledge of things and people, in preparing them for citizenship, we ought to have a very clear understanding of how the children's minds act in the use of language—of just what experiences or knowledge of things and people they are able to gain by means of language symbols. Especially should we have a very clear understanding of the likeness or unlikeness of the experiences of things and people that children or adults build through language descriptions, as compared to the experiences of things and people that they build through their senses, their sense of sight especially. We can only touch upon this extremely important matter here.

Now of course it is to be taken for granted that language is of the utmost importance to humanity in countless ways. However, this should not keep us from realizing that whenever it is depended upon as a *substitute* for a *sense experience*, especially with children, it is one of the most wasteful and ineffective means to use.

We must be constantly on our guard if we are not to be misled or fooled by the many high sounding statements about language. Even in books about education we find constantly repeated statements to the effect that language "gives" or "supplies" or "conveys" experiences from one to another. "Reading, however, (or listening), as Paget says, "is a process of reconstructing the meaning of the author." The child or adult gets results in reading or listening to another talk, only in so far as he himself can build the thoughts or experiences of the author or speaker, supplying, moreover, all the material out of which he builds these thoughts. Nobody is "given" these sense experiences, or these higher mental products, in any literal meaning of the word, certainly not by hearing or by seeing language symbols. Professor Dewey says somewhere that two people can get the same idea in connection with the same words only in so far as they have already had the same experiences, and in so far as these words have been definitely associated with these experiences in these people's minds. We cannot realize too clearly, therefore, that spoken or written language does not "convey" or "supply," what we have found to be the child's primary mental need, his need for mental "foodstuffs" or building material. This, as we have seen, can be supplied only in connection with his sense and bodily experiences.

Here lies, then, a fundamental blunder in the work of education — dependence upon language as a substitute for experience, especially sense experience. Says one educator, "Minds must be brought into contact with realities. A dozen pedagogical maxims enforce this truth. The mind cannot grow upon itself. It must be fed. We cannot think unless we have things to think about. Hence the modern condemnation of 'book learning,' 'rote teaching,' 'words before

ideas,' 'signs without things signified,' and so on."

It is an exceedingly complex problem to determine all the things that need to be taught in preparing the young for citizenship in the complex society of to-day. Some higher institutions of learning give hundreds of courses in English and other subjects. It has reached a point where not only the ordinary citizen and taxpayer, but even the teachers, are confused by the many specialized courses of instruction; when both teachers and citizens fail to see the forest because of the trees. Recently Dr. Judd, Director of the School of Education, University of Chicago, stated that every elementary teacher should have not only courses in the special subject or grade he or she was to teach, but also a course that made clear the contribution that each subject or grade should make towards the main object of the schools, that is, preparation for citizenship. It is exceedingly important that each citizen and taxpayer and parent should have a basis for judging whether the subject and supplies that are of primary and fundamental importance in training the young for citizenship are provided for in our schools. Is it possible for the ordinary citizen to have standards for such judgment?

In the brief inquiry we have been making, we have found that each person must build his own world, the world he reacts to and deals with; each person must gain from his sense experiences, especially his experiences of sight, all the raw material he must depend upon in building his own world; that no matter how well trained each person may be along some lines, in so far as this inner world that he builds is an inadequate duplicate of the outer world, especially of the outer world of humanity, in so far as will his activities as a citizen be unintelligent and a hindrance and a source of trouble, rather than a help, in society. Here then we find a fundamental standard by which any citizen can see it is a mistake for our school to give so much attention to the means of life rather than to our common humanity; and especially that it is a loss for our schools to depend to such a degree upon language symbols as a substitute for sense experience. In the United States over six billion is invested in school property; and over two billion is spent for teachers' salaries; and over three-hundred million for supplies and upkeep. It is an elementary truth that whenever the schools make the young depend upon language descriptions, instead of their sense of sight, to gain needed experiences, there is a loss of the taxpayers' money invested in the school plant, of the money spent for the teachers' time, but above all, of the lives of the children. It is a worse blunder than for a farmer, with an expensive plant, to try to produce stock without giving them sufficient food, or to harvest his grain with a sickle rather than with a harvester.

There ought to be no question in any intelligent person's mind that education is the most important

(Continued on page 227)

DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

Visual Aids At Teachers' Meetings

The increasing importance of visual aids to instruction is signified to a certain extent by plans for the use of these materials at the various state teachers' association meetings during the fall and winter months.

Several sections of the Kansas State Teachers' Association have requested materials and equipment from the Bureau of Visual Instruction at the University of Kansas. Films, slides, and other illustrative materials will be used as a part of the program of science, geography, and history roundtables.

The Nebraska Teachers' Association has placed visual instruction demonstrations on two general and four group meetings, thus bringing the latest developments in the field to the attention of approximately five thousand teachers and school executives.

The Utah Education Association will devote at least one general session to visual instruction, with emphasis upon visual aids among the group meetings. These demonstrations will be arranged by the Bureau of Visual Instruction at Brigham Young University, which has been organized during the past year.

The Colorado Branch of the Department of Visual Instruction of the N. E. A. will meet in conjunction with the meeting of the Colorado Teachers' Association. The Bureau of Visual Instruction at the University of Colorado is providing materials for use at group or roundtable demonstrations.

The Oregon Association, which will meet during the Christmas vacation period, is making plans for a section devoted to visual instruction and will probably arrange for the demonstration of the most effective teaching aids.

This emphasis upon visual instruction should lead toward a gradual, healthy and permanent increase in the application of visual aids to classroom instruction. Such a development, if national in its scope, would do much to improve the quality of instruction among our schools, both public and private.

Why Join The Department?

Although the membership of the Department of Visual Instruction of the National Education Association has increased from year to year, the increase has not been as rapid as the increase in the use of visual aids. Why?

Perhaps the financial situation has some bearing upon membership in the Department. Very few organizations have increased the membership total during the past three years. However, the chief difficulty may be lack of information concerning the advantages of affiliation with the Department. There may be many who do not know—

That the Department of Visual Instruction of the N. E. A. is the only national clearing-house of information concerning visual instruction problems.

That clearing-house service is extended to members without charge, except for materials sold for permanent use.

That all members receive, without charge, a subscription to the EDUCATIONAL SCREEN, which is the leading magazine in the visual instruction field.

That members receive, without charge, the annual visual instruction directory of visual instruction departments, directors and workers.

That membership in the Department of Visual Instruction is a positive indication of a progressive attitude toward the problems of modern education.

That membership is open to anyone who may desire to become affiliated with the most progressive movement in the entire field of education.

That the annual cost of membership is but \$2.00, including the services and advantages mentioned above.

The above advantages are certainly enough to more than justify the nominal cost of membership. The Department is doing everything within its power to take care of the needs of visual instruction workers, many of whom need assistance and guidance from time to time. This service can be increased as the membership increases. If the present membership is doubled, the possibilities for service to individual members can be more than doubled. There is strength in numbers and each new member becomes increasingly important to the sound development of a true service to those teachers and administrators who desire to utilize the most effective teaching devices.

The accompanying blank is provided for the convenience of those who may desire to join the Department at this time. Tear it out, fill in the information as requested, and mail it to the address as given. If it is convenient, send your remittance with the application. If not, you may send it later.

Membership Application Blank

Secretary, Department of Visual Education,
National Education Association,
1638 Illinois Street,
Lawrence, Kansas.

Date.....

I herewith make application for membership in the Department of Visual Instruction of the N. E. A., for a period of one year at the usual fee of \$2.00, which I am enclosing. (Payment may be deferred if desirable.)

My membership card, the 1933 Visual Instruction Directory, and *The Educational Screen* should be mailed to—

Name

Address

City and State.....

I am } a member of the
I am not { National Education Association

Note: Please make remittances payable to the Department of Visual Instruction.

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Indiana State Visual Group Meets

The third annual meeting of the Visual Instruction Department of the Indiana State Teachers' Association will be held in Indianapolis, October 19. An attendance of one hundred fifty or two hundred is expected.

Dr. C. F. Hoban, Director of Museums and Visual Instruction for the Pennsylvania State Department of Education will be the principal speaker. His subject will be "Fundamental Values of Visual-Sensory Aids."

Officials of the Department are: *President*—George McIntire, Michigan City; *Vice-President*—W. J. Day, Shelbyville; *Secretary*—Carrie B. Francis, Indianapolis; *Membership Chairman*—Ford L. Lemler, Bloomington.

Boston University Repeats Visual Courses

The Visual Education course, "Leading Movements in Education," is again being offered by Boston University this term. This course was given for the first time the second semester of the past school year under the Harvard-Boston University Extension Service, as reported in the February issue of THE EDUCATIONAL SCREEN.

The course brings before the class the national and international leaders in education, with sound motion pictures illustrating their discussions. In addition to these leaders who provide material for the reels, the local leading exponent of the same subject will introduce the subject, prepare the audience for seeing the film, and, after the film is shown, discuss its contents and bring the subject matter up-to-date.



"Nature Study for Elementary School Teachers," under Professor Earle Brooks, is a companion course to the one in Visual Education for Nature Teachers given last semester. It is prepared for those who teach Nature Work of any kind and is illustrated throughout by sound films. This study should be helpful to leaders of Boy Scouts, or Girl Scouts, camp counselors and other workers with children.



Mr. Abraham Krasker, Director of Visual Education in the Quincy, Massachusetts, Public Schools, will again conduct a course at Boston University in "Preparation and Use of Teaching Aids," which prepares the teacher for making illustrative materials for teaching, making proper use of such aids, and for operating projectors.

Mr. Krasker writes that students taking his courses have found the use of THE EDUCATIONAL SCREEN "most worthwhile, as it quickly acquaints them with the vocabulary in the field of study, keeps them informed with the progress being made in Visual Education, brings together the experiences of the field, and makes known current releases."

Report Shows Growth in City Visual Department

The number of visual aids handled during the school year 1932-33 by the twenty schools of the Santa Ana City School District, California, totals 10,044, according to the report prepared by Miss Hazel Nell Bemus, Director of Art and Visual Education. This is more than twice the number of items handled the year before, which amounted to 4486.

The report shows slides to be the most extensively used, totalling 3725, followed respectively by stereographs (2621), broad still films (1293), flat pictures (1144), Santa Ana motion pictures (671), pamphlets (236), loan motion pictures (136), wall prints (128), standard still films (52), and exhibits (38).

A Motion Picture Survey

The Bell & Howell Company has just concluded a survey on the drawing power of upwards of 100 motion pictures shown at the Chicago Century of Progress by industrial and educational exhibitors. The use of motion pictures for putting over information and for attracting attention has been a remarkable feature of the Fair. Progressive institutions, both industrial and educational, are evidently convinced of the importance of the motion picture as a sales and promotional tool.

The survey discloses a vast difference in the pulling power of the various motion picture showings observed. When human interest episodes are projected, crowds gather and look at the films. When duller and less interesting sections are shown, the spectators begin to melt away. Scenes which the advertiser undoubtedly thought interesting, due to his enthusiasm for his own business and his closeness to it, are often, it is found, not so widely appealing to Mr. John Citizen and his wife, when the films are submitted to the acid test of public showing. The crowds show a special aversion, according to the survey, to long captions, and they express this by simply moving on.

All of which leads to the conclusion that you can make industrial motion pictures, but you can't force people to look at them when the films are not interesting. "The attention attracting quality of many pictures at the Fair is undoubtedly high," states the survey, "but this quality might have been improved in certain instances. Advertising managers and film producers will do well to give to this matter of interest content increasingly intensive study. The mechanical costs of making an inferior or a superior film are practically the same."

Another factor which, it is found, must be given attention is the size of the pictures projected. "The pictures," is stated, "must be of a size that is keyed to the size of the audience. A miniature picture, no matter how good the content, is at a decided disadvantage if a large audience is hoped for. Modern 16 mm. projectors can project bright, clear pictures up to 12 or 14 feet wide. Of all the projectors in use by Fair exhibitors over 95% are 16 mm. This is due, it seems, both to the lower cost of picture presentation with the latter style of projector and to the fact that truly modern 16 mm. projectors provide adequate sound and picture showings."

The survey concludes: "A little extra first cost for picture projection pays well in the essential matter of having one's films looked at—which is what the films are for. The same thing applies to sound projection. Where the sound is wheezy, or indistinct and off tone, there is a distinct loss in drawing power, regardless of the excellence of the words of music in themselves. An effective sound projector makes a decided difference in holding the crowds when sound pictures are shown."

New Film Catalogs

The 1933-34 catalog of "Selected Motion Pictures," listing 35 mm. sound-on-film, 16 mm. and 35. silent safety film, available from the Y. M. C. A. Motion Picture Bureau's New York and Chicago offices, has recently come from the press. The booklet lists the Bureau's motion picture library under the following main classifications: Free Films, Rental Films, Free Sound Films (35 mm.), and DeVry Film Lessons (Rental). In the back of the book is a cross index classification of specific and allied subjects under sixteen sub-headings which should be helpful in locating desired subjects.



The appearance of "A Guide to Instructional and Educational Films Available for Educational and Social Organizations in Great Britain" is significant as it is the first attempt made in England to prepare a catalog of standard (35 mm.) and sub-standard (16 mm. and 9.5 mm.) educational films. It was com-

plied by The Central Information Bureau for Educational Films, as part of its service to subscribers.

The films are classified under general subject headings, with each distributor's films grouped together under such headings, the 35 mm. reels together and the 16 mm. or 9.5 mm. together. Information is given on each film as to flammable or non-flammable stock, length of film; silent or talking versions, and, in some cases, brief description of the contents is included.

Sound Installations

The auditorium of Wells College, Aurora, New York, has recently been equipped with talking picture equipment. The school will present talking picture programs of three different types. The first will consist of strictly entertainment pictures for the faculty and student body, the second will be of a cultural or semi-educational nature, and the third the presentation of strictly educational talking pictures as a definite part of the school's curricula.



One of the latest schools to install sound equipment is the Central High School of Alameda, California. It is the belief of the Board of Education that from this medium many unusual and otherwise impossible programs of educational and entertainment value may be brought to the student body.

Foreign Activities

Mexico. The Sociedad pro-Cine Educativo has been organized to promote visual education in Mexico. It is a non-commercial institution, composed of scientific, pedagogical, and social workers, and is the first organization of its kind in that country. To facilitate their study of visual education, the president, Luz L. de Ibarra, invites correspondence from similar institutions in this country. The address of the society is Bucareli 128, Mexico, D. F.

France. It is reported that the Minister of Public Education plans to institute a commission for the special purpose of studying the problem of sound film equipment to be installed in schools and that the manufacturers will be asked to demonstrate various types of sound film equipment suitable for school use.

Scotland. A group of Scottish teachers have founded an association known as the Scottish Educational Sight and Sound Association, whose chief object is to investigate, promote and advise on auditory and visual educational aids. The association will undertake to build up a catalog of educational films; prepare Scottish regional films; edit and criticize educational films and suggest subjects for such to commercial companies.

THE FILM ESTIMATES

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

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

(Film Estimates on releases during the past summer are available on the regular weekly cards, carrying seven films each, at four cents a card.)

Arizona to Broadway (James Dunn, Joan Bennett) (Fox) Lively, involved story concerning efforts of a gang of medicine show crooks, headed by the hero, to recover the money which another gang has swindled from heroine's brother. Love reforms hero and he goes straight. Some amusing scenes.
A—Hardly Y—Inferior C—No

Avenger, The (Adrienne Ames, Ralph Forbes) (Monogram) Hero, released from prison on evidence of framing by crooked bankers, cleverly traps them one by one into confession of guilt. Nothing outstanding, but fairly well acted and convincingly acted by all save rather insipid heroine.
A—Hardly Y—Fair C—Doubtful

Beauty for Sale (Madge Evans, Otto Kruger) (MGM) Some fine acting, chiefly by Otto Kruger, wasted on elaborate, thoroughly unwholesome story about three girls and their unhappy love affairs, including such ingredients as a betrayed sweetheart driven to suicide, and illicit affairs with married men.
A—Hardly Y—By no means C—No

Big Brain, The (George E. Stone, Fay Wray) (RKO) Supposedly based on life of notorious "Jake the Barber." Brazen hero "advances" from barber trade into shrewd stock swindling. Operations reach height and exposure in England. Well-acted, fast-moving, with fundamentally unwholesome situations.
A—Hardly Y—Better not C—No

Brief Moment (Carol Lombard, Gene Raymond) (Columbia) Cabaret-singing heroine rejects devoted, unselfish protector to marry rich, worthless play-boy. Months of endless gayety, booze and luxurious night-club life estrange faithful wife—when play-boy finally comes to his senses and wins back his wife.
A—Mediocre Y—Undesirable C—No

Bureau of Missing Persons (Bette Davis) (First Nat'l) Fairly absorbing detective drama gets slow start due to many introductory scenes showing types of cases—most of them sordid—handled by New York Bureau of Missing Persons. Many dramatic and humorous scenes, but cheapened by slapstick ending.
A—Depends on taste Y—Better not C—No

Captured (Leslie Howard, Fairbanks, Jr.) (Warner) English hero and pal meet in brutal German prison camp. Hero's unfaithful young wife has stopped writing. Pal's guilt finally disclosed. Hero seeks vengeance but relents and dies to effect escape by airplane for all prisoners. Complex, incredible and largely depressing.
A—Only fair Y—Undesirable C—No

Dangers of the Arctic (Earl Rosaman) (Explorer's Film) Authentic and thrilling natural life pictures made by the Earl Rosaman Arctic Expedition. Outstanding feature is daily life of Eskimo showing great skill in survival of the fittest. Excellent bits of photography and good voice accompaniment.
A—Notable Y—Excellent C—Excellent

The Devil's in Love (Loretta Young, Victor Jory) (Fox) Frail, incredible, romantic melodrama with meaningless title. Hero is noble doctor who escapes from African Foreign Legion Fort, having been wrongly convicted of murder. Story obscure at times and far-fetched throughout. Unobjectionable, merely ineffectual.
A—Poor Y—Worthless C—No

Doctor Bull (Will Rogers, Marian Nixon) (Fox) Unpretentious, mildly dramatic story of country life, with Rogers excellent as a careless, and blunt but kindly village doctor in conflict with female gossips and town's politicians. Mostly wholesome, human stuff, but some bad taste in comedy scenes.
A—Good Y—Mostly good C—Mature

Flying Devils (Eric Linden, Cliff Edwards) (RKO) Fairly pleasing picture with plenty of aviation thrills, noise and excitement. Two brothers go barnstorming with aviator and his wife. When wife develops true love for another, the affair is settled by a fatal duel in the air.
A—Hardly Y—Mostly good C—No

F. P. I (Conrad Veidt) (Fox-British Gaumont-Ufa) Weaves mystery melodrama around construction of a floating landing platform for airplanes in mid-ocean. Vigorous mixture

Estimates are given for 3 groups

A—Intelligent Adult

Y—Youth (15-20 years)

C—Child (under 15 years)

Bold face type means "recommended"

of healthy romance, lively action, and long struggle against dark villainy. Well acted, elaborately set, thrillingly photographed.

A—Good of kind Y—Very good
C—Probably good

Four Aces (Private Slack) More genuine, original war-films, selected and pieced together with some skill to suggest continuous story of Great War, with Private Slack's heroic achievements. His own voice accompanies with sensible and straightforward comments. Grim, gruesome, and largely familiar stuff.

A—Perhaps Y—Harmless C—Perhaps

Good Companions, The (British cast) (Fox-British Gaumont) Fine screening of Priestly's charming story about adventures of traveling theatrical troupe touring small English towns. Wholesome characters, refreshing naturalness in acting, humor and genuine human appeal amply compensate for minor flaws.

A—Excellent Y—Excellent
C—Doubtful interest

Her First Mate (Zazu Pitts, Slim Summerville) (Universal) Typical Pitts-Summerville comedy, dull in spots but mostly funny and harmless. Futile hero ambitions to captain his own ocean-going ship, but peanut-selling on river boat or running dilapidated ferryboat seem to be his highest achievement. Zazu deserves better stuff.

A—Elementary Y—Fair C—Good

I Loved a Woman (E. G. Robinson, Kay Francis) (First Nat'l) Idealistic hero inherits Chicago meat packing business and becomes ruthless in his desire for money and power after falling in love with "other woman," who proves unfaithful. Financial ruin and death. Realistic drama against interesting historical background.

A—Interesting Y—Doubtful C—No

I'm No Angel (Mae West, Cary Grant) (Para) Merely continuation of Mae West's money-making by husky-voiced dialog, raw suggestiveness, physiological invitation and brazen vulgarianism. Thorough glorification of body over brain, with loud laugh at censorship, at taste, at common decency in film production.

A—Depends on taste Y—By no means C—No

Lady for a Day (May Robson, Warren William) (Columbia) A film so beautifully done that it becomes a delightful phantasy. Robson notable as Broadway apple vendor whose daughter, ignorant of real condition, brings titled fiancé for visit. Aided by friends, mother rises to situation and becomes, for the moment, a lady.

A—Excellent Y—Notable
C—Good but mature

Laughing at Life (Victor McLaglen) (Mascot) Straight adventure tale following colorful career of lawless soldier-of-fortune. During his travels his wife dies and he loses all trace of his son until the two meet in a South American revolution. Preposterous story with fast-moving plot.

A—Hardly Y—Exciting C—Too exciting

Night Flight (The Barrymores, Helen Hayes, Clark Gable, etc.) (MGM) Heavy, tragic, authentic picture, showing grim strain of 24 hours at central flying field for international airmail at Buenos Aires. Tense moments, exciting air dangers, but deficient in story material. Too little plot to occupy notably fine cast.

A—Fair of kind Y—Exciting C—Hardly

One Man's Journey (Lionel Barrymore) (RKO) Homely, human story glorifying the country doctor who foregoes his own ambition to serve poor community devotedly. Barrymore appealing and convincing. May Robson notable as the understanding housekeeper. One seduction scene unfortunately mars this fine picture for youth.

A—Worthwhile Y—Doubtful C—Beyond them

Paddy the Next Best Thing (Janet Gaynor, Warner Baxter) (Fox) Well-produced, clever sentimental comedy with lovely Irish background. Improvident but loving father schemes to wed elder daughter to wealthy hero. Heroine's well-meant efforts to save her sister from loveless marriage make much fun and genuine character comedy.

A—Good Y—Excellent C—Good

Penthouse (Warner Baxter, Myrna Loy) (MGM) Gangster-mystery-murder melodrama in luxurious surroundings, well written, directed and acted. Lawyer-hero, his reputable standing lost by defending gang case, solves murder of gangster mistress with help of alluring heroine. Heavily spiced with sex affairs, shooting thrills and fast night life.

A—Good of kind Y—Unwholesome C—No

Pilgrimage (Henrietta Crosman) (Fox) Heavy, sentimental melodrama of jealous, selfish mother who comes between son and his sweetheart with fatal results. Realizes her cruelty when she encounters parallel situation on her visit to France with Gold Star mothers. Story and acting uneven in interest.

A—Only fair Y—Unsuitable C—No

Power and the Glory, The (Spencer Tracy, Colleen Moore) (Fox) Pretentious "new" stuff, told by jumpy cut-backs and off-screen voice, about crass, unpleasant hero made successful by loyal wife. When white-haired, he meets new "love," deserts wife—suicide. Hero's grown son then has child by second wife—hero's suicide. His career supposedly justified.

A—Depends on taste Y—Unwholesome C—No

Shanghai Madness (Fay Wray, Spencer Tracy) (Fox) Dismissed from Navy for infraction of rules, hero gets job on Chinese river boat and subsequently saves brainless heroine in an American mission from bandits, for which Navy reinstates him. Far-fetched melodrama for the indiscriminating.

A—Mediocre Y—Perhaps C—No

Soldiers of the Storm (Regis Toomey) (Columbia) Aviator-hero is ordered to capture a gang of narcotic smugglers near the Mexican border, which involves several killings, machine gun battles, a kidnaping and some spectacular airplane stunting. Elementary dialog and much trite melodrama.

A—Hardly Y—Mediocre C—No

Too Much Harmony (Bing Crosby, Jack Oakie) (Para) Thin, back-stage musical comedy, harmless but feeble fun, about producer who brings country talent to Broadway and falls in love with it to complicate matters seriously. Bing's crooning, Jack's crude clowning, endless chorus dancing, and elementary comedy.

A—Mediocre Y—Only fair C—Perhaps

Torch Singer (Claudette Colbert and good cast) (Paramount) Charming heroine's illegitimate baby drives her through lurid career—cabaret singing, luxurious liaison, telling bedtime stories—till mother, father and baby are happily reunited. False in spots, bad taste in others, but mostly skillful, highly sophisticated entertainment.

A—Good of kind Y—Very doubtful C—No

Turn Bark the Clock (Lee Tracy, Mae Clarke) (MGM) Breezy hero, in humble circumstances, envies rich pal and an accident lets him live life over in pal's circumstances. Utter improbability of story quite unimportant. Good light entertainment.

A—Fairly good Y—Very good C—Fair

Voltaire (George Arliss, Doris Kenyon) (Warner) Takes some liberty with French history yet outstanding entertainment for cultured audience. The old Voltaire appears as firebrand who fights for tolerance, defying king and inciting populace to revolution. Fine settings, fine cast, but Arliss' superb acting is chief feature.

A—Notable Y—Worthwhile C—Beyond them

Wrecker, The (Jack Holt, Genevieve Tobin) (Columbia) Rather interesting presentation of the familiar triangle drama with an earthquake as the climax, followed by unusual scenes of relief work and wrecking of buildings. George E. Stone's portrayal of idealistic Jewish junk peddler outstanding.

A—Fair Y—Mostly Good C—Exciting

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

School Executives (September) "Budgeting for Visual Instruction," by Marian Evans, Director of the Visual Instruction Department, San Diego Schools, California, is a sound discussion of a problem with which the schools are now faced. In this day of "cut budgets" visual instruction has had to justify its existence. But it has done even more than that, as pointed out by Miss Evans in these significant statements:

"Educators who have made a thorough study of the need for and the functions of a visual instruction center are convinced that the maintenance of such a department has proven to be an economy and efficiency move.

"With the increased enrollments and heavy classroom teacher loads, there is more need today than ever before for visual aids, since education must now take advantage of every way of facilitating pupil learning—enabling the pupil to learn the most possible in the shortest possible time.

"Expenditures of such departments usually fall under the following headings: circulating visual aids, maintenance of department and upkeep of equipment; salaries; and installation of standardized equipment, which should really be charged to capital outlay or building fund.

"In estimating the budget school administrators should take into consideration the fact that visual aids may cut down the cost of education by eliminating a large percentage of repeating students which averages as an annual cost of \$112 per pupil in cities above 100,000."

The Parents' Magazine (August) "How the Movies Harm Children", by James Rorty, is an interpretation of the recent brilliant research finished under the Payne Fund of the Motion Picture Research Council.

Do gangster movies help to make gangsters? Are sex pictures a factor in promoting sexual delinquency?

These questions have been asked before, but the recently completed four-year study of motion pictures, financed by The Payne Fund, represents the first attempt to obtain impartial, objective and well-documented answers.

The chief points of their indictment are:

(1) That very young children suffer from disturbed sleep and nervous shock as a result of frequent attendance at movies designed for adult audiences.

(2) That children and adolescents learn at the movies attitudes and conduct which are in conflict with the morals of the community.

(3) That the movies—specifically sex and gangster pictures—definitely influence a considerable number of children toward careers of delinquency and crime.

(4) That the great majority of movies are devoid of artistic or genuine social content.

The Payne Fund financed the study at the behest of the Motion Picture Research Council, which proposes to do something about it. What? And how?

The remedy for the first condition would appear to be comparatively easy. The exclusion of very young children from showings of pictures likely to do them nervous injury could be accomplished voluntarily by the industry, or by legislation patterned after that already enacted in several states. Coincident with this restriction would logically come the development of a special library of "Child Classics" shown at special periods—this suggestion has been made by William H. Short, director of the Motion Picture Research Council.

The other problems are more complex and vastly more difficult. For instance, the second problem has hitherto been dealt with by censorship—a negative control which has not been successful and which is sharply opposed not merely by the industry, but by many intelligent and influential elements in the community. It is difficult to foresee what positive solution the Motion Picture Research Council will recommend for this problem beyond, possibly, the organization of audiences along the line of their preferences, and the encouragement of producers to meet these preferences.

The third problem—that of the movies as a factor in the teaching of delinquency and crime—and the fourth, dealing with the movies as an art form, are so inextricably bound up with the social and economic problems of our day that it is impossible to hope for any quick, ready-made answer to them.

Certainly this comprehensive survey of conditions has aroused an interest more acutely alive than has been manifested for many a month of similar comment, *sensed* rather than *proven* by scientific research.

Journal of the Society of Motion Picture Engineers (September) The paper on "The Sound Film Program of the United States Department of Agriculture," delivered by Raymond Evans of the Office of Motion Pictures at the Spring meeting of the Society, is published in this issue. The Department has made a few talking pictures and contemplates a gradual changeover from silent to sound films. But they expect to be circulating many silent educational films for some years to come as the demand for the silent films has fallen off but slightly since the advent of sound.

The realization of their plans for distribution of sound films has been slow, however, for these reasons: (1) The depression has hit farmers harder than any other class and, as the county agents for the most part are financed locally, their budgets have suffered accordingly: (2) the cost of sound equipment has been too high: (3) there is still uncertainty as to

the ultimate development of 16 mm. sound-on-film equipment, which has tended to delay decisions as to the purchase of equipment.

International Review of Educational Cinematography (August) The contents for this month include: "Suggestions for the Production of Technical Films," by G. A. Witt, which sets forth the results of his study to determine the possibilities of the utilization and production of technical films; "Limitations and Possibilities of the Cinema in Teaching," by I. Arneau, which considers the role of the cinema in the different subject matters of teaching; and "The Possibility of Using the Sound Film in Didactics and Teaching," by M. O. Blemmec, a discussion of the question—Has this recent progress created a new field of activities for the educational cinema, or changed the conditions of its use?

Book Reviews

CHILDREN'S SLEEP, by Samuel Renshaw, Vernon L. Miller and Dorothy P. Marquis. The MacMillan Co., New York, 242 pp., 1933.

As stated in the authors' introduction, this volume presents the statistical evidence gathered on the subject, with the related judgments and general conclusions, as part of the larger and related group of investigations made by the Payne Fund. Quite regardless of a reader's reaction and attitude to the conclusions drawn, the book offers a scholarly and as nearly accurate as possible series of studies, carefully controlled and painstakingly executed. The material is suggestive, for adults as well as children, in their sleeping habits and those influences, other than the one of motion pictures, that modify rest efficiency. Like the larger volume which presents the sum total of the Payne investigations, this smaller account of "Children's Sleep" should be in the libraries of those institutions and individuals in charge of children.



WRITING FOR THE FILMS, by L'Estrange Fawcett. London: Pitman. Price 3s. 6d. net.

Only the other day, one of the best-known directors in England received a script for a silent movie with the subtitles labelled "SNIPPETS!"

And every week the film critic receives a number of letters asking him certain questions. In what form should a film story be presented? How should a film studio be approached? How much technical knowledge is required to write a film story? Should an actual scenario of the subject be attempted? Is there any demand for new material or do the studios rely entirely on their own writers for stories?

Mr. L'Estrange Fawcett's book provides set reply to the ambitious and set instruction for the industrious.

One of Mr. Fawcett's laws is that no author should write for the films until the film audience has been studied. But is it as easy as the experts think to study a film audience? Inside the cinema, many of the apparently satisfied members of the audience are merely content with the Talking Picture in general, plus its escape mechanism, and the Super Cinema, plus its luxuries and comforts. Neither can box-office receipts make theory, they can only show that a certain bill of turns once lured an audience into the show. Next time, perhaps, the bill will have to be changed.

If films are to improve and to become part of modern experience, the first study that the film author should make is far more fundamental than that of the film audience, it is what the film audience should be.

Were the film scenarists to discover the receipt of spiritual food; then, hungry, we would all be forced to return again and again to the box-office. When we go abroad, our eyes are occupied and we never give the movies a thought. Yet, we take music and literature (both spiritual foods) with us. So, a new generation of film scenarists could make it impossible for the traveller to forget enchanted hours in the dark.

Mr. Fawcett, though, is quite right in reminding film authors, who would see their work on the screen, that people do not speak of "this novel business" or of "this play business" but always of "this film business." Under present economic conditions, there is too much money sunk in the talkies for any gambles on art for its own sake. For instance, the would-be film writer should bear in mind the sad fact that no other artistic endeavor is as heavily censored as the film.

With regard to the shape of the popular film, Mr. Fawcett condemns the episodic (Knoblock) treatment and urges the author to seek unity. The spectator wants to sink himself in the film, as he can sink himself in the good novel but never in a volume of short stories, so that he can let the rest of the world go hang. Which is, after all, the most practical way of pointing out that film and stage have, technically, little in common. And how much the play loses economically, as Mr. Fawcett himself humorously remarks, by not being able to show a ten foot square baby in action!

There is one very curious but stimulating idea which Mr. Fawcett casually introduces. He suggests that talking films might be accompanied by orchestras playing in the theatres. When the incidental music is recorded, often the rhythm of the film is disturbed. Also, there is always the danger of the spectator being irritated by the conscious thought, "Where does the music come from?"

OSWELL BLAKESTON.

Visual Experience and Social Progress

(Concluded from page 220)

activity of human society. Without it our present civilization would be utterly impossible. And yet no one should be oblivious to the fact, often pointed out by educators themselves, that our work of education is as yet the most unscientific of our human activities; that there is no other of our public activities in which there is more waste because of the use of ineffective means or methods. Certainly there is no other public activity that deals with material that has such vast undeveloped possibilities. The farmers, for instance, are coming hundreds of times nearer reaching the possibilities of the soil than any school has yet come to the possibilities of the children.

Of course the educators themselves are not to be blamed primarily for these conditions. The schools cannot advance much faster than the general intelligence of the people. If any school superintendent should ask for what he knows he needs to do the best for the children and hence for society, he would either be ignored or kicked out of office. As Hart says, "The community will have to become aware of its devastating part in education, before we can go on to a greatly constructive program."

It is indeed an enormous task. Is there any possible way in which it can even measurably be accomplished? Even if it might be possible to find some means by which this need might measurably be provided for, wouldn't the cost be prohibitive? Of course there would be little gain in pointing out these facts, even if true, or raising these questions, if nothing more could be done about the matter than is being done. But there are good grounds for saying that much more can be done.

This primary need for a world wide range of sight experiences, to be sure, could be supplied by actual bodily travel by the millions—especially in the formative years—not mere pleasure seeking tours, but travel with competent interpreters. This however is evidently impossible and, for children especially, undesirable. In seeking a more practical solution for this great problem, it will be well for us first of all to take note of a radical difference in the way we get our sense experiences of touch, taste, and smell on the one hand, and our experiences of hearing and sight on the other hand. For our experiences of touch, taste and smell, actual *bodily contact* with things is required; for hearing and sight, an outside medium is involved—air waves for our experiences of hearing, and light waves for our experiences of sight. This simple fact of another medium needed is of enormous importance to humanity.

If we get our experiences of hearing, not by having the sounding bodies touch our ears but only by the impact on our ears of the sound waves coming from the sounding bodies, then it becomes evident that as



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far as hearing goes, all sounding bodies are reduced to the one common denominator of sound waves,—that for the purpose of getting our experiences of hearing we do not need the endless sounding bodies but only such sound waves as they produce. Thus it should follow that if we had some means, no matter how insignificant these means might be, of reproducing these sound waves, then we ought to be able to gain our experience of hearing by these means. Thus we have found by the use of the telephone, the phonograph, or the radio, we are able to build up experiences of hearing people who are separated from us by great differences of space or time. It is no longer necessary to have the material person present in order that we may have a real experience of hearing him speak.

Likewise if we get our experiences of seeing, not by having the material objects touch our eyes but only from the impact of reflected light waves upon our eyes, it becomes evident that as far as seeing goes, all objects are reduced to the one common denominator of light waves,—that for the purpose of getting our experiences of seeing we do not need the great world of material objects, but only such light waves as these objects reflect. Thus it should follow that if we had some means, the cheaper the better, of reproducing these light waves, then we ought to be able to gain our needed experiences of seeing in connection with these means.

This brings us to a consideration of what must be practically our only possible means of accomplishing the immense task of measurably satisfying humanity's eager hunger and need for a world-wide range of sight experiences—namely, pictures.

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

Using Pictures and Sound in a Program to Reduce Delinquency

RELIGIOUS educators and ministers, as well as teachers and administrators, will be interested in a new character education project just launched in Camden, New Jersey.

In certain areas of the city of Camden, where juvenile delinquency is high, motion pictures, stereopticon slides and reproduced sound are to be the major tools used in an effort to reduce the percentage of cases and therefore the costs of handling them. The work will be conducted from public school centers under the direction of public school authorities.

During the years of depression, delinquency has increased slightly in Camden. Camden school authorities have been studying the problem and the Attendance Department of which Mr. C. Paul Nay is supervisor, has carefully charted the areas in which the problems are the greatest. To do this Mr. Nay has had to secure records of delinquency cases which included names, addresses, and causes of arrest so that the chart could be compiled. In his attendance work the supervisor has most of the necessary material at hand and it needed but compiling to make it useful.

A plan that would reduce the percentage of delinquency would, of course, reduce the cost of handling juvenile delinquency cases not only in the school system but in other departments of government. The cost of searching for delinquents, of arresting them, of bringing them to trial and of keeping them in detention homes is a very large one. In times of economic stress it is more important than ever to inaugurate methods of economy especially in budgets where costs tend to rise. Every dollar effectively spent in reducing delinquency is therefore, thrice reproductive. It reduces the cost of dealing with delinquents, it retains young citizens in school, thus saving the cost of making special arrangements for their education, and it prevents the loss of state aid which results when a child is taken from school.

Corrective methods are already in use in Camden. There is a well organized Attendance Department in the public schools and special classes have been arranged for mal-adjusted boys and girls. Those who can be helped are soon returned to their regular classes. Those who are hopeless are retained in special classes until they pass school age.

The new methods are preventative in nature but considerably more positive than that word would imply. It would be better to say that the new methods

are educational. Teaching of ethics and memorizing of precepts is probably as widely practiced in the Camden Schools as anywhere and the new methods are no substitute for old ones which are helping to solve the problem. They are merely an additional influence.

Those in charge of the new work believe that moral or social behavior is motivated largely by the feelings. Children behave as they like to behave. Their likes and dislikes have been built up through the years as the result of influences such as the example of socially adjusted or unadjusted people, ethical teaching, memorizing of precepts and environment conditions.

Most of the organized methods used in character training are indirect in their approach to the feelings. Many of them have been very useful but since a large problem in delinquency still remains it is obvious that the desirable influences are offset by many uncontrollable factors. The school authorities have determined to approach the personality of the child by a route to the feelings of children which is more direct and which can be used consistently and regularly. The distinct advantage in this method is in its directness, making it much easier to offset the unsocial influences which are largely indirect.

The arts are the nearest approach to a direct route to the feelings. In school, techniques have been perfected for using the art media. There are music appreciation, art (painting) appreciation, and drama appreciation classes, and appreciation methods are used in regular curriculum classes in the hope that development of character will ensue and that this will affect conduct. To a large extent conduct has probably been altered by these splendid methods but there is a large percentage of delinquency which remains. It has been learned that high appreciation of music does not necessarily precede or accompany a similar appreciation of ideals of personal conduct. The land of the direct route to the feelings that affect social conduct has been found but the route has not been accurately followed.

In Camden the areas of delinquency and the causes of arrest are known. The aim of the authorities now is to counteract the influences which bring about the feelings which stimulate this unsocial or anti-social behavior. The causes of arrest are considered to be the physical reactions to negative stimuli. A search is being made to discover what kinds of likes or dislikes these stimuli are. The next step obviously is to

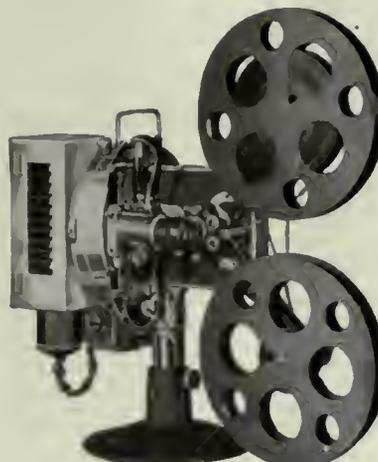
attempt to build likes and dislikes to counteract the objectionable ones. The principles which will be enriched or made attractive are called positives and are thought of as the ideals or social motives needed to offset the negatives which stimulate delinquency. It is the aim of those who conduct this phase of the program to make the presentation of ideals by means of artistic media as beautiful and desirable as it is possible to make them with music, pictures and light.

The new method, then, is to use the appreciation technique and the artistic media to develop socially useful likes and dislikes. Ideals will be presented to school children as attractively and appealingly as possible in order that they may learn to like ideals—not simply intellectualize about them or memorize them. After all "ideals are caught, not taught." Motion pictures, stereopticon slides and reproduced music are to be used so as to secure as high a technical performance as possible at lowest cost. It will thus be possible to avoid the ridiculous consequences which are likely to occur when using amateur music and dramatic aids.

The programs are arrangements of artistic-intellectual materials, selected and coordinated for the purpose of stimulating the appreciation of certain ideals. They are planned to be intellectually appealing to children and the intellectual material (ideals expressed and explained in words) are interpreted with pictures and music. These two media also serve, as emotional stimuli to help bring the meaning of the ideals involved through the intellect to the feelings or to the feelings at the same time as to the intellect. Appreciation of ideals are thus brought about. The effectiveness of the program depends on the strength of the intellectual appeal and the power of the emotional stimuli, or to put it another way, it depends on the skill of the original producer of the program in the use of words, pictures and music together. After that any intelligent teacher can reproduce it nearly anywhere.

Words, music and pictures as they are used in the programs are neither wholly intellectual nor wholly emotional. (Words are musical in poetry. Music is intellectual in dramatic descriptive compositions. Words, themselves, are only picture or sound symbols of ideas.) Each of these media is used in the program so that one interprets, or emphasizes, or accentuates, or stimulates a greater appreciation of or feeling of value for another. Thus each program is an intellectual vicarious experience. Because each program is presented under conditions of almost complete psychological control, each vicarious experience is more intense than most ordinary experiences, thus definitely impressing the ideal upon the memory and the feelings.

The advantageous conditions of psychological control in these programs are due to the lighted center of interest in an atmosphere of semi-darkness. On this atmosphere distractions are reduced, mental alertness is stimulated and the attention is focused.



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The first programs are being presented in the auditorium period each day in designated schools located in known areas of delinquency. In Camden delinquency areas and poorest living areas are generally in the same locations. It is hardly possible that the work of enrichment will entirely offset these influences but it should be possible to lower the percentage of delinquency in many areas by making a better life appealing enough to call youth up out of their backward environment by whetting their appetites and desires for better things.

There is an area in the map of Camden where one would expect to find considerable delinquency. The homes are poor, work is scarce and most of the people in the neighborhood are at one time or another in real need. Yet here, in an area which ordinarily breeds trouble, there is scarcely any. There has been, in that section for several years, a work done similar to that which is now being launched. So the method has been tested in this area.

At the suggestion of Superintendent of Schools Leon N. Neulen, a teacher with considerable experience with artistic media and with character training was selected to start the work. The man in charge of the work is H. Paul Janes who for five years has studied the use of reproduced music and pictures in educational work. He is the author of many articles, a book and a pamphlet on the subject.

SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY
Director, Scarborough School, Scarborough-on-Hudson, N. Y.

Drawing---A Visual Aid In Education

H. C. SAVAGE, JR.

THE GREATEST of the so-called five senses of man is, without question, the sense of sight or vision. Yet sight training from a psychological viewpoint is terribly neglected. The fact that the eyes function almost without consciousness on the part of the observer gives rise to the theory that this biological equipment of man is an infallible mirror reflecting true images upon the conscious mind. This theory of visual perception, the most elementary form of cognition, is merely an erroneous assumption.

The stimulus produced by an object or scene lying in the field of vision throws an image upon the retinae which in turn calls forth a certain type of mental activity. The resultant thinking is modified by obstructions or distractions tending to distort the visual process. Two separate images are produced on the retinae, but under normal conditions the lens of the eyes are so adjusted that only one object is perceived. Everything observed creates a mental image of definite characteristics, calling forth sensations of various patterns. These picture patterns are not always reliable data for forming definite conclusions concerning a particular situation. For this reason every individual is more or less subject to hallucinations, delusions, and illusions of various types.

Seeing is sometimes deceiving. How, then, is it possible to correct this deception of visual perception? First, by training the eyes to know what it sees, why it sees, and what is worth seeing. Second, by accurate observing through visual experience. Third, by acquiring, visually, information necessary for constructive logical thinking and clear expression. However, it should be clearly understood that sight training is practically impossible without an open mind. That part of the cerebral cortex controlled and influenced by visual perception must be free from and untrammelled by conventional obstructions tending to modify and distort the true image of a thing observed. When I say conventional obstructions, I mean those forces in society established from folk-lore and traditions, which tend to prevent clear picturization

in a logical way. Further, observation is constructive looking, and not mere curiosity. Constructive looking produces that mental training necessary for clear expression.

Drawing is the true universal language, the clearest medium of expression. The spoken or written word expresses only thoughts and ideas symbolically, in a vague way, and it remains for drawing to convey an idea realistically by means of a picture describing the object or situation. To show clearly the value of drawing I can do no better than quote Ruskin:—"Learn to draw—that you may set down clearly and usefully records of such things as cannot be described in words,—either to assist your own memory or to convey distinct ideas of them to other people, to obtain a quicker perception of the beauty of the natural world, and to preserve something like a true image of beautiful things that pass away."

Drawing has no superior in training for observation and visual perception. The knowledge of the rules of perspective and those optical illusions generally found in every day visual experience is the foundation of the graphic arts. Observation of these phenomena is a continuous process throughout life, and it is most necessary to give careful consideration to the educative value of drawing in our present scheme of education. In the realm of mental development the power to observe is one of the greatest functions of the mind. Recognizing the superiority of drawing in training for observation, the need for a thorough training in this art is most imperative if we would arouse the people to an appreciation of the aesthetic culture in education.

Dr. Dewey gives three stages of mental development—namely, Manipulative, Symbolic, and Realistic. Manipulative representing the first stage, comes in infancy as a result of the trial and error process on the part of the child. Symbolic is that stage when we as individuals seek to convey our ideas to others by means of symbols in the form of words written or spoken. Realistic, the last and highest stage of men-

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tal development, comes only when the individual is given other and better equipment in order to convey more clearly his ideas. The mastery of drawing elevates one to this realistic level. A lack of training in this art causes the individual to remain in the symbolic stage as a result of conventional attitudes. The conventionalized idea prevails that drawing is closely associated with art as seen by the artist and that this graphic means of expression is only for those talented individuals working in this realistic field. The erroneous conception of society continues to retard the training of its youth in the field of drawing and painting. It therefore, becomes the duty of our teachers and those dealing in education to elevate the masses to that realistic level through the graphic arts.

The question arises, what emphasis should be placed on drawing in our school curriculum to equip the individual to make a harmonious adjustment to his natural environment? If "to educate" means to assure self-activity, accuracy of observation and clear expression of ideas, then drawing as an aid in education is of unusual significance. Motivation through self activity is exemplified by problems involving line, form and background in which the student through his own efforts visualizes and understands the meaning of the experience. If the experience involved in the process of drawing is observed accurately, optical illusions are eliminated, and the graphic evidence conveys a true picture of things seen. The impression of the true picture stimulates the perceptive powers of the mind, and develops clear thinking through logical sequence of ideas.

Drawing is concrete evidence of objects and things. This universal language is the medium of clear expression of ideas by means of graphs, diagrams, and pictures. The written language (a form of drawing) expresses ideas in the abstract. A written description of a complex situation is very often misunderstood, whereas the picture gives an exact visual reproduction and assures a correct interpretation of the thing described.

Realizing the powerful factors of visual perception and accurate observation, it is unfortunate that our schools have failed to place more emphasis on visual aids (more particularly drawing) as a means of developing and increasing the potential power of the mental functions.

There are many devices for visual instruction; i. e., moving pictures, slides, maps, charts, etc.; but drawing stands alone in this field, since it is an aid through which self activity predominates. Through drawing the learner is actively engaged in solving problems visually by sense perception. Psychologically, the mind is engaged in reflective thinking, a purposeful process of a gradual unfolding, step by step, of consecutive ideas leading to logical conclusions.

Emphasis on drawing in the school curriculum cannot be denied. Its close correlation with all school

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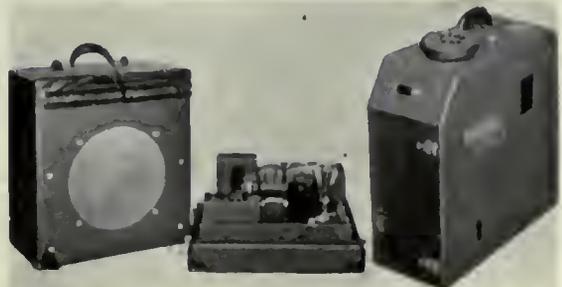
Authentic, historical and biographical motion pictures. These films cover a period of thirty-five years, and contain some of the earliest motion picture film in existence. Ten productions of one and two reel lengths have been completed showing among other matters, the funeral of President McKinley, Mr. Roosevelt's inauguration, the construction of the Panama Canal, the building of the Roosevelt Dam, Mr. Roosevelt's adventures in Africa and South America, his reception in the capitals of Europe, and his public appearances in various parts of the United States.

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subjects should be recognized. Maps in history, charts in geography, experiments in chemistry all give evidence of the value and importance of drawing as a medium of expression. Teachers of all subjects recognizing this fact should encourage the learner to master the language of drawing. Improvement will manifest itself in all types of learning. The school room will become a place of self activity as a result of the learn-

er's desire to produce on his own initiative a fine piece of work on the basis of good technique derived from his experience in drawing. Teach the boys and girls in our schools to appreciate the value of the graphic arts. The returns on the investment will manifest themselves in those works of art produced by a people taught to utilize the aesthetic sense in all fields of human endeavor.

Growth Of Pasadena Visual Aids For Health

MRS. MARTHA CEKADA EDWARDS

INCLUDED among the most important links in education are libraries. These are for the benefit of students and teachers. Our visual aids and our city school library should be of invaluable service to our instructors. We acknowledge this fact in Pasadena.

Our city schools with their beautiful buildings and charming surroundings, are the pride of this community. With sincere interest in educational work, we are inspired to grow and develop along individual responsibilities. It is with such stimulus that the Pasadena City Schools visual aids library has made a noted stride this year in giving successful service to its schools.

We had the five primary schools' objectives as our

guide. With the Xth Olympiad held in Los Angeles, Health, our first objective, was most prominent, though the three R's, vocational exploration, character and citizenship education, were held in view.

The question arose as to how can we serve most efficiently? Heretofore the individual teacher felt that it was his or her duty to secure special material. Consequently there was an unusual drain on free material offered by the government, state or commercial departments, much of which was destroyed prematurely (having served the immediate need). Because of a heavy teaching load many teachers were unable to do the research necessary to secure material in this way.

The usual investigation took place to solve this problem and as a result a chart was evolved showing the local avenues of approach. Under the administrative heads—Superintendent of Schools and Director of Child Welfare—local sources of supply were enlisted in the work; such as the city Department of Health, County Department of Health, Tuberculosis Bureau, the Red Cross, Home Education Department and School Cafeteria, Physical Education Department, local commercial concerns. Material from these sources was organized under the Supervisor of Extra Curricular Activities with co-operation of the Science and Art Departments. Our U. S. Department of Agriculture and its various bureaus, as well as nationally known health education agencies, are our other sources.

We also discovered that a local commercial concern advertises educationally — directly and indirectly through newspapers, bill boards, radio, street cars and through an educational program providing material consisting of posters, films, charts, maps, booklets and also speakers and exhibits. It was from this education department that our greatest help came.

Following our analysis we proceeded to forward requests for the above mentioned material to various organizations. Some of it was purchased by our department while a great part of it was presented by this local concern which allowed us to circulate it without any advertising credit line.

When the material was received it was substantially mounted for display use, and catalogued for future reference, while any corresponding literature was pre-

(Concluded on page 235)

Following the Demand for More Accurate and Better Prepared Historical Visual Aid Material

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were selected and prepared from historical motion picture "stills" and edited for visual aids by historians and an advisory Board of Directors of Visual Education.

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WESTWARD MOVEMENT	GANIZATION OF GOVERNMENT
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	ROMAN LIFE

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AMONG THE PRODUCERS

Where the commercial firms—whose activities have an important bearing on progress in the visual field—are free to tell their story in their own words. The Educational Screen is glad to reprint here, within necessary space limitations, such material as seems to have most informational and news value to our readers.

New Simplex Portable Projector

To meet the demand for a more compact, more portable, and lower priced sound and visual projector for use in schools, colleges, churches, private and public organizations, the International Projector Company has just brought out a new portable 35 mm. sound projector which has been designed and constructed in accordance with the special requirements of this non-theatrical field. Although lower in price than the Simplex-Acme Sound Projector, the new equipment maintains the same professional quality, mechanical efficiency, and ease of operation.

There are many new and noteworthy improvements in the sound reproducing system which has been so placed that unnecessary adjustments as well as the possibility of error are avoided. The volume will be found adequate to meet the most exacting needs of all moderate size auditoriums.

The speaker, amplifier and upper film magazine make a compact unit in one carrying case, while the entire projector-mechanism, lamphouse, take-up magazine are enclosed in another carrying case which has been carefully constructed and substantially built. The straight feed adopted for the Simplex Portable Sound Projector is the same as on all professional projectors and simplifies threading.

Kodacolor Unit Simplified

Of interest to 16 mm. users is the announcement by the Eastman Kodak Company of a change in the present Kodacolor Unit (consisting of projection lens, compensator, and filter) for the Model K Kodoscope. The new Kodacolor Assembly enables the operator to use his regular Kodoscope K lens for Kodacolor movies. He need acquire and insert only the filter and compensator, instead of having to buy a complete extra lens. In addition to greater simplicity and less cost, the new Kodacolor unit gives about 100 per cent increased illumination, since the regular lens gives over 20 per cent more light than the old Kodacolor lens and the new filters have a much higher light transmission value than those formerly used. It also gives better definition and contrast, resulting in sharper and clearer pictures.

To shift from Kodacolor to black and white pictures it is only necessary to remove the filter. The compensator may be left in the Kodoscope at all times, with only an occasional removal for cleaning purposes.

A Non-Theatrical Exhibition Service

In addition to maintaining a large library of 16 mm. sound motion pictures, which can be rented or purchased, LaTour and Tietzort, New York City, have recently announced the establishment of their Show Service Division.

This is a non-theatrical service for churches, schools, clubs and institutions, which will put on talking and sound motion picture exhibitions in either 16 mm. or 35 mm. in any part of the United States or Canada, including films, equipment, transportation, and operator.

Included in their film library are the *Burton Holmes Travelogues*, the *Grantland Rice Sports* subjects and semi-news reel types of outdoor events, *The Lady of the Lake*, *The Golden Pagoda* and *Streets of Mystery* from the *Vagabond Adventure Series* by Tom Terriss, *Fitzpatrick Traveltalks* and *Music Master Series*, Nature subjects, comedies, and animated cartoons. Complete lists will be furnished on request.

750-Watt Lamp for Filmo R Projector

The Bell & Howell Filmo R Projector, which has previously been equipped with a 500-watt 110-volt lamp, may now be had also in a special model which uses the new 750-watt 100-volt T-12 lamp. With this lamp about 50% greater picture brilliancy is realized than with a 500-watt lamp.

The 750-watt Model R has a special lamp house base and a fixed resistance unit. Otherwise it is the same as the original 500-Watt Model R. That is, it offers these features; acro dual cooling, automatic rewind, manual framer.

▲ ▲ ▲

Bell & Howell also announces a sturdy projection reel which will accommodate 200 feet of 8 mm. film. It is built entirely of steel. The hub has the convenient B & H self-threading feature and flange spokes are calibrated to indicate film footage. Wear at the spindle holes is minimized by the hardness of the steel.

New S. O. S. Catalog

The new catalogue issued by the S. O. S. Corporation, New York, shows a very complete stock of replacement parts for all types of American-made motion picture machines and sound apparatus. Sections are devoted to replacement parts for Sim-

plex and Powers Projectors, Western Electric and RCA Photophone Sound Systems, the last two being prominently featured especially because of the recent court decision which legalizes such replacements.

A Replacement Service covering Amplifiers, Power Packs and Soundheads of all makes for equipment now in use, also for those desiring to assemble their own, such as Recording Cameras, Television Apparatus, Transformers, Chokes, Resistors, Potentiometers, Condensers (fixed or variable), Rheostats, Change-overs, Panel Meters for Amplifiers, Gears, Sprockets, Soundgates, Apertures, Shoes, Idlers, Springs, Lens Tubes (optical systems), Sockets, Belts, Chains for Soundheads, is featured, with a full line of parts in stock. Replacement Tubes, Photocells, Exciters, Recording and Projection Lamps, for every Sound System that has ever been manufactured, are also available.

School Department

(Concluded from page 232)

sent to our city schools librarian whose department is in the same building.

In addition we have acquainted ourselves with government and commercial departments of some foreign countries, namely—Canada, Germany, Sweden, England and Austria. Many beautiful art posters on Health have been received from our friends abroad.

The problem of how to acquaint our teachers who are interested in integrating health habits with classroom studies, but find it impossible to visit our library periodically, was met by holding exhibits in the Dental Hygiene building. The display was made possible through the splendid co-operation and efforts of our dental hygienist who held a ten day session during the month of March. There was shown an extensive display of material which gave the visiting teachers a most comprehensive idea of visual aids and reading matter for their use.

The exhibit was followed by a careful listing of all material in the visual aids library. The tabulation was divided according to the subjects of: Air, Light and Sleep; Foods; Cleanliness; Health in General; Recreation, Exercise and Posture.

A copy of this list, mimeographed, has been given to every teacher. From it she may order, by number, exactly what she needs for her class. Many teachers have made schedules in advance for the entire school year. The success of this plan and the need for such material has been proven by a great increase in the use of visual aids for health.

Further correlation of visual aids on health with the units of the course of study will be made by the addition of visual aids from foreign countries.



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If you teach or direct the teaching of Geography, you will want to investigate The Journal of Geography, an illustrated monthly magazine owned by the National Council of Geography Teachers, and published especially for teachers.

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- Bray Pictures Corporation** (3, 6)
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53 Hamilton Terrace, New York City
Producer of Social Service Films
- Eastman Kodak Co.** (4)
Rochester, N. Y.
(See advertisement on outside back cover)
- Eastman Teaching Films, Inc.** (1, 4)
Rochester, N. Y.
- Edited Pictures System, Inc.** (1, 4)
330 W. 42nd St., New York City
- Ideal Pictures Corp.** (1, 4)
30 E. Eighth St., Chicago, Ill.
- Modern Woodmen of America** (3, 4)
Rock Island, Ill.
- Pinkney Film Service Co.** (1, 4)
1028 Forbes St., Pittsburgh, Pa.
- Ray-Bell Films, Inc.** (3, 6)
817 University Ave., St. Paul, Minn.
- Society for Visual Education** (1, 4)
327 S. LaSalle St., Chicago, Ill.
- United Projector and Films Corp.** (1, 4)
228 Franklin St., Buffalo, N. Y.
- Universal Pictures Corp.** (3)
730 Fifth Ave., New York City
(See advertisement on page 233)
- 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** (1, 4)
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MOTION PICTURE MACHINES and SUPPLIES

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(See advertisement on inside back cover)
- Eastman Kodak Co.** (4)
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- Edited Pictures System, Inc.** (1)
330 W. 42nd St., New York City
- Herman A. DeVry, Inc.** (3, 4)
1111 Center St., Chicago
- Ideal Pictures Corp.** (1, 4)
26 E. Eighth St., Chicago, Ill.
- International Projector Corp.** (3, 6)
90 Gold St., New York City
(See advertisement on inside front cover)
- Motion Picture Accessories Co.** (3, 6)
43-47 W. 24th St., New York City
- Regina Photo Supply Ltd.** (3, 6)
1924 Rose St., Regina, Sask.
- Sunny Schick** (4)
Fort Wayne, Ind.
(See advertisement on page 229)
- United Projector and Film Corp.** (3, 4)
228 Franklin St., Buffalo, N. Y.
- Universal Sound System, Inc.** (2)
10th & Allegheny Sts., Philadelphia, Pa.
(See advertisement on page 231)
- Victor Animatograph Corp.** (6)
Davenport, Iowa
- 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
Superior, Wis.
- Eastman Educational Slides**
Iowa City, Ia.
- Edited Pictures System, Inc.**
330 W. 42nd St., New York City
- Ideal Pictures Corp.**
26 E. Eighth St., Chicago, Ill.

- Keystone View Co.**
Meadville, Pa.
- Radio-Mat Slide Co., Inc.**
1674 Broadway, New York City
(See advertisement on page 230)
- Society for Visual Education**
327 S. LaSalle St., Chicago, Ill.
- Spencer Lens Co.**
19 Doat St., Buffalo, N. Y.
(See advertisement on page 209)
- Victor Animatograph Corp.**
Davenport, Iowa
- Williams, Brown and Earle, Inc.**
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STEREOGRAPHS and STEREOSCOPES

- Herman A. DeVry, Inc.**
1111 Center St., Chicago
- Keystone View Co.**
Meadville, Pa.

STEREOPTICONS and OPAQUE PROJECTORS

- Bausch and Lomb Optical Co.**
Rochester, N. Y.
(See advertisement on page 233)
- E. Leitz, Inc.**
60 E. 10th St., New York City
(See advertisement on page 230)
- Regina Photo Supply Ltd.**
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- Society for Visual Education**
327 S. LaSalle St., Chicago, Ill.
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- (3) indicates firm supplies 35 mm. sound and silent.
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IS YOUR firm represented here? It should be. Continuous insertions under one heading cost only \$1.50 per issue; additional listings under other headings, 50c each.

Educational Screen

Combined with

Visual Instruction News

NOVEMBER, 1933

VOLUME XII

NUMBER 9

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EDITORIAL

Museums

THE PERFECT "visual materials" for teaching are the actual objects themselves, standing or growing in their native environments, but most of these environments are utterly inaccessible to any given school. The most nearly perfect substitutes, then, are the actual objects, gathered into an accessible place, with the native settings reproduced as perfectly as possible by human art. The Museum, in other words, is the supreme source of the finest materials for visual teaching. The Museum should be, therefore, the most potent force in the visual field, the central citadel of the visual education movement. It is not. Why not?

The great museums of America represent a colossal investment, probably greater than that of any other organization or enterprise serving the visual field of education. Within the limited range of their influence, museums render unparalleled service to the educational cause. But these costly treasure-houses are not fulfilling a fraction of their possibilities. Millions of dollars have been spent to give a tiny bit of our population fleeting glimpses of a multitude of things. It is an enormous expenditure for a relatively slight and superficial result.

If this situation were inevitable or necessary, there would be grave reason to doubt the wisdom of such investments to achieve such elementary purposes. But the situation need be only temporary. So far our museums have succeeded in financing the major costs of buildings, collections, organizations, classifications and displays. It remains to accomplish what will justify the whole magnificent achievement, namely, to carry these values to millions, instead of thousands, of the people that vitally need them.

The museum's opportunity to serve is cruelly limited. It has so much to give, so few to give it to. The museum has immeasurable value for every community in the country, yet it can serve only its own community. And this community must come to the museum. How many come? A large proportion of the local population never come at all. A still larger proportion probably averages less than one visit per year. A mere handful (is it even 1 per cent?) is sufficiently appreciative to come often and stay long, and only these out of the whole community derive anything like the full value the museum was built to give. Hence this palatial home for priceless things drawn from the remotest corners of the world exists to serve one out of a hundred people who chance to live within visiting radius of the spot. For the other 99 out of a hundred in its own territory, and for the tens of thousands of other communities in the land which could benefit equally by its treasures, the great museum stands helpless to serve. "The mountain labored and brought forth a mouse", as Horace put it.

Consider, too, the average "visit to the Museum" as made by this fraction of the community. The visitor struggles through the great entrance doors, wanders toward the first row of glass cases he sees, or to the first exhibit that catches his eye. His vision sweeps over numberless objects in case after case, he pauses at points of special interest but soon moves on "or he will never get over it all". He turns right or left into adjacent rooms according to what he glimpses through the doorways, strolls on and on, until the thousands of objects passed have surfeited his gaze and numbed his attention. His eyes then rove over floors, walls, ceilings, and over other stragglers making their "visit" with him, and intermittently over those inexhaustible and now exhausting exhibits. He walks more slowly, more aimlessly, until he finally hits upon some cogent reason why he "cannot stay longer today but will come back again instead". He seldom comes back that year. His visit exemplifies the average use made of a great museum for more-or-less-informational entertainment, not for intelligent acquisition of knowledge offered for the taking. Such a visit is vaguely profitable to the visitor for a certain pleasant mental stimulation, for an occasional fact retained, and also he can say henceforth "O yes, I have seen the Museum."

The moments when a museum does some of its finest work are when a class from a neighboring school, accompanied by an expert teacher who has prepared the pupils properly for the experience, is spending a rich hour or two pursuing a specific topic. But here again, unfortunately, only a pitifully small part of the museum's values can be absorbed. That class can come only at rare intervals. And it is but one of many classes in the school. Every class in the school could be using the wealth from that museum every school-day of the year. But good teachers are few, school routines are crowded, and the average pupil is limited to a glimpse or two per year, or a mere corner or two, of the great treasure-house called "Museum".

It is quite general among museum directors, even the greatest, to be deeply impressed with the service they are rendering, and suavely contented with their achievement as it stands. They have no doubts of the dignity and worth of the work they are doing. They should have none. It is a great work. If they would only suspect that it might be ten-fold greater, perhaps a hundred-fold! They need only stop thinking of the museum as "the Mountain" and the public as "Mahomet". The first museum to realize that "the Mountain" is the public and the museum "Mahomet" will be on the way to the greatest achievement since the visual education movement began. Museums need not continue as mere brief spectacles for thousands. They can be living fountains of learning and inspiration for millions every day of every year. (More anon.)

NELSON L. GREENE.

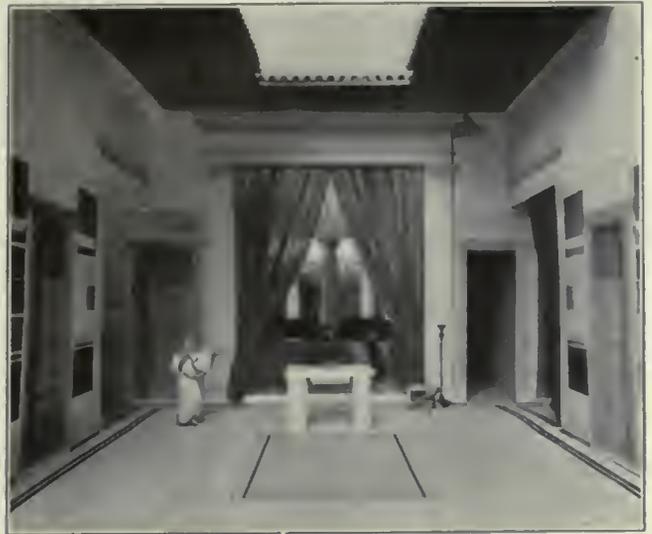
A Roman Town House

MRS. LORING DAM

AS THE type of ancient Roman dwelling most widely known is the one so adequately illustrated by the excavations at Pompeii, Herculaneum, and other south Italian towns, it has seemed best to choose this type for reconstruction in the schools. It must be borne in mind, however, that during the centuries of Rome's history, many variations in architecture and decoration developed according to the economic life of the period and locality or the fashion of the day, and that the crowded tenements of Imperial Rome (such as are partly illustrated at Ostia) and the many luxurious country villas of the rich (Pansylipon, near Naples, Horace's Sabine farm, etc.) illustrate equally important phases of Roman life.

The houses of the poor up to the 2nd century B.C. consisted of a single room or a few rooms arranged without thought of architectural effect. Judging from the scanty remains, most of them must have been of wood or wattle construction. A few more substantial ones were incorporated into the outer walls of the great houses which had an elaborate plan centering about the atrium. These houses built generally of rubble, reinforced with tufa blocks, and usually stuccoed, were only for the middle and upper classes, as they were ostentations rather than comfortable, and must have required the service of numbers of slaves.

Two theories have been advanced as to the origin of the atrium, the principal feature of the Roman house. The older theory supposed a central hearth in a single-room house with a hole in the roof to let out the smoke. Gradually rooms were partitioned off around the central space, the central hole became bigger, and the impluvium was devised to carry off the rain. The second theory supposes a central court, such as was common in the East, with small buildings



The Atrium, or great hall, showing the Compluvium, or opening in the roof through which rain fell into the Impluvium. To rear, to right and to sides open the Tablinum, the Andron, and the Cubicula.

IN RESPONSE to repeated requests from teachers all over the country, the University Museum in Philadelphia has just published a cardboard model of a Roman house. It was reconstructed by George B. Roberts, B. Arch., for the University Museum. Designed on a scale of $\frac{3}{8}$ of an inch to the foot, it is both architecturally and historically accurate in every detail. The main feature of the model, hitherto impossible for teachers to obtain, is the uniform scale reproduction of some of the most famous Pompeian floor mosaics and wall paintings. The coloring of these, and assembling the house, constitutes an invaluable project for classes whose study includes ancient domestic architecture or Roman life. The floor plan, walls, columns, and roof are supplied with complete directions for coloring them and setting up the house, together with suggestions as to furniture, garden, and so forth, which may be easily made of plastiline, cardboard, soap, etc.

around it, this court in cities becoming smaller and being partly, though never completely, roofed. Whatever the origin, the earliest example we have of the atrium dates from the 4th century B. C., in the so-called "House of the Surgeon" at Pompeii. This house had originally no impluvium, but it had all the other features of the front half of Mau's typical plan. At the end of the 3rd century B. C. or the beginning of the second, we begin to find, as in our model, shops, often shut off from the house, and with second-story rooms accessible from them, made out of the original front rooms of the house.

Our model does not reproduce any actual house. It represents a corner house with party walls on the two sides not facing streets. It is adapted from Mau's "typical plan," incorporating the best preserved fragments of large Pompeian houses, in order to illustrate the main architectural features and the several types of wall and floor decorations. It was necessary to modify some rooms to new shapes in order to make them fit together, but the approximate size and shape have been preserved and the rooms have been assigned

to their original uses. (The ceilings, often arched, and occasionally elaborately decorated, have been omitted, so as not to interfere with a clear view of the rooms when the roof is removed.) The front is adapted from the "House of the Faun" (2nd century B. C.) and the pavement of the fauces and atrium are from the same source. The walls of the atrium are from the "House of Sallust" which is of the same period, and their decoration is in imitation of colored marble. Houses of this period had often a portico or colonnade at the back, but toward the middle of the century the peristyle came into fashion. This was adapted from the Greek house and was accompanied by a vogue for Hellenistic detail in columns and capitals. During this century peristyles were added to already existing houses by all who could afford them, and their prevalence continued until the middle of the first century A. D.

Our peristyle is decorated in the "intricate style" (50-79 A. D.), taken from the peristyle of the "House of the Tragic Poet." The columns are of Greek Doric type with the red stuccoed section characteristic of Pompeii. At the far end we have the exedra, or open-air living room, which was a feature of the Greek house. Our exedra has on its floor the famous Alexander mosaic from the exedra in the "House of the Faun," and wall decorations of the "architectural style" (80-10 B. C.) from the "House of the Labyrinth."

The addition of the peristyle made another center in the house about which rooms could be grouped.



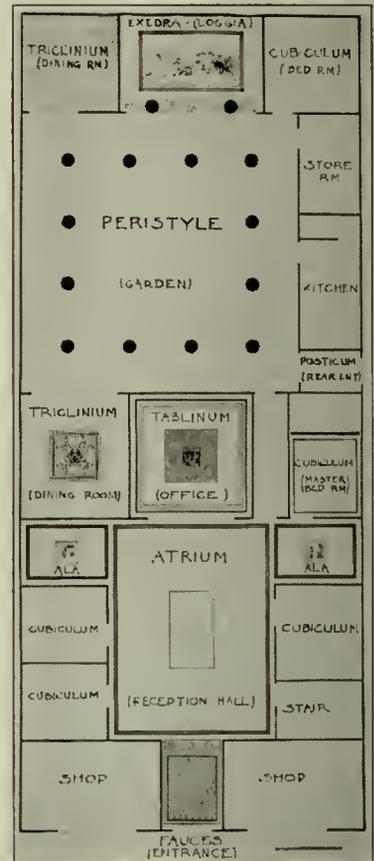
The large Triclinium, or dining-room, reproduced from the "House of the Tragic Poet." The colors are chiefly red, yellow, green, blue and black.

It presented two advantages: it was more private than the atrium since it was removed from the front door, and it had much more light and air. The kitchen was almost always removed to this part of the house, and dining rooms were made to face the garden. It

is at this time presumably that the triclinium of our house had its door into the atrium walled up and the large doorway cut to give a view of the peristyle. Also the room on the other side of the tablinum was subdivided, and the andron made to connect the front and back portions of the house.

The introduction of a second floor over this and the other rooms on this side of the house cannot have been made before the 2nd century B. C. Even so, it must have required strengthening of the original rubble walls with the newly introduced lime mortar. A balcony was added to provide access from the stairs and the room to which they led to the room over the andron and the adjoining cubiculum. This cubiculum is decorated in the "architectural style" (80-10 B. C.) with frescoes copied from the Boscoreale cubiculum now in the Metropolitan Museum. The upper floors over the shops were rented with the shops themselves and had ladders or stairs of their own.

After this no further structural changes were made in our house. The small dining room next to the exedra (copied from a room off the peristyle in the Villa Diomedes) was decorated before 50 A. D. in the "ornate style" (which began during the reign of Augustus) and was floored with a "sectile" pavement of marble typical of this period. The atrium of our house must by now have seemed very old fashioned, but the family lived almost entirely in the rooms around the peristyle, and the atrium was preserved in its traditional austerity much as we preserve our Early American kitchens. The large triclinium and the tablinum were both redecorated in the "intricate style," the former copied from the triclinium of the "House of the Tragic Poet," with a mosaic pavement from the same room. On the walls, pictures represent "Ladies with a Nest of Cupids" originally in the same room, "The Embarcation of Chryseis" and "Zeus and Hera", both from the atrium of the same house. All pictures at Pompeii were part of the wall. No framed paintings have been found.



Complete floor plan of the Roman house.

The tablinum is copied from that of the "House of the Tragic Poet," with pictures representing "The Sacrifice of Iphigenia" and "The Return of Briseis," found in the same house. The earlier pavement, from the same room, has a picture of actors preparing a satyr play.

Our house might have been further changed but that the eruption of 79 A. D. put an end to Pompeii. We can, however, from the excavations at Ostia form an idea of the subsequent development of the large house. As the cities became more crowded, the garden peristyle had to be abandoned. The introduction of brick-faced concrete made houses of many stories possible, and their subdivision into apartments made better and more private means of access to the rooms essential. The atrium had

for many years been built merely because of tradition. The compluvium and impluvium were now enlarged, and the atrium became a mere corridor connecting the rooms. On the upper floors a similar arrangement was followed. The atrium space next developed into a courtyard with loggias around it, as has been found at Ostia and at Rome. From this type of house to the Roman palazzo of the middle ages is not a large step. The type persists in the "casamenti" or large blocks of flats which are still built around a central court and are the most characteristic feature of Italian cities.

If this theory of development is correct, we have a logical sequence from the earliest known times to the present day, and our house represents merely a link in the chain.

Visual Experience and Social Progress

(Continued from October Issue)

ALBERT E. OSBORNE

THE idea of pictures as the only hope for the adequate education of humanity will still strike many as absurd. This is an age when we have been giving particular attention to material things; when, as Professor Bowne says, "Things that can be seen and handled are preeminently real, and the tendency is to think that only such things are real." There is probably no point at which this present day tendency, to consider material reality as the preeminent kind of reality, has led us more astray than in regard to the nature of our experiences in connection with pictures. That is, when we think of our experiences with pictures we think unduly of the material things involved, the material things we handle—the pasteboard and paper, the glass slide, the moving film, etc. The material glass slide or film are realities, but we assume that any experience that we might have of seeing a mountain, for instance, in connection with the slide or film, could not be a "real" experience of seeing a mountain in any true sense of the word. Inasmuch as the material reality in a slide or film is entirely different in kind and insignificant in amount as compared to the material reality in a mountain, we *assume* that our experience of seeing the mountain through the medium of the slide or film is entirely different in kind and insignificant in value as compared with the experience of seeing the mountain itself. More careful thinking shows that this assumption is absolutely without foundation. Nevertheless the "matter of fact" person starts with this assumption and takes for granted that our experiences with pictures are not real experiences of seeing what is represented, but rather illusions or make-believe experiences. There is probably nothing about which there is more confusion and contradiction of thought than in regard to the nature of our experiences of seeing things in

the presence of these things themselves, and the nature of our experiences of seeing these things through pictures. Even in the writings of educational authorities it is not unusual to find our experiences with pictures called "real" and illusions in the same paragraph. Evidently we can expect that adequate utilization will be made of pictures in supplying humanity's mental need and hunger for a world wide range of sight experiences, only as this confusion is cleared away.

Suppose we take a few minutes to analyze an experience of seeing things in the presence of those things, that we may clearly understand the different factors or kinds of reality that are involved in such an experience.

Let us suppose that we are in Plymouth, Mass., where the Pilgrims landed in 1620, that we are looking out over the cemetery where Captain Miles Standish and others were buried, down to the Rock where the little company landed, and out over the sea that bore their boats ashore. There are four different elements involved in the intensely interesting experience of seeing this historic place.

(1) The crumbling headstones, the trees, the Rock, and the sea stretching out as far as we can see.

(2) Light waves reflected from these material objects to our eyes.

(3) Marvelously complex states of the nerves in our eyes and body resulting from the impact of these light waves on our optic nerves.

(4) Accompanying states of our consciousness of seeing this memorable place, with all the endless thoughts and stirring emotions.

Now it is important to realize that each of us must himself build that fourth factor, the states of our consciousness upon seeing this historic spot. That is, images are formed in our eyes which we have learned

(we will not stop here to give the details of the process) to project out of our eyes and to superimpose on the material scene. To many people this would at first seem unreasonable, or perhaps even absurd. They are likely to say that when they look at such a scene, it is not a matter of images at all. They simply see the headstones, the Rock, and the sea, and the headstones and the Rock and the sea are there, and they could go out and touch them. But push a finger beneath one eyeball, and you will notice that the distant skyline or any object in full view is moved and doubled. Not only that, but the whole field of view can be moved, you will find, by moving the eyeball in this unusual way. This is a demonstration of the fact that, even when we are in the presence of material objects, we do not see the material objects, but rather *images* or duplicates of these objects which we build and project from our eyes.

Wherever you are, in your home or office or on the street, note the remarkable clearness and detail with which you can see the material "realities" before you. Then push a finger beneath one eyeball and note the way these "realities" are moved. Thus it becomes evident that the reality that *we see* even when we are in Plymouth (or in any place) has its source within us,—that all the *real objects* that *we see* are not the material objects, but realities rather that we build in connection with the nerve states induced by the light waves.

Most of us have taken for granted that we just "see" the objects that are before us; we have never realized the infinitely complex nature of our experiences of seeing. We have not realized that we must always live what we see, that in order that we may see any object or place that object or place must first of all be incarnated within us, must become, as a result of the impact upon our eyes of the millions of reflected light waves, distinctive states of our nerves and flesh and blood. And what infinitely complex nerve and body states these are! It is said that we have over 240 billion molecules in the red corpuscles of our blood, along with hundreds of millions of other nerve and body cells. It is only in connection with these inconceivably complex nerve and body states, the millions of light waves induce, that we are enabled to build and re-project for our mental vision the realities we see,—realities that are so marvelous in the richness of detail with which they represent the outlines and color and nature and quality of material things.

In the common but unfounded assumption that we really see material reality itself, and the consequent failure to realize that in our every day experiences of seeing we are dealing with two distinct and different kinds of reality, we find the main source of the confusion and contradiction of thought and judgment about the experiences that we may gain with pictures

—that they are at once real experiences and illusions, experiences of reality and experiences of appearance only. Because matters of such importance to humanity hinge upon the clearing up of this confusion, perhaps we should try to bring out a little more definitely this fact, namely, that when we are in Plymouth, for instance, we are really dealing with two Plymouths, the objective material Plymouth, and what we may call our subjective Plymouth. It may help us in realizing the distinct difference between the two Plymouths—that each can exist separately, can stand on its own feet, as it were—if we note particularly that the material Plymouth is not an essential or necessary part of our experience of seeing Plymouth, or of the Plymouth that we see. That is, if while we were there the material Plymouth might in some way vanish, and yet the same light waves could continue coming to our eyes, it is evident that our experience of seeing Plymouth, or the Plymouth we had been seeing, with all the attendant knowledge, thoughts and emotions, would continue absolutely unchanged. If our experience of seeing Plymouth could thus remain after the material Plymouth is removed, evidently the material Plymouth is not an essential part of our experience. The only part the material Plymouth plays is in reflecting the light waves. The only essential factors involved in our experience are the light waves, the nerve states the light waves induce, and the states of our consciousness.

There is no good reason why we may not build our experience of seeing Plymouth, apart from the material Plymouth, provided we have some means of *reproducing* the light waves, as sound waves are reproduced by the telephone, radio, etc. Such reproduction is accomplished by good pictures. Whether the light waves come to us from Plymouth or from a picture of Plymouth we must build, in connection with the nerve states the light waves induce, the only Plymouth, the real Plymouth, that we see. With the picture we have the same kind of light waves supplied, the same kind of nerve states, the same states of consciousness. The only differences in the experiences of seeing Plymouth in the two cases, the only differences in the Plymouth we see in the two cases, is a difference of quality, not a difference of kind.

It becomes evident at once that the degree to which the experiences with pictures may approximate the experiences we gain in connection with the material world, will depend to a very large degree upon the quality of the pictures. This is a matter of great importance. We have not only many different kinds of pictures, and an endless variety of subjects that are represented in pictures, good, bad and indifferent, but also pictures that vary vastly in quality. We may say that, other things being equal, most pictures

will be best in the degree that they reproduce light waves that correspond most nearly to those reflected by the objects themselves. There are enormous differences in this respect between good original photographs and the many kinds of reproductions. "The photograph is such an every day matter with us that we forget its miraculous nature" in reproducing light waves. And yet the slightest difference in the quality of pictures affects those nerve and body states involved in our experiences of seeing. Of course the advantage of the reproductions is found in the possibility of multiplying them quickly and cheaply by the printing press. This however should not make us overlook the great superiority of the various kinds of original photographs—a superiority that is so important as frequently to justify the difference in the cost.

But even though the best original photographs, stereographs, slides or films are used, many assume that because a person knows it is a "picture" of Plymouth he is looking at, therefore he can not gain to any considerable degree the same emotions he would gain in looking at the actual spot. But such an assumption is belied by people's reaction at theatrical performances, at the movies, before the phonograph, telephone or radio. In fact during all of a person's life when certain sound or light waves have come to him, they have given reliable testimony as to certain realities in his environment; and so eventually as a matter of habit the same or similar thoughts and emotions spontaneously arise, often irresistibly, when such sound or light waves are repeated (as when we see an engine approaching a destroyed bridge at the movies). With good pictures we can not only see with the same marvelous accuracy, but also gain to a considerable degree the same emotions.

Just what is meant, then, when these experiences gained from pictures are called "illusions?" In the first place we should understand that the word "illusion" is a general term that is applied to various kinds of experiences in which the facts of our mental states do not correspond with the facts of the world about us. There is one class of illusions known as hallucinations. Hallucinations are those states of mind in which a person projects some pigment of his imagination into the external world and thinks of it as a present reality; as a man afflicted with delirium tremens sees snakes when there are no snakes around. Then there is a class of illusions known as delusions. This term is applied to experiences where some sense impression is received, but this impression is misinterpreted, exaggerated or distorted. Thus, Ichabod Crane, with his mind absorbed by the thought of headless horsemen, took the stumps seen dimly in the moonlight for headless horsemen. Another class of illusions is due, not to any disorder of the mind whatever, but entirely to unusual conditions in the environ-

ment, as when, for instance, one sees one's face in the mirror.

It is easy now to recognize, first, the fundamental difference between this third class and the other classes of "illusory" experiences, and, second, the essential likeness between this one class of "illusions" and what we ordinarily call "real" or "actual" experiences—such as we gain in the presence of the material objects and places themselves. The *experience of seeing* Plymouth in pictures is called an "illusion," not because it differs necessarily from the experience of seeing the actual Plymouth but solely because of the environmental condition that the light waves are reflected from a photograph or film rather than from the material reality itself.

Now of course this substitution of photograph, slide or film for the material Plymouth means that we cannot gain any other experience of Plymouth than the visual experience. We cannot utilize the material Plymouth or any part of it in any way. When we are actually in Plymouth we can not only see the waves, but also hear them beat on the shore; we can not only see an apple tree in an old orchard, but also touch and smell and taste the apples. To this extent our visual experience of Plymouth is incomplete, but the loss is slight. We readily supply from past experience the missing data furnished by touch, taste and smell. Consider the simple fact that the sight of an actual apple tree usually suffices to give us a complete and satisfying concept of that tree. We seldom insist on touching, smelling and tasting its fruit to complete our concept, assuming that we have eaten apples. Life would be too short to repeat our touch, taste and smell experience for a thousand orchards. The sight of them is entirely adequate. It is just as great a blunder to make the value of an experience of seeing a place by a fine picture depend upon the presence or absence of the material place, as to make the value of a telephone conversation depend upon the presence or absence of the person speaking to us.

In spite of the common feeling that "illusions" are either worthless or positively misleading and harmful, we can see clearly that the right kind of illusion is to be sought as earnestly and prized as highly as any experiences of which we are capable. Indeed, it is this capacity to get the proper illusory experiences that must eventually be considered one of the greatest blessings conferred on mankind. Here is a way by which each individual child and adult everywhere can be liberated to a considerable degree from bodily limitation. Here is a way of escape from conditions that hold him bound to narrow place and circumstance. With the materially insignificant pieces of rubber and metal composing a telephone one may be connected with and hear the voices of over twenty million people. With other equally insignificant material means used

in the manufacture of pictures, one may be thrilled by the quickening of interest and knowledge and emotion and understanding that comes from seeing important places and events anywhere throughout the world.

But the typical "matter of fact," "hardheaded" individual of this materialistically minded age, sees only the physical slides or films or pasteboard stereographs or photographs. To such "practical minded" people, the endlessly interesting and often thrilling experiences made possible by these means, are experiences merely of "pretty pictures" "make-believe experiences," "illusions," "appearance"—not "reality." Here we find the main reason why, in one school system, for instance, uptodate projection apparatus and visual material are provided for the children, while in another system of equal financial resources nothing of the kind is provided; why school boards will invest hundreds of millions of taxpayer's money for buildings and grounds and other millions for teachers' salaries, and then make the children depend to a large degree on language descriptions as a substitute for the marvelous experiences that children might gain by the use of fine visual material—experiences that otherwise they must travel hundreds of thousands of miles to obtain. In spite of all the use that has been made of pictures, we have scarcely begun as yet to realize the extent to which the universal hunger and need of humanity for an immensely wider range of sight experiences might be satisfied by the use of pictures.

Here then we reach a truth that is of tremendous importance to humanity—the truth that with apparatus now available, children and people everywhere can be enabled to build up real experiences of seeing what is most important for them to see throughout the world—that the eager appetite of earth's millions for a world range of sight experience can be largely satisfied; that by the use of pictures people generally can gain the same kind of mental food that otherwise they could gain only in the actual presence of the wide material world. Here, then, we find a practical solution to the immense problem of providing for what is a primary requirement if people are to build inner worlds that are in any measurable degree accurate and dependable duplicates of the vast outer world, a primary requirement in the world of developing those bigger men and women for whom there is such a tragic need today.

We come now to the briefest possible reference to the questions as to the varying suitability and value of the different kinds of pictures in the work of the schools particularly; the methods of their use; the pictures that are now available and the pictures that are needed.

With regard to the work in schools, undue emphasis is liable to be put on the moving picture. Unques-

tionably the moving picture is of very great value in the schools. But of course the movie needs to be and ordinarily should be used only when motion is an essential feature. Furthermore the movie does not give sufficient opportunity for detailed observation and discussion. It is somewhat like trying to study and become acquainted with and understand the world of nature and humanity while moving through it in an automobile or express train or airplane. Here the still picture, like the lantern slide, has a decided advantage. Such pictures can be taken into the individual classrooms, correlated closely with the subject of each lesson, held long enough for detailed observation, more fixed impressions, and individual discussion on the part of the class.

This matter of *method* in the use of pictures is of great importance. Today as never before the importance of pupil activity is being emphasized. It may not take long to see some place or event, but to gain the significance of what is being seen is often a life matter. There is no question but that so far in the use of visual material there have been too many "picture shows." Even in the use of still pictures a conglomeration of objects—physical features, people, industries, customs, etc.—have been thrown at the children at one time. This is much like going to a restaurant and trying to crowd down the whole bill of fare at one meal. Such a use of pictures not only makes for superficial knowledge of what is being seen, but usually there is not even accurate observation as to what is being looked at. This unpedagogical use of visual material has prejudiced many unreflecting educators against its use.

As we turn to the question of the pictures that are available today, we find of course a rapid increase in the number and range of pictures supplied to the general public in the movies, the newspapers, magazines and books. For specific use in the schools there is also an increasing number of pictures supplied—movies, lantern slides, stereographs, reproductions in books, etc. The schools have scarcely begun to make use of the visual material that is now available. However, this material is only a beginning of what is needed. No adequate attempt has yet been made to secure what is needed. A vast amount of time and expense and trained ability have been spent through many generations in producing, collecting and grading language symbols for use in education. An equal amount of ability and some measure of the expense should be spent in making a world range of pictures, in getting information to go with them, in grading them, and in devising the best methods for their use. It is an immense task, an immensely important task, concerning the performance of which we shall venture only a few suggestions here.

Sound Motion Pictures as an Aid In Classroom Teaching *

THELMA ATKINSON

WITH THE development of sound motion pictures, there has arisen the problem of the value and use of educational sound motion pictures in classroom teaching. At present there is a lack of knowledge of the exact worth and place of such pictures as a teaching aid, due primarily to the recent and rapid development of equipment making sound motion pictures possible. Before the exact place of sound pictures as a part of an educational program can be established, it is necessary to determine the contribution which the addition of sound makes to the film.

Dr. C. C. Clark of New York University has recently completed some interesting experiments which established the fact that the addition of sound is a decided asset in some forms of classroom instruction. Dr. Clark's experiments purposed to establish as exactly as possible the values of educational sound motion pictures as compared with two other types of teaching aids; namely, silent pictures and lecture demonstrations.

Two phases of the problem of evaluating the use of sound motion pictures in teaching were studied, namely, the relative values of such pictures as a means (1) for the conveying of concrete knowledge or information, and (2) for the stimulating and maintaining of interests. No attempt was made to determine the values of educational silent motion pictures or lectures except in comparison with the value of sound pictures.

Dr. Clark carried out his experiments in a class in General Science in the School of Commerce, Accounts and Finance at New York University. Twelve hundred students came under his observation in this work. The students were divided into two groups: an experimental group and a control group. The films were used in the experimental group, while other means of demonstrating the same material shown in the films were used in the control group. The two groups were chosen in such a way as to make them as nearly as possible equal in mental capacity and achievement. During the latter part of the test the students were rotated.

Complete equipment for the projection of sound and silent motion pictures was installed in the classroom. It was done in such a way as to prevent any distraction by noise or sight of the ma-

chine. The equipment consisted of a standard 35 millimeter Simplex projector and the best type of sound-reproducing apparatus available.

Thirteen films were used, eight of these being sound, five silent. These pictures constituted a sampling of the best films available relating to the subject matter of the course.

The pictures used in the first half of the experiment related to the biological sciences and included such titles as "Castles of Paper," a picture giving the habits and characteristics of insects. The second half of the experiment dealt with the physical sciences, and included "Characteristics of Sound", which gave the quality of music and speech.

Two kinds of test were used to determine which group of students was getting the most from the classes. The most novel of these tests was a photographic record of the students, made for determining just how many actually maintained attention even while there was distraction in the room. For this, Dr. Clark concealed a photographic apparatus at the front of the classroom. This was connected electrically with a bell near the door so that, at any time he wished, the instructor could set both in motion simultaneously by pressing a button. Both while the film was being shown, and during a lecture demonstration, the instructor pressed the button. A bell rang loudly. At the same time, quite unknown to the students themselves, a picture was taken of the class. When the resulting pictures were developed, Dr. Clark was able, merely by counting the number of heads turned toward the noise, to determine how many students did not maintain attention. The final percentages were obtained after photographing the classes during the showing of a number of different pictures, both sound and silent, and during lectures. They showed that, when watching sound films, 81.7% of the students kept their eyes on the film. Of those watching silent films, 75.2% remained attentive, while only 54.6% of those listening to lectures were attentive.

The other test was a comprehensive examination made up of 99 questions relating to the factual content of the films. These items were of the multiple-choice and recall types. This test was constructed by Dr. Clark himself, no satisfactory standardized one being available.

The examination was divided into two parts.

(Concluded on page 254)

*Material obtained and O.K.'d by Dr. C. C. Clark, who made the experiments described.

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Preliminary Educational Motion Picture Conference

CLINE M. KOON

ON INVITATION of Dr. George F. Zook, United States Commissioner of Education, more than thirty representatives of various governmental, educational and motion picture agencies met at Washington, September 25, to prepare a composite report on the use of motion pictures in education in the United States. This report will be submitted to the International Congress of Educational Cinematography to be held in Rome in April, 1934. In opening the conference, Commissioner Zook explained that the Office of Education was simply acting as a facilitating agency in calling together representatives of various motion picture organizations and educational associations that are interested in making motion pictures serve more effectively the ends of education. He said, "Our office has not prepared a report to be submitted here for your approval. We have no program for you to endorse."

The educational influence of the motion picture, the motion picture in the service of health and vocational training, the motion picture as a factor in national unity and international understanding, and the systematic use of the motion picture in schools were among the subjects discussed. They will be considered in order.

The consensus of opinion of the conference was that the motion picture is destined in the near future to have a profound influence on education. Dr. Ann Shumaker of the Progressive Education Association said, "We know, from various studies that have already been made, the tremendous educative power of motion pictures." Dr. Edgar Dale of The Payne Fund reported that their recently completed research studies show that about two-thirds of the children of a typical city attend the motion pictures once a week and that motion pictures have a lasting effect on children's attitudes. The place of the motion picture in the growing field of adult education with its different ramifications was pointed out. In this connection, the educational value of wholesome recreation and the part that motion pictures could play in this much needed service were suggested.

In his introduction of the subject of vocational instruction with motion pictures, Mr. C. F. Klinefelter of the Federal Board for Vocational Education stated that motion pictures already have demonstrated their effectiveness as aids in teaching vocations and that in the present unemployment

situation, with more than eight million men out of work, motion pictures have a unique opportunity in employment readjustment.

Mr. Leslie C. Frank of the United States Public Health Service explained how films were being used to inform the public how to control and prevent the spread of communicable diseases. Other health films mentioned at the conference were the Eastman medical films, health films of various insurance companies and the technical films being used for instructional purposes in medical schools. "The question of policy that should be followed by the motion picture industry as regards so-called health films is an ever present one," said Governor Carl Milliken of the Motion Picture Producers and Distributors of America. "The position of the industry at present," he continued, "is that education on health and social hygiene is a matter for health authorities, school authorities, and parents."

In the discussion of motion pictures for national unity the Yale Chronicles of History, the Eastman pictures of Washington and Lincoln, and motion pictures in connection with the present recovery program were mentioned. The danger of obvious propaganda for any cause having the wrong effect on people who go to the theatres for relaxation and entertainment was pointed out. Representatives of the motion picture industry mentioned that probably fifty pictures were released each year in this country which present some phase of national life or historical development, but that the most significant medium is the newsreel which keeps all the people feeling that they are acquainted with the personalities who are making the history of the time.

The introduction of the people of one nation to those of another was considered to be one of the chief accomplishments of the motion picture in the field of international understanding, according to conference members. The danger of films disregarding national ideals and interfering with international relations was indicated also. In this connection, Mr. Leon J. Bamberger of the RKO Distributing Corporation explained the procedure being followed by motion picture producers at the present time in order to avoid offending peoples of various countries by the way in which they were depicted on the screen. Mr. William A. Reid reported on the film work being done by the Pan American Union in the field of international under-

standing. One recommendation was that a series of short feature films be produced showing children of various nations at play.

Dr. C. F. Hoban, representing the Department of Visual Instruction of the National Education Association, and Dr. Edgar Dale of The Payne Fund led the discussion of the use of motion pictures in schools; and Dr. V. C. Arnspiger of the Erpi Picture Consultants discussed the research problems involved in the instructional use of motion pictures. Doctor Hoban said educators had not taken the degree of interest in motion pictures that they should. In his opinion the three things that needed to be done were: to reach and sensitize school administrators, to see that school budgets made provision for motion picture equipment and films, and to train teachers in the techniques of visual instruction. In this connection, Mrs. Robbins Gilman of the National Congress of Parents and Teachers spoke of the work of the Congress. She said that her organization was stimulating the increased use of non-commercial films for educational and recreational purposes and working for better means of distributing films and the necessary legislation in State and National government to carry out these plans. Doctor Dale outlined The Payne Fund experiment in teaching motion picture appreciation in secondary schools.

Throughout the conference reference was frequently made to the need for closer co-operation of the various agencies that are interested in the production, distribution, and use of educational films. Resolutions were passed expressing the consensus of opinion of the conference that the Federal Office of Education should serve as a national center for the collection and dissemination of information about non-theatrical films, and should take steps to promote motion picture instruction in public school curricula throughout the country.

Massachusetts Promotes Free Films

In order to serve both the user and the producer, as well as the distributor of free films, three organizations are cooperating to set up a centralized service of free films to the schools of Massachusetts. The centralized office will be at Boston University School of Education. "The Massachusetts School Teacher," the official organ of the state's Teacher Federation, representing 18,000 teachers, will publish the lists of available films. The Massachusetts branch of the Department of Visual Instruction of the National Education Association, is cooperating to establish the service.

There is to be no cost to either distributor or producer for the use of the films. The user is to pay transportation both ways for this service. Boston University, being centrally located, will provide an opportunity for schools within reach to call for their films.

Brigham Young University Extends Service

Always in the vanguard of the progressive higher educational institutions of the United States, Brigham Young University has inaugurated a visual instruction service for the schools and communities of the inter-mountain area. A small amount of service was available last year, but the recent addition of more than one hundred reels of 16 mm. motion pictures and of many sets of film slides forms a library adequate to take care of the needs of the majority of the schools which are now equipped to use these services. Additional subjects and other types of service are contemplated as the demands for them become evident.

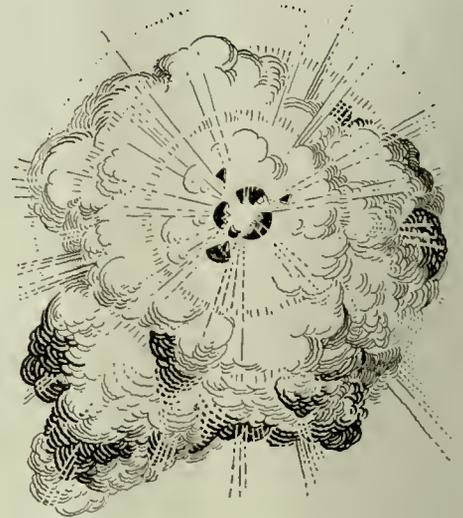
The service of the Bureau of Visual Instruction at B. Y. U. does not stop with the organization of a film and slide library. The teacher who does not know how to use the visual aids properly will not achieve the desired results. With this in mind, plans are under way to give many teachers a working knowledge of the use of those aids which will be of greatest value in each situation. A short course in visual instruction methods was offered during the summer session of 1933. One residence and one or more extension courses will be offered during the fall quarter. A manual or handbook of visual instruction will be prepared for general circulation among those who desire guidance in organizing a visual instruction program for a class, school, or district.

The Extension Division of Brigham Young University has borrowed from the Extension Division at the University of Kansas the services of Ellsworth C. Dent, who has been in charge of the visual instruction service at K. U. for the past ten years. Mr. Dent will be in charge of the visual instruction course, will assist with the further organization and promotion of the visual instruction service, and will prepare the visual instruction handbook.

The schools of the inter-mountain area are giving excellent co-operation to B. Y. U. in the development of the service. The majority of these schools have been obliged to send five hundred miles, or more, for such service as they desired to secure on loan. The materials are now available close at hand and at very low fees. In addition to the service for schools, special materials are offered to the seminaries and other religious groups of the Mormon church.

The chief organizer and guiding light of the Utah visual instruction service has been and is Dr. Lowry Nelson, Director of the Extension Division at Brigham Young University. His right hand man in the service is F. Wilcken Fox, a graduate of Brigham Young University who has been appointed secretary of the Bureau of Visual Instruction. In addition, major credit for the service is due Dr. Franklin S. Harris, President of B. Y. U., who appropriated the necessary financial support.

Visomatic Tosses a BOMBSHELL



Into Visual Instruction Tradition

The newest Visomatic — combining stills, motion, sound and color automatically—is a sudden, unexpected challenge to all other forms of sound picture apparatus. Educators to whom private showings have been made are exultantly repeating that Visomatic System dwarfs all present—if not all presently contemplated—methods.

Simple, light, inexpensive, this latest Visomatic projects slide film images synchronized with sound, when greater concentration is required. It automatically switches to motion picture projection and sound when motion adds to the educational value of the subject. And, most amazing, the stills and motion are sequenced on one strip of 35 mm. safety film, (100 feet for half-hour lecture) housed in a four inch completely enclosed self-framing and finger-print proof loading cartridge. A boy can learn to operate Visomatic in five minutes, as no complicated "threading" of film is required.

Sound is synchronized on new type, flexible, non-breakable sixteen inch electrical transcription discs; pictures are changed, or motion added, by an ingenious combination of electric impulses relayed to a mechanical ear from inaudible 5,000-cycle oscillator notes in the transcriptions. Thus, without manual attention, the lecturer's voice, sound effects, music, bird notes or other instructive sounds are positively synchronized electrically, not mechanically, with the pictures.

True color on all subjects is projected when desired; the film itself being emulsioned with ordinary black-and-white emulsion, the primary colors, (giving every hue and nuance of the spectrum) being imbedded in

the film stock, 1,000,000 primary filters to the square inch. Exposures are made in ordinary cameras. No change is made, no extra lights required.

At a time when 16 mm. sound film is enjoying wide consideration as the "coming visual education method", this revolutionary Visomatic System, educators say, tends to change prevailing ideas.

For, where present-day apparatus is often complicated, heavy and expensive, Visomatic is simple, light and low-priced. Reels of ordinary sound film are expensive for wide-spread school-room use. Yet there is need for progress beyond the glass slide and slide film. There is a positive demand for low-cost and certain color film. This newest Visomatic, combining the advantages of slide-film with the values of motion, color and sound, will interest all students of visual education methods.

Private demonstrations will be made after Dec. 1st at the New York headquarters, Visomatic Systems Inc., 292 Madison Ave., New York City, to those earnestly interested and who are visual education authorities in schools, colleges, municipalities or church fields. Correspondence and inspection is invited. No literature is yet available.

COMPARE!

	Visomatic	Sound-Film
1. Cost of Typical 15 Min. Production	\$1200.00	up to \$5000.00
2. Time for Making Production	1 week	1 month
3. Cost of Original Neg. Raw Stock	\$3.00	\$140.00*
4. Cost of Duplicates (Sound and Picture)...	\$5.00	\$14.00
5. Cost of Projector	\$175.00	\$500.00
6. Opportunity to Utilize Present Material	100%	10%
7. Percentage Chance of Film Break in Projection	0%	3%
8. Decibels Extraneous Noise of Mechanism .....	.01	up to 4.50
9. Practice Required to Operate Projector	5 min.	1 week
10. Time to "Thread" Projector	30 sec.	3 min.
11. Size of Equipment	single unit case 5x11x14	two cases—each up to 10x20x30
12. Weight of Equipment	30 lbs.	up to 75 lbs. and over

*4000 ft. exposed; cut and edited to 600 feet.
The figures shown under Sound-Film do not refer to any particular equipment or service, but are based upon statements received from a number of sources universally deemed reliable.

The Newest Visomatic projects slide-film, motion, color, and synchronized sound-on-disc, automatic picture change. A precision instrument, optically, electrically, mechanically, perfected. Main features patent protected. Operates on 110 Volt, 60 Cycle, either AC or DC. Folding turntable sinks into case when not in use. Electric pick up head plays either "lateral" or "hill-and-dale" transcriptions. 200 Watt illumination. Increased through entirely new optical set-up. Weight 30 pounds. Size 5x11x14 inches. Sealed cartridges, 4 inches, hold film for half-hour lecture.



Vice President in Charge
of New Development.

FILM PRODUCTION ACTIVITIES

The aim of this new department is to keep the educational field intimately acquainted with the increasing number of film productions especially suitable for use in the school and church field.

Two Additions to Physical Science Series

A two-reel talking picture on the subject of sound is now in production by Erpi Picture Consultants for the University of Chicago Physical Science Series. The first reel, entitled *Sound Waves and Their Sources*, will show how sound waves are produced and propagated through air. Animation and high-speed photography will be employed to demonstrate sound wave patterns and explain these invisible phenomena.

The second reel, *Fundamentals of Acoustics*, will explain echo and refraction of both photography and animation. Either of these two reels may be used independently of the other, although the first mentioned adds immensely to the better understanding of the second.

Drs. Harvey B. Lemon and Hermann I. Schlesinger of the University of Chicago supervised the preparation of the scenarios.

New Filmo Library Releases

Filmo Library has secured, for immediate release, four silent 16 mm. films picturing animal, plant, and Indian life in America's southwest. These films, each 400 feet long, are suitable for educational use, and are also entertaining subjects for general use.

Wild Animals of the Desert shows, in their natural habitat, the antelope chipmunk, diamond back rattlesnake, badger, hydrophobia skunk, and coyote—their adaptation to their environment, and life habits. It also includes scenes portraying the life of an old desert prospector.

Wild Life on the Desert pictures the topographical aspects of the desert of the Colorado in Southern California; its mountain barriers, its shifting sand dunes, a coral reef, remnant of the days when this was a sea, series of horizontal lines of rocks marking ancient water levels, and the Salton Sea of today. Desert plants are shown, each with its peculiar adaptation to its trying environment: ocotilla, cholla cactus, Washington palm, smoke tree, and others. Many desert animals are included in this film in scenes which portray their habits.

Hopi Indians of the Painted Desert—how the Hopi Indians live in their pueblo dwellings in the colorful desert of northeastern Arizona, their well-tended farms, the planting of corn and preparation of corn meal, their methods of cooking, tending their herds of sheep, making baskets, and other Hopi customs.

Among the Navajo Indians—Navajo hogans, and the family life in these log and earth houses, bathing a baby and placing him in an Indian cradle,

weaving blankets, children tending flocks of sheep and goats, family scenes in the summer shelter, the preparation of food.

Psychological Experiments With Monkeys Filmed

The results of an investigation of problem solving in the Rhesus monkey, conducted by Charles D. Young, Jr., of the Department of Psychology, University of Kansas, were filmed by Mr. Ellsworth C. Dent, Secretary, Bureau of Visual Instruction, Extension Division. These experiments were primarily designed to test the *Gestalt* conception of animal behavior at this level of evolutionary development. Certain well known experiments were repeated and new ones added. In each of eight different experiments, the problem was solved by one of the two subjects, Gus, but Sue, the other subject, failed in numbers seven and eight. The monkeys were approximately one and one-half years old and were wild when purchased.

Experiments one and two consisted of simple problems in brightness and color differentiation. The problem was to choose the darker of two grays, or black as opposed to white, to secure a hidden peanut. This part of the problem was solved by both monkeys.

Both monkeys successfully distinguished as cues, a triangle from either a circle or a square, in experiment three.

In experiment four, the food was to be secured from a long metal cylinder hinged at one end and suspended in a horizontal position with the aid of a rubber band and a prop. To secure the food, the animal must remove the prop and either slide the rubber band off the tube or pull the tube downward, stretching the rubber band. By the second trial, both animals succeeded, indicating clearly that the relationship of means to ends must have been grasped through insight.

In experiment five, the food was to be secured by pulling a rope which raised a small platform inside of an elevator shaft, with wire-mesh front through which the food was visible. A sufficient pull lifted the platform to an opening above the wire-mesh through which the food could be secured. Sue, with some previous experience in string pulling, solved it the first time. Gus, with no experience in string pulling, immediately pulled and discovered that the platform was raised part way. He succeeded on second trial.

(Concluded on page 255)

DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

Visual Instruction Meetings Well Attended

The visual instruction demonstrations and discussions before the Utah and Nebraska teachers' meetings in October created much interest in the application of visual aids to instructional problems. The intelligent inquiries which have resulted indicate a probable steady growth in the use of visual aids in both states.

The meetings of the Utah Education Association were held in the magnificent Mormon Tabernacle, in Salt Lake City. These meetings were held on October 26, 27 and 28. On Friday morning, October 27, the Visual Instruction Section held its meeting in the Assembly Hall, which is just a few yards from the Tabernacle. The meeting was scheduled to follow the morning general session. More than a thousand attended.

The meeting was opened by Mr. Glen Anderson, the president of the Visual Instruction Section, who introduced Dr. Lowry Nelson, director of extension at Brigham Young University. Dr. Nelson explained, briefly, the plans for complete visual instruction service to Utah schools, through the Bureau of Visual Instruction at B. Y. U., and introduced Mr. F. Wilken Fox, the secretary of the Bureau. Mr. Fox called attention to available service and requested the suggestions and co-operation of Utah teachers and school executives in building a permanent and adequate loan service of visual aids. The discussions were followed by demonstrations of the best educational motion pictures, including both silent and sound subjects. There were also demonstrations of visual aids at some of the group meetings.

In Nebraska, the arrangements were somewhat different. The meetings were held on the same dates as those mentioned for Utah, but the Nebraska Teachers Association meets at central points in each of six districts into which the Association has been divided. Two of these sections, the fifth and sixth, placed major emphasis upon visual instruction.

The arrangements for the meetings of the Sixth District, held at Scottsbluff, were somewhat different from the ordinary, due to the careful planning of Mr. E. T. Whiting, the chairman. The general meeting on Friday morning was divided into two groups, the elementary, and the high school and college. The two groups met concurrently at the two leading theatres. The elementary meeting

started at nine o'clock with appropriate music, followed by the showing of the sound pictures, *The Creative Approach to Education* and *Seed Dispersal*. The high school and college meeting started at the same time, with music by the Scottsbluff Band. This was followed by a discussion of the application of visual aids to high school and college instruction, delivered by Mr. Ellsworth C. Dent of Brigham Young University. At the close of his address, two pictures, *The Builders* and *The Molecular Theory of Matter*, were shown. While these pictures were being shown, Mr. Dent went to the other theatre and addressed the elementary group, following the showing of the pictures to that group. In the afternoon, Mr. Dent met the Elementary Principals section and the Normal Training section, discussing visual instruction problems and possibilities pertinent to these groups.

On Friday, Mr. Dent addressed the general session of the fifth district, held at Holdrege, on the subject, "The Use of Visual Aids to Solve Educational Problems." In the afternoon, discussions and demonstrations were presented before the Visual Instruction, Social Science and Elementary Principals sections.

There were approximately 3,000 teachers and school executives in attendance at the meetings of the fifth and sixth Nebraska districts, at Scottsbluff and Holdrege.

Copies of 1933 Directory Available

The *Visual Instruction Directory* for 1933, the most complete directory of its kind ever published, is still available for those who may have use for a complete list of the departments of visual instruction, directors of visual instruction, and leading users of visual aids, throughout the United States. The Directory is furnished at \$1.50 per copy, post-paid, with a reduction of one-third to those organizations which may desire ten or more copies. Members of the Department receive one copy without charge.

Next Meeting Planned for February

The next semi-annual meeting of the Department of Visual Instruction will be held concurrently with the meeting of the Department of Superintendence of the National Education Association, in Cleveland. The Department meetings will be held on Monday and Tuesday of the N. E. A. meeting

week, and so arranged that there will be no conflicts with the general meetings of the Department of Superintendence.

Those who may have suggestions concerning desirable features to be included in the program of the Department of Visual Instruction should send them to Mrs. Grace Fisher Ramsey, American Museum of Natural History, New York City. Mrs. Ramsey is president of the Department for 1933-'34.

Department Membership

Membership in the Department of Visual Instruction of the National Education Association is open to anyone who may be interested in the application of visual-sensory aids to educational procedure. This would include teachers, school executives, members of boards of education, members and officials of parent-teacher associations, members and officials of various public and private service agencies, ministers, Sunday school workers, travelers, photographers, and any others who may be interested. Active membership is limited to those who are members of the N. E. A., but associate membership is available to anyone, including all services except the privilege of participation in the business affairs of the Department.

The annual cost of membership is but \$2.00, including a subscription to THE EDUCATIONAL SCREEN and other services which would cost more than twice the membership fee if secured by those who are not members. If you are not a member, you are failing to identify yourself with the most progressive movement in the field of education. The accompanying blank is provided for your convenience. Use it!

Membership Application Blank

Secretary, Department of Visual Education,
National Education Association,
1638 Illinois Street,
Lawrence, Kansas.

Date.....

I herewith make application for membership in the Department of Visual Instruction of the N. E. A., for a period of one year at the usual fee of \$2.00, which I am enclosing. (Payment may be deferred if desirable.)

My membership card, the 1933 Visual Instruction Directory, and *The Educational Screen* should be mailed to—

Name

Address

City and State.....

I am a member of the
I am not National Education Association

Note: Please make remittances payable to the Department of Visual Instruction.

Sound Motion Pictures as an Aid to Classroom Teaching

(Concluded from page 247)

Part 1, relating to the biological sciences, was given after the films had been used. The scores on this were used for evaluating the effectiveness of these particular films in conveying specific information. Part 2, relating to the physical sciences, was given twice—before and after the films had been shown. The gains in scores were used to evaluate the effectiveness of the films.

The results of these tests showed that educational sound pictures in which sound is a vital and realistic part of the picture were fully as effective as lecture demonstrations. The three silent films which were compared with lecture demonstrations showed similar results. In the first part, the figures were: 1.0 and 0.7 in favor of the sound films, and 0.4 in favor of demonstrations. In the second part the experimental constants were 5.3 and 0.4 in favor of the demonstrations and 1.4 in favor of the films. These figures seem to indicate an advantage in favor of the demonstrations over the silent films.

The comparison of the lecture type of sound films¹ with silent films identical or similar in content, showed that students taught with silent films made slightly higher scores than did those taught with sound films. The differences in favor of the silent films had experimental contestants of 3.5 and 16.2 on the two divisions of the test. These indicate the superiority of the printed caption over this particular type of sound film. Dr. Clark explains this by the fact that in the silent films, the students only require one sense; viz. sight. In the sound films they are straining to catch the words of the speaker at the same time that the eye is endeavoring to see everything in the picture. This means that neither sense works as completely as otherwise it would.

In the interest examinations the percentages of students who maintained their original interests, as shown by their making the same choices on the initial and final tests, were: demonstrations, 54.6%, sound films, 59.4% and silent films 60.3%. The percentages of students indicating new interests stimulated by films and lectures were: sound films, 27.4%, compared with identical demonstrations, 22.2%; silent films, 26.7%, compared with identical demonstration, 26.2%.

1. Dr. Clark draws a sharp distinction between the picture in which sound plays a vital part and the lecture type of picture. By this latter type, he means those in which an unseen voice explains and comments upon what is going on in the film. The sounds which would be incidental to the pictures, such as conversation, are not reproduced.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

Sierra Educational News (October) "Using Visual Aids for Economy and Learning" by Arthur L. McLean, of the Berkeley, California, Schools, is a further testimonial to the economies attained through the normal functioning of a school department of visual aids because it not only conserves the time of the pupils but indirectly the funds of the school district.

This article is directly followed by "Visual Education in a Social Science Activity," a description of a class project on "The Land of Cotton" conducted by Alma Lucille Smith, Lafayette School, Long Beach, California, in which all forms of visual aids were utilized—flat pictures, stillfilms, a student-made talking moving picture, and shadow pictures.

The Catholic School Journal (October) "With more than twenty-eight million youngsters still being educated attending the movies at the rate of at least once a week, the effects produced upon them becomes a matter of very greatest importance," writes Rev. Kilian J. Hennrich in "The Guidance of Adolescents: The Movies." That the majority of current film productions produce dangerous effects on both the health and morals of children has been brought out by the findings of the Payne Fund Research Committee, some of which the author discusses. Various methods have been attempted in the past to improve conditions, none of which was effective. The writer believes the ultimate solution of this problem is self-censorship for adults who, in turn, should give instruction and moral guidance to the young, and promote the showing of good films.

International Review of Educational Cinematography (September) "Music as a Cause of Disease and as a Healing Agent (With Special Reference to the Sound Film)" by R. Assagioli, is an unusual and fascinating account of the influence of music on body and mind. And now, says the author, "the recent invention of the sound film opens up a new and promising field for the application of musical therapeutics. The union of sound with visual images gives a greater efficacy to both, and increases their curative possibilities." As the result of a recent experiment showing the beneficial effects of talking films on hospital patients, the United States authorities have in preparation a plan for providing all the major hospitals of the country with cinema projection apparatus.

Because of the ability of certain types of music to produce harmful effects, the author recommends cen-

sorship not only of the films but also of the music which is associated with them.

Utah Educational Review (September) The official publication of the Utah Education Association is running a series of articles on visual instruction, starting with the September issue. The first article, "Development in Visual Education," reviews visual instruction activities among Utah schools and will serve as an excellent introduction to the articles to follow.

Mr. B. A. Fowler is the editor of the Review and is both progressive and aggressive in his attitude toward visual instruction. He should be congratulated upon his intense interest in improvements of the schools of his state. Incidentally, the Utah schools now rank well among those of the various states.

National Board of Review Magazine (September-October) In this issue Dr. P. J. Rulon of the Graduate School of Education, Harvard University, summarizes fully the Carnegie-Harvard experiment to evaluate the sound motion picture as an instructional tool in teaching ninth grade general science. Our readers will doubtless recall that the results of this study were briefly reported in the EDUCATIONAL SCREEN for June.

The complete report of the experiment entitled "The Sound Motion Picture in Science Teaching" is now available in book form, covering 236 pages, from the Harvard University Press.

Film Production Activities

(Concluded from page 252)

Experiment six consisted of a difficult wheel-elevator problem. The platform was to be raised by turning the wheel, first demonstrated to the monkeys by the experimenter. Gus solved it on the fourth trial, Sue on the sixth. Experiments seven and eight were modifications of Bingham's method with Chimpanzees, and Gus proved the superior pupil.

The experiments indicate that the process solving was insightful. The solution depended upon seeing one detail in relation to others. There was no evidence of mechanical learning in terms of repetition or trial and error.

The pictures have been edited into a one reel 16 mm. motion picture and are available for loan to colleges and other institutions which might desire to use them. In addition to the titles which call attention to the experiments, there is adequate explanatory material in mimeographed or printed form.

THE FILM ESTIMATES

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

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

(Film Estimates on releases during the past summer are available on the regular weekly cards, carrying seven films each, at four cents a card.)

Age of Aes (Richard Dix) (RKO) Another war-horror picture about sculptor, hating to take life but shamed by sweetheart into entering air-service in Great War. Becomes one of the best killers. The girl, disillusioned by war, tries to bring him back to former ideals and finally succeeds.

A—Fair Y—Hardly C—No

After Tonight (Constance Bennett, Gilbert Roland) (RKO) War-spy thriller, with incredibly clever heroine a Russian spy in love with Austrian officer. His task is to catch unknown operative whose intricate doings defeat Austrian efforts. Capture—disclosure—heavy struggle for hero—and Armistice saves the romance.

A—Fair of kind Y—Perhaps C—No

Anne Vickers (Irene Dunne, Walter Huston) (RKO) Quite faithful filming of Sinclair Lewis novel of career and illicit loves of social-worker heroine, against background of prison reform, harrowing at times. More restrained and less vigorous than the book. Well acted and well cast.

A—Fair Y—Unwholesome C—No

Before Dawn (Stuart Erwin, Dorothy Wilson) (Radio) Gruesome Edgar Wallace murder-mystery, motivated by hidden fortune left by dead thief and guarded by his death mask. Clairvoyant power of heroine proves effective in solving mystery. Drama as a whole is slow-moving and unreal.

A—Mediocre Y—Mediocre C—By no means

Bitter Sweet (English production) (U. A.) Noel Coward's wistful, graceful, old-fashioned romance of English heroine who revolts from marriage with parent's choice, elopes with musician-hero, suffers trials and poverty with him in Vienna—and his death brings bitter ending. Much charm despite inadequate acting and direction.

A—Notable of kind Y—Good
C—Little interest

Bombshell (Jean Harlow, Lee Tracy) (MGM) Fast, hilarious, highly sophisticated farce, satirizing life of movie star of slight mentality. Her frantic press-agent aims to make "Lola," synonym for glamour and seductiveness, and then marries her himself despite rivals. "Snappy" dialog, clever acting, amusing situations.

A—Good of kind Y—Doubtful C—No

Bowery, The (Wallace Beery, Jackie Cooper) (U. A.) Repeats "The Champ" with tough little boy idolizing tough big man. Some human appeal and pathos, but chiefly saloon brawls, fights, booze and vulgarity, with J. L. Sullivan, Steve Brodie and Carrie Nation lugged into cast. Overdone burlesque of Bowery life in the '90's.

A—Hardly Y—Perhaps C—No

Broadway through a Keyhole (Constance Cummings, Paul Kelly) (U. A.) Highly spiced, cheaply sensational night-club stuff, with incredibly dangerous gangster turning incredibly benevolent and turning over heroine he has raised to fame to man she really loves. Much heavy villainy and much glory to the gangster.

A—Depends on taste Y—Unwholesome C—No

Broadway to Hollywood (Alice Brady, Frank Morgan) (MGM) Well-acted, convincing picture of stage-life in best vaudeville traditions, as lived by "the Hacketts"—father, mother, son, grandson—with the sentiment, joys and sorrows, struggles and triumphs. Young wife's suicide and its causes quite unpleasant.

A—Good Y—Probably good
C—Good unless too mature

By Appointment Only (Lew Cody) (Invisible) Sentimental Cinderella theme seriously done. Famous heart-specialist prefers charity patients to rich ones despite ambitious fiancée. His adopted daughter complicates things but logical ending is attained. Quite human and charming, but slow tempo and much dialog.

A—Good Y—Good C—Fair

Estimates are given for 3 groups

A—Intelligent Adult

Y—Youth (15-20 years)

C—Child (under 15 years)

Bold face type means "recommended"

Charlie Chan's Greatest Case (Warner Oland) (Fox) Better than average murder mystery with Oland as the engaging Chinese detective of many adages. Dark murders in Hawaii cast suspicion on many, until Chan's cleverness pieces together evidence and reveals the criminal. Chief fault, too complex a plot.

A—Good Y—Good C—Fair

Damaged Lives (Weldon Pictures Prod. for A. S. H. A.) Effective dramatic presentation of social disease problem, sponsored by American Social Hygiene Association. Delicate theme handled with skill. Well produced, acted and staged. Human and appealing story dealing with lives of two cultured young people.

A—Worth seeing Y—Probably good
C—Beyond them

Devil's Mate, The (Peggy Shannon, Preston Foster) (Monogram) Murderer, facing electric chair, is about to give name of accomplice when he is mysteriously killed by a poison dart. Unraveling of mystery provides novelty, suspense and thrills, with natural ending.

A—Fair Y—Fair C—Better not

Dinner at Eight (All Star cast) (MGM) Pretentious array of many stars in series of episodes connected only by liaisons and thread of plot. Some fine work by Dressler, Burke, Barrymores, Lowe and Tracy, with obvious, sure-fire roles for Harlow and Beery. Social comedy of little significance or dramatic value.

A—Fair Y—Better not C—No

Ever in My Heart (Barbara Stanwyck, Otto Kruger) (Warner) Bitter racial hatred at outbreak of war cruelly affects loyal German-American citizen and fine American wife. Crushed, defeated, he turns German spy, meets wife serving in canteen who bravely meets situation. Poignant drama, finely acted and produced, but psychology debatable.

A—Fine of kind Y—Very mature
C—Too mature

Kennel Murder Case, The (William Powell, Mary Astor) (Warner) The Van Dine detective character smoothly played by Powell as Philo Vance has two crimes to solve in this absorbing murder mystery. Natural acting and clever plot, not too involved, differing somewhat from original story. Suspense well maintained.

A—Good of kind Y—Good C—Perhaps

Life in the Raw (George O'Brien, Greta Nissen) (Fox) Another Zane Grey western, only semi-gangster atmosphere, about Easterner going west to run ranch under exciting difficulties. More or less healthy thrills, with sympathy rightly placed and honesty triumphant. Probably better than average western.

A—Hardly Y—Harmless C—Perhaps

Mad Game, The (Spencer Tracy, Claire Trevor) (Fox) Sensational, lurid, improbable tale of all-powerful beer-baron a la Capone, jailed, while his rival turns kidnapper. Disguised by facial operation, hero is paroled to track down arch-kidnapper. Succeeds and dies. Low characters well acted. Sympathy entirely on side of law.

A—Fair Y—Perhaps C—No

Meet the Baron (Jack Pearl, Jimmy Durante) (MGM) The "Baron Munchausen" makes visible his radio antics in feeble story of much nonsense, a little vulgarity, and some laughs over Durante's overacting, Zasu Pitts' intelligent play of imbecilic comedy, and a fine bit by Edna May Oliver. For those who laugh easily.

A—Mediocre Y—Probably amusing
C—Not for them

My Woman (Helen Twelvetrees, Victor Jory) (Columbia) Ups and downs of man and wife in "big time" radio. Hero, a conceited know-it-all, is lifted to success by faithful wife, then, addled by success, drinks himself to failure. Forced and unnatural situations despite some good acting.

A—Mediocre Y—Poor C—Worthless

Police Call (Nick Stuart, Merna Kennedy) (Mayfair) Stupid "thriller" about prize-fight champion who wants to be an archaeologist, but trouble with racketeers sends him to scientific treasure-hunting in Guatemala and rather absurd love affair. Typical hash, made in a hurry, poorly acted, deceptively titled.

A—Stupid Y—Trash C—No

Quatorze Juillet (Foreign cast) (Directed by Rene Clair) French dialogue film with slender plot, dealing with joys and sorrows of life in the Bohemian quarter of Paris. Keen wit and clever, inspired direction holds interest to the end. Particularly interesting to students of drama and the screen.

A—Good of kind Y—Perhaps C—No

Saturday's Millions (Robert Young, Leila Hyams) (Universal) Routine football story, but with cynical hero who is utterly commercial in his attitude, disloyal to best college ideals, with booze and a mistress for his pastimes. He gamely gives his all to win but total effect of picture unsatisfying and unconvincing.

A—Mediocre Y—Mediocre C—Hardly

Sleepless Nights (Stanley Lupino) (Remington Pictures) Light and inoffensive musical bedroom-farce, made in England. Chief interest is Lupino's clever performance, which includes some good dancing and singing. Story thin and monotonous, romantic complications caused by mistaking hero and heroine for newlyweds.

A—Hardly Y—Harmless C—No interest

S. O. S. Iceberg (Rod LaRocque and foreign cast) (Universal) Grim, vivid, somewhat depressing story of Arctic exploration, with some incredible heroics and strained probability. But notable for its extraordinary photography of frozen Greenland waste, life there, and with thrilling shots of icebergs from birth to breakup.

A—Fine of Kind Y—Very good
C—Probably good

Stage Mother (Alice Brady, Franchot Tone) (MGM) Devoted stage-mother, insisting on daughter's career, nearly wrecks her happiness. Brady interesting, but unsympathetic as uncultured mother crashing through harsh opposition. Appealing at times but story moves slowly and has one objectionable situation.

A—Good of kind Y—Doubtful C—No

Tarzan the Fearless (Buster Crabbe) (Principal) First 4 episodes of above-average serial of Tarzan's jungle encounter with heroine seeking lost father, both of whom he rescues often. Some good photography, variety of action, much of Crabbe's physique, but mediocre acting and plot very long drawn out.

A—Depends on taste Y—Good
C—Good but exciting

To the Last Man (Randolph Scott, Esther Ralston) (Paramount) Bloodthirsty feud in Kentucky transfers to California and becomes still more violent till both families are wholly wiped out, save boy of one and girl of the other—hence, romance. Incessant killings, with extreme cruelty and intense hates.

A—Hardly Y—No C—No

Way to Love, The (Maurice Chevalier) (Paramount) Chevalier again at his best in mood of "Innocents of Paris." Projects his finest qualities in fascinating array, as Francois, the singing yet serious lad with the one burning ambition to become a guide to Paris. Ann Dvorak seconds him most charmingly.

A—Delightful Y—Entertaining
C—Mostly good

SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY
Director, Scarborough School, Scarborough-on-Hudson, N. Y.

Correlating Radio and Slides

Before the National Education Association meeting last June in Chicago, Miss S. Naomi Anderson, Field Supervisor, Visual Instruction, Chicago Public Schools, gave a class room demonstration of teaching a geography lesson by radio and stereopticon slides, as practiced in Chicago. Her subject was "Russia, The Land and the People."

A teacher and her pupils were on the platform, before the audience. One of her pupils had a stereopticon, or lantern, ready for use. He had the stereopticon slides, or pictures to be studied in this lesson, ready to screen as asked for during the radio talk.

The reason for giving an approach to a unit of study is primarily to build up an adequate apperceptive mass as a foundation for learning and to motivate learning. Presumably, sixth grade pupils know little about foreign lands. Through the study of pictures they may secure such vicarious experiences as are necessary for developing desirable understandings. Pertinent questions about pictures create a desire to learn. The pupils may listen to a scheduled radio talk which is illustrated by stereopticon slides.

Miss Anderson then gave to the audience the supposed "radio talk" about as follows, while the class followed intently with the appropriate pictures before them.

"Good Afternoon!

"Most of us have been reading bits of news here and there about Russia, but it seems so strange. The people have a new government, not at all like our government. The country is so large that we learn about regions of hot and cold lands, dry and moist lands, and mountainous and flat lands. Well, boys and girls, none of us knows everything Russia. We are all trying to learn more about the land, and particularly about the people. One well-known Russian has visited Chicago many times. He is Feodar Chaliapin, a singer of high rank. Perhaps some of you have heard him sing here either in Grand Opera or in concert. He is living and is still singing. Let us listen to a phonograph record, Chaliapin singing "Song of the Viking Guest". A Russian singing Russian music.

(Music)

"While we are studying Russia, let us remember that this country has produced great artists such as Chaliapin. The other day I visited a Russian restau-

rant here in Chicago. The host or manager was a large man dressed in a red suit. His trousers were short, full knickers, his coat was fitted around his waist, and he wore a wide black leather belt. His boots were black leather too, something like those boots our western cowboys wear. His face was almost covered with a heavy black beard. He was a young man. I asked him why he dressed as he did, and he told me that he wanted everything about his restaurant to look as nearly like old Russia as possible. He said that his father had belonged to a Cossack tribe that once lived in the mountains. You know the Cossacks were and are skilled horseman.

"Our restaurant host had his clothes made like those his father had worn. Let us look at a picture of an old Russian village.

Slide No. 1

"This is not the home of one family. It is a village, the home of several families. Perhaps as many people live in these mountain homes as there are pupils in

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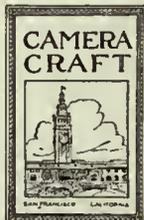
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Non-Theatrical Department, Bureau S

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Corporation**

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two rooms of your school. Is there much land between these huts and the mountains? Could we travel quickly through this country? We should have to go horseback as the Cossack tribesmen do.

Slide No. 2

"A town is built along the Dneiper River. Many more people live here than in the mountain village. Could we travel quickly through this country?"

Slide No. 3

"This woman works in the mines. Does she think she can do her work well? Is she proud of her job? She earns just as much money as her husband or brother can earn for doing the same work. She is the mother of children, too. Who takes care of the children while the mothers are working in the mines or the mills or on the farms? The next picture will tell you.

Slide No. 4

"Here they are! Do they seem to be in good care? Each morning before a mother goes to work she leaves her children here in the day nursery. This is their school. At noon their teachers serve them lunch. Is it a picnic feast with more food than they can eat? Do they look happy? Would you rather eat here or at home?"

Slide No. 5

"This apartment building looks much like some here in Chicago. Some common houses like this one are built in the city for city workers and some are built in the country for farmers. Many, many families live in one building, sometimes four or five in only one small room. There are not enough homes for every one. Let us look again at our picture of the mountain village.

Slides Nos. 1 and 5 are screened alternately

"Both houses are crowded with people. In which would you rather live?"

Slide No. 6

"If we were inside this apartment building, we might see a stairway like this one. It is wide. Many people climb up and down it during the day. We said, a moment ago, that those communal houses were crowded,—several people living in one room. The building is four or five stories high, and there are no elevators, therefore, the stairway must be wide enough to allow all of the people who live there to go to their apartments. Notice that very little material, I believe it is steel, is used for the railing, just enough to make it a protection.

Slide No. 7

"What can this building be? Here we see larger windows than those in the apartment building. Do you think that rooms with such large windows would be small rooms? No. The rooms are very large. All the food for the whole community is prepared here. People do not cook at home at all. There are no kitchens in these new Russian homes.

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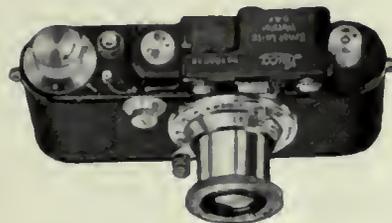


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McMILLAN
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The LEICA was used by William S. Robinson, writer, adventurer, who sailed the seas for three and a half years in a 32-foot boat, the "Swap"; the smallest craft that has ever circled the globe.

POST
Wiley Post used the LEICA Camera exclusively in his round-the-world flight.

It isn't necessary to go on an expedition to get unusual pictures. This LEICA photo by H. C. Raven shows there's many an amusing adventure to be recorded right near home.



They may make a little tea in a samovar, but they do not bake their black bread or make their soup at home. Cooked food is all prepared in these large factory kitchens.

Slide No. 8

"Near the city of Moscow, we should see most of their workers spending their evenings in club rooms like this one. Their homes are just places to sleep, and so they gather in these club houses to study and to enjoy themselves.

Slide No. 9

"What is happening? These Russian people are talking earnestly about something. The woman in the center is trying to answer questions. Some of her listeners believe she is telling the truth. Some of the other listeners do not believe she is telling the truth. Which woman seems afraid? One seems to be thinking, "Ah, I told you so." The greatest crime that can be committed in Russia is any action or talk against the government. The government has spies all over the country who pry into citizens' affairs. Here we can see that some citizen, or comrade as he is called in Russia, has done or said something which the government does not like. Our picture shows a trial scene. The guilty

persons must change their ways. Do you think the woman in the center can change her ways quickly?

Slide No. 10

"This little boy can learn quickly. He can understand what Russia's new government asks him to do. He has been working in the fields and has stopped to laugh with the photographer. Yes, he works. He cannot go to school all day and then play the rest of the day as American children do. He works and then goes to school. Do you think he is happy? Does he look healthy?

Slide No. 11

"We see Russian soldiers parading in a public square, Moscow. There are many, many people in Russia. Here is just a small part of the large army. In order to make the Russian people do what the government thinks is best for them, this powerful army is ready for duty at all times."

Following such a radio talk, as an approach to the study of Russia, the pupils are provided with mimeographed copies of the complete assignment for the unit which includes a series of questions and references for directing the pupils' later study.

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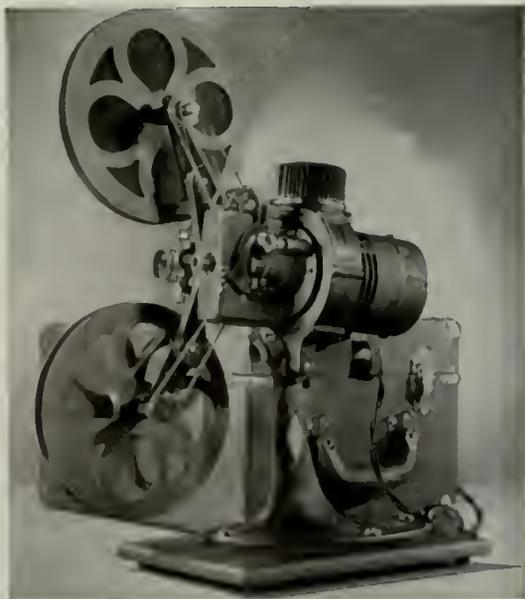
Illustrative Teaching Aids

Teachers who wish to motivate their lessons with inexpensive illustrative teaching aids should know about the Foreign Correspondence Club called The International Legion. The object of this club, which has over 24,000 members, is to promote the collecting of souvenir post cards, stamps, coins, curios, etc. by publishing the names and addresses of reliable collectors in all parts of the world who are members of this Society and will exchange with the other members. This exchange of visual material contributes effectively to the illustrated study of the geography, history, languages and customs of the universe. Membership also includes "The International Post," the bi-monthly official magazine of the Correspondence Club.

One member, Wade Cudeback of Conneaut, Ohio, writes that since joining the club he has "collected view cards from 59 different countries of the world; besides securing products, as cane from Porto Rico, coins, flags, newspapers, curios, descriptive pamphlets telling about foreign countries and cities, and items of unusual interest. Through the use of these aids I have succeeded in making my Geography classes more interesting. It is more impressive to the pupils to have picture study of the various places studied in the lesson or to see things about which they are reading or discussing in class."

Mr. Cudeback will be very glad to provide further data regarding membership to those interested.

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AMONG THE PRODUCERS

Where the commercial firms—whose activities have an important bearing on progress in the visual field—are free to tell their story in their own words. The Educational Screen is glad to reprint here, within necessary space limitations, such material as seems to have most informational and news value to our readers.

Bell & Howell Camera for Expedition

Sir Hubert Wilkins, noted explorer and scientist, has had the Bell & Howell Company, Chicago, prepare a movie camera for the purpose of making a continuous map of the regions to be traversed on a 3,000 mile airplane dash soon to be made across the south polar cap and return, passing directly over the South Pole. Single pictures will be taken automatically from the air at intervals of approximately six seconds. These pictures will be later assembled into one of the most perfect map records ever made at either pole.

Aerial mapping photos of Arctic regions have been made before, but the film generally has been at least nine inches wide, and it has not been feasible to carry sufficient film to take enough pictures to make a continuous map covering an extended path of flight, apart from the fact that cameras big enough to accommodate the large size mapping film are cumbersome and heavy.

The movie camera prepared for Sir Hubert, complete with film magazine, electric motor, and sufficient film, will weigh scarcely twenty pounds. The film itself will be 35 mm. and this will be the first time that this size film has been used for such mapping purposes. Pictures made on 9-inch film are seven inches deep; and 100 feet of this film, for example, would take only about 170 pictures, whereas 170 pictures will require only about 10 feet of the 35 mm. film.

Sunny Schick Announces New 16 mm. Film Laboratory

Sunny Schick, motion picture equipment broker and owner of the Atlas Film Company, announces the opening of their new DuPont Film Laboratories which will occupy new quarters in their newly constructed building at 401 W. Washington Blvd., Fort Wayne, Indiana.

The plant is of the latest type in construction and its capacity is the developing of 500 rolls of movie film per month. The plant is fully equipped to handle reversing process of film as well as duplicate printing and enlarging. Also the development of Leica and Contax strip film and the printing of same. Mr. Schick announces that it is one of the finest plants in the middle west. All motion picture film sent into the plant will be developed and shipped out the same

day, giving people in this section two day service.

Mr. R. D. Kimmel, formerly of Des Moines, Iowa, is in charge of the Atlas Film Company plant as supervisor.

Historical Study Units

The constructive work being done by Educational Research Studies of Hollywood in selecting fine "stills" from the vast collection amassed in connection with various movie productions of the past dozen years or more, and in organizing them for teaching purposes, has been described before in our pages.

This series of "Photographic Historical Study Units" should prove exceedingly valuable teaching material. Each unit consists of a minimum of 15 pictures, painstakingly selected from hundreds of photographs with two specific ends in mind—namely (1) to supply the maximum of informative content possible in this number of views, and (2) to insure the most perfect continuity possible. Each unit is accompanied with a concise *introduction* necessary to lay the proper background, with a *text* under each picture to accentuate details, broaden meaning, and correlate the picture with the others in the unit—and with a *question guide* designed to aid the teacher in bringing out a live and full discussion by the class. Sample questions from the guide on the two pictures reproduced here are as follows:

The Pilgrims

Locate those representing Elder Brewster, Miles Standish and John Alden.

Where did the Naragansett tribe live?

Why should the red man and the white man have been enemies almost from the start?



The colonists were always on their guard against the Indians. The story goes that Canonicus, chief of the Naragansett, sent a rattlesnake quiver filled with arrows, as a symbol of defiance, to Governor Bradford of the Plymouth Colony. Bradford emptied out the arrows, filled the quiver with bullets and sent it back to Canonicus. The Indian was so awed by this reply that he assumed a friendly attitude toward the white men.

Feudal Life from Robin Hood

Why are the devices on the two warriors at the right the same?

Why are the bands of metal worn around the wrist?
Do you think the fighter at the left was expecting his guests?
How have the soldiers gained entrance to the room?



Each feud holder ruled his estate like a king. He was responsible to the lord over him, but often disputes arose between lord and vassal or among vassals of the same lord; or powerful vassals of the king revolted against the royal authority. It was for the reason that castles had each their walls, were surrounded by a moat and carefully guarded by men-at-arms. And it was for this reason also that armor was every-day dress.

These pictures are sold in units only, not as separate pictures, for the sound and simple reason that

Government Buys Animatophones

The United States Government has purchased 100 Victor sound-on-film Animatophones of the Model 12B type for use in training workers in the 1440 Conservation Camps located in every state of the Union except Delaware.

Working efficiency has perhaps constituted one of the greatest problems at the C. C. Camps, the average peak of working efficiency so far attained being only about 50%. The Department of Forestry has definitely shown that this deficit in efficiency can only be corrected by teaching the reforestation army the things it does not now know about forestry, soil erosion, fire prevention, road building, etc. It is understood that one of the first recommendations of the Forest Service was that the Department of Agriculture's fifty or sixty forestry and agricultural films be utilized in properly training C. C. C. for its work.

Inasmuch as the films to be used for this purpose were already in existence, projection equipment offered the greatest problem in connection with actual application. Quite a number of the available films are without sound and, although sound is being recorded as rapidly as possible for these subjects, provision had to be made for silent as well as sound projection. It was necessary, also, that the equipment be easily portable and adaptable to a variety of operating conditions, as each projector

the aim is to teach a subject, not a scene. Says the company:

"These *units* were prepared to visualize the fact that life is a series of experiences each of which is a cause or an effect of one of the others. Therefore, we have grouped and prepared them so that the dramatic significance of the period would spring to life and the student or casual reader could enter into these people's daily lives and gain a *balanced* visual understanding of how they acted and why they succeeded or failed.

"Heretofore, only a few more or less unrelated reproductions of paintings or sketches were available to use as textbook illustrations, loose library pictures or as visual aids in the teaching of a dramatic historical period. All that the teacher or the author could hope to do was to bring out one or two highlights and often in so doing, the student or the casual reader was given an *unbalanced* idea of what took place. The impression made by such pictures focused thoughts upon a few scattered incidents and excluded a broad and comprehensive view of the subject.

"We frankly believe that one of the reasons why historical classroom and library pictures have not heretofore been more widely used is the fact that this continuity was impossible, while in our *study units* we have overcome this difficulty and correlated the whole series to be of real assistance to the history teacher and to supplement vividly the project method of teaching social subjects outlined by the best modern textbooks."

will be constantly moved around a circuit comprised of about 14 camps. Economy of cost and upkeep was another factor of major importance.

Elmer Pearson Joins DeVry Staff

Elmer Pearson, former Vice-President and General Manager of Pathe Exchange, Inc., has become the new General Manager of Herman A. DeVry, Inc., the well known manufacturer of portable sound projectors and cameras.

Herman A. DeVry purchased the QRS-DeVry organization last fall. Most of the smaller movie projectors and cameras of that organization, in the low price field have been dropped, and the new firm concentrated on high quality sound projectors and cameras.

Pathe was one of the leaders among theatrical organizations, in establishing a non-theatrical department, and Mr. Pearson will bring to his new position a wealth of experience in that field. The new connection brings together two of the really constructive pioneers in the movie industry, and should be productive of important results.

Mr. Pearson's first campaign will be the launching of the new DeVry Straight Feed Portable Sound Projector, the DeVry Double and Single Recording Camera, and the coming DeVry 16 mm. Sound Unit, which he regards as a distinct advance in 16 mm. sound achievement.

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A Trade Directory for the Visual Field

FILMS

- Arnold Audio Associates** (5)
11 W. 42nd St., New York City
- Bray Pictures Corporation** (3, 6)
729 Seventh Ave., New York City
- Carlyle Ellis** (1, 4)
53 Hamilton Terrace, New York City
Producer of Social Service Films
- Cinecraft Co.** (4)
80 Boylston St., Boston, Mass.
(See advertisement on page 259)
- Eastman Kodak Co.** (4)
Rochester, N. Y.
(See advertisement on outside back cover)
- Eastman Teaching Films, Inc.** (1, 4)
Rochester, N. Y.
(See advertisement on inside back cover)
- Edited Pictures System, Inc.** (1, 4)
330 W. 42nd St., New York City
- Ideal Pictures Corp.** (1, 4)
30 E. Eighth St., Chicago, Ill.
- Modern Woodmen of America** (3, 4)
Rock Island, Ill.
- Pinkney Film Service Co.** (1, 4)
1028 Forbes St., Pittsburgh, Pa.
- Ray-Bell Films, Inc.** (3, 6)
817 University Ave., St. Paul, Minn.
- United Projector and Films Corp.** (1, 4)
228 Franklin St., Buffalo, N. Y.
- Universal Pictures Corp.** (3)
730 Fifth Ave., New York City
(See advertisement on page 258)
- 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** (1, 4)
347 Madison Ave., New York City
19 S. LaSalle St., Chicago, Ill.
- Ideal Pictures Corp.** (1, 4)
26 E. Eighth St., Chicago, Ill.
- International Projector Corp.** (3, 6)
90 Gold St., New York City
(See advertisement on inside front cover)
- Motion Picture Accessories Co.** (3, 6)
43-47 W. 24th St., New York City
- Regina Photo Supply Ltd.** (3, 6)
1924 Rose St., Regina, Sask.
- Sunny Schick** (4)
Fort Wayne, Ind.
(See advertisement on page 261)
- United Projector and Film Corp.** (3, 4)
228 Franklin St., Buffalo, N. Y.
- Universal Sound System, Inc.** (2)
10th & Allegheny Sts., Philadelphia, Pa.
(See advertisement on page 261)
- Victor Animatograph Corp.** (6)
Davenport, Iowa
- Visomatic Systems, Inc.** (2)
292 Madison Ave., New York City
(See advertisement on pages 250-1)
- Weber Machine Corp.** (2)
59 Rutter St., Rochester, N. Y.
(See advertisement on page 257)
- Williams, Brown and Earle, Inc.** (3, 6)
918 Chestnut St., Philadelphia, Pa.
- Keystone View Co.** (1, 4)
Meadville, Pa.
(See advertisement on page 261)
- Radio-Mat Slide Co., Inc.**
1674 Broadway, New York City
(See advertisement on page 259)
- Society for Visual Education**
327 S. LaSalle St., Chicago, Ill.
- Spencer Lens Co.**
19 Doat St., Buffalo, N. Y.
(See advertisement on page 237)
- Victor Animatograph Corp.**
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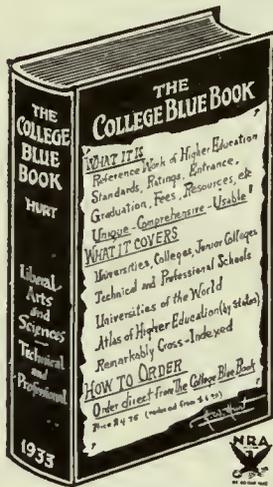
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Educational Screen

Combined with
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DECEMBER, 1933

VOLUME XII

NUMBER 10

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EDITORIAL

Museums and Photography

WE WERE wondering, in the last issue, why museums are content to exercise only an infinitesimal part of their potential influence; why such huge investments should be allowed to realize but a fraction of one percent in value to the public for which they were made; why these stately edifices, with their priceless contents, should be let stand year after year in semi-stagnant isolation, satisfied with the meagre figures from their turnstiles as an index of their achievement.

We hasten to admit the fact that not a few museums have long since recognized this danger of sterility and have gone to great effort and expense to avert it. The effort usually takes the form of circulating-unit-cases carrying actual objects in their settings, collections of sample stuffs, sequential arrangements of process-materials, topical groupings of manufactured products, etc. (In this issue we present Miss Wadsworth's interesting account of the activities and achievements of one American museum which is small but outstanding in worth to its community. We suspect that the Kalamazoo museum belongs in the front rank for magnitude of service rendered in proportion to parvitude of resources available.) The unit-case is valuable when any one sees it. Its costly weaknesses are getting it built, getting it moved, and getting it seen.

A museum exhibit is worthless except when human eyes are looking at it. The degree of its worth depends upon the minutes or hours it is looked at by those eyes. Now what is the fate of the unit-case in schools? In a pitifully large majority of schools so served the case means little. Where to put it is a problem, customarily solved by placing it in some corridor more or less dark, at a point where it will be least in the way during change of classes. The average pupil's chief concern is not to bump into in going by. A few look at its contents a moment or two, the day it arrives, and merely dodge it the rest of the two weeks. Occasional schools have a teacher sufficiently alert and conscientious to take her class once to the case for thoughtful viewing and discussion, when those students near enough to see gain real value. A specialist in decimal statistics might determine the coefficient of efficiency of such a case in its round of the schools.

Assuming, however, adequate viewing of the exhibit, consider just what these unit-cases do. They aim to duplicate the object as it stands in the museum for use at a distance. A most worthy aim. Nothing can equal "the object itself" for educational purposes. But the supreme argument for "the object itself" is that it permits the play of all the senses, and "we learn through all our senses, not through any one alone." Quite true! Yet the object, as displayed in the museum or in the unit-case, is carefully and necessarily guarded against the operation of any sense save vision.

Inaccessible position, guard rails, or enclosing glass ensure that the public shall not *touch, taste, smell or hear*. It can only *see*. Further, it can see from one side only, for the opaque sides and back of cases and cabinets assure this limitation of view. The same exclusive appeal to vision, the same limited viewpoint, spell "picture". If vision is the only sense that can act upon museum objects, why all the costly procedure of transporting objects hither and yon? Why not a perfect *picture* of that object—a picture costing cents instead of dollars for production, duplication, transportation and replacement?

Tradition is an excellent asset, rightly used. It should serve as the one sound standard whereby to test and select the new, not as a formula to embalm and eternalize the old. The museum tradition is venerable and deserves the authority it wields. For twenty odd centuries—from Alexandria to America—there was no chance or reason for the museum to change policy or method. "Gather things, anchor them, and let who will come and see." But from 1833 to 1933, one brief rich century, certain things happened of which the museum world is still too blissfully unappreciative. Photography was born with the daguerreotype, and there followed the transparent negative, the paper print, the stereograph, the lantern slide, film and the motion picture, silent, in color, in sound.

Photography is ready and waiting, with all its forms and subtleties, to end the isolation of museums. The picture, the right kind for the specific object, can carry the museum's treasures abroad safely, cheaply, accurately. It can move the mountain to Mahomet, where ever Mahomet may be. A museum now doing sporadic circulation of cumbrous objects can saturate with service its community, its State, and forty-seven other States with the money now used in laboriously building and carting around a few costly unit-cases to local schools.

Once photography has been harnessed for the purpose, museums will be emancipated from present handicaps. They can broadcast all their possessions. But a fraction of their exhibits are adaptable to unit-cases. Most of them are too large, too small, too rare to be risked in transportation. But no group can be too large, no fabric too delicate, no exhibit too costly for pictorial distribution. Difficulties of cost, once prohibitive become meaningless. With modern camera equipment a few cents makes the perfect negative, a few more the print or slide; a few dollars make duplicates by hundreds, and transportation is a matter of penny postage. Result? The original objects stay safely in the museum, but the whole collection can be laid under the eyes of millions, in homes or in schools, to be scanned and studied as long and as often as the spirit or the teacher moves. When museums accept what photography offers them they can take their normal place at the head of the visual education movement.

NELSON L. GREENE.

A Community Asset With a Top Service at a Bottom Cost

BEULA MARY WADSWORTH

THE increasing adult demand in addition to that of the schools during the current financial depression upon the infinite educational resources to be had free for the asking in libraries, museums, and art galleries in our American cities is constituting a challenge to those institutions to expand adequately their facilities with often diminishing budgets. Moreover, participants in agencies for education including study clubs and evening schools more and more are demanding personal use of *visual* material as educational adjuncts; in other words, they want not only the privilege of viewing exhibits at the art gallery, museum, or library, they want to borrow exhibits as they borrow books.

A public library in a city of 62,000 population which at a bottom cost has achieved the largest circulation of mounted pictures per capita in the United States—the United States leading in this respect, the above means the largest in the world—and also circulates approximately 288,000 objects a year has a story which should be regarded as significant of trends, and certainly suggestive as to methods, in the field of both adult and preadult education on a restricted material basis.

Some years ago, a few months apart, two new departments were born to the Public Library of Kalamazoo, Michigan. In function they were from the beginning like twins, for both were conceived for the work of visual education—one, *illustrative*, called the Art Department; the other, *objective*, termed the Museum. The Art Department had its beginning when it was set apart from the general service by collecting as its primary basis all the art books in a separate room. A hoarded collection of unorganized pictures was originally a secondary attribute; but because pictures, posters, lantern slides, and films were eventually organized as visual aids, the loans of this material, particularly of its 50,000 mounted pictures, exceeded in numbers the loans of art books.

As for the origin of the Museum, I recall long ago observing a musty, dusty remnant of what once was somebody's pet collection of stuffed birds, Indian relics, hair wreaths, and what not, dating back to the eighties, displayed in a dark and seldom visited basement of the main library building. Therefore, I can appreciate somewhat the contrast of this unusable nucleus to the present remarkable circulating collection of 600 exhibits averaging fourteen objects to each exhibit and including a total of about 8,400 objects. Added to this circulating collection, the Museum, now known as the Kalamazoo Museum and Art Institute, owns permanent collections in art, archeology, history,

and science; docent service is maintained, travelling art exhibits are shown, and classes in art instruction for both children and adults are sponsored. Quite full grown, these twins.

In very few instances is a public library under the administration of the Board of Education. However, this plan being extant in Kalamazoo, with the Museum functioning under the library, the Museum is placed in the unique position of serving visual education purposes rather than the usual purposes of display. It does this because the vision of those carrying on the work of the library saw this possibility. Moreover, because the library with its seriously limited resources of money and space can emphasize the visual education of a museum more successfully than it can the usual displays which cost an enormous amount of money and require an appalling amount of space. Furthermore, the effort to supply visual education materials has seemed to fill a "long felt want." This unique position may or may not succeed everywhere. Where a personnel is so constituted that there is not an over-abundance of the lubricant of harmony, it probably would not succeed unless the museum was independent of the library supervision; conversely, it has been successful in Kalamazoo because of the ideal coordination of the entire personnel.

In the first place, Flora B. Roberts, Librarian, with keen wisdom and foresight recognized in two women fine literary and artistic backgrounds and inborn faculties for detail, organization, and initiative. One, Elizabeth Barnard, then on her staff, was selected for Chief of the Art Department at its inception; and the other, Mrs. Mary E. Palmer, Miss Barnard's sister and at first her assistant, has become Curator of the Kalamazoo Museum and Art Institute. The two women though not twins by birth, are like twins in their charming personal relationship and in the harmonious dove-tailing of the work of their respective departments. Incidentally, the Art Department of the Library and the Museum and Art Institute have overflowed from the library building into two adjoining houses—the Library House and the Art House—an arrangement which facilitates the interrelation of their activities.

The kind of service rendered by the Art Department under Miss Barnard, though remarkable in extent, is quite usual through the country, and the kind of circulating service of the Museum has become customary in most museums. However, many of the methods used by Mrs. Palmer are unusual. To know the inside story of a top service at a bottom cost one

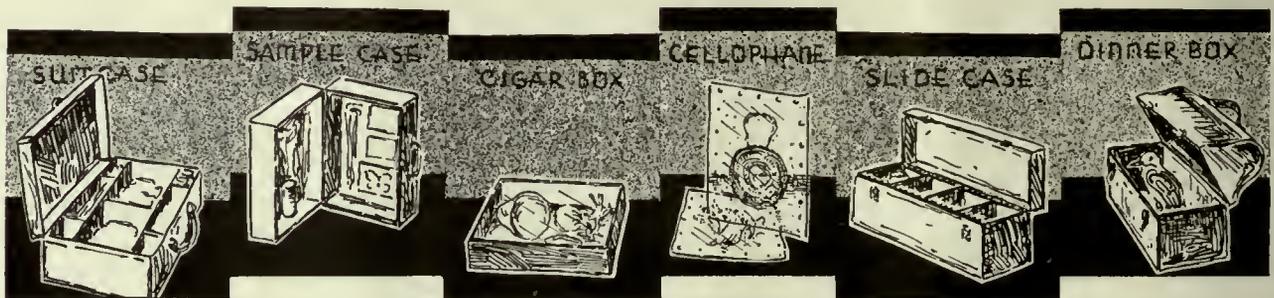
must know Mrs. Palmer. Be it said, with her uniqueness she is altogether self-effacing; her inspiring enthusiasm and untiring energy are all for the work—the work is always first.

One will discover that acquisitions seem ever joyfully to converge at her small office although little money is actually expended for them. With winsome manner yet with a deep river of unswerving purpose beneath the surface, she reaches out for gifts here, there, and everywhere. The alchemy of her genius transforms them into usable educational form, and again her swift hands are extended to fill the teeming needs of the community for her fascinating wares. She may modestly tell you, for instance, how a Swedish resident became interested in contributing a native costume from Sweden, how a merchant or manufacturer generously donated a lot of sample merchandise, or how delightfully the children bring stones, butterflies, and other finds with the glowing hope that they will be accepted for their Museum.

Yes, *their* Museum, the people's Museum. Schools, colleges, clubs, church schools, rural patrons, com-

"Italy" may be a unit of study with a group. There will then be made ready for use cases of objective material illustrating manners and customs, economics, and arts and crafts of that country, including a suitcase of miniature furniture and furnishings illustrating the Italian style.

"Suitcase!" Yes, standard cases are far from adequate in size and shape to accommodate the greatly varied circulating exhibits of this institution. Here is where efficient service together with low cost are considered. Mrs. Palmer has originated for maximum display effect, preservation, and carrying convenience a series of economical devices a number of which have quite plebeian sources. One device is the wood-framed suitcase purchased in several sizes and costing approximately only ninety cents each. The opening of the large filing cabinet containing these pieces of luggage reminds one of a checking booth in a bus station, and the library attendant waiting upon the travellers into the realms of knowledge is indeed quite as busy checking the curiously filled hand bags in and out. Open a suitcase labeled "South American In-



Carrying Cases developed by the Kalamazoo Museum

mercial and other artists claim it. There is instilled in the public consciousness a loyal sense of ownership and responsibility toward the Museum. This attribute on the part of the public operates not only toward stimulating a magnanimous contributing of gifts large and small and enjoyment of the resultant benefits, but also toward preservation of the exhibits. Concerning the last mentioned, the 20,000 to 28,000 objects circulated per month have not suffered a single loss in the course of a year. A secret is, for instance in the schools which are the largest users, the room or group is made responsible, not the individual.

The visual education material of this museum consistently conforms with the community needs. The curator or her assistant will note, for instance, that requests have been presented for illustrative materials on trees common to the locality. Forthwith, glass-covered trays will be prepared ready for the expected demand. The tray, or in this instance, a standard riker mount contains a locality map and samples of flower, leaf, limb wood, trunk bark, fruit shields, and seed furnished by the State Conservation Department, and a description is pasted on the back of the mount. Again,

dian" and there you will see that neat wooden partitions in varying sizes have been built in to suit the character of the contents—a poncho of llama wool, a shopping bag, wristlets, foods, and pictures covering the subject matter in the case.

Of equal carrying convenience and without cost are discarded sample cases travelling men have used, secured from wholesale grocery companies. Opening a spice sample case, for instance, reveals that spices have been replaced by removable laundry cards fitted to the bottom of each of the two parts of the case, each card mounted respectively with a wild and a cultivated silk moth exhibit.

Slide boxes securable from photographic studios for the cost of putting on handles, slide cases in 50 and 100 sizes discarded by schools who have transferred their individual slide collections to the Art Department of the library for economic utility also have been turned to good purposes. At a cost of one cent each, metal slides had been cut at a metal shop to fit the slots to divide suitably the spaces for such exhibits as minerals, sea life, insects, wood samples, but-

tons, and bottles of soil. A device at once light and compact.

A cupboard full of tin dinner buckets may suggest an outdoor picnic, but in reality they have been filled with food for thought for indoor picnics in bird study. Bird cases built to order cost from \$1.25 to \$7.50, Mrs. Palmer told me, but standard dinner buckets in large lots can be purchased at fifty cents each. They are light to carry and durable. Their durability was evidenced by very little wear after two years of service. The stuffed bird on its perch mounted on a wooden base to fit the bucket makes the specimen easy for children to handle. The data were placed on an accompanying loose card.

Standard coin collection fillers aside from serving for coin displays found new uses. I was shown fillers exhibiting different kinds of grains, cereal foods, and similar items.

Although current jokes about the innumerable articles now wrapped in Cellophane may seem to include everything from the Declaration of Independence to an "insane jumble" of pickles, spark plugs, golf tees, and a de luxe edition of the New York Herald Tribune, there still is another use—wrapping museum exhibits. Double sheets of stiff Cellophane made into envelopes by inserting eyelets around the edges serve to protect and display both sides of flat, delicate articles such as lace and hair fabrications, and certain fragile nature specimens, and surprisingly enhance their attractiveness.

Most interesting among the clever and thrifty devices for circulating exhibits were cases which offered more depth than Cellophane envelopes for shells, sea life, and the like; the inside painted white, the outside black, the specimens cemented to the bottom, and glass bound to the top of the case with passepartout tape, you would not recognize their origin—they were cigar boxes. Waste glass had been secured from photographers at five dollars a ton and then cut to fit the boxes. A lot had been done together to minimize the time element. Not counting the time, the cost of each case amounted to less than one cent.

The loan records of all these collections differ from those of most museums due to the fact that the work was born in the library; the methods used in loaning books are quite closely followed. All collections are supplied with a folded pocket as is used in library books; this is pasted into the cover of the case somewhere, then an identification card, such as the cards used in libraries, is placed in the pocket, and a slip is placed near the pocket on which dates may be stamped. The identification information on the card and pocket refer to certain museum records which describe in detail the contents of each collection; when the collection is loaned, the number assigned to the borrower is written on the card and this filed in a tray. The date the collection is to be returned is stamped on the "date due" slip. This simple record enables one per-

son to make some ten loans in comparison to one loan under ordinary museum methods, thanks to the ways of Mother Library.

Going back to the various exhibit cases in which articles as shells, stones, metal, and china objects had been mounted I inquired, "What do you use for cementing such materials?" Immediately I was given a recipe which is simple indeed. Celluloid waste securable from factories is put in a bottle, as much amyl is added as the celluloid will absorb without excess, then with it is mixed an equal quantity of liquid glue. This preparation is in reality china cement and therefore not altogether successful in cementing wood to wood.

Not all the articles in the Museums' circulating collection are assembled into definite exhibits. There is what is called the fluid file containing items which go out separately when so desired or are grouped with various classifications as needed. In filing drawers were observable hand looms, fabrics, and in a cupboard were regalia and still life for loans to art classes. There were more than twenty-five models of shelter representative of different countries which had been made in school project work and then presented to the Museum. The fluid file also included a great variety of ready prepared commercial exhibits.

The commercial exhibits obtainable free from manufacturers are put out by concerns for advertising purposes. To mention a few, there were cases or cards exhibiting actual products in progressive stages of manufacture—watches, shears, pencils, pens, pins, coal, Cuban sugar (in bottles), rope, thread, electric bulbs,—400 items in all.

Commercial companies also issue printed bulletins and booklets for advertising purposes. These are requisitioned for the Museum not for advertising but for their educational value. For instance, booklets on Walter Baker's Cocoa are secured in duplicate to aid several classes at one time when they are studying a country which produces that product. These publications are filed according to country or industry in vertical manila tag folders which in turn are organized in bank file cases.

Bank file cases represent another astute economy and utilization of facilities originally intended for other purposes. Mrs. Palmers' unflinching observation found unused file cases in the basement of a bank; her discovery was followed by the useful sequel that they were donated to the Museum.

Cases for the general exhibition activities of the Museum have been obtained in a similar nature. A case from a jewelry store which once cost \$125 was purchased for two or three dollars. While motley cases do not make an ideal effect, they serve very well until more money is available—and museum cases cost much.

These larger exhibit cases are used to display ob-

jects of value too great for circulation. To utilize them educationally, classes come to the Museum by appointment for lectures by docents, a number of whom are local specialists in given lines who contribute their services without compensation. Lessons for classes are given on request—these being conducted by the curator.

Go into the Library House and you will want to

browse at length among the alluring exhibits which fill the various cases; but if you will penetrate to the second floor rear you will be rewarded by a look into a live center of activity which fairly overflows from the curator's office into the corridor. Here is where a certain busy and gracious person is not too busy to talk to you, and where visual education secrets are not withheld.

Visual Experience and Social Progress

(Concluded from November Issue)

ALBERT E. OSBORNE

OF COURSE the children or adults have not the time or need to see everything or everybody in the world. *Selection*, therefore, would be a primarily important problem in getting this visual material or mental feed for the millions.

And what a problem this is! To decide what the billions of children should see from earliest years up through the various school grades, as well as in adult life, will surely require the help of the best students of children and of the world. The individual traveler lays out his route with much care. What immense care should be taken in laying out the routes that myriads are to take!

Moreover, it would not be enough to have the most important photographs made (airplane views, movies, slides, stereographs, etc.). It isn't enough, of course, for people just to see each other, though that is the most important first step in coming to take an interest in, to know and understand each other eventually. In fact the wisest and rarest students of humanity should accompany the photographers not only to direct them as to what people to photograph, but also by personal association with these very people, to gain and provide for use with the photographs the first hand and authoritative information that would be of most help in aiding anyone to become acquainted with and to understand the people thus seen. Here again selection would be of the utmost importance.

We catch a glimpse of the possibilities here, in the methods followed in studying life in a representative city, "Middletown." A staff of workers sent out by a research foundation merged themselves for more than a year in the varied life of the city. "Members of the staff lived in apartments or rooms in private households. In every way possible they shared the life of the city, making friends and assuming local ties and obligations as would any resident of Middletown . . . staff members dined one night with the head of a large manufacturing plant, and on the next with a labor leader or a day laborer. Week in and week out they attended churches, school assemblies and classes, court ses-

sions, political rallies, labor meetings, lectures, annual dinners, card parties, etc."

We get a further suggestion as to the importance of certain pictures that should be made, and the sort of information that should be obtained to accompany them, when we take account of the tremendous part that various "cultures" play in the life of humanity. The comparative study of humanity divides people off into varied culture groups. The term "culture" is used as a general name for all the customs or folk ways, mores, etc., that are exhibited by a group. The term is employed without the intention of conveying praise, since every group possesses a culture, no matter how simple and degraded it may appear to members of another group. Humanity is divided off into major cultures and into a great number of minor cultures. It would be difficult to estimate the range and immense complexity of the customs and folk-ways that make up the life of the simplest culture groups. A large part of the education within each group, in the schools and out, is devoted to the indoctrination of the young with all the ideas, beliefs and standards of that particular culture. As a result it is found that a people are molded to such a degree by their native culture, that they often come to think that members of other cultures have a radically different human nature from their own. Indeed in this common conviction of the people of one culture group that the nature of people of other culture groups differs essentially from their own, we find one of the fundamental reasons why humanity always has been and still is divided up into so many hostile and warring factions. Due to the inculcation in the young from childhood of the ideas, standards and prejudices of each culture group, this conviction persists, even though students who have investigated all the strikingly different culture groups declare that human nature is essentially the same the world over.

Now when investigation is made as to the rate of cultural and social change, it is found that though this rate is being constantly increased, yet it always

has been and still is distressingly slow. However a most significant fact is found, namely, that the most backward peoples have been those that have been isolated, while the peoples who have made the most rapid advance were peoples like the Egyptians, the Hebrews, the Greeks and the Romans, who were geographically placed where the varied cultures clashed. There only could the innumerable ways of living be brought out sharply for consideration by the masses. Then only could comparative judgment about these numberless ways of living have an opportunity to function among the masses of people—making possible the discarding of the less desirable ways of living and the adoption of the better.

Accordingly we can see that such a series of pictures of peoples of varied cultures, the world round, accompanied with authoritative information with regard to these varied human groups, would to a considerable degree provide for humanity everywhere those conditions which have contributed so powerfully for social progress, conditions which heretofore have been provided, more or less by chance, for only a few people.

Of course, helping the people of the world to become acquainted with, to understand each other, is an immense task. To put this matter of the information needed in the most comprehensive way, it becomes evident (when we remember that each person is reacting to his own inner world, the vastly complex world in his head) that we can really come to know people, to get their points of view, only as we are enabled to explore these inner worlds, to know not only the extent and limitations of these inner worlds with relation to the outer world, but also the accuracy or falsity of peoples' estimates of the varied groups of folk that appear in their worlds—their attitudes towards the peoples of their own and other races, religions, classes, nations, etc. Here is certainly a stupendous task. The exploration of the physical world was child's play in comparison with the exploration of these millions of inner worlds.

And yet the solution of our great social question, like the substitution of mutually beneficial cooperation for destructive war, of constructive evolution for destructive revolution, depends upon the degree that this task is accomplished.

Perhaps it will be suggestive to mention a few features of these inner worlds that a little investigation and reflection reveal. Though of course this could mean only the merest glimpse at the way these inner worlds are made, their content, relation to the body, etc., yet we hope that this slight investigation may emphasize something of the importance of far more adequate work in this field.

In the first place it can be taken for granted that

investigations of these inner worlds would reveal an astonishing amount of goodness, of unselfish devotion, of endless service, among people everywhere; but along with this goodness and service an appalling amount also of ignorance of one another, of unfounded race and religious and national and class prejudices, of unfounded hates and fears,—anti-social attitudes that have caused endless wars, that hinder helpful cooperation, attitudes that perilously unfit people for citizenship, attitudes that act as veritable social poisons in human relationships.

Appalling as this vast mass of ignorance and unfounded anti-social attitudes is, there is no gain in remaining oblivious to it or shutting our eyes to it. Rather should it be faced and inquiry made as to the cause and what might be done to make these inner worlds more wholesome. A very little inquiry shows that we do not need to resign ourselves to the belief that these conditions are due to any innate badness of human nature. In fact sociologists have pointed out again and again that such anti-social traits and attitudes develop when people grow up in the average narrow community. Always are found such anti-social traits and attitudes as egoism, clannishness, dogmatism, intolerance, bigotry, and all the varied fears and prejudices. Social scientists point out that these anti-social attitudes are abnormal, not normal, developments of human nature. They are due to the mental and social starvation that people are subjected to in the average community life. "Social starvation is closely associated with isolation." Social and mental starvation bring about these abnormal traits as physical starvation brings about tuberculosis, scurvy, anemia, and a long line of physical ills.

Dr. Hart describes the average community socially as a "dank pool in which fear, hate, prejudice, war, superstition, morbidity, repression, all have large place along with whatever sweetness and light humanity has developed or conserved." Into such communities people are born and immersed from childhood up. Even slight consideration of one fact about the way people build their inner worlds ought to make us understand, not only why these inner worlds of people everywhere are so colored and determined by their environment, but also why these inner anti-social attitudes are so lasting. As we have seen, each person builds his inner world of nature and humanity in the most intimate relation with states of his nerves, states of his body. From birth every experience, every thought and emotion, every act, in some degree shapes and leaves some trace within this inconceivably complex mass of nerve cells. Now inasmuch as every part of a person's inner world is built up in such close connection with these states of his nerves and body we shall expect

that every part of a person's inner world would therefore be influenced to a considerable extent by the person's nerve and body states. If, for instance, a child has usually heard the word "foreigner" spoken with a show of dislike and hatred by his parents and companions, these feelings will be registered in the child's nervous system along with the spoken words, and thereafter these associated feelings of dislike and hate will tend to rise whenever he thinks of a "foreigner." Such a person is thus likely thereafter to think and act impulsively according to these feelings when the subject of foreigners comes up. Reason and fair minded justice would be likely to play little or no part thereafter in his attitudes towards foreigners.

This should help us to realize why our religious and national attitudes and loyalties, our religious and national and other varied prejudices and hates, are so lasting. These nerve systems in which unnumbered impressions have been accumulated from the dank social pools in which we have lived from childhood, cannot be easily or quickly changed, and hence all these inner attitudes associated with these nerve conditions, are not easily or quickly changed. Indeed in these to so large an extent permanent nerve conditions, we find what may be called the material basis for the permanence of character, good or bad.

In fact, in this permanence of nerve conditions that have been determined by impressions received through the ears, especially impressions received during the first few years after birth, we find the reason why social changes must come slowly, and why mothers play a primarily important part in the retardation or acceleration of social progress. If all babies could be placed at once after birth in the care of mothers who were free from all unfounded race and religious and national and class prejudices, humanity would make more progress along these social lines in one generation than it ordinarily has made in thousands of years. But because of the overlapping of the generations and the permanence of these nerve impressions, particularly those made in early childhood, any real effective work for social progress must proceed not merely according to a "five year plan," but according to a two or three generation plan.

As said at the beginning we can take the space here only to give a few suggestions as to the range and selection of pictures, especially of humanity, that are needed. And also but the slightest intimation as to the information that is needed to accompany the pictures, if people are to be helped most in mutually understanding each other; if we are all to do the most possible in clearing our inner worlds of ignorance and unfounded superstitions and fears and prejudices and hates of one another.

Yet undoubtedly there will be many who will object that there is no place nor time in our overcrowded school curriculums for such wide experience and studies of human life as have been suggested. Here we meet again of course the old question as to what knowledge is of most worth. Perhaps we should refer at least to a few of the criticisms, by educational leaders, of our present day curriculums, on the very ground that they deal to so slight an extent with human life and society of to-day. Says Dr. Finney, "The schools are dealing mainly with dead hangovers from by-gone ages." Such authorities say that the schools in their studies should parallel at least the civilization in which we live, and which the young are constantly going out to carry on. And yet Rugg says in his "Child Centered School,"—"There is to-day a disheartening two fold gap between the curriculums of the schools and adult society, and between the curriculums and the interests of children." Dr. Finney says also, "By this fundamental principle of parallelism, the monstrous deformities of our present school program are revealed in all their ludicrous absurdities." Page on page of equally drastic criticism along this line by educational thinkers and leaders could be given. Instead of objecting then that there is no time or place in our work of education, in our work of preparing the young for citizenship, for these wider experiences and studies of humanity, there are urgent grounds for saying that they should form rather the core and unifying aim of the curriculum.

Some estimate that human beings have been on the earth for a million years or more. For ages man lived in profound ignorance of nature and its forces. People supposed that all sorts of evil spirits were directing these forces, and spent most of their time, as millions do in Africa still, in trying to propitiate these spirits. As a result of a more scientific study of nature during the last 150 years these spirits vanished, and in their place was found immense forces that could be utilized for man's benefit.

As has been noted, there still exists among people everywhere a profound ignorance of their fellow human beings, along with a generally held belief that the great masses of these unknown fellow human beings are naturally selfish and hostile and must be feared and fought. However, from what scientists tell us, about human nature everywhere,—that human nature everywhere is essentially the same, that the almost universally held fears and prejudices and hates of the various human groups are based on this common ignorance—then there are good grounds for the belief that if this mutual ignorance of the different nations and races and classes could be really done away, it would be found that the peoples of these different groups

were not enemies, but rather fellow human beings, that would be glad to cooperate with and help one another, and that there would follow an advance along social lines that would not compare unfavorably with humanity's advance along material lines during the last 150 years.

To say that it is impossible or impractical to provide the needed millions for this task is absurd. Congress has recently set aside \$238,000,000 as the first decisive step in building up our sea forces to the strength allowed under the Washington and London Limitations Treaties. This is but a beginning in our contemplated expenditures for naval defense only. Says Secretary Swanson in support of this program,—“Either other nations must stop building or we must build up to our authorized strength. We would prefer that all nations should agree to a reduction in tonnage, but there seems to be no present plan to agree on a reduction, so we have taken the first decisive step toward bringing up our Navy to the ratio which all nations have agreed upon as fair and equitable. There should be no complaint on the part of any nation to our attaining the ratio thus established.” Of course similar statements are issued to the people in every nation in justification of the more than \$5,000,000,000 that are annually being expended for war purposes even in these times of world depression. Who can doubt the wisdom of setting aside comparatively few million dollars to provide a practicable means of promoting a better general human understanding? One prominent educator, Dr. Charles H. Judd, Dean of The School of Education, University of Chicago, said recently of this promotion, “Unquestionably such a foundation as that proposed could obtain material that would be used in every nation. Such pictures and the explanatory materials supplementing the pictures would speed up educational activities everywhere and would make possible a general human understanding far beyond that which has been attained up to this time.”

It has been our purpose only to venture a few suggestions in regard to the accomplishment of this great task of providing a world range of visual material, accompanied by appropriate helps, and organized for use in the work of education. Here is a task to be provided for by some public spirited and philanthropic people of wealth. It is not to be expected that any private company will make the initial investment necessary to assemble experts to lay out this work; to send photographers throughout the world, accompanied by social experts to direct their work and to gather on the spot the needed and authoritative information, and then to assemble this material, and prepare methods and helps for its use.

Moreover there would be need for a permanent

staff constantly at work improving the material and keeping it in accord with important changes and improvements in the various nations and lines of human progress. As this work was done, it might be wise to turn the material over, on some equitable basis, to private companies to manufacture and sell. But it is too immediately important and too expensive a matter to wait for the slow initiative of private enterprise. One sociologist has estimated that to have the work done with anything like the rapidity and thoroughness its importance justifies there would be need for a foundation with an income of five hundred thousand dollars yearly. There is no other purpose for which money could be expended that would make such a contribution towards human progress. Billions of dollars have been contributed by philanthropists for research and various means that would contribute towards better provision for the material needs of life. Five million dollars was contributed recently for the construction of a new gymnasium for an American college. Yet no specific or adequate provision has ever been made to obtain the means of satisfying peoples' primary mental and social appetite and need, those means that are necessary if the vast possibilities of people everywhere for a worldwide range of interest and knowledge and understanding and sympathy are to be developed, those means that are of primary importance in developing those bigger men and women who are required to solve the complex social problems of to-day.

A man was sent to a certain part of India to build a steel mill. In that part of India he found the highest age limit was about 35 years, while the average age limit was much less. People lived in villages. During the dry season all sorts of filth and offal were dumped on the ground. When the rainy season came all this filth was washed down into the village pools. Cows and pigs were allowed to wade in this water. And yet the villagers drew their water for cooking and all other purposes from these pools. Periodically cholera and other diseases swept through this region.

For breakfast the average family boiled some rice and drank the rice water. At noon the rice was again boiled and the water used for the noon meal. At night the rice was again boiled and the rice and water used for the evening meal. As might be expected, the steel man found that it took from ten to twelve of these natives to do the work of one Yankee. Accordingly he secured from the government the right under certain pledges, to be absolute ruler over a territory 27 miles square. Reasonably sanitary regulations were enforced, sufficient healthful food was provided. In a comparatively short time the death rate went down, the strength and vigor of the natives were increased,

and the steel mill was built with native labor.

It would certainly have been foolish for this steel man to have proceeded immediately to try to build his steel mill with the sort of laborers he found available. It is equally foolish for us to proceed immediately to solve the tremendous social problems of to-day with the citizenship now available. The great masses of humanity have had little opportunity to share in the good things that have been and are now available. Especially have they been dwarfed by a pathetic narrowness of experience. People generally have an eager hunger for experiences of the world of nature and humanity, an eager desire to know their fellow human beings everywhere. While the mass of people continue to be thus mentally and socially starved, with all the dwarfing in interests and understanding and sympathy that result from such starvation, it is foolish optimism to hope for, and equally foolish pessimism to despair of, humanity's solution of the tremendous national and international problems of to-day. But with this universal hunger of the masses for world experience and knowledge measurably satisfied especially during the early years, it is not unreasonable to expect that many of man's dreamed of Utopias would become realities.

It is not supposed, of course, that the satisfaction of this universal hunger for world experience and knowledge would be a cure-all, making unnecessary the best possible contributions of the home and every other important and helpful social agency. The point is, rather, that as long as this hunger of people is unsatisfied, the home especially, and all the other social institutions will render only a fraction of their possible service. So long as each new generation is compelled or permitted to grow up in narrow and dwarfing surroundings, and to build into their nerve organisms and conscious lives all the varied prejudices and anti-social attitudes that normally develop in such narrow surroundings; so long as the young are compelled or permitted to build into their lives the religious practices and theologies, the national loyalties, the myriad folkways of a small section of the great human family—so long must destructive revolution and war rather than constructive evolution and co-operation characterize human affairs; so long must statesmen largely waste their efforts, newspapers and books have but a fraction of their possible circulation, business reach but a beginning of its possible volume, religion fail largely in having its ideals actualized, and every movement for human betterment and social progress be continuously delayed.

"There were 65,000,000 men in the World War; 8,500,000 were killed or died; 21,000,000 were wounded; 7,750,000 were missing or were prisoners. Total casualties 37,500,000—more than half of those who took part."

People who think, not of humanity according to its possibilities, but of the humanity that has always been mentally and socially starved and dwarfed and poisoned, would hardly believe it possible that the World War with all its inconceivable loss and suffering could have been prevented. Such people are likely to scoff at the idea that even worse wars in the future could be avoided. And yet social students are convinced that such work could be done in the field of education throughout the world, as would not only make future wars impossible, but that would also bestow blessings on mankind that heretofore had existed only in men's dreams. Such people realize that in the work of education in its broadest sense we are not simply running schools and other educational agencies, we are determining how the world will run a few years later.

The need that education shall reach its possibilities quickly is appalling. The material achievements of our civilization, our roads and bridges and buildings, can be handed on from one generation to another; but man's intellectual and ethical heritage, man's social riches, must be achieved by each new generation for itself—it must be created anew in the lives of each rapidly succeeding generation. Hence the work of education must not only be continuous, but there is no other field of human activity in which whatever needs to be done and can be done, *ought* to be done so quickly.

After the prejudices and hates and varied anti-social attitudes that are mainly implanted in the early years, have borne their natural and inevitable fruit of social conflict in adult lives, national and other social groups awake to a feverish activity, and draft and destroy billions of material wealth and millions of their finest lives in unnecessary and unreasonable revolution and war. If but a small portion of this feverish activity should be directed in advance to the removal of these preventable causes of conflict, an immense increase in well being and happiness for humanity, as well as immense material benefit, would result. The need for immediate action in this field of work is enormous. As H. G. Wells has said, "The future is a race between education and catastrophe."

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The Educational Film Program of the U.S.S.R.

CLAIRE ZYVE

FILMS are playing an important role as a medium for social education as well as for the teaching of the more traditional school subjects in the schools of U.S.S.R. The peculiar problem of the country in the correction of adult illiteracy as well as the necessity for mass education in politics have taxed ingenuity for means for the conveying of ideas. Perhaps more than in any other country today graphic representation is being used in educational programs in Russia. Charts, graphs, wall newspapers, illustrated teaching posters, exhibits, the stage, the cinema, all are being used side by side with newspapers and books. The support by the people of the economic and industrial program has come in many cases as a result of the vivid graphic portrayal of ideas.

There is an intensive program for the production and distribution of educational films. The selection and preparation of those used either for entertainment or instruction is centralized in Moscow in the Central Institute of Art Education for Children. In the summer 1933, the catalogue for films put into teachers' hands shows approximately 700 adapted films available. These films have not been especially made under the direction of the Institute but were already in existence or have been adapted from adult films since 1926. They are silent films and are in 35 mm. more often than in 16 mm. width. They are distributed in number among the various school subjects about as follows:* social sciences, 162; geography, 226; general science 61; work of man (labor) 73; biology 48; zoology 15; physics 55; chemistry 41; astronomy 7. The content of the films dealing with the social sciences is possibly of most interest since it indicates the part which films are playing in the furtherance of the social program. An analysis of 138 of the 162 films so classified (omitting the seeming duplications) shows them to be divided among the following subjects:

Subjects	No. of films
Life of Young Pioneers or Octobrists.....	13
Collective vs. individual farming.....	11
Contact between city and village.....	5
Industrial development with the five year plan	35
Soviet work with nationalities.....	10
Conditions of women and children before and now, the cultural revolution.....	5
History of the revolutionary movement.....	12
World War	7
The story of the party.....	9
Class struggle and the communist movement in foreign countries.....	12
The struggle with religion.....	4
Relation with capitalistic countries.....	11
Racial equality	3
Opium	1

*F. N.: Reference book on educational films for school's, published by Roskino, 1933.

In addition to these adapted films which are being constantly revised to keep them abreast of social problems, the Institute has had about 38 new films produced under its direction, 27 others are in preparation, while the 1934 program will add 34 more. The titles of 23 of these which are completely finished are given below to indicate the direction of this new film program:

Sun, Coal, Books, Oil, Transformation of Electricity in Motors, Water Transport, Air Transport, Timber, Animals, The Earth Among the Stars, The Desert, Vegetation of Northern Tundras, Water Underground, Interior Water, External Powers Which Change the Earth's Surface, Mountains, The Fight for Better Quality of Seeds and Earlier Sowing Dates, Life of Animals on Earth, Man as a Creator of New Trees (grafting, etc), Electrification, Making of Glass, Iron.

These are classified to be used for subject teaching as follows: geography 10, labor (or industries) 2, astronomy 1, chemistry 2, physics 3, biology 4, social science 1. It is noticeable that the majority of these films are on science subjects. The content of some of them is purely impersonal, that is, has no reference to the present social program of U.S.S.R. such as the one on "Animal Life on the Earth." In other cases in such films as the geography films on life in the far north, or in the desert regions of U.S.S.R., the life of the country and geographical features are shown first then followed by material on the improvement program of the U.S.S.R.

The Russian Republic of approximately 160 million population has now about 3000 schools equipped with motion picture projectors. These are of course only in the best schools. The second 5 year plan has as its objective the equipment of all schools with projectors while the program of the first year, 1933-34 is the installation of projectors in 6000 schools. Much is being done to educate teachers in the use of films. The film catalogue which is distributed by Roskino, the film distributing agency, gives in detail the types and cost of equipment and explains how the films may be rented. All films are distributed through Roskino to special renting bureaus at a cost of 5-6 rubles a day for full length films and a proportionate amount for shorter ones. The schools have unlimited money for rental which comes from the local district appropriation of moneys.

Regulations for the showing of films are carefully set. These include the cubic feet of air required per pupil, the temperature of rooms (16-18 C), the percent of moisture (40-45), lighting, seating of children, and

(Concluded on page 286)

FILM PRODUCTION ACTIVITIES

The aim of this new department is to keep the educational field intimately acquainted with the increasing number of film productions especially suitable for use in the school and church field.

Astronomy Film In Production

Ru Roy Sibley, well known astronomer and geologist, announces the preparation of a popular film on astronomy, to be known as *Looking Through Great Telescopes*, which is also the title of a book by Mr. Sibley soon to be published.

This film will give to audiences the equivalent of the actual experience of looking through the great telescopes of the world. Features of the film, all of which is being made with Bell & Howell equipment, will be a really remarkable series of stellar systems, studies of the Milky Way galaxy, the sun and planets of the solar system, including the great white spot of 1933 on Saturn. There will also be an imaginary trip to the moon and close-up views of many lunar mountain forms and topographic features. A presentation of the latest theories of stellar formation based on the structure of the atom and the flow of energies in the universe will be particularly interesting and instructive.

This film will be released in both silent and sound versions, and will be available in 16 mm. and 35 mm. widths. It is said to be one of the first really comprehensive films embracing the whole range of general astronomy. The film is due to be completed about February 1, 1934.

New U.S. Dept. of Agriculture Films

Films dealing with the agricultural crisis, the "A B C" of forestry and the control of mosquitoes are among recent motion picture releases announced by the U. S. Department of Agriculture.

The Agricultural Crisis, (one-reel, silent) presents a graphic summary of the causes that have contributed to the depression, with special reference to farm products.

Too Much Wheat (one-reel, silent) shows by animated graphs how the wheat surplus has piled up year after year since the beginning of the agricultural slump.

The A B C of Forestry (one reel, silent) was made especially for use in the C. C. C. camps. It offers elementary information about the forest and the practice of forestry.

Mosquitoes (three reels, silent) covers broadly the life history of the mosquito and approved methods of

mosquito control. This picture includes many unusual under-water microscopic shots of mosquito larvae and pupae. Control methods followed in New Jersey and Florida are leading features.

Horses and Bots (two reels, silent) shows types of botflies that attack horses and mules, and outlines methods of treatment and eradication.

It Might Have Been You (one-reel, silent) portrays a disastrous forest fire that in 7 hours destroyed 23,000 acres of timber and 25 ranch houses and rendered more than 100 people homeless—all the result of the carelessness of a smoker. It shows what is done to prevent such catastrophe.

These films may be borrowed by application to the Office of Motion Pictures, U. S. Department of Agriculture, Washington, D. C. No rental is charged, but the borrower must pay transportation.

Travel Subjects

A recent release from the Anchor Line Division is entitled *Europe Has Everything*, a 4-reel subject portraying scenes, sports, and public buildings of England, France, Germany, Czechoslovakia, Hungary, Switzerland, and Italy. *A Ramble in Erin* is another new film, showing scenes of Galway, Cobh, Blarney Castle, Killarney, Croagh Patrick Pilgrimage, Limerick, Clare, and Dublin.

Single reels on Trinidad, Havana, Curacao, Caracas, and the Canal Zone have also just been released by this line. All are 16 mm. silent reels and are available for free loan from any of the company's branch offices. Transportation charges to destination are prepaid.

Cinegraphs Eight

Eastman announces sixteen new releases covering a wide range of subjects, for 8 mm. film libraries. Nine of them are 50 feet in length, the equivalent of 100 feet of 16 mm. film, and are titled: *Rome; Paris; The Alhambra; Bethlehem and Gethsemane; Havana; Panama and the Canal Zone; Porto Rico, Martinique, Barbados and Trinidad; Haiti, Jamaica, Nassau and Curacao; and Bermuda.*

Six of them are 100 feet in length: *Tarpon Fishing; Down the Colorado River in a Rowboat; Wild Men and Beasts of Borneo; The Bull Fight; Jerusalem; and The Pyramids and the Sphinx.* *Slow Motion Analysis of Bobby Jones* is supplied in 200 feet.

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Iowa Visual Instruction Meeting

The Iowa section of the Visual Instruction Department of the National Education Association held its annual meeting in connection with the Iowa State Teachers Association Convention, November 3.

Original plans provided for a program meeting in connection with the Science Section on Friday afternoon, at which time a special showing of University of Chicago sound films was to be given. Due to changes in the general program the Science group did not meet, thus eliminating this particular part of the program.

Many important personalities in the visual field in Iowa gathered for a breakfast meeting on Friday morning at which time the following officers for the coming year were elected.

President—H. L. Kooser, Visual Instruction Service, Iowa State College, Ames, Iowa.

Vice-President—A. P. Twogood, Supervisor Industrial Arts, Junior-Senior High School, Newton, Iowa.

Secretary-Treasurer — Miss Reba Carey, High School, Winterset, Iowa.

It is the plan of the group next year to offer a visual aids demonstration or a speaker on this subject to all sections at the state meeting. Efforts will also be made to stimulate visual programs at the various divisional teachers meetings throughout the state.

Flourishing High School Photoplay Club

"One Hundred Movie Critics" is the title of an illustrated article in a recent issue of the Junior Red Cross Journal, dealing with the flourishing Photoplay Club of Central High School, Newark, New Jersey. This club of one hundred amateur movie makers and alert students of professional movie productions has been so successful that inquiries come to it from all over the country asking how to form such an organization.

The club was founded about five years ago as a result of student demand. Local newsreels and original photoplays are made, edited, titled, and projected as featured activities. Serious and intensive study of current theatrical movies has resulted in an understanding of motion picture technique that has been translated into outstanding results in the club's own productions.

The students use Bell & Howell amateur movie making equipment. How they made their initial purchase is an interesting story which points the

way to other organizations doing the same thing.

Says the article: "For the first year or so the club had to depend upon individually owned equipment to do their photoplay work. While the students were learning a good deal, the club felt hampered and decided to put on a show in the high school auditorium, earn the money, and buy their own equipment. The show was made up of newsreel shots of events in and around Central High and included a picture entitled *A Page of Bronze in the Book of Newark*. Central students were featured in the film. Ten cents admission was charged. The school has a large enrollment and the show was a big success. From the proceeds the first equipment was bought."

English Film Bureau Issues Bulletin

The Central Information Bureau for Educational Films, England, is concluding its first year of activity in supplying information on the use of cinematography in educational and social welfare. The Bureau has received no grant from Government or charitable institutions but is entirely dependent on private funds and subscriptions.

The "Bulletin" just issued by the Bureau reports the progress made to September 1933 and sets forth the following definite projects planned for 1934.

(1) To publish monthly bulletins carrying information on the latest developments of educational cinematography in all parts of the world.

(2) To create a Trust Fund for the production of Shakespeare's plays and of stirring episodes of world history which will be historically accurate, such films to be made available to schools, churches, clubs and homes.

(3) To encourage the teaching of modern languages by means of the talking film.

(4) To promote the establishment of a Film University which will become a center for the collection of films of a high quality approved by professional and other learned societies for the purpose of comparative research and professional instruction. This project is discussed at greater length in a regular article.

This meaty introductory Bulletin also offers pertinent news items, reviews of theatrical films, reviews of books dealing with cinematography, and interesting articles. "The Cinema Church" is a reminder of the great assistance the film can render missions and churches.

THE FILM ESTIMATES

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

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

Estimates are given for 3 groups

- A—Intelligent Adult
- Y—Youth (15-20 years)
- C—Child (under 15 years)

Bold face type means "recommended"

Aggie Appleby, Maker of Men (Wynne Gibson, Charles Farrell) (RKO) Gutter Aggie's tough lover being jailed, she bumps into young, scholarly, unsophisticated Bostonian of good family but long suppressed at home. Aggie "makes a man of him" along lines of her absentee lover, and soon he out-fights them all. Largely absurd.

A—Mediocre Y—Trash C—No

Berkeley Square (Leslie Howard, Heather Angel) (Fox) Charming, romantic masterpiece for the intelligent, beautifully written and directed. Twentieth Century New Yorker invades his ancestral 18th Century London home. Superb acting by Howard and fine cast of supra-Hollywood quality. A motion picture that is art.

A—Excellent Y—Fine but mature C—Beyond them

Big Executive (Richard Bennett, Ricardo Cortez) (Para) Struggle between financial giants, old conservative and young fire-brand. Age wins and crushes youth, but young love saves the day. Utterly sordid atmosphere of money-getting, with little relief except Bennett's fine character-portrayal.

A—Ordinary Y—No C—No

Blind Adventure (Robert Armstrong, Roland Young) (RKO) Hilarious, mystery melodrama with jumbled series of incredible adventures, characters and events, shrouded in London fog. Plenty of excitement and suspense, and Roland Young as a seasoned crook supplies his inimitable humor. Crazy story for so good a cast.

A—Hardly Y—Probably amusing C—Doubtful

Chief, The (Ed Wynn, Chic Sale) (MGM) Crazy hash by and about Ed Wynn as the accidental hero of a fire company, with his supposedly funniest antics and sayings woven into absurd story. He tries hard to be ex-cruciating but his devotees will probably prefer him on the air. Rather regrettable film.

A—Mediocre Y—Poor C—Perhaps good

Dancing Lady (Joan Crawford, Clark Gable, Franchot Tone) (MGM) Rather wholesome back-stage story of hard-working heroine's dancing career, which wealthy suitor tries to ruin to win her hand. She saves career and marries her producer. Few but fine chorus and dance numbers. Quite free from usual vulgarity.

A—Good of kind Y—Entertaining C—Little interest

Deluge (Peggy Shannon, Sidney Blackmer) (RKO) Hash of violent disaster and complex sex-stuff too absurd to be worthwhile. Destruction of New York by trick photography is the hardly impressive big feature of what may be called as a whole merely an emotional stunt picture. Pathetically unconvincing.

A—Mediocre Y—No C—Nu

Emperor Jones (Paul Robeson, Dudley Digges) (U. A.) Ignorant hero's sordid, immoral life in low negro circles in Harlem, crap-game murder, prison, escape—merely suggested in play—shown in lengthy detail. O'Neill play forms last reels. Robeson ideal for role but good acting and technique cannot restore unity.

A—Disappointing Y—Better not C—No

Female (Ruth Chatterton, George Brent) (1st Nat'l) Artificially built to give typical sex role for Chatterton and fine role for Brent. At office a super-woman executive; at home sensuous seductress of any man she fancies. Scorns marriage till "right man" comes. Sensuality made alluring and rewarded highly in the end.

A—Well done of kind Y—Unwholesome C—No

Footlight Parade (James Cagney, Joan Blondell) (Warner) Elaborate, high-speed musical play of hectic, overdrawn stage-life in vaudeville. Impossibly clever hero, tempo too fast

for truth, bold vulgarities, but ideal roles for Cagney and Blondell, gorgeous stage effects and dance numbers. Sensational success of kind.

A—Notable of kind Y—Doubtful C—No

Golden Harvest (Richard Arlen, Genevieve Tobin) (Para.) Well photographed, realistic picture of farm-life and the production and marketing of wheat. Combines agriculture, economics, commerce, with generous amounts of wholesome romance and comedy. Informative elements theatricalized, of course, for entertainment purposes.

A—Fair Y—Interesting C—Little interest

Havana Widows (Joan Blondell, Glenda Farrell) (1st Nat'l) Cheap gold-digger farce about two brazen chorus-girls on swindle trip to Cuba. Stale and tawdry mixture of slang, wisecracking, crookedness, booze, vulgarity, so continuous as to be monotonous. Shoddy hash of stupid sensationalism, put out for quick profit.

A—Trash Y—No C—No

Hoopla (Clara Bow, Preston Foster) (Fox) Traveling-circus life of a lot of wrangling, cheating, boozing characters. Common heroine seduces common hero on a bet, by crude methods. Clara's farthest nude to date, in a story revamped to allow her old stuff—and it is old.

A—Elementary Y—No C—No

Invisible Man, The (Claude Rains) (Universal) Super-thriller on preposterous but rather original theme of scientist who learns to make himself invisible and works terror and destruction till killed. Gruesome, morbid, tense, well played by whole cast, and with exceedingly clever trick photography to produce invisibility.

A—Notable of kind Y—Exciting C—Too strong

Jungle Killer (Carveth Wells travelogue) (Century) Numerous assorted shots of African animals and natives, uniquely edited and travelogued. Much is very interesting, some is gruesome, with wholesome "debunking" of African big-game hunter. Often too brief and sketchy, continuity not always good, and photography uneven.

A—Good of kind Y—Good C—Good but strong

Ladies Must Love (Neil Hamilton, June Knight) (Universal) Cheap as its title, sex stuff in worst possible taste. Four gold-diggers, instead of one, operate on men and pool their earnings, until "real love" ruins the racket. A brazen bid for the quarters of the vacuous and prurient-minded.

A—Trash Y—Pernicious C—No

Little Women (Katharine Hepburn and star cast) (RKO) Superb production of the Alcott classic, brilliantly directed and acted by choice cast. True to original in dialog, action and character, the human, charming, sentimental life of 70 years ago lives again in this masterpiece. A film worth the industry's imitation.

A—Excellent Y—Excellent C—Excellent

My Weakness (Lew Ayres, Lillian Harvey) (Fox) Ridiculous production, supposed to be whimsical farce-comedy. The whimsy is mostly silly, the sex-stuff cheap, the rhymed dialog stupid, and the acting elementary. Photography is good but not worth the cranking, to say nothing of the film.

A—Stupid Y—Trash C—No

Only Yesterday (Margaret Sullavan, John Boles) (Universal) Finely produced, tragic, war-romance, notably acted by heroine. Boles

less wooden than usual. After charming seduction at Virginia moonlight party, hero sails, and cannot remember heroine on return!! She proudly raises her son alone, till her death unites father and son.

A—Good of kind Y—No C—No

Poil de Carotte (Red Head) (French cast) (Pathe-Nathan) Fine foreign film, notably acted, gives subtle character study of sensitive boy, suffering from hostile, neurotic mother and stolid, non-understanding father, until his rebellion and near-suicide win father to his side. Fine French dialog, English titles. Sad, strong, charming.

A—Notable Y—Strong C—Too sad

Private Life of Henry VIII (Charles Laughton) (U. A.) English production (as it should be), gorgeously costumed and set, finely directed and acted, with masterful portrayal by Laughton of the King. Shows chiefly the jovial, sporting, and lecherous sides of Henry's colorful career. A picture of distinction for the intelligent.

A—Notable Y—Very doubtful C—No

Rafter Romance (Ginger Rogers, Norman Foster) (RKO) Light comedy built around humorous situation of boy and girl who become sweethearts without knowing they occupy the same attic room, she at night while he works and he during the day. Mostly unobjectionable save for very distasteful role given to Laura Hope Crews as amorous old tipster.

A—Hardly Y—Fair C—No

Right to Romance (Ann Harding, Robert Young) (RKO) Ann Harding splendid as great plastic surgeon who refuses to let her career cheat her of love. Fine dramatic values by fine cast. Genuine, strong, charming romance untainted by cheap sexiness, objectionable actions or risqué dialog.

A—Fine of kind Y—Mature but good C—Beyond them

Sweetheart of Sigma Chi (Mary Carlisle, Buster Crabbe) (Monogram) Another "college" like glorified country club, with puppy romances and athletics dominant. Supposedly irresistible heroine gathers frat pins. Betting she can get college hero's nearby loses her the hero. Harmless save its burlesque of college. Excellent boat race scenes.

A—Mediocre Y—Fair C—Perhaps

Take a Chance (James Dunn, Cliff Edwards) (Para.) One of poorest musical comedies since earliest efforts. Naively composed, woodenly acted by most of cast and the one or two good actors miscast. Bad taste, mediocrity and stupidity throughout. Thrown together to be thrown away.

A—Stupid Y—Worthless C—No

White Woman (Charles Laughton, Carole Lombard) (Para.) More lurid sex stuff in the tropics, with very tough men after the lone white woman. Uses Charles Laughton as the bestial, ultra-cruel husband of the heroine. Gruesome thrills, depressing atmosphere, with hardly a healthy moment.

A—Unpleasant Y—No C—No

Wild Boys of the Road (Frankie Darrow) (1st Nat'l) Well-intentioned social problem picture. Naive introduction shows "gay life" of high school kids. Depression strikes working-class parents, boys leave home to find jobs and help parents. They fail, turn vagabonds, and finally genial judge saves them. Elementary sensationalism.

A—Hardly Y—Harmless C—Doubtful

World Changes, The (Paul Muni, Mary Astor) (1st Nat'l) Notable acting by Muni in improbable story of four generations, from Dakota homesteading in 1867 to financial orgies of 1929. Hero sees his packing industry fortune wasted by worthless posterity. Melodramatic and depressing, but early western scenes fine.

A—Fair Y—Probably good C—Too mature

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

Educational Method (November) "The Use of the Yale Photoplays in an Elementary School for Adults," by J. W. Tilton, Associate Professor of Educational Psychology, Yale University, and Arney R. Childs, Principal of Logan School, Columbia, South Carolina, describes the experiments conducted with these Photoplays at an Opportunity School for Adults held at Clemson College. The results suggest as a tentative conclusion that "the Photoplays may be viewed with profit by any adult group on the elementary school level, supplying a basic core knowledge of American history to those who lack it, supplementing and enriching, in proportion to the amount of such basic knowledge already possessed."

"Choosing the Movie," appearing in this same number, tabulates the replies to the question, "How do you choose the movies you see?" included in a questionnaire given in 1931 to pupils of the Horace Mann School, New York City, by Mary Allen Abbott. In comparing them with those obtained in a similar study in 1929 by Alice Miller Mitchell, the writer found that the most widely used method with both groups is by reading the reviews in the newspapers. The most striking difference is in the matter of parents' advice. Nineteen per cent of the Horace Mann children and only one and six-tenths per cent of the Chicago children say their parents help them choose. This is doubtless due to the active part which Horace Mann parents take in the movie experience of their children.

Cinema Quarterly (Autumn) For those readers of film comment and criticism who prefer their material put up in a typographical form that combines the angular beauty of the modern trend with the rich formalities of a more conservative set-up *Cinema Quarterly*, a publication from Edinburgh with the flavor of internationalism, should be most acceptable. It is not stodgy in its attitude nor affected in its effort to be distinguished.

An entire paragraph devoted to the externals of this periodical is forgivable only because the contents might be similarly described. Evenness of expression and breadth of outlook mark review and feature article. We are glad to present it among our magazines.

Parents' Magazine (November) "Motion Pictures for Children", by George J. Hecht, is the exposition of "a definite plan to provide better" product for that ever present group of youngsters viewing adult material in our theaters. Calling attention to the horror of conscientious parents and

the strange lack of concerted effort toward accomplishment of any plan to remove the cause for horror, and referring to the studies reported by the Payne Fund Researches, the author offers a model municipal ordinance that would require certain practices on the part of every operating theater.

The ordinance provides that children under ten years of age shall not be admitted to motion picture theatres except at family audience performances and then only if accompanied by a parent, teacher or guardian. Children from ten to seventeen years of age, inclusive, shall be admitted unaccompanied to family audience performances but can attend other performances only if accompanied by a parent, teacher or guardian.

Space does not permit quotation of the model ordinance nor those steps essential to the enactment of such an ordinance.

While the material of the ordinance itself is not new, the method of procedure to accomplish its end is direct and novel in some respects.

Book Reviews

MOTION PICTURES AND YOUTH, A SUMMARY: GETTING IDEAS FROM THE MOVIES, by Charters, Holaday, Stoddard. Macmillan Co. 1933.

This is another volume of data and conclusions, presenting not solutions but the facts found. "There is no single solution nor formula that will meet the situation. The best procedure is to find the facts and publish them to stimulate discussion from which programs of action will eventually crystallize . . . The producers occupy the key position . . . The simple obligation rests upon those producers who love children to find a way of making the motion picture a beautiful, fascinating, and kindly servant of childhood." This volume presents, as have all the volumes published to date, a clear cut organization of found facts. We repeat again that no parent or teacher can afford to be without these books.

MOTION PICTURES AND YOUTH; THE EMOTIONAL RESPONSES OF CHILDREN TO THE MOTION PICTURE SITUATION; MOTION PICTURES AND STANDARDS OF MORALITY, by Dysinger, Ruckmick, Peters. Macmillan Co. 1933.

This somewhat bulkier presentation of data, offers remedial suggestions if not actual solutions, in the chapter entitled "Practical Conclusions." The social mores are given more attention by nature of the topics for experimentation. If one were selecting only certain of the volumes for purchase this one should be among those selected.

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

ANTICIPATION---A Service For Christmas

H. PAUL JANES

TO PRESENT this service properly the Church should be lighted in the rear with soft blue globes, providing just enough illumination to allow the worshipers to find their seats. Do not use the main lights in the auditorium at all, either before or after the service.

Provide a suggestive center of interest in the front of the Church; it may be a manger, large enough in proportion to provide the real focal point. Light it with either a soft blue spotlight swinging from above, or with a strong electric bulb lighted in the hay within the manger. Place the manger below and in front of the screen, but in full view of the entire audience. Be sure that none of the light showing on the manger, or from the manger reaches the screen, and that no part of the screen is hidden. In this way you will have created a Cathedral atmosphere, providing a feeling of privacy among many, and an appropriate religious symbol to stimulate the Christmas thought.

Provide ushers with flash lights to seat the congregation. Caution them against throwing their lights up or across the room; keep all lights pointed at the floor or directly at the seat. Never allow a light to shine in any person's eyes. In the back of the Church or at turns in the aisle, use standing lamps with blue bulbs to illuminate the floor. If possible, set up a double rheostat between the stereopticon projector and the light on the manger, so that as the picture appears on the screen the light on the manger can be faded out, and vice versa on the screen.

Order of Program and Directions

1. *Prelude.* The manger is lighted during the assembling of the congregation. If the light is to be taken off the manger during the periods when slides are on the screen (if no rheostat is used) be sure not to turn the light off on the manger until the light is on the screen. For prelude the organist may use the "Pastoral Symphony" from "The Messiah" by Handel, or the music "Town of Bethlehem" by H. Walford Davies, No. 81, Church School Hymnal for Youth.

2. *Theme Picture.* LeRolle's "Arrival of the Shepherds" (slide No. 1) should appear on the screen during the last minute of the prelude.

3. *Introductory Music.* During the musical swing from the prelude to the tune "Watchman" by Mason (if the light on the manger is off) turn the light on the manger and then take LeRolle's picture off the screen.

Then put the picture "Bethlehem" (slide No. 2) on the screen and (if necessary) turn the light off of the manger.

Two hidden soloists or two hidden divisions of the hidden choir may sing the first two verses of Bowering's "Watchman, Tell Us of the Night." Preferred tune "Watchman" by Mason, No. 393, Hymnal revised.

4. *Scripture.* (When there is nothing on the screen always be sure the manger is lighted.) Have the prophetic scriptures typed so that they can be read in quick succession. The reader may be hidden or may stand in a soft spot of light so arranged to one side of the screen that it does not shine on the screen and is not reflected to the screen, or if the manger is lighted from above, the reader may stand immediately behind the manger and read. Read Haggai 2:6-7; Malachi 3:1-4; Micah 5:2; Isaiah 7:14 and Isaiah 9:6-7.

5. *Prayer.* To God for an expectant spirit.

6. *Christmas Carol.* (Slide No. 3) Have the hidden choir lead the congregation in the singing of "It Came Upon the Midnight Clear" (Vs. 1 & 3). Lyric by Sears; preferred tune "Carol" by Willis, No. 177, Hymnal revised. Illustrated with Millet's "The Angelus."

7. *Scripture.* Joseph and Mary going to Jerusalem, Luke 2:1-7.

8. *Christmas Carol.* (Slide No. 4) Congregation sings "O Little Town of Bethlehem" (2 vs.). Lyric by Phillips Brooks; preferred tune "St. Louis" by Redner, No. 181, Hymnal revised. Illustrated with picture of "Bethlehem."

9. *Scripture.* Shepherds hear angels sing. Luke 2:8-15.

10. *Christmas Carol.* (Slide No. 5) Congregation sings, "While Shepherds Watch Their Flocks" (4 vs.) Lyric by Tate; preferred tune "Shackelford" by Chesswright, No. 184, Hymnal revised. Illustrated with picture of shepherds.

11. *Special Music.* While the last words of the preceding Christmas Carol are being sung turn the lights on the manger (if it has been off). Then turn the lights off on the screen. Almost immediately put slide No. 6 on the screen. Notice that slide No. 6 is next in the slide carrier of the stereopticon projector. To change quickly throw a large piece of cardboard across the beam of light at the projector. Shift slide No. 6 in quickly and lift the card again quickly, thus pro-

jecting slide No. 6 on the screen. Then (if necessary) turn the light off the manger. While Copping's picture (slide No. 6), "The Shepherds of Bethlehem," is on the screen the hidden choir sings "Hark! the Herald Angels Sing." Lyric by Wesley; preferred tune "Mendelssohn," adapted by Cummings, No. 174, Hymnal revised.

12. *Scripture.* Visit of the shepherds. Luke 2:15-20.

13. *Special Music.* (Slide No. 7) While LeRolle's "Arrival of the Shepherds" is on the screen the hidden choir will sing "Silent Night, Holy Night." Lyric by Mohr; preferred tune by Gruber, No. 55, Vesper Chimes.

14. *Meditation.* While slide No. 8, "St. Paul before Felix," is on the screen (see directions for slide No. 6) the Pastor may desire to call attention to some of the ideas expressed in the following paragraph. If the manger is lighted he may stand directly behind it. If he stands to one side a very soft light such as that suggested for the reader may be thrown on him, or he may prefer to speak from a hidden position.

"Had Christ come to the world amid the blaring of trumpets and the beating of drums—had he been heralded by His own emissaries of a great kingdom of power, whom he might have clothed in purple and decorated with gold and precious jewels—if He had arrived amid pomp and splendor and ceremonious pageant after the custom of worldly potentates—He might have awed even the Roman empire, and the King of Jerusalem would have received Him on bended knees and proclaimed Him King of Kings and Lord of Lords."

15. While slide No. 9, "The Finding of the Book" by Copping, is on the screen (see directions for slide No. 6) the substance of the following paragraph might be presented.

"Had he come in a cloud of glory with the speed and brilliance of light—had His arrival been amid cosmic turmoil, and had he loosed the forces of the universe which move at His touch, the priests of Jerusalem would have hailed Him as the promised Messiah, the Son of David.

"Millions would have bowed down to Him and thousands would have brought him gifts—His coming might have been hailed by thousands of 'hired' voices that would have split the heavens with their shouts, proclaiming His glory.

"When wise men from the East asked for information regarding His coming the king turned and inquired of the priests who hastened to their books to discover where and when the Messiah was to be born.

16. While slide No. 10, Honthorst's "The Adoration of the Shepherds," is on the screen (see directions for slide No. 6) the following ideas may be elaborated.

"And even before all this had happened lowly shepherds of Judea gazed upon the Holy Child. The King of Love had come to those who, laboring under the burden of imperial tyrants and ecclesiastical bigots, looked for release through a Messiah who would forever deliver them.

"The Savior came to those who anticipated Him, who looked earnestly for His coming with hopeful, anxious hearts. These included the humble—but no less the wise.

"Around the manger, in a stall for cattle, assembled the humble men. Awe and wonder mingled with joy and peace filled their hearts as they gazed upon the wonderful scene. There in a rustic cradle amid swaddling clothes lay the Hope of the World, the Redeemer of mankind.

"Just as He came to the humble and wise in the days of long ago, He comes today to those who are anticipating Him. He is as real today as then, but unless He is anticipated He will be seen and not recognized."

"It is no wonder that the hearts of those who look for Him swell with joy at finding Him, until all around the world sound the notes of the carol, 'Joy to the World, the Lord is Come'."

17. *Christmas Carol.* (Slide No. 11) As the Pastor repeats his final words put slide No. 11 on the screen (see direction for slide No. 6) and the congregation will sing "Joy to the World." Lyric by Watts; preferred tune "Antioch," revised from Handel by Mason, No. 180, Hymnal Revised. Illustrated with "The Adoration of the Shepherds" by Borguereau.

18A. *Film.* A very good Christmas Motion Picture Film has been provided by the Religious Motion Picture Foundation in New York, or from the Presbyterian Book Stores of either Philadelphia or San Francisco. This film might be used instead of the pageant or before the pageant. A cue sheet will be provided giving a complete list of music to be played during the picture including directions for playing it. The Motion Picture is reel No. 1 from the Series "I am the Way" entitled "When Jesus was Born."

18. *Pageant.* With the light on the manger the three wise men in proper costume and bearing their appropriate gifts, after having sung the first verse together, one at a time, march down the aisle each singing his verse of "We Three Kings of Orient Are," finally kneeling at the manger, where the three sing the fifth verse together. If preferred, voices in the hidden choir can sing the parts for the wise men, but the pantomime should be carried on the same. "We Three Kings of Orient Are," lyric and music by Hopkins, No. 60, Vesper Chimes. The first verse will be sung by the wise men or the

(Concluded on page 287)

SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY
 Director, Scarborough School, Scarborough-on-Hudson, N. Y.

Visual Education In Junior High Schools

L. F. HIRE

THE Junior High Schools of the city of Pontiac, Michigan, have for the last three years carried on an extensive program of visual education. Visual aids include maps, charts, an extensive picture collection, film slides, glass slides, and the use of a well organized yearly program of 16 mm. films.

Each junior high school has a visual education committee which is appointed yearly and has one member each from the science, history, and geography departments. After mapping out the program for their respective schools, members of the various committees meet and formulate the program for the entire school year. One of the schools acts as a clearing house, carrying on all necessary correspondence for the booking of the entire year's program. The complete schedule is then put into mimeograph form and placed in the hands of the teachers.

A program carried on for a number of years naturally acquaints one with the sources of film information. We have found the most dependable sources to be the *Educational Screen* and its small hand book, *One Thousand and One Non-theatrical Films*; also the Victor 16 mm. film directory, the United States Bureau of Mines, the United States Department of Commerce, the State Department of Conservation, and the Y. M. C. A.

Financing of the program is made possible by the showing of one or two feature motion pictures after school hours and in addition ten percent of the proceeds of all motion picture entertainments. A large item is the transportation expense which in our case is being met by the Board of Education. Three new Victor 16 mm. projectors have recently been placed in service by the schools.

A definite series of recommendations is carefully followed in the use of class-room pictures:

1. Films are to be used in class-rooms in so far as it is possible.
2. When shown on the screen in the auditorium to a larger group, teachers are to sit with classes.
3. Pictures are not to be shown to classes unless they pertain to the work being covered.
4. Pictures are to be discussed in class before and after showing.
5. List of films, with teacher's opinion as to their value should be placed on file with the visual education chairman.

Following is the program of 16 mm. films to be used by the Junior High Schools of the city of Pontiac during the school year.

October 2	Light of a Race	.....(1)
October 3	The Miracle of Corn	.....(1)
October 4	The Manufacture of Sheet Metal and Tin Plate	.....(1)
October 10	Man Against Microbe	.....(1)
October 16	Wild Wings	.....(2)
October 17	Michigan Mammals	.....(2)
October 18	Carbon Monoxide	.....(1)
October 23	Logs and Lumber	.....(1)
October 24	Golden Health	.....(1)
October 25	Electric Heat in Industry	.....(3)
October 30	Story of a Storage Battery(2)
October 31	Velvet—King of Fabrics(2)
November 3	Romance of Rubber(2)

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November 6	The Red Poacher.....	(2)
November 7	Greece	(1)
November 7-9	The Conquest of Diphtheria....	(1)
November 8	Liquid Air	(1)
November 7-9	Romance of the Reaper.....	(5)
November 13	Nutrition and Dental Health.....	(2)
November 14	About Bananas	(1)
November 20	Paper Making	(3)
November 20-22	Money Making Industry.....	(1)
November 22	The Metals of a Motor Car.....	(2)
November 27-29	The Story of Gasoline Motor..	(3)
November 27	A Day with the Sun.....	(3)
December 4	Mazda Lamp Manufacturing.....	(2)
December 11	Along the Firing Line.....	(2)
December 12	People who live on the Great Plain	(1)
December 18	Evolution of the Oil Industry.....	
December 19	Story of Lubricating Oil.....	(2)
January 10	Working for Dear Life.....	(1)
January 15	The Wizardy of Wireless.....	(2)

Second Semester

February 5	The Benefactor	(2)
February 7	The Miracle of Corn.....	(1)
February 12	Liquid Air	(1)
February 13	Light of a Race.....	(1)
February 14	Carbon Monoxide	(1)
February 19	Evolution of the Oil Industry.....	(3)
February 20	Story of Lubricating Oil.....	(2)
February 21	The Manufacturer of Sheet Metal and Tin Plate.....	(1)
February 27	People Who Live in a Crowded Valley	(1)
March 6	The Metals of a Motor Car.....	(2)
March 12	A World of Paper.....	(2)
March 12-14	A Day with the Sun.....	(3)
March 14	The Red Poacher	(2)
March 20	Story of a Storage Battery.....	(2)
March 27	Mazda Lamp Manufacturing.....	(2)
April 2-4	Money Making Industry.....	(2)
April 3	Story of Gasoline Motor.....	
April 9	Michigan Natural Resources Inventory.	(2)
April 10	Michigan Mines and Minerals.....	(1)
April 16	Along the Firing Line.....	(2)
April 18	Electric Heat in Industry.....	(3)
April 25-27	Romance of Rubber.....	(2)
May 1	The Wizardy of Wireless.....	(2)

Sound Equipment for Elementary School

One of the first strictly six-grade elementary schools in Westchester County, New York, to be equipped with professional sound equipment is the Milton School at Rye-on-the-Sound. While high schools and junior high schools have been so equipped, elementary schools as a whole have not received the benefit of such equipment. The sound is made up of a wide range amplifier, amplion unit and 9 foot horn. All controls are in the booth. Signal buzzers are so arranged that lights and volume and tone are controlled from the booth. A double turntable is connected with the amplifier so that records may be played through the picture apparatus. The equipment is arranged to throw a 9x12 picture.



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This obvious endorsement should mean to you—

PERFECT TALKIES FOR SCHOOLS

Many schools not able to pay cash have used the DeVry Self Liquidating Plan, which does not obligate the School Board. It has worked out successfully in every school where it has been tried.

Write for free booklet, "Raising Funds with DeVry Talkies."

State whether you are interested in 16 mm. or 35 mm. Sound Equipment.

HERMAN A. DEVRY, INC.

1111 Center Street

Chicago

Educational Film Program of U.S.S.R.

(Concluded from page 277)

speed of the films. A movie mechanic is required for operation of moving picture machines except in small schools where a technically trained teacher may operate if he has a certificate given by Souzkin. An institute was held in Moscow in August for training of film specialists. About 50 teachers elected from the various districts were expected to attend this. They will go back and explain the use of films in their local districts.

There are far too few educational films to meet the needs of schools. Between 1925-28 they were let out without a plan and the present system is still somewhat chaotic. Many films such as the saving of Novile's Dirigible, or the building of the Turkish Siberian railroad are considered already out of date. Teachers are advised to become well acquainted with the films available and be able to choose parts from several films when films are not of the most recent. Many helpful notes are included in the catalog to indicate their best use.

To meet the need for educational films there is an extensive production and revision program: During 1933 two million rubles were spent on the preparation of new films and the revision of old ones, while four million have been appropriated for 1934.¹ The fol-

lowing program for production in 1934 includes both new films and revision:²

1934 Production Program

Subject	New (meters)	Revised (meters)
Social science	900	4800
Physics	2900	1350
Chemistry	3500	1800
Biology—		
Botany	1200	900
Zoology	3500	
Physiology	2870	
Geography	6000	4800
Labor and politics.....	3980	900
Agriculture	3000	
Astronomy	2100	

Practically every school has a slide projector so that little attention is being paid to such equipment. However the institute plans in 1934 to prepare 100 series of 30 or 40 slides each for both geography and history, 30 series for chemistry and has a plan in preparation for physics slides. The new films being produced are mainly in 35 mm. size although 16 mm. films are made for the schools which need them. Practically nothing has been done yet in sound films although one on the subject of sound is being prepared this year as an experiment.

²F. N.: Data given by Venogradov and Uden, directors educational film section, Central House of Art Education, Moscow.

¹Data by Stepanoff-Souzkin.

The Church Field

(Concluded from page 283)

choir before the first wise man marches in. The last will be sung while the wise men kneel.

19. *Offertory.* As the organist begins to play the offertory ("The Hallelujah Chorus" from "The Messiah" by Handel is preferred—may be sung by the choir) the wise men will stand and extend their arms to the congregation in invitation, and the deacons will begin from the rear of the Church to take up the offering, either of gifts for charity or of money. They will bring the offering to the front of the church and give it to the wise men, who will place it in front of the manger and kneel again.

20. *Christmas Carol.* As the offertory is ended the wise men will arise and signal the congregation to stand. There will be enough light on the manger and in the room to illuminate them. The congregation will then sing (slide No. 12) "O Come All Ye Faithful" (2 vs.). Lyric translated from Latin by Oakley; preferred tune "Adeste Fideles," author unknown, No. 173, Hymnal Revised. Illustrated with "Der Engel Freude" by Studer.

21. *Benediction.*

22. *Postlude.* Leave the lights in the auditorium out. As the congregation passes out quietly, the organ plays "Nicaea" by Dykes, customarily sung with "Holy, Holy, Holy." Lyric by Bishop Heber, No. 82, Hymnal Revised. The choir will not sing this.

Hymnal numbers are from the Presbyterian Hymnal. The eleven slides are available, done in colors, from the Presbyterian Board of Christian Education, Philadelphia, Pa.

Yule Log---Symbol of Christmas

What pleasant old customs people used to have at Christmas! With great ceremony, in the olden days, the Christmas log was brought into the home. This great "clog" of wood, chosen with care and laid in the huge fireplace, was lighted with a brand saved from last year's log. Great drinking, singing and telling of tales in the light of the ruddy blaze were part of the Christmas celebration. All through the night that Yule log was kept burning and if by any oversight the flame went out ill luck would surely befall the home.

Who has not at times lamented the passing of these simple holiday rites? In memory of the pleasant old custom the 1933 Christmas Seal depicts the bringing in of an ancient Christmas yule log.



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TALK from your screen WITH your quickly TYPED WRITTEN MESSAGES.

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RADIO-MAT SLIDE CO., Inc.
1819 Broadway New York, N. Y.

Announced by the heralding bugler, two mediaeval figures drag in the enormous log, against a background of golden winter sunset. They call to mind the former days and symbolize the true spirit of peace on earth that unites all people at this season of good will. They would remind everyone who pastes the little stickers on mail and packages that the old, *real* Christmas is not gone. For true Christmas peace and happiness, which no amount of material troubles can everlastingly destroy, will be in the heart of everyone who "shares" the gift of health by using Christmas seals throughout December.

Photographic Historical Study Units
are prepared to cover a period not a scene,
giving the student
a balanced visual understanding
of what took place and why.



15 8x10 dry mounted photographs to the unit complete with introduction, full descriptive text and question guide dry mounted 9 1/4x11 and boxed for classroom use.

UNITS COVERING THE FOLLOWING SIX PERIODS
ARE NOW AVAILABLE:

- | | |
|--|-----------------------------|
| Roman Life | Feudal Life from Robin Hood |
| Westward Movement | The Pilgrims |
| American Revolution and Organization of Government | |
| Slave Life and Abraham Lincoln | |
| Others in Preparation. | |

The photographs illustrating these periods were selected from motion picture stills, and grouped and edited by historians and leaders in visual instruction.

Write for prices and descriptive folder to:

Photographic History Service
formerly

Educational Research Studies, Ltd.

5537 HOLLYWOOD BLVD.

HOLLYWOOD, CALIF.

If East of the Mississippi send your inquiry to

LEE WHITCOMB

Eastern Sales Manager
LEONIA, NEW JERSEY

AMONG THE PRODUCERS

Where the commercial firms—whose activities have an important bearing on progress in the visual field—are free to tell their story in their own words. The Educational Screen is glad to reprint here, within necessary space limitations, such material as seems to have most informational and news value to our readers.

Two Important Announcements

Educational Research Studies, Ltd., of Hollywood, California, publishers of Photographic Historical Study Units from motion picture stills announce a change in name to PHOTOGRAPHIC HISTORY SERVICE. The address, 5537 Hollywood Blvd., Hollywood, California, remains the same.

They also advise that Mr. Lee Whitcomb of Leonia, New Jersey, has been appointed Eastern Sales Manager handling through his sales organization all territory east of the Mississippi. Mr. Whitcomb is widely known among educators, having devoted many years to sales work in the visual field.

An Aid to the Study of Optical Phenomena

Light and the study of optics, while a subject of major interest to the philosopher and physicist for hundreds of years, remains a mystery to the average man. Thus when such a term as "optical bench" is mentioned, laymen greet it with expressions of polite curiosity, or simply raise their eyebrows. Indeed, it is surprising how many well educated persons are almost completely ignorant regarding a branch of science that concerns almost every phase of modern life.

Investigation has shown that this lack of interest is due primarily to the inadequate attention given courses in optics by the average high school and college. Undoubtedly instructors have been handicapped by the high cost of good optical equipment, and being unable to give interesting and attention-holding demonstrations, have been obliged to rely on the theoretical exposition of the literature and the lecture room. Heretofore, such an important adjunct to the physics laboratory as the optical bench has been too costly when accurate enough for research work; or if cheap enough for individual experimentation has been too inaccurate and limited in application to be used for research work.

"You Can't Keep A Good School Down"

Old Man Skeptic riz up again and said "Talkies are for Theatres, not Schools"—just as he said, years ago, "Movies are for theatres not schools." But the schools just won't let a good thing go by. Any medium that impresses the human mind in new and vivid ways, is a proper instrument for education. Indeed the schools would be criminally negligent if they did not shape new tools to educational uses.

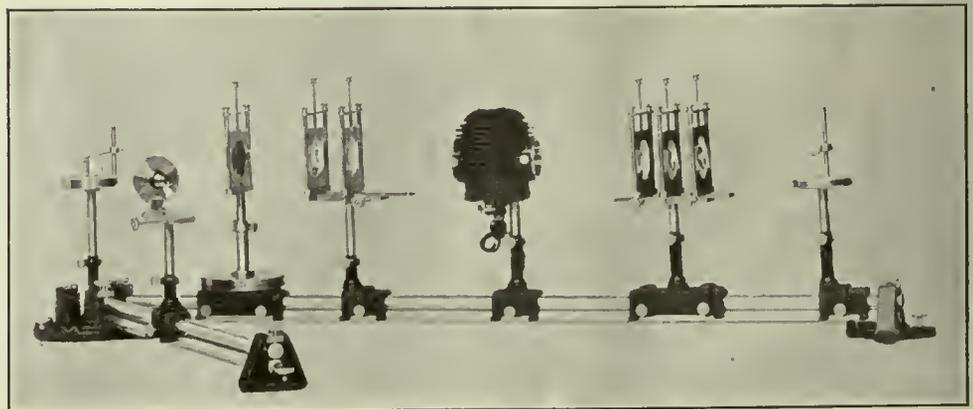
The news from Herman A. DeVry, Inc., is encouraging. Scores of schools and churches are equipping themselves with DeVry Portable Sound Units—and they are writing back, also, that the equipment is easily operated and gives absolutely satisfactory sound.

DeVry reports a notable experience. A prospect for a DeVry portable sound on film unit wrote a large number of users on the DeVry list, to get their opinion after months of service. He received replies from 80% of the users. *Every letter praised the outfit.* Not one discouraged the purchaser from buying a DeVry. This looks like some sort of a record.

Nearly all of these schools use "talkies" for group instruction and entertainment in the auditorium. A few like The Evanston High School, use talkies during the lunch period just for relaxation and entertainment, charging a small fee, which gradually pays for the equipment.

The DeVry experience, combined with that of other manufacturers of sound equipment, confirms the fact without a shadow of doubt, that "talkies" have established themselves as valuable and legitimate equipment for the modern school.

We will give our readers full information regarding the new DeVry 16 mm. Sound-on-Film Equipment in the January EDUCATIONAL SCREEN. It will be a real piece of news for those schools which are interested in this type of equipment.



The Optical Bench Developed by R. Fuess Inc. (Berlin)

There have recently appeared advance notices of a new optical bench which represents a revolutionary improvement in design and manufacture, permitting

(Concluded on page 292)

HERE THEY ARE!

A Trade Directory for the Visual Field

FILMS

- Arnold Audio Associates** (5)
11 W. 42nd St., New York City
- Bray Pictures Corporation** (3, 6)
729 Seventh Ave., New York City
- Carlyle Ellis** (1, 4)
53 Hamilton Terrace, New York City
Producer of Social Service Films
- Eastman Kodak Co.** (4)
Rochester, N. Y.
(See advertisement on outside back cover)
- Eastman Teaching Films, Inc.** (1, 4)
Rochester, N. Y.
- Edited Pictures System, Inc.** (1, 4)
330 W. 42nd St., New York City
- Ideal Pictures Corp.** (1, 4)
26 E. Eighth St., Chicago, Ill.
- Modern Woodmen of America** (3, 4)
Rock Island, Ill.
- Pinkney Film Service Co.** (1, 4)
1028 Forbes St., Pittsburgh, Pa.
- Ray-Bell Films, Inc.** (3, 6)
817 University Ave., St. Paul, Minn.
- Stewarts School Films** (4)
21 Liberty St., Trenton, N. J.
- United Projector and Films Corp.** (1, 4)
228 Franklin St., Buffalo, N. Y.
- Universal Pictures Corp.** (3)
730 Fifth Ave., New York City
(See advertisement on page 265)
- 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** (1, 4)
347 Madison Ave., New York City
19 S. LaSalle St., Chicago, Ill.
- Herman A. DeVry, Inc.** (3, 4)
1111 Center St., Chicago
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- Ideal Pictures Corp.** (1, 4)
26 E. Eighth St., Chicago, Ill.
- International Projector Corp.** (3, 6)
90 Gold St., New York City
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- Motion Picture Accessories Co.** (3, 6)
43-47 W. 24th St., New York City
- Regina Photo Supply Ltd.** (3, 6)
1924 Rose St., Regina, Sask.
- Sunny Schick** (4)
Fort Wayne, Ind.
(See advertisement on page 284)
- United Projector and Film Corp.** (3, 4)
228 Franklin St., Buffalo, N. Y.
- Victor Animatograph Corp.** (6)
Davenport, Iowa
- Weber Machine Corp.** (2)
59 Rutter St., Rochester, N. Y.
(See advertisement on page 285)
- Williams, Brown and Earle, Inc.** (3, 6)
918 Chestnut St., Philadelphia, Pa.

PHOTOGRAPHS and PRINTS

- Educational Research Studies, Ltd.**
5537 Hollywood Blvd., Hollywood,
Cal.
(See advertisement on page 287)

SCREENS

- Da-Lite Screen Co.**
2721 N. Crawford Ave., Chicago
(See advertisement on page 285)
- Motion Picture Accessories Co.**
43-47 W. 24th St., New York City
- Williams, Brown and Earle, Inc.**
918 Chestnut St., Philadelphia, Pa.

SLIDES and FILM SLIDES

- Bell & Howell Co.** (6)
1815 Larchmont Ave., Chicago, Ill.
(See advertisement on inside back cover)
- Eastman Kodak Co.** (4)
Rochester, N. Y.
(See advertisement on outside back cover)
- Edited Pictures System, Inc.** (1)
330 W. 42nd St., New York City
- Conrad Slide and Projection Co.**
510 Twenty-second Ave., East
Superior, Wis.
- Eastman Educational Slides**
Iowa City, Ia.
- Edited Pictures System, Inc.**
330 W. 42nd St., New York City

- Ideal Pictures Corp.**
26 E. Eighth St., Chicago, Ill.
- Keystone View Co.**
Meadville, Pa.
- Radio-Mat Slide Co., Inc.**
1674 Broadway, New York City
(See advertisement on page 287)
- Spencer Lens Co.**
19 Doat St., Buffalo, N. Y.
(See advertisement on page 285)
- Victor Animatograph Corp.**
Davenport, Iowa
- 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 286)
- Keystone View Co.**
Meadville, Pa.

STEREOPTICONS and OPAQUE PROJECTORS

- Bausch and Lomb Optical Co.**
Rochester, N. Y.
- E. Leitz, Inc.**
60 E. 10th St., New York City
- Regina Photo Supply Ltd.**
1924 Rose St., Regina, Sask.
- Spencer Lens Co.**
19 Doat St., Buffalo, N. Y.
(See advertisement on page 285)
- Victor Animatograph Corp.**
Davenport, Iowa
- Williams, Brown and Earle, Inc.**
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REFERENCE NUMBERS

- (1) indicates firm supplies 35 mm. silent.
- (2) indicates firm supplies 35 mm. sound.
- (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.

IS YOUR firm represented here? It should be. Continuous insertions under one heading cost only \$1.50 per issue; additional listings under other headings, 50c each.

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Of The Educational Screen and Visual Instruction News, published monthly except July and August, at Morton, Ill., for October 1, 1933 State of Illinois, County of Cook, ss.

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 editor of The Educational Screen, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

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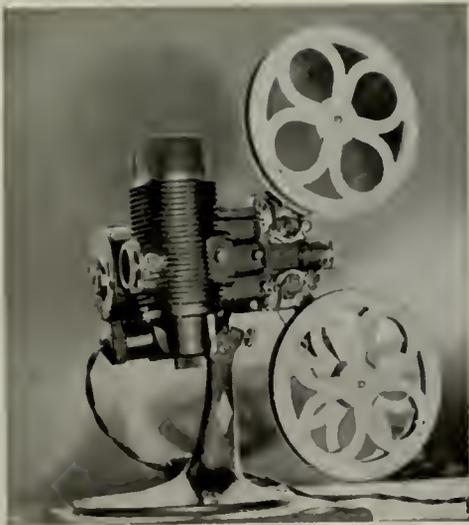
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