Educational SCREEN

JANUARY ● 1932

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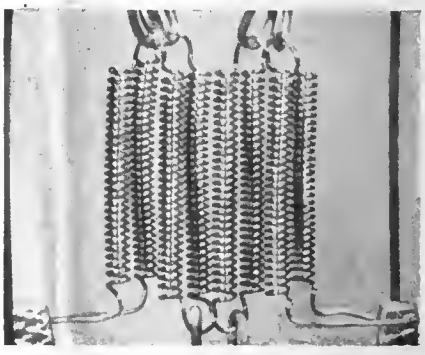

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Educational Screen

JANUARY, 1932

VOLUME XI NUMBER 1

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$2.00 a Year (Canada, $2.75; Foreign, $3.00) Single Copies, 25 cts.

EDITORIAL

WITH this issue *The Educational Screen* begins its second decade, bidding a fond farewell to its first. The farewell is distinctly "fond", for we feel little desire to repeat. Those who have known us best realize that the past ten years have had their graver moments for the magazine, to put it mildly. There have been times when the old Egyptian assignment of "bricks without straw" seemed to us by no means the last word in hard jobs. One pioneering period is enough for most humans, and we claim to be human.

The Second Mile

There were four other magazines in the same field when we started ten years ago. We have no illusions as to why *The Educational Screen* is the only one of the five to survive. Our own efforts would never have sufficed. A host of friends —in the educational field, in the commercial field, and in the field between, thinking laymen—gave us constantly the splendid cooperation without which our own efforts must have come to naught. These friends are now offering us congratulations by every mail, as we pass our tenth milestone. Only mutual congratulations are in order. So, here and now, our sincerest acknowledgements and thanks to all those who have helped keep the wheels turning, down through *The Educational Screen's* first ten long years!

The decade ahead offers a far more alluring prospect. The worst of the chaos and colic is past for the visual movement. Henceforward it will be afflicted chiefly with growing pains, annoying at times but apparently necessary and quite normal. Through the spoon-fed infancy of visual education we did our best to help find proper food and manipulate the spoon. The change of the infant's diet from milk to meat has already begun, to be sure, but it has been painfully gradual. Visual education progress through infancy, youngsterism and youth to maturity can be safely speeded up a bit. It is merely a matter of clearing the path. Given a clear path, the sturdy youngster is amply able to do his own locomotion.

THERE is a larger role for *The Educational Screen* in the future than in the past. The visual field has shown physical growth that is fairly substantial, but interest in the visual idea has widened and deepened enormously. Interest must precede growth. In general, the task ahead is to feed and stimulate this interest until it culminates in action. Adding fuel to a fire is much easier than nursing the original spark. Specifically, the task is to remove remaining obstacles that are delaying action and the forward march.

Probably no obstacle has so clogged the progress of the visual movement as the lack of teacher-training.

In This Issue

Not long ago there were no teacher-training courses at all. There are now scores. There should be hundreds at the present moment. Above all, there should not be a single Normal School in the country without regular courses, and these required for graduation. The primitive idea that visual education means merely throwing a switch or pushing a button still survives in too many quarters. It is gratifying news that THE NATIONAL ACADEMY OF VISUAL INSTRUCTION is to make "teacher-training" a major topic for discussion at the February meeting in Washington.

We are privileged to begin in this issue a series of teaching outlines for use in such courses, as developed and used by L. Paul Miller in his work of training teachers in visual methods at Bucknell University. These outlines will appear consecutively, one in each issue, for an indefinite period. The collected issues containing them will be invaluable working material for those planning or conducting such courses. A special 5-issue subscription rate has been established for such class groups, renewable as long as series lasts. The author earnestly invites all users of the material to cooperate actively by written suggestions, emendations and additions, in order to develop a complete technique with full working material for such courses. At the author's suggestion, all such communications may be sent to *The Educational Screen.*

Another problem is the "central bureau." Many are in operation and they vary endlessly in method and organization. An exhaustive study of existing bureaus has just been completed by Arnold W. Reitze, in order to survey the field, harmonize the facts and ascertain the consensus of opinion and practice. His thesis has been accepted by New York University but has not yet been printed. A brief excerpt from it in our November issue roused such interest that Mr. Reitze agreed to summarize the whole in three articles. The first is in this number, entitled "The Organization of a City Department of Visual Aids." The second will appear in February.

"THE FUTURE development of the visual movement is going to depend chiefly upon the commercial firms serving the field." The quotes are personal. It is a statement of our own made some years ago. At the time it evoked vague agreement from a microscopic minority, but more or less frenzied denial from the rest. There would be a far louder chorus of assent now.

Education and the Business World

It is a favorite idea, and an exceedingly venerable one in the educational field, that only educators can have anything to say about education. The university atmosphere is strongly conducive to the hermit attitude of mind which sees the vast commercial field as an outside world that cannot possibly understand the inner mysteries. The scholarly mind unfortunate enough to have attained such intellectual isolation is prone to forget at least three points—first, that the said commercial world is quite thickly peopled with men and women who have received exactly what the scholar himself approves as true education; second, that the alumni of daily life, the greatest body of alumni in the world, represent a greater total of educated mentality than could be achieved by all our colleges together; and, third, that there can be no alumnus of any college who does not owe the major part of his education to that arch-educator, daily life. If these things be true, the world outside school and college walls may well have much to say about "education."

The glory of the visual method is its power to bring this "daily life" experience of millions to the individual pupil, factual experience from any corner of the world within the classroom confines of the most isolated country school. The physical means to this great end are pictures, maps, charts, models, slides, films, and all needed display and projection equipment. The mere production of such materials is utterly beyond the resources of any educational institution or any combination of them. Years of costly experimentation in picture production, in cameras, stereopticons and motion picture projectors have already been supplied by the commercial world. Millions have been spent, countless millions more will be spent. The educational field could not have achieved a fraction of the experimenting, let alone the production. The past accomplishments of visual education have been largely a gift from the commercial world—the future of visual education will rest almost wholly in commercial hands.

This situation is nothing new. Consider textbooks. In the Pilgrim days any available book had to be a textbook. Even two hundred years later Bunyan's classic was serving Lincoln as a textbook. Many generations of devoted teachers had to make their own, laboriously by hand. Only in the nineteenth century was the idea developed that textbook-production was a task for commercial firms organized expressly for that sole purpose. At first the educator wrote the text, and let the budding company print it. With the growth of organization, the assembly of an expert editorial staff, the installation of eminent educators within the company itself, the whole situation changed. With rare exceptions the average author-educator now writes his book, submits it hopefully, hears the verdict respectfully. If favorable, the company goes at the manuscript, indicates changes, additions, deletions, improvements to be made by the author, determines typography and format, then prints and markets the book. The modern textbook company makes the textbooks, letting the educators supply the raw material, provided it is the raw material the company wants. The commercial world seems to have much to say about education where textbooks are concerned. Obviously educators are and must always be the authorities on the general content of school texts. No company would dream of putting out a book with contents not approved by scholars as sound subject-matter for schools. But in the creation of American textbooks the educator's part is limited.

It will inevitably be the same in the visual field. There will be text-slide and text-film companies, equipped with a staff of educational authorities as well as technical and commercial experts. The educational field will submit subject-matter, or often merely suggest it; the company will reject, select and perfect, then produce and market the finished material. And because the technique of text-picture-production is far more complex and costly than textbook-production, the companies must have still greater resources and broader talent. The future of visual education will be even more dependent upon commercial firms than textbook-education has ever been.

IN CASE any of our readers have failed to notice it, we may point out superficial bits of evidence that *The Educational Screen* means to progress. For several issues we have been experimenting with type faces. We are paying attention to the matter of lay-out on various pages and believe we are improving. And we have done a lot of fussing over the new cover of the present issue. *Ca vaut la peine, n'est ce pas?*

NELSON L. GREENE.

The Organization of a City Department of Visual Aids

ARNOLD W. REITZE

IN THIS article some of the more important phases of organization are presented. It is concerned primarily with the physical lay-out of the department. Organization is dependent upon so many and such variable factors that it is impossible to set up any one method as superior to all others. Some of the ways in which organization methods vary in different cities are revealed, several methods for each phase of organization are discussed, whenever possible, and from the several methods presented must be selected the one which best meets any given situation.

The Need of Organization

A carefully organized department is necessary as a matter of efficiency, economy, and service. Mr. W. H. Dudley in the United States Bulletin on *Organization for Visual Instruction* states:

> "Visual instruction service to be worthwhile requires careful organization and administration, the adoption of a definite educational policy, a study of the needs of borrowers with a view to fitting the service to those needs, and unceasing attention to mechanical detail."

Mrs. Anna V. Dorris in her book *Visual Instruction in the Public Schools* also stresses the importance of organization.

An organized department means economy in that the material is put in circulation and can therefore be used more extensively than if it is placed in one school. Visual aids can be used most effectively when the numerous details connected with the acquiring, upkeep, and study of the aids are removed from the shoulders of the teacher.

When organizing a department, it is well to set up definite aims or objectives as a goal. Such aims and objectives will enable all to realize more fully the responsibility and importance of the work of the department. The aim may be in the form of a brief slogan or a detailed set of objectives.

Editor's Note: This article is one of a series based on a Master's thesis prepared for New York University entitled "The Organization, Functions, and Administration of a City Department of Visual Aids".

A Visual Aids Center

A visual aids center is a necessary adjunct of an organized department of visual aids. It is the nucleus around which is built up a systematic use of visual aids. Mrs. Dorris in her book states:

> "A centralized bureau either in a state or in a community seems to be one of the first steps toward effective educational results."

The visual aids center varies in size, purpose, and location in different cities. Some visual aids centers are concerned primarily with booking various aids from commercial agencies. Other centers are concerned with the actual circulation of many types of aids. Such centers have need for some person in charge of the center and several clerks who can care for booking, checking, and shipping the various aids. Other centers conduct teacher training courses, provide an opportunity for teachers to try out the aids, make up photographs and lantern slides, and perhaps have an educational museum. This type of center requires a staff of considerable size and also a large amount of floor space.

The place used for the visual aids center varies from a single room in some school building to a separate building entirely devoted to the department of visual aids. A few departments maintain a number of centers throughout the city. It seems highly desirable for a well organized department to have a separate building. This building does not necessarily have to be new; an abandoned school building, which can be converted at a minimum cost to suit the needs of the department, is adequate at least until the department has been placed upon a solid foundation. Some of the rooms which might be included in such a building are: a director's office, a general office, a general file and reference room, a conference and demonstration room, a typical classroom, a file room for mounted pictures, a file room for slides, a film storage room, a receiving and shipping room, a workshop, a storage room for exhibits, and a photographic room. An auditorium seating several hundred persons is also desirable. If a museum is established as part of the visual aids center, additional rooms will be needed.

Distribution of Visual Aids

The distribution of the various aids is a phase of organization which must be given careful attention. The value and effectiveness of visual material is dependent upon its timeliness. There are three methods in common use for the distribution of visual aids. The most desirable plan is that of regular weekly delivery and collection service by means of a department truck. Another method requires a school to send a messenger to the center to collect and return all material. According to a third plan, the department distributes no material from the center but acts as a booking agent for the individual schools. Material is ordered from commercial agencies and sent direct to the schools. Motion picture film is distributed by the call method, through a film circuit, or by a combination of the two. The call method is preferable.

Selection of Visual Aids

In organizing a department consideration must be given to the types of aids which are to be placed in the schools and the aids which are to be circulated. A decision on this point can be made only after considering the many factors involved. Some of the aids which are circulated and placed in the schools are:

16 & 35 MM. Silent Motion Picture Film
16 & 35 MM. Sound Motion Picture Film
Film Slides and Stillfilm
Stereographs
Charts
Posters
Maps
Exhibits
Models
Photographs
Prints
Mounted Pictures
Post Cards
Specimens
Mounted Birds and Mammals
Paintings
Costumed Dolls and Figures
Pageant and Play Material
Related Booklets
Sheet Music
Phonograph Records

In addition, a number of departments arrange for class visits to industries, museums, historical landmarks, and similar centers of interest.

The department must be organized for the selection of the various aids and equipment, both those to be placed in the schools and those to be circulated. One method is to have a number of test schools. In these schools, which should typify the average school in the system, the various aids and equipment can be tried out under actual classroom conditions. Committees of teachers and supervisors will be found invaluable in selecting many of the visual aids. The committee system should also be used in relating the various aids to the courses of study.

The Loan Period

The department must be organized around a definite loan period for which the aids may be retained. Considering the many factors involved, a period of one week seems to be most desirable. A period of one week usually gives ample time to use the material effectively and at the same time allows a certain amount of flexibility as to when the aids shall be used. A shorter period does not allow for any unforeseen happenings nor does it give an opportunity for using the aids more than once. A longer period tends to make a teacher lax in arranging her program.

Printed Matter Needed

A well organized department has need for many and varied printed forms. The size, kind, and number used varies greatly among the different departments. In general, the forms should be the kind and number needed properly to book, file, and record the work of the department efficiently. The forms should be placed upon standard size paper or cards in order that they may be filed economically. Some of the most essential forms are: a requisition form, a booking form, a shortage notification form, an exhibit report form, a film and slide report, a receipt form, a slide checking form, and various shipping labels and tags.

The department must also issue much printed material including lists of aids, lesson plans, suggestions for the use of the various aids and the care of equipment, catalogs, and other similar information. Since most of this material must be retained for some time careful attention should be given to its arrangement and form. It should be placed on standard size paper or cards. For the most part, all printed or mimeographed information could be placed on standard letter size paper. It is well to try out all printed material in mimeograph form before it is set in type. Catalogs might best be issued in loose-leaf form, which permits adding to them as well as making corrections easily. The following suggestion may be helpful in making up a catalog. A separate page of the catalog should be used to list each film, set of slides or pictures, and other aids. This page should include the title, the file and catalog number, a list of the individual units in the set, and a description of the aid. The description should be detailed enough to be used as a synopsis. The grade and subject for which the aid is suitable should also be included as well as a typical picture or two.

Size and Stock of Films

The size of motion picture film to be circulated by the department must be decided. The two sizes of film

usually considered for school use are the 16 and 35 MM. film. The 35 MM. film is made up in two forms; the nitrate or inflammable stock and the acetate or non inflammable safety stock. The 16 MM. film comes only on safety stock. The nitrate film requires a regular licensed operator, a fire-proof booth, and must be stored in a fire-proof vault. It is forbidden, for school use, by most fire departments. In view of these facts, it seems to be for the best interest of the schools to forbid the use of nitrate film. If it is necessary or desirable to use 35 MM. film only safety stock should be used.

It is generally agreed that the most effective use of any teaching aid is in the classroom. As the 35 MM. film is not particularly adapted for classroom use, it seems that the 16 MM. offers the solution. A good policy to follow seems to be to collect only 16 MM. film for the permanent film library. When 35 MM. films are needed, they can be borrowed or rented.

The matter of storage must also be considered. With the exclusive use of safety film, in either or both sizes, they can be stored in steel cabinets or on steel shelving. The size of the reel is another point to think about. Through the use of standard size reels, the films can be stored easily but there is a tendency to have each reel contain the same amount of film regardless of the teaching value. Obviously, teaching films should contain only the number of feet which have educational value. While most 35 MM. projectors are equipped to use only a thousand foot reel, with the 16 MM. projector any size reel up to four hundred feet and on some models up to one thousand feet can be handled with equal ease. If all school projectors were equipped to use the thousand foot reel the film could be placed on any size reel from fifty feet to a thousand feet.

Mounting Pictures

If mounted pictures are distributed, the department must be organized to handle them efficiently. The size of the mounting material is important in order that it may be filed economically. The standard letter size of 8½ x 11 inches seems to be well suited for this purpose. The color of the mount must also be considered. It should be a color which blends well with the many colors found in the pictures and yet it must not soil easily. Typical colors used are steel gray and chocolate brown. The material used must be stiff and yet not brittle neither must it be too thick, else it will require much filing space. Material used for mounting purposes varies from a double thick cover paper to photographers' mounting board. The filing of the mounted pictures can be done in several ways. Each picture may be filed according to title. The better way, however, is to arrange them into sets directly related to the subjects in the course of study. Each set should then be placed in a strong envelope with a list of the individual pictures on the outside.

Individual School Equipment

The equipment placed in the individual schools is dependent upon many factors. Where the funds are limited, it is impossible to place the equipment in the schools but it must be circulated as are the aids. There are many objections to this method and it should be avoided if possible. A number of departments require each school to purchase its own equipment. This method also has many objections. For the most efficient results the department should have direct control of the equipment. This may be done by the department purchasing all equipment or by requiring the schools to purchase only approved equipment. For economy and ease in teacher training the equipment should be standardized. Each school should be equipped with a minimum standard amount of equipment.

Classification, Indexing, Filing

The various aids must be arranged for ease and effective use. There are several methods which can be employed. One method is to title and number each picture, slide, and other aids and then catalog it. Such a catalog must be elaborately cross-indexed. With this method much time is spent in looking up the aids wanted. Another method is to arrange and classify all material according to subject and, if possible, grade. This method has the advantage of placing a certain amount of material in the hands of the teacher dealing with a certain subject. However, if not well selected and graded, much work is required before it can be used. A combination of these methods is necessary for the efficient use of the aids. The arrangement should be based primarily upon unit sets of material directly related to the subject and grade in the course of study. The size of the sets of material should be reasonably small. It seems well to limit the number of individual units in a set to twenty-five. These sets can be further divided into units of five.

The material can be filed according to subject, by number classification, or by a combination of these methods. Each method has its advantages and disadvantages. In filing by subject matter the material is classified according to the subject under which it is to be filed. It can then be placed in the files alphabetically or by school subjects. As the material under a subject increases beyond the number which belong in a unit, it is sub-divided into smaller units. An objection to this method is the difficulty of selecting suitable subject

(*Concluded on page* 11)

Units of Instruction for Teacher Training Courses (No. 1)

How are "Still" Projectors Selected, and Proper Focal Lengths Determined?

L. PAUL MILLER
Bucknell University, Lewisburg, Penna.

(A) *How are "still" projectors classified?*

Separate types of projectors are available for use with (1) glass slides, (2) film slides, (3) still films, (4) micro-slides, (5) opaque objects.

Combination projectors are also on the market, for projecting two or more of these types of visual aids, or, both slides and motion picture films, by means of simple adjustments. Attachments to project film slides, stillfilms and micro-slides may also be secured, as added equipment for standard glass slide projectors previously purchased.

(B) *What factors must be considered in selecting "still" projectors?*

(1) They should be portable.

(2) They should be equipped with Mazda lamps of sufficient intensity. The lamps used in projectors range from 100 watts to 1000 watts, but 500-watt lights are most commonly used. All standard lamps except the 1000-watt, should be designed for use with 110-115 volt lighting circuits.

(3) They should have projection lenses of proper "equivalent focal lengths" to give sizes of images desired on screens, at fixed projection distances.

Author's Note: — This is No. 1 of a series of units of instruction, for training teachers in use of projection equipment. The series is intended to pave the way for the organizing of teacher-training courses in "visual education" in the colleges, as laboratory courses. In this teaching of "visual education," emphasis is placed on the use of visual aids, such as opaque pictures, slides, and films which help to teach the mechanics of projection. There is also stress placed on individual practice, by student teachers, in use of projection equipment. No. 2 of the series will be entitled: "How Are 'Still' Projectors Used?"

Suggestions regarding the series will be very welcome.

(C) *What are "equivalent focal lengths?"*

The equivalent focal length, (sometimes designated as merely focal length, or lens focus, or abbreviated E. F. or F. L.,) of a lens or combination of lenses, is the measure of the distance from the lens to the point at which all rays passing through the lens form a sharp image. In a later unit, in our study of lenses, we shall measure focal lengths of lenses, and review the relationships between focal lengths, object and image distances, and sizes of objects and images. For the present these three fundamental laws should be learned:

(1) The size of the image on the screen is inversely proportional to the focal length of the projection lens, provided distance between lens and screen remains constant. In other words, the larger image on the screen is produced by means of the smaller focal length lens, at the same distance.

(2) The size of the image on the screen varies directly with the distance from the lens, provided the focal length of the lens remains constant. In other words, the larger image on the screen is produced at the greater distance, with the same focal length lens.

(3) The intensity of illumination of the image on the screen varies inversely as the square of its distance from the projector. In other words, the more brilliant picture is produced at the shorter distance, although it is of course smaller.

These three laws never change. They must be kept in mind when determining the focal length to use in projection. They will apply equally, of course, when we consider motion picture projection later. We first measure our projection distance, then determine the size of the picture we want on the screen, and then by reference to tables (at the close of this unit), find what focal length lens to use.

(D) *How does "daylight" projection, through translucent screen, differ from projection on opaque screen?*

For so-called daylight projection, the projector is a short distance behind the screen. Special types of "daylight" projectors are available, as well as projection lenses of different focal lengths. The focal lengths can be found by reference to catalogs.

Verbal Aids for Teaching This Unit

Dorris, Anna V., *Visual Instruction in the Public Schools,* pp. 167-171.

Catalogs of companies handling projectors. (See "A Trade Directory for the Visual Field," any recent issue of *The Educational Screen.*)

Visual Aids for Teaching This Unit

Samples of all types of "still" projectors.

Cut-outs from catalogs, of pictures of projectors. These can be projected on the screen, by use of opaque projector.

Motion picture films projected — *The Behavior of Light* and *Illumination* (Eastman Teaching Films, Rochester, N. Y.)

Individual Practice

Demonstration lessons, given before the class, on (1) "Reflection," and "Refraction," using units 2 and 3 respectively of the film *Behavior of Light,* and on (2) "Measurement of Illumination," using unit 2 of the film, *Illumination.* Refer to teachers' manuals accompanying these films. Construction of tests based on these film units should be part of the practice work.

Use of mirrors in opaque projectors, and vertical, or "overhead" projectors, to illustrate laws of reflection of light rays.

Use of lenses in glass slide or film slide projectors, to illustrate laws of refraction of light.

Measurements made of distance from lens to screen, and of widths of corresponding images on screen, for lenses of different focal lengths. Measurements made of different distances from lens to screen, and of widths of corresponding images on screen, for a lens of the same focal length. Results entered below.

Written Summary

Below are references to principal types of "still" projectors, taken from catalogs of dealers:

Type of Projector	Model:	Watts:	Focal Lengths:	Price:	Dealer:
(1) Glass slides only					
(2) Film slides only					
(3) Micro-slides only					
(4) Opaque objects only					
(5) Glass slides and opaque					
(6) Film slide attachment					
(7) Micro-slide attachment					
(8) Overhead					
(9) Slides and motion films					
(10) Slides, daylight					
(11) Slides and opaque, day					
(12) All combined, daylight					

Add:

	Distances From Screen:	Widths of Images:	Focal Lengths of Lenses:
1.			
2.			
3.			
4.			

(Compare your results with the following tables.)

Table I. For Opaque Objects
(6 x 6-inch opening)

Focus of lens in inches	Distance from projector to screen, in feet: 15	20	25	30	35	40	45
14	6	8	10¼				
15	5½	7½	9½	11½			
18	4½	6	8	9½	11		
25		4½	5½	6½	8	9	10

Table II. For Opaque Objects
(7 x 7-inch opening)

Focus of lens in inches	Distance from projector to screen, in feet: 15	20	25	30	35	40
15	6¼	8¾	11¾			
18	5¼	7	9	11¾		
25		5	6½	7¾	9¼	10½

TABLE III. FOR LANTERN SLIDES
(2¾ x 3-inch opening)

Focus of lens in inches	Distance from projector to screen, in feet: 15	20	25	30	35	40	45	50	60	70	80
6	7½	10	12½								
8	5½	7½	9½	11¼	13	15					
10	4½	6	7½	9	10½	12	13½				
12		5	6¼	7½	8¾	10	11¼	12½	15		
15		4	5	6	7	8	9	10	12	14	16½
18				5	5¾	6½	7½	8¼	10	11½	13
20				4¼	5	5¾	6½	7¼	8¾	10¼	11¾
22						5¼	5¾	6½	8	9¼	10½
24						4¾	5¼	6	7¼	8½	9¾

TABLE IV. FOR STRIP FILM
(0.687-inch opening)

Focus of lens in inches	Distance from projector to screen, in feet: 5	7½	10	15	20	25	30	35	40
2½	1¾	2½	3½	5¼	7	8¾	10½	12¼	
4				3¼	4½	5½	6½	7½	8¾

What focus of lens is needed for each different type of projector, to secure a picture on the screen of a certain width?

To determine what focus or equivalent focal length of lens to use, in a projector, refer to table below for that type of projector. Find distance in feet from screen (in horizontal line at top of table) corresponding to distance you have the projector from the screen when using it. Then go down the vertical column under that distance, to the approximate width of picture that you want to project on the screen. The focus of lens, in inches, in the first vertical column, on a horizontal line with the desired width of picture, is the focus you want to use. This is important, in ordering the right lenses, when buying new projectors.

If you already have a projector, equipped with a lens of a certain focal length, reverse above procedure, to find what distance you must be from the screen to get a picture of a certain width, or what width you can get at a fixed distance.

In ordering screens, for projection, be sure to use these tables to determine what sizes to get.

National Academy Meets in Washington

The thirteenth annual meeting of the National Academy of Visual Instruction is to be held February 23 and 24 in Washington, D. C., concurrently with the meeting of the Department of Superintendence of the N. E. A.

The headquarters for the Academy will be at the National Press Club, where the regular and luncheon sessions will take place. The auditorium of the club is equipped with complete projection facilities and will be available for the use of speakers who wish to project films or slides with their discussions.

The first session will convene at ten o'clock on the morning of February 23, followed by another in the afternoon. There will also be meetings next day, February 24, consisting of a regular session at ten o'clock, a luncheon at 12:30, and an afternoon meeting which will be devoted largely to the regular business of the Academy.

The two subjects which will receive particular attention and discussion are, the training of teachers in the use of visual aids, and the merging of various visual instruction groups into one strong organization—questions of paramount importance to the field.

All visual instruction workers and live educators are urged to attend the meeting, which promises to be the most significant since the original meeting at which the Academy was founded.

A detailed program of the sessions will appear in our February issue. For further information concerning the National Academy, write to Mr. Ellsworth C. Dent, Secretary, University Extension Division, Lawrence, Kansas.

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.

A University Talking Film Production

The use of talking motion pictures by educational institutions to acquaint alumni, benefactors and prospective students with the activities and advantages of such institutions is gaining widespread favor. The University of Chicago has been one of the first of the great universities to avail itself of such an effective publicity medium.

Their film, *Life on the Quadrangles,* produced by the Vitaglo Corporation, has captured the very essence of campus life at Chicago. The president and several of the college's outstanding educators are introduced. Students are shown in their classrooms, club-rooms, dining-halls, residence halls and favorite gathering places. There are glimpses of various activities and sports they engage in—music, dramatics, social affairs, archery, swimming, hockey, football, pep meetings, etc.

The University's educational plan, with its extensive library and laboratory facilities, its renowned museums, is thus brought to thousands of people in far-away places in a complete, realistic and convincing manner.

Women's Bureau Film

Behind the Scenes in the Machine Age is the title of a new three-reel motion picture available in both 35 mm. and 16 mm. from the Women's Bureau of the United States Department of Labor.

The picture deals with the general theme of human waste in industry, particularly as related to women workers. Special emphasis is given to technological changes as a possible factor in unemployment, unless a well-planned program of adjustment of workers displaced by machines is adopted.

The part played by the Women's Bureau in helping to avert human waste through its investigations of conditions pertaining to employed women and its standards formulated to promote their welfare, is also featured.

The beginning of the film stresses the rapid growth of industry in this country and the important industrial role now played by women in the Machine Age. National progress, however, is shown to be shadowed by human waste in industry, the causes and wide-spread effects of which are suggested in animated cartoons.

The Women's Bureau standards, making for the safe and efficient employment of women are outlined in a daily dozen rhymes for employers and are graphically illustrated by scenes in progressive plants showing women engaged in different industrial processes. Following this is a series of interesting and typical factory scenes to picture employers' efforts to cut down waste in production through the installation of labor-saving machines. A contrast is shown between hand and machine processes in the making and handling of everyday articles, such as silk hose, cigars, automobile cushions, crackers, cereal, lollipops, and so on. Definite figures tell the story of increased production and decreased numbers of women workers through the use of mechanical devices. A long-range program to keep workers from suffering, because of these technological changes, such ill effects as loss of jobs, wage cuts, monotony and strain, is advocated.

Non-Theatrical Field Offered Classic Films

The motion picture version of Rostand's *Cyrano de Bergerac,* in 8 reels, is available for non-theatrical bookings from Prime Pictures Corporation. This film, made in France on the original locations of the great drama with the co-operation of the French Government, should be of particular interest to French, English, and Literary departments or groups.

This firm also distributes the 8-reel opera-drama, *La Tosca,* filmed in Italy with Francesca Bertini in the immortal role, and Spiri's renowned juvenile classic, *Heidi of the Alps,* in 5 reels.

Universal's Basketball Series

With the waning of the football season, Universal will satisfy the sports urge on the screen with three Basketball single-reelers. These were made by one of the greatest basketball authorities of the United States, Dr. Walter Meanwell, mentor of the University of Wisconsin Basketball team, which is as much a by-word in the Middle West as Notre Dame is in football.

The first to be released is *Fundamentals of Offense,* which shows the University of Wisconsin going

through some snappy drill work, then finishing with a spirited game. The second in the series, *Defensive Play,* demonstrates the fine art of checking, blocking and team-play defense.

European Films for American Exhibitors

Numerous non-theatrical exhibitors have often desired to obtain certain foreign silent films on which they had heard favorable reports, but the procuring of such films was somewhat complicated for them. This situation has now been simplified by the establishing of a centralized booking system by Mr. George Schneider of New York, who has specialized in foreign films for considerable time.

Mr. Schneider is handling 80 outstanding German UFA productions (mostly with English titles) and many other European films. Since he is thoroughly familiar with all the pictures he handles, he can supply ample publicity material, an item which is sometimes lacking in the foreign field.

As especially fit for school and church showings, *Frederick the Great, Siegfried* and *Kriemhilde's Revenge* are recommended.

An Instructive Motion Picture

The General Biological Supply House of Chicago has produced a one-reel 16 mm. motion picture, *Vivarium Views,* which clearly shows how to establish an aquarium, a semi-aquatic habitat, woodland and desert habitats. There are also closeups of the animals which are placed in each one of these particular habitats and views of feeding these animals.

The film is available for loan to schools. Although it is designed primarily to assist teachers in the construction of a vivarium, it will be of interest to students also, since it depicts numerous intimate phases of the living plants and animals used.

New Releases in Educational Series

Further releases in the series of Bill Cunningham *Sports Reviews,* being distributed by Educational Film Exchanges, are *Canine Capers,* a graphic and humorous description of various breeds of dogs with shots of some champions, and *He-Man Hockey,* showing the training work of a professional hockey team and a thrilling game between the Boston Bruins and Detroit. The next sport in the series to be portrayed is that of automobile racing.

The latest addition to Educational's *Romantic Journeys* series is *Road to Romance,* in which Claude Fleming conducts a trip through the wonders of the Grand Canyon region, showing particularly some marvellous views of the famous Bryce Canyon, done in multicolor.

Vitaphone Studio Produces Juvenile Subjects

Six of the series of thirteen one-reel Booth Tarkington juvenile stories being produced for Warner Brothers, under the direction of Alf Goulding, have been completed. They are, in order of their release, *Snakes Alive, Batter Up, One Good Deed, Detectuvs, His Honor* and *Hot Dog.*

Seven-year-old Billy Hayes portrays the role of Penrod, and David Gorcey, son of the well known stage actor, Bernard Gorcey, that of Sam. Jackie Kelk is cast as Georgie Bassett, the "mama's boy", and Betty Scholar as Marjorie Jones. Tarkington's two little pickaninnies, Herman and Verman, are played by Paul White and Edward Edwards, respectively, while Ray Collins and Lucille Sears appear as Penrod's father and mother.

This series should have particular appeal to young audiences.

The Organization of a City Department of Visual Aids

(*Concluded from page* 6)

headings. The system of filing by numbers is usually based on the Dewey decimal system of classification. Such a system requires considerable study before it can be used, but it allows for unlimited expansion. The material for the elementary schools might best be classified according to school subject and grade. In filing, cataloging, and classifying the various aids it is well to identify each type by prefixing a letter to the number or title assigned to the aid. Thus an "F" before the title or number would indicate that the aid is a motion picture film while an "L" would identify the aid as a lantern slide.

Conclusion

The whole question of organizing a department of visual aids is a matter of studying each phase before attempting to place it into operation. It is a slow and gradual growth based on a careful consideration of the many factors involved. Each phase of the organization must be considered in its relation to the school system as a whole. Care must be exercised to prevent the department of visual aids from becoming an independent department in the sense that it does not fit in with the rest of the school system. As the organization is the foundation for the whole structure of the department, it should be built accurately and on solid ground.

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

A Study of Motion Pictures and Slides

The subjects for which motion pictures as a means of classroom instruction are most effective are geography, science and history, according to a study made by Albert H. Covell, superintendent of schools at Oneida. He found that there is also opportunity for use of motion pictures in the teaching of health, civics, shopwork and English.

The inquiry covered every school system in the State maintaining an academic department, with the exception of New York City. Of the 645 systems, 494 sent replies. These replies indicated that 26% of the schools are using motion pictures. Of those who have used motion pictures, 70 expressed satisfaction with the results, five expressed dissatisfaction, eight were indefinite and 44 gave no answer. The general opinion was that the use of motion pictures does not result in a decreased use of slides.

At the suggestion of A. W. Abrams, Director of the Visual Instruction Division of the Department, Superintendent Covell sought the opinion of officials in six places where motion pictures have had extensive trial. These places were: Buffalo, Pittsburgh, Cleveland, Schenectady, Kansas City and Batavia. In general, the officials were agreed that slides offer a more definite opportunity to make specific observations; that slides are likely to secure more complete preparation of the teacher than are motion pictures; that such matter should not be included in motion picture films which is not primarily the representation of motion or action; and that the qualities added to the instructional procedure by motion pictures which slides do not yield are life, vitality, continuity, motion and novelty.

The University of The State of New York Bulletin to the Schools contains a brief account of Superintendent Covell's study, but the complete report may be obtained from him by those who are interested.

Federal Supervision of Movies Advocated

At a movie conference held last October in Rome at the International Educational Cinematograph Institute of the League of Nations, under the auspices of the International Council of Women, recommendations were unanimously adopted to take steps to overcome the difficulties of blind and block booking, and to institute governmental regulation of film making. Mrs. Robbins Gilman, president of the Federal Motion Picture Council, and Mrs. Diehl, chairman of the Committee on Motion Pictures of the National Council of Women, were present and rendered valuable services in securing these resolutions.

Motion pictures also came in for their share of consideration at the general convention of the Protestant Episcopal Church at Denver. By an almost unanimous vote, the convention adopted a petition to Congress providing for the federal supervision of films in interstate and foreign commerce establishing higher moral standards to be applied before pictures are produced.

Programs for George Washington Bicentennial

Nation-wide observance of the Two Hundredth Anniversary of the birth of George Washington will begin February 22 and extend to Thanksgiving Day, 1932. While February 22 will be especially celebrated, Memorial Day, Flag Day, Independence Day, Labor Day, Thanksgiving and other days of historical significance will be devoted to programs portraying Washington's personality and career.

The Bicentennial Commission has prepared a booklet containing an outline of suitable programs entitled "Suggested Programs for the Bicentennial Celebration," which includes a comprehensive list of significant anniversaries of events associated with Washington and his contemporaries.

An exhibit of books, pamphlets, pictures and other objects connected with George Washington and his time has been undertaken by the Public Library of Washington, D. C., of which Dr. George F. Bowerman is librarian. The Bicentennial Commission announces that it will soon publish a special library bulletin showing pictures of several model exhibits and outlining methods by which the libraries can play an important part in the Bicentennial Celebration. This bulletin will be sent to every school and public library in the United States. Libraries are urged to start collecting all the data they have available on George Washington for similar exhibits.

One of the outstanding features of its program is the making of a motion picture of the life of George

Washington which is regarded as an accurate record of Washington's acts and of the customs, costumes and buildings of his time.

Survey on Visual Aids in Health and Physical Education

Mr. Franklin B. Hoar, of the Department of Physical Education at Taylor Allderdice High School, Pittsburgh, Pa., has compiled an extensive list of films on his "Survey on Visual Aids in the Field of Physical and Health Education" which should prove valuable to teachers in that field.

He has organized the film material into the following classifications: Health; Muscular and Skeletal System; Respiratory System; Excretory System; Nervous System; Circulatory System; Eyes, Nose, Ears, Teeth; Posture, Corrective Gymnastics; Nutrition; First Aid; Safety; Disease. Physical Education includes: Aquatics; Outdoor Sports and Games; Baseball; Football; Tennis; Golf; Track and Field; Tumbling; Wrestling and Boxing, Fencing, etc.

Information on the size, stock and sources of the films is given. Those who are interested in this list can obtain a mimeographed copy from Mr. Hoar at the above address.

Further Tests to be Made on Value of Sound Pictures

A study to determine the value of sound motion pictures in the teaching of General Science is to be made by Harvard University, co-operating with the University Film Foundation under a grant from the Carnegie Fund. The experiment will be conducted with classes taking General Science in the Junior High Schools of Lynn, Quincy, and Revere, Mass.

Three hundred students will be instructed with films and text books over a period of six weeks.

Six of the eight films to be used were produced by the University Film Foundation and the tests were devised by the Harvard graduate school of education.

Visual Education on Pittsburgh Program

A Round Table on Visual Education was conducted at the Pennsylvania State Education Association meeting December 28-30. President Wilber Emmert of State Teachers College, Indiana, spoke on "Present Status and Some Tendencies in Visual Education." Other addresses were: "Training Teachers in Service in the Use of Visual and Sensory Techniques," by C. F. Hoban, State Director of Visual Instruction, and "Responsibility of a School District in Financing a Visual Instruction Program," by Albert Lindsay Rowland, Superintendent of Cheltenham Township Schools. Demonstrations were given on the Use of Visual Aids in Geography, History, English and Science.

Mr. Hoban also contributed to the Graded School Department session with a discussion of "Visual Education as an Aid in the Development of Future Citizens." Mr. John A. Hollinger, Director of Department of Science and Visualization, Pittsburgh, put visual education on the program of the Agriculture Section with an address on "Visual Aids in Agriculture."

Mrs. Dessez Returns to Field

One of the prominent names in the educational field of pictures for more than a decade past is that of Mrs. Elizabeth Richey Dessez. For many years head of the Educational Department of Pathe, later with Fox-Case, Mrs. Dessez left the field entirely for a time. Her thousands of friends will be glad to know that this able and charming executive is back again in the field where she belongs. Mrs. Dessez is now with Beacon Films, Inc., New York City, who specialize in the production and exhibition of motion pictures for the non-theatrical field. Mrs. Dessez is Director of Public Relations.

Visual Aids in Social Work

The Social Work Publicity Council is an informally organized clearing house of information and ideas on publicity methods. One of their recent news bulletins emphasizes the power of cartoons, graphs, posters, symbols and pictures in conveying messages to the public. In Europe, puppets are commonly used as an aid to health and social education. The bulletin carries a news item on the availability of a new film on child welfare sponsored by the Massachusetts Society for the Prevention of Cruelty to Children.

Further information on the work of the Council can be secured by addressing inquiries to 130 E. 22nd Street, New York City.

Scotland to Have School Films

With the establishment of the Scottish Educational Cinema Society begins the first important movement to examine the teaching value of the film and to have the findings carried into effect in the schools. The aims of this society, which is mainly composed of teachers, are to investigate the place of the motion picture in education; to discover the best methods of

(*Concluded on page* 19)

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

New York State Education (December) "Standards for the Selection of Pictures" is the second of a series of articles by Mr. A. W. Abrams, Director of the New York State Visual Instruction Division, appearing in this publication.

If the most desirable results are to be secured with pictures, they must have certain characteristics, just as certain standards of language expression have been recognized. Mr. Abrams names the following standards for picture selection: truthfulness, authenticity, quality, significance and attractiveness.

High Points (November) "Organizing the Visual Instruction Program," by Harvey N. Smith of Abraham Lincoln High School, New York City, describes the functioning of the Visual Instruction Division of that city. The purpose of the Division is to assist and co-operate with the various departments in the use of visual aids. This work is divided into two parts: first, that of facilitating the use and distribution of equipment, and second, that of collecting and classifying information concerning available material. The writer is convinced that visual instruction has come to stay and that older methods must give way to the new. But, if any measurable outcome is to be expected, the teacher must know her visual material.

The Historical Outlook (November) "Slide-Making and the Social Studies Laboratory, III", by Annette Glick, Assistant Director, Visual Education Division, Los Angeles City Schools, completes this valuable series of articles on slide making. None of our readers actively engaged in visual work should fail to obtain these three discussions.

The Living Age (December) "America's Film Monopoly" discusses the increasing hostility of Europe to American production, particularly since talkie development. The editor writes that the American film industry had reached an impasse in 1927-28, with foreign markets falling off noticeably.

The talking film brought salvation. Not that it was discovered by some happy chance just at that time. The invention had been made long ago but it had not been adopted because up to that time there had been a good market for silent films. But, when the film industry noticed that its income curve had begun to drop, it accepted with pleasure the offers of new capital made by rich electrical manufacturers, although it had, of course, enough reserve funds to continue in business for some time. Now that the talking films were backed by the fine new money of the electrical industry, the conquest of the European films began in earnest. American or Americanized talkies were to rule the theatres of Europe. Americans bought or financed European theatres, supported or controlled film companies, and established their own studios to make talkies in European languages.

In the November issue of *Living Age,* Mickey Mouse again appears in the "As Others See Us" department. This time, however, there is only approbation for this rakish screen creature. Under the caption, "America's Comic Draughtsmen", we find an English viewpoint offered by Paul Nash, a contributor to the *Week-end Review* of London. He divides the cartoonists of America into three classes, whose work he describes as follows.

"The three principal channels of expression are the film, the newspaper comic strip, and illustrated books and periodicals. Through these mediums a constant stream of inspired nonsense gushes out. I say 'inspired' because American humor so often has that element of brilliant, spontaneous invention that is the essence of wit—something unlikely but instantly convincing; a percussion of ideas that fires laughter like a gun. Take, for instance, the daring absurdities created by Walt Disney in his Mickey Mouse cartoons. Disney's genius lies in his extravagant impossibilities; he has done more to release our inhibited consciousness than the solemn assurance of many psychoanalysts. It used to be thought unreasonable to want the moon; now, Mickey Mouse can just make an incredibly long arm and reach it down. Only the film could have given Disney his opportunities, but only a very gifted artist could have exploited them as he has done."

Educational Focus (October) This number contains two articles which should prove of particular value to our readers. "This Week's News in Pictures," by Edward Mayer, is an account of the work done by the Department of Visual Instruction of the University of California with *Current Events Illustrated,* a weekly filmslide newsreel, which was issued to a number of schools last year. Although this service proved to be a valuable and practical visual aid and fulfilled all expectations, it has been discontinued by the University for the time being.

In "Slide Making in the Classroom" Miss Muriel Pettit relates how her Physiology and Biology stu-

dents prepare their own lantern slides. This activity arouses greater interest and results in quicker learning of the illustrated subject.

Educational Focus is a quarterly publication issued by Bausch and Lomb Optical Company to all those requesting it.

Parents' Magazine (November) Dr. Fred Eastman's second article entitled, "What Can We Do about the Movies?", discusses the methods whereby the motion picture trust gained complete and autocratic control of the industry, and the possible remedies to defeat this trust. An excellent article for our readers who may need reminding of this crucial and ever-present situation.

The Oklahoma Teacher (November) "The Magic Carpet of Visual Education," by Mary Pruitt of Webster Junior High School, Oklahoma City, is an extended account of the tests made at Washington last summer to determine the value of visual education through the use of sound motion pictures.

International Review of Educational Cinematography (September) In this issue we find another installment of the investigation by Mr. Lucien Viborel in the Departments of France. Again we emphasize the importance of this writing to our readers. Prof. Lionello Petri's "Utilisation of the Moving Picture for Agriculture", supplemented by F. W. Albertson's and H. B. Reed's enquiries into this same field, offer a mass of vital reading. M. P. DeVuyst's "The Improvement of Rural Life and Cinema" is of particular interest to teachers employed in rural districts. Walter Gunther's, "The Film Lecturer in the Country" is, also, valuable to this group.

The report on "The Cinema and the School" is concluded in the November issue of this worthy magazine. The conclusions derived from the teachers' replies to the questionnaire are summarized briefly and offer a valuable contribution to the data on this field.

Book Reviews

The jargon of certain film critics indicates their satisfaction at crusading: they have founded their line of patter on the one word, *Job*. Probably, they experience a nice warm sensation of fearless virility each time they employ their pet "key-word:" and how they must feel "in the movement" by not shirking what they love to call the social urgencies!

CINEMA (By C. A. Lejeune. London: Alexander MacLehose & Co. Price 5s.) is an honest job of criticism out to tackle honest jobs of cinema! Well, well!

It's quite neat to believe in the film as only a celluloid job, but I happen also to believe in it as magic. What of the dark theatre, the hypnosis of the light oblong, the beams of the projector's lens tangling and twisting in space before they fall onto the screen?

It is important that our critics should learn that, so often, the actual images do not matter: it is what they suggest that counts. Poetically, cinema can be made into a far surer formula for strange loveliness than crystal gazing. In other words, can the true poetry of cinema be covered by the *Job* heading?

STARGAZING (By June Head. London: Peter Davies. Price 5s.) is a most joyous work written with a genuine love of the "screen magic." It is a great relief after a glut of books which are so true that one is puzzled to know what they are all about.

Other new film books over here include: TALKING PICTURES by Bernard Brown (Published by Sir Isaac Pitman & Sons. 12/6.) which is a sound if customary technical manual, WALKING SHADOWS by Eric Walter White (Published by The Hogarth Press. 2/6.) which is a long essay on the silhouette films of Lotte Reiniger, and CELLULOID by the excellent Paul Rotha (Published by Longmans. 7/6.)

OSWELL BLAKESTON.

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)

Titles of Films (Actors) (Producers)	For Intelligent Adults	For Youth (15 to 20)	For Children (under 15)
Anybody's Blonde (Dorothy Revier) (Action) Cheap concoction of crooked prize-fighting, night club villains, and cabaret girls — with mediocre acting and crude direction as chief features.	Worthless	No	No
Around the World in 80 Minutes (Douglas Fairbanks) (United Artists) Glorified travelog on oriental countries and peoples, skillfully made for fun, not information, but gives both. Continuous chatter by Dong, written by Robert Sherwood, with stunts, acrobatics, trick camera-work. Most entertaining travelog yet made. Long.	Entertaining	Excellent	Excellent
Beau Hunks (Laurel and Hardy) (4 reels) (M-G-M) Excellent nonsense comedy, burlesquing Beau Geste and Foreign Legion stuff. These amusing apostles of general futility are getting near the top among screen comics. Character work defter and surer, and they wisely avoid the risque and vulgar.	Funny	Amusing	Very amusing
Blonde Crazy (James Cagney, Joan Blondell) (Warner) Exploits breezy, brazen sophistication of young hero and heroine. Glorifies "easy money" racketeering as aim in life. No gun-play. Swindling by trickery instead. Hero faces jail at end, but still wins out by happy reconciliation with sweetie. Entertaining.	See it and think	Pernicious	No
Cheat, The (Tallulah Bankhead) (Paramount) Fine acting by heroine in cheaply sensational film. Happily married, gambling gets her financially involved with rich villain, who brands her in Oriental style and husband is tried for murder she commits. Everybody lavishly rich. Highly unconvincing.	Largely absurd	Doubtful	No
Compromised (Rose Hobart, Ben Lyon) (First National) Rich, self-made father forces son to begin at the bottom and live in suburb near factory. Falls devotedly in love with boarding-house slavey—orphan of disreputable mother—and fights all father's efforts to separate them. Rather human and interesting.	Fair	Good	Probably good
Deceiver, The (Ian Keith) (Columbia) Backstage murder-mystery-detective-thriller above average of its kind. Great dramatic star is also cruel Lothario and blackmailer. Two murders and a surprising solution make interesting complications. Good suspense. Probably unobjectionable.	Good of kind	Exciting	Doubtful
Delicious (Gaynor and Farrell) (Fox) Gaynor and Farrell again at their charming best in charming little story, about little Scotch immigrant girl and rich young polo-playing aristocrat. El Brendel, his valet, is a bit funnier and less silly than usual. Thoroughly enjoyable picture.	Excellent	Excellent	Excellent
Devil Plays, The (Jameson Thomas) (Chesterfield) Meaningless title for murder-mystery story that mystifies thoroughly, holds suspense to end, but otherwise mediocre. Role of the writer of mystery stories who solves the crime excellently played by Thomas, who should be used for better pictures.	Mediocre	Passable	Hardly
Dr. Jekyll and Mr. Hyde (Fredric March) (Paramount) March excellent in title role, also Miriam Hopkins as mistress, fine supporting cast, notable direction, extraordinary photography. But story is distorted, Hyde grotesquely exaggerated, his sex side heavily exploited—for maximum horror and repulsion.	Fine of kind	Very doubtful	No
False Madonna, The (Kay Francis, William Boyd) (Paramount) Traveling crook quartet assign Kay Francis to impersonate long-lost mother of rich young orphan for swindling purposes. Blind and mortally ill, his love and devotion revive her better self. Racketeering is made very unalluring. Human and convincing story.	Fair	Probably good	Little interest
Guilty Generation, The (Leo Carrillo) (Columbia) Gangsterism made unalluring. King racketeer, swaggering vulgarian, with Florida home a la Capone but only fear and unhappiness for family. His daughter and son of rival gangster make romantic complications. All is solved when old mother shoots her "hero" son.	Fair of kind	Hardly	No
Heaven on Earth (Lew Ayres) (Universal) Stupid title for mediocre film of feud between steamboat captains and poor white "river rats" living along shore. Melodramatic flood brings hectic climax and reconciliation between hero and foster father whom he had left for shanty life. Unconvincing.	Mediocre	Possibly	Hardly
Husband's Holiday (Clive Brook) (Paramount) Realistic little study of infidelity and unhappy marriage, done with seriousness, decency and humor. Not cheap, sexy, or sensational. Husband and wife work back to reconciliation quite convincingly. Much unhappiness throughout but entertaining.	Rather good	Unsuitable	No
In the Line of Duty (Sue Carol, Noah Beery) (Monogram) Second or third-rate Western, with stale Northwest Mounted story. Most of the acting is painfully inferior, and Noah Beery scowls, snarls, drinks and fights to excess.	Poor	Poor	No
Ladies of the Big House (Sylvia Sidney) (Paramount) Artificial, sensational story of innocent young married couple framed by gangster rival and crooked officials. Many reels of sordid prison life for women, death cells for men, made as harrowing as possible. Happy ending relieves agony only in part.	Sensational	Hardly	No

Titles of Films (Actors) (Producers)	For Intelligent Adults	For Youth (15 to 20)	For Children (under 15)
Men of Chance (Mary Astor, Ricardo Cortez) (Paramount) Exploits "big money" and Cortez as crooked, racetrack gambling hero, nearly beaten by "Countess" foisted on him by his enemies. But "love" comes and cures all. Chief merit John Halliday's acting of a minor role.	Cheap	Doubtful	No
Over the Hill (Mae Marsh, James Dunn) (Fox) The old-fashioned, very sentimental, village-life story of devoted mother's joy and sorrow over her four children could hardly be better done. Notable acting by principals. Genuine, convincing, wholesome, but very sad and depressing in parts. Happy ending.	Fine of kind	Good	Too mature
Nice Women (Sidney Fox, Alan Mowbray) (Universal) Pleasant little realistic comedy. Poor but ambitious family tries to marry off older daughter to rich and charming man. Complications enable younger daughter to marry him instead. Two notably well-played roles. Some objection, but total effect good.	Light but good	Probably good	No
Peach O' Reno (Wheeler and Woolsey) (RKO) Fast farce, with hokum, shady wisecracks and usual horseplay of these "stars". Mostly burlesque of Reno and divorce, with the stars as crack-brained divorce lawyers. Quite laughable or boring, depending on one's taste in amusement.	Depends on taste	Doubtful	No
Private Lives (Norma Shearer and Robert Montgomery (M-G-M) Elaborate sex-exploitation. Divorced pair marry new mates. The two couples begin honeymoon at same hotel. Old love revives, original pair elopes to resume same old alternation of wrangling and amorous love-making for reels. Lively and humorous.	See it and think	Pernicious	No
Rainbow Trail, The (George O'Brien) (Fox) Typical and very ordinary Western, of complex struggle over gold fields in 1880. Usual thrills and dangers and deaths. Extraordinary for splendid photography of the Grand Canyon as background for the action.	Mediocre	Fair	Doubtful
Secret Witness, The (Una Merkel) (Columbia) Murder-detective-mystery rather above average and fairly free from objectionable elements. Ingenious crime, rather interestingly solved by heroine Methods of creating and holding suspense to the end not dramatically sound but quite effective.	Good of kind	Probably good	Doubtful
Sherlock Holmes' Fatal Hour (A. Wontner) (Warner) Poor title for English production of real interest, making Sherlock and famous fellow-characters convincingly true. Two Doyle stories woven together. Fairly good technique, good acting, slow tempo of real life, fine English finely spoken.	Interesting	Very good	Good
Sooky (Jackie Cooper, Robert Coogan) (Paramount) Interesting realistic, heart-interest story of little rich boy and poor boy, staunch pals. Mostly thoroughly amusing but very pathetic at times. Too much megaphone control makes the boys' speeches and actions rather unboylike in spots. Generally fine.	Interesting	Excellent	Fine but sad
Sporting Chance, The (Buster Collier) (Peerless) Racetrack story of no distinction whatever—the usual crookedness in owners and jockeys—the girl—hero wins final race in blaze of glory, etc. etc. Just another imitation film, made in a hurry for what it will bring in at the box office.	Mediocre	Hardly	Hardly
Strictly Dishonorable (Paul Lukas, Sidney Fox, Lewis Stone) (Universal) Charming, sophisticated comedy beautifully acted by the three principals. In part a strong argument in favor of "love" without marriage, but avoids the cheap or offensive. Fine dialog, fine direction, fine photography.	Interesting	By no means	No
Surrender (Warner Baxter, Leila Hyams) (Fox) Grim, depressing picture of life in German prison camp during great war, with romance furnished from nearby castle. Soundly realistic rather than sensational. Plot and action only fair, but total effect genuine. Excellent propaganda against war.	Fair	Probably good	Unsuitable
Tonight or Never (Gloria Swanson) (United Artists) Highly sexed comedy, typically made for Gloria's clothes, form, and voluptuous goings-on. Temperamental prima-donna needs "love" for sake of her art, chases and wins a lover, is instantly a greater artist next day, so marries him. Hardly notable.	Depends on taste	Pernicious	No
West of Broadway (John Gilbert, Lois Moran) (M-G-M) Rich hero returns invalid from war, finds fiancee marrying another. Hence, drunken orgy, marriage to gold-digger heroine—attempts divorce but good little heroine, really in love, wins out. Mostly mediocre entertainment, including the acting.	Mediocre	Hardly	No
Working Girls (Charles Rogers, Paul Lukas) (Paramount) Simple, direct story, attempting to be realistic and not sensational—but made worthless by naive direction, stupid dialog, and very dull acting. Paul Lukas wasted.	Stupid	Poor	No

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

Talkies for the Church

We note that Sacred Heart Church of Highland Falls, N. Y., has purchased a 16 mm. talkie reproducing outfit. The fact that a talkie reproducer operating with theatre-like efficiency can now be secured for less than $700, coupled with the availability of an increasingly satisfactory supply of educational and entertainment sound releases for use with it, points definitely to a serious consideration of talkies for church use.

One manufacturer's 16 mm. sound reproducer, using sound discs and, optionally, either a 400-watt or 375-watt projection lamp, projects pictures up to 16 feet wide with a sound accompaniment that will fill any church auditorium seating up to 2500 or 3000 people.

Movies Come in Handy for Meetings of Parish Organizations

A movie projector comes in handy for many meetings held in the church. Boy Scout gatherings, for example, are wonderfully "pepped up" by motion picture programs. A wealth of films for such occasions is readily available and the enthusiasm engendered makes for tremendously increased morale.

The other night an Illinois Boy Scout troop was given a treat with the following program of four movies: *America's Heritage,* a *Felix the Cat* comedy, *Why Be a Goose?,* a safety picture, and a *Grantland Rice Sportlight.*

Churches with boys' clubs can always find a means of stimulating interest and attendance by showing movies, and men's clubs and other adult organizations respond to movies seemingly just as enthusiastically, although of course the program pabulum has to be slightly different. We say "slightly" quite advisedly, for young and old often react with almost equal approval to Felix for example.

Of course, it goes without saying, the oldsters do not want everything on a comedy basis. In considering program material for adult organizations don't forget that there are many travel films available on a free loan basis. These can be secured from many steamship companies and travel agencies on request. The writer recently saw one picture of this character which he esteemed particularly worthwhile. It was called *Graf Zeppelin over Europe,* and was secured from the Hamburg-American Line.

For the missionary societies there is a comparatively large volume of mission films to draw from. A number of these are so broadly informative as to conditions in the countries depicted that they would be interesting to many adult parish organizations other than those strictly concerned with mission work.

A quite comprehensive list of such films is to be found in the "Sources of Religious Films" issued by the Bell & Howell Company, a copy of which will be sent free on request to the editor of THE EDUCATIONAL SCREEN.

Improved 16 mm. Silent Projection

The other evening at the football dinner of Northwestern University in the grand ballroom of the Stevens Hotel, Chicago, the writer had the pleasure of witnessing the showing of pictures sixteen feet wide with a 16 mm. silent projector.

The little projector weighing only about ten pounds was placed in the ballroom balcony opposite a screen regularly used for 35 mm. pictures, 160 feet away. The efficiency of the apparatus seemed little less than uncanny.

A short time ago it was the generally accepted opinion that 16 mm. projection was suitable for groups of 300 persons at most. Now, with the tremendously improved efficiency demonstrated by such a projector as that used at the Northwestern gathering, practically any sized audience can be satisfactorily served with 16 mm. film.

Obviously, this means that churches everywhere can use 16 mm. films effectively. They can use such films not only for group meetings, such as club and circle gatherings, but also for services held in the main auditorium of the church.

Change in Film Distributorship

We note an important change in distributorship of one of the most extensive series of religious films, including the *I Am The Way* and *Spirit of Christ at Work* pictures. The service formerly offered by the International Film Service, Inc., has been discontinued. The films may be drawn, however, from Beacon Films, Inc., 25 W. 45th St., New York; Religious Motion

Picture Foundation, 140 Nassau St., New York; and the Y. M. C. A. National Council Motion Picture Bureau, with offices both in New York and Chicago. The first mentioned of these sources, Beacon Films, Inc., also offers on a rental or "road show" basis a number of full length entertainment and educational features, specially selected for church use. The last mentioned, the Y. M. C. A. has about 500 excellent free and rental (silent) 16 mm. films. Catalogs will be sent by these organizations, upon request.

McAll Mission of France Uses Movies for Securing American Support

This interesting invitation card is used by the American McAll Association to secure attendance for showings of its film *Sunshine and Shadow in France*.

"This card," says C. G. Bittner, Field Representative of the association, "will be distributed during the next six months to the congregations of hundreds of churches, to young people's societies, meetings of Boy Scouts, Girl Scouts, and kindred organizations."

SUNSHINE and SHADOW in FRANCE

A motion picture film presented by the American McAll Association in behalf of the Mission Populaire Evangelique (McAll Mission of France).

Depicting:

1. France as the tourist sees it.
2. France as it really is.
3. Timely views of the Colonial Exposition.
4. The program of Christian service in the McAll Mission for thousands whose lives are spiritually barren.

The little girl holding the Filmo camera which was used in making the film enjoys, so we are told, the French nickname of Dédé. We are sure it was a proud moment for her when she was permitted to hold the "appareil" and look through the viewfinder.

News and Notes

(*Concluded from page* 13)

using films; to determine the most suitable type or types of projection apparatus and screens for use in schools without electric power, and to collect and distribute information regarding films suitable for school use. It is proposed to establish a library of educational films by collecting and re-editing for school use non-inflammable copies of films at present available, and by preparing for teaching purposes films not available through trade channels. Membership in the library will be open for educational purposes to schools, educational bodies, juvenile organizations, and individuals.

Educational Film Congress in Paris

A national congress of educational film was recently held in Paris at which every aspect of the educational use of films was considered and important resolutions taken toward obtaining closer co-operation among the various bodies using or distributing films as a means of education. A permanent commission has been instituted to insure contact between the official or semi-official regional and departmental film libraries. It is hoped that this will put an end to overlapping and dispersed efforts, to the waste of money, and to petty rivalries.

It appeared during the Congress that there are now in France 6,000 projectors in various institutions using educational films.

Films for Washington and Lincoln Programs

NOTICE is given in the *News and Notes* Department of this issue of plans for Washington Bicentennial programs to begin on February 22. We offer the following list of films, with brief description, as suggestions to those who desire to use appropriate motion pictures in connection with such programs.

George Washington, His Life and Times (A series of four 1-reel subjects) The official motion picture life of George Washington, distinguished for its historical authenticity as well as for its vivid story. The film emphasizes those features in the life of Washington which reveal his character and which reflect the conditions and spirit of his times. Many of the scenes were taken where the original events actually occurred. Available in 16 mm. and 35 mm. from Eastman Teaching Films.

Washington, The Man and the Capital (2 reels) Specially produced for the Bicentennial Celebration with Clarence Whitehill playing the title role. Many scenes photographed on exact historical spots. Distributed by Warner Brothers.

Yale Chronicles of America—The Gateway to the West (3 reels) Washington as a youth; **Yorktown** (3 reels) Washington during the Revolution, showing the surrender of Cornwallis; **Alexander Hamilton** (3 reels) Washington as the first President of the United States. Available in 16mm. and 35 mm. from Yale University Press Film Service and Metropolitan Museum of Art; in 35 mm. only from Iowa State College and Wholesome Films Service.

George Washington (1 reel) One of the American Statesmen Series. Distributed by Edited Pictures System, A. Joseph Grobarick, Pinkney Film Service, QRS-DeVry Corporation, Wholesome Film Service, Y. M. C. A. Motion Picture Bureau. May be obtained in either 16 mm. or 35 mm. Bell and Howell Co. and Iowa State College have this subject in 16 mm. only.

Betsy Ross (5 reels) Story of Revolution days and the Quakeress who at Washington's personal request, made the first American flag. Available in 35 mm. from Edited Pictures System, A. Joseph Grobarick, Pinkney Film Service, Wholesome Films Service.

American Holiday Series—Washington (1 reel) An appropriate subject released by Fitzpatrick Pictures, in 16mm. and 35 mm., silent or sound.

The Son of Democracy (10 chapters, 2 reels each) Written, directed and produced by Benjamin Chapin, who enacts Lincoln role. Distributed by Church Film Co., Pinkney Film Service, Wholesome Films Service. 35 mm. only.

Land of Opportunity (2 reels) A moving incident in the life of Lincoln, with Ralph Ince as "Honest Abe". Distributed by Church Film Co., A. Joseph Grobarick, Pinkney Film Service, Wholesome Films Service. 35 mm. only.

The Highest Law (4 reels) Ralph Ince as Lincoln in a dramatic episode of Civil War days. Distributed by Church Film Co., Pinkney Film Service, Wholesome Films Service. 35 mm. only.

Abraham Lincoln (9 reels) A D. W. Griffith masterful production with Walter Huston in title role. Entire life of Lincoln shown. Released in sound by United Artists.

Abraham Lincoln (1 reel) One of the American Statesmen Series. Distributors are the same as for the reel on George Washington of the same series.

Lincoln's Early Life in Indiana (3 reels) Details of his early life in Indiana, including a pageant showing interesting incidents. Available from Iowa State College in 35 mm.

American Holiday Series—Lincoln (1 reel) Available in 16 mm. and 35 mm., silent or sound, from Fitzpatrick Pictures.

Bell & Howell Co., 1801 Larchmont Ave., Chicago.

Church Film Co., 28 Piedmont St., Boston, Mass.

Eastman Teaching Films, Rochester, N. Y.

Edited Pictures System, 130 W. 46th St., New York City.

Fitzpatrick Pictures, 729 Seventh Ave., New York City.

A. Joseph Grobarick, Trenton, N. J.

Iowa State College, Visual Instruction Service, Ames, Iowa.

Metropolitan Museum of Art, 5th Ave. at 82nd St., New York City.

Pinkney Film Service, 1028 Forbes St., Pittsburgh, Pa.

QRS-DeVry Corp., 4830 S. Kedzie Ave., Chicago.

United Artists, 729 Seventh Ave., New York City.

Warner Brothers, 321 W. 44th St., New York City.

Wholesome Films Service, 48 Melrose St., Boston, Mass.

Yale University Press Film Service, 386 Fourth Ave., New York City.

Y. M. C. A. Motion Picture Bureau, 347 Madison Ave., New York City.

SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

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

An Integrated Project on Copper, Utilizing Visual Aids in Various Forms

LOUIS A. ASTELL

THIS project was originated and tested by the author in schools at the secondary level. It may be used either as a special study of a base metal in chemistry courses, or as a more or less extended project for chemistry study clubs. It was used originally for a thorough integration between the chemistry of copper and its relationships with business, with literature, and with every-day life. It will be noted that certain metallurgical principles are given a clarity beyond the limits of the average high school chemistry text book.

The preparation of a scrap book, as a part of each student's assignment, may constitute a genuine advantage. These books may well represent the individual topics assigned and include annotated bibliographies of materials not otherwise included. Through such activities, students may find an awakened or an increased appreciation for this very important metal.

Chemistry departments which have limited library facilities may meet the problem of subject matter by placing all related materials on reserve, then giving over a few regular class periods to supervising the progress of the individual students. If no periodical indices are at hand, it will be necessary to locate, order, and catalogue available material. If there are students working on subject matter unrelated to this project, the time element may be adjusted by using students either engaged upon the project, or upon the unrelated work, to do all the cataloguing for both groups. In this manner the entire class may finish the work of assimilation and organization together. At the time of presentation for the copper project, all students may be given text assignments on the subject of copper and may serve as a critical audience. At the conclusion of the project suitable tests may be given. In schools where periodical indices are available, the problem of cataloguing articles in the current literature will be confined to the periodicals and pamphlets not listed.

Some notes for the paper on "Copper Markets" have been included for two reasons. First, the project was developed at a crucial period in the marketing of this essential commodity which has extended to the present time; and second, because the quotations suggest important considerations which in some instances, at least, tend toward being inaccessible.

Care should be taken in making the assignments of topics to meet the needs and interests of the individual students as far as possible. Before a given student has presented his paper, he should have an opportunity to see that portion of the film which pertains to his subject, otherwise a most beneficial treatment may not be made. It is believed that through the use of the many agencies at hand and from the many possible angles such subjects as this may be made more dynamic and more practical with a corresponding improvement in genuine educational values.

Equipment: One motion picture projector, 35 millimeter. General chemical apparatus and supplies.

Expenses: Under actual field conditions, the cost of this project was as follows:

Expressage on films	$1.79
Postage	.10
	$1.89

Schedule of Talks, Papers, and Films in Copper Project

General:

1. *Paper*: The Many Uses of Copper—a compilation from lists prepared by individual class members of the uses in homes, industries including agriculture. This paper and all others, by a student.
2. *Talk*: Life in the Copper Mining Districts of the United States, as I know it—by a student, a teacher, or some experienced person in the community.
3. *Talk*: General Relationships between Copper and Coal Mining Operations—by experienced person.
4. *Paper*: The History of Copper.

I. Mining:

5. *Paper*: The Occurrence of Copper—geological aspects.
   Reel I. *Prospecting.*
6. *Paper*: Copper Mining.
   Reel II. *Mining.*
7. *Paper*: Copper Production in the United States.
   "Arizona, Montana, Utah, and Michigan are the four leading states in the production of copper."
   "Cochise County (Arizona) has the highest valuation of mines in the state, the assessed valuation being $64,205,000.00. Prima ranks fourth." (See note under Paper No. 8.)
   Reel III. *Mining* (cont.)
8. *Paper*: Copper Production Beyond the United States.
   "Arizona produces 51 percent of the copper of the United States and 25 percent of the world's copper."
   From the Butte deposits in Montana come one-third of the copper produced in the United States and one-sixth of the world's supply.
   Reel IV. *Mining* (Cont.)
9. *Paper*: Properties of Copper. An analysis of high school and college text books for properties listed in each case represents a part of this study.
   Reel V. *Mining* (Concl.)

II. Milling:

10. *Paper*: Milling, including acid leaching.
    Reel VI. *Milling.*
11. *Paper*: Milling, including ammonia regeneration.
12. *Paper*: Froth Flotation in the Copper Industry.
    Reel VII. *Milling* (Concl.)

III. Smelting:

13. *Paper*: Copper Smelting.
    Reel VIII. *Smelting.*

IV. Refining:

14. *Paper*: Copper Refining.
    Reel IX. *Refining.*
15. *Paper*: Copper Wire.
    Reel X. *Refining* (Concl.)

V. Industrial and Other Aspects:

16. *Paper*: Copper Markets.
    This paper includes a discussion of the difference between stocks and bonds; the difference between making an honest investment and speculation such as has been witnessed in recent years; and an analysis of daily sales of leading copper stocks over a period of one month, together with any indicative information as to the general trend of the market.
    "The increase in the price of copper from 14.4 cents a pound in 1928 to 17.9 in 1929 was a big boon to production during the year."—Statistical quotations from "Mining Briefs", Arizona Daily Star, Tuscon, Arizona, Rodeo Progress Edition, February, 1930.
    "Copper at 10¾, lowest in 30 years." Headline of article, page 44, New York Times, September 16, 1930.
    "Export Copper is Reduced to 7¾c a Pound Delivered."—Headline, Chicago Tribune Press Service, New York, Sept. 10, 1931, to the Chicago Daily Tribune, September 11, 1931.
    "Custom smelters continue to supply metal at 7 cents for electrolyte in the Connecticut valley, but inquiry is largely confined to 1932 position."—Associated Press, Oct. 18, '31.
    "World Politics Act as Break on London Mart."—"Manchurian political news has also restrained business, while a pre-mature report of the breakdown of the copper conference brought a particularly sharp relapse of base metals."—Sidney Cave in the Chicago Tribune Press Service, London, Nov. 14, '31, in the Chicago Sunday Tribune, Part 2, page 5, Nov. 15, '31.

New York Stock Transactions

Principal Copper Stocks—December 12, 1931

Prev. 1931 High	Low	Div. yld. pct.	Bid	Asked	Description	Sales	High	Low	Close	Net chge.
58½	19½	7.7	19¼	19⅜	Am. Smelt(1.50)	2,900	19½	19	19	¾
43¼	10		9¾	10	Anaconda	14,500	10	9⅝	9⅞	¼
25⅝	6⅛		6	6⅜	Phelps Dodge	3,900	6⅝	6⅛	6¼	

17. *Paper*: Copper and Its Relationships to Electricity.
18. *Paper*: Copper in Mintage.
19. *Paper*: Copper in Building Construction.
20. *Paper*: Copper in Plumbing Industry.
21. *Paper*: Copper in the Automobile.
22. *Paper*: Copper in the Telephone.
23. *Paper*: Copper in Medicine and Health.
24. *Paper*: Copper in National Defense.
25. *Paper*: Copper in Literature.
    The reel on Prospecting in the Rothacker-Bureau of Mines film on "The Story of Copper" contains a poem, "The Call of the Prospector."
    "They boiled it in a copper to the half."—Bacon.
    "My friends filled my pockets with copper."—Franklin.

VI. Laboratory Demonstrations: For variety these demonstrations may be given between papers of Part V. (above), if the two reels on fabrication are not shown.

26. *Student lecture-demonstration*: "Electroplating Flowers, Insects and Other Objects."—See Lippet, Thomas, "Electroplating Metallic and Non-Metallic Objects," The Experimenter, 4:406, April, 1925.
27. *Student lecture-demonstration*: "Wood's metal" and a resume of other experiments of consequence pertaining to copper as found in the average high school laboratory manual of chemistry.

28. *Student lecture-demonstration*: Lipowitz's alloy. Formula: Bismuth 50%; Lead 27%; Tin 13%; Cadmium 10%. To this add 2 parts of mercury or somewhat more if a very fusible alloy is desired.

VII. Scrap Books:

VIII. Field Trip: The entire class or club should visit a copper or brass fabrication plant, or a copper mine, if possible.

Film Sources

I. The ten reels on "The Story of Copper" may be obtained from
   (1) Rothacker Film Corporation, 7510-14 North Ashland Ave., Chicago, Illinois, or from
   (2) The Department of Commerce, United States Bureau of Mines, at one of the following points:
      (i) Pittsburgh Experiment Station, Pittsburgh, Pa.
      (ii) North Central Experiment Station, University of Minnesota, Minneapolis, Minnesota.
      (iii) Intermountain Experiment Station, University of Utah, Salt Lake City, Utah.
   (3) American Museum of Natural History, 77th Street and Central Park West, New York, N. Y.

II. In the event that a copper fabrication plant is not near enough to make a field trip feasible, two reels on "The Story of the Fabrication of Copper" may be obtained through one of the following:
   (1) United States Bureau of Mines, as listed above.
   (2) American Smelting Company, 120 Broadway, New York, N. Y.

III. A shorter film study of copper may be had in place of the 10 or 12 reel study outlined above, from:
   (1) Y. M. C. A. Motion Picture Bureau, 347 Madison Ave., New York, N. Y., or from the
   Y. M. C. A. Motion Picture Bureau, 300 W. Adams Bldg., Chicago, Illinois.
   These specific films are:
   No. 1126: Copper Mining and Smelting. 1 reel.
   No. 1127: Refining and Manufacture of Copper. 2 reels.
   (2) American Museum of Natural History, 77th Street and Central Park West, New York, N. Y.
   "From Mine to Consumer"—produced by the Anaconda Copper Company.

References

A. General

Chemistry in Industry, Volumes I and II. Chemical Foundation.

Chemistry Texts:

(1) *High School*: Black and Conant; Bradbury; Bruce; Brownlee and Others; Gordon; Holmes and Mattern; Kendall; McFarland; McPherson and Henderson; Newell.

(2) *College*: Noyes; Smith.

Copper and Brass Research Association publications:

Address: 25 Broadway, New York, N. Y.

(1) "A Real Home," 43 pages, 9th Edition, 1927.

(2) "The Story of Yesterday and Today Writ in Brass, Copper, and Bronze," 14 pages.

(3) "The Story of Copper."

Encyclopedias: Britannica, Compton's, International, Winston, World Book.

B. Periodicals:

Chemical Magazines of Local Areas

Chemist Analyst

Blanc, Allen H., "Copper in Antimony Lead Alloy," 18:5, (July 1, 1929)

Lloyd, J. D., "Plan: Control Methods for Analysis of Copper and Lead Ores," 19:4-6, Jan., 1930.)

Smith, E. H., "The Idiometric Determination of Copper," 18:6-7, (July, 1929.)

Chemistry Leaflet

"Copper in the Stock Market," 1:20, (March 5, 1928.)

"Manganese-Copper, Silicon-Copper, Chromium-Copper," 2:5, 6, 18, (March 25, 1929.)

Journal of the American Chemical Society

Lears, George W., "Critical Studies on the Fusion of Rare Metal Ores," 51:122-129, (Jan., 1929.)

Maier, Charles G., "Oxide Cells of Cadmium, Copper, Tin, and Lead," 51:194-207, (Jan., 1929.)

Frolich, and Others, "Studies of Copper Catalysts Prepared from Precipitated Hydroxide," 51:61-5 (Jan., 1929), and 51: 187-93, (Feb., 1929.)

Richards and Phillips, "The Atomic Weight of Copper from the Lake Superior Region and from Chile," 51:400-10, (Feb. 5, 1929.)

Bery, Edgar New, "The Single Potential of the Copper Electrode," 51:1315-22, (May, 1929).

Halford, J. O., "Triaxlmethyl Carbonates. Catalytic Decomposition in the Presence of Copper," 51: 2157-9, (July, 1929.)

Journal of Chemical Education

Howard, J. W., "The Story of Copper," 6:413-31 (March, 1929).

Keyes, D. B., "How New Chemical Products are Invented," 6:2178-80, (Dec., 1929).

Sullivan, J. D., "Leaching Copper from Its Ores," 8: 829-47 (May, 1931)

Whiteley, Frank A., "Chemistry in the Copper Mining Industry,"—a winning high-school essay, 4: 1145-9, (Sept., 1927).

Journal of Industrial and Engineering Chemistry

Frolich, and Others, "Studies from Copper Catalysts Prepared from Precipitated Hydroxide," 21: 109-12, (Feb., 1929).

Howard and Dunn, "Crystalline Changes in Copper Due to Annealing," 21:550-3, (June, 1929).

Science Education
Krueger, Roy, "Copper"—a poem, 15:245 (May, 1931).
Review of Reviews
Gammon, William E., "Copper—Can now be made hard," 84: 58-62 (Oct., 1931).
World's Work
Wilhelm, "Things I didn't Know About Brass,"—A trade article, 229- (June, 1927).

No attempt has been made above to indicate use of that invaluable visual aid, the lantern slide. Obviously slides are indicated at many points in the project. Slides are available from many sources, illustrating practically every detail and aspect of this study, and stereopticons are exceedingly common in schools today. It is needless, therefore, to point out that excellent use of appropriately selected slides can be made throughout the work—especially in connection with the "talks", "papers", and "student-lecture demonstrations." Selection of such slides from accessible collections is an additional activity that is educationally valuable for the student in his work on this project.

Film Review

Because teacher-training in the use of visual aids is a fundamental necessity for the right future development of visual education, Electrical Research Products, Inc. has wisely devoted many of its first film productions to this field. These subjects cannot fail to enlighten all those engaged in or concerned about the education of America's coming generations. Such films will be interesting, of course, but enormously instructive also as to changes of method going on in modern teaching and the reasons for such changes. The logical audience, which should see these films sooner or later, includes not only the whole rank and file of the teaching profession but P. T. A. groups throughout the country and every parent who has an intelligent interest in educational progress.

We have recently enjoyed a viewing of one of these subjects entitled:

The Teaching of Reading (2 reels) The professor who appears in the film and conducts the entire discussion and explanation is Dr. Arthur I. Gates, of Teachers College, Columbia University. He first sets forth three important differences in purpose between modern methods and the old—(1) to achieve immediate perception of word-phrases as a whole, without study of isolated letters, sounds and words; (2) to develop oral reading so that it is as natural and informal in school as outside; and (3) to make reading a component part of other activities rather than an isolated end in itself.

Professor Gates then retires from the picture and we see actual class activity by teacher and pupils, as

the new methods are used in the Fox Meadow School at Scarsdale, N. Y. First, a topic is proposed that has lively appeal for the children—a circus! Do they want to create a circus, draw pictures for it, write about it, read about it? They do! Almost instantly the room becomes alive with interest, teeming with mental activity. The children announce needed steps in the procedure—teacher writes the announcements verbatim on the blackboard. These are read and re-read by individual pupils and it is evident that all the pupils are busy at the reading, not merely the child speaking. New and difficult names of objects are associated with the pictured objects. Supplementary matter is needed from books and notebooks—more reading, eager reading, reading for a purpose! And when a youngster has occasion to read aloud to the class a paragraph pertinent to the subject of "circus", it is no longer in a voice that is wooden, formal and self-conscious, as of old. He is not trying to get some oral reading done because the teacher requires it—he is using his newly acquired art to tell his fellows something worthwhile, something that contributes to the work in hand. He reads now to accomplish bigger things than merely "to read."

Such a film as *The Teaching of Reading* will make

A Reading Lesson on "The Circus"

many a grown-up envy the children of Fox Meadow School—when he recalls the struggle of his own Primer and First Reader days.

A Lesson With Doll Slides in the Kindergarten

MARGARET L. CHAMBERLIN

THE following is a report of conversation, which took place between a group of kindergarten children and their teacher during the showing of a set of doll slides in color. This group of pictures was used by the teacher as an introduction to a study of family life among people, and later among animals. There are also other possibilities of further development in using this series, such as, an Indian project.

"In this first picture (1st slide), *what do we find the children doing?"*

"They are getting up, and a little boy is washing his teeth."

"Yes, Bobby is washing his teeth just as we do each morning, noon, and night." (Slide changed) *"But he hasn't enough water, so he asks who will get him some more."*

"And Florette says, 'I will, I will'."

"I'm sure that that is the way we like to do things for people when they ask. She is Bobby's little helper." (Slide changed)

"The first room that we saw was a bed-room. Is this the same kind of room or a different one?"

"It's a different one."

"Why?"

"Because the picture changed."

(All very true!)

"But what do we call this room?"

"It's a kitchen."

"What makes you think it is a kitchen?"

"We can tell because there is a stove over in the corner."

"Here we see Gretchen and Bess from Holland. What are they doing?"

"Getting breakfast ready for all the dolls."

(A dog appeared in the picture which caused the next remark from the children.)

"Will they give the dog something to eat?"

"Yes, of course, they want to share their meal with their pets, so they won't go hungry, and I think the dolls will eat about the same things for breakfast that we do, so let's tell what we had this morning." (Slide changed)

"I had cereal."

"I had two eggs."

"How many drank milk?" (Many hands went high in the air.)

(About six pictures had dogs in them, and the children counted them.)

"After the children finished eating breakfast under the shade of the umbrella, they began to play. (Slide changed) *So all the dolls with their week-day and Sunday clothes were gotten out and Florette wanted to play house and be the 'mama.' Bowser insisted on being the watch dog for the family.* (Slide changed)

"Here we see some boys going to school. How many are there?"

"Three."

A living *Washington* comes to the classroom

Thrilling motion pictures of his life...prepared for the Bicentennial...*now ready!*

A FLASH of light on the screen, and the thrilling drama begins.

Washington—boy, surveyor, colonel, general, president—becomes a living reality. In four fifteen-minute reels—available on safety film in both 16- and 35-millimeter widths—the class sees re-enacted the whole life story of the man who, through the sheer force of his character, brought a nation into being.

Both children and adults will cherish these pictures as precious memories. They were prepared, with great care, at the request of the George Washington Bicentennial Commission. They contain much material new to the screen.

You will want these films for your Bicentennial program, and for use in the years to come. Act now to insure their early delivery. Write for details and prices. Eastman Teaching Films, Inc., Rochester, New York.

Present Washington to your classes with all the vividness of actual experience. These motion pictures make textbook history leap into life and action, and are a valuable supplement to your regular teaching program.

Produced at the request of the
GEORGE WASHINGTON
BICENTENNIAL COMMISSION

EASTMAN TEACHING FILMS, INC.—SUBSIDIARY OF EASTMAN KODAK COMPANY

"What do they have on their shoulders?"

"Books."

"How are they fastened on?"

"They are tied on." "They are strapped on." (Slide changed)

"How many shoes are there?"

"Three—no, three pairs."

"And that makes six shoes."

"Let's count:"

"1, 2, 3, 4, 5, 6."

"Now comes wash-day. Mother usually washes on Monday. But these dolls are washing on Saturday, because one little doll wasn't careful and fell in a mud puddle."

"After they had worked hard, washing, they decided to play store. (Slide changed) *Perhaps we could have a store in our room, sometime, like the dolls."*

"And can we sell mud pies?"

"Well, we will sell something, even if we don't have mud pies."

"These dolls just did all kinds of things. (Slide changed) *Here we see the boys, Bobby and Ed, dressed up like Indians."*

"I have a pair of shoes like those."

"Who knows what we call this kind of shoe?"

"They are moccasins."

"Yes, and could you bring them to school for us all to see?" (Vigorous nod for answer)

"Here we see the children selling something besides mud pies. Here they have bouquets of flowers to sell."

"Bobby is bringing a bunch of violets."

"Yes, to give to Dolly Dimple when he visits her. You see Dolly has had her house re-decorated (slide changed) *that means she has had it painted and papered and all fixed up. She wants some one to make her a visit so badly."* (Slide changed)

"All the dolls have decided to call upon her."

"Yes, what are they doing?"

"Taking their trunk and suitcases."

"And I can tell you they are very polite little guests. Everyone has such a good time there, too." (Slide changed)

"What do you suppose Dolly Dimple is saying?"

"She asks them to come again."

The theme of the pictures, expressed in a musical way, was sung by the children with vastly greater gusto, thanks to the slides.

The above is offered merely as an example of thorough "participation", instead of "recitation."

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.

An Important Development in Non-Theatrical Film Distribution

The most serious handicap in the non-theatrical field has always been the lack of an adequate distributing channel. The organization of Educational Talking Pictures Company, Ltd., New York City, marks the first definite effort to establish an extensive and centralized distributing service of motion pictures for the non-theatrical field.

Its purpose is to obtain motion pictures of every type, including entertainment, educational, industrial, religious and scientific reels from all possible sources, and to make these films available. Because of the company's resources, it is able to secure the finest productions from not only the major motion picture producing organizations, but also from the independent and the individual producers.

It is significant that this new firm has acquired the distribution of the educational sound films produced by Electrical Research Products, Inc., which are classified under the following topics: Teacher Training, Natural Science, Music Appreciation, Physics, Mathematics, Vocational Guidance, Physical Education, Catholic and Protestant Education and Civics. Other material available include feature films from Fox and Paramount which are especially suitable for non-theatrical use, many series of talking comedies, and travelogues.

Educational Talking Pictures Ltd. is planned as a clearing house of motion pictures for the non-theatrical users.

Slides on Washington

To aid in the Washington Bicentennial, Eastman Educational Slides have just released three new sets of glass slides on Washington's character and deeds. The titles of the sets are *Washington and the Declaration of Independence, Washington and Five Colonial Artists,* and *Washington in Peace.* Planned along strictly educational lines, these slides should be of value not only for the celebration during 1932, but for permanent class use.

A new series of slides in biology is being planned by Eastman, the first of which, *The Living Green Plant, Photosynthesis,* is now ready. Other unit sets comprise Latin, on which is placed special emphasis, History, Social Science, English Classics, Art and Assembly.

A New Enterprise in the Talkie Field

Talking Picture Products Company, Chicago, announces their appointment as distributor for the Holmes Portable and Auditorium Sound Projector.

The Holmes Portable Sound-On-Film Projector can easily be operated by one man. It is light in weight and compact. The designers have worked with the idea of portability constantly in mind and the experience of twenty years in projector building has taught them that this factor is only less important than quality.

Three types of equipment are available for audiences up to 3000 prsons. The two smaller types are completely AC operated, requiring no batteries of any kind. The larger size uses a smaller storage battery for exciter lamp excitation and this type of apparatus is suitable for large audiences.

The Imperial Sound Projector and Sound Unit is for permanent booth installation and two types are offered; the Standard Size for Auditoriums of less than 1200 seating capacity and the Super Size for the larger Auditoriums.

School Presentations

Talking Picture Products Company has inaugurated a Presentation Department. Complete sound projector equipment and film subjects will be supplied on a rental or percentage basis to school or church organizations desiring to sponsor an educational entertainment talking picture program.

Filmo Model JL Projector Announced

Bell & Howell Company announces the Filmo Model JL projector—a slight modification of the recently developed Model J—which permits the use of the new 400-watt biplane filament lamp just perfected by lamp engineers after years of experimentation.

In this connection the Bell & Howell Technical department states:

"Increased brilliance, plus uniform direct illumination on every fraction of the screen area, are brought to 16 mm. projection by the new lamp. This impor-

(*Concluded on page* 32)

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

Columbia Pictures Corp. (3, 6)
729 Seventh Ave., New York City
(See advertisement on page 28)

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 27)

Edited Pictures System, Inc. (1, 4)
130 W. 46th St., New York City

Ideal Pictures Corp. (1, 4)
26 E. Eighth St., Chicago, Ill.

Mac Callum, Inc. (3, 6)
132 S. 15th St., Philadelphia, Pa.

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.

Rowland Rogers Productions (1, 4)
74 Sherman St. at Harris Ave.,
Long Island City, N. Y.

Society for Visual Education (1, 4)
327 S. LaSalle St., Chicago, Ill.
(See advertisement on inside back cover)

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 24)

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
300 W. Adams Bldg., Chicago, Ill.

MOTION PICTURE MACHINES and SUPPLIES

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

Mac Callum, Inc. (3, 6)
132 S. 15th St., Philadelphia, Pa.

Regina Photo Supply Ltd. (3, 6)
1924 Rose St., Regina, Sask.

Talking Picture Products Co. (2)
666 Lake Shore Drive, Chicago.

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

Victor Animatograph Corp. (6)
Davenport, Ia.

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

SCREENS

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

SLIDES and FILM SLIDES

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.

International Artprints
64 E. Lake St., Chicago, Ill.
(See advertisement on page 19)

Keystone View Co.
Meadville, Pa.
(See advertisement on page 23)

James C. Muir & Co.
10 S. 18th St., Philadelphia, Pa.

Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
(See advertisement on inside back cover)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 23)

Stillfilm Inc.
1052 Cahuenga Ave., Hollywood, Cal.

University Museum Extension Lecture Bureau
10 S. 18th St., Philadelphia, Pa.

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

STEREOGRAPHS and STEREOSCOPES

Keystone View Co.
Meadville, Pa.
(See advertisement on page 23)

STEREOPTICONS and OPAQUE PROJECTORS

Bausch and Lomb Optical Co.
Rochester, N. Y.
(See advertisement on page 25)

E. Leitz, Inc.
60 E. 10th St., New York City
(See advertisement on page 28)

James C. Muir & Co.
10 S. 18th St., Philadelphia, Pa.

Regina Photo Supply Ltd. (3, 6)
1924 Rose St., Regina, Sask.

Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
(See advertisement on inside back cover)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 23)

Stillfilm Inc.
1052 Cahuenga Ave., Hollywood, Calif.

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

THE EDUCATIONAL SCREEN SERVICE BUREAU

THE EDUCATIONAL SCREEN offers on this page a helpful service. Information on sources of supply for the items listed below will be furnished our readers on request. Fill out the coupon and mail.

(Note that sources for some of the equipment listed are given in the Trade Directory on the opposite page.)

A

Accoustical installations
Adapters, mazda
Advertising projectors
Amplifiers
Arc lamps, reflecting
Arc regulators

B

Batteries
Blackboards
Booths, projection
Bulletin boards, changeable

C

Cable
Cabinets
Cameras
Carbons
Cases, film shipping
Cement, film
Charts
Chairs, theatre
Condensers
Controls, Volume

D

Dimmers
Draperies
Dynamic Speakers

E

Electric power generating plants
Exhibits

F

Film cleaning machines
Film rewinders
Film slides
Film splicing machines
Film strips
Films, Educational
Films, Religious
Films, Entertainment
Films, Sound
Filters
Fire extinguishers
Fireproof curtains
Flares
Footlights
Fuses

G

Generators
Globes
Graphs
Gummed Labels

H

Horns

I

Ink, pencils for slides

L

Lamps, incandescent projection
Lamps, high intensity
Lamps, reflecting arc
Lenses
Lights, spot
Loud Speakers

M

Maps
Map slides
Mazda projection adapters
Mazda regulators
Microphones
Microphone attachments
Microscopes
Micro projectors
Motors, electric
Motor generators
Motors, phonograph
Motion picture cable

N

Needles, phonograph

O

Opaque projectors

P

Phonograph turntables
Photo-electric cells
Pictures, Prints
Posters
Projectors, lantern slide
Projectors, motion picture
Projectors, opaque
Projectors, portable, (16 mm.)
Projectors, portable, (35 mm.)
Public Address Systems

R

Rectifiers
Records
Record cabinets
Recording, electrical
Reflectors
Regulators, mazda
Reels
Reel end signals
Rheostats

S

Screen paint
Screens
Slides, lantern (glass)
Slides, film
Slide making outfits
Slide mats
Shades
Shutters, metal fire
Speakers, dynamic
Spotlights
Stage lighting equipment
Stage lighting systems
Stage rigging
Stage scenery
Stereographs
Stereopticons
Stereoscopes
Stillfilm

T

Talking equipment (35 mm.)
Talking equipment (16 mm.)
Title Writers
Tone Arms
Tripods
Turntables, phonographs

SERVICE BUREAU, THE EDUCATIONAL SCREEN,
64 East Lake St., Chicago, Ill. Date.....

Gentlemen: I should like to receive reliable information on sources of supply for the following items:

.....

.....

Remarks .....

Name .....Business or Profession.....

City .....State .....

Among The Producers

(*Concluded from page* 29)

tant lamp development means that improved projection quality is now available to all 16 mm. films. Especially in Kodacolor projection the superiority is marked, for the new lamp eliminates color wedging, lost color values, and color distortion.

"The use of the Biplane Filament Lamp is made practical by the combination of the highly efficient fan and aero-type cooling used exclusively in the Filmo Model J type Projector, and the new lamp will hereafter be supplied as regular equipment in the slightly modified Model J known as Filmo Model JL Projector.

"The 375-watt lamp may also be used in the Model JL, or in previous Filmo Model J's which have been adjusted for the new lamp, as there will be a marking for this lamp on the new voltmeter. The use of the 250-watt lamp will be eliminated, as the resistance will not take care of lamps with a wattage of less than 375."

Catalog of 16 mm. Sound Equipment

A comprehensive catalog of 16 mm. sound pictures available through the Filmo Library has just been issued by the Library Division of the Bell & Howell Co. Approximately 500 subjects are listed.

Many persons will be surprised to learn that so large a number of such sound films are available. The fact that producers have been so prompt in putting so great a volume of these sound releases on the market in the comparatively short time since 16 mm. talkie reproducing equipment was first perfected is an unquestionable indication of the great importance they are attributing to the 16 mm. sound field.

The subjects listed in the catalog cover a wide range. Many are strictly of an entertainment nature, while others are educational and informative. The listing will, therefore, be of interest not only to the users of sound equipment in the home, but to many others also, including educators everywhere. Many business concerns will find here excellent material to serve as a sort of appetizer in conjunction with their industrial sound picture presentations.

All subjects listed are sound on disc. A copy of the catalog, consisting of 33 mimeographed pages bound in an attractive cover, will be sent on request to anyone who sends eight cents in stamps to defray postage charges. Requests should be addressed to Library Division of the Bell & Howell Co.

A Pictorial Story of the Leica Camera

A new booklet teeming with action pictures which tells the fascinating and ever broadening story of the Leica Camera is now available from E. Leitz, Inc. Twenty rotogravure pages present Leica pictures which really speak for themselves in quality and illustrative value. Some of these pictures even show actual production methods at the factory where the cameras are made under the most exacting demands ever applied to a photographic instrument. Other pictures present a more general application of the camera which appeals to the amateur or professional photographic worker.

The entire 20 pages of this booklet are printed in rotogravure, thus preserving the fine detail of the many pictures which are reproduced. This booklet really tells the Leica story in Leica language; that is, by pictures made from original Leica negatives. Copies of this booklet, *A Pictorial Story of the Leica Camera,* may be secured by writing directly to E. Leitz, Inc., New York, N. Y.

Educational SCREEN

FEBRUARY ● 1932

CONTENTS

Single Copies 25c

● $2.00 a Year ●

Here's the finest school projection at lowest cost per year . . . . .

See the New Filmo Model J

. . . at the N. E. A. Department of Superintendence Convention

IF you could buy *one* projector to do all your school job . . . in the largest auditorium as well as in the smallest classroom . . . saving not only the cost but the booth space required for a theatrical type, standard projector installation, would there be any question about what visual education equipment to buy?

The new Filmo Model J Projector, complete with case, is priced at $297. Other Filmo Projectors for as low as $198.

Now, with the new Bell & Howell Filmo Model J Projector, you can have just such a machine. With its 100 up to 185 foot throw, its theater-brilliant flickerless projection of pictures up to twenty feet in size, its improved illumination that cuts through residual light and minimizes the need for room-darkening equipment, its compactness that steals no seating space, it ideally and economically meets auditorium needs.

And for use in the classroom, it can be picked up in one hand and carried to any part of the building for quick, convenient, intimate projection and effective visual instruction.

Among distinct new advantages are: silent 100% gear drive—no belts, automatic geared rewind, built-in pilot light, easy tilting, illuminated voltmeter, radio interference eliminator.

Filmo not only gives the most excellent of projection results with a remarkable operating convenience and simplicity, but it gives this superb school service at the lowest cost per projection year. Filmo economy has been thoroughly proved in schools from coast to coast. Precision manufacture and scientific design by the world's leading cinematographic engineers are the reasons behind Filmo's dependable operation and long life . . . the reason why it can be said that *no Filmo has ever worn out.*

See a demonstration of the new Filmo Model J Projector at the N. E. A. Department of Superintendence meeting, or at the nearby Filmo dealer's. You'll be convinced.

SEEING IS BELIEVING

The Bell & Howell Company will demonstrate the new Filmo Model J Projector at Booth 110, Washington Auditorium, Washington, D. C., during the meeting of the Department of Superintendence, National Education Association, Feb. 20th to 25th.

See this demonstration. Let your eyes prove that this new projector will solve your whole school projection problem.

BELL & HOWELL COMPANY,
1817 Larchmont Avenue, Chicago, Illinois

Gentlemen: Please send me ☐ Descriptive literature on the new Filmo Model J Projector for School Auditoriums; ☐ A copy of "Filmo Motion Pictures in Visual Education." The length of our auditorium from back (or booth) to screen is.....feet.

Name.....Position.....

School.....

Address.....

City.....State.....

Educational Screen

FEBRUARY, 1932

VOLUME XI NUMBER 2

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General and Editorial Offices, 64 East Lake St., Chicago, Illinois. Office of Publication, Morton, Illinois. Entered at the Post Office at Morton, Illinois, as Second Class Matter. Copyright, February, 1932, by the Educational Screen, Inc. Published every month except July and August.

$2.00 a Year (Canada, $2.75; Foreign, $3.00) Single Copies, 25 cts.

Model DC

Model VAC

Classroom LANTERNS

AT the N. E. A. Convention, February 20-25th, we will exhibit lanterns for projecting every type of still picture to meet every instructor's projection problem. Be sure to see our Model DC, for projecting glass slides, microscope slides and film slides, and our new Model VAC for projecting four types of material; opaque copy, glass slides, microscope slides and film slides.

You are invited to consult us on your projection problems at Booth No. 246, Washington Auditorium, Washington, D. C.

Visit us at Booth No. 246

Spencer Lens Company

BUFFALO NEW YORK

The Functions of a City Department of Visual Aids

ARNOLD W. REITZE

A WELL organized department of visual aids has many and varied functions in connection with the regular grade classes and the many special classes and departments within a school system, and in addition a number of functions which seem to belong solely to the department of visual aids.

The Primary Function

The primary function of the department may be briefly stated as: To supply any teacher from the kindergarten through the high school with the proper visual aids at the time when they will be most helpful as teaching devices.

The department is chiefly concerned with the work affecting the largest number of pupils. It should be organized and principally function around the regular classroom work. As this phase of the work is perhaps the best known, it has not been discussed at great length in this study. However, the department can furnish much valuable material to the teachers of the regular grade subjects of geography, history, science, civics, nature study, health, language, and other subjects.

Numerous Other Functions

In addition to the function of supplying the regular class teacher with visual aids, the department has many functions in connection with the special classes and departments within the school system. A number of these functions are presented in this study.

The department should prove a valuable asset to the art and drawing department as practically every lesson involves the use of visual aids. Many of these, including charts, films, slides, models, pictures, and posters, dealing with the work of great artists can be supplied by the department. Films can be furnished showing artist at work on paintings, sculpturings, and other similar activities. The department can also co-operate in arranging trips to museums and art studios.

There are a number of visual aids which the department can furnish for the use of the classes of foreign born pupils. These include lantern slides, which can be used as an aid in word study, as is done in the primary grades. In addition, numerous charts, films, and pictures dealing with citizenship, history, patriotism, and the operation of city, state, and federal government can be supplied. There is a possibility that with the further development of sound motion pictures these may be of value in teaching both the English language and the subject matter of the film.

The department can be of exceptional value to the continuation school classes as many of these students are of the type who cannot readily assimilate knowledge through the use of books or by the usual classroom methods. Films, pictures, and slides dealing with the many fields of business, trade, and industry can be supplied by the department to arouse the interest of these pupils. With this material much can be taught in a relatively short period of time. As time is an important factor in these classes, this material should be of real value. Class visits to industries can also be arranged.

The department can supply valuable material for the domestic science classes. In these classes there is much related information which it is desirable to teach. In order to have a well rounded course, a girl should have some background regarding the growing, packing, and marketing of the important food products. This can be effectively taught through visual aids, including, class visits to local food packing plants, markets and bakeries.

In the field of educational and vocational guidance the department can be of real service. For special classes of guidance a complete program of visual aids can be supplied. Visual aids on guidance can also be supplied for use in the regular classes. The department can furnish much educational guidance material, such as, films dealing with the various branches of special or higher education carried on by the city and films dealing with colleges and special types of schools.

In conjunction with the health program carried on in the schools, the department can supply charts, films, pictures, and posters dealing with all phases of health. This includes visual material of the health, medical, and sanitary work of the city. The department can

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Editor's Note: This is the second of a series of articles based on a Master's thesis prepared for New York University entitled, "The Organization, Functions, and Administration of a City Department of Visual Aids."

also circulate visual aids dealing with fire prevention and safety work.

A department of visual aids can be extremely useful to the industrial, technical, and vocational departments. These departments require much related information dealing with raw materials, industries, and finished products. Much of this information can be most effectively presented through the use of visual aids supplied by the department. The department can also arrange for class visits to industrial plants.

There are various aids which the department can furnish the music department, including song slides and various kinds of music charts. Films dealing with the lives of the great composers can be furnished for the advanced students. With the sound film it is possible to show and hear the works of the great composers as played by the leading orchestras of the world. There are also films dealing with the orchestral work of the individual instruments or groups of instruments.

The functions of the department in relation to the special classes and departments in a school system which have been briefly presented are but some of the many important functions. There are many other fuctions and many other ways in which the department can be of value to the special classes and departments.

Teacher Training

One of the functions which seem to belong solely to the department of visual aids is the training of teachers in the proper technique of using visual aids and equipment . This is one of its most important functions, as the whole success of visual material is based on the ability of the teacher to effectively use the aids. This function may be a cooperative one in cities which have a training school for teachers and a training program for teachers in service.

Teachers may be trained in the proper use of visual material through a regular college course or through short courses conducted by the department. Another method is to train, at the visual aids center, certain teachers from each school, who pass the information along to the other teachers in the school. This can be done by giving demonstration lessons to this group of teachers, and having them give similar demonstrations in their school. In addition, general meetings can be held to discuss and demonstrate certain basic principles. A training course for teachers should be basic in nature and should not be extremely technical. It should include a brief discussion of the educational and psychological value of visual aids, the types of aids, the selection and use of certain aids, and the testing and checking of the results from using visual aids. Teachers should also be instructed in the operation and care of projection apparatus. Such instruction may be a requirement for the use of the department's equipment. It might also include certification of the teacher by the department. In addition, much information can be given through various printed bulletins issued by the department.

Testing, Selection, Standardization of Aids

All aids and equipment should be carefully studied by the department and their apparent value as teaching devices should be kept on file. All aids and equipment should be given a thorough try-out. This can be done in test schools where the equipment can be tried out under actual classroom conditions. It is important that these schools be representative of the schools throughout the city.

Another function of the department is the selection and standardization of equipment. One method is to carefully examine and evaluate each type of equipment and then select one or two of each as standard. This is the type which is then placed in the schools. With this method, the equipment is usually purchased by the department and placed in the schools on a loan basis. Another method is to study the various aids, and place on an approved list, those which meet the standards of the department. Each school is expected to acquire its own equipment which is to be selected from this list. With another method, each school can acquire any kind of projection apparatus and use the aids circulated from the visual aids center. Certain departments circulate the equipment as well as the aids, which, needless to say, is not very satisfactory, as projection equipment is not well adapted to transportation. The plan for standardized equipment, purchased by the department and placed in the schools on a loan basis seems to be the most desirable method, all factors considered.

Acquisition and Care of Materials

The acquiring of the various visual aids is an important function of the department. There are many sources from which visual aids may be obtained. As complete a list of these sources as possible should be kept on file. This file can be divided into three sections and each section subdivided according to the type of aid. One section should list material which can be obtained free or at the cost of packing and shipping; another section should list material which can be obtained on a rental basis; and another section should list aids which can be purchased. As complete a set of the free material as possible should be ob-

tained by the department. This can be used to show the schools what they can acquire for their own use; they can be circulated, and they can be used as models, by the department, in preparing exhibits. The rental material can be used to determine whether it is worthwhile for the department to purchase. Material can be rented and tried out to determine its value. Such material as can be obtained only through purchase, should be studied carefully and if possible tested in the schools before it is bought. Much pictorial can be obtained from magazines, which can be acquired free or at small cost. The criterion of any visual aid is its educational value and unless an aid can meet this criterion it should not be acquired.

The department is responsible for the condition of the various aids and equipment. The aids should be carefully checked upon return from the schools and all necessary repairs made. Equipment should be given a periodic examination and the schools should be required to report immediately any machine which is not functioning properly. No school should be allowed to make any repairs or adjustments. Extra machines should be at the visual aids center which can be sent to the school to replace any machine which needs repairs.

Relating Visual Aids to Course of Study

Another important function is the relating of the various aids to the course of study. To be of the most value visual aids must be connected directly to the subject being taught. The department must arrange the material so it can be used most effectively. One method of doing this is through the use of committees for each grade and subject. These committees, composed of the leading teachers and possibly certain supervisors, act in an advisory capacity relative to the purchase, organization, and use of the aids in their subject and grade. One method of relating the various aids, to the course of study, is to arrange each type of aid into sets directly related to the subject or grade. These sets should contain only material directly related to the subject and they should be kept down to a maximum number of individual units.

Supervision of Use

The supervision of the use of the visual aids is also a function of the department. On the whole, supervision should be general for groups of teachers, principals, or special supervisors. Supervision should be limited to teacher training, demonstration lessons, the opportunity of observing classes taught with various aids, and assisting teachers in selecting the best aids. The department should work in co-operation with the various supervisors, rather than attempt to supervise the individual teacher. In this connection, the department can co-operate in preparing films, possibly with sound, dealing with the technique of teaching various subjects.

Additional Functions of the Department

The department can give much help in the matter of school publicity. Publicity concerning the activities of the schools is often neglected and too frequently the taxpayers know little of what is being done in the schools. The department of visual aids can do much to remedy this situation. The activities of all branches of the school system can very effectively be shown in pictorial form, particularly through the motion picture. The department can also keep a pictorial record of all important educational and civic events in the city.

The department can assist in the organization and presentation of special programs. These programs may include films, pageants, and dramatizations for holidays or special celebrations. The department can co-operate with certain civic organizations in presenting programs of an educational nature. The department can also arrange for material of a purely entertaining nature for the schools and it can issue a weekly list of recommended films for children.

The department must formulate tests and checks of various kinds to determine the effectiveness of the aids. These tests can be used to decide the relative value of each type of aid and in turn can be used in apportioning the budget. Rating or score cards for determining the value of certain aids must also be formulated. As few of these tests or rating forms are available it is necessary for the department to originate them. The department must carry on investigations and research covering the effective use of visual aids, better methods of using the aids, means of acquiring and devising new aids, and methods of filing, listing, checking and evaluating aids.

The department should have a complete file of catalogs and descriptions of the various aids and equipment. Such a file is indispensable in preparing specifications, comparing types of equipment, and in preparing talks and bulletins to be presented to the teachers. There should be a library, at the visual aids center, covering the field of visual aids in education. This is needed to study ways and means of improving the work of the department. The department should be an information bureau for all branches of the school system on matters pertaining to the use of visual aids.

In co-operation with the various supervisors the

(*Concluded on page* 45)

The Sound Film in Education

E. J. NALLY, JR.

SINCE the day that the stubby hand of that unknown Cro-Magnon artist sketched in polychrome a surprisingly life-like bison on the walls of a cave in what is now southern France, man has constantly added to his fellow man's knowledge through pictures of the life and happenings of the age in which he lived.

Framed by brilliant blues and reds that centuries have not faded, frescos on the walls of smothered Pompeii admirably reconstructed for the student of today the civilization of a long dead past.

On manuscripts of the finest uterine vellum, jewel-like miniatures recapture the gorgeous pageantry of the Middle Ages and the Renaissance. Costly as these manuscripts were, the urge for knowledge was so great that the scribes used half the goose quills in Christendom in their efforts to meet the demand, and literally thousands of folios were produced. Swiftly as the Black Death spread this lust for knowledge among the common people. The fifteenth century attempted to satisfy this yearning by printing on flimsy single sheets from crudely carved blocks of pear wood, religious and secular scenes which could be readily understood by the illiterate public. Not long after, the rush-strewn halls of countless monasteries echoed with expressions of wonderment from the sandal-shod monks at the contrast of Guttenberg's jet black ink against the virgin white pages of the hand made paper used in his magnificent forty-two line Bible. The rumble of this first press has been magnified into a mighty roar down the ages, to the eternal enrichment of mankind's store of knowledge.

Man's ingenuity has captured the ephemeral and elusive spirit of his age with paint and oil, graver and steel, acid and copper, chalk and stone, nitrate of silver and cellulose. By the means of these methods our common heritage of culture has been broadened and expanded until even the humblest may enjoy what was formerly destined for wealthy alone. The barriers of creed and color have been destroyed—the obstacles of physical geography have been leveled—the confusion of foreign tongues surmounted so that the student of today may survey the panorama of world without leaving the hall of study. The muddied perceptions which our great grandparents laboriously derived from the words of their preceptors and the somewhat turgid text books available, can, by the catalytic agent of the visual aids of today, be transmuted into crystal clear mental experiences within the easy reach of modern youth.

To such mental adventurers as Scheele, Farrup and Wedgewood is due the undying gratitude of generations yet to come. For handicapped as they were by clumsy tools, scanty and inaccurate laboratory equipment, their keen minds overcame these physical obstacles and, as a result of their several investigations, the process that we know today as photography came into being.

The insatiable curiosity which characterizes youth has been a trial at times to parents and a challenge to the ingenuity of teachers. The handmaidens of photography — photographic engraving, photo-lithography and the rotogravure have, by their vivid appeal, added more to the factual knowledge of these young inquisitors than a thousand involved explanations. The fortuitous combination of visual and aural appeal give the child a mental picture which only actual experience can duplicate or surpass.

The stereopticon, the stereoscope and their variations have illuminated countless school rooms with vignettes of life. The thin pointer in the hand of the teacher has probed, by means of the reflected image on the screen, into the organized tumult of our factories, the vast complexities of agriculture, the picturesque disorder of the studied precision of life in foreign lands. The complacent insularity of a static existence is shattered by these vistas. The finger of the classroom can, by its mere reaching, touch the pulse of the world and record for its own satisfaction and information, the powerful beats of commerce, industry, culture and all that goes to make up the world in which we live.

The creation of ancient structures in miniature, revitalizing antiquity, the eternal joy of creating with one's own hands, the molding in sand and clay, the drawing with paint and water, are such powerful teaching aids that scarcely a school in all the world does not utilize at least one or more of these methods to assist the teachers and text books in their cultural efforts.

The thousands of mutations made in photography, which germinated in the brains of later-day scientists, captured countless moments of world life for the edification of mankind in general. Yet, man was not

satisfied, for after all the still-picture explanation before him stood for but a single segment of events which were preceded and followed by many others —germane to the portion he possessed. How to animate the static scenes and figures which he had captured on plate and film was the problem.

Monuments to man's genius are seldom erected by a single hand, and the discovery of the motion picture is no exception to this general statement. As far back as 1864, a visionary Frenchman named Ducros patented a photograph theory which took advantage of the retentiveness of the retina of the human eye to give the illusion of moving pictures. Later inventors christened their brain-children "Phenakistoscopes," "Zoogryoscopes", "Zoetropes" with all the enthusiasm of discoveries in the field of animating the inanimate.

The sporting proclivities of a pioneer Californian, Senator Leland Stanford, coupled with a serious conviction that a trotting horse at one point in its gait left the ground completely, were behind one of the first serious attempts at motion picture photography. To the enrichment of the senator's purse and to the eternal glory of Edward Muybridge, this fact was proved to the satisfaction of even the most skeptical rail-birds. Muybridge placed a number of cameras, equi-distant from each other along the straightaway. Delicate threads connected with the shutter mechanism were stretched across the track so that as the body of the horse came in contact with the threads an exposure of the plate was automatically made. When the series had been developed, the movement of the animal could be reconstructed in its entirety.

No brief history of the motion picture could be made without mentioning the name of Thomas Edison whose inventive genius gave the world the first practical motion picture camera. The highly sensitized fine grained emulsion on film produced by the experts from the Eastman laboratories played an important role in this development. Scattered installations of this equipment were made with the result that the public took this new form of visual entertainment to its collective heart and the Nickelodeons of the land echoed with the audible enthusiasm of the patrons.

During the last decade, educational institutions throughout the world have taken an increasing interest in the application of technical and scientific discoveries to their methods and curricula. The antiquated "red school house" is rapidly being replaced by architectural triumphs in steel and stone, with the finest fittings and modern equipment. Coincident with the change of the physical appearance of the school, was an evolution in the classroom which would have startled educators of the last century. The inanity of learning by rote has been replaced by the individual treatment of a student, which has made vital and alive the subjects occupying his time and attention. To do this, every resource at the command of the modern educator has been brought into play—highly trained teachers, modernized school books, scientific equipment and countless emanations from the research laboratory.

No longer does the harassed teacher or professor need to visualize for the student the perception he should gain from the subject itself. The mechanical age of the printing press, lithograph, stereopticon and the motion picture makes it possible for the student to form his own perception.

The total amount spent by city and state bureaus for visual education in the United States during the last seven years ran well over five million dollars. In large cities such as Pittsburgh, Los Angeles, Detroit, St. Louis, sums ranging from sixty to one hundred ten thousand dollars are annually expended.

Teacher training classes for visual education are now available in seventy-one Normal Schools, State Colleges and Universities. Although the brunt of popularizing and supplying visual aids was borne by State and City bureaus, there is a trend toward the organization of units which independently service smaller cities and towns.

The advent of "sound" injected grave complication into the progress of visual education. A great quantity of educational silent film had been produced, both on standard 35 mm. and also 16 mm. Much of this film was the product of large foundations and various departments of the U. S. government. Naturally with so many producing forces and with so many self-appointed authorities on the proper presentation of educational material in films, there was a wide divergence in the quality. Production of educational films largely ceased as technical forces strove mightily to iron out the difficulties coincident with this new development. Educators cautiously refrained from indiscriminate approval until it had been proven to their satisfaction that the addition of sound to the motion picture was not a transient novelty, but a real force which required serious consideration on their part.

The burden of development rests jointly on the shoulders of commercial film producing companies and institutions especially endowed and equipped for research. The former, though motivated by less altruistic aims, are alive to the possibilities which the school field presents. The latter are prepared to devote time and money to effect the full florescence of this potent educational force.

Another powerful factor which presented a serious obstacle to the rapid utilization of sound in the school was the sound reproducing equipment itself. During the early days when the whole art was surrounded with a species of mumbo-jumbo which made the mysteries of the Black Mass pale into insignificance compared to it, the sums demanded and received for the installation of sound reproducing equipment in theatres would have awed any educator into a state of insensibility. Manufacturers are now marketing equipment at a more moderate figure which is well within the financial means of a large percentage of the educational institutions on this continent.

As a change from generalities, examine the following figures. There exist at this time close on to four hundred sound films produced solely for the consumption of the educational market. They run the gamut of subjects from Astronomy to Zoology. The majority of these films were directly supervised by important figures in the field of education and have been generally accepted as being valuable pedagogic contributions. The United States Government is also actively engaged in the production of educational sound films which will cover the many phases of departmental activity.

The limited number of installations of sound reproducing equipment in schools has hitherto precluded the possibility of making any exhaustive and comprehensive tests, embracing large numbers of students from widely divergent localities. However during the past year interesting tests were made both in England and in the United States.

Under the patronage of the president of the United States, the governors of the forty-eight states were invited to participate in a comprehensive test of the educational values of the sound film in public school education. The Fox Film Corporation, through whose courtesy these figures are quoted, arranged for the test to be held at George Washington University. From each state, including the District of Columbia, a boy and girl of grammar school age was selected. Since several alternates were included in the boys' section, their number amounts to fifty, whereas only forty-seven girls participated as one of the representatives did not attend all the tests.

The following films were shown:

1. One-reel picture, *Toads*, by Dr. Clyde Fisher, Curator of University, College and Adult Education, The American Museum of Natural History.

   This picture presented Dr. Fisher in a three or four-minute lecture in which he introduced the subject. This was followed by a series of pictures showing the development of toads through their life history, the pictures being accompanied by a running comment by Dr. Fisher.
2. One-reel picture, *Monarch Butterflies*, by Dr. Clyde Fisher.

   This picture was similar to the one on toads in that the subject was introduced in a preliminary lecture and the life history of a monarch butterfly was then shown through a series of pictures, the comments and explanations by Dr. Fisher continuing throughout the film.
3. Three-reel picture, *Volcanoes*, by Dr. Atwood, President of Clark University.
4. Three-reel picture, *Glaciers*, by Dr. Atwood.
5. Four-reel picture, *River Valleys*, by Dr. Atwood.

   These three pictures by Dr. Atwood show him giving blackboard demonstrations of his subject with now and then inserts of illustrative material concerning famous glaciers, volcanoes, and river valleys. These pictures are thus a combination of lecture and illustrative material.

The demonstration period extended over a period of four days. On the first day an initial test was given covering these subjects. On the three following days the children saw the five sound films—two the second day, two the third day and one the fourth day—and immediately following the showing of the films the tests were repeated.

The following results were tabulated.

1. The boys had considerable higher scores on the initial tests than the girls: the girls' final scores surpassed the boys in one of the tests. (Volcanoes)

2. Boys and girls made about the same average gain in three of the tests: the girls made somewhat higher in two tests.

3. On final tests after seeing the pictures, the boys and girls made an average gain of about 19 points on each test. Since there were 50 questions in each test, this is a gain of 38 percent.

4. The percent of gain made in the five tests ranged from about 42 percent on the test on Glaciers to about 607 percent on the test on Monarch Butterflies, with a total gain of about 115 percent on all five tests after seeing the films.

To give some indication of the ability of the group they were given Form A of the Terman Group Test of Mental Ability. The range of I.Q.'s for the boys was 94 to 158, for the girls, 87 to 137. The average gains for the five tests were computed for the lowest and the highest fourth and for the middle half of the group in order to show the amount of immediate

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Units of Instruction for Teacher Training Courses (No. 2)

How are "Still" Projectors Used?

L. PAUL MILLER
Bucknell University, Lewisburg, Penna.

(A) *How are glass slide projectors used?*

There are two kinds of glass slide projectors: (1) the usual horizontal projectors, and (2) the vertical, or overhead projectors. The former may also be used for "daylight" pictures, with translucent screens. The following discussion deals primarily with the ordinary, horizontal projection on opaque screens, from glass slides used in projectors placed in the rear of the spectators.

Glass slide projectors, also known as lantern slide projectors or stereopticons. and by various trade names, are among the simplest projectors to operate. Such a projector

(1) should be portable;
(2) should be equipped with a 500 watt, 110-115 volt Mazda lamp, for ordinary classroom purposes;
(3) should have a double slide carrier, so that a slide can be inserted while another is being shown;
(4) should have a projection lens of about 10 or 12 inches E.F. (equivalent focal length) for opaque screen, and
(5) should produce a picture 6 or 7 feet wide, when projector is placed about 25 feet from the screen.

Author's Note: This is No. 2 of a series of units of instruction, for training teachers in the use of projection equipment. No. 1 appeared in the last issue of THE EDUCATIONAL SCREEN. The units are selected from mimeographed material which has been in use in several colleges, in their visual instruction courses. The attempt has been made to bring together instructional material for such courses, which has been widely scattered, and to put the courses on a laboratory basis. Stress is placed on individual practice, by student teachers, in use of projection equipment. Comment is invited by the author of this series, on possibilities for fuller development of such a laboratory course, for teacher-training institutions. No. 3 of the series, next month, will be on the problem: "How Are Lenses Used in Projection?"

(B) *How are glass slides handled and cared for?*

Glass slides, as well as film slides and motion picture films, are placed in projectors up-side down and reversed; that is, so that lettering reads from right to left. This is for projection on an opaque screen. A few simple rules should suffice, for the handling and care of glass slides:

(1) Every slide should have a thumb-mark in what is the upper right-hand corner, when the slide is in correct position in the carrier.
(2) The operator faces the screen, from behind the projector, holds the slide with the right thumb on this mark, and places the slide in the carrier.
(3) He moves the carrier into place, so that all of the picture appears on the screen, and then places the next slide in the other frame of the carrier.
(4) A slide should not be left in the projector too long, since the heat from the Mazda Lamp may cause the glass to crack, or the picture to "run."
(5) A slide should be touched only along the edges, since finger marks are magnified on the screen.
(6) Every slide should be cleaned occasionally with a damp, soft cloth.
(7) Slides should be kept in partitioned boxes, or drawers of cabinets.

(C) *How are film slide projectors and film slides used?*

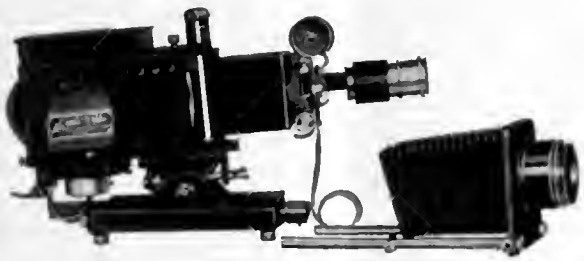
Both film slide projectors, and film slide attachments for glass slide projectors are available. Since film slide frames are much smaller than glass slides, they cannot be used to project pictures having the same size and brilliancy as those from glass slides. ("Stillfilms" are larger than film slides of the 35 mm. type, and produce larger pictures.)

With a 500-watt lamp, and a 4-inch focus lens, a picture can be projected about 5½ feet wide, at a distance of 25 feet from an opaque screen, by use of 35 mm. film slides. The film strip is placed in the upper

container, the gate is pulled open, the film is passed between the plates of glass, is guided so that the sprocket holes engage with the sprocket roller, is inserted in the lower container, if any, the picture is properly "framed," and then the gate is snapped back into place. A turn of a button or knob moves the film so that successive pictures appear on the screen. Each picture may be kept on the screen as long as needed, in properly equipped projectors, and pictures may be shown in reverse order merely by turning the knob in the opposite direction. "Stillfilms" are inserted horizontally, in a carrier made for use with any stereopticon.

(D) *How are opaque projectors used?*

These are constructed to show pictures from opaque objects inserted either horizontally or vertically. Book



Combination glass slide, film slide, and microscope slide projector. The filmslide attachment is shown in place. The bellows at the side are interchangeable, and when used instead of the film slide equipment, make a glass slide projector of the instrument.

(Courtesy, Spencer Lens Co.)

pages, solid objects, mechanisms, maps, etc., may be shown on the screen. Since much light is lost, due to double reflection, the picture on the screen is not as brilliant, with some strength of light, as a picture from a glass slide. A room must be well darkened for good results, ordinarily. Opaque projectors are on the market however, which are intended for "daylight" use with translucent screens. The mirrors in opaque projectors must be protected very carefully.

(E) *How are "daylight" projectors used?*

When projectors are used back of translucent screens, short focus lenses are used. Slides are inserted in projectors inverted, but with lettering from left to right. (See later unit No. 5 in this series: "How Are Classrooms Prepared for Projection?")

Verbal Aids for Teaching This Unit

Instructions for operating different types of "still" projectors, (from companies supplying projection equipment).

Add:

Visual Aids for Teaching This Unit

All types of "still" projectors, in use.

Glass slides projected on screen, (from set of slides on construction of stereopticons, Spencer Lens Co., Buffalo, N. Y.).

Add:

Individual Practice

Demonstration lessons, given before the class, on construction of "still" projectors, using glass slides listed above.

All types of "still" projectors, operated by members of the class.

Measurements made of widths of images from various types of projectors, with opaque screen and with translucent "daylight" screen, distance between projectors and screens remaining constant, for each kind of screen. (Results below.)

Add:

Written Summary

(O) Distance from opaque screen, for dark room projection:.....feet.

(T) Distance from translucent screen, for "daylight" projection:.....feet.

	Type of Projector	Width of Image	Focal Length Lens
1. Glass slides	(O)	.....	.....
	(T)	.....	.....
2. Film slides, 35 mm.	(O)	.....	.....
	(T)	.....	.....
3. "Stillfilms"	(O)	.....	.....
	(T)	.....	.....
4. Opaque objects	(O)	.....	.....
	(T)	.....	.....

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.

Motion Picture Advertises San Francisco Region

The San Mateo County Chamber of Commerce, convinced of the effectiveness of motion pictures in community advertising, are distributing, through the Frank R. Church Films, a two-reel scenic film depicting the charms and advantages of *California's Picturesque Peninsula*. The film, prepared under the direction of Roscoe D. Wyatt, manager of the county chamber of commerce, contains such scenes as the Home of President Hoover, the two great Universities of Stanford and California, historic missions, giant Redwoods, beaches, Tanforan races, polo, high diving and scenic points in the county.

The use of community films was first made effectively by the San Jose Chamber of Commerce in 1920. Instead of printing the usual report of a chamber of commerce, its annual report that year was in the form of a motion picture. Constantly increasing requests for this film prompted the making of another in 1921, showing living, business and recreational conditions in the Santa Barbara valley.

Little difficulty was met at that time in releasing this film through approximately 2500 theatres, the same films going later to schools, churches, lodges and community meetings. Besides domestic circulation, this film was shown in the best theatres in New Zealand, Australia and the British Isles. Before many years passed however, this free and valuable distribution throughout the theatrical field became impossible or prohibitive as to cost, but in the meantime the distribution for informative and enlightening films was greatly developed by visual education departments in leading universities, colleges and schools, and agencies catering to the non-theatrical field.

To this non-theatrical field San Mateo County has gone with its two reel film, *California's Picturesque Peninsula*. Ten agencies in the various states were selected to distribute the production. These ten prints of two reels each were seen by more than 90,000 people during the first nine months, according to reports from visual education departments and non-theatrical agencies. With some changes in the states they are beginning their second year of service and an additional five prints has just been made for distribution in five more states, a total of fifteen prints now showing in as many states. More than 150,000 people will enjoy a half hour visit to the San Francisco Peninsula, even before reaching California. Another single print of the same film, placed in the projection room of the California State Building in Exposition Park, Los Angeles, is shown to approximately 800 persons each week at no expense other than production. The entire cost of showings seen by the 90,000 persons in the middle western states has been less than one-half cent per person per reel.

Arrangements have now been made to convert this San Mateo County film into a one reel sound film for theatrical distribution, by substituting talking titles and synchronizing with sound effects at appropriate points. Distribution has already been assured for this sound reel which has been named *A Ramble Roundabout the Hoover Home* and the initial edition of it will consist of ten prints for outstanding population centers in the middle west and eastern states.

New Firm Specializes in Expedition Subjects

Raspin Productions has been formed, with headquarters in New York City, to specialize exclusively in the creation of exploration films. The company, which plans to send out expeditions to all parts of the world, has released its first picture, *Explorers of the World*. This production embraces the expeditions of six prominent explorers to different spots, with their own dialogue.

Harold McCracken tells of his Siberian-Arctic Expedition and what he saw in Alaska, the Bering Sea and Straits and in the Arctic. Gene Lamb and his Photo-Scientific Expedition to Tibet deliver the second chapter, which also includes scenes of India, Bali and Borneo. Third is James L. Clark and his African Expedition, and fourth is Lieutenant-Commander J. R. Stenhouse, who headed the Imperial Trans-Ant-Arctic Expedition. Dr. Laurence M. Gould, second in command of the Byrd Expedition to the South Pole, talks on the food problem in connection with that Expedition but no motion pictures are shown since Paramount held exclusive rights. Last is Harold Noice, who takes the story thread from the South Pole to the headwaters of the Amazon River, show-

ing some interesting shots of various animals and birds.

This production should have real value for instructive purposes.

Film Tells Story of Wool

Wool-Marketing and Manufacture is the title of a new motion picture sponsored by the Bureau of Agricultural Economics and produced and distributed by the Office of Motion Pictures, Extension Service, U. S. Department of Agriculture. This is a three reel silent film, showing essential steps in the proper handling of wool from flock to market and covering the whole process of manufacture. It is of special interest to wool growers, but the general public will learn much from it.

The film story follows the fleece on its long journey to cloth. It begins in Wyoming where the film shows sheep being sheared by highly skilled professional sheep shearers. We learn that the flocks of the United States produce about 400,000,000 pounds of wool annually and follow some of these millions of pounds as they journey through the mill, where they pass through many processes before the wool becomes yarn. The yarn is woven into cloth and different textures are achieved. The closing scenes show the goal of all of this endeavor—some of the many uses of wool.

Making of Safety Glass Filmed

A new and interesting educational film is a sound motion picture just released and shown at the Chicago Automobile Show by the Libbey-Owens-Ford Glass Company. It displays the manufacture of safety glass for automobiles.

The motion picture, which is accompanied by descriptive dialogue, shows how the thin, polished plate glass is cut to size as per specified orders from manufacturers. These thin sheets of plate glass are then bonded to a sheet of pyroxylin plastic, forming a sandwich. It is this bonding agent, which holds the glass to the plastic, that prevents pieces of broken glass from flying and causing injury and damage.

The picture follows the cutting and inspection of the glass, inspections of the plastic, and then application of heat and pressure on the sandwich, which forms the completed unit of three pieces.

U. S. C.-Notre Dame Football Feature

A motion picture of the University of Southern California-Notre Dame game, which has been referred to by experts as "the greatest game in football history," and the one in which Notre Dame received its first set-back in three years has been made under the auspices of the Knute Rockne Memorial Association, and will be nationally distributed by Sono Art-World Wide Pictures, Inc.

Directed by Heartley Anderson and Howard Jones, coaches of Notre Dame and U. S. C., respectively, the film purports not only to show this gridiron classic which will go down in football history, but to explain, by the use of slow motion and enlightening talk, how and why the plays were made.

A complete crew of motion picture cameramen were brought right into the stadium at South Bend, Ind., where the game was played, and because of the close-up shots of the fine plays, the game on the screen proves as exciting as it could have been to the actual spectators.

Functions of a City Department

(*Concluded from page 38*)

department should prepare typical and suggestive lesson plans using visual aids. Such plans may vary from a simple outline using but a single aid, to an elaborate project lesson using many aids. At least one typical lesson plan should be prepared for each grade and subject.

The department can render valuable assistance in preparing local material for school use. Frequently local material is neglected because it is not in a convenient form. The department can collect samples of local products, as well as prepare photographs, slides, and films of local industries, historical places and local government activities.

A photographic section is considered by many to be an indispensable part of the department for making pictorial material of local interest. Such a section is responsible for duplicating any material which can be reproduced by a photographic process including, photographs and slides of charts, models, pictures, and similar material which is not copyrighted. An educational museum is also a desirable section for the department to establish, to present in an effective manner such material as cannot be conveniently sent to the schools.

Although the functions which have been briefly described are by no means all of the functions of a well organized department, they will serve to show the many and varied activities of the department. There is perhaps no other department, except possibly the superintendent's office, which makes contact with as many branches of the educational system nor which has as many and varied functions.

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Report on Sound Film Experiment

A brief note appeared in the last issue of THE EDUCATIONAL SCREEN on the experiment being conducted by Harvard Graduate School of Education and the University Film Foundation to determine the efficacy of sound motion pictures as a teaching aid in general science.

Mr. Abraham Krasker, of the Quincy Public Schools, Massachusetts, has sent us a detailed report on the work, which we are glad to pass on to our readers.

Three parallel groups are employed, equated on the basis of chronological age, mental age score, and general science information. The Terman Group Test of Mental Ability and the Ruch-Popenoe General Science Test were used for equating purposes.

The experimental group, about 400 children, is receiving instruction by means of a textbook supplemented by sound motion pictures. The control group, about 1500 children, is receiving instruction by means of the same textbook, but with no motion pictures. The third group, called the "zero" group, contains about the same number of subjects as the experimental group and is equated with the other two groups at the beginning of the experimental instruction period, but receives no instruction in the experimental subject matter. The mean score which this group obtains on the end-tests will locate the zero point on those tests: the score which represents just no instructional effect.

Knowing the end-score which subjects of the type used will get with no instruction, the two mean end-test scores for the instructed groups may be more meaningfully compared. Any final difference between these two groups may be compared with the amount by which either differs from the zero point.

Besides the immediate end-tests, further tests will be administered to the instructed groups after an interval of several weeks, to determine the relative amounts of retention resulting from the two instructional procedures.

The experimental instructional material is embodied in a textbook written expressly for the experiment. Supplementing each of the eight chapters of the textbook is a reel of sound motion pictures. Six of the eight reels were produced by the University Film Foundation under the direction of Mr. John Haeseler. The other two were supplied for the experiment by the Western Electric Company. Although both the text and the film abstain throughout from mentioning each other, they were both produced from the same basic script.

Bicentennial Slides for New York Schools

The New York Visual Instruction Division is offering to the schools of the state excellent collections of lantern slides covering the career of Washington. The material is designed to meet the needs of schools in connection with the George Washington Bicentennial programs which will be held throughout the year.

The Division has organized its slides into the following special groups, which provide for a progressive study of Washington's private and public life: Ancestral Home, Youth and Early Manhood, 20 titles; Life at Mount Vernon, 33 titles; Military and Civic Activities before the Revolutionary War, 15 titles; Washington in the Revolutionary War, 37 titles; Post-War Period of Public Life, Notable Monuments to Washington, 32 titles.

P. T. A. Sponsors Junior Matinees

Finding that the possibilities of moving pictures for recreation and education are unlimited, the executive board of the Old Greenwich, Connecticut, Parent-Teacher Association has decided to submit to the members of the association a program of wholesome motion picture entertainment. Accordingly, a committee for better films has been formed for this purpose, of which Mrs. Theodore Veltfort is chairman.

Through the courtesy of Rev. Allan I. Lorimer, the auditorium of the new June Binney Memorial parish house has been made available. This modern auditorium has a seating capacity of 360 and excellent facilities for the showing of pictures.

The initial performance was given on Friday afternoon, January 8, and every available seat was taken. The feature selected for this program was Mr. and Mrs. Martin Johnson's animal film, *Simba.* A travelogue entitled, *A Bit of High Life,* showing Alpine climbers in the Canadian Rockies, and an animated cartoon telephone comedy completed the program.

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EDITORIAL

IN the January issue of Visual Instruction News, published by the Extension Division of the University of Kansas, our valued friend and fellow-editor, Ellsworth C. Dent, also the markedly efficient secretary of the National Academy of Visual Instruction, said with regard to the two national organizations now in the visual field . . . "The activities of each parallel those of the other. One is giving first consideration to the problem of teacher-training; the other is considering teacher-training problems. Neither has done much more than to convene once each year for a brief series of pleasant meetings, luncheons, etc. Neither has the recognition or standing that it should have."

From the beginning the guiding principle seems to have been somewhat as follows: *Let there be at all times two organizations*—each to accomplish practically nothing save to countermine the efforts of the other—*instead of one single organization*—which would eliminate the problem of choice by potential members, hence enlist readily the total support available from the budding field, and inevitably show vastly greater accomplishment by this year of our Lord 1932.

For such faint archaeological interest as it may afford, we summarize the procedure of the last twelve years. In 1919 were formed, a few months apart and each duly documented, "The National Academy for Visual Instruction" and "The National Academy of Visual Instruction", quite independent of each other but with purposes differing only by the preposition. When the former died from doing nothing, The National Academy of Visual Instruction was supplied with a new partner-opponent by the formation of "The Visual Instruction Association of America". After a few years of friendly and feeble sparring by these two, by a process of painless absorption The National Academy of Visual Instruction emerged victor and was promptly paired with the newly formed "Department of Visual Instruction of the National Education Association", which is the present situation.

THE EDUCATIONAL SCREEN has been in fairly intimate and sympathetic touch with these goings-on from the beginning. It holds, buried some ten years deep in its files, the original documents of "The National Academy for Visual Instruction", birth certificates of the still-born pioneer. From January '23 to June '24, we had the honor of being official organ for the N. A. V. I., carrying a special department of which the contents were to be furnished each month by the organization. After the 16 issues no more contents were forthcoming. From December '22 to June '25 we were also official organ for the V. I. A. of A., carrying a similar department which ended similarly after 27 issues. The first president of the Department of Visual Instruction of the N. E. A. appointed us in similar capacity in March '24, but material from that source lasted for barely 3 issues. We have since had a long vacation from official organing.

THERE is immense vitality and potential strength in a field that has some 50,000 teachers "active" and at least another 100,000 "interested". Many of the 50,000 need to be helped beyond the fumbling stage by scientific assistance from an authoritative source. The 100,000 need merely judicious provocation and respected leadership to swell the ranks of the 50,000. To accomplish all that the above suggests is a task indisputably colossal.

There is only one hope for the gradual achievement of such a task, namely, to establish a single national organization that shall combine every possible element of strength available from the present field. It should aim to enroll every educational leader of recognized influence and authority on visual work, every teacher seriously interested and active in teaching with visual aids; and it should ally itself intimately with every commercial interest that is qualified to contribute to real progress in visual education. Then, with a single medium for complete inter-communication in the form of a national magazine that can permeate the field to its remotest corners at minimum expense, such an organization can proceed confidently to correlate research, unify aims, coordinate effort and harmonize practice everywhere.

Such an organization can be established now, within the 48 hours of February 23rd and 24th at Washington, by the merger of The National Academy of Visual Instruction and the Department of Visual Instruction of the N. E. A., the oldest and the newest organizations. Such a move will put an end to twelve years of pottering, and inaugurate a future of unlimited possibilities. The power to make this momentous decision will be in the hands of relatively few at Washington. It is a distinguished privilege which we are certain they appreciate. THE EDUCATIONAL SCREEN expects the vote for the merger to be emphatic, enthusiastic and unanimous.

NELSON L. GREENE

Twelfth Annual Meeting of The National Academy of Visual Instruction

In session concurrently with the
Department of Superintendence of the N. E. A.
WASHINGTON, D. C., February 23 and 24, 1932

Headquarters: The National Press Club. Formal Programs will be held in the Auditorium of the National Press Club, 14th and F St., N.W.

Officers 1931-1932

President—F. Dean McClusky, Director, Scarborough School, Scarborough, New York.

Secretary-Treasurer—Ellsworth C. Dent, Secretary of the Bureau of Visual Instruction, University of Kansas, Lawrence, Kansas.

Executive Committee

Daniel C. Knowlton—Professor of Education, New York University.

Rupert Peters—Director of Visual Instruction, Public Schools, Kansas City, Missouri.

A. G. Balcom — Assistant Superintendent of Schools, Newark, New Jersey.

Charles Roach (deceased Nov. 6, 1931)—Director of Visual Instruction, City Schools, Los Angeles, California.

John A. Hollinger—Director, Department of Science, City Schools, Pittsburgh, Pennsylvania.

William H. Dudley—Editor, Yale Pageant of America, Educational Lantern Slides, Chicago, Illinois.

Eugene I. Way—*Local Chairman on Arrangements,* Chief, Industrial and Educational Section, Motion Picture Division of the U. S. Department of Commerce.

PROGRAM

Executive Committee and Officers will meet Tuesday morning at 7:45 (breakfast). National Press Club.

FIRST SESSION

Tuesday, February 23rd, 10:00 A. M. to 12 M.

Round Table Topic: *The Administration of Teacher Training in Visual Instruction.*

1. Presentation of Agenda for the Round Table.
2. Discussion.

The following are to participate in the discussion of the Agenda. (The names are arranged alphabetically, not in order of participation.)

Naomi S. Anderson—Department of Visual Education, Chicago Public Schools, Chicago, Illinois.

Arthur G. Balcom—Assistant Superintendent of Schools, Newark, N. J.

C. Beverley Benson—Author, Living Geography, Yonkers, New York.

F. C. Borgeson—Associate Professor of Education, New York University.

E. Winifred Crawford—Director of Visual Education, Montclair, New Jersey.

Ellsworth C. Dent—Secretary-Treasurer National Academy of Visual Instruction, Secretary of the Bureau of Visual Instruction, University Extension Division, University of Kansas.

William H. Dudley—Editor, Yale Pageant of America, Educational Lantern Slides, Chicago, Illinois.

J. Elizabeth Dyer—Department of Visual Instruction, Washington, D. C.

Frank N. Freeman—Professor of Education, University of Chicago.

John T. Garman—Special Assistant in the Division of Visual Education, Board of Public Education, Philadelphia, Pennsylvania.

Rebecca J. Gray—Franklin School, Washington, D. C.

W. M. Gregory—Director Educational Museum, Cleveland Public Schools, Cleveland, Ohio.

George E. Hamilton—Director Department of Education, Keystone View Company, Meadville, Pa.

J. E. Hansen—Chief Bureau Visual Instruction, University of Wisconsin.

C. F. Hoban—Director, The State Museum and Visual Education, Department of Public Instruction, Harrisburg, Pennsylvania.

Rita Hochheimer—Assistant Director of Visual Instruction, Board of Education, New York City.

John A. Hollinger—Director, Department of Science, Pittsburgh City Schools, Pittsburgh, Pa.

John J. Jenkins—Director of Visual Education, Bronxville, New York Public Schools.

Edwin W. Johnson—Director of Visual Education, Bridgeport, Connecticut.

Fred E. Kelly—Professor of Education, Gettysburg College, Gettysburg, Pa.

Newton Kerstetter—Director of Visual Instruction, State Teachers College, California, Pa.

Daniel C. Knowlton—Professor of Education, New York University.

Abraham Krasker—Director of Visual Instruction, Public Schools, Quincy, Mass.

Sally B. Marks—Professor of Visual Education, University of North Carolina.

Morris Meister—New York Training School for Teachers, New York City.

L. Paul Miller—Central High School, Scranton, Pennsylvania.

Grace Fisher Ramsey—Secretary-Treasurer of the Department of Visual Instruction, N. E. A., Associate Curator American Museum of Natural History, New York City.

Frank Reh—Principal, Public School 212, Brooklyn, New York.

Irving Ritter—Principal, Public School 139, Queens, New York City.

Martha Scott—Professor in Biology, Southern Illinois Normal University, Carbondale, Illinois.

Mortimer L. Simpson—Principal, Lexington School, New York City.

Charles A. Tonsor—Principal, Grover Cleveland High School, New York City.

Ralph E. Wager—Director of the Department of Education, Emory University, Georgia.

H. S. Walsh—New York Training School for Teachers, New York City.

Eugene I. Way—Chief, Industrial and Educational Section, Motion Picture Division of the U. S. Department of Commerce, Washington, D. C.

W. W. Whittinghill—President Department of Visual Instruction, N. E. A., Assistant Director of Visual Instruction, Detroit Public Schools.

Ben D. Wood—Professor of Education, Teachers College, Columbia University.

SECOND SESSION

Tuesday, February 23rd, at 2:30 P. M.

Round Table Topic: *The Administration of Teacher Training in Visual Instruction* (Continued from the First Session).

1. Presentation of Agenda for the Round Table.
2. Discussion .(Continued from the First Session)

THIRD SESSION

Wednesday, February 24th, at 7:45 A. M.

Round Table Topic: *Progress in Visual Education for* 1931-32.

1. Music—William H. Dudley, Chicago, Ill., in charge.

Reports from the Field

2. Claire Zyve—Principal Fox Meadow Elementary School, Scarsdale, New York: "Experiments with Film Strips in Teaching Arithmetic and Spelling."
3. Marguerite E. Schwarzman—Director, The Children's Laboratories, New Rochelle, New York: "Visual Instruction in Science Teaching."
4. George J. Zehrung—Director Y. M. C. A. Motion Picture Bureau, New York City: "The Outlook for 1932-33."
5. Arno Viehoever—Director of Biological Research Department, Philadelphia College of Pharmacy and Science: "Harnessing the Moving Picture to Instruction in Biology."
6. James G. Sigman—Director of Visual Instruction, Public Schools, Philadelphia, Pennsylvania: "Visual Instruction in Philadelphia."
7. Reports from Delegates representing Industry.

FOURTH SESSION

Wednesday, February 24th, at 10:00 A. M.

Round Table Topic: *Summary of Conference Discussions on the Administration of Teacher Training in Visual Instruction.*

Leader—Dr. Daniel C. Knowlton, Chairman of the Committee on Teacher Training.

BUSINESS MEETING

(Open to members only)

1. Report on the Research Committee—F. Dean McClusky.
2. Report on the Committee on Standards—John A. Hollinger.
3. Report on Progress from the Massachusetts Branch of the National Academy of Visual Instruction—Abraham Krasker.
4. Report on Progress from the New York City Branch of the National Academy of Visual Instruction—Rita Hochheimer.
5. Report of the Secretary-Treasurer — Ellsworth C. Dent.
6. Report of the Executive Committee—Arthur G. Balcom.
7. Report of the Committee on Merging with the Department of Visual Instruction of the National Education Association—F. Dean McClusky representing the National Academy; W. M. Gregory, representing the Department of Visual Instruction.
8. Election of Officers.

FIFTH SESSION

Wednesday, February 24th, at 12:15 P. M.

Greetings to the National Academy of Visual Instruction—Dr. Florence Hale, President of the National Education Association.

Address—Dr. P. J. Rulon, The Graduate School of Education, Harvard University.

Address—Dr. Eugene A. Colligan, Associate Superintendent of Schools, New York City.

Address—Dr. W. H. Pillsbury, Superintendent of Schools, Schenectady, New York, President New York State Teachers Association.

(Note: Much excellent work in Visual Instruction is being done in the public schools of Washington, D. C. and vicinity. Members of the Academy and its friends have been cordially invited to view this work. Arrangements for visitation may be made at the information desk.)

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)

Titles of Films (Actors) (Producers)	For Intelligent Adults	For Youth (15 to 20)	For Children (under 15)
Big Shot, The (Eddie Quillan) (RKO-Pathe) Very engaging small-town boy, with big business ideas that mostly fail, finally promotes successfully a swampy auto-camp. Some cheap risque lines lugged in, some very amateurish acting, but mostly wholesome, human and thoroughly amusing.	Fair	Rather good	Fairly good
Charlie Chan's Chance (Warner Oland) (Fox) Oland excellent as the shrewd and engaging Chinese detective who solves a murder that baffles both New York and London experts. Very complex plot and wordy dialog, but notably fine cast makes it one of best of kind. Not over-thrilling.	Fine of kind	Good	Good
Cock of the Air (Billie Dove, Chester Morris) (United Artists) Artificial, mostly silly and absurd story exploiting seductive power of heroine who makes Paris "unsafe for officers on leave". Banished to Italy she meets hero, also supposed irresistible, and both succumb. Highly objectionable and ridiculous.	Trashy	Pernicious	No
Dance Team (Sally Eilers, James Dunn) (Fox) Human and appealing picture of vaudeville life, its brief triumphs and long heartaches, excellently played by the two stars, with notable minor role by Harry Beresford. Wholesome and charming, amusing and sobering. Far above average stage-life picture.	Interesting	Interesting	Good
Emma (Marie Dressler, Jean Hersholt) (Fox) Wholesome, human comedy of the best, great solo part for Marie Dressler as efficient, practical, devoted foster-mother to five children, all of whom prove thankless cads in time of stress, except Ronnie. Typical Dressler humor, antics and pathos.	Excellent	Excellent	Excellent
Forbidden (Barbara Stanwyck, Adolphe Menjou) (Columbia) Mature problem play that avoids cheapness and vulgarity and achieves convincing though depressing reality. Lonely heroine meets lonely hero in gay Havana and liaison lasts till she learns hero was married man. Separation, child, tragic ending. Menjou good.	Good of kind	Unsuitable	No
Girl of the Rio (Dolores del Rio) Leo Carrillo) (RKO) Pale and feeble version of Holbrook Blinn's virile, colorful play, "The Dove," with heroine chiefly a reciter of lines, and hero a mere bombastic fool. Dramatic and character values lacking, climax weak. Nothing objectionable, but hollow and unconvincing.	Ordinary	Only fair	Hardly
Hatchet Man, The (Edward G. Robinson) (First National) Hectic melodrama of Chinese Tong feuds, with elaborate trappings and grim Oriental air of fatalism. Ideal sinister role for Robinson. Highly seasoned with infidelity and sudden death. Fantastic, thrilling, far-fetched and improbable.	Perhaps	Better not	No
Hell Divers (Wallace Beery, Clark Gable) (M-G-M) Outstanding picture of Navy life, with Beery doing his finest work to date as a crude, tough, hard-hitting Petty Officer, but utterly human underneath and loyal unto death. Magnificent aviation stuff, U. S. Navy cooperating. Tenae interest, wholesome thrill for all but over-sensitive children.	Excellent	Excellent	Fine but strong
Her Majesty Love (Marilyn Miller, Ben Lyon) (First National) Forced and feeble effort at comedy about wealthy family whose rebellious son marries a cabaret girl. Comic bits by Fields, Errol and Sterling are its only merit. Marilyn's great dancing talent is hardly given a chance.	Mediocre	Only fair	Fair
High Pressure (William Powell) (Warner) Fast-moving, farce-comedy, many funny spots, only objection the utter unscrupulousness of crook-hero, skilfully played by Powell. Fake invention is promoted by such wildly exaggerated methods that the whole situation becomes merely preposterous.	Good of kind	Good but doubtful	No
Local Boy Makes Good (Joe E. Brown) (First National) The campus grind, in Botany, is finally inspired to become track hero by feminine influence and a little alcohol. Some slapstick and hokum, but Brown is excellent in a real character role. Dorothy Lee very inadequate, rest of cast good.	Amusing	Very good	Very good
Lovers Courageous (Madge Evans, Robert Montgomery) (M-G-M) Light, wholesome and charming love comedy, beautifully done by Madge Evans and Robert Montgomery in best role he has had to date. Human and amusing throughout, in parts genuinely pathetic. Two notable minor roles. Excellent example to other producers.	Charming	Excellent	Good
Maker of Men (Jack Holt, Richard Cromwell) (Columbia) Stereotyped, prosy football picture, very ordinary in acting, dialog, direction and backgrounds. More or less false and absurd, especially the incredible dumbness of the one-idea father's treatment of his sensitive son. Futile effort to glorify football.	Stupid	Harmless	Harmless
Manhattan Parade (Winnie Lightner, Charles Butterworth) (Warner) Lively farce, all technicolor, burlesquing theatrical production on Broadway, stuffed with slang and low comedy of bellowing-voice type which drowns all character interest. Dialog and action merely crude and common, not offensive. Many laughs, little humor.	Hardly	Funny but cheap	Hardly
Mata Hari (Greta Garbo, Ramon Novarro) (M-G-M) Strong, thrilling melodrama of war-spy-intrigue. Super-sex role for Garbo as professional spy and chronic seductress. Most extreme Garbo stuff to date, thoroughly unwholesome for youth. Harrowing tragic ending supposed to make it "moral".	See it and think	Pernicious	No

Titles of Films (Actors) (Producers)	For Intelligent Adults	For Youth (15 to 20)	For Children (under 15)
Menace, The (H. B. Warner) (Columbia) An exceedingly well done little crook-detective drama, finely acted except for some silly comic relief, with interest and suspense held throughout. Three society crooks try to steal old English estate but hero defeats them, mostly single-handed.	Good of kind	Very good	Good
Murders in the Rue Morgue (Bela Lugosi, Sidney Fox) (Universal) Another of the epidemic horror-films — pretentious, clumsy screening of Poe's great tale. Plot and drama are buried by sombre lighting, heavy sets, vague characters, poor acting, and general overstraining after murder thrills. Elaborate, ineffective, typically naive.	Perhaps	Doubtful	No
No One Man (Paul Lukas, Carol Lombard) (Paramount) Cheap story about rich, vacuous heroine, with jovial father and ridiculous mother, leading life of social frittering. Marries play-boy rake, whose mistresses drive her back to former fiance, finely played by Lukas who is wasted in such a film.	Trashy	Certainly not	No
Panama Flo (Helen Twelvetrees, Chas. Bickford) (RKO) Cheaply sensational, sexy stuff about virtuous heroine who is cabaret-dancer in low sea-front dive in tropics. Smooth U. S. aviator is the villain, and a tough, roughneck American prospector in wilds of South America is the hero. Mostly preposterous and waste of good acting.	Trashy	By no means	No
Safe in Hell (Dorothy Mackaill) (First National) Sensational, preposterous yarn about scarlet heroine reformed by true love—left by husband on tropic isle among ruffians—waits faithfully—finally walks deliberately to gallows to keep faith. Hectic, absurd, heroism badly overdone.	Trashy	Certainly not	No
Sea Ghost, The (Laura LaPlante) (Peerless) Third-rate sea story, utterly banal in plot, acting, dialog and direction. Slow, confused, dull.	Mediocre	No	No
Speckled Band (English production) (1st Division) Interesting Sherlock Holmes story, fairly good technique, fine dramatic value and atmosphere. Slow tempo of real life and very natural acting make it very convincing. Unusual portrayal of Holmes. All cast good except Dr. Watson.	Good	Good	Good if not too strong
Stepping Sisters (Louise Dresser) (Fox) Labored farce-comedy, mostly absurd, with Louise Dresser wasted on ridiculous role. Three burlesque queens, meeting again after many years, make hash of an elaborate social function. Poor, crude, and much inferior acting.	Poor	Hardly	No
Taxi (James Cagney, Loretta Young) (Warner) Thrilling taxi-feud story, with Cagney perfect as tough, insolent, smart-aleck, quick-fisted, girl-bullying hero, made wholly admirable. Lively, fast, amusing, no sex exploitation, but glorifies the swaggering tough guy and a low type of living.	Good of kind	Good of kind	Doubtful
This Reckless Age (Richard Bennett, Frances Starr, Charles Ruggles, Frances Dee) (Paramount) Splendid domestic comedy, thoroughly human, appealing and beautifully acted. Rich in character interest, free of cheap sensation. An intelligent picture that will please everyone. Belated, but most welcome "imitation" of "The Goose Hangs High."	Enjoyable	Excellent	Good
Three Wise Girls (Jean Harlow) (Columbia) Trashy story, good cast. Married men chase working girls, give them fine apartments, then let them commit suicide or get out of it as best they can.	Mediocre	No	No
Tomorrow and Tomorrow (Ruth Chatterton, Paul Lukas) (Paramount) Mature problem play, done with distinction, dignity and convincingness. Love-starved wife, genial but non-understanding husband, charming doctor from Vienna, illegitimate child, final loyalty of wife to her marriage. Wordy, but deftly and delicately done, save for heroine's marked mannerisms.	Good of kind	No	No interest
Two Kinds of Women (Miriam Hopkins) (Paramount) Country-bred daughter of Dakota senator wins rich play-boy, who will reform and marry her. Shows New York life merely as continuous woman-chase by men, with lavish apartments, glorified speakeasies and very drunken women as chief features. Some fine acting.	Perhaps	Unwholesome	No
Under Eighteen (Marian Marsh, Regis Toomey) (Warner) Ordinary picture about working-girl heroine, her grocer-clerk fiance, and the pain of being poor. She turns against marriage when sister's marriage goes on the rocks. Very unwholesome experiences at penthouse party of rich philanderer send her back to fiance.	Hardly	Better not	No
Unexpected Father, The (Slim Summerville) (Universal) Newly rich, dumb bachelor accidently becomes "daddy" to tiny orphan girl and hires dumb nurse. Situation spoils his planned marriage into a gold-seeking family, so he marries the nurse. Elementary humor, naive acting.	Mildly amusing	Funny	Funny
Union Depot (Doug Fairbanks Jr.) (First National) Very clever skilfully directed and played story of day in great railroad station. From teeming life and movement emerge gradually individuals tangled in a romantic, melodramatic situation. One quite objectionable sex scene, but total effect probably good.	Excellent	Entertaining	Probably good
Way Back Home (Phillip Lord as "Seth Parker") (RKO) Realistic old-fashioned country life and character, good melodramatic story, good singing, typical country antics. Acting and sets good, atmosphere genuine, and very little exaggeration for those who know life as lived in the rural hinterland.	Unusual	Very good	Good
Woman from Monte Carlo, The (Lil Dagover, Walter Huston) (Warner) Heroine with notorious past has married fine French naval captain. Her previous lovers make possible various sensational complications and cheap situations. Melodrama on the standard sex formula, with some really good acting wasted in it.	Mediocre	No	No
X Marks the Spot (Lew Cody, Sally Blane) (Tiffany) Newspaper gangster thriller, with little distinction in its acting, slangy dialog that is breezy but without spark. Villain's hold on hero prevents solution of crime until melodramatic and improbable ending. On the whole unobjectionable.	Mediocre	Fair	No

News and Notes

(*Concluded from page* 46)

For the present, only silent pictures can be shown. The committee is confident, however, that these initial programs will be so enthusiastically supported that the funds will soon be available to enable them to provide sound films.

A Microscopical Slide Loan Service

The Buffalo Society of Natural Sciences announces the inauguration of a new service this year, that is, the loaning of its splendid collections of microscopical slides which have been presented to the Society in recent years.

Among the outstanding series at present in the collection may be mentioned that of fresh-water sponges by the late Henry Mills and the Dr. E. G. Love Collection of insect preparations. There are also series of protozoa, animal and plant histology, and rock sections, as well as many miscellaneous objects.

These slides should be of valuable assistance to scientists, teachers, and students in the several fields covered.

Courses in Visual Education

Professor L. Paul Miller is offering a three credit evening course in Visual Education this semester at St. Thomas College, Scranton, Pa.

The course includes: classification and study of the main types of aids; handling of projection equipment; a treatment of present and future problems in visual education; a survey of such fields as teacher training, administration, and research; a listing of visual aids for use in own major field.

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During this past year New Paltz Normal School of New Paltz, New York, which is rapidly becoming recognized as one of the most progressive schools in the country, has presented a series of lectures dealing with Visual Education by such leaders as Dr. Daniel C. Knowlton, Dr. Edwin Reeder, Mr. Alfred W. Abrams, Mr. L. Paul Miller, and Dr. Dean F. McClusky.

These lectures have been followed with interest by educators throughout the state and recently Dr. Van Den Berg, President of the School, stated that a course in Visual Education will be offered during the summer session. This course will be given by Mr. John J. Jenkins, Chairman of Visual Instruction at the Bronxville Public Schools. This course is the first of its kind to be given in a Normal School of New York State and represents untiring efforts by its sponsors, Dr. Van Den Berg, Dr. F. Dean McClusky, and Mr. Jenkins.

Dr. Van Den Berg also announced a demonstration of sound equipment and educational films to be given at the School on March 10th, 1932, at 7:30 P. M. by Electrical Research Products of the Western Electric Company, Bell & Howell, The Ampro Corporation, The Fox Film Company, and Victor Animatograph Corporation. The latest sound education films in the fields of Science, Literature, Teacher Training, and the Social Studies will be shown. All interested are cordially invited to attend.

Movie Supplants School Year Book

The traditional school yearbook is giving signs of "going modern." The boys and girls attending the St. Paul Academy are making a movie this year instead.

School activities, sports, and "close-ups" of pupils and faculty will be recorded on film by a staff of school "cameramen." The making of football movies is already in full swing.

Instead of receiving, at the end of the term, books containing group pictures and "wise cracks," the pupils will be able to obtain copies of the motion picture to recall the life and events of their school year.

Visual Education Bureau in Australia

The report of the Visual Education Committee of Victoria recommends a visual education bureau, maintained by the Commonwealth Government with funds derived from film import duties. Appointed by the Government of Victoria in 1930 to investigate the possibilities of motion pictures as an adjunct to State school education, the committee has carried out a number of experiments in schools in Victoria. A Commonwealth bureau is the ideal of the committee, but, pending the establishment of this, the committee urges the immediate formation of a State bureau for the collection of films, photographs, slides, and other visual aids, and circulating them among schools.

Sound Installation

Contracts have been signed for the installation of sound equipment in the new Samuel Gompers Industrial High School for boys, in the Bronx section of New York, as the first step in the city's test of the potentialities of sound pictures in teaching.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

Educational Research Bulletin (November 11) "Books Which Children Like to See Pictured", by Edgar Dale, presents an invaluable and suggestive survey of its subject.

The hordes of children who daily attend motion-picture theaters have led parents, educators, social workers, and others to become disturbed regarding the experiences to which children are being accustomed by viewing the films. The common opinion among this group of persons is that the themes of current motion pictures are too mature to be of greatest benefit to children. When these same parents and teachers, however, are asked to specify the types of content that should go into motion pictures for children, they are at a loss for answers. They have a feeling, however, that a major source of themes for such motion pictures would be the better books read by children.

The major difficulty involved in such a procedure lies in the possibility that the motion-picture interests and reading interests of children are highly diverse. Children may, for example, rate *Treasure Island* high as a reading book, but express no interest whatsoever in seeing it pictured. It becomes necessary, therefore, to determine whether books which children like to read are books which they express a desire to see on the screen. If we find a high degree of agreement between the two, then motion picture producers who wish to make motion pictures for children can make intensive use of all studies of children's interests in the field of literature.

The experiment to this end, conducted by the Federation of Mothers Clubs of Cincinnati and vicinity, using the public schools of that city, is described in detail in the article.

Fortunately, a measuring stick was available by which to compare first the interest value of books read by Cincinnati boys and girls with the interest values of books read by boys and girls throughout the rest of the United States, and we have available as well the judgments of a group of children's librarians as to the worth-whileness of these books. This measuring stick of interest and worth-whileness is the Winnetka Graded Book List. The list was formulated by asking 36,750 elementary-school pupils in a number of cities and villages throughout the United States to ballot on the interest value of the books which they read during a period of several months. The list of books which these children found interesting was then submitted to a group of specially chosen children's librarians who eliminated from this list those books which were believed to be trashy and of little value to children. The Winnetka Graded Book List, therefore, represents books approved by librarians which have been found to have high interest value for children.

The resulting list of books, selected by the children, presented these percentages.

Fifty-four, or 71 per cent, of the 76 books selected are on the Winnetka list. Twenty-two books named were not included in the Winnetka list. As a matter of fact, a good many of these 22 books would have the approval of both parents and teachers. *Cosette,* for example, is an excerpt from *Les Miserables.* Several other books appear commonly in school libraries, and are approved by teachers, but may not receive the approval of children's librarians.

Space does not permit further quotation regarding the high school list, but the above comments on the elementary list will give our readers a clear conception of this experiment.

New York State Education (January) In his article on "Equipment for Use of Screen Pictures", Mr. Alfred W. Abrams states briefly certain conclusions that have been reached from the activities of the New York Visual Instruction Division extending over a peroiod of years. He emphasizes the importance of classroom equipment which permits of the use of pictures at the time when they are needed.

The standard classroom equipment requirements for schools in New York who desire the use of state slides under the longer period of loan, include a projector, a convenient electric outlet, a suitable screen, some means of darkening the room adequately, and a special stand for supporting the lantern.

Projection Engineering (January) The value of the motion picture in the medical field has been recognized but it has not taken the strides which were predicted for it. Mr. Gordon S. Mitchell gives some reasons for the status of "Motion Pictures in Medical and Surgical Practices", presenting the photographic problems that must be met. The account contains some practical information on equipment and film stock. As to the value of the voice synchronized to the picture, Mr. Mitchell believes it may increase the utility of certain types of medical film. However, as few words as possible should be used so as not to distract attention from the photographed subject.

Federal Council Bulletin (December) "The Church and Motion Pictures" states that,

In motion pictures, developing rapidly from the silent picture to the talkie and now to television, humanity has achieved one of its most fascinating and powerful instruments for education and relaxation.

The motion picture uses the great art of dramatic presentation, the universal appeal to the eye which needs no language to be understood, and the tenacity of visual memory. It can be and is being used for both good and evil: for the happiness of the people, the broadening of their horizons, the cultivation

of manners, and as a welcome relief from the strain and boredom of modern life; but also for breaking down social standards, spreading false ideals of life, stimulating sensuality and weakening the constructive forces of civilization. There is no doubt that it is being used for unworthy purposes by powerful men. On the other hand, pictures of great significance and beauty are being produced in increasing numbers and receive gratifying patronage. The movie is both our despair and inspiration.

The author, Worth M. Tippy, then follows this intelligent and fair-minded résumé of an old and irritating sorrow with his ideas concerning the value of this medium to the church.

The great thing for the Church to do is to master the technique of the movie and to use this new instrument of power for the purposes of religion. This is something the Protestant churches have not done. There has been collaboration in the production of a few religious films like *The King of Kings,* and there have been efforts to produce films for the use of churches, but the latter have usually lacked either technique or financial resources, or both.

What is needed is something immeasurably greater — the production of films which portray the forces of religion at work dramatically and powerfully in innumerable social and life situations.

In any case, as Professor Markovin, of the University of Southern California, has said: "When the Church produces a better film of its own for its own purposes than the producers are able to produce—more dramatic, more appealing, more searching—it will begin really to influence the industry."

Movie Makers (December) Mr. Louis M. Bailey reports, in his department concerning educational films, that the Director of Visual Education in the New York City Public Schools wishes to use all possible amateur film material on health, science, industry, nature, travel and other subjects, as such material will be a valuable supplement to professional material.

New York Times Magazine (November 29 and December 6) Anne O'Hare McCormick writes two articles on the film capitol, Hollywood. These prove to be interesting and fair-minded discussions. The author feels that she could not imagine Hollywood's happening in any other country than in the United States, nor in any other state than that of California. She says that the most expert director, had he chosen an ideal location for the film capitol, could have selected no better spot. Of the many comments appearing on the cinema center, Miss McCormick's articles are among the best.

School and Home (November) Luella N. C. Whitaker describes in detail a project carried on by a third grade on "Our Desert Indians," which was stimulated by the showing of a moving picture on "Homes of the World." A great deal of illustrative material was gathered by the pupils and several films pertaining to the topic exhibited. Excursions to the Natural History Museum and slides greatly enriched the work in giving a closer acquaintance with the country, the people and their activities.

The Saturday Evening Post (November 21) "No Means No!", by Geraldine Farrar, is an interview concerning the author's intelligent resumé of certain outstanding facts of her career and her leave taking of that career. To many of our readers who know Miss Farrar, not in operatic roles, but in those too few screen roles of her brief cinematic experience, this article should be delightful reading. It is not too much, we think, to say that few great artists of that day when the combination of genius and hard work produced many tremendous personalities behind the footlights have had the cool and objective helming of their careers that marks Miss Farrar's guiding of her life as it has slipped from phase to phase of a brilliant and gifted experience. The sanity and the clean sincerity that shine through the words of this interview offer a challenge, as well as a fund of sound and common-sense philosophy, to our readers.

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

Methodists Organize to Produce Religious Talkies

Production of talking pictures of a religious nature, designed for use in Protestant churches throughout the country, is the aim of a newly organized society called The John Wesley Picture Foundation, officers of which were elected Wednesday, January 27.

Rev. Chester C. Marshall, D.D., assistant director of the Methodist Episcopal Hospital of Brooklyn, is named president. The other officers are Rev. Ralph W. Sockman, D.D., pastor of the Madison Avenue Methodist Episcopal Church, New York City, vice-president; Rev. Christian F. Reisner, D.D., pastor of the Broadway Temple, New York City, second vice-president; Rev. George G. Vogel, D.D., South Orange Methodist Episcopal Church, South Orange, N. J., treasurer; and Rev. James K. Shields, D.D., Newark, N. J., secretary. Eighteen other ministers, prominent in the Methodist Episcopal Church throughout the country, are named on the advisory board. The Foundation will be strictly non-commercial and plans to use the entire income from the distribution of all pictures for the purpose of further production of religious pictures.

The first picture to be produced by the Foundation, which was incorporated in New Jersey on January 7, will be *The Life of John Wesley* and will contain a musical score of songs and hymns written by Charles Wesley, brother of the great religious leader. The author of the scenario is Rev. James K. Shields, D.D., of Newark, N. J., well known for his numerous contributions in the field of religious motion pictures. One of his silent motion pictures called *The Stream of Life* has been shown in more than 3,500 churches in this country. After writing the Wesley scenario, Dr. Shields submitted it for criticism, both as to the question of human interest and historical correctness, to the leading scholars of Methodism, and has received from them their stamp of approval. The production of *The Life of John Wesley* will be made this year.

Following the production of *The Life of John Wesley*, it is planned to produce a picture on the life of Francis Asbury. Pictures to follow this will be a large number of short subjects based on great texts of the Scriptures. Further plans call for the recording in talking pictures of sermons given by outstanding leaders in church life and the production of films on missionary work both in the home and foreign field. All pictures produced by The John Wesley Picture Foundation will be approved by the advisory committee composed of outstanding leaders in the Methodist Episcopal Church.

The board of trustees of the Foundation is composed of the following outstanding leaders in the Methodist Episcopal Church: Rev. Chester C. Marshall, Brooklyn, N. Y.; Rev. George G. Vogel, South Orange, N. J.; Rev. J. S. Ladd Thomas, Germantown, Pa.; Rev. George W. Henson, Philadelphia, Pa.; Rev. Fred Brown Harris, Washington, D. C.; Rev. Fred Winslow Adams, Boston, Mass.; Rev. Ralph W. Sockman, New York, N. Y.; Rev. Ernest F. Tittle, Evanston, Ill.; Rev. Christian F. Reisner, New York, N. Y.; Rev. Edward L. Watson, Baltimore, Md.; Rev. James K. Shields, Newark, N. J.

How Dark Must the Auditorium Be?

A clergyman from Iowa writes in to inquire whether it is necessary to have the church entirely darkened in order to run 16 mm. motion pictures. He states that there are large windows down two sides, with well-made, though not absolutely light-tight shades, and that audiences of 300 to 400 are to be accommodated.

The answer is that the brilliance of the screen image depends upon the inter-relationship of quite a number of factors. One of these, already mentioned by our Iowa friend, is the degree of darkness obtainable in the room where the pictures are to be shown. With modern projection equipment, such as the 400-watt Filmo, for example, this clergyman would experience no difficulty whatever. Here the situation is analogous to the classroom in the school that cannot be made absolutely dark. In fact, educators have found that it is not altogether desirable, from the point of view of class discipline, to make the room pitch-dark. Substantially similar conditions prevail in the Sunday School.

The chief factor, however, is the illumination power of the projector. The size and "speed" of the projection lens is likewise important, newer projectors offering oversized lenses that pass considerably more light than previous types. The design of the lamp used also constitutes a factor not to be overlooked, a very late type consisting of a double row of filaments staggered

in such a way that the light from the second row fills in the dark spaces inevitably separating the filaments in the front row.

The distance that the projector is removed from the screen affects both the size and brilliance of the picture. The quality of the screen is also important, a beaded screen being preferred especially in extra wide halls where part of the audience must sit at a considerable angle to the screen. The density of the film to be shown is still another factor, amateur film quite often being rather dense, due to partial underexposure.

Projectors generally have 2-inch lenses as standard equipment. At 32 feet this would mean the filling of a 6 foot screen, an all-'round satisfactory combination. Clergymen all over the country are welcoming the recent 16 mm. projector improvements. Rev. H. G. Conger, of the M. E. World Service, wrote of one machine, "It gave a satisfactory 10-foot picture. I was also impressed with its steadiness. A stereopticon could not have projected a slide steadier."

Baptists List Mission Films

The Northern Baptist Convention Board of Missionary Cooperation, 152 Madison Ave., New York, has issued a 40 page catalog of the missionary literature and visual aids distributed by that organization. Twenty-nine motion picture subjects are listed, ranging from one to five reels in length. For 35 mm. films there is a rental charge of $2 plus express both ways. For 16 mm. films there is no charge except for the express. *Burma, China, Africa, India, Japan,* and *Soldiers of the Cross* are some of the interesting subjects.

Seven of the 16 mm. films were taken in the foreign mission field with her own amateur movie camera by Mrs. H. E. Goodman.

Another of the 16 mm. pictures, a two-reeler entitled *University of Shanghai,* is especially interesting at this time. It came from Dr. Herman Liu, president of the University.

Quoting from a recent French school survey the following statement is made in the catalog with regard to motion pictures: "The cinema is one of the best means at our disposal of appealing to the adolescent and adult imagination. What we see with the eye supplements what we read in books and hear with our ears."

Another strong endorsement states: "Every church should own a stereopticon and motion picture projector . . . The picture has no competitor as a method of presenting truth when coupled with proper explanations."

SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY
Director, Scarborough School, Scarborough-on-Hudson, N. Y.

Pupils Make Own Visual Aids

An account of visual education work at the Wilbur Wright Junior High School in Cleveland in a recent number of *School Topics*, the official magazine of the Public Schools of that city, should prove suggestive to others in the field.

The equipment owned by the school consists of a 35 mm. projector for both silent and talking pictures, a 16 mm. projector, a delineascope, a projector for microscopic slides, and two stereopticons, all arranged on the balcony of the auditorium, where their visual activities are centered.

All departments of the school use the equipment, but the Department of English had fewer bookings for the semester than those for social science and general science, due to the dearth of material for English work. To meet this need, William M. Gregory, Director of the Cleveland Educational Museum, advised the department to make some slides, which suggestion was acted upon.

Their first venture was a set of 35 slides of Treasure Island which were made by photographing and coloring book illustrations. The Treasure Island problem was easily solved but they found very few pieces of literature published with enough illustrations, or good enough illustrations, to use for visual aids. They decided, therefore, to create their own settings and photograph them, choosing four of James Whitcomb Riley's poems as subjects.

After the pupils in an English class studied the costuming and makeup necessary to assume the roles assigned them, they scoured the surrounding country for proper settings and merely transported characters to the chosen location, where they lived again the scenes they depicted so that they may be permanently recorded by the eye of the movie camera or kodak.

Another advantage which this project offers is the opportunity which the teacher has to interest the so-called dull or low I. Q. pupil in literature. In a stage presentation only the bright pupils, possessing some degree of histrionic ability can appear in the cast. As members of the cast for this photographic work, teachers selected some slower pupils from the Z sections, thus giving them an opportunity to "be somebody."

Besides these advantages there is the permanent contribution of the slides which will help the other pupils (and grown-ups, too) to visualize their reading.

The benefits derived by the English Department from making these sets of slides were so obvious that the other departments began to prepare visual education aids, which would help them to solve some of their teaching problems. As a result, the mechanical drawing, mathematics, French, and physical education departments all have projects under way.

Eighth Annual Motion Picture Conference

Interest in more specialized forms of the motion picture is perceptibly growing, as is evidenced by this year's meeting of the National Board of Review of Motion Pictures held January 21 and 22 in New York

City at the Hotel Pennslyvania.

The general topic of the conference was "Special Functions of the Motion Picture in Recreation and Education." A wider application of motion pictures in education and in vocational training was urged by Dr. Louis I. Harris, former Health Commissioner of New York City and a member of the executive committee of the National Board of Review. Speakers on the program of the first day's session were:

Dr. Wallace W. Atwood, President, Clark University: "How the Specialized Motion Picture is Being Developed."

Miss E. Winifred Crawford, Instructor, Visual Education, State Teachers College, Montclair, N. J.: "What the Motion Picture Means to Visual Education."

Mrs. Marguerite E. Schwarzman, Director, Children's Laboratories and Instructor, New York University Institute of Education: "Vitalized Learning in Science."

Miss Rita Hochheimer, Acting Director of Visual Instruction, New York City Board of Education: "The Motion Picture as a Teaching Device in the New York Public Schools."

Leaders of Progressive Education are realizing the value of the motion picture, according to Mrs. Marguerite E. Schwarzman, who told the delegates assembled that "the grade school teacher need no longer flounder helplessly in the intricate maze of facts." She made a plea for this teacher who has been called upon in the past to be a human encyclopedia. "If factual materials and techniques could be organized and simplified for the teacher," she said, "her wild gropings be over and her teaching would become a joyous adventure."

Mrs. Schwarzman stated that motion pictures can play a large part in the interpretation of complicated facts to the young child. The schools realize the power of the educational film and the producers realize the demands of the schools. It remains to bring these two together. Mrs. Schwarzman's strong plea was, first, that more scientific data on the relative value of silent versus sound projection for classroom use be made available through research,—second, that teachers generally be instructed in the simple technicalities of projection apparatus,—and third, that available films be compiled and classified according to subject matter and the present needs of the school curriculum. Such a list might be supplemented monthly much as the latest in literature is made available in such compilations as the Cumulative Index and the Readers' Guide to Periodical Literature. With

educators on their toes, the motion picture can play a big part in providing materials for "Vitalized Learning."

In the evening there was a demonstration at the Fox Private Theatre of specialized films for teaching, with Grace Allen Bangs presiding and Glenn Griswold among the speakers.

Next morning, Professor Mather, of Harvard University, told of "Testing Responses to Experimental Specialized Films" and his conviction that such tests would demonstrate sound films to be a better aid to instruction than any other method of teaching. Professor Mather's address was followed by Mrs. Eva B. Hansl, Associate Editor, Parents' Magazine, on "The Motion Picture and Parent Education"; Mr. F. S. Mathewson, Supt. of Recreation, Union Co. (N. J.) Park Commission, on "The Specialized Use of Motion Pictures in Public Recreation"; and Mrs. Helen F. MacPherson, Chief Juvenile Probation Officer, Hartford, Conn., who advocated, in her talk on "Children and the Motion Picture," that parents see pictures before their children witness them, as "a great many modern pictures plunge children directly into adult life." She declared motion pictures have a greater attraction for children than any other moral force in the community.

Electrical Research Products conducted a demonstration of educational talking motion pictures in the afternoon, with W. A. Bach presiding.

Massachusetts State Visual Groups Meet

The annual convention of the Massachusetts branch of the National Academy of Visual Instruction and the State Wide Committee on Visual Education was held February 6 at Quincy, under the direction of Abraham Krasker, head of Visual Education in the Quincy schools.

Dr. Howard Lesourd, professor of religious education at Boston University, spoke on "Motion Pictures in Character Education"; Mr. James Collins of Quincy, on "The Use of the Radio and the Public Address System"; and Superintendent James N. Muir, also of Quincy, explained "The Quincy System of Visual Education."

Dr. P. J. Rulon, of the Harvard Graduate school of education, gave an explanation and demonstration of the Harvard University experiment in testing the value of sound motion pictures. Another outstanding demonstration was conducted by Dr. George Rommert of the Biologisches Laboratorium, Munich, Germany, on the "Wonders of an Unseen World."

Sessions in the afternoon featured the ten one-hour classes in various subjects being taught by visual aids —civics, geography, general science and biology, art,

literature, foreign language and four elementary school classes.

The convention closed with the inspection of exhibits, which included the display of helpful aids in the classroom such as pictures, models, maps, exhibits, and sand tables; literature on the subject of visual education; and a typical visual education office.

The Sound Film in Education

(*Concluded from page* 41)

learning evidenced by the different groups. The results were as follows:

	Average gain made		
	By the lowest fourth	By the middle group	By the highest fourth
Boys (50) 77.3		84.0	93.6
Girls (47) 85.7		94.5	87.8

When a dispassionate survey is made of the benefits accruing to education in general by the use of the sound film, the following points become apparent:

The sound film broadens the field of study by making possible the presentation of material which otherwise would not be available.

The student is able to employ both eye and ear. No subtitles or other interruptions divorce his attention from the subject material.

The standardization of study offered is of infinite benefit to the schools of the nation, by assuring educators that quality of content is present in the product used.

The subject is presented in a graphic manner which challenges the interest of the student.

The use of sound film is advocated in connection with highly specialized subjects such as Medicine and Science since it does not demand the stocking or purchase of expensive and seldom used apparatus. Furthermore, it assures the student of the highest quality of instruction in the particular branch of learning which he is studying.

Sound film, in no way, minimizes the importance of the teacher to the student, rather it emphasizes the necessity for mature guidance. The problems and material covered in the sound film become a topic of conversation which is covered by class routine. The sound film stimulates the student and inspires him to further research along the lines covered by the subject he has just seen and it is a teacher who will and must supervise these efforts and answer such questions as will be brought up. Nor does sound film over-reach the prescribed boundaries of the text book field, rather let us assume that the sound film acts only as an adjunct to the material covered by the text. The film provides a background against which the text book and teacher will form a living foreground, the recollection of which deeply etch themselves into the perceptive senses of the student. Unlike the radio, sound film may be run and re-run until the last iota of pedagogical assistance has been extracted.

Inanimate pieces of metal and reels of celluloid offer such potentialities that the educator of the day cannot afford to overlook them. The fear that the machine era in which we live will stifle the creative and cultural tendencies of modern youth is to be branded as utterly false for as the distinguished head of Horace Mann School, Dean Rollo G. Reynolds said in his annual report, "A good school will hand on to its children control over machines in order that these soulless machines may free the human soul to build for itself a better world in which to live."

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.

Several New Stereopticons with Heat Control

A. O. POTTER

SPENCER Lens Company have recently introduced a new series of stereopticons, known as their Color Plate and Auditorium Delineascopes.

They have eliminated the water cell with its objectionable features and the heat absorbing glass which breaks and which destroys color values, and also absorbs light.

A motor driven blower is placed in the lamphouse and a blast of cold air is conducted to the condenser chamber and to the slide. This protects both condensers and slide from breakage and color plates from damage by excessive heat. Natural color plates—such as Agfa—may be projected any reasonable length of time with perfect safety.

One particular advantage of this method of cooling is the fact that the illumination is not cut down, as is done by other methods, therefore they give exceptional brilliancy on the screen. This is particularly valuable in the projection of natural color plates because of their density and of hand colored plates because of the expense of coloring.

Model JK

Another advantage is the accommodation of various sizes of plates from 4.5 x 6 cm. to 5 x 7 inches, including standard lantern slide sizes. Because of the expense of natural color plates, many users resort to small sizes as a matter of economy. Many make their color plates as large as 5 x 7 inches and still want to project them. These new instruments take care of these conditions. This is done by the aid of a special slide carrier, accommodating adapters or kits of various sizes. These adapters may be put in the carrier so that the long dimension of the plate may be horizontal or vertical.

Three different models are offered. Model DK has a 500-Watt lamp, giving the illumination of the standard classroom models, with the cooling device added and adapters provided to accommodate plates from 4.5 x 6 cm. to 3¼ x 4¼ inches.

Model JK, herewith illustrated, has a 1000-Watt lamp, 6" diameter condensers, cooling device and adapters accommodating plates from 4.5 x 6 cm. to 4 x 5 inches. Model LK has a 1000-Watt lamp, 8 inch condensers and adapters accommodating plates from 3¼ x 4 inches to 5 x 7 inches. Both of these large models are excellent instruments for large auditoriums where a long throw is necessary and a brilliant picture is desired.

They will satisfy many needs, not heretofore taken care of. You can now protect your valuable natural color or hand colored slides from excessive heat and project them with perfect safety and because of the fact that we have used a heat control that does not cut down the light or change its tone in any way, you can reproduce pictures in their exact natural colors. And they are not large unwieldy instruments. While sturdily built, they are very compact and can be easily transported. This is of especial importance to the travelling lecturer.

An attractive circular, giving more descriptions of these new color plate Delineascopes, may be had by writing to Spencer Lens Company, Buffalo, N. Y.

Victor Offers New Complete Series of Projectors

Victor Animatograph Corporation, Davenport, Iowa, announces that the New Model 7 Victor Ciné Projector is now available in a complete series which embraces the following equipments: Model 7 Regular, which is equipped with 300 Watt "No Resistance" lamp (100-120 Volt); Model 7G with 50-60 cycle A. C. Transformer built into base to permit use of high intensity 250 Watt-20V. lamp; Model 7R with No. 11 variable resistance lamp rheostat mounted with swivel post on projector base. This Model has a wide range

(Concluded on page 64)

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

Columbia Pictures Corp. (3, 6)
729 Seventh Ave., New York City
(See advertisement on page 58)

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)
130 W. 46th St., New York City

Ideal Pictures Corp. (1, 4)
26 E. Eighth St., Chicago, Ill.

Mac Callum, Inc. (3, 6)
132 S. 15th St., Philadelphia, Pa.

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.
(See advertisement on inside back cover)

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 34)

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
300 W. Adams Bldg., Chicago, Ill.

MOTION PICTURE MACHINES and SUPPLIES

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

Mac Callum, Inc. (3, 6)
132 S. 15th St., Philadelphia, Pa.

Regina Photo Supply Ltd. (3, 6)
1924 Rose St., Regina, Sask.

Talking Picture Products Co. (2)
666 Lake Shore Drive, Chicago.

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

Victor Animatograph Corp. (6)
Davenport, Ia.
(See advertisement on page 34)

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

SCREENS

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

SLIDES and FILM SLIDES

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.

International Artprints
64 E. Lake St., Chicago, Ill.
(See advertisement on page 60)

Keystone View Co.
Meadville, Pa.
(See advertisement on page 57)

James C. Muir & Co.
10 S. 18th St., Philadelphia, Pa.

Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
(See advertisement on inside back cover)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 35)

Stillfilm Inc.
1052 Cahuenga Ave., Hollywood, Cal.
(See advertisement on page 58)

University Museum Extension Lecture Bureau
10 S. 18th St., Philadelphia, Pa.

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

STEREOGRAPHS and STEREOSCOPES

Keystone View Co.
Meadville, Pa.
(See advertisement on page 57)

STEREOPTICONS and OPAQUE PROJECTORS

Bausch and Lomb Optical Co.
Rochester, N. Y.
(See advertisement on page 59)

E. Leitz, Inc.
60 E. 10th St., New York City

James C. Muir & Co.
10 S. 18th St., Philadelphia, Pa.

Regina Photo Supply Ltd. (3, 6)
1924 Rose St., Regina, Sask.

Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
(See advertisement on inside back cover)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 35)

Stillfilm Inc.
1052 Cahuenga Ave., Hollywood, Calif.
(See advertisement on page 58)

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

THE EDUCATIONAL SCREEN SERVICE BUREAU

THE EDUCATIONAL SCREEN offers on this page a helpful service. Information on sources of supply for the items listed below will be furnished our readers on request. Fill out the coupon and mail.

(Note that sources for some of the equipment listed are given in the Trade Directory on the opposite page.)

A

Accoustical installations
Adapters, mazda
Advertising projectors
Amplifiers
Arc lamps, reflecting
Arc regulators

B

Batteries
Blackboards
Booths, projection
Bulletin boards, changeable

C

Cable
Cabinets
Cameras
Carbons
Cases, film shipping
Cement, film
Charts
Chairs, theatre
Condensers
Controls, Volume

D

Dimmers
Draperies
Dynamic Speakers

E

Electric power generating plants
Exhibits

F

Film cleaning machines
Film rewinders
Film slides
Film splicing machines
Film strips
Films, Educational
Films, Religious
Films, Entertainment
Films, Sound
Filters
Fire extinguishers
Fireproof curtains
Flares
Footlights
Fuses

G

Generators
Globes
Graphs
Gummed Labels

H

Horns

I

Ink, pencils for slides

L

Lamps, incandescent projection
Lamps, high intensity
Lamps, reflecting arc
Lenses
Lights, spot
Loud Speakers

M

Maps
Map slides
Mazda projection adapters
Mazda regulators
Microphones
Microphone attachments
Microscopes
Micro projectors
Motors, electric
Motor generators
Motors, phonograph
Motion picture cable

N

Needles, phonograph

O

Opaque projectors

P

Phonograph turntables
Photo-electric cells
Pictures, Prints
Posters
Projectors, lantern slide
Projectors, motion picture
Projectors, opaque
Projectors, portable, (16 mm.)
Projectors, portable, (35 mm.)
Public Address Systems

R

Rectifiers
Records
Record cabinets
Recording, electrical
Reflectors
Regulators, mazda
Reels
Reel end signals
Rheostats

S

Screen paint
Screens
Slides, lantern (glass)
Slides, film
Slide making outfits
Slide mats
Shades
Shutters, metal fire
Speakers, dynamic
Spotlights
Stage lighting equipment
Stage lighting systems
Stage rigging
Stage scenery
Stereographs
Stereopticons
Stereoscopes
Stillfilm

T

Talking equipment (35 mm.)
Talking equipment (16 mm.)
Title Writers
Tone Arms
Tripods
Turntables, phonographs

SERVICE BUREAU, THE EDUCATIONAL SCREEN,
64 East Lake St., Chicago, Ill. Date.....

Gentlemen: I should like to receive reliable information on sources of supply for the following items:

.....

.....

Remarks .....

Name .....Business or Profession.....

City .....State .....

Among the Producers

(*Concluded from page* 61)

of lamp interchangeability as it accommodates (on either Alternating or Direct Current) the 250W.-50V. 375W.-75V. and 165W.-30V. high intensity lamps, as well as the regular 100-120 Volt 200 Watt and 300 Watt lamps.

Outstanding among the new features offered in the Model 7 Series is an improved optical system which affords much better illumination, regardless of the type of lamp used. A wider speed range and more quiet operation are other improvements.

The Model 7 Regular and the Model 7G are equipped with the attractive rectangular base which previously was supplied only on the Model 3G. The Model 7R has the pedestal base to permit swinging the rheostat in under the projector body when placing the machine in its carrying case.

The well known and desirable Victor features such as the adjustment shutter which is a constant safeguard against "jumpy" pictures, the automatic film strip which affords protection against film damage and other equally important refinements are all embodied in the Series.

Wholesale distribution of Victor Projectors is through the Wholesale Division of National Theatre Supply Company which has factory service sales branches in all principal cities of the U. S. A.

RCA Announces 16mm Sound Projector

RCA Photophone has just introduced its new 16 mm. sound-on-film projector, developed in association with the RCA Victor Company. A recent demonstration of the machine showed it to be a compact equipment especially suited to the requirements of the industrial field, schools, colleges, clubs and churches. The appearance of this Junior Portable projector, so-called to distinguish it from the 35 mm. portable which has been on the market for more than a year, makes possible the presentation of sound pictures in places that would be inaccessible to 35 mm. apparatus.

The equipment, consisting of a projector-amplifier unit and a small loudspeaker unit, is operated from any 110-volt, 50 or 60-cycle A. C. lighting circuit. The projector-amplifier unit is 14½ inches long, 13¼ inches high, 8¼ inches wide and weighs 43 pounds. The equipment is not removed from its case during operation, the interior mechanism being accessible for adjustments, replacement of radiotrons, lamps and photocell.

The projector is equipped with an optical system which projects pictures varying in size from 22 inches wide to 16 inches high at a distance of 10 feet to 67 inches wide by 50 inches high at a distance of 30 feet. The picture size recommended by RCA for good illumination is 52 inches wide by 39 inches high, which is obtained at a projection distance of 23 feet.

The loudspeaker is mounted in an individual carrying case which is 19 inches long, 16 inches high, 9½ inches wide and weighing 21 pounds exclusive of film cases, reels and film. Space is provided in the case for the storage of eight film cans for 400-foot film reels. This loudspeaker is of the flat baffle type, with the dynamic speaker unit mounted behind the screened opening in the front of its carrying case. A sufficient volume of sound is available to meet the requirements of rooms having a cubic content up to 10,000 feet. The 16 mm. film employed for reproduction contains sprocket holes on one side only instead of both sides as are required on 35 mm. film. When threaded in the projector, the sprocket holes are on the right side of the film. The sound track, barely discernible to normal sight, is at the left.

Movies Record Earthquake Vibrations

How a Filmo movie camera was employed in the Philippines for making a motion picture record of the needle movements of an instrument constructed for measuring earthquake vibrations, is interestingly told by I. A. Terry of the engineering department of the General Electric Company.

"We made an instrument, the vibration mechanism of which was a Starrett dial test indicator held rigidly to the frame. The dial was covered with a dull finished black paper, and the needle was given a high polish on the tip. The glass was replaced by a deeply blackened metal sheet, with a small slit in it, covering an arc of about 20 scale divisions (mils.) A beam of light was focused on the slit from a motion picture projector, with the light beam cut down by means of an aperture in a wooden block between the source of light and the dial test indicator. By this means the slit only of the indicator was illuminated.

"The Filmo moving picture camera was used for recording the needle motion, the indicator being adjusted to such an angle that a perfect reflection of light to the camera from the needle was obtained, with the needle in the center of the slit. The camera was modified to give a continuous, instead of an intermittent, film motion. The plane of the camera was set so that the plunges of the needle would traverse the width of the film."

The camera, states Mr. Terry, was timed during several test runs and found to measure up to the required standard of accuracy. The resultant movies are highly valuable for seismic study.

Educational SCREEN

MARCH ● 1932

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School .....

Address .....

City ..... State .....

PROFESSIONAL RESULTS WITH AMATEUR EASE

Educational Screen

MARCH, 1932

VOLUME XI NUMBER 3

CONTENTS

Contents of previous issues listed in Education Index.

General and Editorial Offices, 64 East Lake St., Chicago, Illinois. Office of Publication, Morton, Illinois. Entered at the Post Office at Morton, Illinois, as Second Class Matter. Copyright, March, 1932, by the Educational Screen, Inc. Published every month except July and August.

$2.00 a Year (Canada, $2.75; Foreign, $3.00) Single Copies, 25 cts.

EDITORIAL

THE recent meeting of the National Academy of Visual Instruction, held concurrently with the Department of Superintendence of the National Education Association at Washington, was the most successful meeting of the Academy's twelve years of existence. The addresses, demonstrations and discussions, by eminent speakers who know what it is all about, proved that the visual movement has graduated at last from its elemental period when its written and spoken literature consisted chiefly of truisms and platitudes, endlessly repeated. We propose for burial such classics as "seeing is believing" and "the eye is the shortest path to the brain".

Merger of National Organizations

Further, at Washington was taken what should prove the greatest step forward to date in the advance of the visual movement. By wise and unanimous action, the two national organizations previously occupying the visual field were merged into one, and it a permanent department of the National Education Association. We are pleased to present below a full account of those two significant days, written by Ellsworth C. Dent, formerly Secretary of the National Academy of Visual Instruction and now Secretary of the newly formed Department of Visual Instruction of the National Education Association.

WE now take immense satisfaction in announcing another merger—of the two magazines which have been serving this field with more or less duplication of effort. Such a move was mentioned at Washington as a possibility; detailed arrangements have been rapidly completed since.

Merger of the Two Magazines

Beginning with the next (April) issue, THE EDUCATIONAL SCREEN (monthly) and VISUAL INSTRUCTION NEWS (bi-monthly) will be combined into a single monthly magazine, to cover an even larger total field than was previously covered by the two magazines together and to serve that field more effectively. For a time at least, the magazine will continue to appear as THE EDUCATIONAL SCREEN, combined with VISUAL INSTRUCTION NEWS. All current subscriptions to either magazine will of course be fulfilled by the combined publication.

This combination is not a matter of mere nomenclature. It means economy in printing costs and overhead which will permit more expenditure toward steady improvement of the magazine. It means an increased producing staff which will ensure greater working efficiency. It means a perfected advertising medium, a perfected medium of exchange of ideas and information, which will be invaluable to all sides of the visual field—commercial, educational, social, ecclesiastic.

Besides numerous plans for expansion and improvement in contents and appearance, the new arrangement adds at once to the staff Mr. Ellsworth C. Dent, well-known founder and editor of VISUAL INSTRUCTION NEWS, as Manager of the new magazine; and an Editorial Board to be selected from the newly formed Department of Visual Instruction of the National Education Association. We are confident that this move, following immediately upon the significant merging of the national organizations, creates a situation greatly to be desired—a single magazine for a unified visual field.

NELSON L. GREENE

The Washington Meeting

THE January issue carried an announcement of plans for the meeting of the National Academy of Visual Instruction which was held in Washington, D. C., on February 23-24, 1932. The program as announced was followed closely and the meeting was generally accorded to be the most successful in the history of the Academy.

The majority of the discussions presented were centered around the theme of teacher training for visual instruction and many suggestions were given by those who took part in the discussions. The general discussions of teacher training were preceded by the presentation of an agenda which presented various problems and invited discussion. These discussions were carried throughout the meetings on Tuesday, February 23 and were reviewed briefly by Dr. Daniel C. Knowlton at the fourth session, Wednesday morning, February 24.

The breakfast meeting on Wednesday morning included some unusually interesting reports of developments during the past year with some prediction of possible future trends.

The business meeting was started Wednesday morning at 11:00 o'clock but it was necessary to postpone

the election of officers and other parts of the meeting until after the luncheon meeting. The majority of those who attended the luncheon meeting remained for the business session.

The most important outcome of the business session was the final approval of the plan for merging the National Academy of Visual Instruction with the Department of Visual Instruction of the National Education Association. The two organizations have been working parallel to each other since 1923 and the very existence of the two smaller organizations has caused general confusion among those who might have been interested in joining one or the other. It has been found that many maintained membership in both organizations and that the majority of these have been wondering why the two organizations existed. It is not necessary to consider the history of the organizations in order to determine the origin of the two for that is of no great importance to us at present. It is important that there is now but one outstanding visual instruction organization in the United States and that organization is the result of the merger of the two which existed formerly.

The new organization shall be known as the Visual Instruction Department of the National Education Association combined with the National Academy of Visual Instruction. It is quite probable that rather lengthy name will be shortened at sometime in the future but it was considered advisable to have both names appear until the identity of the individual groups becomes of very little or no value. Perhaps the name is rather unimportant after all and the test of the merger will be the activities attempted and carried through by the new organization.

Membership

Membership in the combined Department and Academy will be open to anyone who may be interested in the use of visual aids to instruction in schools, industrial organizations, churches, or other non-theatrical groups. The cost of individual membership is but $2.00 for the year and this includes the publications of the Department and the Academy as they have been offered in the past. This is really a reduction of one-half in the cost of membership in as much as the former cost of membership in the Academy has been $3.00 and the membership fee to the Department has been $1.00. It is understood, of course, that all those who apply for membership in the merged organization shall become members of its National Education Association, which is the parent organization.

It is planned that a special membership, including three copies of each of the publications shall be offered to schools at an annual fee of $3.00. One copy of these publications could go to the superintendent or principal, one copy to the person in charge of the visual instruction program, and the third copy to the school or teachers' library for reference.

Institutional, contributing and life membership shall remain the same as for the Academy in the past. Institutional membership embraces those organizations which are interested in the distribution of visual aids among schools, such as University Extension Divisions, State Departments of Education, Museums, and the like. The annual fee for such membership is $15.00.

Contributing membership is offered to afford an opportunity for commercial organizations, individuals and others to assist the Department of Visual Instruction financially. The suggested contribution is $25.00 annually and in exchange for this contribution, special rates are quoted on advertising space in the various publications of the Department. The saving in the cost of advertising will more than offset the contributing membership fee if space is used in each of the publications.

Life membership shall be offered at a fee of $50.00 and life members will be entitled to the same privileges as those extended to active members. Special rates for life membership will be made to those who maintain membership in the Academy or in the Department over a period of ten years or more. The income from life memberships will be placed in trust and the earnings only will be used to promote the work of the Department. It is expected that in this way a sizable endowment can be built in the future.

Publications

In the past members of the Academy have received without charge the EDUCATIONAL SCREEN and VISUAL INSTRUCTION NEWS, which are monthly and bi-monthly publications. In addition they have received the annual directory service, announcements of meetings, reports of research, etc., as they may have been available for distribution. Members of the Department of Visual Instruction have received very little due to the fact that the small income from members has not been sufficient to cover the cost of a regular publication.

At the last session, on Wednesday afternoon, announcement was made of the contemplated merging of the EDUCATIONAL SCREEN and VISUAL INSTRUCTION NEWS into a single magazine to serve the

(*Continued on page* 84)

The Administration of a City Department of Visual Aids

ARNOLD W. REITZE

THE administration of a department of visual aids is concerned with the policies of the department, and in general with carrying out, according to the accepted plan of organization, the many and varied functions of the department. It is, also, concerned with the duties and qualifications of the various members of the personnel and with the rules and regulations governing the operation of the department.

In order to administer effectively the department, the status of the department in relation to other departments in the school system should be clearly defined. This will prevent any mistaken ideas as to the purpose and place of a department of visual aids in the school system. The department of visual aids should be a separate division of the school system under the direct supervision of the superintendent of schools. The department should have the power to formulate and enforce such policies, rules, and regulations as are necessary for the efficient functioning of the department. Such policies, rules, and regulations, however, should be subject to the approval of the superintendent. The relation of the department to other departments in the school system should be one of wholehearted co-operation for the mutual benefit of all concerned with the educational system. The department should co-operate with any and all teachers, supervisors, directors, and others engaged in the advancement of education. The department should also co-operate with such organizations, outside the school system, who may be interested in furthering the cause of education or in the progress of the public school system.

The duties and qualifications of the various members of the personnel is another important phase of administration. The personnel of a department varies both in the number of members and in the duties of the members, depending upon the size of the department. It is obvious that the duties of certain members of the staff will overlap each other in different departments. It is necessary for one person to assume responsibility for several positions in the smaller departments which are separate positions in the larger departments. The title of director is usually given to the person in charge of the department. The director is head of the department and under him all the other members of the staff perform their duties. He is usually directly responsible to the superintendent for the organization, functions, and administration of the department. The duties of the director are many and varied, but, like other executives, he delegates the actual performance of the minor or highly technical duties to his subordinates. For this reason, only the duties of the director are discussed in detail. Mr. Frederick Dean McClusky in the Junior-Senior High School Clearing House for December 1930 has given a rather comprehensive list of the duties of a director. His list is as follows:

(1) He must keep in touch with the sources of new material.

(2) He must wisely select, construct, or reconstruct material with reference to its place in the curriculum and arrange for its classification and entry into a catalogue.

(3) He must interview teachers, principals, and others who wish to consult him with respect to visual aids.

(4) He must administer the routine of his department, making certain that orders are filled with dispatch and smoothness, that records are kept, and that materials are sent out in good condition.

(5) He must follow up breakage and delays in transportation.

(6) He must supervise the use that is being made of the material.

(7) He must help teachers and others plan special exhibits.

(8) He must make tabular studies of the extent of service.

(9) He must arrange for the proper advertisement of available material in terms of catalogues, lists, and the like.

(10) He must prepare carefully worded rules and regulations covering the use of materials which will conform to local ordinances, school-board regulations, and other laws affecting their use.

Editor's Note: This article is the third and final in the series based on a master's thesis entitled "The Organization, Functions, and Administration of a City Department of Visual Aids." The first and second articles appeared in the January and February issues.

(11) He must prepare or arrange for the preparation of lesson plans, digests, lectures, and other teaching helps to accompany the exhibits, slides, pictures, films, and other visual aids.
(12) He must render a report at stated intervals to his superiors.

While this list is by no means an exhaustive one, it does show clearly the many and varied duties of a director. Other members of the staff of a department of visual aids are: assistant director, secretary, booking clerk, projectionist, shipping clerk, file clerk, film repairman, slide custodian, photographer, laboratory assistant, model builder, and delivery man. Some or all of these persons are desirable, depending upon the size of the department.

The enumeration of the many duties of a director of a department of visual aids should serve to call attention to the training and qualifications of the person selected for this position. In the article of Mr. McClusky previously quoted there is also a list of the qualifications and training desirable for a director. This list is as follows:

(1) Thorough experience and training in the technique of teaching.
(2) Experience and training in educational administration and supervision.
(3) Training in the art and science of photography and training in making slides, charts, and posters in order to judge more intelligently the quality of the material proposed for collections.
(4) Training in the preparation and care of museum exhibits.
(5) Knowledge in handling projection apparatus and other mechanical appliances commonly used in visual education.
(6) Training in handling people.
(7) Training and experience in preparing catalogues, reports, etc., in which the work of the department is described.

Another important phase of administration is the formulation of the necessary rules and regulations governing the operation of the department. In general, such rules and regulations should be inclusive and yet flexible enough to meet any situation which may arise. However, while the rules governing the department should be inclusive, the rules concerning the borrowing of visual aids by the teachers should be as simple and brief as possible. This is desirable in order to prevent teachers from becoming discouraged in borrowing material, due to an elaborate set of rules. The rules governing the department can only be formulated after a careful study of state laws and local ordinances concerning the use of visual material. If it is the policy of the department to loan certain of the material to outside organizations, it is well to draw up a separate set of rules for the use of material by such organizations. A suggested set of rules covering the points which are common to most departments is presented in this article. This set of rules, however, is only suggestive and it may be altered to meet any conditions of a given school system.

Rules and Regulations of the Department of Visual Aids

General

1. Material must be used only in apparatus or projectors which have been placed in the school by the department or which have been approved by the department.
2. Equipment belonging to the department shall not be removed from a building except by the department or upon a special order of the department.
3. Material or equipment damaged through carelessness will be charged to the school.
4. Only films obtained through or from the department are to be used in projectors of the department.
5. Material may be seen and inspected at anytime during office hours at the visual aids center.
6. Suggestions regarding the improvement of any phase of the work of the department are always welcome.

Ordering

1. Consult catalogs and lists on file with the principal.
2. Consult the teacher in charge of visual aids in your school for additional information.
3. Place all orders on a regular requisition form.
4. Order all material by exact catalog title and number.
5. Use a separate requisition form for each date.
6. Use a separate requisition form for each type of aid.
7. Material may be kept for one week only. It can be reordered at a later date.
8. Requests for material are filled in order of receipt. Place your orders well in advance. Material may be ordered for a full term.
9. Material not delivered is temporarily not on hand. If wanted later it should be reordered.

Delivery

1. All material will be delivered on a certain day each week. The previous week's material will be collected at the same time. If a delivery day comes on a holiday, the truck will call one day earlier.

(*Concluded on page* 76)

Cinematography at the University of South Dakota

R. V. NEWCOMB
Director, Motion Picture Activities

ON ENGINEER'S Day, spring of 1929, a Pathé News cameraman was obtained to take news pictures of famous aviators present at Vermillion, activities at the airport, also pictures of a class of girls dancing in the outdoor theatre. These pictures were shown nationally by the Pathé News Release and various favorable comments were received by the executive head of the University, and by the writer in capacity of Chairman of the committee on aeronautics at the University.

During the early spring of 1930 the writer started taking motion pictures of various campus activities at the University with his personally owned Filmo 70 camera. The pictures thus taken were shown to various University executives with the idea in mind of proving to them the possibilities of 16 mm. motion pictures in connection with the training of athletes, record of events, record of campus activities and personalities, visual education, and last but not least, good publicity and advertising for the University.

Enough enthusiasm was aroused by these initial efforts to get the executives to allow enough money for the local recording of our 1930 Engineer's Day airport activities on standard film. We are indebted to the unselfish and efficient co-operation of Lynn's Photo Finishing, Inc., of Sioux City for the success of that venture which resulted in a most interesting picture of not only airport activities, girl's glider event, etc., but also of the annual inspection of the University R. O. T. C. Corps, visiting high school groups, and important individual guests.

For the initial showing of this picture a dinner was arranged to which the executives of the University, executives of the various University departments, athletic directors and coaches were invited. The outcome of that dinner and premier showing was the purchase of a camera with a complete set of lenses, Kodacolor attachment, projector, screen, and minor accessories.

With the arrival of this equipment, the writer enthusiastically devoted himself to the job of co-operating with all departments in the taking of various pictures which could be used by the Alumni Secretary on his summer visits to various groups over the state.

The success of these first pictures, taken as a publicity measure, was very marked. The following fall was a most busy one for the self-appointed director of motion picture activities at the University. Continual calls came from the athletic department for the taking of slow motion pictures for football training —in tackling, blocking, running and scrimmage. Pictures at speed of 32 frames per second were taken of all the football games played and then projected before the football men and coaches. When the coach pointed out errors made by various players, there was no argument. The player at fault could himself see both cause and remedy.

Pictures were taken in the various Schools and Colleges of the University depicting subject matter and advantages of courses offered. The so-called director of motion picture activities was besieged with requests for co-operation and the matter of his obtaining sufficient sleep soon became an acute problem. The call for inside pictures developed incandescent lighting troubles which were first met by the director's personally owned battery of three one-thousand watt unit, incandescent lights, and 150 feet of No. 8 stage cable.

With the winter came basket ball, boxing and swimming. Slow motion pictures were made and used in the training for these sports. In the spring came track and the usual interesting campus events and activities. Titles were made by the use of a standard titling outfit (white metal letters) and a large specially constructed blackboard with surface finish of cork.

By this time the students had become interested in "movies". At every event they would see the cameraman taking these moving pictures, and were most anxious to see the pictures projected; perhaps mainly because they wanted to see themselves in the movies. They became interested in motion picture technique and besieged the self-appointed director with questions concerning equipment, costs, exposure, angles, etc. To bed at 2:30 A. M., up at 7:00 A. M., civil engineering classes all morning, then after lunch out with the camera until dinner, perhaps some inside shots in the evening, then editing and making titles until 2:30 A. M. Such was the daily program and something had to be done about it. The happy idea then occurred. Why not combine the need for technical help with the desire

on the part of numerous students to learn about motion pictures?

A plan was carried to the President whereby a course in cinematography might be offered at the University. The course as originally outlined was as follows:

CINEMATOGRAPHY. Lecture 1 hour, laboratory three hours as assigned. No prerequisite. Laboratory fee $5.00 per credit hour. Two semesters. 2 credit hours each semester.

Topical Outline

(1) Motion Picture Machinery
(2) Taking the Picture
(3) Projection
(4) Titles
(5) Cutting, Editing, Splicing
(6) Lighting and Exposure
(7) Composition
(8) Optical Science
(9) History of Motion Pictures
(10) Evolution of Film
(11) Processing
(12) The Story
(13) Location and Sets
(14) Motion Picture Make-up
(15) Color Rendition
(16) Sound in Motion Pictures
(17) Trick Work
(18) Motion Pictures as an Educational Medium
(19) Motion Pictures as an Advertising Medium

The writer believed that the course as outlined belonged in the Engineering College because of mechanics involved, lighting problems, sound, color, etc. However our Dean objected to such a course in the Engineering College so the College of Arts and Science immediately grabbed on and placed it under the Journalism department.

This idea of a Course in Cinematography was passed upon favorably by the Board of Regents and accordingly advertised in the University Catalog under the department of Journalism.

During the summer the writer was engaged by the South Dakota State Game and Fish Commission to take motion pictures of South Dakota Wild Fowl, especially showing their nesting habits. The underlying theme of these pictures was conservation of virgin nesting grounds for birds.

Our initial registration in cinematography last fall was ten. One of this number, Mr. G. Leslie Cooper, had had previous experience with Universal and we found his ability and enthusiasm to be most helpful in putting across the course.

The early part of the semester was devoted to the mechanics of motion pictures, the different types and makes of equipment. This was followed by lectures on lenses and proper exposure. Our laboratory system consisted of requiring so many feet of exposed film per week from each student. Results would then be criticised with regard to exposure, angle and composition. To begin with, greatest stress was placed upon proper exposure, then when the student began to get the idea, camera angles were explained, then composition.

During these early weeks we were also working on the development of lighting equipment for use in taking inside pictures. We stuck to our 1000 watt incandescent units and built six such units with 15-inch white enameled reflectors and adjustable height stands. Two 100-foot cables No. 6, were made with 60 ampere clips on one end and removable 6 gang box on the other. These cables were also arranged so that they could be plugged together and one long cable of 200 feet formed. It was soon found that spot lights were necessary for high lighting effects so two incandescent spots were added to the equipment.

With this equipment we could now take almost any sort of an inside shot so instruction was started on artificial lighting. General lighting, molding light, high lights, depth by lighting, lighting key, etc., were discussed and tried out by actual picture taking.

About this time the proprietor of the "Varsity," who runs a large soda fountain where the students gather on date nights to eat ice cream and to dance, suggested that he might pay for all costs if we would write, cast and shoot an advertising picture for him, the purpose of which would be to bring him in more business.

A continuity was immediately prepared entitled "Date Night" and which was accepted. It was first necessary to make various screen tests of numerous actors and actresses. We found out something about screen tests. Screen tests are a most admirable way to interest potential fans in the movie game. Screen tests also furnish excellent laboratory experience to student directors, cameramen, electricians and actors. Regardless whether we are working on a production or not we now carry on screen tests at regular stated periods each week, and we never lack for new material.

It might be mentioned here that all films used by the students are paid for by the laboratory fees collected in the course. All pictures taken on this film is property of the University so that the University now obtains its pictures for record and publicity without cost.

The picture "Date Night" is now completed (400 ft.) and we are proud of it. The shooting of this picture

(*Concluded on page 91*)

Units of Instruction for Teacher Training Courses (No. 3)

How are Lenses Used in Projection?

L. PAUL MILLER
Bucknell University, Lewisburg, Penna.

(A) *To what extent is knowledge of different kinds of lenses useful in understanding the operation of projectors?*

The subject of projection of light rays through lenses was introduced in a preceding unit. We found that focal length of a lens or combination of lenses determines the size of the image on the screen. Since many teachers who use projectors have not majored in physical science, it hardly seems necessary to go too far into the mathematics of formulas for lenses. A working knowledge of the principal parts of a stereopticon is essential however, if teachers are to use projectors intelligently. We shall study the construction of the stereopticon, and then make a few simple measurements of focal lengths, and object and image distances.

(B) *How can visual aids be used in the study of this unit?*

A class in visual education, to be consistent and practice what it is advocating, will make liberal use of visual aids, with every lesson. The subject of lenses can best be studied by use of (a) lenses, preferably combinations of lenses taken from projectors, (b) the Spencer set of glass slides on construction and use of the stereopticon, and (c) the motion picture films, *Eyes of Science* and *Lenses*. (See "Visual Aids," for this unit.) The following discussion is intended to accompany the Spencer slides, Nos. 11 to 20 inclusive, and is a condensation of the directions issued with the slides.

Author's Note: Many useful suggestions are being received concerning Units 1 and 2 of this series, which appeared in the January and February issues of THE EDUCATIONAL SCREEN. It is hoped that publication of these specimen units will provide a basis for discussion as to what we should include in our teacher-training courses in visual education. Copies of the complete list of topics of forty-five units, now in use in several Pennsylvania colleges, are being sent to those who request them. The units on projection, only, are being published in this series. No. 4 of the series, next month, will be on the problem: "What Facts About Electricity Are Important in Projection?"

(C) *What are convex and concave lenses?*

Double convex lenses bring the light rays passing through them to a point, while double concave lenses diverge the rays. (Slide 11.)

(D) *What are condenser lenses?*

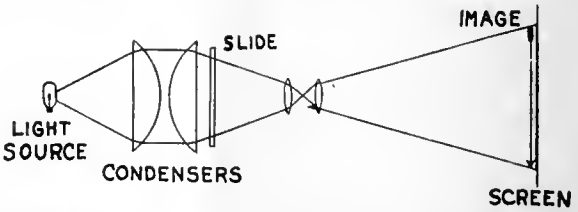
Large glass condensers, placed a short distance in front of the light bulb, gather the light rays and bring them to a focus on the glass slide, film slide, or opaque object to be projected. (Slide 12.)

(E) *What are objective lenses?*

Objective lenses are combinations of lenses, smaller in diameter than the condenser lenses, which are placed at the point of focus, in front of the glass slide or film slide, for the purpose of increasing definition. (Slide 13.)

(F) *Where is the slide placed, with reference to the lenses?*

The slide is placed just in front of the condensers, so that all of the light will pass through it. After passing through the slide, the light rays pass through the objective lenses, the upper rays going to the lower part of the screen, and the lower rays to the upper part. Since the slide is always placed in the stereopti-



Slide is placed directly in front of condensers and image resulting is inverted.

(Courtesy, Spencer Lens Co.)

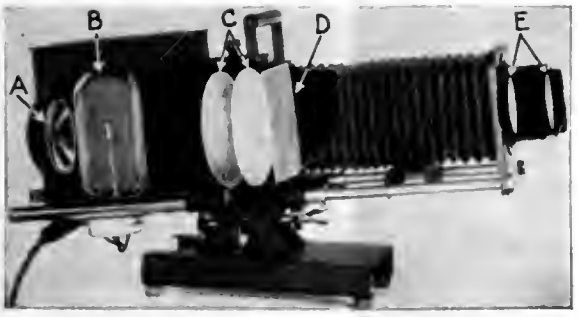
con inverted, the image on the screen will be right side up. The image is as many times as large as the slide, as the distance from the objective lenses to the screen is times the distance from slide to lenses. (Slide 14.)

(G) *What is the purpose of the concave mirror?*

The concave mirror, behind the lamp, reflects additional rays of light through the condensers. (Slide 15.)

(H) *What are the essential parts of a stereopticon?*

Record, in the written summary, the essential parts of a stereopticon, from the back of the machine to the front. (Slide 16.)



A=Concave Mirror. D= Slide.
B=Light Source. E=Objective.
C=Condensers.

(Courtesy, Spencer Lens Co.)

(I) *What is the construction of an opaque projector?*

In the glass slide and film slide projectors, as well as in motion picture projectors which we shall study later, the light passes through the object to be projected on the screen. In the projector for opaque objects, such as post-cards, photographs, etc., it is necessary to reflect the light from the object, and then send the light rays through objective lenses to the screen. The lamp and concave mirror are placed at the side of the object, at an angle, and the rays of light from the object strike a mirror placed at a 45 degree angle, and are then reflected through the lenses, which project them on the screen. (Slide 18.)

Verbal Aids

Enlow, E. R., "Optics of the Projector," THE EDUCATIONAL SCREEN, V:453-456. October, 1926.
"About Lenses", Eastman Kodak Co., Rochester, N.Y.
"Directions for Using Spencer Slides for Teaching the Construction and Use of the Stereopticon", Spencer Lens Co., Buffalo, N. Y.
Teachers' Manual, accompanying the film, "Lenses", Eastman Teaching Films, Rochester, N. Y.
Elementary physics text-books.

Add:

Visual Aids

Lenses taken from projectors used in class.
Glass slides on construction and use of stereopticon, slides 11 to 20 inclusive. Spencer Lens Co., Buffalo, N. Y.
Motion picture film, *Eyes of Science* (Free) Bausch and Lomb Optical Co., Rochester, N. Y.
Motion picture film, *Lenses* (Sale) Eastman Teaching Films, Rochester, N. Y. The Eastman film, *Optical Instruments*, may also be used here. It is listed again as a visual aid, in a later unit.

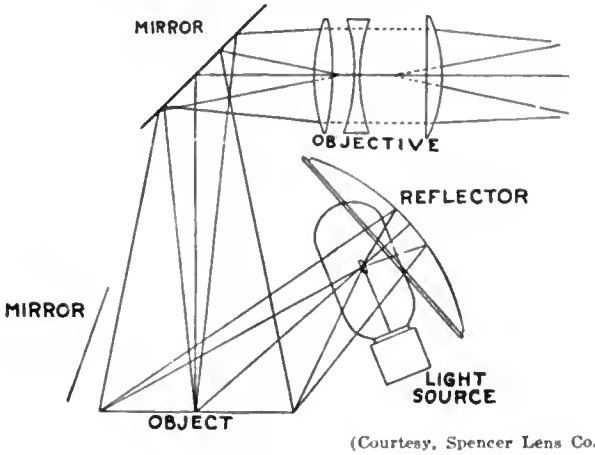
Add:

Individual Practice

Constructing a homemade opaque projector.
Finding focal lengths of objective lenses taken from projectors. Measure the distance from the lens, or approximate center of a combination of lenses, to a white card on which a distinct image appears of a distant object. Record result below.

Add:

Optical Essentials
for Opaque Projection.



(Courtesy, Spencer Lens Co.)

Written Summary

Principal parts of a stereopticon, from the back of the machine to the front, are .....
.....
Focal length of objective lens: (f).....inches.
Distance from glass slide to lens, in projector: (Do).....inches.
Distance from lens to screen, when image is sharp: (Di).....inches.

To find the reciprocals of (f) focal length, (Do) distance of object from lens, and (Di) distance of image from lens, divide each of the three numbers into 1. The reciprocal of (f) has what relation to the reciprocals of (Do) and (Di)?.....

Add:

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.

Farm Bureau Film Activities

Largest purveyor of rural motion picture entertainment in America is the latest claim of the Motion Picture Division of the American Farm Bureau Federation, based on the fact that 1,435 county Farm Bureaus representing every section of the country during 1931 made regular use of Official Farm Bureau photoplays. Even greater circulation is assured for this year with the announcement that from now on all the Bureau's motion pictures can be obtained absolutely free by county Farm Bureaus. Groups outside the Farm Bureau organization are required to pay actual transportation costs.

During 1931, in 5,898 showings, more than 541,648 persons saw Farm Bureau films at community meetings held in rural schools, town halls, country churches, private homes, outdoor natural theatres and in other rural gathering places. In addition, countless hundreds of others saw them in vocational agriculture classes, women's meetings, country churches and 4-H Club meetings. In some instances, they were used by rural ministers as the texts for Sunday evening sermons.

Farm Bureau movies are made by the Farm Bureau for farm folks. Years have been spent by motion picture experts in developing just the right sort of stories and casts, guaranteed to please farm people. Real actors and actresses are employed because it is felt that professional artists can act more like farmers before the camera than farmers can themselves. Scenarios are prepared by experienced motion picture dramatists and directed by professional directors, famous for their ability to create interesting and entertaining educational films, with a "farm slant." In some instances, it is necessary to have a real farm character play a part.

Most of the scenes for the Farm Bureau films are "shot" in Oak Park, Ill., where the Atlas Educational Film Co. has its studio. Often, however, it is necessary to find a location in a typical Farm Bureau county. Still other times, especially in the winter months, when exteriors are difficult, cast and crew are moved to a southern state. Long-distance "location trips" have been made to Washington, D. C., New York City, Menominee Indian Reservation near Shawano, Wis., Kansas wheat fields and other points. On the studio floor, African jungle scenes, world war battle fields and difficult foreign locations have been duplicated.

All official A. F. B. F. Motion Pictures are produced with the primary objective of selling new Farm Bureau memberships and heightening the interest of members in the Farm Bureau. At the same time, they present educational and entertaining features for farmers which are generally not obtainable in the regular theatrical releases. They are decidedly not the lecture type. Each tells a real dramatic story, packed with romance, comedy and other necessary attributes to a good photoplay. In each picture is demonstrated some Farm Bureau project, ranging from sewing and cooking for farm women to a picturization of the organization of a live stock shipping association and other kindred subjects.

In several instances, radio versions of Farm Bureau films have been broadcast over the entire National Broadcasting Co. network so that countless thousands who have never seen a Farm Bureau movie are nevertheless familiar with the stories told in them, and acquainted with actors who appear in them.

With the present vogue in the theatrical world of featuring newspaper stories, the Farm Bureau was not to be outdone and has just released a photoplay under the title *Deadline,* in which the heroine is a girl reporter on a country weekly. Through her efforts, coupled with the county Farm Bureau's activity, city promoters are foiled in their attempt to force an expensive highway through the county in preference to adequate secondary roads for the farmers.

Co-operating with the American Farm Bureau Federation in the production of motion pictures are many outstanding commercial and industrial firms and institutions.

At present eleven Farm Bureau photoplays are in circulation. In the past, all of them have been printed on standard size 35 mm. film, but with the increased use of 16 mm. projectors, all of the newer productions are also available in the smaller size film. All of the stories are two reels long so that they take only one-half hour to project, which is said to be just about the right length for a community meeting entertainment feature.

Baseball Short Features

Universal Pictures has decided to release its new Christy Walsh All-America Sport Reels, featuring Babe Ruth, immediately instead of waiting for the baseball season proper. In this series of five, the King of Baseball is shown in a character that he likes best of all—the idol of Young America. He plays ball with the "kids" of the neighborhood and teaches them, not only something of the fine art of ball playing, but the finer art of manliness and the ethics of good sportsmanship.

The first picture in the series, *Slide, Babe, Slide,* shows Ruth dropping off a transcontinental train during a stop to play ball with two teams of kids. He gives them a couple of pointers on the pastime, then knocks a home run and races for his train.

In the second, *Just Pals,* the famous batter visits an orphan asylum to umpire a game between a visiting team and the orphans. This feature has more of pathos, and a more thoughtful pointing out of the ethics of sports. *Perfect Control* is another demonstration of expert baseball to the orphan asylum children.

Ruth coaches a girl's team in *Fancy Curves* and puts them through the fine points of the game, as he shows them how to wind up, how to hold the ball, batting position, catching without losing balance, and how to tag a runner at second base. *Over the Fence* completes the group of five.

This series should appeal particularly to the juvenile element and should prove ideal material for Junior Shows and Children's Matinees. They should also be of interest to baseball fans, for their demonstration of the science of baseball in all of its departments, and the general public, who will find them novel and entertaining.

Vitaphone Issues "Oberammergau"

A short subject which is of particularly timely interest during Lent, has been released by Vitaphone. It is called *Oberammergau,* and is one of the E. M. Newman series of "Travel Talks." The entire reel is devoted to the "Passion Play," which is staged every ten years in the little town of Oberammergau in Southern Germany. In the film are shown the natives who have played the various roles in the past in "The Passion Play." Mr. Newman, in his dialogue, reveals the very interesting fact that all inhabitants of Oberammergau have but one ambition in life, and that is to be selected for a role in the play that the village has staged every decade for the past 300 years. Boys and girls permit their hair to grow in order to be ready when the call for candidates comes. Here in this little village, the men wear their hair and beards as in the biblical days. All waiting and hoping for a part in the "Passion Play."

University Plans Film Production

The development of *Montezuma's Daughter,* a motion picture based on early Mexican history, will be one of the Spring projects of the newly-organized cinema laboratory at the University of Southern California. The filming will be under the direction of Dr. Boris V. Morkovin, a member of the advisory board of the National Committee for the Study of Social Values in Motion Pictures established by the Payne Foundation of New York.

Dr. Morkovin, who has been lecturing on the social and psychological aspects of the motion pictures at the university for two years, believes that educational institutions cannot afford to remain aloof from such a powerful instrument of social control as the photoplay, which, he asserts, shapes the minds of adults and children everywhere as possibly nothing else in the history of civilization has. He has enlisted the assistance of several Hollywood studios, of professors of history, architecture, English, physical education, music and anthropolgy, and of Mr. Francisco Guate, an Aztec Indian, in the filming of *Montezuma's Daughter.*

Kelvinator Produces Sound Moving Picture

Every Kelvinator distributor, dealer and salesman throughout the United States will be taken on a trip through the company's Detroit and Grand Rapids plants, and be shown the many manufacturing, assembly and inspection operations in the building of an electric refrigerator, by means of a four-reel sound motion picture recently completed by the Metropolitan Motion Picture Company of Detroit. The film is considered valuable from an educational standpoint in depicting the methods used in building electric refrigerators.

The Kelvinator Corporation, in preparing for a 1932 increase in business, consider this use of a sound motion picture as the most effective method of carrying out the phase of their promotional activity which has to do with educating the distributor, dealer and salesman as to Kelvinator quality and manufacturing methods. The picture is now being shown at distributor and dealer meetings conducted by factory officials and field men in various parts of the country.

At its beginning, H. W. Burritt, Vice-President in charge of sales, introduces G. M. Evans, Vice-President in charge of manufacturing. Mr. Evans turns

the audience over to a guide whose off-screen voice describes the various operations in the building of cabinets in the Grand Rapids plant. This follows with a trip through the Detroit plant, also described by the off-screen voice of the guide, and carries the spectator through from the very beginning of the machining operations of parts of the refrigerating units, to their assembly and installation within the cabinet. At the conclusion of the trip, Mr. Burritt introduces George W. Mason, chairman of the board, president and general manager, whose short talk concludes the picture.

Movie Teaches Safety in Rural Schools

Under the direction of W. J. Berichon, county traffic officer, a movie has been completed by Muskegon County in Michigan, with the children themselves as actors showing the usual rural hazards and the methods of combating them. The picture, which is entitled *Safety Education,* is now being shown in many of the 85 rural schools of the county and the children are seeing themselves on the screen, doing the things they should and should not do to avoid accidents.

The movie was Mr. Berichon's idea. During recent years he had visited every rural school in the county many times, giving safety talks and advice. When his talks began to grow stale and he noted a lack of interest on the part of the children, he began seeking some different way in which to impress hazards on the minds of the pupils. He looked about for a suitable movie and, finding none, decided to make one for himself. He wrote the scenario, searched about for the talent, and did a good share of the acting himself. He visited all the rural schools in the county and took one or two scenes at each school. The picture consists of 500 feet of film, requiring 20 to 25 minutes to exhibit. It reveals the wrong and right way to walk on the highway, to alight from cars, to leave the school grounds, to ride bicycles to and from schools, and other important lessons.

Mr. Berichon expects later to produce other films which will have equal value in his safety education work in the rural schools of Muskegon County.

Convention Film

A four-reel sound motion picture of the Los Angeles convention of the National Education Association was made during the meeting through the courtesy of the Motion Picture Producers and Distributors of America, Inc. This four-reel picture, *America's Teachers at Work,* is now available for use at conventions of state, district and local education associations and other educational meetings without cost except for transportation charges on the film from and to New York City. It is also appropriate for exhibit to students and faculty members in educational institutions which prepare teachers.

Two Free Films

The film *The Battle of Baltimore,* mentioned in our December issue, should be listed as *Defender's Day in Baltimore* in that it actually shows all the ceremonies in connection with the re-construction exercises at Fort McHenry and an official pilgrimage over the sacred and historical ground covered by the invading British in 1814, including scenes at the place where the last battle fought on American soil took place.

A Day With Esskay is the title of a two-reel film (16 mm. or 35 mm.) available to schools east of the Mississippi. It describes the highlights of the story of a meat-packing plant from the scenes on the plains to the finished product on the plate. Stark Films, Baltimore, offer both of these subjects free of charge.

Administration of a City Department

(*Concluded from page* 69)

Know your delivery day and have the material ready when the truck calls.

2. All material will be delivered to the principal's office or other place designated by the principal. It will be collected from the same place.
3. Report any damage or shortage immediately.

Reports

1. All reports enclosed with the material should be properly filled out and returned with the material.

Outside Organizations

1. Use only projection equipment which is in first class condition.
2. Have projector operated by an experienced and qualified person.
3. Assume responsibility for damaged material.
4. Agree not to use department material for financial gain.

In conclusion, probably the most important point to be considered in the establishment and administration of a department of visual aids, is the director. As the director is responsible for the organization, functions, and administration of the department, very careful attention should be given to his selection. The whole success or failure of the department may be determined by the type of person selected as the director and therefore too much emphasis cannot be placed on this particular point.

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Los Angeles Appoints Director of Visual Education

Clara Clark Swaim, Assistant Director of the Los Angeles Visual Education Division, has been appointed acting director of the division to fill the position made vacant by the death of Charles Roach.

Mrs. Swaim came to the Division in 1929 with wide professional and administrative experience, having served for three years as assistant to the superintendent of Burbank City Schools. As Assistant Director of the Visual Education Division, Mrs. Swaim served also on the Superintendent's Safety Council and the Committee on World Friendship. She acted as chairman of the Accident Prevention Committee of the C. T. A. during 1929.

While at Burbank, Mrs. Swaim was in charge of curriculum construction, safety, visual education, tests and measurements, and thrift. She has her A. B. from Occidental, and has done graduate work at Occidental, U. C. L. A. and U. S. C., with extensive travel in Europe.

Field Museum Spring Movie Program

The James Nelson and Anna Louise Raymond foundation for public school and children's lectures announces its annual Spring series of ten free motion picture entertainments for children. These programs are given on successive Saturday mornings, in the James Simpson Theatre at the Field Museum of Natural History, Chicago.

In all, twenty-six films will be shown in this series, covering a wide variety of subjects, including life among the American Indians, important events in American history, exploration in the arctic, wild and domestic animals and birds, flowers, travel and adventure in far parts of the world, and many other topics.

Each program will be given twice, at 10 and 11, thus making possible the accommodation of several thousand children each week. Stephen C. Simms, director of the museum, invites children from all parts of Chicago and suburbs to attend. They may come alone, in groups from schools or other centers, or with their parents, teachers or other adults. No tickets are necessary for admission.

The museum has also announced a program of nine free lectures on travel and science, beginning on Saturday, March 5, and continuing each succeeding Saturday afternoon, admission to which is free. Eminent explorers and scientists have been engaged to give the lectures and all of the talks are to be illustrated with motion pictures or stereopticon slides.

Government Report on School Use of Motion Pictures

In 1929 the Office of Education, Department of the Interior, co-operated with Mr. E. I. Way, chief, Industrial and Education Section, Motion Picture Division, Department of Commerce, Washington, D. C., in the preparation and distribution of questionnaires designed to collect information on the administration of film service in the public schools. The questionnaires were sent to 3,226 superintendents of schools and to 22,491 principals and supervising principals in communities having a population of 2,500 or more. Returns were received from approximately 6,000 superintendents and principals, 2,000 of whom reported motion pictures were not used in their schools. The remaining 4,000 reported some use of films. Usable returns were received from 517 superintendents and principals. A supplementary questionnaire on difficulties and objectives in the use of films for educational purposes was sent to the teachers. From the latter inquiry 711 usable returns were received.

The Department of Commerce arranged for the tabulation of the data in 1930 and issued a series of five circulars on this topic between January 10 and August 31, 1931. Summaries of several of these circulars were given in the February and June, 1931, issues of THE EDUCATIONAL SCREEN. The circulars were intended to be of use primarily to the producers and distributors of motion-picture equipment and films. Another circular has just been prepared by Mr. J. O. Malott, Specialist in Commercial Education of the Office of Education, to make available to teachers and school administrators information regarding the use of motion pictures in the public elementary and secondary schools. Much of the material of the Department of Commerce circulars has been included in this circular and additional data have been collected from the questionnaires.

The topics covered are: How visual instruction is

administered; How schools have financed motion pictures; Sources of films; Length of time films are borrowed; Uses of motion pictures and evaluation; Use of teaching aids.

Canada Museum Offers Free Lectures

The National Museum of Canada, Ottawa, is sponsoring a Second Series of Free Public Lectures for adults on Wednesday evenings, and for children on Saturday mornings. These lectures are illustrated by lantern slides or specimens and supplemented by motion pictures. They embrace natural history, the life of the aborigines, natural resources, industries, geography, travel, and related subjects, and each is given by a lecturer from his own experience. The Saturday lectures for children are supplementary to school work in geography and nature study.

Chemistry Group Discuss Visual Aids

The Chemistry Teachers' Club of New York, with the Physics Club of New York as guests, held a Visual Education meeting at the High School of Commerce in New York City on Friday evening, February the 26th. The speakers were Dr. F. Dean McClusky, President of the National Academy of Visual Instruction, whose topic was "The Place of Visual Education in Modern Science Teaching;" Miss Rita Hochheimer, Assistant Drector of Visual Instruction for the City of New York, whose topic was "The Assistance that the Bureau of Visual Instruction May Render to the Chemistry Teacher," and Dr. Edna Hamburger, whose talk was on "Two Years of Films at Franklin K. Lane High School." Several reels of films were also shown.

S. M. P. E. Spring Meeting

The Society of Motion Picture Engineers will hold its Spring Meeting in Washington, D. C., May 9-12, according to an announcement made by the Board of Governors of the Society. W. C. Kunzmann, Chairman of the Convention Committee, and O. M. Glunt, Chairman of the Papers Committee, will prepare the program of arrangements for the meeting which will be held during the height of the Washington Bicentennial activities.

A number of changes have been tentatively planned for the meeting this year. There will be no business sessions on the opening morning of the convention, this being reserved for registration and organization work. On Monday afternoon attention will be given to the business of the Society and committee reports. The session of theatre operating practices will be held Tuesday afternoon. A session will be held Wednesday morning at the Department of Commerce where a number of talks will be given by Government officials. A visit to the White House is being planned for Wednesday afternoon. The Thursday morning session will be confined to the problems of release prints. The photographic session will be held Thursday afternoon. For the evening sessions, it is planned to show previews of motion pictures Monday and Tuesday evenings.

The sub-committee of the Standards Committee of the Society of Motion Picture Engineers has reported its recommendations for 16 mm. film standards, together with complete layouts for two types of 16 mm. film. These recommendations are now up for approval and validation by the Standards Committee and the general Society. Before recommendations could be made it was necessary for the committee to make a thorough study of all problems in connection with 16 mm. film. At present two types of 16 mm. film are under consideration by the industry — the first being a film with one row of perforations and a sound track on the other side of the film — the second being the present type, embodying two sets of sprocket perforations. After detailed study of these two systems, the committee has drawn up standard for each type of film, but has also made its recommendations favoring one system.

New Ideas for Publicity

For several years the American Public Health Association has maintained a Health Education Service which provides "ready-made" material for bulletins, newspaper articles, and the like. A recent addition to this service promises to be of real interest and value to those whose publicity funds are running low. A new photographic process has made possible the transfer of pictures and text to the fiber stencils which are used on duplicating machines. The reproduction of even complicated drawings is remarkable and provides an opportunity for the illustration of mimeographed bulletins.

The ready-to-use Plates are now going into numerous state, city and county health department publications, also tuberculosis association bulletins, industrial house organs and school papers. These plates also serve as complete health columns in some newspapers, while the cartoons and pictures alone serve to illustrate local articles in others.

A new process of making Stencils for duplicating machines has been adapted to the Bulletin service. Text and pictures can now be reproduced with re-

markable success on the lowly "Mimeograph." Enlargements are possible up to 8½"x14", opening up new possibilities for making small posters and for using the children's pages in schools.

While not especially designed for children, experience has shown that in places where the Bulletin is issued, considerable demand for it has come from teachers of classes in hygiene, civics, biology and the like. The Bulletin, under its home name of "American Public Health News" is now being offered to schools and other organizations in any quantities, when and as desired.

Full information may be secured from the American Public Health Association, 450 Seventh Avenue, New York, N. Y.

How Talkies Helped Boost Piston Ring Sales

An increase of 23 per cent in 1931 business over that of 1930 is reported by the Perfect Circle Company, of Hagerstown, Ind., makers of automobile piston rings. "There is no doubt that our motion picture advertising has done a great deal toward making this sales record possible," says George W. Stout, advertising manager of the company.

The Perfect Circle Company employs a talking motion picture called *The Magic Circle*, presented by portable talkie reproducer machines, and much interest has developed with regard to the methods used in making the picture, arranging the talkie showings, and in rolling up definite sales as a result of these showings.

A monograph entitled "The Perfect Circle Plan, a Practical Application of Talking Motion Pictures to a Selling Problem" has been prepared and will be sent free on request to business executives who wish to inform themselves as to how the Perfect Circle Company carries out its picture program. The monograph should be of value to any company contemplating the use of talking pictures in its sales or sales promotion work. It can be obtained by writing Industrial Division, Bell & Howell Company, 1801 Larchmont Ave., Chicago.

Ten Best Films for 1931

The Tenth Annual Poll, conducted by *The Film Daily* among the leading critics of the country to select the ten best films for the past year, has resulted in the following list: *Cimarron, Street Scene, Skippy, Bad Girl, Min and Bill, Front Page, Five Star Final, City Lights, A Free Soul, Sin of Madelon Claudet.*

English Institutions Adopt "Talkies"

That sound films are playing an important role in London apart from their exhibition in the regular theatres, is evidenced by their use in three widely different institutions.

The London School of Oriental Studies have prepared a language instruction film showing the secrets of English speech and the difficulties which hinder foreigners from mastering it.

Jungle sounds, the click of the Kaffir, the lisp of the Indian, illustrate the basis of speech as it affects the English language. A committee of language teachers and expert phoneticians are examining the possibilities of its further development and application.

At the Zoological Gardens talkies of the animals are proving a popular innovation. Many people found they could not manage to see everything in one day's visit but now they can plan their program to include everything — some in real life and the rest on the screen.

Finally a theater to accommodate 800 people has been included in the plans for the building of the new stores of the Royal Arsenal Co-operative Society at Peckham.

Oklahoma Education Conference

Although the Oklahoma Education Association meeting, held February 4, 5 and 6, did not include a Visual Education Section, talking films contributed to the program of the Geography and Science Section. At the meeting of the Latin group, Professor John A. Moseley of Norman, spoke on "Visual Aids."

Sound Installations

Principal Ralph W. Hedges of Warren Harding High School, Bridgeport, Conn., reports on the use of their sound equipment. He says, "we frequently use it in school assemblies for the reproduction of educational films, but never for mere entertainment. Friday evenings we use it purely for entertainment purposes, inviting all of the residents of the district which our school serves."

Fourteen Massachusetts State institutions, including eleven hospitals and three juvenile schools, have contracted for installation of sound equipment. The contracts include the State hospitals at Wrentham, Worcester, Westboro, Taunton, Northampton, Medfield, Grafton, Gardner, Foxboro, Denvers and Boston, and the State schools at Belchertown, Waverly, and Palmer. The Norfolk County Hospital in Braintree, and the Pondville State Hospital in Wrentham have had sound equipment for some time.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

Parents' Magazine (February) "Will the Talkies Revolutionize Schools?", by James Rorty, suggests that "from the beginning it was evident that the sound picture had immense educational potentialities: that it was not merely a greater educational medium than the silent screen, but one that opened up radically new vistas of educational opportunty."

The point is that the "talkies" *talk*—and children can understand and learn from the spoken word long before they can begin to read at six, but are nine or ten before they can read sufficiently well to use reading as an instrument of learning. Yet these pre-literate years are crucial in the development of the child, for during them he learns more through his eyes, ears, and hands than during any equal period for the remainder of his life! When this one fact, conceded by most modern educators, is properly weighed, the significance of the sound picture as an instrument of education is at once apparent.

The author then reviews the history of sound pictures, the problems of production (and by whom) of educational sound films for school and other uses. The experimentation has resulted in happy conclusions.

There is, in fact, good reason to believe that in supplementing and stimulating modern educational practice from elementary school to college, sound pictures will be immensely valuable, possibly revolutionary; that the chronic insufficiency of funds, of physical accommodations, of high-grade personnel from which education suffers despite our steadily mounting school budgets, may be in some degree relieved by the utilization of this new instrumentality, that considerable acceleration of progress in the pre-literate years may be achieved, especially in the teaching by sound pictures of such subjects as geography, history, and the natural sciences; that there is a real gain in multiplying the service of gifted teachers, and securing a more rapid disseminating of progressive ideas in pedagogical technique.

The writer closes his reliable and challenging discussion in this manner:

Will the talkies revolutionize our schools? Few reputable educators can be found to risk any such categorical prediction, although there are today scores of eminent school men who are frankly enthusiastic about the possibilities inherent in the new medium. This much can be said: the introduction of the sound picture is almost certainly destined to affect profoundly the American education system from top to bottom. It will not displace teachers; rather, it will strengthen their hands and accelerate progress in educational theory and practice.

The New York Times Magazine (January) " 'Roxy' Talks of Shows and Showmanship" is not of specific interest to those studying educational films, but it offers some highly suggestive speculation easily applicable to the educational field.

New York State Education (February) In his fourth article of the series appearing in this publication, Mr. Alfred W. Abrams tells "How to Read Pictures." The first step, he declares, is to determine what the picture actually tells; then, the mind tries to supply missing elements and thus round out the visualization. He selects a few pictures which are often used in schools to illustrate certain faults in their use, suggesting how their use might be made more effective.

Federal Council Bulletin (January) "Effects of Motion Pictures on Children" is a report on a Master's Thesis, written by Rev. William Fay Butler at the University of California. "While on too limited a scale to be conclusive, it is a timely contribution to knowledge in this field of great importance to religion."

The thesis deals exclusively with Junior High School students and is an analysis of 535 answers to questionnaires from pupils at Compton, 514 life history guides from Inglewood and 132 essays from Beverly Hills, all in Los Angeles. These were supplemented by personal observations and interviews with groups in George Washington High School and Woodcrest Methodist Episcopal Church.

The conclusion of the study is that the effect of the movie upon personality is subtle and indirect. A picture speaks the universal language of the mind and makes its impressions at once in the nerve cells of the brain. Later the impression made can be observed in changed attitudes and actions. If the personality is unified by wholesome ideals and balanced by many interests it will be safeguarded and will not be so deeply affected.

This study emphasizes the strong appeal which the movie makes to youth and the importance of its influence upon ideals and character. It reinforces the obligation of the church to exert its influence for more artistic and wholesome pictures.

School Executives Magazine (February) Mr. Lawrence R. Winchell, of Rutgers University, covers a great many topics in his article, "What the Motion Picture Has Accomplished for the Schools," including a brief exposition of the mechanics of sound films, results of the Washington tests, objectives of film material, and effective methods of use. The greatest contribution that motion pictures are making to education, in the writer's opinion, is to offset the so-called verbalism.

Pennsylvania School Journal (January) "Psychological Principles of Visual Education" by Charles A. Selzer, Instructor in Psychology, discusses a phase of visual learning which receives too little attention. Experiments have been conducted showing the relative advantage of visual presentation over auditory presentation but "in many cases the visual method is used so inefficiently that only a small fraction of possible learning takes place. To obtain the greatest degree of visual learning we need not only efficient visual receptor organs, but these must be properly stimulated by objects and situations that are biologically adapted to elicit a response."

International Review of Educational Cinematography (December) This number of this magazine is given over to general discusson of various phases of the cinematic field. Laura Dreyfus-Barney presents "Considerations on 'The International Conference of Cinema and Broadcasting' held by the International Council of Women". "Cinema Theatres", "Projectors, Films, and Film Librares", "The Meaning of the Cinema", "Cinema and Taxation", and other articles indicate the range of thinking presented by the December issue.

Parents' Magazine (January) "How Our Town Got Better Movies", by Alice B. Browne, describes the plan worked out for Hinsdale, Illinois, by the Parent-Teacher Association and the Women's Club. This account should be of material aid to many of our readers in similar communities with similar opportunity for bettering film offering in its theaters.

Movie Makers (January) "How to Plan Indoor Sports Reels" may be of interest to our readers who teach in the physical education departments of our schools. Howard Esmond's "concise guide to achieving films of interest and merit" is another article to be listed with our reviews.

Book Review

A History of the Movies, by Benjamin B. Hampton. Covici-Friede, New York. 1931.

At last we find a comprehensive, well organized, compactly put together history of the cinematic industry, that amazing offspring of the arts, designated as a brat for so many years. It is doubtful if there is to be found anywhere an individual of intelligence who so classifies the obstreperous industry any longer. One may see the gross conditions surrounding the movies and shout vociferously about their harm, their cheap appeals, their utter shame in the face of what they could mean, but no one pretends today that they could not and will not mean more than the farthest dream has yet indicated. One realizes this with certainty as Mr. Hampton traces the history of the screen.

The publishers have compiled the book beautifully. It is a volume that is comfortable to handle, clear and satisfying to the eye. The arrangement of Preface, nineteen vital chapters, Index, and last, the fascinating Appendix of pictures, presenting the development of the entertainment film visually, is splendid publishing execution. From that early beginning of "Living Pictures and Peep Shows" (Chapter One), the writer traces the history by means of its most important phases. "A New Form of Theatre" begins with the first dramatic efforts of motion photography, and from there on, the incredible tale unfolds. Of particular interest to many will be the astonishing story of Mrs. Smith and her daughters. The author hazards that never before, and probably never again, will an entire industry pivot about a single individual, male or female, as the movie industry pivoted about Mary Pickford. And to Mrs. Smith, the mother, must go the credit for creating the "precedents that soon altered the entire industry". Of all chapters in Mr. Hampton's book, "The Pickford Revolution", Chapter Eight, is the most significant and dramatic.

The author of this history has given his readers all the facts, historical and technical, for which they could ask from a scholarly view-point, but far and above all this invaluable information, he has presented flesh and blood figures whose glamorous and bitter struggles leap from the pages with a humanism that destroys prejudice, bigotry, and unfair and unobjective appraisal of the individuals and the industry which they built. "Sound and Fury" and "Today and Tomorrow" are the closing chapters, beautifully written, soundly logical in their summarizing and prognosticating statements.

The educational field is summarized briefly but fairly, quite in keeping, proportionately, with its present status in this great industry. Covici-Friede, as well as the author, Mr. Benjamin B. Hampton, are to be congratulated upon their presentation of this history.

Relative Values

"The press of America has 300 foreign correspondents writing news about 600,000,000 Europeans. Hollywood has 300 persons writing publicity about 150 movie stars." (*Collier's*)

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)

After Tomorrow (Marian Nixon, Charles Farrell) (Fox) Sentimental comedy of high merit, showing the struggle of romance and poverty. Humble characters made appealing and convincing by excellent acting. Marian Nixon's work notable. Realistic, charming and thoroughly human.

A—Very good Y—Good C—Good but mature

Arrowsmith (Ronald Colman, Helen Hayes) (U. A.) Notable screening of strong Sinclair Lewis novel of devotion to medical science and human welfare. Directed with rare intelligence, brilliantly acted by choice cast. Convincing character drama that deserves support of whole intelligent public.

A—Excellent Y—Very good C—Beyond them

Arsene Lupin (John and Lionel Barrymore) (M-G-M) The famous French detective novel screened as smooth, sophisticated thriller. Finished acting by the stars as criminal and sleuth, but too much Barrymore dialog, little Lupin action. Less interesting than the book. One judge calls it, 'The Barrymore boys in Paris".

A—Good Y—Doubtful C—Doubtful

Beast of the City, The (Walter Huston) (M-G-M) Police vs. gangland picture, redeemed only by Huston's splendid work as honest chief of police. Jean Harlow in usual role of cheap "woman in the case," fine Jean Hersholt absurdly used as big shot gangster. Ends with wholesome slaughter.

A—Hardly Y—No C—No

Behind the Mask (Jack Holt) (Columbia) Violent mystery story about the conflict between the law and the dope-ring, using every standard device to get suspense and scare. Just another thriller with heavy villain and heavier hero.

A—Waste of time Y—Hardly C—No

Big Parade, The (John Gilbert, Renee Adoree) (M-G-M) The fine old war-story masterpiece tricked out in sound. It helps some, but mere noise adds little to what were already perhaps the best war sequences ever screened. Such dialog as is attempted registers none too well with the original.

A—As good as ever Y—Perhaps C—Hardly

Broken Lullaby (Lionel Barrymore, Nancy Carroll, Phillips Holmes) (Paramount) Great picture, grippingly human, of aftermath of war. French boy in German family, where he had come to atone for son he thought he killed. Convincing in its love, truth, character. Strongly anti-war. Very sad and mature. Finest acting and direction.

A—Excellent Y—Good but very sad C—Hardly

Business and Pleasure (Will Rogers) (Fox) Thin, artificial farce-comedy plot, built merely to frame the typical Rogers humor. As for acting, Will does nothing but be himself. Certain spots over-burlesqued and hence less funny. Wholesome, elementary, amusing for Rogers admirers.

A—Good of kind Y—Very good C—Good

Cain (French production) (Talking Picture Epics) Serious effort to suggest advantages of Robinson Crusoe life over civilization, interestingly photographed on tropical island near Madagascar. Best intentions, but direction is naive, acting mediocre and motives and actions are frequently absurd.

A—Poor Y—Poor 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"

Freaks (Wallace Ford, Olga Baclanova) (M-G-M) Another attempt at shocking, grewsome drama, exploiting human dwarfs and monstrosities as actors. Monumental example of hideous taste in subject-matter, plays up what is inherently repugnant to finer sensibilities. Industry should be ashamed.

A—Offensive Y—By no means C—No

Greeks Had a Name for Them, The (Ina Claire, Lowell Sherman) (U. A.) More cheap exploitation of the sophisticated gay life—through clever gold-diggers, "sugar daddies", smart-aleck dialog, incessant drinking. Glorifies cheap ideals, without a wholesome motive in it until the "moral ending". Very amusing of its kind and well acted.

A—Depends on taste Y—By no means C—No

Hound of the Baskervilles (English production) (British Ideal) Third Sherlock Holmes story to appear recently from England, with a third entirely new cast. Holmes good, Watson better than two preceding. Story vividly told, but the technique and direction are ordinary. Scenes of violet action clumsy and unconvincing. Interesting in many ways.

A—Fairly good Y—Good C—Good but exciting

House Divided, A (Walter Huston) (Universal) Grim, realistic story of life in northwest coast salmon-fishing village, notably well-acted, striking backgrounds. Over-violent and sensational. Unrelieved hardness and brutality of crude father toward his own son and the heroine are depressing.

A—Hardly Y—No C—No

Lady with a Past (Constance Bennett) (RKO-Pathe) Sophisticated comedy about rich, vacuous people, to whom life is merely woman-chase. To succeed, be merely physical, not intellectual. Heroine supposed to have no sex-appeal until Ben Lyon, the playboy, skillfully teaches her how to exert it.

A—Thin Y—Better not C—No

Ladies of the Jury (Edna May Oliver) (Radio) Mrs. Fiske's play made into mere laugh-producer, so nearly burlesque farce that satire and finer character values are largely lost. Unobjectionable, very laughable if one is not too critical, but gives little chance for Edna May Oliver's subtle comedy.

A—Fair Y—Good C—Fairly good

Lost Squadron, The (Richard Dix, Mary Astor) (RKO) Three world-war fliers become $50-a-day stunters in Hollywood. Satirizes America's treatment of veterans. Aims merely at sensation — daredevil stuff, super villainy, blatant heroics. Elaborately over-done in most respects.

A—Hardly Y—Doubtful C—No

Man Who Played God, The (George Arliss) (Warner) Beautiful work by Arliss in delightful picture of real intellectual and spiritual values. Fine rather than great, intensely human and appealing. Thoughtful comedy at its best. Industry can be very proud of this one. All should see it.

A—Excellent Y—Excellent C—Probably good

Morals for Women (Bessie Love) (Tiffany) Country girl gets city job and elaborate lovenest from boss, but loves country sweetheart all the time, of course! He appears—complications—finally marriage cleans slate. Heroine's drunken father furnishes comedy. Moral values utterly distorted.

A—Worthless Y—By no means C—No

Passionate Plumber, The (Buster Keaton) (M-G-M) Slapstick comedy, stretched to feature length, with Keaton doing his usual stuff in same way—sex twist achieved by having a gigolo in the cast. Mostly crude, elementary comedy, especially by Polly Moran and Schnozzle Durante.

A—Hardly Y—Hardly C—No

Polly of the Circus (Marion Davies, Clark Gable) (M-G-M) Melodramatic story of common little circus girl and the near-tragic course of her love and marriage to young minister-reformer, pleasingly and convincingly played by Gable. Light, more or less improbable but fairly interesting throughout.

A—Fairly good Y—Probably good C—Hardly

Road to Life, The (Russian production) (Amkino) Propaganda film, but skillful, absorbing portrayal of Russia salvaging its hordes of wild children, pauperized orphans of great war. Fine natural acting, striking technique, original camera effects. Grim, convincing picture of sordid reality. Much above ordinary.

A—Unusual Y—Mature C—Unsuitable

Shanghai Express (Marlene Dietrich, Clive Brook) (Paramount) Colorful, thrilling melodrama of characters on a Chinese train trip in tangled relationships. Excellent acting by heroine of very sexy past, by hero, who was her former fiancee, by villainous chief of revolution. Sombre, tense atmosphere of intrigue and violence.

A—Good of kind Y—Doubtful C—No

She Wanted a Millionaire (Joan Bennett) (Fox) Just another conventional movie. Poor girl wants rich husband and fine clothes—gets him but he proves horrible character—so back to the poor but honest hero, etc., etc. Nothing to distinguish it, but practically harmless.

A—Mediocre Y—Fair C—Hardly

Silent Witness, The (Lionel Atwill, Greta Nissen) (Fox) Excellent British production, expertly screened from the stage play, and splendidly acted by notable cast. Intensely interesting from beginning to end. Human, appealing, convincing. One of the rare movies eminently worth seeing. Deserves support of whole intelligent public.

A—Very good Y—Good C—Little interest

Strangers in Love (Frederic March, Kay Francis) (Paramount) Another well-done double role by March. Thoroughly amusing situations develop when good brother masquerades as criminal brother after latter's death. Deftly played by March and Francis with good supporting cast.

A—Good Y—Good C—Little interest

Woman Commands, A (Pola Negri, Roland Young) (RKO) Melodramatic royal romance, intrigue and revolution in mythical kingdom with comic king. Negri excellent in highly emotional, sensuous role, her voice notably fine. Good cast, typical comedy by Young. One of Pola's best pictures.

A—Good of kind Y—Better not C—No

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

Movies Foster Scout Work

Clergymen who are interested in fostering Boy Scout work in connection with their church activities will be pleased to learn of a novel plan carried out at Luther Memorial Church, Chicago, by Scoutmaster Louis J. Dehli of Scout Troup 860, for enlisting the interest of more of the men of the parish in scout work in general and in persuading certain of them to take over assistant scoutmaster positions, which are ordinarily open in any fair-sized troop.

Mr. Dehli hit upon the idea of showing movies of Boy Scout activities at a joint meeting of the troop and the men of the church. The movie showing was announced as a feature of a regular meeting of the troop, and every scout was urged to attend bringing his father along as a guest. The idea was such an appealing one that 120 men and boys were on hand for the meeting.

The program began with the regular scout opening and flag raising ceremony. This was followed by an exhibition of drum and bugle work by the boys. Then a three-reel 16 mm. Scout film was shown. This film, made by George Ahlander, scoutmaster of one of the other Chicago troops, presented interesting scenes of outdoor Scout activities, such as camping, and the like, and afforded the men a much clearer and better vision of just what scouting means to the boys.

After the showing of the pictures and the conclusion of the meeting, Mr. Dehli received the congratulations of a number of the men and an assurance of their active interest in advancing the welfare of the troop. Without the motion picture showing it is doubtful if these men would have become so quickly and so fully enthused over scout work.

Riverside Church Acquires Sound Equipment

Arrangements have been completed for the installation of a sound film reproducing unit in the assembly hall of the Riverside Church, New York, of which Dr. Harry Emerson Fosdick is minister. Educational and entertainment films will be shown.

How to Finance a Projector Purchase

I wonder if clergymen fully realize how practical it is for church organizations to finance the purchase of movie projectors by putting on movie entertainments to which a small admission charge is made. They should talk to their local movie equipment dealers and work out the details of such a plan. Some one or more friends of the parish can undoubtedly be secured to make an initial payment on the projector—to be repaid later out of proceeds from the movie entertainments if such a repayment is desired.

The above is only one of many ways in which a projector can be purchased for a church. Frequently a men's club or women's organization connected with a church will present a projector to the parish as a memorial gift. Sunday Schools can follow a similar procedure in other churches. One of the equipment manufacturers has worked out several plans by which churches can finance projector purchases. This information will be sent free on request to THE EDUCATIONAL SCREEN.

News of a Church Movie Pioneer

We were glad to hear the other day, even if indirectly, from Rev. Henry Stockton of Yucaipa, Calif. Mr. Stockton is a pioneer in church movie work, having rendered remarkable community service at Newport and Balboa, Calif., which was written up some time ago in *Movie Makers* and also noted in *Filmo Topics*. We understand that he has installed talkie equipment in his Yucaipa church. That's "going some" for a rural parish.

New Low Price Projector Will be Welcomed by Churches

Churches will be interested to learn of the new low price projector just announced by the Bell & Howell Co., notice of which will be found in this magazine's department called "Among the Producers". This projector employs a 300-watt, 110-volt lamp and is effective for audiences running into the hundreds.

The Washington Meeting

(*Concluded from page 66*)

whole field. (Final announcement of this merger, if completed, to appear in the March issues of the two magazines.) In case this is brought about, there is little doubt but that the merged magazine will become the official publication of the Department of Visual Instruction combined with the National Academy of Visual Instruction. In any case, the official publication will go to all members of the Department regularly and without charge.

Future Plans

Several possible future developments as activities of the merged Department and Academy have been and are being considered. In the first place, it is hoped that the new organization will become a clearing house of information, research, etc., among visual instruction workers, school executives, and others who may be interested in the further and more intelligent use of visual and other sensory aids. The establishment of such a clearing house will require first of all the establishment of an endowment or some other source of perpetual income to cover administrative costs. If this can be arranged, there is no reason why the new organization should not become one of the most influential groups in the educational field, not only in the United States but also among foreign countries.

For the present the office of the secretary-treasurer will be maintained at Lawrence, Kansas, but it is only logical to suppose that it will be but a short time until the administrative offices of the new organization will be moved into the headquarters of the N.E.A. in Washington or to some other suitable central location. There is space available in the N.E.A. building in Washington which has been offered to the new department and plans are being considered which will make it possible for the Department to occupy and make suitable use of that space.

It is expected that local branches of the new organization will be established among the various states and larger cities throughout the United States. The Metropolitan New York Branch of the National Academy of Visual Instruction has become the Metropolitan New York Branch of the new organization. The Massachusetts Branch of the Academy is similarly a part of the new group. Plans are under way for the organization of other groups in Wisconsin, New Jersey, California and other points throughout the United States. These local groups are composed of members of the national organization who desire to meet more often than twice each year and to give special consideration to local problems. Reports of the meetings of these groups will be available through the central clearing house and should be of interest to similar groups in all other parts of the country.

This consolidation of the visual instruction forces would seem to aid much in the solution of many of the teacher training and research problems in the field today. There is every reason to believe that the merged organization will become a leader almost at once and that it will, because of this leadership, receive the undivided support of both educators and commercial organizations, which are interested in the production and distribution of visual aids. In fact, the future of the new organization seems the brightest of any organization in the field since the early development of the use of visual aids as a definite part of classroom procedure.

ELLSWORTH C. DENT
Secretary of the Department of Visual Instruction of the National Education Association.

SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

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

The Use of Color In Slide-Making

Genevieve Ellis Estes

Artist, Visual Education Division, Los Angeles City Schools

COLOR, it is readily conceded, is the essential eye-catcher, the holder of attention. Wherever interest is to be aroused, or where the casual observer's interest is to be caught, we find color,—in the billboard, the magazine advertisement, the Sunday supplement.

In the school, flat color is effective with very young children, appealing as it does to their emotions and increasing the span of attention. For the more mature student, color should be used to increase interest in uninteresting subject matter, or where color is inherent, such as in slides of flowers and birds, as also with any subject in which appeal to the emotions is necessary.

The materials needed for slide-making are:

No. 00 Winsor and Newton Water Color Brush
Gillott's Crowquille Pen and Holder
Bottle Black India Ink
White Porcelain Pallette or Dish
Glass cut to slide size, 4"x3¼"
Clear Cellophane

For each slide, draw the illustration first on paper in order to perfect it, and then trace on glass or cellophane in black India ink.

There are a number of good inks and water colors on the market for coloring slides. The two simplest methods will be given first, which will produce good results for the average person. Those who are unusually talented and wish to make very fine detailed slides may choose the more complicated methods. However, the latter method always runs the risk of so complete an absorption on the part of the student in the actual making of the slide, that he forgets the reason for which the work is being done. Care should be taken not to let undue attention to method in slide-making defeat its purpose.

Method I

The only ink so far perfected, as far as we have learned, which has body enough to stick to plain cover glass and which is both transparent and brilliant is David's (or Keystone) Slide Ink. This comes in red, blue, violet, green, and yellow. The last named color is very poor as it fades when subjected to the heat of the lantern. More colors can be made, however, by mixing. Keystone Slide Ink is particularly good for large splashes of color, but rather clumsy for detailed work. Extra cover-glass for covering is not necessary.

Method II

Using colored India ink on cellophane is advantageous for three reasons. First, it is adapted to detailed work, and second, in case of the cover-glass being broken, the original cellophane drawing may be reclaimed by rebinding with new cover-glass. Third, cellophane is much thinner than glass for tracing. India ink comes in about a dozen colors, but there are no flesh tints unless mixed. The transparency and brilliancy are good.

Other methods which use coated cover-glass, give excellent results but entail extra time and effort in coating the glass. However, by coating a number of pieces of glass at one time, considerable time is saved.

Directions for Coating Cover-Glass

1. With gelatin: Dissolve ¼ teaspoonful Knox Sparkling Gelatin in a cup of hot water. Dip the glass in the solution or coat with a soft brush.

2. With glue: Dissolve 1 teaspoon glue in a cup of hot water. Dip the glass in the solution or coat with a soft brush.

Use a medium amount of water in applying the color. If one is too sparing with the water, the color will spot. When painting on cellophane be careful in applying water. The cellophane wrinkles and if too wet, is hard to work upon. This also holds when using colored inks. Colored India ink can be used on glue coated glass, while water colors cannot. Use water, only, on the brush, when dipping from one color of ink to the other. Colored India ink is more brilliant on coated glass than on cellophane. Transparent water colors are successfully used on cellophane.

The results of the various good transparent water colors and India inks are so nearly the same that it

becomes a matter of personal choice as to which medium and method should be used.

Velox Water Color Stamps come in twelve colors and may be mixed to make more. They are clear and brilliant.

Nicholson's Japanese Transparent Water Colors come in fifteen colors and may be mixed to make more. They are apparently not as clear or brilliant as the Velox, but give a lovely soft effect on cellophane.

The two water colors mentioned here are in book form and are practical and inexpensive for students. Pieces of each color may be cut from the leaves and pasted on cardboard, which makes possible a prolonged use and also avoids the leaves from curling when water is applied. The cards obviate the necessity of having many bottles of liquid around.

There are many excellent transparent water colors which have not been mentioned, because of their cost or impracticability in other ways.

Colored cellophane used for slide-making is beautifully transparent and brilliant, and very successful in simple compositions of one or two colors. Night scenes may be drawn in black India ink on blue cellophane and a large moon may be cut out and either left for the lantern light to show through, while in map slides, also, the map may be drawn on colored cellophane and the particular area to be emphasized, cut out and another color inserted.

Simple cutouts of colored cellophane with a typewriter slide (when hand lettering is difficult or not wanted) is effective.

Added colors can be made from cellophane by apliqueing one piece over the other.

Slides can be made with colored pencils on ground glass very easily, but the color is not brilliant. Celluloid stillfilm strips, however, which may be procured already coated with an emulsion, will be found particularly satisfactory for color work. The stillfilm strips are on non-inflammable stock, and when treated with color may be stored conveniently in the compact rolls where there is little chance for breakage as in the case with glass. Where the school does not possess a stillfilm attachment, the celluloid roll may be cut into sections and mounted (by using staples) between pasteboard mats with the opening cut as desired. This holder may then be dropped into the slide carrier like the usual lantern slide. This method of cutting up the stillfilm roll into sections has the advantage, in addition, of permitting a larger number of children to participate than is the case when one roll of stillfilm is given to a child for his exclusive use.

Outline of Course in "Methods of Visual Instruction" as Given at Hunter College, New York City

Session 1. Preliminary considerations
Definition of Terms
Visual Instruction in the Teaching Process

Session 2. Visual Instruction in the History of Education

Session 3. Demonstration Lesson

Session 4. Class discussion of demonstration lesson
Psychology of Visual Instruction

Session 5. Criteria in judging visual aids
The Poster

Session 6. Demonstration lesson — Discussion of method

Session 7. Lantern Slides

Session 8. Method in special subjects (depending on personnel of class)

Session 9. Strip Film
Session 10. Demonstration Lesson
Session 11. Organization of visual instruction in various types of schools—school visit
Session 12. The motion picture as a visual aid
Session 13. A working philosophy of visual aids
Advantages and disadvantages, benefits and drawbacks
Session 14. Auxiliary agencies of visual instruction

Washington's Birth Celebrated by Training School

The children in the Training School of the Indiana State Teachers College at Indiana, Pa., are doing a number of interesting and worthwhile things to celebrate the Bicentennial of Washington's birth.

First grade became acquainted with Washington as a little boy, and heard the story of the making of the first flag. The children brought many Washington pictures to school and became very familiar with the best pictures of Washington, especially the Stuart portrait.

Second grade had a birthday party Friday at which they celebrated many February birthdays. These included Thomas A. Edison, Charles Dickens, Susan B. Anthony, James Russell Lowell and Henry Wadsworth Longfellow, as well as George Washington and Abraham Lincoln. One of the features of the party was a puppet show depicting scenes from the life of Martha Washington. The children themselves made the puppets and planned the play. They also gave a play about Abraham Lincoln.

Fourth Grade saw the Washington film which the school bought, gave a Washington Play in History Class and had picture study of Washington in their Art Class. Each pupil made a book of pictures of Washington, and reading and language lessons were based on Washington material during February.

Fifth grade collected an interesting display of models of Colonial costumes, furniture, utensils, and architecture. This was done as a history project, the children making many of the models themselves. This grade also gave a Washington play in language class.

Sixth grade centered much of its reading about George Washington, and on Friday, February 26, the children dressed in Colonial costumes, and the room was arranged as a Colonial home.

Seventh grade held a Washington party Friday, February 19. Some of the children dressed in Colonial Costumes; the Assembly Room was decorated with the national colors; and the games and amusements all had a Washington "turn." A grand march was one of the main features of the party. The critic

teachers and the student teachers were guests of the Seventh grade.

The Seventh grade History Class presented in the Junior High Assembly Friday, February 26, a series of tableaus showing scenes from the life of Washington. The home-rooms in the Junior High School each saw the Washington moving picture sometime during February.

Art Appreciation Applied to Civic Planning

One of the required courses in the second term of the Samuel J. Tilden High School of Brooklyn, N. Y., is art appreciation.

Each student in the grade designed on paper and translated into soap an original conception of a skyscraper. The students' perceptions were sharpened and their imaginations augmented by photographs and sketches of important and interesting American skyscrapers.

The time required for the work is the usual time of five periods of 40 minutes each. Mrs. Eva Margolies, the teacher in charge of this subject, chose white soap as the medium to get over the idea of the third dimension and the sculptural quality of architecture with its emphasis on simplicity, unity, rhythm, harmony, light and dark shadows.

When the students completed their work in the period of art appreciation, Mr. Samuel S. Schuster, chairman of the Art Department, gathered all of the work together and used it as a lesson in Civic planning, as illustrated in the photograph.

A Bit of Soap Sculpture

Information regarding ways and means of utilizing white soap as the medium for the expression of art, architectural models, sculpturing in the round or bas relief, may be had for the asking from the National Soap Sculpture Committee, 80 East 11th Street, New York.

Visual Activities

The Central Junior High School of Orange, New Jersey, of which Wallace M. Broadbent is principal, is actively engaged in building up a program of visual education.

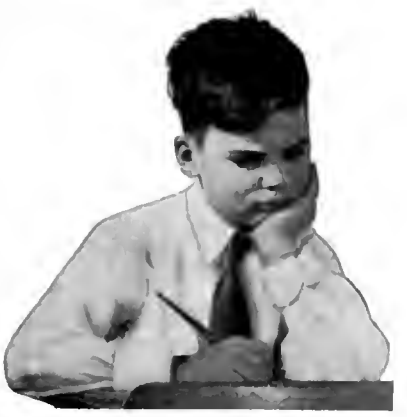
◆ ◆

The State Teachers College at Morehead, Kentucky, may be added to the list of those institutions which are initiating visual education programs.

◆ ◆

A film library has been established in Lebanon, Pa., city schools, and the health program, grades 1, 2, and 3, has been built around a series of health films.

Is one "CORRECT ANSWER" *as good as another?*



Teachers are familiar with the type of answer that is more a tribute to painful memorizing than to understanding.

The pupil who really understands the subject answers easily in his own words... and he will not soon forget what he has learned.

If not, what makes the important difference?

THE "memorizer" is often able to answer correctly without really understanding the subject under consideration.

But education is a structure, and without a good foundation it will sooner or later tumble.

Every teacher realizes this...and welcomes Eastman Classroom Films, not only for their actual content, but for their general effect in teaching children to make the jump from book-words to the imaginative *re-creation* of events, processes, and phenomena.

They realize that a few Eastman Classroom Films dealing with a part of a subject will make the whole subject more vivid, and will pave the way to "correct answers" based on real understanding.

Eastman Classroom Films, projectors, etc., are not expensive. Properly handled the films and the equipment will last for years.

They know that in years to come other teachers will be aided by the sound fundamental understanding which these films inspire.

For these reasons Eastman Classroom Films are being widely used in cities and towns throughout the United States. Complete information will be sent you on request. Address: Eastman Teaching Films, Inc. (Subsidiary of Eastman Kodak Company), Rochester, New York.

A Series of Films That Every School Should Own

GEORGE WASHINGTON *His Life and Times*

Four Reels, 16- or 35-millimeter:
(1) *Conquering the Wilderness*
(2) *Uniting the Colonies*
(3) *Winning Independence*
(4) *Building the Nation*

HISTORY leaps into life and action. These historical films are valuable in picturing colonial life, frontier conditions, the causes and the military action of the Revolution, and the early days of the Republic. They are of wide use, both for classroom instruction and in connection with school patriotic activities.

The picture is unique ...the only one on Washington's life prepared at the request and with the coöperation of the George Washington Bicentennial Commission. Actual historical settings have been used. Experts have supervised every phase of its preparation. It is complete, authentic, and stirring in its presentation.

A folder, illustrating and describing this unusual picture, will be sent on request.

EASTMAN *Classroom Films*

California Visual Meeting

The annual spring convention of the Visual Aids Section of the California Teachers' Association is to be held March 18-19 in San Diego with headquarters at the Visual Instruction Center in Balboa Park.

While "Teacher Training in Visual Instruction" will be the main theme of the program, there will be many interesting brief forum discussions of present problems. These include, budgeting, equipment standards, photographic production, collections of visual aids for individual schools, testing and evaluating methods of instruction and Parent-Teacher Co-operation in visual education program. These discussions will be lead by prominent experts in the field.

Novel and typical displays of visual aids, exhibits of recommended school equipment and excursion tours to the Art Gallery, museums and other educational institutions in the Civic Cultural Center in Balboa Park will be other features of the program.

Social events include a lawn luncheon, boat trip around the bay and a dinner dance at El Cortez Hotel. A large and enthusiastic group of teachers and administrators from eight counties of Southern California is expected to attend.

School Journeys Aid British Pupils

Last year 480 "school journeys" were undertaken from London, over 200 from provincial centers and 320 to the Continent, as far abroad as Denmark, Poland, Portugal, even across the Mediterranean to Algiers, while Dominion and continental parties have in turn toured England and Scotland. In all 40,000 boys and girls were "on the wing."

This statement forms part of the report of the School Journey Association Record for 1931. Details are given in the Record of a number of attractive journeys—a camp at Stratford-on-Avon, a tour in the Rhineland, eight days studying Rouen, an expedition to Bayeaux and so on.

Each journey involved the transfer for a week to a fortnight, of 40 to 50 boys or girls to unaccustomed sleeping quarters in a more or less distant area, not for a holiday but for an educational purpose. To reconstruct the earlier life of some charming old village gives new interest to lessons and broadens the outlook of the youth of today. The School Journey movement is voluntary. The cost is contributed by the children, by teachers, and by grants from sympathetic local education authorities.

Cinematography at the University of South Dakota

(*Concluded from page* 71)

provided a practical working laboratory and gave the students valuable experience in technique which in no other way could be acquired. They were dealing with crowds, with difficult lighting problems, and sometimes with temperamental players.

This picture will soon be shown at the local theatre and will be run in connection with their regular program. Our orchestra will be in the pit and will softly play while the silent masterpiece "Date Night" is being shown. A prologue will be given consisting mainly of a personal appearance by each member of the cast, also a little skit featuring our local funny boy, "Fat" Sydell.

The question may be raised — what do advertising pictures have to do with a University course in cinematography. The answer to this is—Such work as "Date Night" motivates your regular classes by giving a practical atmosphere to the course and by providing very good experience in lighting and camera technique.

The class in cinematography has also taken educational pictures. They just finished a production for the civil engineerng department, "The Testing of Construction Materials." We have other pictures planned which will show the various fields of commercial endeavor, the idea being to give help to the high school student in selecting life work for which he may be best fitted, or in which he is most interested.

This semester our class has more than doubled, and consists of very enthusiastic young men and women. They do not expect to go out to Hollywood and try for a job—they want to learn what the movie game is all about. They want to learn how to take good moving pictures of the folks at home, of recreational trips, and of friends. They want to learn how to edit these pictures in order to make them of the greatest possible interest. We have one girl who is big league material for any movie lot. We have a fine young man who is really a talented cameraman and we have a very fine director in the person of Mr. Cooper.

Our students have taken a new interest in the motion pictures shown at the local theatre. Instead of just being interested in the story, they now notice and study camera angles, photography, lighting, tempo and methods of carrying along action. They are thus better equipped to enjoy the good dramatic motion pictures we have today.

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.

Erpi Tests Educational Talking Pictures

A series of extensive experimental psychological tests to determine the effectiveness of the talking picture as a supplementary aid in education were inaugurated last month in a large number of the public schools of New York City; Camden and Elizabeth, N. J.; Schenectady, N. Y.; and Baltimore, Md. The tests involve a total of 2538 pupils and 64 teachers and will extend over a period of eight weeks.

The testing programs are being administered by the local school authorities in each city. The pictures and the tests used were developed by a group of educational research specialists of the Educational Department of Electrical Research Products, headed by Colonel Frederick L. Devereux, General Manager of the Educational Department.

Pupils of the fifth and seventh grade levels are being given the tests, 1190 of the former and 1348 of the latter. Five thirty minute periods of instruction are given in two weeks in each course studied. Pupils participating are evenly divided into two groups, one forming the control group, the other the experimental. The control group receives instruction in the courses studied with every modern means of instruction available to the teachers and pupils, with the exception of talking pictures. The experimental group receives similar instruction in the same subjects and for the same length of time with the inclusion of educational talking pictures based on the courses.

Following the period of instruction, each group will be tested with exactly the same questions covering the subject matter in which instruction was given. Comparison of the results achieved by each group will indicate the measure of effectiveness of the talking picture as a medium of education.

Eight professionally produced talking pictures, made by Electrical Research Products in collaboration with many noted educators throughout the country, are being used in the experiment. For the seventh grade experimental groups four pictures designed for use in music appreciation courses, "The String Choir," "The Woodwinds", "The Brass Choir", and "The Percussion Group", are being used. The fifth grade experimental groups are being shown four natural science films, "The Frog", "Butterflies", "Beetles" and "Plant Growth".

Every effort has been made to conform to the requirements of modern scientific testing techniques and elaborate methods have been utilized to eliminate inaccuracies and to make the tests the most scientific ever attempted. A group of research students from Columbia University, now receiving special training for the work, will score the test papers. Two years of preliminary research work by the Research Department, during which more than 2000 pupils were involved have been devoted merely to preparing the tests which are being used in the experiments. Elaborate refinements of these tests resulted in reliability coefficients ranging from 86 to 95.

Inaccuracies due to the human element have been eliminated by equating both teachers and pupils. Pintner Rapid Survey tests are given to all students and local intelligence scores utilized so that they may be equated. A second preliminary test is given all pupils to determine the extent of their present information on the topics to be studied. Teachers involved have been equated by selecting those having relatively the same teaching capabilities. Differences in teaching levels have been adjusted as a result of the large number of teachers used. The large number of pupils involved and the selection of schools in different localities further insure reliable results. The test questions are withheld from all teachers until the tests are administered so that no teacher will be able to point the pupils for the tests.

"Nothing exactly like this has ever before been attempted," according to Col. Devereux. "We have no idea what the results may be. In the two years of research work already carried out and in the present experiment we have attempted to prove nothing. We are simply trying to discover the effectiveness of the talking picture as a supplementary aid to educaton But whatever they may be, we believe the results ob tained will be of tremendous value to education."

A New Titler for Movie Makers

A Cine-Kodak Titler is announced by Eastman Kodak Company as being available for use with the Cine-Kodak Models B, BB, K and M, with all their regular lens equipments.

An illustrated pamphlet, entitled "Making Titles and

Editing Your Cine-Kodak Films," gives simple directions for securing first rate movie titles, with or without the Titler. It also includes practical hints on the editing of films.

Low-priced Filmo Single Control Projector

Announced for April 1 delivery is a new Filmo projector, the Model M, selling at a price lower by far than that of any previous Bell & Howell projector. Despite the low price, the Model M is asserted by the manufacturers to be a quality machine built, like other Filmo models, for years of service, and projecting brilliant, steady, flickerless pictures.

It is a single control projector, and simplicity of operation is a prime feature. The mechanism and the optical system are essentially the same as those used and proved for nine years in other Filmo models. In appearance it closely resembles the Filmo 57 projectors. Brilliant illumination, even upon a large screen for audiences running into the hundreds, is provided by the newly developed 300-watt, 110-volt projection lamp.

The Model M is mounted upon a broad, secure, aluminum base, which forms the bottom of the carrying case. The neat, sturdy, black fabric leather covered case is set down over the fully erected projector and clamped to the base. There are compartments in the case for films, reels, and projector accessories.

Film is rewound rapidly by a 2¼ to 1 geared rewind. Large sprockets, plus the highly perfected and precise film movement mechanism, insure the film against damage. Framing is automatic. The lens is instantly interchangeable. A tilting screw facilitates centering the picture on the screen. The projector is adaptable to Kodacolor (under Eastman license).

The Model M has the standard Bell & Howell single tooth shuttle movement. The same projector may be had with a double tooth movement, and when so equipped is known as Model N. The price of both models is the same—$150 complete with case.

Free Filmslides on Technical Subjects

The C. W. Briggs Company of Philadelphia announces the establishment of a Loan Library for the use of vocational and technical schools. This library comprises a large quantity of filmslides prepared especially for school use by Louis W. Sipley, with the collaboration of leading engineers and engineering organizations throughout the United States. Mr. Sipley, who has been active in Philadelphia engineering circles, serving as Chairman of the membership committee of the Engineers' Club of Philadelphia and as a member of the executive committee of the Philadelphia section of the American Society of Mechanical Engineers, has arranged this material exclusively for school use.

A complete list of the material available and others in preparation by Mr. Sipley may be obtained upon request. No charge, other than postage each way, will be made for the use of this material by any vocational or technical school.

Columbia Expands

Because of the growing demands of its rapidly expanding interests both in the production and distribution fields, Columbia Pictures Corporation has again leased additional floor space at 729 Seventh Avenue, New York and will move a number of departments into the new quarters this week. It is less than three years since the company moved its home offices from 1600 Broadway into what was twice the area previously occupied. Since that time the growth has been so rapid that supplementary space was required four

(*Concluded on page 96*)

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

Columbia Pictures Corp. (3, 6)
729 Seventh Ave., New York City
(See advertisement on page 90)

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 89)

Edited Pictures System, Inc. (1, 4)
130 W. 46th St., New York City

Ideal Pictures Corp. (1, 4)
26 E. Eighth St., Chicago, Ill.

Mac Callum, Inc. (3, 6)
132 S. 15th St., Philadelphia, Pa.

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.
(See advertisement on inside back cover)

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 87)

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
300 W. Adams Bldg., Chicago, Ill.

MOTION PICTURE MACHINES and SUPPLIES

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

Mac Callum, Inc. (3, 6)
132 S. 15th St., Philadelphia, Pa.

Regina Photo Supply Ltd. (3, 6)
1924 Rose St., Regina, Sask.

Stark-Films (3)
219 W. Centre St., Baltimore, Md.
(See advertisement on page 88)

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

Victor Animatograph Corp. (6)
Davenport, Ia.

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

SCREENS

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

SLIDES and FILM SLIDES

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.

International Artprints
64 E. Lake St., Chicago, Ill.
(See advertisement on page 86)

Keystone View Co.
Meadville, Pa.
(See advertisement on page 91)

James C. Muir & Co.
10 S. 18th St., Philadelphia, Pa.

Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
(See advertisement on Inside back cover)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 93)

Stillfilm Inc.
1052 Cahuenga Ave., Hollywood, Cal.

University Museum Extension Lecture Bureau
10 S. 18th St., Philadelphia, Pa.

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

STEREOGRAPHS and STEREOSCOPES

Keystone View Co.
Meadville, Pa.
(See advertisement on page 91)

STEREOPTICONS and OPAQUE PROJECTORS

Bausch and Lomb Optical Co.
Rochester, N. Y.

E. Leitz, Inc.
60 E. 10th St., New York City
(See advertisement on page 91)

James C. Muir & Co.
10 S. 18th St., Philadelphia, Pa.

Regina Photo Supply Ltd. (3, 6)
1924 Rose St., Regina, Sask.

Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
(See advertisement on inside back cover)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 93)

Stillfilm Inc.
1052 Cahuenga Ave., Hollywood, Calif.

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

THE EDUCATIONAL SCREEN SERVICE BUREAU

THE EDUCATIONAL SCREEN offers on this page a helpful service. Information on sources of supply for the items listed below will be furnished our readers on request. Fill out the coupon and mail.

(Note that sources for some of the equipment listed are given in the Trade Directory on the opposite page.)

A

Accoustical installations
Adapters, mazda
Advertising projectors
Amplifiers
Arc lamps, reflecting
Arc regulators

B

Batteries
Blackboards
Booths, projection
Bulletin boards, changeable

C

Cable
Cabinets
Cameras
Carbons
Cases, film shipping
Cement, film
Charts
Chairs, theatre
Condensers
Controls, Volume

D

Dimmers
Draperies
Dynamic Speakers

E

Electric power generating plants
Exhibits

F

Film cleaning machines
Film rewinders
Film slides
Film splicing machines
Film strips
Films, Educational
Films, Religious
Films, Entertainment
Films, Sound
Filters
Fire extinguishers
Fireproof curtains
Flares
Footlights
Fuses

G

Generators
Globes
Graphs
Gummed Labels

H

Horns

I

Ink, pencils for slides

L

Lamps, incandescent projection
Lamps, high intensity
Lamps, reflecting arc
Lenses
Lights, spot
Loud Speakers

M

Maps
Map slides
Mazda projection adapters
Mazda regulators
Microphones
Microphone attachments
Microscopes
Micro projectors
Motors, electric
Motor generators
Motors, phonograph
Motion picture cable

N

Needles, phonograph

O

Opaque projectors

P

Phonograph turntables
Photo-electric cells
Pictures, Prints
Posters
Projectors, lantern slide
Projectors, motion picture
Projectors, opaque
Projectors, portable, (16 mm.)
Projectors, portable, (35 mm.)
Public Address Systems

R

Rectifiers
Records
Record cabinets
Recording, electrical
Reflectors
Regulators, mazda
Reels
Reel end signals
Rheostats

S

Screen paint
Screens
Slides, lantern (glass)
Slides, film
Slide making outfits
Slide mats
Shades
Shutters, metal fire
Speakers, dynamic
Spotlights
Stage lighting equipment
Stage lighting systems
Stage rigging
Stage scenery
Stereographs
Stereopticons
Stereoscopes
Stillfilm

T

Talking equipment (35 mm.)
Talking equipment (16 mm.)
Title Writers
Tone Arms
Tripods
Turntables, phonographs

SERVICE BUREAU, THE EDUCATIONAL SCREEN,
64 East Lake St., Chicago, Ill. Date.....

Gentlemen: I should like to receive reliable information on sources of supply for the following items:

.....

.....

Remarks .....

Name .....Business or Profession.....

City .....State .....

Among the Producers

(*Concluded from page 93*)

times during the past year alone. The new move gives Columbia, the equivalent of three floors.

New Leica Speed Lens

From E. Leitz, Inc. comes an announcement which should be of great interest to photographers—a real ultra-speed lens for the Leica camera with an aperture of f/1.9! Amateurs, professionals, scientists, news photographers—all the workers in various fields who are using this capable little camera will greet this new lens with enthusiasm.

The lens is a "Hektor", calculated to the same formula as the Hektor f/2.5, so popular with Leica users. It has a focal length of 73 mm., slightly longer than the standard objectives, thus enabling the sport photographer to obtain large images of fast action, or the portrait photographer to get a large head without distortion.

The New Ultra-speed Camera

News photographers will find frequent use for the new speed lens in courtroom, hotel lobby and "candid camera" work. The cinematographer, wishing to test lighting conditions or record effects in the studio, will find it indispensable. For the scientist who desires to record certain subjects regardless of conditions, and for the home portrait artist, it will be a satisfaction. For the amateur who wishes to pursue the mysteries of dimly-lighted places and capture the ultimate in pictorial atmosphere, it will be a delight.

Some conception of the extreme speed of this new lens may be gained by the fact that a New York photographer, equipped with one of these lenses and using super-sensitive panchromatic film, made actual snapshots of human-interest subjects and after-theatre traffic along Times Square, with no other illumination than that from overhead signs and street-lamps. Excellent depth and definition were shown, and 5 x 7 enlargements were sharp and distinct.

The Hektor f/1.9 comes in a mounting similar to that of the longer telephoto lenses available for the Leica. A depth of focus scale is provided, and focus is accomplished by turning the tube of the lens.

All who are interested in the new Leitz Hektor may obtain further information by addressing E. Leitz, Inc.

New Optical System in Victor Projectors

The Victor Animatograph Corporation announces that, after several months of research and experimentation, it has developed a new Optical System of exceptional efficiency which sets an entirely new standard for brilliancy in the 16 mm. projection. It is claimed that this new Hi-Power System gives twice the illumination of the regular Victor Optical System when the same projection lamps are used.

The constantly growing popularity of 16 mm. films and projectors among educational, religious, and industrial users of motion pictures has resulted in demands for more and more light to meet the needs for large, brilliant images and for projection throws of one hundred feet or more.

The new Victor Hi-Power Optical System is an extremely important step forward, in that it literally doubles the power of 16 mm. projection lamps. It accomplishes this by gathering and transmitting to the screen twice as much of the light from the lamp as is transmitted by the regular Victor Optical System. It is said that the consequent increase in illumination will more than satisfy present and prospective users of 16 mm. projectors who have been demanding greater illumination to meet daylight projection and auditorium requirements.

The Victor Animatograph Corporation had already been successful in mastering projection throws of more than one hundred feet with its regular Optical System when using 375 Watt-75 Volt or 165 Watt-30 Volt lamps. With the Hi-Power Optical System capable of doubling the amount of light utilized from these lamps, it is evident that the illumination it makes possible is sufficient to meet every reasonable demand of non-theatrical users.

The System consists of a Super Reflector adjustably mounted in a special lamp house extension, a set of precision-ground Bull's Eye Condensers and a more powerful projection lens. These parts may be easily installed in a few moments by any Victor owner and are available at a very reasonable cost.

It will not replace the regular Victor Optical System in all models, due to the fact that it provides greater illumination than is required for home use or where large pictures and long projection throws are not required. Therefore, the Hi-Power System will be provided in New Victor equipments only on order and at a slight extra cost.

Educational SCREEN

COMBINED WITH

Visual Instruction News

CONTENTS

Single Copies 25c

● $2.00 a Year ●

APRIL 1939

A Partial List of Ampro-Equipped Schools

Massachusetts Institute of Technology
University of Kansas
University of Pennsylvania
Colorado State Teachers College
Temple University
Texas Christian University

Public Schools of:
Brooklyn
New York
Philadelphia

School Systems of:
Buffalo
Pittsburgh
Detroit
Chicago
Kansas City
Denver
San Francisco
Oakland
Pasadena
Los Angeles

Complete list gladly furnished for your reference.

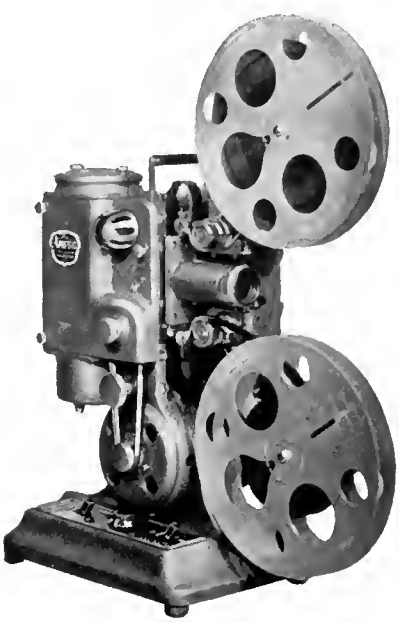
When you need BIG *pictures in an undarkened* ROOM . . .

A pitch-dark room is not always easy . . . . and BIG pictures that *all* can see are necessary. Moreover, there are times when the projector must be used in the auditorium, with an audience of hundreds . . . . or thousands.

Under those conditions, AMPRO'S capacity to project 9x12 foot pictures of genuine theatre brilliance, clarity and steadiness *from 16 millimeter film* is a decided advantage.

AMPRO'S simplicity and flexibility of control are other reasons why THE AMPRO PRECISION PROJECTOR best suits the needs of visual education. It is a dependable instrument that *anyone* can handle. Full details of THE AMPRO PRECISION PROJECTOR will be gladly furnished, upon request addressed to

THE AMPRO CORPORATION
2839 NO. WESTERN AVE. - - - - CHICAGO
545 FIFTH AVE. - - - NEW YORK CITY
192 SUNNYSIDE AVE. - - TORONTO, ONT.
821 MARKET STREET - SAN FRANCISCO, CALIF.



The Ampro Precision Projector, Model AS, with 400 Watt biplane filament lamp, seal grain finish, nickeled parts $175.00. Model AD, with 400 Watt biplane filament lamp seal grain bronze finish, chrome plated parts, automatic pilot light $200.00.

The AMPRO PRECISION PROJECTOR

AMPRO CORPORATION
2839 No. Western Ave., Chicago, Ill.
Gentlemen: Please send me complete information on the new 400 Watt Ampro.

Name.....

Address.....

City ..... State .....

Educational Screen

Combined with

Visual Instruction News

APRIL, 1932

VOLUME XI NUMBER 4

CONTENTS

Contents of previous issues listed in Education Index.

General and Editorial Offices, 64 East Lake St., Chicago, Illinois. Office of Publication, Morton, Illinois. Entered at the Post Office at Morton, Illinois, as Second Class Matter. Copyright, April, 1932, by the Educational Screen, Inc. Published every month except July and August.

$2.00 a Year (Canada, $2.75; Foreign, $3.00) Single Copies, 25 cts.

EDITORIAL

THIS IS the first issue of THE EDUCATIONAL SCREEN combined with VISUAL INSTRUCTION NEWS. We offer it in the confidence and conviction that the amalgamation of the two magazines previously serving the visual field is a forward step thoroughly in harmony with the recent action that merged the two national organizations in the same field. Unity of organization and publication cannot fail to make for strength and progress in the immediate as well as the ultimate future of the visual movement.

First Combined Issue

Things happened rapidly in the February and March just past. They had to. When the merger of organizations was consummated at the February meetings in Washington, the magazine merger was still in the suggestion stage. Yet, by thinking fast and confining negotiations to primary essentials only, it was possible to announce combination of the two magazines in our respective March issues and make April the first combined number.

Necessarily many details of operation, many elements in the finished product, have had to wait. Transfer of records and equipment, coordination of staffs, harmonizing of circulation lists have been largely achieved. We believe we have insured that every subscriber to either magazine shall receive this issue, every member of both national organizations and that there will be no duplicates. If we have failed in any single case, we want to hear about it at once. In addition to the combined circulation lists of the two magazines, hundreds of other key people in the field, who never received either magazine, will be getting this April issue. This extra mailing, to a selected and constantly changed list of active visual workers previously unacquainted with either publication, will be a regular practice hereafter.

AMONG the matters awaiting future decision, we may mention two. First, we regret that it has been impossible to complete, in time for this issue, the Editorial Board being chosen by the new Department of Visual Instruction of the National Education Association, which is to be added to the magazine for its functioning as official organ of the Department. Selections and acceptances will doubtless be in hand so that the Editorial Board can appear in the May issue.

For obvious reasons the name, THE EDUCATIONAL SCREEN combined with VISUAL INSTRUCTION NEWS, can be only temporary, yet the change of a long-established name cannot be lightly made. It involves difficulties and consequences which must be carefully thought through. Selection of a new name, adoption of a new cover design, giving adequate notification necessary in print and by mail to many quarters in this country and abroad, may require several months.

A New Name?

In the all-important choice of a name we invite the fullest cooperation and suggestion from the entire visual field, both commercial and academic. We are free to adopt, if desired, the name of the first educational magazine in this field, "Visual Education", which was taken over by THE EDUCATIONAL SCREEN in 1925. Many will prefer "Visual Instruction", since the word "education" connotes rather the learning process, while "instruction" better indicates teaching method. Visual aids concern teaching procedure first, the effect on the learning process being the resultant. The name, "The Educational Screen" has the merit of ten years standing behind it, yet it seems to limit visual aids to projected pictures only, excluding many other visual and sensory aids which are essential to complete and effective visual teaching. Perhaps the right name has yet to be created. Creators will be welcomed. We seek the perfect name for the newly combined magazine in the newly unified field.

EDISON, and now Eastman, are gone—the two geniuses who made photography the priceless instrument of progress that it is today. Eastman's flexible film not only made possible Edison's Kinetoscope, progenitor of the modern motion picture, but solved the serious problem of heavy, breakable glass plates. This set cameras clicking around the world and brought incalculable values to the photography now so vital to the commercial and journalistic worlds.

George Eastman

George Eastman's sound philanthropies matched his technical achievements. First, profit-sharing stock to the employees in his factories; second, to his home city of Rochester, The Eastman School of Music and its allied activities, the dental dispensary, and more than $35,000,000 to the University of Rochester. Finally afield. Some $20,000,000 to Massachusetts Institute of Technology, other millions to Negro schools, and still others to found dental dispensaries in foreign cities—carefully studied gifts of some $75,000,000 as his additional contributions to world welfare and progress. Neither the visual field nor the rest of the world can ever forget its debt to George Eastman.

NELSON L. GREENE

Schools Extravagant Today

Without Visual Education

E. R. ENLOW

TEACHING by old methods today would be real extravagance. Times change. Ox-cart travel no longer means economy. The business man who refuses to have a telephone installed because it adds to his office expense—doesn't exist, but if he did, he would be regarded as very short-sighted. True he could "save" a monthly telephone bill by so doing, but personal visits made in place of phone calls would represent a real waste of time—and time means money.

Educators and tax-payers realize today that memorizing lists of unused and unusable words from the blue-back speller represented a prodigious waste of time, effort, and money. The same may be said of the calculation of carpeting or partial payments, or of learning to read out loud with wonderful inflection but no comprehension of what it was all about. All of these were nothing but frills—that is, things learned which would never be of any value to the learner. It is just such frills that the modern educational program would displace by subjects and activities which make for all-around development of the personality, character, and civic consciousness, as well as the mental ability of the pupil. The old emphasis was placed solely on mental growth and submissive acquiescence to the inflexible authority of the teacher—who must needs be a stern "disciplinarian".

Not only has the new educational program attempted to eliminate the old-time frills which wasted the tax-payer's money, the pupil's time, and the teacher's patience; it has taken advantage of every possible means of facilitating pupil learning—enabling the pupil to learn the most possible in the shortest possible time. This is absolutely necessary today. The compass of human knowledge, the scope of human inter-relations —in short, the social and intellectual heritage of the child—have increased within the past generation as perhaps never before in the world's history. The child cannot possibly assimilate his due share of this preparation for effective citizenship unless the learning processes are speeded up.

To expect the child to accomplish television results by wigwag methods is nothing short of preposterous. In the first place it is an imposition on the child—asking him to make "bricks without straw", after the "tale of the bricks" has been multiplied many fold. In the second place it is extremely uneconomical.

In the older methods of instruction, learning was passed on to the student chiefly by words, either directly from the mouth of the teacher or out of books. Words still have their due share in conveying ideas to the learner. But, another avenue of entrance to the mind has been opened up to carry its portion of the learning traffic. The eye route is referred to. It is not a new route, but one which in the past has been neglected. The modern perfection of photography in all its many forms is mainly responsible for the present emphasis on the visual appeal. In the past, aside from reading the printed page, the eye could function only in the limited field of seeing experiences to which the learner had actual physical access—a very restricted segment of the world. Having seen little the learner failed to understand much.

Today the learner may see the entire world vicariously. Geography is no longer a distasteful memorization of countries, capitals and boundaries, but a face-to-face experiencing of other peoples and the conditions under which they live—evoking a sympathetic understanding. This experiencing of peoples and climes is made vivid by a portrayal on the luminous screen, motion or still or both, followed by actual impersonation and construction. But the child cannot costume himself in the habiliments of Japan, for example, without careful, directed reading and research. The beauty of visual aids is that they do not only furnish the picture which the child carries in his mind of Japanese life and times, but also stimulate such an interest in the country and its people that the child is motivated to gain a factual knowledge which is both greater and more abiding than were he reading without the visual framework on which to base his understanding. Truly "the eye understands more than the ear", though both contribute to the sum total of understanding.

Perhaps the three words, "seeing", "hearing", and "doing" best characterize the modern school program. Visual aids play an important part in each of these three processes. The school journey or field trip involves all three and is the most direct seeing experience. Obviously the class cannot be taken to distant parts

nor to past events so that this visual aid is of restricted utility.

The motion picture, however, affords a good substitute for the actual excursion. Did we not all go around the world with Douglas Fairbanks? Then, too, the motion picture, by means of stop-motion photography or slow-motion or animated technical drawings, and the like, may reveal to us many phenomena and processes which the unaided eye is incapable of apprehending.

Persons, events, processes, or things not requiring motion for their study, may be recorded on lantern slides and projected as still pictures on the screen. Here "seeing" may be as prolonged as necessary and accompanied by oral expression which is "doing" for some and "hearing" for all.

Classroom activity "projects" are especially fine visual aids in that they involve doing as well as seeing. Considerable visual exploration of many sources of picture material must usually precede the construction necessitated in the project, and motivated oral expression is sure to follow its completion.

The magazines of today, especially in their advertisements, afford recognition of the force of the appeal through the eye to the pocketbook. And what adult, not to mention child, fails to peruse carefully the illustrated comic section of the newspaper? The teacher is merely keeping abreast of the times when she takes advantage of the added interest and understanding contributed not only by the formal visual aids for screen projection but also by the many non-projection visual devices such as exhibits, dramatizations, charts, posters, graphs, maps, globes, blackboards, sand-tables, magazine and book illustrations, stereographs, cartoons, paintings, models, shadow pictures, puppet-shows, projects, and what not, to "lessen the evils of verbalism".

Research has shown that visual aids motivate pupil-learning so that by their use more knowledge is acquired in a given time and is retained better than by instruction without the visual aids. This means that the use of visual materials decreases the number of pupils failing and so decreases the cost of instruction. In the famous Yale experiment the "motion picture" pupils learned 19% more and remembered 12% more American history than did the "text-book" pupils. Moreover, the motion picture group voluntarily read 40% more supplementary historical reading material than did the other group. Not only do visual aids enhance learning both in the amount gained and in the amount retained; they produce greater satisfaction on the part of the learner, which results in a better attitude toward the subject learned.

Education today is concerned not merely with the subject-matter learned, but with the attitudes, ideas, and habits learned at the same time, that is, in the personality traits developed along with the subject-matter learning. Here visual aids function vitally.

There is, then, at least a four-fold economy in the utilization of visual aids and any educational program which does not take advantage of this means of economizing is to that extent an extravagant program. This economy consists in:

(a) A greater amount learned, with greater satisfaction to the learner;
(b) More of it retained after the lapse of a period of time;
(c) A reduction in the number of "repeaters" to be taught again;
(d) A saving in the school life of the pupil whose failures are reduced.

Experts have estimated that the price of a single adult movie ticket per year for each pupil would provide an adequate city program of visual education while the average cost in cities above 100,000 of teaching one pupil who fails for another year is $112. (Cities above 100,000, 1929-30). This contrast does not even reckon the value to the pupil of the time he saves by not repeating or the value to every pupil (and incidentally to the city) of the enrichment in his learning produced by the visual aids. This last is really the most important of all.

Some, who are doubtless not aware of the many advantages and savings attributed to visual aids, decry the use of "visual education" because "they didn't have those things when I was a boy" (and look what I am now). This same parent ought logically to begrudge his child and deny himself such recently acquired privileges as tuning in on a radio program, or riding in the family car, or taking out a library book, or turning on the electric lights, or talking over the phone, or joining a Boy Scout troop, or playing the saxaphone, or taking in a movie, or boarding a street car, or reading a telegram,—or what have you? And yet—have you ever heard the parent who says, "Now when I went to school . . . . . ", implying if not actually saying, "what was good enough for me then is good enough for my children now".

There is a simple fallacy here which needs only to be pointed out in order to be appreciated and refuted. It hinges on the words "then" and "now". Perhaps many of us might say, and really mean it, that "what was good enough for me *then* would also have been

(*Concluded on page* 122)

A Survey of the Use of Visual Aids in Pasadena Junior College

HARRY A. HAWORTH

THE Visual Education Committee of the Pasadena Junior College has attained some very interesting results from a survey regarding the use of visual aids in the Junior College. It is often said or supposed that the secondary schools use motion pictures to the exclusion of other types of visual aids. This survey shows that in the Pasadena Junior College (grades 11-14) the motion picture ranks low in a list of eleven aids rated. Mr. Archie M. Turrell, as chairman of this Committee, has done a fine piece of work.

In our secondary schools a Visual Education Committee is appointed by the principal to encourage the use of visual aids by acting as liaison officers between the teachers and the central visual education department. In this capacity the committee informs teachers of aids available for their work and arranges picture projection dates, rooms and operators.

The operators are scheduled from a club of boys called "The Silver Screen Club" whose members are trained to operate the projection machines, under the supervision of the committee. It is a purely voluntary organization but its services are available to any school for the operation of projection apparatus, for stage crew work, or for handling any of the mechanical or electrical equipment of the auditorium. The sponsor and trainer for the club is a man of experience in projection and stagecraft, Mr. Wedemeyer.

The full report by the Committee constitutes the rest of this article.

Report of the Visual Education Committee

I. "Problems encountered and solved"

- A. The perennial criticism bobs up that we emphasize motion pictures to the exclusion of other types of visual aids.
- B. A survey is launched to obtain objective data on the question.
- C. The results of the survey (presented in graphic form) show that, if the criticism was once true, it does not now apply.

II. "Problems remaining unsolved"

- A. The comments resulting from the survey indicate conditions to be met.

III. "Recommendations regarding the work of the Committee"

- A. The comments in the survey, also, suggest possible extension of the work of the Committee.

IV. Appendix

- A. Copy of Bulletin II issued by the Committee.
- B. The questionnaire used in the above survey.
- C. Survey data sheet showing the figures compiled in a form to make interpretation easy.

If the term "Visual Education" calls up any mental picture in the mind of the "average" teacher, it is without doubt connected with motion pictures in some way. Just why the term should connote motion pictures to the exclusion of a large field of other types of visual aids to instruction can probably be traced to the time when this method of instruction *was* abused in that very way.

To the members of the Visual Education Committee, busy arranging picture projection dates and scheduling and training operators for their work, it may still seem to be the situation.

Feeling that this opinion was due more to a lack of information of all that the faculty was doing in this field than to anything else, the committee instituted a survey to find out what the various types of visual aids in use in the Junior College were, and what relative emphasis was placed on them as evidenced by the frequency of use of each type.

Briefly to explain the method of the survey, each teacher was given a list of the various types of visual aids to instruction with space at the bottom for additions to the list, and was asked to indicate after each type the number of times it was used per month, using the last month as a basis for estimate.

The absolute mathematical results of the study are questionable, but not the relative tendencies shown. As a result the motion picture is a low ninth in a list of eleven aids used. The figures were rearranged on

the basis of departments. Without reference to the type of aids used the second graph shows the relative order of the departments in the use of visual aids. Probably this is also an indication of the extent to which the ideas taught in the various fields of knowledge lend themselves to visual presentation.

The comparative use of various types of aids and the relative use of aids by various departments are presented in graphic form in the tables below. Suggestions for future work of the committee are given later in the report.

Following is a sample of the questionnaire used in gathering the data.

Survey of the Use Made of Visual Aids to Instruction in Pasadena Junior College 1930-1931

(This is not being used for a Master's or a Doctor's thesis)

I If you employ no visual aids to instruction in your class work, check here .... and return this blank to Mr. Turrell's box.

The remainder of this report is not concerned with the use of materials in the laboratory period, but relates only to those visual aids which the instructor uses in connection with the lecture hour.

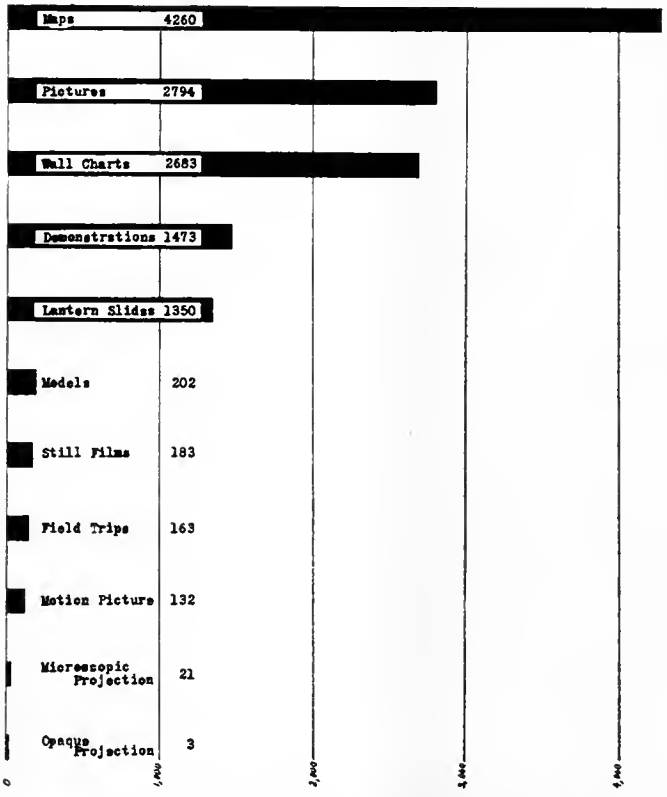
II *Visual Aids not requiring lantern projects.*

Type	Check here if used this year	Estimate No. of class meetings in which the instructor makes use of them (See Note)* per month	per semester
Maps			
Wall charts			
Pictures (not motion or lantern)			
Demonstration (using laboratory equipment)			
Field trips (total for the instructor)			
(Other type)			

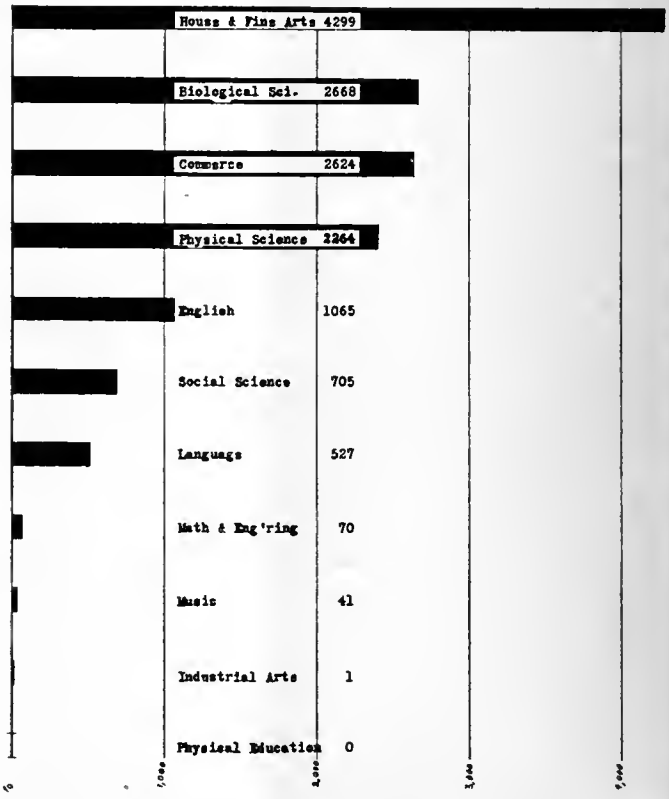
III *Visual Aids requiring lantern projection.*

Motion picture			
Still film			
Lantern slide			
Microscopic projection			
(Other type)			

*NOTE: If used frequently, take the last month as a basis for estimate. If infrequently (2 or 3 times a semester), fill in the right hand column only.



Relative Use of Various Types of Visual Aids
(by all Departments of Instruction)



Relative Use by Departments of Instruction
(all types of visual aids)

IV Did you use the service of the Silver Screen Club members in connection with the above work?

.....each time .....part of the time
.....none of the time

V In what way can the Visual Education Committee improve its services to you during the coming school year?

A tabulation of results obtained from the questionnaire appears below.

DATA SHEET

(numbers indicate times the different types of aidswere used in the different departments.)

	Biological	Commerce	English	House & Fine Arts	Ind. Arts	Language	Math. & Engr.	Music	Phys. Educ.	Phys. Science	Social Science	Totals
Maps	468	2150	559	140		265				220	458	4260
Wall Charts	1160	90	210	654		40	6	21		277	225	2683
Pictures	250	90	289	1890		205		20		46	4	2794
Demonstrations	217	50		554			6			640	6	1473
Field Trips	119	4		10			6			24		163
Models	200										2	202
Motion Picture	24	44	2	23	1	4	20			12	2	132
Still Film		106		68		3				2	4	183
Lantern Slide	209	90	5	960		7	32			43	4	1350
Microscopic projection	21											21
Opaque projection						3						3
Totals	2668	2624	1065	4299	1	527	70	41		1264	705	13264
Number of teachers who answered questionnaire	8	12	14	10	4	9	9	7	6	10	14	102
Teachers who reported not using any visual aids this year		8	10	1	3	4	5	6	6	1	8	52
% not using (of those reporting)	0	67	71	10	75	44	55	86	100	10	59	51
Number of teachers who did not report	2	3	9	3	2	5	1	1	6	4	2	39

Comments and Recommendations on the Work of the Committee

In addition to giving the committee a picture of the use made of visual aids to instruction in Pasadena Junior College, there was one section of the survey which we hoped would be fruitful in suggestions for improvement, namely the question: In what way can the Visual Education Committee improve its services to you during the coming school year?

These comments were classified into two fields: those complimentary to the committee and its work, but not offering suggestions for improvement; and those pointing to greater possibilities. Of the first type there were many, which the committee acknowledges and is very happy to receive. Of the second type the results were disappointing when figured in numbers, but in quality contained three very good suggestions. A brief resumé of these three follows:

A. Some of the teachers have expressed a desire for more "daylite" screens. Mr. Haworth has explained a way in which several of these might be made available at small expense, and the committee intends to take steps to fill this need.

B. Some teachers seem to lack information of the various materials available. Some new scheme for disseminating this information among the faculty members is needed. Just what this method should be the committee does not know, but intends to propose some other method by the opening of the school in the fall.

C. One department head has suggested that travel pictures be shown during the Wednesday Club Period to which all interested be invited, and has offered to arrange talks to accompany or precede the presentations. The committee may be able to work out something along this line, if it seems feasible.

Visual Education Committee
Archie M. Turrell, Chairman
Arthur F. Hall
Winefred Millspaugh
A. M. Wedemeyer
Fred. G. Young

Units of Instruction for Teacher Training Courses (No. 4)

What Facts About Electricity are Important in Projection?

L. PAUL MILLER

(A) *Why is a review of facts concerning electricity and electrical devices useful in our study of projection?*

While a teacher does not need to be an experienced electrician in order to operate projection equipment, he needs to know a few elementary principles. The projectors he uses have electric lamps, the capacity of which is indicated in watts. Motion picture projectors, to be studied shortly, have motors, rheostats, and other electrical devices. A few common terms will be defined in this unit. Motion picture films listed in this unit, under "Visual Aids," may be used to make the topic more interesting.

The Pennsylvania Department of Labor and Industry has suggested the following outline for training projectionists, in answer to a request regarding what will be expected of teachers to qualify for the amateur projectionist's license in Pennsylvania. The same sort of outline would be useful, of course, in any State, whether a license is required or not, for operating 16 mm. portable machines using safety films.

Requirements for an operator's license include a knowledge of:

(1) Electric current: alternating and direct. Voltage. Cycles, 25 and 60.
(2) Wiring: Proper sizes. Circuits. Fuses.
(3) How to adjust projector to current.
(4) Parts of the projector and their relationship to one another.
(5) The illuminant and its relation to projection.
(6) Technique of operation, including ability to locate various troubles.
(7) Lubrication, care and housing of projector.

(Teachers in other States than Pennsylvania, will of course inquire as to regulations in those States, and meet requirements there.)

(B) *When are direct and alternating current used?*

Find out what kind of current is used in your school. When only an incandescent electric bulb is used in a projector, either direct or alternating current is satisfactory. If an arc light is used, be sure you have the right kind of current. Alternating current (A.C.) cannot be used with a direct current (D.C.) arc. When a motor is used, to operate a motion picture projector, be sure to read the directions as to the kind of current required. Some projectors need to be adjusted for either A.C. or D.C. The change in this case is made very simply.

(C) *What units are used in measuring electricity?*

The ampere is a measure of the amount of electricity flowing through a conductor per second. A 16 mm. motion picture projector ordinarily uses a lamp requiring 5 amperes. Care should be taken, when a rheostat is used on such a machine, that the current does not exceed 5 amperes, as shown by the indicator on the ammeter.

The ohm is the unit for measuring resistance. It is equal to the resistance offered by 157 feet of number 18 copper wire.

The volt is the electro-motive force necessary to cause a current of one ampere against a resistance of one ohm. The ordinary voltage in the wiring of a school is 110 volts. If a town or school is equipped for lighting only on 220 volts, an auxiliary rheostat must be used. This plugs into the room socket, and reduces the current to 110 volts. A 16 mm. motion picture projector ordinarily uses a lamp taking 50 volts, and is equipped with the standard resistance for operation of a line carrying not more than 125 volts and not less than 105 volts either A.C. or D.C. Volts are measured by an instrument called a voltmeter.

The watt measures the amount of work an electric

Author's Note: Useful suggestions continue to come in concerning Units 1 to 3 of this series, which appeared in the January to March issues of The Educational Screen. It is hoped that publication of these specimen units will provide a basis for discussion as to what we should include in our teacher-training courses in visual education. Copies of the complete list of topics of forty-five units, now in use in several Pennsylvania colleges, are being sent to those who request them. The units on projection, only, are being published in this series.

current can do. Watts equal amperes multiplied by volts. For example, a motion picture projection lamp using 50 volts and 5 amperes is a 250 watt lamp. "Still" picture projectors ordinarily use 500-watt lamps for glass slide projection, and as high as 1000-watts for opaque projection, or for slide projection in auditoriums.

(D) *What are motors and rheostats?*

Motors are machines for converting electrical energy into mechanical energy. Motors on motion picture projectors require little attention other than lubrication at designated places.

Rheostats are used with projectors having electric light bulbs in order to control the amount of current going through the lamp. The rheostat must be adjusted to send through the least current when the light is first turned on. This lengthens the life of the lamp. The current is then increased up to but not exceeding 5 amperes. Rheostats must be used with arc lamps, and must be selected according to line voltages and required amperes. Rheostats of 4½ amperes can be used with the usual electric wiring, but any having higher capacity usually requires special wiring.

(E) *What advantages have incandescent lamps for projection?*

The power consumption of incandescent lamps is much less than that of arcs. The new gas-filled lamps with concentrated filaments furnish efficient and economical illumination. They have efficiencies of .5 to .8 watts per candle power, and are rated to have a life of about 50 hours. These lamps are not considered to be sufficiently concentrated for microscopical projection. A 1000-watt lamp needs special wiring because of the heavy current.

Verbal Aids

Elementary physics text-books. Chapters on electrical devices.

Add:

Visual Aids

Motion picture films projected, on: "Heat and Light from Electricity," "Magnetic Effects of Electricity," (Eastman Teaching Films) and "The Light of the Race," "Making Mazda Lamps," and "Thomas A. Edison," Free, (General Electric Co.)

Written Summary

1. The current used in this building is (direct, or alternating) .....
2. The voltage is....., and the cycles:.....
3. The lamp in the glass slide projector used in this course is.....watts, and the lamp in the motion picture projector is.....watts.

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.

University Students Produce Unique "Talkie"

A unique "talkie" is being presented by a group of students of the University of California. A 16 mm. feature film of two 400-foot reels, entitled *Black Revenge,* was first produced by the students without sound recording. This picture is now being shown to the accompaniment of dialog spoken by the members of the cast in person, together with other sound effects. The sound is received by a radio microphone placed in a room adjacent to that in which the picture is shown and from which the screen may readily be seen. The microphone is hooked up with a regular talkie sound amplifier and speaker system. After a few rehearsals, we are told, the students were able to achieve with this set-up synchronism comparable to regular sound recorded film.

The first showing of the "talkie" was in a nature of a preview given in the auditorium of the Bell & Howell building in Hollywood. The occasion was a gala one, and so great was the demand for tickets that a repeat performance was necessary.

The picture is a travesty on the old-time melodrama and has all the regulation characters of this type of vehicle. The picture has been booked by various organizations, including the Los Angeles Cine Club. The students responsible for the production are planning a second picture for the near future.

Magic Carpet Series

In addition to the Movietone School Series, Fox Films distribute another group of films, entitled the *Magic Carpet Series,* which should appeal to the educational and non-theatrical field as having instructive as well as entertainment value. These sound travelogues, in one and two reels, have had much research expended on them and employ many crews for expeditions to far-off places.

Among the latest releases are the following: *Manhattan Medley,* a fine screen study of a day in the life of the great metropolis, New York; *Over the Yukon Trail,* in which the romantic trail of '98 is retraced; *Zanzibar,* which pictures the colorful aspects of that sleepy tropical port; *Fires of Vulcan,* presenting daring ventures into dangerous volcanic locations; *With the Foreign Legion,* showing "for the first time, the true Foreign Legion, photographed by special permission of France"; *By-Ways of France,* a portrayal of the beauty of rural France; *Alpine Echoes,* where yodeling mountaineers and snowcapped tops are the subjects; *Big Game of the Sea,* offering a thrilling whale capture; and *Incredible India,* which covers a diversity of aspects of the native life.

Additions to Filmo Library

Prominent among the new 151 Pathe 16 mm. sound releases which have been added to the Filmo Library, are 13 of the popular Grantland Rice Sportlights of one reel each. Then there are 67 two-reel comedies, 16-Aesop's Fables in one reel, and the always interesting Vagabond Series of 8 subjects, including such titles as *Venetian Nights, The Gem of Agra, Sands of Egypt,* and *The Glory of Spain.*

A great many features, ranging from six to ten reels, are listed. For next month there will be another lot of 16 mm. talkie listings, including important Universal and Columbia releases.

Ford Prints Set Record

A record production of 6000 industrial sound motion picture prints, announcing the new Ford V-Eight Car, has been completed in four days by the Metropolitan Motion Picture Company. Four days previous to the published announcement of the new Ford, work was gotten underway at the Motion Picture Company's Studios. The motion pictures showing the new Ford being built and in actual operation were produced in great secrecy by the Ford Motor Company itself and rushed to Metropolitan's Studios and, under the personal direction of M. J. Caplan, president, the picture was carefully cut and edited and scored with a comprehensive description of the new car by "Ty" Tyson, popular Michigan radio announcer. Contacts were immediately established in New York and Chicago for a nation-wide theatrical distribution of the prints. The same evening prints of the complete subject, about 240 feet in length, were being shipped to theatres in every section of the country. It is estimated that the picture is being exhibited in upwards of 6,000 theatres.

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Visual Meetings and Demonstrations

A Joint Meeting of The Metropolitan-New York Branch of The National Academy of Visual Instruction and The Visual Instruction Section of The New York Society for the Experimental Study of Education was held at the Bell Telephone Laboratories Auditorium, New York City, on Friday evening, March 18.

Dr. Howard A. Gray, of Electrical Research Products, Inc., in his talk on "Educational Talking Picture Experimentation" described the experiment now being conducted in the public schools of five Eastern cities. The program was completed with the showing of the following educational talking pictures: *Individual Differences in Arithmetic, The String Choir, Beetles,* and *Choosing Your Vocation.*

▲ ▲ ▲

Visual Education was included among the Sectional Programs at the Annual Ohio State Educational Conference April 7, 8, and 9, with E. J. Arnold, Superintendent of Schools, Nelsonville, presiding. Addresses were delivered by Mr. Carl E. Milliken, Secretary of Motion Picture Producers and Distributors of America, on "The Social Value of Visual Instruction"; Emeline Baumerster, Supervisor of Geography, Sandusky, on "Visual Aids in Classroom Teaching"; and Dr. George Rommert of Munich, Germany, on "Microcosm in Education". The program was concluded with a summary by B. A. Aughinbaugh, of the State Visual Instruction Board of Control.

▲ ▲ ▲

There will be an exhibit and demonstration of all kinds of visual instruction equipment in the Senior High School, Port Washington, New York, on Tuesday evening, April 26.

The Visual Instruction Committee of the Port Washington Public Schools feels that this demonstration will give teachers and administrators an opportunity to determine the merits of various kinds of equipment under identical conditions. Representatives from the leading schools of Nassau, Suffolk and Westchester Counties have given assurance that they will attend. The leading manufacturers of visual instruction equipment have been invited to exhibit their products. The demonstration will be confined chiefly to apparatus used in the classroom.

There will be exhibits of 16 mm. motion picture machines, both silent and sound; lanterns for glass slide and opaque projection; lanterns and attachments for microscopic and stillfilm projection; screens and accessories.

All school officials are invited to attend.

Another Pioneer in Visual Instruction Has Gone

We have just received from the Visual Aids Section of the California Teachers' Association notice of the recent death of Ida M. Waite, director of the Glendale City Schools, with the request that the following resolutions be printed.

"Whereas the visual education field has suffered a distinct loss in the passing of our beloved friend and fellow-worker, Miss Ida M. Waite and

"Whereas she has been an educational leader in the Glendale school system during the past nineteen years and a pioneer in the visual instruction movement and

"Whereas in addition to her worthy professional career, she led a life rich in social service and valued friendships; be it

"Resolved that we, the members of the Visual Aids Section of the California Teachers Association, Southern Section, do hereby express our deep regret occasioned by the passing of our valued friend and be it further

"Resolved, that this resolution be entered in the minutes and a copy of it sent to the family and with it an expression of our sympathy and the assurance that her full and energetic career will continue to be an inspiration to her wide circle of friends."

Stereoscopic Apparatus Revives Eyesight

Experiments in reviving the eyesight of those who have lost the practical use of either eye, due to constant strain, are being conducted in the physics-optics research laboratory of the University of Southern California.

Employing a manuductor, a special type of stereoscope, the corrective system gives training in hand-and-eye cooperation and coordination, using hand movement to stir visual attention, hand guidance of eye

(*Concluded on page* 122)

DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

THIS section has been reserved for notes covering the activities and plans of the Department of Visual Instruction of the National Education Association, with which the National Academy of Visual Instruction was merged recently. Reports and news notes to appear in this section should be mailed directly to the secretary of the Department, 1812 Illinois Street, Lawrence, Kansas.

Explanatory

The National Academy of Visual Instruction, composed of a group of visual instruction directors and other educators, was organized in 1920. Three years later, the Department of Visual Instruction of the National Education Association was founded. Since that time, the two organizations have paralleled each other in aims and activities, with some duplication of membership.

During the greater part of the history of these two organizations, there have existed other similar groups. Most prominent of these was the Visual Instruction Association of America, with headquarters in New York City.

About a year ago, the Visual Instruction Association voted to become the Metropolitan New York Branch of the National Academy of Visual Instruction. This left but the two national organizations in the field.

These two groups, the Academy and the Department, had been considering a merger for the past two years. The merger was first approved by the Department of Visual Instruction at its annual meeting in Los Angeles, California, during the summer of 1931. It was approved next by the National Academy of Visual Instruction at its annual meeting in Washington, D. C., on February 24, 1932. There is now but one organization and it is an approved Department of the National Education Association, ready for accomplishment.

The merged organization combines the rich history and achievement of the National Academy of Visual Instruction with the activity and both national and international high reputation of the Department of Visual Instruction of the N. E. A., thereby providing a satisfactory clearing house of information and ideas for those who may be interested in using visual and other sensory aids to instruction.

It is expected that the combined Academy and Department of Visual Instruction will become as important to the teacher or other user of visual aids to instruction as the American Medical Association is to the physicians; as inclusive in its membership as the National Education Association; and so active that its influence will be felt throughout the world.

Membership

Membership in the Department of Visual Instruction, combined with the National Academy of Visual Instruction, is open to anyone who may be interested in this important educational development. The only preliminary requirement for active membership is membership in the National Education Association. All members receive without extra charge, the official magazine and such other bulletins or reports as may be published by the Department.

Active Membership is available to visual instruction directors and workers; teachers; administrators; museum, extension and religious workers; members of community organizations; and members of the educational staff of industrial organizations. The fee for active membership is $2., covering a period of twelve months from the date of enrollment.

Associate Membership is available to those who may not be qualified for Active Membership. Such members will receive all the usual services but will not be eligible to vote or hold office. The annual fee for Associate Membership is $2.

Institutional Membership is provided for schools; university extension divisions; university, college, state, county or city departments or bureaus of visual instruction; museums; libraries; publishing houses; and other educational or welfare organizations which may desire to assist the Department in its work and which may desire more than one copy of each of the various publications. Each school or other organization which becomes an Institutional member will receive, without extra charge, a maximum of five copies of each of the publications, including this magazine. Each Institutional member shall be permitted to send one delegate with voting power, and an unlimited number of visiting delegates, to each meeting. The

annual fee for Institutional Membership is $10.

Contributing Membership provides an opportunity for producers, manufacturers or distributors of visual instruction materials and equipment; foundations; philanthropic groups or individuals to assist the organization in prosecuting research and in creating greater interest in the possible uses of visual aids among schools and other community organizations. The suggested annual fee is $50., but this amount may be increased at the option of the donor. Those organizations which are or may become contributing members shall receive special rates on advertising space in the annual directory and in other publications of the Department in which advertising may be authorized. Furthermore, each shall receive, without extra charge, a maximum of 25 copies of the annual directory and its supplements.

Publications

The following publications will be furnished without charge to all members:

THE EDUCATIONAL SCREEN combined with VISUAL INSTRUCTION NEWS (published every month except July and August)	$2.00
The Annual Visual Instruction Directory	1.50
1001—The Blue Book of Non-Theatrical Films	.75
"Visual Aids in the Curriculum," pamphlet	.25
Special reports, proceedings, etc (Estimated)	1.50
Total cost to others	$6.00

In addition, Active Members, of whom membership in the National Education Association is required, receive the interesting and helpful JOURNAL OF THE NATIONAL EDUCATION ASSOCIATION.

Meetings

There will be two meetings annually, held at the time and place of the annual meeting of the National Education Association (Summer) and of the Department of Superintendence of the N. E. A. (Winter). All meetings are open to members and visitors.

Central Office

For the present, the central office of the Department will be maintained at 1812 Illinois Street, Lawrence, Kansas. Plans for the future provide for the establishment of a clearing house with a staff competent to direct research, publish reports, and give advisory service to members. Suitable office space for such an office has been offered to the Department by the National Education Association. All inquiries directed to the Secretary of the Department, at the address as given above, will receive prompt attention.

Branch Organizations

Inasmuch as it would be impossible for all who may be interested in the use of visual and other sensory aids to instruction to attend central meetings of the Department, it has been considered advisable to establish branch organizations among the various cities and states. The Massachusetts and Metropolitan New York branches have been established during the past year. Negotiations are under way for the establishment and development of suitable branch organizations in many other cities and states, including Cleveland, Chicago, Pittsburgh, upper New York State, California, New Jersey, Iowa, Wisconsin, Nebraska, Kansas, Missouri and Pennsylvania. The branches of the Department may meet whenever and wherever they choose and will be given assistance in planning and executing an active program through each year.

Membership Application Blank

Office of the Secretary-Treasurer,
Department of Visual Instruction &
National Academy 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 .....

Street .....

City & State .....

I am ☐ / I am not ☐ a member of the 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 (March) "Administration and Supervision of Visual Instruction" by Mr. Alfred W. Abrams, the sixth article of a series, is very practicable and helpful, particularly for school principals with whom these two functions generally rest. Mr. Abrams mentions a few administrative problems which must be met, and what is involved in the supervision of visual instruction, giving some suggestive directions for effective use of pictures.

School Executives Magazine (March) How the use of the radio for instructional purposes has created a need for visual aids by the listening pupils, is told in "Visual Aids and Educational Radio" by W. C. Bagley Jr. of the Columbia Broadcasting System. Moving pictures and slides are very useful in preparation for the broadcast and for this purpose the American School of the Air suggests pertinent films in the Teacher's Manual they have prepared.

The New York Times Magazine (February 28) "American Civilization Assayed", by Bernard Fay, a keen student of American life and history, discusses the writer's belief that "Europe needs to examine the American way to see if it does not contain, despite mistakes, principles that are of definite value to the whole world." Included in the illustration-cartoon that precedes the article, is Uncle Sam, the Showman, with his wares,—Liberty with her torch, machinery and belching stacks, the bucking cowboy, gold mines, skyscrapers, airplanes, AND—a familiar figure of another day, bearing a derby, a cane and a pair of enormous shoes!

The article begins with several pen pictures, one from Brittany, another from a smart Parisian home, another from a wealthy house in Passy, yet another from a room of gloomy bank Directors, and the last from a smug faculty gathering. The closing burden of each sketch, be it a Brittany peasant, a bankrupt financier, a mother, or the younger generation speaking is, "That awful American civilization!" The author then begins his long and thoroughly delightful presentation of America's assets,—her Poe and Whitman "who made Europe think", and her four great "myths which have fascinated the European mind: the Morgan, the Ford, the Wilson, and the Chaplin myths." While the Morgan and Ford myths were for good conservative people and young, ambitious, and reckless men, respectively, the "Chaplin myth was for practically everybody. Before he went to Russia and took to thinking Chaplin was really good. His swift and charming gestures, his quick gayety that always smiled upon sadness, his intelligent meaningless, his refined love of the common people evoked exquisite dreams, deep feelings, and spoiled nothing. All those who were young between 1914 and 1922 loved Chaplin. He was 'American civilization' at its best—the vision of an angel bringing to everybody the greetings of a witty, kind and melancholy god, who was probably a little lazy, but knew, nevertheless, how to create lovely human gestures, exquisite movement and fine feelings. Nobody, then, really succeeded in describing American civilization, but it was pretty well understood that there was a lot of good in a country that could claim Wilson, Ford, Morgan and Charlie Chaplin. No great book was written about it; the man of the street did not need it, for he knew—he went to the movies." The author then proceeds to discuss how the conception shifted its emphasis. We cannot quote further, but this complete excerpt considering Mr. Chaplin indicates again the importance of that artist in the American picture and testifies, as well, to the careful discrimination of the writer in presenting his subject.

School Management (March) "Talking Pictures —A New Teaching Aid", by V. C. Arnspiger, reviews the films which have been made by educational experts for teacher training work. Following these reviews, we find a resumé of the films produced in the social studies and the science group. One realizes, when reading Mr. Arnspiger's account, the extent to which the talkie is being used and the far greater influence that it will, some day, have.

International Review of Educational Cinematography (January) Always of particular interest to our readers is the content of this inestimable publication. "What We Can Expect from the Educational Sound Film", by Dr. Walter Günther, "An Exhibition of Mechanical Aids to Learning", by C. P. Hankin, the report from the I. I. E. C. Enquiries—"Young People's Impressions of War Films", and the Department called "Review of Periodicals and Newspapers" will be of tremendous help to our readers. The Review Department is heartening for it recognizes THE EDUCATIONAL SCREEN as a valuable source of information in the field.

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)

Allas the Doctor (Richard Barthelmess) (First National) Serious, very clinical medical story. Hero sacrifices career to take blame and jail sentence for brother's crime. After release, performs emergency operation, and wins back happiness for all. Earnestly acted, but rather heavy entertainment.
A—Interesting Y—Interesting C—Beyond them

Amateur Daddy, The (Warner Baxter, Marion Nixon) (Fox) Very human and appealing story with charming romance interest. Genial hero leaves his engineering work to father a pal's four orphan children, beset with poverty and evil-intentioned neighbors. Well-acted, convincing, decidedly worthwhile.
A—Good Y—Very good C—Mature but good

Are You Listening (Wm. Haines, Madge Evans) (M-G-M) Hodge-podge of little merit except as far as it is an authentic portrayal of activities in radio-broadcasting studio. Haines in non-smart-aleck role. Minor roles well acted in mediocre story.
A—Stupid Y—Doubtful C—No

Blande Captive (Australian explorations) (Columbia) Absurd title and publicity for fine entertainment and educational film. Elaborate picture of primitive life in Australia. No sound except intelligent vocal explanation by Lowell Thomas. White woman, shipwrecked years before, more interesting incident.
A—Excellent Y—Interesting C—Probably Good

Broken Wing, The (Leo Carrillo, Lupe Velez) (Paramount) Another burlesque, Mexican braggart role. Self-appointed overlord of his province, Carrillo is all-powerful but naive. Finally loses his beloved girl charmingly played by Lupe Velez, to American aviator who crashed nearby in storm. Lively.
A—Fair Y—Fairly good C—Hardly

But Flesh Is Weak (Robert Montgomery, Nora Gregor) (M-G-M) Sophisticated story of engaging, penniless old aristocrat with great aversion to work, and his son just like him, both hunting a wealthy marriage. Smooth acting, novel characters, clever dialog refreshingly free from wise cracking and cheap suggestiveness, with charming heroine.
A—Good of kind Y—Mature C—No

Carnival Boat (William Boyd) (RKO-Pathe) Much exceedingly interesting and instructive portrayal of strenuous life and work of lumberjacks in remote mountain forests, splendid backgrounds and photography. Otherwise merely hectic melodrama that strains after thrill with mediocre acting. Show-boat mere incident.
A—Perhaps Y—Good C—Exciting

Cheaters at Play (Tommy Meighan) (Fox) Meighan excellent as reformed crook setting out to catch gang of jewel thieves on Atlantic liner, among them his own long lost son. Shows fine bits on thievery methods. Well tangled plot, interest sustained, good comedy by Charlotte Greenwood.
A—Good of kind Y—Doubtful C—No

Cohens and Kellys in Hollywood (Sidney and Murray) (Universal) Agreeable foolery by the old comedy pair, free from slapstick and vulgarity of their former pictures. Real human interest story which travesties amusingly Hollywood production methods and the ups and downs of movie prosperity.
A—Fair Y—Amusing A—Amusing

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

Cossacks of the Don (Russian production) (Amkino) Grim, realistic picture of primitive passion and crude village life in South Russia. Some rather original camera work, but direction is clumsy, acting heavy and ludicrously overdone. Rather hectic as entertainment.
A—Different Y—Unsuitable C—No

Crowd Roars, The (James Cagney, Joan Blondel) (Warner) Professional auto-racing melodrama seeking chiefly thrill, sensation and endless noise, with some footage on the cheap love affairs of very cheap people. Hard boiled hero treats 'em rough, including girls and the English language. Typical low-caste life.
A—Hardly Y—Doubtful C—No

Dancers in the Dark (Miriam Hopkins) (Paramount) Sophisticated stuff about wisecracking cabaret-heroine of very checkered past, who finds real love in young sax player, defeats evil intentions of various rivals—and finally "true love" wins. Sex is chief idea of whole concoction.
A—Hardly Y—Unwholesome C—No

Disorderly Conduct (Sally Eilers, Spencer Tracy) (Fox) Clever, fast picture of romance, police and high-life gambling. Hero-policeman is engaging grafter, heroine a chronic but fascinating lawbreaker, her father a gambling overlord—and all end happily. As police publicity, very doubtful.
A—Good of kind Y—Doubtful C—No

Expert, The (Chic Sale, Dickie Moore) (Paramount) Well-done sentimental story of lively, officious old granddad from country, who tries living with his city children-in-law but retreats to Home for Aged. Fine role played by small boy. Well acted, human, convincing, laughable.
A—Good of kind Y—Amusing C—Amusing

Final Edition, The (Pat O'Brien, Mae Clarke) (Columbia) Above average newspaper-murder-mystery yarn, with usual "movie" newspaper atmosphere. Good suspense. Heroine cleverly gets evidence on elusive crook, wins back her reporter job, and also job as wife of city-editor.
A—Good of kind Y—Amusing C—Probably good

Fireman, Save My Child (Joe E. Brown) (Warner) One of Brown's best roles—as local fire-chief, baseball hero and inventor, then star pitcher on a big league team for whom he almost loses the World Series when he hears a fire siren, but wins it instead. Good clean fun. Misleading title.
A—Amusing Y—Good C—Good

Freighters of Destiny (Barbara Kent) (RKO-Pathe) Western of unusual interest showing business of wagon-freighting to remote hamlets in the Sierras, with good admixture of danger, thrill and romance. Notable for beautiful mountain scenery and fascinating sound effects.
A—Good of kind Y—Very good C—Good

Gay Caballero, The (George O'Brien) (Fox) Lively western, with rather good plot on the Robinhood motif, fast and furious action. American pals pose successively as a well-known bandit to help the Mexicans and each other. Fine settings and photography. Violence and excitement only objections for children.
A—Good of kind Y—Probably good C—Very exciting

Girl Crazy (Wheeler and Woolsey) (RKO-Pathe) Hilarious nonsense-farce about Eastern ne'er-do-wells on a Western dude ranch. Typical hokum and horseplay, with less vulgarity than usual. Laughable for all admirers of Wheeler and Woolsey but hardly their best work.
A—Depends on taste A—Amusing C—Perhaps

Hotel Continental (Peggy Shannon, Theodore von Eltz) (Tiffany) Well done, sophisticated, romantic crook melodrama laid in famous old hotel on its last night. Hero a famous embezzler seeking loot concealed years before, charming heroine also a crook with scarlet past, both made admirable at the end.
A—Good of kind Y—Doubtful C—No

Impatient Maiden, The (Mae Clarke, Lew Ayres) (Universal) Blase' heroine approves love, sneers at marriage, but young ambulance doctor changes her ideas and she his. Very clinical operation the climax. Well acted but rather banal and improbable story.
A—Hardly Y—Doubtful C—No

Lure of the Ring (Jack Dempsey) (State Rights) Glorifies prize-ring prowess as great American sport, showing big moments of a dozen fights, particularly the Knockouts, with very crude vocal accompaniment throughout. Primarily a blatant ballyhoo for Dempsey's "come-back".
A—Depends on taste Y—Doubtful C—Better not

Michael and Mary (English production) (Universal) Excellent screening, with dignity and taste, of A. A. Milne problem play. Two fine, earnest people marry risking bigamy under rigid English divorce laws. Beautifully acted and spoken, strong dramatic value, convincing characters and conclusion. Slow tempo of real life.
A—Very good Y—Probably good C—Beyond them

One Hour With You (Chevalier, Jeannette McDonald) (Paramount) Artistic, highly sophisticated Parisian comedy, skillfully directed and deftly acted by notable cast. Deliberately suggestive, amusing portrayal of husband genuinely in love with his wife but still susceptible to artful vamp. Decidedly adult.
A—Very good of kind Y—Better not C—No

Pleasure (Conway Tearle) (Art Class) Amateurish production in which author, unhappily married to an unfaithful wife, falls in love with a model. Situation is cleared up when wife leaves with another man and gets divorce. Cast is too good for slow and artificial story.
A—No Y—No C—No

Police Court (Henry B. Walthall, Leon Janney) (Monogram) Second rate picture with serious intent. Human-interest story of devoted little son of drunken father who was formerly great actor. Slow-moving action and mawkish sentiment at times. Well-acted but more depressing than entertaining.
A—Mediocre Y—Perhaps C—Unsuitable

(Concluded on page 124)

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

The Movie Situation

Report to the Publicity Group of the World Service of the Methodist Episcopal Church

H. G. CONGER
DWIGHT R. FURNESS

MOTION pictures are very much to the front these days. Commercially this is attested by the vast sums being invested in production of films and in movie houses; also by the crowds which flock to the pictures.

Educationally, there are several different groups making a study of motion pictures for use in the schools, and many films are being produced for this purpose.

Into the church life has naturally overflowed some of the enthusiasms from the commercial and educational fields. Without artificial stimulation requests for information regarding the sources of film for church purposes have been on the increase. The reasons for the growing demand on the part of our churches are well known.

First, there is no question but that good movies are interesting. They hold attention. People like action. Probably this is the biggest lure of the movies.

Second, there is a growing number of projection machines either in the possession of the churches or available for their use.

Third, an entirely new interest has been developed in the past few years by the introduction of amateur movie cameras and projectors. The development in the church field has been almost entirely with the 16 mm. film.

Fourth, the few films now available for use by our churches have acted as an appetizer, creating a demand for more.

Our embarrassment is that there is comparatively little available in the way of good films for the churches.

There are several distributors booking films for church and school purposes. The subjects consist mainly of scenics, industrials, comedies, dramas and a few moral and religious subjects. For the most part these latter are admitted to be the poorest of the group. There is actually, very little of good religious film available for Sunday church use. *But the demand is strong.* Some groups are seriously working on this problem at this time.

Motion picture film is now distributed in two standard sizes, the 35 mm. which is known as standard film, and the 16 mm. or amateur size. The advantages and disadvantages of these two sizes can be listed as follows:

35 mm. Film

This is the standard professional film. For use in the largest auditoriums it is the more satisfactory size.

Its disadvantages are that it is more expensive in first cost, handling, repair, and shipping. The sad fact is that many projection machines owned by churches are in poor condition and are often handled by amateurs who know little of the adjustments. The results are disastrous to the film.

These projection machines are, of course, more expensive than 16 mm. projectors, and in some states require booths.

16 mm. Film

Its advantages are: comparatively low cost of production, handling, repair, and distribution. Experience this far is that there is less wear and tear on the film. The machines are simpler to thread and operate and are cheaper to buy. Models for home use or small church rooms can be purchased for less than $100.00 and models for church auditoriums or halls for from $150.00 to $300.00. The most reliable of the standard 35 mm. machines are from $250.00 up. The fact that an increasing number of individuals are purchasing 16 mm. cameras and projectors enlarges the field for 16 mm. films.

Amateur cameras are being used effectively in filming local stories of church activities which because of their local atmosphere create considerable interest. Missionaries are increasingly using 16 mm. cameras to visualize their experiences and tell the story of their work.

While in the past 16 mm. projectors have been limited to use in smaller auditoriums, manufacturers have been making rapid steps in producing machines capable of giving much better illumination, and therefore larger, more brilliant pictures.

The problem of the distribution of film is a serious one.

In the first place, there is the problem of storage. For standard film there are certain fire regulations which prohibit the handling of film in certain areas and which regulate method of storage and handling in other sections.

In the second place there must be inspection. It is a matter of general experience that a film can not be booked on a circuit. The only safe way is to have it inspected and repaired between each showing.

There is always the personal factor to be reckoned with, namely of the thoughtlessness of some pastors in neglecting to return film on schedule and the consequent disappointment of the next booker. This often leads to unpleasant complications.

In the case of the 16 mm. film there are not so many restrictions on their handling, nor are they so much in need of repair, though they always must be inspected. They can be shipped by parcel post without special shipping can as is required for the standard film.

Recommendations

We would like to make the following recommendations:

1. That the various church agencies consider seriously the question of procuring a series of films in the interest of their work.

2. That careful attention should be given to the quality of the film produced both from point of view of photography and of interest. A film which hangs together on a human interest story gets its message over most effectively.

3. That in producing new professional films a negative should preferably be made standard size and from it the positive prints either in 35 or 16 mm. can be made. This recommendation is based upon the technical fact that better 16 mm. prints can be made from 35 mm. negatives than from 16 mm., also that it is not good photographic practice to make 35 mm. enlargements from 16 mm. negatives.

4. While recognizing their limitations, we believe that for general church use 16 mm. prints should be made up for distribution, because of the growing sale of 16 mm. machines, because of the relative cheapness of production and because of ease of handling, distribution, and use by amateurs.

5. At the same time at least some of them should be put out in standard size both for the purpose of large conferences or gatherings and also for use of the many churches already equipped with standard projection machines.

6. That we approve the principle of having certain general religious films produced which can be used by all denominations and that we put ourselves on record as being ready to consider any proposition for the production or circulation of such films.

7. That, in co-operation with other existing agencies, a list of film exchanges dealing with films for church and educational use should be prepared and printed for distribution to the churches.

Salvation Army Uses Movies

Capt. Knutson of the Salvation Army in Los Angeles states that his organization has just purchased a Filmo projector and is using it in connection with meetings in Los Angeles. He states that there has been a big increase in attendance as a result. He is very optimistic as to what can be done by the Salvation Army and churches by means of showing motion pictures.

SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

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

Annual Visual Aids Convention Held in San Diego, California

JAMES H. HOUSE

THE annual spring convention of The Visual Aids Section of California Teachers' Association, southern section, was held at the Visual Instruction Center in Balboa Park, San Diego, California on March 18 and 19.

Beginning Friday morning, guided visits were made to an elementary and a junior high school where visual aids were being used as an integral part of the day's lesson. During the early part of the afternoon tours were made to the various museums, Fine Arts Gallery, and the zoo. The program for the day was closed by two nationally known speakers of the photographic field. Mr. Edward P. Curtis of the Eastman Kodak Company, Rochester, New York, chose as his subject "Photography, the Language of the Modern Age." Mr. J. A. Dubray of the Bell and Howell Company, Chicago, Illinois, gave a very interesting talk on "How Motion Pictures Are Made To-day."

Saturday was devoted to open forum discussions. The sessions were divided into two sections directed by leaders. A short period was allowed to each scheduled speaker and time was given after each talk for discussion by the audience group. One section, under the heading of "Today and Tomorrow's Program for City Schools," discussed problems of budgeting for city schools, equipment standards, parent-teacher cooperation in a visual education program, and the value of teacher-made film subjects. At the same time, another group under the heading of "Visual Education Problems of the Rural School," discussed problems of finance, equipment standards, production and collections of individual schools, sources of free and economical aids, and the survey of visual education made by the National City school district. A step of progress in the southern part of the state was shown by the newly organized visual education department of the San Diego county schools library.

The two groups united for discussion on teacher training in visual education. Mr. J. W. Ault, Dean of Education and Principal of the Training School, San Diego State Teachers College, gave an interesting talk on "Visual Education Courses Offered to Teachers in Training and to Teachers in Service." Miss Annette Glick, Assistant Director, Visual Education Division, Los Angeles city schools, summarized the report of the committee on teacher training in visual aids, and made recommendations for the extension of such courses in all state universities and colleges.

A very interesting paper was read by Mr. E. D. Robertson, Vice-president of Stillfilm Company, for the Association of Visual Aid Manufacturers and Dealers on "The Economic Value of Classroom Visual Aids." Considerable space was given to the associate (commercial) members of the association for the display and demonstration of latest developments in visual aids and equipment.

One of the highlights of the convention was a visit to the scene of an actual filming by the San Diego High School Camera Club of an original student play, which is being produced by the camera club in collaboration with the drama department of the San Diego Senior high school. Also, for the first time at a visual aids convention, photographs made by student members of the newly organized high school camera club and the John Muir Technical high school of Pasadena, were exhibited and received much favorable comment.

Several important matters were discussed and voted upon during the business meeting, which was held at the close of the sessions. Under the heading of "new business" a letter was read from Mr. Ellsworth C. Dent, Secretary-Treasurer of the National Academy of Visual Instruction, inviting the association to become a section of the newly combined national visual education organization now known as The Visual Instruction Department of the N. E. A. The proposition was generally well received and the executive committee was instructed to make a further investigation of the plan with the idea in mind of a possible affiliation.

The social events of Friday included a lawn lunch-

eon under the trees in Balboa Park and an informal dinner and dance at El Cortez Hotel. During the evening Mr. Walter R. Hepner, Superintendent of San Diego City Schools, gave an address of welcome to the visiting delegates, and Mr. C. B. Baldwin, Superintendent of Huntington Beach City Schools, gave the response. Saturday afternoon the visitors enjoyed a boat ride trip which was a guided tour of the "Harbor of the Sun."

A Modern Geography Room

A London headmaster describes the special room in a new school building which is to be devoted to the teaching of Geography exclusively.

"All the windows will have close-fitting dark blinds to enable the lantern to be used in the daytime. What I hope to have is an *epidiascope*. This remarkable apparatus throws on the screen images, in color, not only of pictures and maps, but also of objects. Geographical specimens may be effectively shown with this machine.

"The front wall facing the class must be almost entirely blackboard, for plenty of illustrations will be needed. There must be a suspended support for maps similar to a clothes drier in the home—capable of being raised and lowered by means of a pulley. Several large globes will be needed, one plain, one with land outline, and one with physical and political features. V. C. Spary, in his recent book on the subject, from which I have obtained several ideas, recommends an equipment for suspending these globes in front of the class at any height required, which is a better plan than keeping them on their stands. Suspended, they provide a useful means, in conjunction with the lantern, of demonstrating day and night, the incidence of the sun's rays, the seasons, the other world and astronomical facts. They have the advantage of showing the earth more nearly as it actually is, suspended, not rigidly supported."

Association Advocates Teaching History by Film

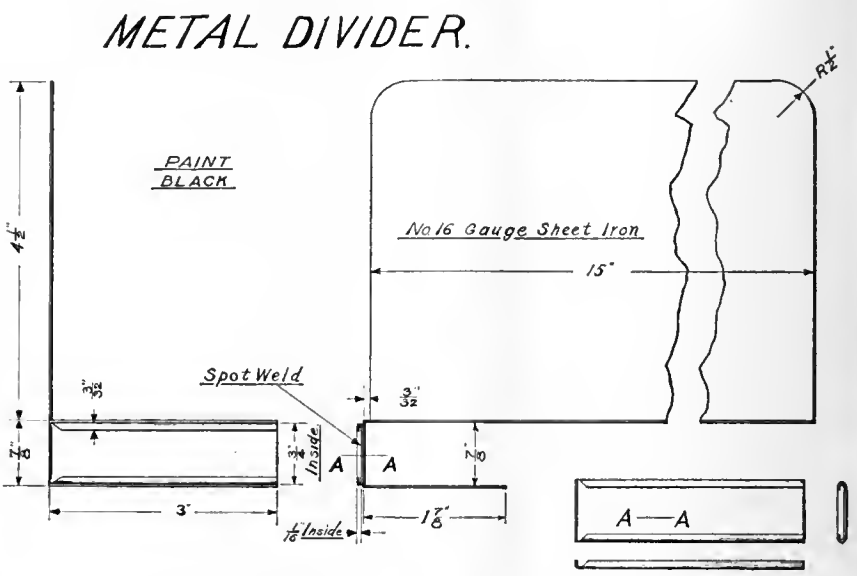
Teaching history by motion pictures is an improvement on the traditional method of teaching, according to a report just issued by the Historical Association of London, in which Miss Frances Consitt compiled the findings of three years of experiments in schools of various grades.

The investigation is said to have shown that the film is particularly valuable for older children in senior and secondary schools, while pupils below the age of

nine derive less advantage from the moving pictures than from oral lessons.

As regards the makeup of the film itself, tests have shown that interest centers on action rather than on setting. Films of historical novels are not recommended, and the expensive spectacular film is also thought likely to prove unsuitable. The investigation has shown the need for scenes arranged in a definite sequence and selected for the definite purpose of history teaching.

Metal Shelf Divider



The sheet-iron shelf divider illustrated, designed by the Visual Education Division, Los Angeles, has been found most successful for housing stereographs, slides, and flat picture sets, as the divider is constructed to slip over the standard size shelf and may be shifted about at will.

A label holder is spot-welded upon the face of the U-shaped clamp which grips the shelf, into which typed or printed titles may be slipped. Shifting may be done instantaneously, and the upright metal strip is sufficiently strong to hold apart relatively heavy objects.

Where, in order to conserve space, picture sets are stood on end, instead of flat, a second metal divider may be slipped upon the shelf above so that the two upright edges come together, or approximately so, in the form of a wall.

Socialization from the Classroom Moving Picture

ROSE M. DOLEZAL

MOVING Pictures were used for the pupils of the Adjustment Department of Collinwood Junior High School, Cleveland, Ohio, to correlate with classroom work in social studies. The response from classroom picture was noted on a group of 8B2 girls. This section was the lowest of the 8B grade, and was composed of girls who were very retarded in their mental capacity. These girls have actual ages of fourteen and fifteen years, and a mental age of but eight, nine, or ten years. The majority of them have very poor home training, coming mostly from foreign homes. They often have a low standard of morality. School for them is a daily compulsion, until they reach the longed-for age of sixteen, when they can get a "job," acquire some "classy" clothes, and a more ample supply of cosmetics.

The feature presented was the *Pioneer Women*, which portrayed the part played by the pioneer women in such a frontier settlement as Boonesboro. The class had previously made a study of the movement of the first settlers into the West during the eighteenth century and especially of the settlement of Kentucky and Tennessee.

At the next meeting of the class, the film was discussed. One of the first reactions of the girls was the fact that "men alone did not win battles." They realized that it would have been impossible to win the wilderness and hold it, if it had not been for the quiet and plodding toil of the brave pioneer women at home, performing their duties even when the dangers and disappointments were great. The girls noted that the help of these courageous women in preserving their simple homes, encouraged these sturdy men in the opening and conquering of the western territory.

Another thing that impressed these girls was the plain character of the pioneer women. One girl said, "I just loved to look at Mrs. Richardson (a pioneer's wife)."

Before the class realized a discussion of character and social traits was substituted for the history lesson.

Another girl said. "I never thought that just sticking around your home, and doing the house work could mean so much. Why the heroine in the movies always does something thrilling!"

They then discussed some of the tasks they had to do at home after school, and decided that after all, these tasks weren't so burdensome, since the work was for their homes and families. The pioneer men risked and often gave their lives, and the pioneer women made their great sacrifices, too.

The charm of these women was referred to. The girls decided that fancy clothes of the party type were not suitable for the school girl of today. Several times girls in the class had been requested to come to school in clothing more suitable for the classroom instead of their sister's cast off party gowns. Many times too, they had been sent out to remove an over-supply of cheap cosmetics. The girls remarked too, that these pioneer women were attractive and charming in their simple colonial type of dresses, and when the period closed these girls who had always adorned themselves with poor suited clothing and over-supply of cheap jewelry and cosmetics, suggested the adoption of a standard school uniform.

The practical results of the showing of this picture did not end here. A great desire was expressed for more pictures of that type. A vigilance committee of three was formed in this group. Occasionally a girl was requested to report to school the next day arrayed in a more suitable manner, and several highly-colored complexions were removed at the request of the committee, with the mutual consent of the class.

Schools Extravagant Today

(*Concluded from page* 104)

good enough for my children *then*". But we are prone to forget "then" and "now" are separated by a period of years—a whole generation. They cannot mean the same time nor the same conditions. The schools of our childhood would be as ludicrously anachronistic in our present-day state of progress as was King Arthur's Court to the Connecticut Yankee.

Let's quit forgetting all the intervening years of development, and say instead: "What was good enough for me *then* is *not* good enough for my children *now*." The best that can be had *today* is none too good for my children *now*, just as the best that could be had yesterday was none too good for me then.". Who wants to drive spikes with a tack hammer anyway?

News and Notes

(*Concluded from page* 111)

motion, and touch projection as a guide to visual projection.

A series of charts bearing unfinished outlines of objects is introduced during the training-process, so that the individual may trace with one hand and eye a picture seen through the stereoscope by the opposite eye.

Forty-eight exercises are included in the experimental steps of visual aid, and the patient is urged to complete them at a pace dictated by his own ability. Stereoscopic experiments were conducted for twelve years before the present visual apparatus was completed.

Movies Teach Golf Course Maintenance

According to *Golfdom Magazine,* the Midwest Greenkeepers' Association has produced a two-reel motion picture on golf course maintenance methods which will be loaned to other organizations of greenkeepers or to golf clubs, without charge, as part of the Midwest's educational program.

The film, which was made with a 16 mm. camera, is called *Divots from a Greenkeeper's Day* and shows the extent and character of work carried on in maintaining a metropolitan district golf course. We understand that greenkeepers' organizations or golf clubs can secure prints of the film by presenting requests to R. N. Johnson, President, Midwest Greenkeepers' Association, Medinah Country Club, Medinah, Illinois.

Film Estimates

(*Concluded from page* 115)

Prestige (Ann Harding, Adolphe Menjou) (RKO-Pathe) The lovely actress and fine cast wasted on hectic and depressing picture of horror and suffering in jungle prison camp in tropic India. Degenerate humanity, torrid heat, hard liquor, sex, etc. Aims primarily at morbid thrills, and succeeds.

A—Hardly Y—By no means C—No

Shopworn (Barbara Stanwyck) (Columbia) Trite story of rich youth in love with waitress to whom mother violently objects. Misunderstandings and separation—heroine has liaisons and stage career—final reconciliation to which even mother contributes. Stanwyck's acting a redeeming feature.

A—Ordinary Y—Unsuitable C—No

Should a Doctor Tell? (English production) (Regal) Edgar Wallace story of the complex consequences of an early mis-step by the heroine, absurdly exploited as "daring and sexy". Mostly well acted, slow in tempo and not sensational, and quite un-Hollywood in dignity and convincingness. A serious problem play.

A—Rather good Y—Passable C—Beyond them

Sky Devils (Spencer Tracy, William Boyd) (U. A.) Fast and furious burlesque of army life in American aviation corps in Great War. Wildly improbable. Incessant slang, wisecracks, bad English. Extraordinary air-stunts, hair-raising feats, constant laughs. Low comedy at its best.

A—Hilarious Y—Amusing
C—Good but exciting

Steady Company (June Clyde, Norman Foster) (Universal) Rather wholesome little prize-fight picture, with two overlong and violent ring fights, otherwise showing a human and humorous romance of a fine little telephone girl and a sturdy young truck-driver with "champ" ambitions and with better chances for success at it than at anything else.

A—Hardly Y—Passable C—Hardly

Tarzan the Ape Man (Johnny Weismuller) (M-G-M) One of the most fantastic and sensational thrillers yet made, laid amid striking African scenery, with notable animal photography. Bizarre masterpiece of technique, with trick shots and faked effects faultlessly done. Disregards probability and scientific truth to get maximum thrills. Unusual, interesting, but educational value very doubtful.

A—Notable of kind Y—Thrilling C—No

Wayward (Nancy Carroll, Richard Arlen) (Paramount) Feeble repetition of old theme. Snobbish mother opposes son's marriage to chorus girl, who fights back and wins out. Poor dialog, and some weak acting especially by Arlen, are no help to trite story. Listless production.

A—Mediocre Y—Worthless C—No

Young Bride (Helen Twelvetrees, Eric Linden) (RKO) Fine, intelligent heroine buried in false story and welter of cheap people. Supposed to love vacuous, blatantly conceited hero and the marriage to turn out happily. Slang-stuffed dialog, cheap cafe and dance-hall background. General public will think it "life."

A—Cheap Y—Better not C—No

Summary of Proceedings-Visual Education Section

Pennsylvania State Teachers College Faculty Conference March 21-23, 1932, Harrisburg

THE Visual Education Section, which held its meetings in the new Education Building, was attended by eighteen State Teachers College faculty members, five representatives from Accredited Colleges, and five members of the Department of Public Instruction. The general theme for discussion was the final revision of the content of the Course of Study for Visual Education in State Teachers Colleges.

It was the unanimous opinion of those in attendance that visual education has made rapid strides during the past five years.

It was unanimously decided that the core curriculum of the Visual-Sensory Aids Course should consist of the following elements common to practically all subjects: Research; Historical Background; Verbalism; Projectors, still and motion picture—housing, care, technique; School Journeys—organizing, conducting, checking; Objects-Specimens-Models — assembling, housing, care, sources; Museum Procedure; Pictorial Materials—standards for evaluating, mounting and filing of flats, housing and care of stereographs, making lantern slides, mending films and film-slides, housing and care of slides and films, technique for all; Photography—still and motion picture camera techniques; Blackboard and Bulletin-board technique; Administering and Budgeting Visual Materials; Radio-Vision—apparatus, procedures, programs, etc.; Bibliography.

It was a common belief of those present that effective instruction depends upon a knowledge of the above common elements and skill in the use of visual aids; it is, therefore, recommended that persons preparing to teach in the schools of this Commonwealth should be required to take the course which has been developed by this group.

A permanent committee consisting of Newton Kerstetter of California, Wilber Emmert of Indiana, L. C. Krebs of Shippensburg, and Paul G. Chandler of Millersville, was appointed to continually revise the Course of Study and circulate pertinent visual education information to all visual instructors within the Commonwealth. Miss Ruth Barrett of Edinboro was made secretary of this committee.

In view of the fact that visual education is a mandatory course in State Teachers Colleges, and the further fact that experimental studies have revealed important values for visual-sensory aids, the conference members believe that:

1. The results of all experimental studies in the field of visual education together with an outline of the course of study adopted should be published by the Department of Public Instruction for the benefit of the visual education instructors and those taking visual education courses.
2. State Teachers, and Accredited Colleges should place special stress on the use of visual-sensory aids in instruction and learning; and as a practical application of this emphasis, faculty members should be encouraged to master still projector and 16 mm. motion picture techniques.
3. The Visual Education Division of the Department of Public Instruction should be requested to develop a collection of objects-specimens-models that will serve as a model for the (a) elementary schools, (b) secondary schools of the State.

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 Franklin Institute Eclipse Projector

LOUIS WALTON SIPLEY

A VISUAL aid for showing eclipses of the sun has been developed by James Stokley, associate director of the Franklin Institute of Philadelphia. The unit consists of a device invented by Mr. Stokley for projecting images on a translucent screen. The construction of the device permits continuous reproduction on the screen of three types of eclipses, (1) partial, (2) annular and (3) total.

In Figure 1 is shown the device with cover removed. This consists of three projectors, A, B, and C, mounted side by side. Illumination in each projector is by a 500 watt incandescent lamp. Projector A is used to project a circle of light through the screen, representing the sun, and is fitted with a circular disc, D, on which are mounted circular rubber discs E. When in operation the disc, D, revolves and the rubber discs, E, pass before the ray of light from the lamp, throwing a shadow on the screen. The size of the rubber discs vary and

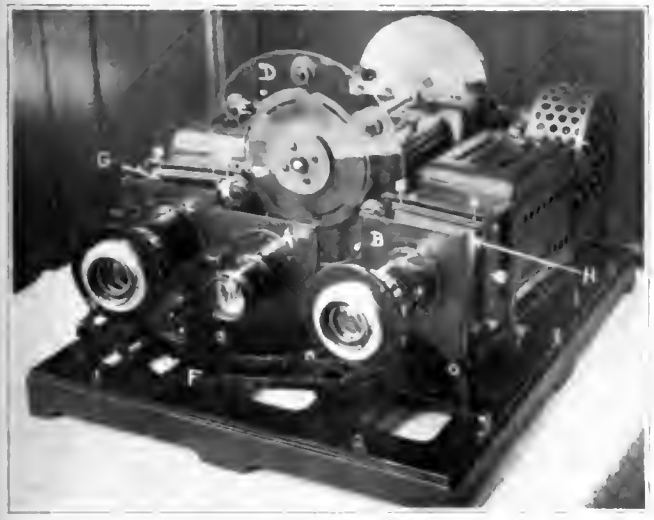


Figure 1

being placed in different positions produce different screen effects. In the partial eclipse one of the rubber discs produces a shadow which is preceded and followed by a crescent of light as it moves across the screen. In the annular eclipse the moon's shadow moves across the sun until only a circle of light remains on the screen.

Both the partial and annular eclipses are produced by means of projector A. The most interesting eclipse, total eclipse, is represented through the use of all three projectors. Figure 2 shows the successive stages of this eclipse as represented on the

Figure 2

screen. At stage 1 the moon is moving across the face of the sun. This is accomplished by means of projector A. When the shadow has fully covered the sun projector C is automatically turned on and by a perforated slide, G, the Bailey's Beads effect is produced as shown at stage 2. This represents the sun rays flashing through the valleys on the moon's surface. This is instantly followed by the corona effect, stage 3, and which is accomplished by projector B moving into action with a special colored slide, H. The result here is very beautiful, the brilliant flames and great bands of light showing around the dark shadow of the moon. As the moon starts to move away the Bailey's Beads appear at the right, stage 4, and then the crescent of light grows until the full sun is again depicted.

The projector device was made by Bausch & Lomb Optical Company of Rochester to Mr. Stokley's design and specifications. The construction of the complete unit required great care and accuracy. The special slide for the corona was made by C. W. Briggs Company. The moon disc on the slide had to measure exactly 1.385 inches and the coloring was made to Mr. Stokley's specifications.

This eclipse projector is the only one of its kind in the world and will be used in the new Museum of Franklin Institute where it will be kept in continuous operation when the Museum is open to the

public. This unit has aroused a great deal of interest and several other large museums have indicated their desire to obtain one of these units.

Burton Holmes to Record Films

Burton Holmes Lectures, Inc., the internationally-known motion picture lecture bureau and the foremost producer of the so-called travelogue type of screen subjects in the world, has contracted for the installation of RCA Victor Photophone recording equipment. Under the provisions of the contract entered into between the two companies, Burton Holmes Lectures, Inc., becomes an RCA Victor Company licensee and hereafter will record its sound motion picture product by the Photophone system. For many years the Burton Holmes silent product was released through Paramount. At present and until next September, the current releases of twelve sound picture programmes are distributed by the Metro-Goldwyn Mayer Pictures Corporation. Future releases will be determined prior to the expiration of the existing contract.

In addition to maintaining a complete recording studio and laboratories for the production of standard size 35 millimeter sound motion pictures at its headquarters in Chicago, Burton Holmes Lectures, Inc. immediately will begin the production of 16 millimeter sound pictures for non-theatrical exhibition through the medium of the recently introduced RCA Victor Photophone portable sound-on-film reproducing equipment. Having upwards of 7,000,000 feet of standard size 35 millimeter negative in its vaults, among which are more than 2,000,000 feet that have never been publicly distributed, a vast library of subjects of inestimable value to schools, churches and other non-theatrical institutions is made available.

"With the introduction of the new RCA Victor Photophone 16 millimeter sound equipment, the reproduction of hundreds of subjects is made immediately possible" said Hilles V. Montgomery, of Burton Holmes Lectures, Inc. "The field for the distribution of such subjects is almost boundless, and our facilities, combined with those of the RCA Victor Company, will soon bring about the production of hundreds of subjects and make them available for early distribution. We have more geographical negative than any organization in the world, and when it comes to subjects of historical importance, we probably can go further back than any motion picture producing company. We can cover practically every event of outstanding significance as far back as the days when the late Czar of Russia's reign was brought to its sudden end. One of the principal activities upon which we will embark without delay will be the reduction of many existing 35 millimeter subjects to 16 millimeter with accompanying sound. Before the end of the current year a large and impressive library will have been produced."

Sound Equipment and Films

Educational Talking Film Company, Chicago, is now offering a complete line of portable 16 mm. sound-on-disc projectors, 35 mm. sound-on-film projectors, and educational talking films for schools, universities, churches, etc., on the following subjects — Science, Geography, Music, Civics, Economics, Physics, Biology, Natural History, Astronomy, Vocational Guidance, Social Science, Teacher Training, Physical Education, Physiology, Arithmetic, Protestant and Catholic Education Series, Scenic Travelogue, and numerous others on 16 mm. stock with sound-on-disc, and 35 mm. sound-on-film safety stock.

They offer 16 mm. projection owners a popular price sound-on-disc attachment which will enable them to take advantage of the fine subjects obtainable. These converters are made in two distinct styles, one to play through the radio amplifier; the other can be obtained with a high grade amplifier and speaker. Either of these designs can be used also for microphone attachment, thus adding a public address system to its uses. These products are reasonably priced and can be purchased for cash or on time payments.

The Educational Talking Film Company also handles high grade conversion equipment for converting 35 mm. silent to sound, as well as Photo Electric Cells, Amplifiers, Dynamic and Magnetic Speakers, Lenses, Accoustical Installations, Microphones, Public Address Systems, Records, Recording Phonograph for making records, Screens, Motion Picture Cameras, Turntables, and numerous other items—in fact everything that is used in connection with visual and sound projection.

The Educational Talking Film Company is the free loan distributing agency of the well known sound producers of motion pictures, Visugraphic Pictures Corporation, and are distributing free such features as *Coast to Coast in* 48 *Hours* featuring Col. Lindbergh, *Broadway Limited, One Day, Wings of Tomorrow, Happy Landings, Rollin' down the Rio* and numerous others.

This Company is opening several distributing offices in a number of western States and educational centers, enabling the users of their products to obtain better service than heretofore offered. The Chicago office is located in the Wrigley Building.

Additional Material on Washington

Announcement has already been made in this Department of the three sets of glass slides on Washington which are available from Eastman Educational Slides. The Keystone View Company has also prepared a set of 50 lantern slides in response to a request from the Washington Bicentennial Commission.

The Spencer Lens Company has available two sets of filmslides on Washington and two on United States History which should effectively supplement the glass slides on the Father of Our Country.

The field should be interested in this material not only as aids to the Bicentennial Celebration but also to the annual celebration of Washington's Birthday for years to come.

Educators Vote on Projectors

An interesting "popularity contest" was conducted at the recent meeting of the National Education Association in Washington. At the Bell & Howell booth was the new Filmo Model M projector, on display for the first time. Beside it was the Filmo JL projector. Every visual educator was asked to express his opinion of the Model M in comparison with the JL and other Filmo projectors. The almost unanimous verdict was that if a single machine was to be bought for a school, to be used in good-sized auditoriums as well as in classrooms that cannot be effectively darkened, the super powerful and versatile JL should be chosen. The new Model M was received with genuine enthusiasm, especially by heads of visual instruction departments in the larger cities, where hundreds and even thousands of elementary grade teachers need a sturdy, powerful machine of extreme simplicity. For such use, as well as in all situations where price is a primary factor, the single control Model M was voted "made to order".

Metropolitan Motion Picture Company Expands To New Studios

The Metropolitan Company has completed arrangements for the occupancy, April 1, of new and larger quarters at 1745 East Grand Boulevard, which will contain both a large sound-proof recording studio and complete developing, cutting, editing and finishing laboratories. Its 3,500 square feet of floor space will also house the company's complete selling, creative and production personnel and facilities.

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

Columbia Pictures Corp. (3, 6)
729 Seventh Ave., New York City
(See advertisement on page 117)

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)
130 W. 46th St., New York City

General Electric Company (3, 6)
Visual Instruction Section,
Schenectady, N. Y.
(See advertisement on page 120)

Herman Ross Enterprises, Inc., (3, 6)
630 Ninth Ave., New York City
(See advertisement on page 119)

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.
(See advertisement on page 100)

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 123)

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
300 W. Adams Bldg., Chicago, Ill.

MOTION PICTURE MACHINES and SUPPLIES

Ampro Projector Corp. (6)
2839 N. Western Ave., Chicago, Ill.
(See advertisement on inside front cover)

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.

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, Ia.
(See advertisement on page 123)

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 98)

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

SLIDES and FILM SLIDES

C. W. Briggs Co.
628 Callowhill St., Philadelphia, Pa.
(See advertisement on page 122)

Eastman Educational Slides
Iowa City, Ia.

Edited Pictures System, Inc.
130 W. 46th St., New York City

Eye Gate House Inc.
330 W. 42nd St., New York City
(See advertisement on page 120)

Ideal Pictures Corp.
26 E. Eighth St., Chicago, Ill.

International Artprints
64 E. Lake St., Chicago, Ill.

Keystone View Co.
Meadville, Pa.
(See advertisement on page 125)

Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
(See advertisement on page 100)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 97)

Stillfilm Inc.
1052 Cahuenga Ave., Hollywood, Cal.
(See advertisement on page 121)

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

STEREOGRAPHS and STEREOSCOPES

Keystone View Co.
Meadville, Pa.
(See advertisement on page 125)

STEREOPTICONS and OPAQUE PROJECTORS

Bausch and Lomb Optical Co.
Rochester, N. Y.

Clay-Adams Co., Inc.,
117 E. 24th St., New York City
(See advertisement on page 99)

E. Leitz, Inc.
60 E. 10th St., New York City

Regina Photo Supply Ltd.
1924 Rose St., Regina, Sask.

Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
(See advertisement on page 100)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 97)

Stillfilm Inc.
1052 Cahuenga Ave., Hollywood, Calif.
(See advertisement on page 121)

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

Educational SCREEN

COMBINED WITH

Visual Instruction News

CONTENTS

Single Copies 25c

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MAY 1932

The 400 Watt Ampro Brings You . . . . . Astonishing Illumination . . . . . Brightness and Detail In Undarkened Class Rooms . . . .

Model AD DeLuxe as Above $200.00 Complete With Case
Model AS Standard, Without Pilot Light, $175.00, Complete With Case

VERY OFTEN the conditions for projecting pictures in class rooms are not perfect. Nevertheless large, life-size pictures, with perfect detail are essential so that every student in the room can see clearly and without eye strain.

Then there is the occasion to project pictures in auditoriums for large audiences. Here again, bright illumination is necessary so that theatre projection is obtained.

The new 400 Watt Ampro Precision Projectors have been designed to meet these varying conditions, so that either in undarkened class rooms or in larger auditoriums, professional results are obtained on the screen. Actual tests have shown that these models will project pictures of size, brightness, and detail equal to a 35 mm. projector using a 1000 watt lamp.

Ampro projection is steady and without a flicker. Still pictures can be shown indefinitely, a safety shutter saving film from any possible harm due to overheating. Often the instructor wishes to go back over a scene already shown. A flip of the reversing switch, and the film is reversed. Rewind is automatic and rapid . . . fifty seconds for a full reel.

Ampro is a rugged instrument, built for years of constant and trouble-free service. Its compact design requires but little space. The weight is only a little more than ten pounds. Its simplicity is such that even a child can operate it. It is a flexible instrument, usable on either alternating or direct current without change.

See your dealer for an inspection of these new models. Should you wish further information, the coupon is for your convenience.

The AMPRO CORPORATION

MAKERS OF PRECISION INSTRUMENTS SINCE 1914

Educational Screen

Combined with

Visual Instruction News

MAY, 1932

VOLUME XI NUMBER 5

CONTENTS

Contents of previous issues listed in Education Index.

General and Editorial Offices, 64 East Lake St., Chicago, Illinois. Office of Publication, Morton, Illinois. Entered at the Post Office at Morton, Illinois, as Second Class Matter. Published every month except July and August. $2.00 a Year (Canada, $2.75; Foreign, $3.00) Single Copies, 25 cts.

EDITORIAL

WE WOULD propose for careful consideration by all our readers in the visual field—and by the Visual Instruction Department of the N. E. A. in particular—a project to be developed for the coming Century of Progress Exposition in Chicago in 1933. The suggestion came from a member of the magazine staff, has been studied and elaborated by the entire staff, and has recently been submitted to certain recognized leaders in the educational field. The emphatic approval bestowed upon the embryonic plan by all who have been consulted confirms our own conviction that the project holds really great possibilities for the national cause of visual instruction.

A Project for the Visual Field

The project aims to give a complete and continuous demonstration of actual visual instruction, in all subjects, for all grades, with all sensory aids already proven valuable. This demonstration would constitute the soundest and most effective propaganda the visual cause has ever received—would reach a greater public in the brief duration of the Exposition than has been reached in the past ten years of printed and vocal effort to the same end—and would in itself present a perfect and impressive example of visual instruction. Following is a brief outline of the idea.

SECURE in the educational section of the Exposition a space sufficient for two small enclosed classrooms, juxtaposed, divided by one solid, opaque wall common to two rooms. This common wall will be the front wall of each room, carrying blackboards, maps, charts, screens, etc., pupils seated to face toward it. The other three sides of each room may be lined with drawers and cupboards to a height of three or four feet. Above, the three walls would be glass to the ceiling. Each room will be sound-proof, electrically lighted, and with perfect artificial ventilation. Microphones within will make every sound audible outside. Sounds from outside will be inaudible within. The teacher and class will work inside, undisturbed by foreign sounds. The public outside can see every move and hear every word spoken by teacher or pupils.

The unit would be located preferably between and bordering upon two parallel corridors, which are public thoroughfares, the two side walls of each classroom abutting on the corridors. The entire passing public, therefore, would have a side view of each class at its work, and could hear all that is going on within. Outside the rear wall of each classroom would be an enclosed space, with seats and sloping floor, where the most interested spectators could get away from the noise of the corridors for serious study of teaching methods.

Each room would contain permanent equipment of material and apparatus. Classes would be definitely scheduled through the period of operation, say two or three hours each day.

One room might serve grades I to IV, the other grades IV to VIII, so that visitors would always have a choice of higher or lower grades for observation, according to their major interest. Detailed schedules of subjects, topics, teachers, class personnel and I. Q's would be kept constantly posted in the adjacent corridors, and printed regularly in Exposition programs.

Pupils, and most of the teachers, should come from a nearby school, regularly operating a summer session, and using visual aids continuously. Proper and reliable transportation must be arranged to insure smooth operation on schedule. Classes need not be large but they must arrive on time.

It should be possible to enlist from all over the United States occasional services of able teachers who have developed new and significant methods for teaching particular topics. The correct integration of such special classes into the continuous curriculum of the sessions would be one of the nicest problems for the central administration handling the entire project.

THE year to come is none too much time for adequate preparation for a project of this novelty and complexity. The financing, the organizing and the supervising of such a work constitutes a tremendous task. Perhaps three small committees, from an interested University School of Education, from a city school system, and from the national Visual Instruction Department of the N. E. A.—cooperating as a joint committee under a single supervisor and administrator—would be the method.

Large and numerous difficulties loom, of course. But were they twice as large and numerous they should be tackled. The visual field has never had such an opportunity to permeate the national consciousness as is offered by the coming "World's Fair." Visual instruction can be appreciated by millions—not by mere thousands as in years past—by such an irresistible demonstration of its vivid appeal, its potency, its present actuality.

May the Visual Instruction Department of the N. E. A. be able to say in 1934, and long thereafter, *omnium earum rerum pars magna fui.*

NELSON L. GREENE.

The 3 New DA-LITE SCREENS

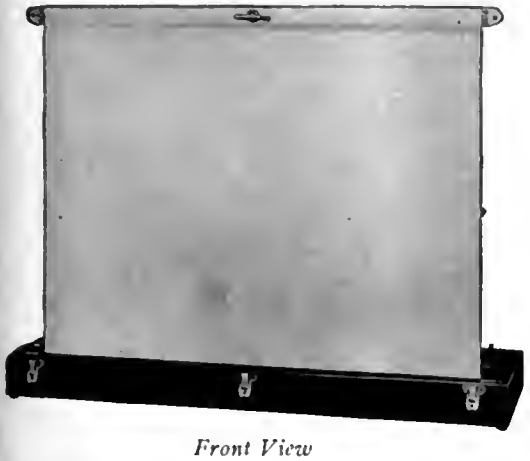
Rear View

Closed

The DA-LITE Model "F"

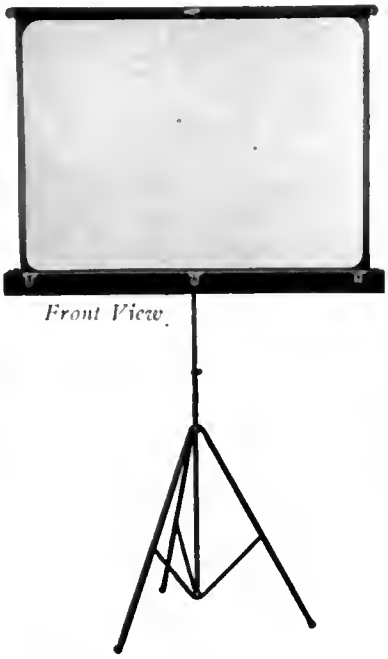
A screen that combines the advantages of the Da-Lite glass bead projection surface, compactness, simplicity, rapid set-up, and low price. The Model "F" stands firmly on a pair of folding feet. The upright support bar swings down parallel to the case when the screen is collapsed for carrying. Ruggedly made and beautifully finished, the DA-LITE Model "F" invites comparison at the following prices.

22 x 30 $13.50 30 x 40 $16.00
36 x 48 $18.00



Front View

DA-LITE—pioneers in the development of projection screens—always ahead—ever anticipating the industry's needs! Da-Lite advanced thought scores again with three brand new and very worth while ideas, of particular interest and import to the world of visual education. Three new screens, to meet three urgent needs! Here they are:



Front View

The DA-LITE MODEL "A" *with* TRIPOD

The Da-Lite "A," the most famous of all portable, table-type screens, may now be had with a specially built, thoroughly rigid, adjustable, collapsible tripod stand. The Da-Lite "A" is distinguished by its unique mechanism for automatically raising the screen or returning it to the box. Also by the patented stretching device which brings the projection surface to perfect, wrinkle-free flatness. Now — with the tripod stand, the Model "A" may be used at any desired height from the floor.

22 x 30 $20 30 x 40 $25
36 x 48 $30 39 x 52 $35

Tripod Equipment — $5 Extra

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The Picture Lending Library of the Buffalo Museum of Science

RUTH EDWARDS NORTON

ALTHOUGH Americans have today generally accepted art as a delightful and interesting field for study and recreation, one which is now both respectable and respected, there is still that feeling that perhaps it is not the most manly of pastimes. Some of this feeling is, of course, being dispelled by the sound business possibilities in art. A painting or piece of sculpture well-chosen is a good investment; with the passing of time its market value increases.

Another and more useful cause, however, for the hesitancy of most people to cultivate the arts is the thought that it requires a specially trained intellectuality to understand and appreciate them. This, of course, is wrong for, though the more one knows about any subject, the greater is his enjoyment of it, beautiful creations can and should be enjoyed by every one.

Recently a man from the great army of unemployed entered an art gallery with the sole purpose of keeping warm. He wandered aimlessly at first through the galleries but was soon noticed to be gazing more intently upon certain paintings and to return again and again to them. Finally he went to the director and asked for a job in order that he might stay in the midst of this new-found beauty. He was immediately given the duties of a guard and his interest given full opportunity and encouragement to develop.

All of us, however, are not impelled by the need for warmth to enter our galleries, and there are many who feel they would like a little working knowledge with which to fortify themselves before assailing the doors of that holy sanctuary. Or, having entered it and having had their interest caught, they wish to know more about the things upon which they have looked. For these people the Buffalo Society of Natural Sciences has instituted another among its many services.

The Picture-lending Library at the Buffalo Museum of Science came into being through the development of the Division of Visual Education. Some years ago this Division was begun by the Museum with the idea of loaning lantern slides of natural science subjects to the public. Soon the demand for slides on travel subjects was felt, and this material was added. And so the collection grew until it came to include slides on almost every subject which the public demanded, including art. There are now over 6,000 slides on art alone, grouped in sets many of which have accompanying manuscripts and which quite thoroughly cover the history of art from early cave drawings to, and including, the modern movement. These slides, together with a lantern, may be borrowed without charge by any one who is a member of the Society or who has a card signed by a member. The Buffalo Society of Natural Sciences was the first institution in the country to offer this free lantern and slide service to the public, and the enormous use which is made of it has proved its value.

For carrying on this service the Buffalo Museum of Science has developed a fully equipped and operating organization, and, as it was, and still is, the only one in the city, full scope was given in extending it to meet all the needs of the community. And another need did arise—a need for pictures which could be seen and observed for a longer time and without the aid of a lantern. A great many splendid Alinari and Anderson photographs of famous works of art had been bought previously in order that the Museum might make their own slides from them and thereby build up a file of negatives. From these the Museum's slide collection could more readily be replenished when necessary. With these splendid reproductions on hand the idea was conceived of loaning them also. And so started the Museum's pioneer Picture-lending Library.

The pictures have been mounted on uniform and attractive photomounts. On the back of each one is an envelope containing two cards, one of which gives a short sketch of the artist's life and the other an appreciation of the particular painting. We do not, of course, mean this appreciation to be considered as final. One may heartily disagree with it. It is only the interpretation of one person, and the feeling about a painting, or any work of art, must necessarily be a personal one. Our interpretation, however, may lead those interested to see new things and provoke them into analyzing and forming their own opinions.

As in the case of the slides, anyone may borrow these pictures without any charge whatever. They may be kept for two weeks and then exchanged for new ones.

Since the beginning of this service the Museum's collection has been added to, mostly through gifts, until there now are almost 700 exceptionally fine photographs and prints of famous paintings and sculpture, many of them in color.

One of the main projects is our work with the schools. Art, more than any other subject, demands visual aids for teaching. They are, in fact, essential. Art is created to appeal through the eye and in no other way can it reach us. The Buffalo Museum of Science, therefore, as the only visual loan center in the city, is doing everything it can to supply the schools with this necessary material. Included in its collection are, of course, the pictures recommended by the Board of Education for study in the grades. These, as far as possible, are in color, as it is color that most appeals to children. It is an encouraging fact that

A Complete Picture Unit

good and accurate color reproductions of pictures for children are now being published at a nominal cost. But it is far from easy to procure true color reproductions of the less popular subjects so most of the prints for more advanced study are in black and white. A poor color print does far more harm than good.

Aside from the lists provided by the Board of Education the Museum has tried to meet the individual demands of the teachers. We have solicited lists and suggestions from them and have noted the frequency of requests for certain pictures and types of pictures. Seasonal subjects are particularly in demand for grade study and such subjects as can be related to the other school work.

Several schools have begun a series of loan exhibits, borrowed from us. Groups of pictures are selected and exhibited, a new group being hung every two weeks. Two of the schools allow the children to choose the pictures themselves.

The radio is another source of educational interest with which the Buffalo Museum of Science works. Programs, such as the Art Appreciation talks broadcast by the American School of the Air, are posted, together with the pictures to be discussed, and they may also be listened to in the Radio Listeners' Room.

Having one central loan bureau for all visual education material has been felt to be of decided value. Aside from the question of time and energy involved, the fact that the material is at hand is an inducement to make use of it. Teachers who come to borrow slides or charts for other subjects, borrow at the same time, art slides and mounted pictures—teachers who otherwise might not have felt it incumbent upon them to give their pupils much art instruction. And art teachers borrowing art material find it convenient to get history and geography slides for teaching the background necessary to a study of art. With the enlarged curriculum of modern schools it is not easy for the teacher to find time for extra outside work, no matter how helpful it may be.

As the Picture-lending Library has become more widely known, the loans have increased remarkably. Most of the borrowers are teachers, but the demands are most interestingly varied. Mothers borrow them to frame and hang in their homes in order that their children may become familiar with them by seeing them thus constantly for two weeks. Many of them bring their children and let them select themselves the picture that most appeals.

This is a splendid way to introduce your children to an appreciation of fine art. Children soon tire of one thing. Constant change is needed to hold their attention. One man I know whose children are still more or less in the infant stage, proposes to buy a number, fifty or more, prints, as fine as he can get, including etchings and wood-block prints whenever possible. These will range in subject from such things as Durer's "Rabbit" and Rembrandt's delightful sketch of an elephant, which might interest the youngest child, up to the more advanced subjects which the child will be able to appreciate as it grows older. Only two or three pictures will be hung in the nursery at a time and they will be changed frequently, thus constantly renewing the interest of the child and making him accustomed to seeing the best artistic creations. What the child absorbs in this way he can never lose.

There are hundreds of such pictures from which to chose — compositions by the greatest artists in the world — and subjects which any and every child would love immediately. It is splendid to *own* such a collection, if possible, but, for all those who wish, such a collection may be enjoyed, without cost, by borrowing from our Picture-lending Library.

(Concluded on page 140)

An Experiment in Visual Education in Elementary College Chemistry*

B. S. HOPKINS
H. G. DAWSON

DURING recent years it has been the custom at the University of Illinois to show motion picture films to some of the advanced classes, especially those who are interested in certain industrial processes. Frequently students from the elementary classes were invited to witness these displays and many films of particular interest to the Freshmen were shown for their special benefit. These showings were not made during regular class hours and attendance was optional. In general the interest was good, but there was no indication that these efforts were improving scholarship, increasing interest or promoting the welfare of chemical education.

In February 1931, the Freshman classes were moved into a new building which had complete equipment for showing silent motion pictures. Accordingly it was decided to undertake a study of the educational value of motion pictures, film slides and regular lantern slides, when these are incorporated in the regular lecture work of a course. The time of one assistant was devoted to various problems connected with the study, such as the collection of material, editing of films, making suitable slides, arranging and cataloging material and operation of the projectors.

It was concluded that if visual education was to be successfully applied to our problem it must be incorporated as an integral part of the regular sessions of the class. Accordingly the plan selected was to present during the regular lecture periods, either lantern slides or motion picture films to illustrate the topic under discussion. This plan involved three very important considerations: (1) a very careful study of available material with the presentation limited to those portions which are of definite educational value in the teaching of chemistry; (2) a complete understanding between the lecturer and the operator regarding what materials are to be shown and the order of their display; (3) a decided modification of the lecture plan in order to save time and to bring out without repetition the full educational value of the various visual aids. A somewhat extended study of each of these considerations is worthwhile.

Our first problem was to make a comprehensive study of material available for visual education purposes. Accordingly the semester outline was carefully scrutinized and all suitable topics were selected. Thorough search was made for slides and motion picture films based upon these topics and for pictures or drawings from which illustrative material could be prepared. After diligent search we concluded that we should be compelled to make our own slides since those available were not suited to our purpose. Accordingly many slides were made to furnish such illustrations as would permit the lecturer to present his material more clearly, more concisely or with greater interest. At first these slides were prepared from all available sources such as the illustrations and diagrams in textbooks, periodicals and advertising literature, but this search consumed too much time and after all did not give a complete set of slides. It is more efficient to study thoroughly the material to be presented in a given lecture, select five to ten subjects for slides and search for this material. We have found that slides made from cross section diagrams and tables of comparative data to be far more valuable than those made from photographs of industrial equipment although the external appearance is of interest. In general, preference was given to illustrations similar to those appearing in the textbook used in the course in order that the student might not be burdened with the necessity of copying down extensive descriptions or tabulations. The use of lantern slides produced excellent results and it is our opinion that their use will continue to play an important part in the development of visual education in a subject which is as involved as general chemistry.

Filmslides were not used extensively. Those available were not prepared for use in chemistry classes and were entirely too elementary. Although filmslides are more convenient than glass lantern slides, they are expensive to prepare and do not permit easy rearrangement. However, the glass lantern slide is fragile, heavy and expensive unless purchased in large quantities. We have experimented with a lantern slide made on a safety (cellulose acetate) film base which promises to be light in weight, cheaper and durable.

In the field of motion picture films there is available a very large amount of material which may be secured at little or no cost, since many manufacturing concerns loan films to anyone who is willing to pay the transportation charges. We have found that dependence upon this sort of material involves at least two serious difficulties: (1) it is necessary to make reser-

*Presented before the Symposium on Visual Aids of the Division of Chemical Education at the A. C. S. meeting, Buffalo, September 2, 1931.

vations several weeks in advance because the worthwhile films are busy. In conducting a course in chemistry it is obviously difficult to live up to a rigid schedule in order that a certain film may fit in at the proper time. The uncertainty concerning the arrival of the film on schedule is also a complicating factor which is frequently encountered. (2) All of the commercial films which are now available contain too much advertising. Many of the distributing firms insist that their films must be shown without the elimination of any portions. To comply fully with this request would largely defeat the purposes of visual education, because of the heavy demand of time, and because so much of the film has no value so far as the purposes of chemical education are concerned. Such difficulties as these are perennial if we are to depend on borrowing or renting films.

A method of completely eliminating these difficulties is presented by the outright purchase of the film. The advantages of owning the film are obvious. It is possible to cut out all those scenes which are of a non-chemical nature; the film is always available, so its display at the psychological moment presents no difficulties; and if a second showing for review is desired, there is no embarrassment. The great disadvantages of purchasing films come from the cost and the fact that so much of the footage is waste. To compile from commercial sources a library of motion picture films which would adequately cover a year of general chemistry would obviously require a considerable investment.

In the realm of educational films a much better situation exists. There is a considerable list of science subjects, and these films are arranged for their educational value. Typical scenes from the best sources have been selected and skillfully assembled to give a definite and fairly complete story of the process. In these films a minimum of space is devoted to titles, in order that the picture display may be more complete. It is expected that whatever explanation is necessary will be supplied orally, and to assist in this phase of the presentation each film is accompanied by a Teacher's Guide which supplies all necessary information. This plan permits the chemistry teacher to select a definite topic, to present those portions of the film which fit in with his lecture plan and to do it all without waste of time, and without the necessity of showing time-consuming titles or non-chemical subject-matter.

While these educational films show that a great step in advance has been taken, there are still some features of the present situation in which improvement is to be desired. From our experiences the following suggestions are offered. First the list of offerings should be materially extended, because at present there are many of the most important topics in general chemistry which are not represented. This statement applies with particular force to the field of theoretical chemistry, since most of the films now available deal with applied chemistry. It is of course no simple task to devise a film which will adequately represent a fundamental principle of chemical science. Such a film will require long study, patient effort, the most skillful direction which can be obtained and the friendly cooperation of teachers who are willing to help. It is very obvious that the assembling of a series of such films will be an expensive process and no firm can afford to undertake the task until they are assured that the resulting films will be used by a considerable number of teachers. It is probable that developments along this line will be very gradual, at least so far as the immediate future is concerned.

A second improvement in our present educational films, which would make them of greater value in the teaching of chemistry requires a thorough editing by an experienced teacher of chemistry. The films which are now available have been prepared for pupils in geography, nature study or general science. The films still contain much material which is not chemical in nature, the showing of which consumes valuable time and detracts from the central thought of a chemical lecture. We need a series of films which have been assembled especially for the use of chemistry students, which will eliminate as much as possible the purely mechanical steps in a process and which will not hesitate to use chemical terms and to emphasize the chemistry involved. When such a collection of films is available for the illustration of chemical industries, and these are accompanied by skillfully devised films on the fundamental theories, then visual education will be in a position to assume a prominent place in the teaching of chemistry.

A third suggestion for the makers of chemistry teaching films is that much greater use be made of animated diagrams. In a chemical process it is of course important to show how the raw material looks when it enters a vat or a machine and then to show its changed appearance or properties after the treatment has been completed. But the chemistry student needs to know how these changes were produced. If a chemical change has resulted he should know what the change is and how it has been brought about. The use of animated diagrams permits him to visualize each step in the process and to get a clear mental picture of the chemistry involved. Some films which accomplish this task admirably are now available but their number should be greatly increased.

(To be concluded in the June issue)

Units of Instruction for Teacher Training Courses (No. 5)

How Are Classrooms Prepared for Projection?

L. PAUL MILLER

(A) *What are some precautions which should be observed in using projection equipment?*

The following are suggested by Spencer Lens Co.:

(1) Do not attach a 1000-watt bulb to a house wiring system without first having it inspected by some one competent to determine whether or not it can carry the load.

(2) Do not connect any bulb to a wiring system without first being sure that the voltage of the system is that for which the bulb is made, or that a proper resistance is inserted.

(3) When new bulbs are inserted, see that the socket is so rotated in its mount as to bring the filament to the correct position. When pre-centered bulbs are used, the filament will always be properly centered when the bulb is in place.

(4) Keep optical parts clean.

Difficulties:	Reasons:
(a) If there is a blue shadow in the center of the screen	(a) The light is too near the condensers.
(b) If a yellow shadow is evenly distributed around margins	(b) The light is too far back.
(c) If a shadow appears at the top of the screen	(c) The light is too low.
(d) If a shadow appears at the bottom of the screen	(d) The light is too high. (Similarly for sides)
(e) If spots appear in the field	(e) The condensers are dirty.
(f) If there is a general haze over the field	(f) The objective is dirty.
(g) If the lines in the picture are not sharply defined	(g) The instrument is improperly focused.

Author's Note: This is the last of a series of lessons on the general subject of physical factors of projection. The series is part of a set of forty-five units of instruction which have been in use experimentally in visual education courses for practice teachers, and for teachers in service. No claims are made for originality. The material for each unit has been gathered from all available sources, and organized for convenient reference. The question is merely raised, as to whether it would be helpful to have a laboratory manual, or work-book, for visual education courses in teacher-training institutions.

(B) *How are classrooms made dark for projection?*

For obtaining the best results, darkened or partially darkened rooms are needed. There should be a room, or several rooms, in every school, equipped for projection. Methods of darkening rooms are:

(1) Dark shades at each window.

(2) Wide shades, made to order, to cover two or three windows.

(3) Heavy curtains, drawn by means of a cord and pulleys, preferably one cord controlling all curtains.

(4) Home-made shades of heavy material, operated like porch sun-screens, rolling on cords.

It is essential that rooms be so equipped that they can be prepared quickly for projection. No more time should be used to prepare for projection, than is used in average school rooms for ventilation.

(C) *Must classrooms be dark, for projection?*

For projection of motion pictures, there should be complete darkness. It is best to have a specially prepared projection room for showing films, not only because of convenience in darkening the room, but also because the projector can be kept in a fixed place. There is danger of damaging a machine in moving it. No projector should be jarred, particularly, while the filament of the lamp is hot.

Glass slides and film slides, and opaque pictures, can be projected in a room in which the ordinary window shades are drawn, if projectors with lenses of short focal lengths are used, back of translucent or "daylight" screens. The images on the translucent screen are fairly sharp, if the apparatus is properly placed. The advantage of the "daylight" arrangement is that a few pictures can be thrown on a screen during a lesson, without the necessity of darkening the room, and hence without any interruption in the classroom procedure. There are projectors specially made for "daylight" projection.

(D) *How is apparatus placed, for "daylight" projection?*

(1) Place the translucent screen before the projector at a distance of about five feet, or as far as the size of the screen will permit. A larger screen can be placed farther.

(2) The corrugations of the screen must be toward the class.

(3) The center of light from the projector must be on the center of the screen.

(4) No strong light must come between the screen and the projector. The screen should be on the opposite side of the room from the windows, and no light should strike it from the back except that from the projector.

(E) *What kinds of screens are there?*

(1) Opaque screens,

(a) heavy white cloth,

(b) aluminum coated, (useful for opaque objects and micro-projection, but should be used only when audience is within an included angle of 60 degrees from the center of the screen.)

(c) sateen, (especially for portable outfits).

(2) Translucent screens, for use in comparatively small rooms, and with projectors placed back of the screens.

Verbal Aids:

Dorris, Anna V., "Visual Instruction in the Public Schools," P. 172.

Abrams, A. W., "Classroom Equipment for Visual Instruction," Educational Focus, 1:8-9, Sept., 1929.

Catalogues of companies supplying projection equipment.

Visual Aids:

Exhibit of screens, and other accessories.

Visual Instruction In Indiana

GEORGE McINTIRE

THERE is no better way of leading pupils to a world beyond the four walls of the classroom than the visual way. In a few brief years the pupils who are in the classrooms of the various schools of our country will be forced to live in the great world outside and somewhat remote from the guidance of educational institutions. Visual methods of instruction enable them to secure a more vivid picture of this great community in which they will live. In Indiana much constructive work has been done. However, schools having visual programs seem to cluster about certain sections of the state. This fact is evidently due to one or both of two existing factors. Either economic conditions have an influence on the quantity of equipment furnished for school use or the influence of one school having a successful visual program has gone a long way toward leading other schools in the same locality to the adoption of an extensive program for the use of modern visual aids. Each locality has ideas differing from those of other communities. For this reason no uniform program has been developed for the state as a whole.

Perhaps the most outstanding differences of practice exist in the method of administering the visual program. Less than five per cent of the 183 schools reporting a visual program designate a member of the faculty as acting director. One individual who feels the responsibility of conducting a department may accomplish more than a number of individuals working with no specific scheme of procedure. In the smaller schools a teacher could be designated as director of visual instruction on a part-time basis. Each school would then have a visual instruction department though the working materials were only a few pictures clipped from magazines and booklets or a few models and exhibits obtained from industrial concerns. The important point is that the appointment of a director would be a beginning and no one can predict the results for the possibilities are unlimited.

An individual acting as director would bring out and make use of equipment that would otherwise remain idle. A well known author in the field of supervision of instruction says that if the equipment now gathering dust in remote corners of the school buildings could be put into use, a wealth of materials could be had which has only required the teacher's touch to give it effectiveness. In Indiana approximately eighty per cent of the schools have some type of visual program. Of this number 43 per cent have 35 mm. equipment, 11.5 per cent have 16 mm. equipment, 18 per cent have opaque projectors, 21 per cent have film slide projectors, and 75 per cent have glass slide lanterns. Five per cent of the glass slide projectors and 14 per cent of the motion picture projectors were not in use during the school year 1930-31. This was in part due to economic conditions which made necessary budget reductions in many schools of the nation.

The mere fact that projection equipment was in use

does not means that such equipment was used extensively. Lantern slides were most extensively used. Fifty-five per cent of the 183 schools reporting a visual program have slide libraries in the school buildings. The number of slides used for the school year averaged 888 with a range from 20 to 5,000 slides. Thirty-two per cent of the schools make use of "home made" slide equipment. Twelve schools report that photography is taught in connection with science courses. This affords an excellent opportunity for making lantern slides from negatives brought in by students. One school added 150 slides to the school slide library in this manner. It is interesting to note that slides cost very little when they are made in the school laboratory.

When schools have no slide library, or when the library is incomplete, the director may order slides from the State University and other distributing centers. Fifty-three per cent of the schools receive slides in this manner. When slides are owned by the school, the saving in postage and express charges aids materially in adding new slides to the collection. The following table lists the number of schools making use of rental materials and the number of schools maintaining a school library of slide and film subjects.

Number of Schools Making Use of Slides, Films, and Exhibits

Type of visual material	Schools with less than 100 pupils	Schools with 100 to 200 pupils	Schools with more than 200 pupils	Total
OWNED				
16 mm. films	0	2	8	10
35 mm. films	0	0	8	8
Glass slides	24	36	42	102
RENTED				
16 mm. films	2	7	14	23
35 mm. films	7	12	28	47
Glass slides	20	48	33	97
FREE				
16 mm. films	3	5	11	19
35 mm. films	5	8	35	48
Exhibits	5	8	11	24

Only 10 per cent of the schools own motion picture subjects while approximately 56 per cent own slides. Films are more expensive and a given subject is not in use as frequently as a set of slides. For this reason films may be rented although a library of the most frequently used subjects is desirable for the larger school systems. However, the problem of rental and ownership is largely a matter of concern for the individual school. Of greater importance is a method of encouraging all schools to use visual materials. If

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Picture Lending Library of Buffalo Museum

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There are many other types of people who use the library. Art students find these pictures invaluable for supplementing their school work and text books; study clubs borrow them; ministers, Sunday schools and other church organizations; social settlement workers; and, of course, the individual who loves them and wants them merely for himself.

Many of the experiences that one has with these individuals are both amusing and encouraging. One day a young boy of about college age came hesitantly into my office and asked if I had any pictures of paintings. I said I had and asked him what sort of paintings he liked. He wasn't exactly sure. So I started showing him some at random. I soon found that he was very eager to see more but very shy and embarrassed about taking so much of my time. So I turned the key over to him and told him to look through the pictures himself as much as he wanted. He immediately sat himself on the floor, and it wasn't long before he forgot his embarrassment and was asking about this picture and that and giving expression to his own opinions. In the end he selected several pictures to take home with him. Having broken the ice that once, doubtless future attempts on his part will be less of an effort.

Just recently the Museum acquired quite a few examples of modern art. Although I had thought modern art to be quite thoroughly accepted, I found that controversy still rages. I put some of them up in the cases in my office and awaited results. I had not long to wait. An adult came in. (It so happens that we have two Nature Sketching Hobby Clubs which sketch the things about the Museum. One of them is for children.) The adult to whom I referred stopped before a reproduction of a Van Gogh painting and, quite seriously, said: "This is awfully good, isn't it! Really some of your children do remarkable work, don't they?"

To my great surprise it was the children who most truly appreciated the modern work. One boy of about ten or twelve years of age was looking at a reproduction of a Matisse painting which most adults passed with a smile. This small boy, however, immediately remarked, "That's done mostly for design, isn't it, and for color? The color's great!"

Although the Museum's Picture-lending Library is comparatively new, having been begun but three years ago, it has already proved of considerable service to the community. We feel that its possibilities of development in the future are unlimited.

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.

University of Kansas Produces

Three new motion pictures, one on football, one on track, and one to be used in clinical psychology classes, have been produced by the Extension Division of the University of Kansas during the past month.

The football picture covers, play by play, the annual spring practice game of the University of Kansas. The "Varsity" squad of regulars and promising freshmen played an assembled team of former football letter men of the University. The score was 21-0 in favor of the regulars, but the film shows, in slow motion, the successes and failures of certain new formations tried by Coach Hargiss with the varsity squad. The film will be used this spring and next fall for instructional purposes.

The track picture includes normal and slow-motion pictures of field and track events of the Tenth Annual Kansas Relays. In addition, there are slow motion pictures of the leading contenders in the Olympic tryouts, including action pictures of James A. Bausch, who lacked but a few points of tying the world's record for the decathlon. The film will be used for instructional purposes as well as to create still greater interest in this outstanding annual athletic carnival. The film is two reels in length.

The film for use in clinical psychology classes, or with groups which may be interested in the problems of mental deficiency, includes intimate scenes of cases in the State Training School for the Mentally Deficient, at Winfield, Kansas. It was produced in connection with a survey of cases of the higher levels, conducted by Dr. Bert A. Nash, Director of the Educational Clinic, University of Kansas, with the assistance of students in the Graduate Division of the School of Education. The pictures were photographed by Ellsworth C. Dent, using a 16 mm. camera.

This picture includes pictures of inmates of all levels, from the profound idiots to those of nearly normal mentality. The institution is "panned" from a nearby hill-top, followed by close-ups of the various buildings. The recent development of "super-sensitive" film made it possible to secure some excellent pictures in the hospital and in some of the ward buildings.

The Extension Division at the University of Kansas is considering the production of additional motion pictures and slides, covering the industries of Kansas. If these are produced, they will be available for sale or loan to schools outside Kansas.

New 16mm. Film Releases

Eastman Teaching Films announce the following new films as being ready for distribution.

First Aid Series, consisting of four films, provide accurate demonstrations of first aid technique based on the methods advocated by the American National Red Cross. The titles are: *Life Saving and Resuscitation, Control of Bleeding, Carrying the Injured,* and *Care of Minor Wounds.*

Virginia, the Old Dominion depicts a region rich in geographic, commercial and historical interests. The three units show the Coastal Plain region, the Piedmont Plateau and the Greater Valley.

Peru shows the varied relief features, rich natural resources, transportation difficulties, and living conditions in this country. An animated map outlines the Coastal Lowlands, Andean Highlands, and Interior Lowlands.

Oysters tells the life history of the Atlantic oyster, and the methods used in "farming," fishing and canning. The last unit shows how pearls are formed and assembled into necklaces.

Under-Sea Life illustrates the curious adaptations of animals to meet the needs of food gathering, aggression, protection against enemies, and survival of the species.

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The Bell and Howell Filmo Library has just released a group of educational films, sixty-two 400-foot silent subjects in all, covering a variety of useful material. The majority of the films are on geographical subjects, dealing not only with the physical aspects of the various lands, but also with the people and their customs and occupations.

Eleven films deal with biology and nature study; two films, *Nature and the Poet,* and *An Indian Legend,* are classed as literary material; and three films are from the group, *Modern Truths from Old Fables.*

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Apex Films Inc., New York City, has secured the world rights on 16 mm. film for *Tony Sarg's Almanac,* a series of 100-foot animated silhouettes. This is the first time that these stories have been released on 16 mm. film. They are a decidedly novelty, being of particular appeal for the home field.

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NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Experiments With Visual Aids

The Audubon Junior High School, Cleveland, Ohio, has demonstrated the value of visual aids in a series of experiments conducted with two ninth grade general science classes. The contributing factors involved in setting up the conditions were equated so far as possible, and neither class was told that its work was to make a showing in an experiment.

The plan of teaching called for the presentation to the experimental group of the regular subject matter in general science plus all the visual aids in slides, movies, models, and exhibits obtainable from the Educational Museum. The control group was taught identical subject-matter but the visual aids were withheld. Greater motivation, more positive conceptions through the medium of sight, and valuable additions to teaching method are some of the values suggested through this experiment.

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A series of tests was made earlier in the year in Middlesex schools, of England, under the control of the National Union of Teachers with regard to the effect of films on education. The report on this experiment, which has just been published in book form, shows that the film has distinct educational possibilities. Stress is laid particularly on the strong memory of sound films and the lasting vividness of the impressions conveyed. It recommends close co-operation between the industry and educational authorities to provide films more suitable for the instruction of school children.

A similar experiment is being conducted by the education department of Edinburgh, Scotland, who are also holding conferences with the industry to ascertain how to encourage the serious use of motion pictures in education.

Visual Instruction Bulletins

The April issue of *The Visual Talkie*, published by Akin and Bagshaw of Denver, Colorado, contains in addition to announcements of local interest, worthwhile articles. Titles of these are, "The Use of Motion Pictures in Coaching Athletics," "The Motion Picture as a Teaching Aid," and, particularly interesting, "The Talking Filmslide." This device is described by Mr. A. P. Little of the Colorado School of Mines, where it is used in an applied engineering course and has proved a very valuable aid in teaching because of its low cost, simplicity of operation, and the interest taken by the class in the subjects presented.

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The Projector, the bulletin of the Quincy, Mass., Public Schools, carries in its April issue evidence of the increasing use of visual aids in that city, which is constantly adding one more school to the number of those who possess 100% visual equipment. Of the 26 schools in Quincy, 22 use such aids regularly from the central library, it is stated.

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The April 11, 1932, issue of *Life Long Learning*, a publication of the Extension Division of the University of California, is devoted to announcements of visual instruction service as offered by the Division. In addition to service announcements, there are brief discussions of the questions, "Is Visual Instruction Economical," and "Sixteen or Thirty-five Millimeter Films". Mr. Robert S. Johnson is in charge of the Department of Visual Instruction of the California Extension Division.

Philadelphia Schools Use Eighty Projectors

Typical of the large public school visual education department is that of Philadelphia, where more than eighty Filmo projectors are already at work in the schools. Dr. James G. Sigman, Director of Visual Education, has a library of over 2,000,000 feet of 16 mm. film, 450,000 feet of 35 mm. film, and 40,000 glass slides at his disposal. In an article in the *Philadelphia Evening Bulletin* he was quoted as saying:

"All the junior and senior high schools and 40 per cent of the elementary schools now have motion picture projectors. All the schools have slide projectors. The department is still in its infancy, but is increasing the scope of its work annually and we hope to convert all the teachers to the belief that moving pictures are an excellent complement to their classroom work.

"A new service which we have installed is the taking of pictures of outstanding events in the various schools. To date, this has been chiefly confined to sports. Last

year we took 40 reels of movies of track meets, foot ball games and other happenings of interest to the pupils."

List of Health Films Available

Since the announcement of the List of Visual Aids in Health and Physical Education in the January issue of THE EDUCATIONAL SCREEN, Mr. Franklin B. Hoar writes that he has received many requests for this list and that reprints are now available. This list was revised and appeared in the April issue of the *Journal of Health and Physical Education*, published by the American Physical Education Association, Box 363, Ann Arbor, Michigan. Reprints may be purchased at a very nominal cost by writing to Mr. Elmer Mitchell, Editor of the Journal.

S. M. P. E. Museum

The Society of Motion Picture Engineers has established in the Los Angeles Museum a collection containing several thousand objects which show the evolution of the motion picture industry.

Among the exhibits represented are: Muybridge with his "Horse in Motion" experiments for Leland Stanford, various models of projectors including Edison, Edison Exhibition Model, Pathe, Amet, Edengraph, Motiograph, Kinema-Kolor.

One exhibit that represents about six years' work is a collection of 1,200 authentic specimens of film made by the pioneers. They vary from four millimeters to four inches in width. There are 200 different color attempts recorded, as well as sound, third dimension, processes, and outstanding pictures, and the first piece of film made on the celluloid supplied by George Eastman to Edison in 1889, and transparent paper used prior to the advent of celluloid.

Round Table at N. U. E. A.

A visual instruction round table was a feature of the 1932 conference of the National University Extension Association, which was held in Minneapolis, Minnesota, May 11-13, 1932. The round table meeting was held at noon on Thursday, May 12, and was well attended. The discussions centered around the problems of visual aid extension service to the schools, as offered by several members of the N. U. E. A. Mr. Ellsworth C. Dent, Secretary of the Bureau of Visual Instruction, University Extension Division, University of Kansas, acted as chairman of the round table. Last year, Mr. Dent was appointed representative of the N. U. E. A. to national visual instruction organizations.

News Briefs from California

MARGARET S. WHITE, Pasadena
MARY CLINT IRION, Los Angeles

The Visual Aids Section of the California Teachers' Association, Southern Section, adopted a program of teacher training as their main objective at their Spring Conference in 1931. The development of the program has been put in the hands of a recently formed committee known as the Committee on Teacher Training of the Visual Aids Section, California Teachers' Association S. S. with Mary Clint Irion of Los Angeles as chairman. The committee decided upon certain preliminary procedures.

A. To ascertain just what is being done in the way of training teachers in this field throughout the United States and in California in particular by writing letters to and interviewing deans of education, presidents of teachers' colleges, etc., asking the following questions:

1. Is any training given in the use of visual aids to your teachers in training or through extension courses to teachers, supervisors, and administrators in service?
2. If so, does this training pertain to the pedagogical application of the various types of aids, or does it refer to the mechanical problems of the use of pictures and other visual aids, or both?
3. If you have any such courses, will you please send us a copy of the syllabus of the course?
4. Do you expect to do anything further than you are now doing in this field?
5. Is it your belief that any further training than teachers in general now have is necessary?

B. To secure the advice and cooperation of the educational leaders close at hand through personal interviews.

C. To submit to the various publications in the field accounts of successful experience in the use of visual tools, and articles of interest regarding the work of the committee.

D. To prepare a bibliography of visual aids for the use of instructors in teacher-training institutions who might wish to inform themselves more fully in this field.

E. To consider the preparation of a handbook on visual aids.

F. If the results of our survey so justify, to present to the State Board of Education a plea for the inclu-

(*Concluded on page* 145)

DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

Department to Meet June 27-28 at Atlantic City

THE first meeting of the recently merged Department of Visual Instruction of the N. E. A. and National Academy of Visual Instruction will be held in Atlantic City, New Jersey, on Monday and Tuesday, June 27 and 28. Plans are under way to make this the largest visual instruction meeting ever held in the United States.

The sessions will begin Monday noon with a luncheon meeting, followed by papers and discussions of the topic, "Values of Visual-Sensory Aids by Types and Subjects". Dr. F. Dean McClusky, past president of the Academy, will preside.

The next general session will begin with a luncheon meeting on Tuesday, followed by discussions of the timely topic, "Relating Visual-Sensory Aids to the Curriculum", and a short business meeting.

The sessions have been scheduled so there will be a minimum of conflicts with the general programs of the N. E. A. The sessions of the Department will be open to anyone who may desire to attend but only qualified members will be eligible to participate in the business meeting.

Advance information indicates that the special exhibits to be prepared by the New Jersey Visual Instruction Association will contain many applications of visual aids to classroom procedure and will be of unusual interest to all teachers and school executives who may attend the summer meeting.

A number of special committees have been appointed by Dr. C. F. Hoban, President of the combined Department and Academy and have begun activity. The officials of the Department will appreciate suggestions and will be pleased to assist in solving the instructional problems of those who may request such service.

New Jersey Association Extends Invitation to Department

To the members of the Department of Visual Instruction of the National Education Association combined with the National Academy of Visual Instruction—*GREETINGS*:

The New Jersey Visual Education Association will be glad to meet you and happy to greet you as you come to our spacious shores for your national meeting.

At Atlantic City, "The World's Playground", you will enjoy fun and frolic, and attend inspiring, educational meetings for much has been planned by the enthusiastic educators of our state and other states to make your week pleasant and profitable.

The members of the New Jersey Visual Education Association desire to extend the hand of good fellowship to you at a reception, concerning which definite details will be announced at a later date.

The New Jersey Visual Education Association commends all members of the merged associations on the purposeful use being made of visual aids in the conduct of the classroom. The fact that this meaningful movement is rapidly growing in a national way is ample evidence of the splendid service being rendered by you.

Yours for successful sessions at the Atlantic City Convention.

Sincerely,
GEORGE W. WRIGHT, *President,*
New Jersey Visual Education Association.

Hoban on Summer N. E. A. Program

Dr. C. F. Hoban, Director of museum and visual instruction service for the Commonwealth of Pennsylvania and President of the Department of Visual Instruction of the N. E. A., is to address the General Session of the National Education Association at Atlantic City. Dr. Hoban is to be on the Thursday morning program, June 30, to discuss the subject, "Visual-Sensory Aids in a Progressive Educational Program."

Wide experience in his field, national and international recognition of his achievements, able leadership of the visual instruction program of Pennsylvania and the ability to speak convincingly should certainly qualify Dr. Hoban to present his subject interestingly. President Hale is to be complimented upon her choice for this important mission, as well as upon her recognition of the value of a discussion of visual instruction on the general program.

New Visual Aid Manual

A new booklet, "Simple Directions for Making Inexpensive Visual Aids", is now ready for distribution. It contains all of the material included in the September-March issues of *Visual Instruction News* under

that title, with some revisions and additions to complete the manual.

The purpose of the manual is to provide helpful and timely information concerning many types of visual aids which may be constructed in the classroom or laboratory by either teachers or pupils. The subjects treated include the following:

Etched glass lantern slides
Paper cut-out lantern slides
Ceramic pencil lantern slides
India ink lantern slides
Cellophane lantern slides
Photographic lantern slides
Home made Stillfilms
Film slides
The electric map
Spatter work
Pencil outlines of leaves
Leaf prints from carbon paper
Blue prints
Sepia prints
Sources of materials

The manual should be of interest and of value to all users of visual aids as well as to teachers of geography, the social sciences, history, elementary science, physics, chemistry, agriculture, fine art, industrial art, reading and spelling. It should be of great value, also, to those who may be students in visual instruction classes.

The price of the manual is 25c per copy, postpaid. A discount of 20% is extended to members of the Department of Visual Instruction and to those who desire ten or more copies for class use. Requests should be mailed to the Department of Visual Instruction, 1812 Illinois Street, Lawrence, Kansas.

News Briefs from California

(Concluded from page 143)

sion of training in the uses of visual aids in the courses of study of the teachers' colleges of California.

G. To be prepared to furnish definite help to teacher-training institutions on request.

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The Automotive Section of the Vocational Educational Association, Southern Section, had an opportunity to see and hear a new three reel sound film, *The New Ford V-8 From a Technical Standpoint* at their meeting May 7, 1932, at the John Muir Technical High School in Pasadena. Mr. H. C. Jump, of the Ford Motor Company in Long Beach, gave a ten minute talk on the importance of using motion picture films in the teaching of automobile mechanics.

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An editorial committee to collect and forward articles to educational magazines has been appointed for the Visual Aids Section of the California Teachers Association, Southern Section, by Mr. James House, president of that organization. The chairman, Miss Margaret White, of the Pasadena Visual Education Department, plans to select at once a small committee to aid in the work.

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A recent exhibit of health materials for the use of classroom teachers was held at the offices of the nurses and dental hygienists of the school system in Pasadena. The exhibit included books available through the City Schools Library, all types of visual aids available through the Visual Education Department, and a quantity of free material such as class and personal record charts, mimeographed rhymes with line drawings, etc., which can be used only once.

Through the courtesy of the Crown City Dairy, a large group of attractive and instructive health posters from the Southern California Dairy Council has been given to the Visual Education Department.

The success of the exhibit was proven by the high interest which continues from every school although the exhibit is over.

Membership Application Blank

Office of the Secretary-Treasurer,
Department of Visual Instruction &
National Academy 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 .....

Street .....

City & State .....

I am ☐ / I am not ☐ a member of the National Education Association.

NOTE—Make checks payable to the Department of Visual Instruction.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

Science Education (February) "Talking Pictures for Teaching Purposes," by W. W. McSpadden and Charles C. Raines is a welcome contribution to a subject on which little has been written so far. As the authors state, "the purpose of this article is to discuss the equipment necessary and to give such practical advice as has been the result of more than a year's operation of talking pictures in the public schools of Austin, Texas." They advise the construction of an outfit utilizing present equipment for those who have more mechanical ability than funds. "Others can obtain the several units from various sources, assembling the whole with little difficulty, but if expense is not to be considered, a complete outfit may be purchased, with consequent saving in labor."

The various units involved in a 16 mm. sound-on-disc installation are then discussed—the projector, a synchronized turntable, an electrical sound amplifier, a speaker, the motion picture screen—from the standpoint of one desiring to assemble his own outfit.

The Historical Outlook (April) In "Pictures—Their Purpose and Use in the Teaching of History," Frances N. Ahl of the Glendale, California, High School, makes the significant statement that "of all the classroom tools that may be used for the vitalization of history pictures hold a pre-eminent place." She includes all types of pictures—wall pictures, paper prints, stereographs, slides and films. The article presents briefly the purpose of pictures and different methods for their use.

Journal of Education (March 7) "Power Development (Visualization)", appearing in the Character Workshop department conducted by Joseph E. Egan, stresses the importance of evolving a definite technique to develop the definite powers of visualization which a child brings with him to the schoolroom his first day. The writer is firmly convinced that such development would result in the child's ability to learn rapidly, to reason, and to develop a comprehensive memory.

Hygeia (March) "Arrowsmith" is an extended review praising the successful filming of Sinclair Lewis' medical novel of the same name. The production has been given a fine rating by most critics from the general and dramatic viewpoints. Now we find the scientific man's stamp of approval.

Federal Council Bulletin (March) "The Church and The Motion Picture", by A. T. Poffenberger, Professor of Psychology, Columbia University, is an abbreviated account of the author's original discussion of the subject elsewhere. The writer reviews for us again those discouraging aspects of the cinema that have persisted in the given years of this industry. He asserts that the cinema, like the tabloid, aims low. How dreadfully true, this assertion! And the level is little, if any higher, than it was in the early nineteen hundreds. Technically, colossal strides! Spiritually, still marking time! Dr. Poffenberger discusses the Church's place in untangling the situation. His remarks are concise and to the point. But again, one cannot help remembering that such remarks have been as concisely and pointedly made often and often before. Let us hope that the much prophesied day is not too far away when there will be financial means and sufficient ideals among enough picture producers to effect a telling step forward in this matter of better pictures.

Movie Makers (April) "How To Plan a Social Welfare Film", by Arthur L. Gale, and "Film Fights Hay Fever", by Herbert J. Rinkel, M. D. are of interest to teachers and students who make their own amateur films.

National Board of Review Magazine (February) "How the Specialized Motion Picture Is Developed", by Dr. Wallace W. Atwood, President of Clark University, begins with a statement made by Thomas A. Edison to the Countess of Warwick in 1911. The late Mr. Edison hoped to live to see the day when "films will be used to make education more interesting and vivid, and therefore more valuable." The late genius went on to indicate the scope of the film and its ability to draw the world closely together in an intimate experience and relationship. Dr. Clark then discusses the use of the film in the teaching of geography. He explains his method in presenting the life of the Japanese and other peoples. This article is not a long one, but it comprises a surprising amount of suggestive material, and should be of real help to our readers. Dr. Clark succeeds in stimulating the imagination of his readers, so that, although one finds no long discussion of the subject, he does find his thought leaping into a varied array of channels.

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)

Amateur Daddy (Warner Baxter, Marion Nixon) (Fox) Very human and appealing story with charming romance interest. Genial hero leaves his engineering work to father a pal's four children beset with poverty and evil-intentioned neighbors. Well-acted, convincing and thoroughly worthwhile.
A—**Good** Y—**Very good** C—Mature but good

Beauty and the Boss (Marian Marsh, Warren William) (Warner) Big business man demands of girls only efficiency during office hours but something else afterward. Heroine, at first incredibly innocent and efficient, is transformed by clothes and manages to marry unprincipled boss. Exaggerated and risque.
A—Hardly Y—Unwholesome C—No

Big Timer, The (Ben Lyon, Constance Cummings) (Columbia) Another film of epidemic glorifying prizefighting. Cheap dialog by cheap people, two violent ring fights and a third in business office without gloves. First film with heroine as prizefight manager. Low taste and low ideals throughout.
A—Cheap Y—Doubtful C—No

But Flesh Is Weak (Robert Montgomery, Nora Gregor) (MGM) Sophisticated story of engaging, penniless old aristocrat with great aversion to work, and son just like him, both after wealthy marriage. Smooth acting, novel characters, clever dialog refreshingly free from wisecracking and cheap suggestiveness.
A—**Good of kind** Y—Mature C—No

Careless Lady, The (Joan Bennett, John Boles) (Fox) Artificial plot, mediocre acting, sophisticated dialog. First half spent convincing heroine that innocence is passe and she must get "experience." Second half spent getting it in Paris, with hero chasing her constantly to insure moral ending.
A—Mediocre Y—Unwholesome C—No

Cohens and Kellys in Hollywood (Sidney, Murray) (Universal) Agreeable foolery by the old comedy pair, free from slapstick and vulgarity of their former pictures. Real human interest story which travesties amusingly Hollywood production methods and the ups and downs of movie prosperity.
A—Fair Y—**Amusing** C—**Amusing**

Destry Rides Again (Tom Mix, Claudia Dell) (Universal) Typical Tom Mix and Tony western with fine riding, clever gun-play and beautiful scenery. Artificial story of good hero blind to obvious treachery of partner, but gets revenge and girl. Acting crude except by horse but action thoroughly thrilling.
A—Hardly Y—**Good of kind** C—Probably good

Explorers of the World (Medley of exploration films) (Raspin) In novel manner, several famous explorers show pictures of their travels in all corners of the earth, with their own vocal explanations. Some faking, but much extraordinary photography, extremely interesting and varied subject-matter, ably and effectively presented. Stimulating and valuable.
A—**Interesting** Y—**Very interesting** C—**Good**

Gay Caballero, The (George O'Brien, Victor McLaglen) (Fox) Lively western, with rather good plot on Robin Hood motif, fast and furious action. American pals pose successively as well-known bandit to help Mexicans and each other. Fine settings and photography. Violent excitement only objection for children.
A—**Good of kind** Y—Rather good C—Exciting

Good Sport (Linda Watkins, John Boles) (Fox) Another infidelity comedy exploiting gold-digger life—about unsophisticated wife whose husband takes a little jaunt to Paris with mistress. Said wife meanwhile mingles with hubby's gay feminine friends, learns much, and achieves solution.
A—Hardly Y—Certainly not 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"

Grand Hotel (Extraordinary cast) (MGM) A masterpiece of its kind, outstanding in almost every way. Shows varied mosaic of life, its good and evil, joy and sorrow, success and failure, with great hotel lobby as main setting. Strong, finely acted, skillfully directed version of the novel.
A—**Notable** Y—Unwholesome C—No

It's Tough to be Famous (Doug Fairbanks Jr.) (First National) Exaggerated satirical farce about trials of genuinely modest hero forced to endure high-pressure publicity stunts which almost ruin happiness and home. Young Doug does some excellent work in rather subtle role. Rest of acting obvious or mediocre.
A—Passable Y—**Amusing** C—**Good**

Miracle Man, The (Chester Morris, Sidney Fox) (Paramount) Opens with smooth gang of crooks at work in city. Chance sends them to country town where they try to exploit local faith-healer. His true goodness and religion triumph over them quite convincingly. Some very effective acting but too much Chester Morris.
A—**Good** Y—Fairly good C—Hardly

Misleading Lady, The (Claudette Colbert, Edmund Lowe) (Paramount) Light romantic comedy revamped from old stage play. Rich, bored society heroine sets out to win hero, who is at first indifferent to her, then adopts caveman tactics, and both fall genuinely in love at the end. Amusing minor-role of lunatic.
A—Light Y—Better not C—Unsuitable

Monthpiece, The (Warren William, Sidney Fox) (Warner) Able, smooth philandering lawyer leaves honest law practice for greater wealth as gangland's legal defender. Innocent heroine's charm moves him to quit the dirty business and defy gangsters, but they "get" him. William's work exceptionally fine.
A—**Good of kind** Y—Doubtful C—No

Office Girl (English production) (RKO) Genuine light comedy, refreshingly different from Hollywood formulas. Quaint, leisurely, very human, engagingly acted, with some distinctly original touches for humorous effect. Renate Muller is a heroine of notable ability and charm.
A—**Entertaining** Y—**Very good** C—**Good**

Play Girl (Loretta Young, Norman Foster) (First National) Story of shop-girl life, very human in spots, but cheapened by Winnie Lightner's brazen, risque dialog and distorting ordinary ideals. Shows love and marriage as successful with lying and race-track gambling as the foundation.
A—Cheap Y—Doubtful C—No

Police Court (H. B. Walthall, Leon Janney) (Monogram) Second rate picture with serious intent. Human-interest story of devoted little son of drunken father who was formerly great actor. Slow-moving action and mawkish sentiment at times. Well-acted but more depressing than entertaining.
A—Mediocre Y—Perhaps C—Unsuitable

Scandal for Sale (Charles Bickford) (Universal) Another hectic newspaper film. This time hard-boiled tabloid-editor hero is unscrupulous enough to let his own child die, nearly lose his fine wife, and send his best friend to death on transatlantic flight—all for "circulation." Slightly overdrawn.
A—Depends on taste Y—Hardly C—No

Sky Bride (Richard Arlen, Jack Oakie) (Paramount) Just another air-picture that strains after thrills and rather mawkish sentiment. Hero can recover his lost nerve only by punching his devoted pal unconscious at intervals. Acting depressingly ordinary. Child dangling in midair under plane is the "big moment."
A—Worthless Y—Mediocre C—No

So Big (Barbara Stanwyck) (Columbia) Fine screening of famous Ferber story of triumph of a woman's idealism and courage over hardships. Minor faults in make-up and in one or two acting roles, but most of cast is excellent and Miss Stanwyck's performance is notably fine.
A—**Very good** Y—**Very good** C—**Good**

Steady Company (June Clyde, Norman Foster) (Universal) Rather wholesome little prizefight picture, with two overlong and violent ring fights, otherwise showing human and humorous romance of fine little telephone girl and young truck-driver with "champ" ambitions, his best chance for success in life.
A—Hardly Y—Passable C—Hardly

Symphony of Six Million (Irene Dunne, Ricardo Cortez) (RKO) Strong, human picture of lower east side New York life. Son of humble home rises to medical fame, moves uptown to rich practice, but old home section and its crying need draw him back. Splendidly acted by whole cast.
A—**Very good** Y—**Very good** C—**Mature but good**

Tarzan the Ape Man (Johnny Weismuller) (MGM) Most fantastic, sensational thriller yet made. Striking African scenery and animal photography. A masterpiece of technique, trick shots and effects perfectly done. Ignores probability and scientific truth to get maximum thrills. Unusual and interesting.
A—**Notable** Y—Thrilling C—Doubtful

This Is The Night (Lily Damita, Roland Young) (Paramount) Light, flippantly sophisticated farce-comedy about bachelor in love with a wife whose husband returns suddenly, etc., etc. Stale and feeble plot hampers the splendid comic skill of Roland Young and Charles Ruggles, the only redeeming features.
A—Hardly Y—Doubtful C—No

Wet Parade, The (All Star cast) (MGM) Serious picturization of liquor question, pre- and post-prohibition drunkenness, the saloon and the speak-easy, the farce of prohibition enforcement, and the comedy and tragedy of it all. Finely acted. Will stir a lot of public thought pro and con prohibition.
A—Better see it Y—Doubtful C—No

World and the Flesh (George Bancroft) (Paramount) A wild tale of Russia a la Hollywood, with the Russian Revolution as background, with its accompanying immorality and bloodshed. Disorder and upheaval at every turn. Excellent acting by principals. Plot and action more or less incredible.
A—**Good of kind** Y—Unwholesome C—No

Young America (Tommy Conlon, Raymond Borzage) (Fox) Excellent juvenile, fine supporting cast, very human juvenile-court story make an appealing, thought-provoking picture of real social value. Interesting to all, but parts may be too sad for sensitive children. Except for one or two falsities in motive and action, a great picture.
A—**Excellent** Y—**Excellent** C—**Mature but good**

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

Motion Picture Cameras for Church Use This Summer

This is the time of year when it is particularly fitting to discuss the matter of cameras for church movie purposes. For one thing, we are approaching the time when Sunday School picnics and the like will soon be abroad in the land. And a Sunday School picnic is always an ideal subject for the amateur movie photographer. If it is announced that movies are to be made at a picnic, you are sure to have a larger crowd than usual, and then again when the pictures are shown later on you will have a crowded house to see the movies. The movie-making feature at a picnic is always productive of rare fun. All of us like to "be in the movies" even if we are not Hollywood actors. Be sure to take a motion picture camera along on the occasion of your next Sunday School picnic and see what fun everyone gets out of it.

Of course, there is practically only one sort of movie camera for such purposes, and that is the 16 mm. amateur camera. You could use a hand-held semi-professional camera employing 35 mm. film, but the expense of the film would be entirely too great. It is estimated that the cost of 35 mm. film for making any given picture is about six times that of 16 mm. film and there is very little reason for using 35 mm. film for picnics and similar functions. If your 16 mm. camera is equipped for using Kodacolor, you can get some nice effects by taking colored motion pictures. You probably would not want to take all of your movies at the picnic in color, but you could take some of them in this fashion, and this would add variety when you come to project the picnic pictures.

Here is another thing that has to do with making motion pictures this summer. Almost every congregation has several owners of 16 mm. movie cameras among its members. Why not ask these people to be sure to take their cameras along this summer on their vacations and bring back pictures of their travels and vacation experiences which they could show at a meeting of some one or other of the church organizations in the autumn? You will find that such a meeting will be a very interesting event and one which will bring a fine attendance. If the Sunday School has a ball team, be sure to make movies of some of the games, and you will find that the lads on the team will be mighty proud of their prowess as recorded by the camera and will want their older friends to be sure to see the movies.

As a matter of fact, every clergyman, or at least every church, ought to have a 16 mm. motion picture camera nowadays, for there are so many things happening all the time of vital interest to the church and congregation that should be recorded by motion pictures. It is generally possible to repay the cost of a camera in a comparatively short time by putting on motion picture entertainments and charging a small admission. These entertainments need not be given over entirely to home-made pictures, but a portion of the pictures shown should be made by local persons and relate to local scenes. Other interesting films can be secured on loan from film libraries at a very reasonable price and frequently can be secured on a free rental basis. By a judicious combination of local films and films secured from various other sources, very interesting motion picture entertainments can be put on, and the resulting admission charges will soon defray the expense of a camera.

St. Joseph Valley Larger Parish Completes Film Story

A recent issue of the South Bend, Ind., *News-Times* carried a two-column article on the remarkable work of Rev. R. W. Leisher, Centerville, Michigan, in staging a come-back in rural church units in the St. Joseph Valley Larger Parish in southwestern Michigan. The fact that the many and varied parish activities were being recorded with a Filmo 16 mm. movie camera was mentioned some time ago in this department. With regard to this parish film, the South Bend paper has the following to say:

"Without doubt the recording of these (parish) activities last year on motion picture film was the 'big event' of the year. Two sets of machines are kept busy a good part of the time, cameras and projectors. The parish has its own newsreel service, and pictures of the big football games and other important events in reasonable reach are covered by the parish cameraman.

"Work on the film, *A Michigan Miracle,* has just been completed by Mr. Leisher. The 8-reel film begins with Isaac McCoy's establishment of the Carey Mission in Niles 112 years ago, and the scenes that follow revive the story of the religious, educational,

(*Concluded on page* 158)

Visual Instruction in Indiana

(*Concluded from page* 140)

the school can not purchase the necessary films and slides they should be made available for rental. In Indiana the State University Service has aided materially by purchasing available materials and offering the subjects to schools on a rental basis. Individuals who have introduced a worthwhile visual program in their respective schools have done much to pave the way for other schools. To those who have taken this first step goes the responsibility of making the visual program a success. Members of this group should be able to disseminate information concerning correct procedure in establishing a visual program and minimum standards consistent with available funds. This could be accomplished through a state-wide organization. Such an organization would familiarize teachers with the newer visual materials and pave the way for a uniform visual program throughout the state.

Film Production Notes

(*Concluded from page* 141)

New Agriculture Films

Preparation and Marketing of Dressed Poultry, Inspection and Canning of Poultry, and *Marketing Live Poultry*, are the subjects of three new poultry films sponsored by the Bureau of Agricultural Economics.

These films were shown at the World Poultry Congress, London, England, as a single 5 reel subject entitled, *The Poultry Marketing Industry in the United States*. For distribution in the United States the same material has been made into three distinct films, which may be shown together or separately.

Agricultural Explorations in Ceylon, Sumatra and Java, a 2-reel silent film, sponsored by the Bureau of Plant Industry, shows in their native surroundings some of the little-known and interesting fruits and ornamental plants which are now growing in this country as the result of the work of agricultural explorers, who visit out-of-the-way places in search of plants for introduction and trial in America. This film is of general interest and should prove valuable, the department believes, in acquainting the public with new fruits and vegetables that may appear on American markets in the near or distant future. It should be of special interest to college and high school students because it offers information about little-known subjects and regions.

The reason for the Federal seed act and means used to keep out bad seed are shown in the 2-reel motion picture *How the Federal Inspection of Imported Seed Protects the Farmer*, also sponsored by the Bureau of Plant Industry. This film belongs to that group of educational films that illustrate government activities. This particular film shows how the farmer is protected from loss resulting from poor seed and foreign weeds. It is of interest to farmers, importers of seed and the public generally.

Prospective borrowers of any or of all of these films should apply to the Office of Motion Pictures, Extension Service, U. S. Department of Agriculture.

Scenic and Travel Library

Ideal Pictures in New York City, of which M. J. Kandel is president, have a library of travel and scenic films, accompanied by descriptive talk.

Among their subjects are: *The Land of Islam*, depicting in detail the life of natives in Morocco; *The Menace of Guatemala*, which takes the audience through a town in the menacing shadow of the great active volcano, Agua, and shows some interesting native Indian types; and *When Winter Comes*, a beautiful picturization of the white glory of winter, including some sequences of animals making ready for zero temperatures.

SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

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

A Picture Study Lesson With the Opaque Projector

IRMA H. PIGORSZ

THE OPAQUE projector is a great aid to me in my classwork. The following picture study lesson recently given to my 1A class illustrates its use. During this lesson, a picture, which had been studied the previous semester, was reviewed and a new one presented for study and appreciation. The procedure of the lesson is briefly recorded below:

"The first picture you are to see today is one you have already seen and studied. Let me see how much you remember about this picture."

Picture 1

"What is the name of this picture?"

Esther: "The Madonna of the Chair."

"Can you tell me another name for Madonna?"

George: "A Madonna is a mother."

"Who are the people in this picture?"

Sara Jane: "Jesus, Mary, and John."

"A Madonna, then, is the mother of Jesus."

"Why is the picture called "The Madonna of the *Chair.*"

Jack (running up to the curtain): "Here is the chair back here and the mother is sitting in it."

"Why is the picture round?"

Irene: "It was made on the top of a barrel."

"Tell the story about this picture."

Marilyn: "The man who made this picture was out walking in the country, one day. He saw a mother and two children sitting under a tree. He thought they looked so nice that he wanted to paint them. He looked around for something to draw on and all he could find was an old barrel top. That's why the picture is round."

"So many of the lines are curved in this round picture. Do you see any curved lines in the picture?"

Barbara: "The scarf around mother's head is round."

James: "Mother's arms are round at the elbows."

Donald: "The baby's face is fat and round."

Joseph: "Baby's arms and legs are curved."

John: "Mother even had to bend her head to get into this round picture."

"Does anyone remember who painted this picture?"

Helen: "It was an Italian."

"Yes, it was an Italian. His name was Raphael. Let's all say his name. Raphael lived long, long ago. Tell us the name of this picture again."

Barbara: "The Madonna of the Chair."

"The next picture you will see is a new one. I hope you will learn to like it as much as I do. It has always been a favorite of mine."

Picture 2

"This picture is called "Feeding Her Birds." It was painted by a Frenchman whose name was Millet. Say his name with me. Millet liked to paint pictures of country life better than anything else. Of all the pictures he made he liked this picture of the mother and her three children the best. They reminded him of a mother bird and her little birds. This mother is feeding her three little children just as a mother bird feeds her birdies. She has lined up her two little girls and their baby brother on the doorstep, and she sits in front of them on a little stool. In her lap she holds a bowl of porridge and feeds it to the children with a big spoon. Who do you think is going to get the first spoonful of porridge?"

Barbara: "I think the little brother in the middle is going to get the first taste because he's got his mouth open."

Ivy: "He looks just like a baby bird with his mouth open. Maybe that's why the picture is called "Feeding Her Birds".

"You are right, Ivy. That is just exactly why Millet gave his picture that name."

"Do you think the little sisters mind very much that their little brother gets his dinner first? Do they love their little brother? What makes you think so?"

Loretta: "One little sister is smiling at him."

Lorraine: "The other one is watching her brother."

"What kind of shoes do these little children wear?"

Frank: "They have wooden shoes on."

"Count the wooden shoes for us."

Jean: "There are six wooden shoes."

"How many little white caps do you see?"

Jean: "Three."

"That is the way the peasant or country children

dressed in France at the time when this painter lived. Mother, too, wears a little cap on her head. Her skirt is long and full. So are the dresses of the little girls.

"In back of the house is a garden. Father is busy working in it. Raymond, run up and look closely to see what father is doing in the garden."

Raymond: "He is digging in the garden. From the back of the room I thought that was a flower."

"Here comes a hen running from the garden. I wonder what she is coming for."

James: "She wants something to eat. Maybe she thinks there will be some crumbs left over."

"What kind of a day do you think it was when this picture was made?"

Irene: "It was a sunny day."

"What, in the picture, tells you it was a bright day?"

Sara Jane: "There are shadows on the wall."

Jean: "The sunshine makes mother's hair so bright."

Loretta: "The baby's hair is just like his mother's."

"Tell again the name of the picture."

James: "Feeding Her Birds."

"You surely ought to be able to remember that name because you can read all the words at the bottom of the picture. Let us say the name of this Frenchman again."

All: "Millet."

By using the opaque projector in this study, the pictures were greatly enlarged and it was possible to notice the smallest details in each. The colors also showed up very clearly on the screen. The children enjoy this way of studying their pictures.

Open House at Boston University

On April 21, 22 and 23, Boston University School of Education held Open House, during which all courses were open to visitors. The "Visual Education" period was divided into two parts, the first being devoted to the discussion of "Sound motion pictures in public schools", with the demonstration of sound projectors, and the second part devoted to "Slides made by Pupils and Teachers."

Dean Arthur H. Wilde of the School of Education foresees a demand for Directors of Visual Education, and has authorized the arrangement of a curriculum which will adequately and specially prepare teachers for such positions.

◆ ◆ ◆

A two-hour credit course, "Visual Instruction in Elementary and Secondary Schools," is on the 1932 Summer Session program at the University of Kansas. The course will be elementary, including both lecture and laboratory periods.

Sound Picture and Program Distribution System of the Port Chester High School

The Port Chester High School (N. Y.), recently completed, is the last word in modern design and modern equipment. There are separate gymnasiums for boys and girls; a special "corrective" gymnasium for the purpose of helping to correct physical defects; a cafeteria in the basement which serves lunch at cost; and an auditorium which will accommodate the entire student body.

One of the most interesting features of the school's up-to-date equipment is the unified sound system. Realizing the growing need for complete and flexible facilities for sound reproduction, the School Board, in collaboration with its architects, and Electrical Research Products, Inc., laid out one of the most comprehensive sound systems ever installed in a school. It comprises: Sound Pictures; Announcing System; Radio Program Distribution System; Non-Synchronous Reproduction System.

Two amplifying channels are installed, so that any two programs can be reproduced simultaneously in different rooms, thus affording great flexibility.

Centralized System Control

For convenience in their use, the amplifiers and control equipment are located in the principal's office, thus

Screen Is Raised To Show Horn Used in Assembly Hall

making it easy for the principal or others to supervise its use. At this point, the loud speaker circuits from all over the building terminate on an output control panel so that, by means of key switches, the loud speakers in any desired location can be connected. Likewise, all input circuits terminate on a panel so arranged that input to the amplifiers can be obtained from any desired point. Since two amplifier channels are available, it is possible to distribute any two programs simultaneously to two groups of listeners.

Radio Program Distribution System

Two Western Electric 10-A Radio Receivers permit the simultaneous reception of two different programs. A class in history can, therefore, be listening to a broadcast program of historical interest at the same time that a class in music is listening to an instructive musical program.

Sound Picture Equipment

The large auditorium, or assembly hall, is so equipped that it can be used for the showing of talking motion pictures. A standard Western Electric Sound System, such as is used in the larger theatres, is installed in the projection room. The screen and the horns are also of the usual theatrical type. The projection room itself, is so well designed that it could serve as a model installation. Two motion picture projectors are installed so that a program can be run continuously. As only one of the amplifying channels is required for sound pictures, the second is available simultaneously for other uses.

Announcing System

Another valuable use of the equipment is its application for announcing purposes. In this capacity, it is a great convenience since it permits an announcement

to be made throughout any desired part or all of the building when, for any reason, it may not be desired to assemble the student body in the auditorium. Announcements can, of course, be made through the microphone in the principal's office or through microphones plugged into any of the other outlets, as desired. Should it be required at any time to distribute to other locations lectures or programs being given on the auditorium stage, use can be made of the stage microphone outlet.

The Announcing System should prove of great value in times of emergency. While the volume of sound from the individual loud speakers can be controlled locally in the room to suit the needs of the classes, there is no "Off" position on the panel, thus insuring that the entire system is ready for instantaneous service in emergencies when a timely warning may be of extreme importance.

Music Reproduction System

On many occasions it is desirable to provide music in the classrooms, auditorium, gymnasium, cafeteria, or other rooms. To meet this need, a portable Electric Music Reproducer is used. It is mounted on a small rubber-tired truck which can be wheeled where needed and plugged into any of the input circuits leading to the control room. The amplified music can then be distributed to any desired points. Some rooms in which the music reproducer is frequently needed have both input and output circuits to the control room, so that the portable music reproducer can be used in the same room in which the music is to be heard. This is a great convenience inasmuch as records can be played, parts repeated, and volume controlled without

the necessity for making adjustments in the control room.

The school is frequently visited by educators interested in observing up-to-date methods and also by

Music Reproducer in Use in Gymnasium Class

committees gathering data for guidance in the designing of schools. To these visitors the flexibility, convenience and general usefulness of the sound system will readily be apparent, as well as the new avenue for education, which is by no means a minor factor. It is being recognized more and more that a complete sound system is an indispensable feature of the modern school.

Summer Courses in Visual Instruction

Dr. Joseph J. Weber, Department of Education & Psychology, Valparaiso University, Valparaiso, Indiana, will give a course in Visual Instruction at the University of Texas, Austin, Texas, during the first Summer Session. This will be for a period of six weeks.

◆ ◆ ◆

Special courses in Visual Instruction will be offered by the State Teachers College at Terre Haute, Indiana, during the first and second summer terms, under the direction of H. A. Henderson of Indianapolis. Titles of these courses are, "Visual Instruction as Applied to the First Six Grades," and "Visual Instruction as Applied to the Junior and Senior High School."

◆ ◆ ◆

Mr. George A. Stracke, who has been appointed to take charge of the visual work at the University of Arizona, will conduct a course this summer on "Visual Education—Methods and Materials." Mr. Stracke is planning an exhibit of visual education material in connection with the teacher-training work of the University. Firms who wish to place their visual aids in this exhibit may communicate with him in care of the Department of Agricultural Education.

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.

"Little Wonder" Combination Projector

The Trans-Lux Daylight Picture Screen Corporation has a very practicable combination air-cooled opaque and stereopticon projector known as the "Little Wonder", made especially for use in the individual classroom with a Trans-Lux Screen.

Combination Opaque and Stereopticon Projector

The air-cooling device consists of a suction blower drawing cool air over the projected opaque material. It not only protects the material, but keeps the back of the projector so cool that the operator does not burn his hands.

It is portable, — in that it weighs only 28 lbs., and has handles at the side. This adds considerably to its portability. It can be placed in the back of a car, along with the screen on the frame, and taken from school to school.

It uses one (1) prefocal base 500 Watt lamp,—no adjustment is necessary. The stereopticon attachment has a cone shape lens holder which drops into a groove,—no adjustment necessary. This can be removed and a strip film attachment be inserted in its place. The projector is very compact, and very simple to operate.

Opaque material is available for projection from books and magazines, post cards, sketches, objects, and even test questions can be presented in this manner.

The Educational Department of The Trans-Lux Daylight Picture Screen Corporation, New York City, will be very pleased to send descriptive literature.

Metropolitan Motion Picture Company Extends Activities

The Metropolitan Motion Picture Company of Detroit, Michigan, producers of RCA Photophone industrial sound pictures, announces its association with the Atlas Educational Film Company of Chicago, The Alpha Motion Picture Corporation of Cleveland and the Aeolian Company of Missouri, located in St. Louis.

The association extends the activities of the Metropolitan Company in the middle west and at the same time makes available to industrial organizations in these territories the finest of RCA Photophone sound recording equipment. This company is the oldest organization in Detroit engaged in the production of industrial motion pictures. The extension of its activities into the Chicago, St. Louis and Cleveland territories marks another step in the continued progress of the company over a period of fifteen years.

The Alpha Motion Picture Corporation is an outgrowth of the Argus Company in Cleveland. For the past ten years, they have made available a specialized motion picture service to industrial concerns in and around Cleveland. The Aeolian Company of Missouri was established in St. Louis twenty-five years ago. As early as 1910 they distributed the products of the Victor Talking Machine Company and later those of the RCA Victor Company, Inc. The Atlas Educational Film Company has been one of the outstanding producers of industrial and educational motion pictures in Chicago since 1913.

Under the terms of the agreement, each company retains its separate ownership and identity, but cooperate on sales and production.

New Leica Camera Has Automatic Focusing Control

A new model Leica with built-in-range finder and automatic focusing lens is the latest revolutionary development to be introduced by E. Leitz, Inc., New York City. The range finder, previously a separate instrument, is now built into the camera itself and by an ingenious connection of the finest precision this range finder is actuated by the helical focusing mount of the lens. When taking a picture the subject is sighted through the range finder eyepiece, situated immediately to the left of the view-finder opening at the rear of the camera. Two images of the subject will be seen, and as the mount of the lens is turned the images will appear to separate or approach coin-

cidence. When coincidence is established the lens is automatically in focus. The release then is pressed with every assurance of getting a perfectly sharp picture.

In appearance the new camera, known as Leica Model D, does not differ greatly from the previous models. The range-finding mechanism is contained in a black metal housing on top of the camera, extending from the shutter dial to the rewind knob. The view-finder retains its position and from the front is flanked by the two small openings for the range-finder. The dimensions of the Leica are unchanged, and there is no appreciable increase in weight.

Portable Movie Camera with Electric Motor

To meet special demands for airplane motion picture work and for outfitting scientific and exploring expeditions, the Bell & Howell Company has arranged to equip its portable 35 mm. Eyemo movie camera with an electric motor. Also an external film magazine carrying 400 feet of film can be added. In airplane photography the motor feature is particularly desirable in that the pilot can place the camera with attached motor in an advantageous position and shoot pictures by remote control.

Any Eyemo camera employing a hand crank can be motor equipped. The motor is mounted on one side of the camera, engaging in the hand crank socket. The motor runs the film through at speeds of from 24 frames down to 4 frames per second, the speed being adjusted by the camera governor. The motor weighs only 3⅞ pounds, and the camera 8½ pounds.

Eyemo Movie Camera with Attached Motor

When an external film magazine is not attached, the film is run from a 100 foot spool in the camera itself, as formerly. If desired the motor runs the entire 100 feet of film through without stopping.

Either a 12 or 110-volt motor can be adapted to the camera. The 12 volt motor is particularly practical for airplane work as this current is available from the plane batteries. Current for the 12-volt motor can also be supplied by auto batteries on exploring expeditions.

The motor is readily attached to the camera and just as readily detached. When it is not desired to use the motor, the camera can be operated by spring drive while held in the hand—the usual manner of operation—or it can be set on a tripod and operated by hand crank. Thus a high degree of utility and flexibility is combined in a unit of surprisingly small weight.

International Film Foundation Formed

The International Film Foundation, self-described as an independent non-profit organization for producing and distributing educational films, was announced this week from its offices in New York City. It is stated that the organization is in no way controlled by or affiliated with any motion picture producer. It is, however, in some measure, an outgrowth of the educational film department of the Fox Film Corporation, an activity recently discontinued. Dr. Wallace W. Atwood, president of Clark University, is the newly elected president of the Foundation.

The new organization intends to produce three types of films, both sound and silent, in the standard 35 millimeter and 16 millimeter sizes. These will be the specialized classroom teaching film, the non-curriculum film for auditorium use and a number of special feature films for general distribution.

The announcement of the Film Foundation is made simultaneous with the preliminary presentation at preview showings of *The Cry of the World*, a survey of the World War's aftermath assembled from the talking film archives of Fox Movietone News. The picture is to go into general circulation with its earnings to be devoted to the further activities and production of the Foundation.

Victor Announces Cameras at Reduced Prices

Victor Animatograph Corporation, Davenport, Iowa, in announcing its new Model 3 and 5 Cameras and its new price policy, calls particular attention to the fact that these models are not old carried-over merchandise that is being offered at close-out prices, but new and improved products.

On the Model 5 Victor (the original visual focusing, 3-lens turret 16 mm. camera) there has been a reduction of approximately 22½ per cent in price. All of the previous well-known features of the Model 5, such as visual focusing, 5 speeds, 3-lens turret, etc., have been retained. The new features included are: attached winding crank which may also be employed for hand cranking; graduated "Adjustafinder" for accuracy in "finding" and centering the image at different distances; combination visible-audible film footage meter of high accuracy; film loop guard which is said to make impossible loss of the film loop; improved carrying handle; and a gold-flecked brown lava finish with polished chrome trim. Standard lens equipment on the Model 5 Camera is the 1", F 2.9 Hugo Meyer Trioplan.

The Popular Model 3 Victor, which was the first 16 mm. camera to be equipped with multiple operating speeds, including slow motion, is being offered with the new collapso-carrying strap, chrome plated chain-attached crank and crank clip, and with 20 mm. F 3.5 Fixed Focus Dallmeyer Lens at a price reduction of nearly 35 per cent.

Both the Model 3 and 5 Victors can be supplied with any choice of lens or lenses. Lenses of all makes, speeds and focal lengths are interchangeable on the two instruments.

Church Department

(*Concluded from page* 148)

and agricultural growth of St. Joseph Valley. The film is dedicated to Isaac McCoy, Fathers Allouez and Marquette, and Robert de La Salle."

Our impression is that many thoughtful clergymen all over the United States who are personally interested in the recrudescence of the rural church will be interested in viewing this film, especially that portion of it which has relation to the present-day activities of the parish.

STATEMENT OF OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of The Educational Screen and Visual Instruction News, published monthly except July and August, at Morton, Ill., for April 1, 1932

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 Lawa and Regulations, printed on the reverse of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, The Educational Screen, Inc., 64 E. Lake Street, Chicago, Ill.

Editor, Nelson L. Greene, 64 E. Lake Street, Chicago, Ill.

Business Manager, Ellsworth C. Dent, 1812 Illinois St., Lawrence, Kansas.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

The Educational Screen, Inc., 64 E. Lake Street, Chicago, Ill.
Herbert E. Slaught, 5548 Kenwood Ave., Chicago.
Nelson L. Greene, 5836 Stoney Island Ave., Chicago.
Dudley G. Hays, 1641 Estes Ave., Chicago.
Frederick J. Lane, 6450 Kenwood Ave., Chicago.
Marguerite Orndorff, 1617 Central Ave., Indianapolia, Ind.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner: and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold and distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is ——. (This information is required from daily publications only.)

NELSON L. GREENE,
(Signature of editor, publisher, business manager or owner.)

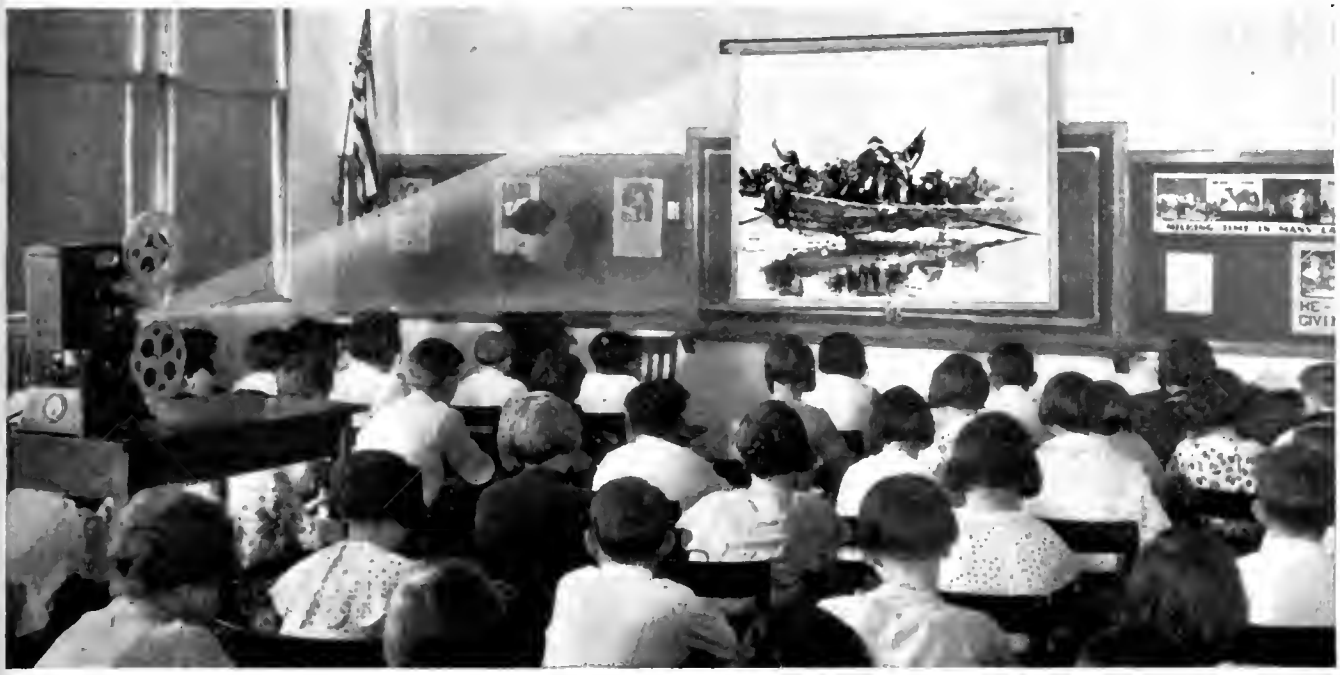
Sworn to and subscribed before me this 1st day of October, 1931.

(SEAL) MABEL GRANT.

(My commission expires August 28, 1932)

A Field Trip *into* History

makes the subject vivid...interesting



By presenting many subjects as living realities, Eastman Classroom Films stimulate the pupils' imagination and desire to learn

It takes a long flight of the imagination to recreate the new, strange ways and living conditions under which our forefathers established a European civilization on this continent and brought our nation into being.

How welcome, then, is the authentic motion picture of early historical events. How quickly it crystallizes vague conceptions into vivid understanding. How much easier it makes the comprehension of history—not only the part actually shown on the screen, but the whole subject.

No wonder so many schools have welcomed the Eastman Classroom Films on *George Washington, His Life and Times*—an accurate, moving presentation of colonial life, revolutionary days and the beginnings of the Republic.

Such a picture spurs children's imaginations into activity...makes the whole subject of history a vital thing. And what this picture accomplishes in history, other Eastman Classroom Films accomplish in geography, science, nature study, health, and other fields.

Eastman Classroom Films and equipment are not expensive. Write for complete information. Eastman Teaching Films, Inc. (Subsidiary of Eastman Kodak Company), Rochester, N. Y.

GEORGE WASHINGTON

His Life and Times

A Series of Eastman Classroom Films

This motion picture, the only one on Washington's life made at the request and with the coöperation of the George Washington Bicentennial Commission, is doubly valuable for teaching history and for patriotic activities. It gives an accurate picture of colonial life, frontier conditions, the causes and military action of the Revolution, and the early days of the Republic.

EASTMAN *Classroom Films*

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

Columbia Pictures Corp. (3, 6)
729 Seventh Ave., New York City
(See advertisement on page 158)

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 159)

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 153)

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.
(See advertisement on page 130)

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 155)

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
300 W. Adams Bldg., Chicago, Ill.

MOTION PICTURE MACHINES and SUPPLIES

Ampro Projector Corp. (6)
2839 N. Western Ave., Chicago, Ill.
(See advertisement on inside front cover)

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.

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, Ia.

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 133)

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

SLIDES and FILM SLIDES

C. W. Briggs Co.
628 Callowhill St., Philadelphia, Pa.
(See advertisement on page 157)

Eastman Educational Slides
Iowa City, Ia.

Edited Pictures System, Inc.
130 W. 46th St., New York City

Eye Gate House Inc.
330 W. 42nd St., New York City
(See advertisement on page 151)

George Washington Memorial Assn.
386 Fourth Ave., New York City
(See advertisement on page 154)

Ideal Pictures Corp.
26 E. Eighth St., Chicago, Ill.

International Artprints
64 E. Lake St., Chicago, Ill.

Keystone View Co.
Meadville, Pa.
(See advertisement on page 155)

Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
(See advertisement on page 130)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 129)

Stillfilm Inc.
1052 Cahuenga Ave., Hollywood, Cal.
(See advertisement on page 153)

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

STEREOGRAPHS and STEREOSCOPES

Keystone View Co.
Meadville, Pa.
(See advertisement on page 155)

STEREOPTICONS and OPAQUE PROJECTORS

Bausch and Lomb Optical Co.
Rochester, N. Y.

E. Leitz, Inc.
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(See advertisement on page 129)

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CONTENTS

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Visual Instruction News

JUNE, 1932

VOLUME XI NUMBER 6

CONTENTS

Contents of previous issues listed in Education Index.

General and Editorial Offices, 64 East Lake St., Chicago, Illinois. Office of Publication, Morton, Illinois. Entered at the Post Office at Morton, Illinois, as Second Class Matter.

Published every month except July and August.

$2.00 a Year (Canada, $2.75; Foreign, $3.00) Single Copies, 25 cts.

EDITORIAL

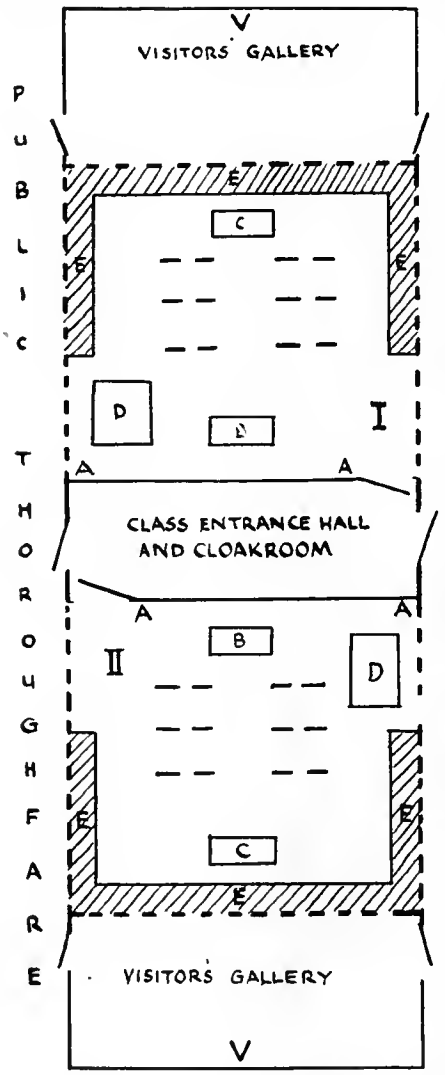
THIS is the third issue of THE EDUCATIONAL SCREEN combined with VISUAL INSTRUCTION NEWS, and the last of the school year. In accordance with our practice for the past ten years, there will be no other issue until September, and we shall await with resignation the usual summer crop of letters beginning "Where is my July number?"

THE September issue *may* appear under a new name. Two months ago we invited suggestions and have enjoyed a considerable response. The suggestions have ranked all the way from "very good" to "impossible." The invitation is still open in the hope of arriving at the "best." If a representative consensus of opinion can be discovered among the visualists at the Atlantic City meeting, it should be fairly decisive as to the right name for the one monthly magazine in the visual field.

FOR some ten years past the subject of visual instruction has been denied, or at least has not achieved, a place on the regular program of the annual meetings of the National Education Association. The regrettable omission is to be rectified at the coming session at Atlantic City. Visual instruction will be formally discussed by Dr. C. F. Hoban, who is president of the Visual Instruction Department of the N. E. A. and a notably able and interesting speaker. Therefore, the first presentation of the subject before the N. E. A. will be not only official but effective, which should be cause for gratification to the whole field.

GENERALLY speaking, the efforts of national visual organizations for the last dozen years have been limited to semi-annual gatherings of a few score advocates of the visual idea in education. These meetings have been distinctly enjoyable and intensely interesting to the few hundred faithful individuals who have supplied practically the entire attendance through the whole period. The "printed proceedings" of these sessions were always announced but seldom printed. Hence actual results from these meetings, as an influence on the educational field at large, have been exceedingly tenuous, if discernible at all. Concrete progress in visual instruction has been made largely by thousands of live teachers, working more or less independently, of whom probably 99% never attended any of the annual sessions.

The summer of 1933 offers the Visual Instruction Department of the N. E. A. a golden opportunity. If careful estimates are even approximately correct, something like half the nation will visit the Chicago Exposition sometime during the last six months of next year. Some hundreds of thousands of them will be teachers. A vivid demonstration of visual instruction can be put before the eyes of millions. Why *talk* at hundreds when millions can be *shown?*



LEGEND

I, II Classrooms for lower and upper grades respectively. Soundproof, but wired to make all sounds within room audible in public thoroughfares and in visitors' galleries.

AA Blank walls for blackboards, screen, maps, charts, etc.

BB Teacher's desk.

CC Table for projection apparatus.

DD Sand-table, reference-table, or display table.

EEE Storage cases and shelves, not over 3 feet high. Top usable for display.

VV Visitors' Gallery, with seats and elevated, sloping floor.

Dotted lines show walls made entirely of glass.

The classroom-demonstration-unit, described in some detail in our May editorial, is sketchily drawn above. Skilled teachers, an assured body of pupils, an expertly designed curriculum of consecutive classes for several months—operating in full sight and hearing of a public of fifty millions—can put visual instruction where it belongs in the national consciousness. It can do more in ten weeks than the past ten years have done toward this great end.

NELSON L. GREENE.

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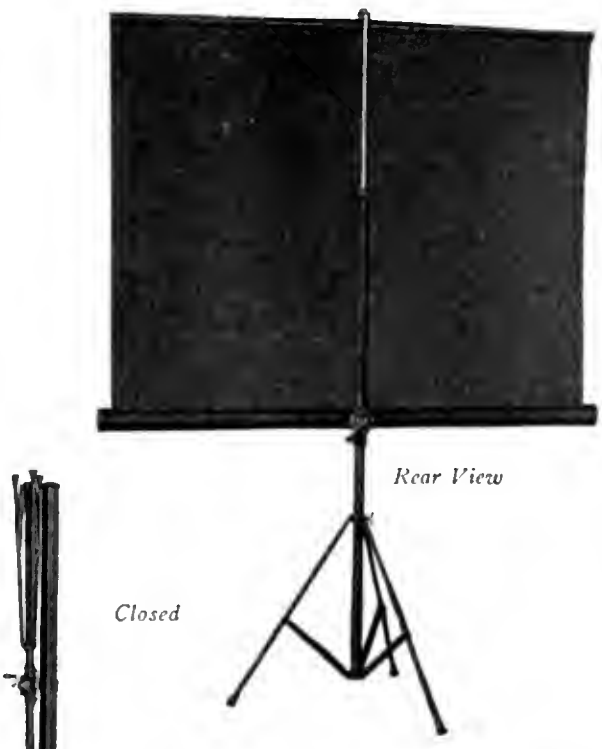
45 x 60—only $40 52 x 72—only $55



Rear View

Closed

THE Da-Lite De Luxe Challenger is but one of a wide variety of portable screens produced by Da-Lite. All are of the same high quality. All have the same super-brilliant Da-Lite glass bead surface, excepting the special purpose Da-Lite translucent screens. Prices range upwards from $3.00. There's a Da-Lite model for every specific educational need. Write for completely illustrated literature on all models.

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DA-LITE SUPER SCREENS

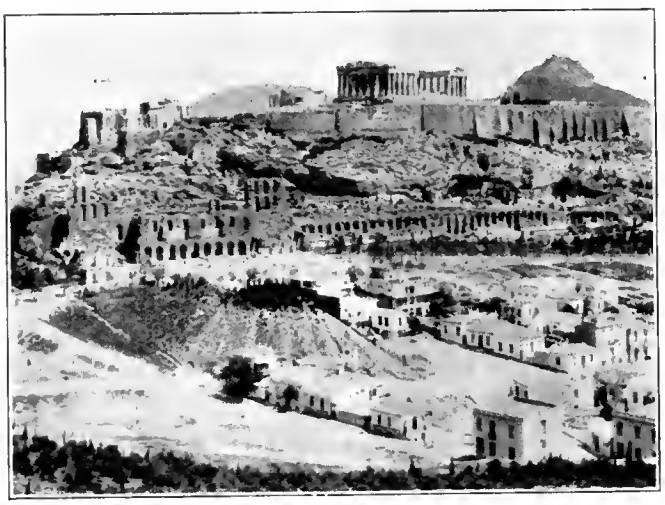
The Study of Greece

Ancient and Modern (Grade 6B)

GLADISS D. SPANGLER

THE STUDY of Greece in the sixth grade is problematic from several standpoints. Anything ancient is likely to be engulfed in boredom, as far as the child is concerned. In the first place, then, this natural barrier of age must be considered. Distance becomes a second factor for ponderance. Not only is Greece so removed actually from the lives of our children but the fact that little or nothing comes to us today from that country to be studied makes research difficult for the elementary mind. Work must be done so that it commands interest, which in turn insures effort.

The inauguration of a proper background was accomplished entirely through the use of visual aids.



Acropolis with Odeon of Herode Atticus on Slope (From Stillfilm "Monuments of Ancient Greece")

After a display of several prints and after a showing of the Stillfilms on Modern and Ancient Greece, the children were stimulated sufficiently to go to books for sources of information on our subject.

We are told that the next step following the stimulation of interest and the demand for a response, is the actual self-expression of knowledge in a definite form. My children were interested sufficiently to suggest the construction of a miniature Acropolis, but the element of time prohibited such an undertaking. Because of the splendid pictures we were able to obtain of the Parthenon, the class finally decided to build the one master temple. This thing of beauty, we know, was noted for its accuracy in line and measurement, its truth in design and proportion and its emphasis on figure and form.

The arithmetic which developed from this project occupied the class over two weeks. The art work necessary for its completion, centered upon the columns, borders and particularly the frieze. The construction of a poster back of the Parthenon became one distinct lesson as well as the fashioning of the statue of Athena. In its entirety, this project would have been absolutely impossible had it not been for the intensive use of every visual aid procurable. The fact that this year's class has *lived* more completely the life of ancient Greece than did my children of last year, can be attributed to the ever-increasing supply of visual material. The benefits derived by the workers from this study have been definite and many, foremost, perhaps, being my own conversion to the presentation of ancient Greece to an eleven-year old!

Objectives In the Study of Greece

A. Definite Problems.
   1. What effect did the physical features of Greece have upon her history?
   2. How is our life influenced by the life of the ancient Greeks?
   3. What is meant by the "Age of Pericles"?

B. To develop an appreciation of the contribution to civilization that has been made by other peoples of the world.

C. To lead the child towards the recognition of the interdependence of peoples.

D. To further develop the ability to understand the privileges and responsibilities of the citizens of the United States.

Procedure Followed In the Study of Greece

A. Presentation of the stillfilm "Ancient and Modern Greece" to introduce the subject. (No check was given after this first showing; the film merely utilized as a bird's eye view.)

B. Study of maps for location, geographic peculiarities and relief aspects. (Small maps showing harbors, city states and trade routes were made by each member of the class.)
   1. Location of cities, Athens, Corinth and Sparta, was followed by individual reports as to life and habits.

2. Concentration on Athens as the most typical and most interesting of city-states.

C. Brief reports were then given on the religion of the early Greeks which so greatly influenced all their undertakings.
   1. Study of the pictures of different Gods and Goddesses.
   2. Study of Oracles (centered around the wallprint of the Oracle of Delphi).

D. Different reports on:
   1. *Olympic Games* — (a) The wallprint of a Greek College in ancient times motivated a study of early sport; (b) Pictures of Marathons; (c) Pictures showing the development of a perfect physique.
   2. *Boats and Chariots*—The study of boats was made in connection with many pictures and related to the maps of trade and Greek colonies. The members of the group sketched small maps showing the extent of the Grecian empire and its trade routes.
   3. *Greek Theatres*—The study of the wallprint of a Greek theatre led to the study of the early Grecian philosophers. Voluntary reports were given with pictures exhibited.
   4. *Greek Temples*—The study of Greek architecture and art centered about the research on the Acropolis. Many flat pictures, glass slides and the stillfilm on the "Monuments of Ancient Greece" were here utilized. The three types of columns were studied.
      a. The Parthenon was studied intensively. The class attempted to reproduce this temple on the scale of 30"x24". The children constructed the base of the temple, used twenty-four columns, included an inner chamber, two friezes, a cardboard statue of Athena and a poster on the Acropolis. This actual building became the motivating force in the solution of many problems in measurements, as well as the spark that fired many an art lesson and composition. Our oral English centered about the building of the Parthenon, as did our spelling. The children learned one song about Greece and wrote several original poems.
      b. Lincoln Memorial was studied as a present-day tribute to the glories of ancient Greece. (Actual photographs studied.)
   5. *Good Citizenship* — The present day Boy Scout Oath is very similar to the Athenian boys' oath of loyalty.

E. A brief study of Greece today became the last step in our study. Pictures of life in Athens today, consideration of Olympic game activities since the World War, and reasons why Greece is no longer a world power became the concluding features in our procedure of research.

Outcomes From the Study of Greece

I believe the outcomes from this study of Greece very closely approximate the objectives desired. I shall state them briefly:

A. A knowledge of ancient Greece, its place in world history and its influence on all civilization.
B. An elemental understanding of Greece today and its place among world powers.
C. An appreciation of the privileges and responsibilities of the citizens in the United States for the heritage which is ours.

These outcomes are fairly specific. There are many desired elements of a more general nature which should grow out of a well-planned activity. Work habits, health habits, good citizenship, skill in all the tool subjects, appreciation of the finer things in life; all these elements have been striven towards and approached, I believe, in varying degrees.

Visual Aids Utilized

A. *Flat Pictures*
   a. Wall Prints (colored, about 24" x 32") of Greek College, Greek Theatre, Oracle of Delphi, The Acropolis Restored.
   b. Study Prints and Small Pictures of (1) The Acropolis as it is today; different temples and views; (2) Different pictures of life in both ancient Athens and modern Athens (Costumes and Customs); (3) Pictures of statues of different Gods and Goddesses; (4) Greek Theatres, Boats, Chariots and Soldiers; (5) Pictures of different types of architecture, emphasizing column types and decorative schemes.
   c. Maps (Relief, Present Political)

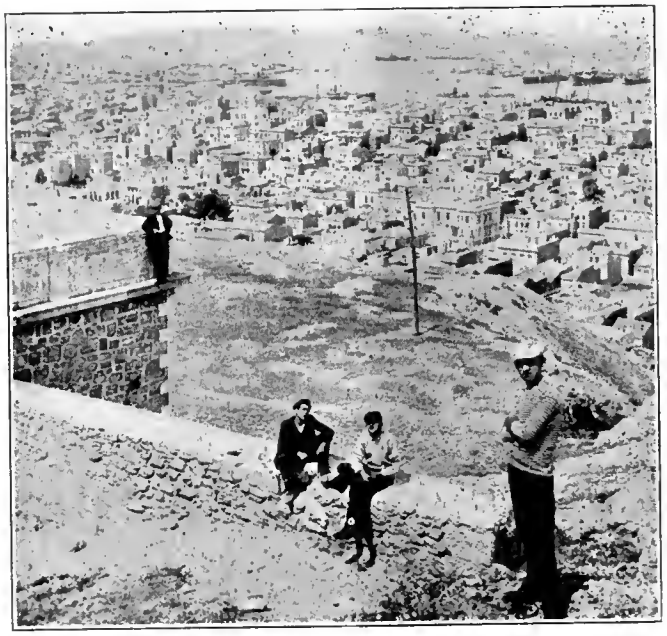
B. *Glass Slides* (listed)
   Athens (5), Corinth (3), Erechtheion (5), Marathon (2), Theatre of Dionysus (6), Mycenae (2), Thermopylae & Mt. Parnassus (3), Olympia (4), Parthenon (8), National Museum (4), Miscellaneous Places (6).

C. *Stillfilms* (3 reels)—(1) Ancient and Modern Greece; (2) Modern Greece; (3) Monuments of Ancient Greece.

Method of Using Visual Aids

The flat pictures used in the study of Greece be-

came the starting point for all research. The larger wallprints were used to introduce the subject. The smaller prints were examined in a close study. One picture of the Parthenon became an actual model, and was the primary stimulus toward the erection of the temple. The maps were used intensively, as each member of the class reproduced the physical features of Greece. One map was the basis of a review lesson, with questions concerning exact location and geographic peculiarities. Questions were listed on the board relating to one particular set of pictures dealing with the various temples of the Acropolis. The copies of the frieze on the Parthenon were dissected as carefully as possible, becoming a project in art. The pictures of the Greek Gods and Goddesses motivated a



Piraeus Athens, Seaport
(From Stillfilm "Ancient and Modern Greece")

series of oral reports dealing with the religious life of these early people.

The use of the glass slides proved a big assistance in the comprehension of Greek life on the Acropolis. These slides were utilized and checked in four distinct ways:

A. Questions were placed on the board and discussed before the showing of the slides. Consequently, the children would be very watchful for the aspects in the picture deemed of greater importance.
B. Oral reports were often required covering different phases of work seen.
C. Sometimes, after the showing of slides or a stillfilm I ask volunteers to talk on any points of interest. It is often surprising to receive a wealth of material, just as different portions of a picture may appeal particularly to different people.
D. The fourth check utilized is a test of either the completion or the true-false type.

The stillfilms were used in three distinct ways. In the first place, the study of Greece as a whole was introduced with the showing of the films on "Ancient and Modern Greece". Very little was said about the film following this first showing. General questions were answered and then the study progressed with the presentation of maps and flat pictures. The stillfilm, however, on the "Monuments of Ancient Greece" was used as the core of our research work in relation to the Acropolis and the building of the Parthenon. This film was run six different times, each display revealing new elements and interesting detail. Upon this completion of our study the introductory film was reshown. This second review was greeted enthusiastically and a myriad details were recounted and enlarged upon. Our final check test of a completion nature followed this last showing. It seemed to clinch the work in a complete summary.

My group of 6B pupils studied the country of Greece for approximately seven weeks. The project was made vital and real to them solely through the constant and repeated use of visual aids. I feel that that study was of worth principally because of the curiosity and interest displayed by the group members. I know that certain phases of the study are bound to remain with those children, because of live participation in the building of a symbol of ancient Greece, as conceived by these small folks themselves. The visual appeal has always proved the most effective. The use of visual aids, then, becomes not only elemental in the stimulation of interest and the possibility of research but a prime factor in self-expression as well. Visual instruction in this project was responsible for the inspiration, the research, and the outcome.

I truly feel that these children will never need to use the time-worn expression, "It's all Greek to me!", in the same manner that I may have used it in my earlier school life.

Geographical Conference Address

Mr. Abraham Krasker, president of the Massachusetts Branch of the Department and director of the visual instruction program of the Quincy Public Schools, spoke before the New England Geographical Conference, Clark University, Worcester, Massachusetts, at the annual conference on Thursday, May 21. A digest of his paper will appear in an early issue of this magazine.

An Experiment in Visual Education in Elementary College Chemistry

(Concluded from the May Issue)

B. S. HOPKINS
H. G. DAWSON

IN ADAPTING our plan of teaching to the use of motion pictures, it is natural that certain problems should be encountered. Perhaps the first and most fundamental problem involves the question of time. We were convinced by our previous experience that satisfactory educational results could not be obtained unless the films were displayed during the regular lecture periods. But how could time be found for the display of pictures in lectures which were already over crowded with material? We found the answer in a distinct modification of the lecture plan. The lecturer had formerly been accustomed to make drawings on the blackboard and to use charts for explanatory purposes. These were replaced with lantern slides and by this plan better drawings were possible and the time needed to make the drawings was saved. In displaying the motion pictures it was very necessary for the lecturer to make preliminary explanation, but the utmost care was needed to avoid duplication. If the lecturer is thoroughly familiar with the details of the film, it is possible for him so to adjust his explanations as to make clear the lesson of the film and at the same time to avoid needless repetition. This is not an entirely simple task to the lecturer who has been accustomed to making the entire explanation in his own way, but careful planning will solve the problem. When motion pictures are properly presented, it is our opinion that they do not take more time than the old method. We believe a good film will permit the thorough presentation of a topic in less time than is usually consumed without such aids.

It is important in avoiding delays to secure close co-operation between the lecturer and the operator. We found that a complete understanding between these two persons could be secured if the film was studied jointly with a record of the time required for the display of each of the scenes. After determining in this manner how much of the reel could be shown or how much time was required for those scenes which were essential, a rehearsal in the exact form to be used is well worth while. In addition, if a code of signals is used, there is little likelihood that a delay will be caused by misunderstanding or even by an emergency change in plan during the progress of the lecture.

In our usual lectures the students are not required to take notes, and some of our best students take no lecture notes at all. In general, however, the students attempt to take rather full memoranda of all that is said in lecture. The introduction of the methods of visual education produced a new problem in note taking. When lantern slides were being used the side lights in the lecture room were left burning and this permitted the taking of notes. But when motion pictures were shown the entire room was darkened, so note taking was impossible. As a result it was necessary to depend entirely upon memory, and in a surprising number of cases it was evident that very little was remembered.

The most serious difficulty which we encountered in our attempt to teach chemistry by motion pictures came from the fact that the scenes changed so frequently that the student observer retained no clear cut mental impression of what he had seen. When the picture involved a new process or required the observer to retain a series of definite mental impressions, it was evident that the great majority of the students were failing to respond. This is due largely to the fact that the changes come so rapidly that the mind is unable to grasp the outstanding features of the display. One impression follows another so fast that the memory fails to retain them and only vague and indefinite impressions result. The lecturer must always remember that the film and its story are familiar to him, so that a presentation which may seem to him to be complete and deliberate, may seem to his students to be hurried, incomplete and lacking in clearness.

It is no easy matter to overcome this difficulty, especially when the lecturer desires to embellish his lecture with a liberal showing of attractive pictures and so proceeds at top speed in order to save time. There are at least two plans which may be used successfully in the attempt to impress definitely the important lessons of the film. First, if the projector is stopped at critical points in the display so that the lecturer has time to point out the outstanding facts of the picture, a more lasting mental impression will result. The time required for this process ought not to be great, nor should

the interruptions be too frequent. A second and perhaps a better plan for regular use is to employ motion pictures for review purposes after the student has had the opportunity to study the process in detail from his textbook. To carry out this plan it is suggested that the lecture be delivered with lantern slides and other aids of this sort but without motion pictures; then in preparation for his regular recitation the student studies the description from his textbook; at the scheduled hour for his recitation his instructor goes over the principles of the process and the student has an opportunity for asking questions on points which may not be perfectly clear to him. After these repeated contacts it may be assumed that he is somewhat familiar with the process. If at the next lecture the first few minutes of the time is allotted to the display of the motion picture of this same process, it is certain that the educational value of the film will be much greater than could be expected if the picture is shown without thorough previous preparation.

At the inception of our experiment in the use of visual aids no statement was made to the class calling their attention to this new feature. The displays were given as a regular part of the lecture work, and no attempt was made to stress the educational value of the pictures. As the weeks went by it became evident that the students were coming to regard these pictures as a pleasant relief from the routine of chemical lectures, but that they were not making any definite effort to learn chemistry from the pictures. This we have attributed largely to the fact that in the minds of the students a movie is an entertainment whose value is to be measured by the pleasure it affords. As a consequence the educational value of our pictures was largely missed. To counteract this tendency the instructors were urged to ask questions upon the pictures and in the formal written tests some stress was placed upon this material. It is evident that if visual education is to become a potent factor in teaching chemistry those directing the work must be alive to the tendency to regard movies as entertainment only. This is not a difficult matter if its early symptoms are detected and steps taken to establish the educational importance of the films.

The most difficult task in connection with an experiment of this type is the interpretation of the results. It is especially difficult in the present instance to draw any very definite conclusions from the experience of this one semester's work. On the side of what might be called the intangible results, it was quite evident to the observers that visual education was popular with the students. They welcomed the pictures eagerly, showed keen interest in their display and upon at least one occasion they remained after the dismissal bell was rung even at the risk of being late to the next hour classes. It was evident also from the questions asked that the pictures aroused interest in the chemical processes and made them much more real than they could have been otherwise. We regard this as an important point, because so frequently students at this stage fail to establish any connection at all between the discussions in the chemistry classroom and the important commercial and domestic affairs of every day life. If the use of motion pictures will give to our students a proper perspective of the functions of chemistry in connection with our complicated modern life, then we believe that they will do much to take away the sting of the academic and to establish a notion of the practical and useful.

A study of the tangible results of the semester's work in the form of grades is highly desirable. The group of students selected for this study was just beginning the second semester's work, which is devoted to a study of the metals. The course known as Chemistry 5 includes students in Agriculture (60%), in Home Economics and Premedical Courses (40%). Women composed 25% of the total enrollment, mostly in Home Economics. The total enrollment in the course was 297, and these were divided into two identical lecture sections. Three checks upon the accomplishment of these students were possible (1) with a contemporary class in Engineering (293 students); (2) with a contemporary class of Chemists, Chemical Engineers and Chemistry majors (191 students); and (3) with similar classes of preceding semesters. Of these three groups, the first two had identical previous training so far as college chemistry was concerned; and the classes of previous semesters had identical training except with respect to the systematic use of lantern slides and motion picture films.

FIVE YEAR AVERAGES FOR SECOND SEMESTER

1930-31	Number Withdrawn	Av. Final Exam.	Av. Final Grade	Percent Failure	Percent A and B
Chem. 4	22	75.0	80.0	7.3	48.0
Chem. 6	9	78.9	84.1	3.4	59.1
Chem. 5	21	73.9	80.1	6.9	50.1
Chem. 5	19	76.6	80.0	6.8	44.4

Table I

Table I shows the five year averages of these groups of students. It is to be noted that the educational accomplishments of the Agricultural and Medical students of Chemistry 5 are closely parallel

(*Concluded on page* 172)

Visual Education in the Federal Government

MARGARET A. KLEIN

WHAT part does Uncle Sam play in visual education and what is the place of this phase of education in the work of the Federal government? These are questions that should concern every visual education worker.

Because every phase of our existence is actually reached by the government, either directly or indirectly, the visual presentation of the many facts disclosed by the government's research offers a wide selection of material which would be of interest to teachers as well as to the general public.

The expenditure of funds for the purpose of presenting the results of the government's research in popular form has been authorized. At present the methods used for this purpose include exhibits, motion pictures, slides, film strips, posters, and publications.

Since this is the last issue of THE EDUCATIONAL SCREEN combined with VISUAL INSTRUCTION NEWS for the current school year, I shall not try to describe in detail the visual material of the various departments. I shall try to introduce this phase of the government's work by telling in a general way which government agencies are now concerned with visual presentation of facts. Future articles on the work of the government in the field of visual education will include complete descriptions of the work of the individual agencies and the kind of material available as well as the means for obtaining it or, at least, of viewing it. Although there is a great deal to be done before we can boast of an extensive line of government graphic material, the fact remains that there is at present some very good material available which should be familiar to every student of visual education.

The Smithsonian Institution has some very good permanent exhibits which are educational in nature. Since thousands of school children visit Washington annually, it would be well for teachers to be familiar with these exhibits and in turn acquaint the pupils with them so that they might view them while they are in Washington. There are historical exhibits in the historical section of this institution that are for the exclusive use of this museum and consequently there would not be the opportunity to view them any place except in Washington.

The American Red Cross, although not a government agency, is so closely allied to the government that its exhibits may be included in the government list. This organization has many attractive posters as well as a number of instructive exhibits on display in its building in Washington.

The Department of Agriculture has probably developed more phases of the visual education work than any other government agency and it has also developed them more extensively. The Extension Division, which is the division in charge of the work, produces through its various sections motion pictures, slides, film strips, charts, posters, and educational exhibits. An excellent photographic service with expert photographers is not only one of the services connected with these sensory aids but also provides photographic illustrations for many articles on agricultural subjects.

The Department of Agriculture has its own motion picture laboratory where scenarios are written and all the production work is done. The films are lent free except for transportation charges. Information concerning the films can be secured by writing to the Office of Motion Pictures, U. S. Department of Agriculture, Washington, D. C. In addition to producing pictures, this section performs a service that is quite helpful to other government agencies not so well equipped for film work. The service I refer to is the demonstrations of motion picture equipment and various kinds of projectors to which representatives of other government agencies are invited.

The office of the educational exhibits, Department of Agriculture, has a well trained corps of artists, electricians, carpenters, and many kinds of experienced mechanics. Each exhibit is carefully planned and the method of presentation selected which is best suited to the subject material of the exhibit. Interesting facts concerning dairying and stock raising, poultry farming and forest conservation, improvements that have been developed in the interest of farming, agricultural economics, and new ways and right ways of solving agricultural problems are all portrayed in an interesting and novel manner. The "talking exhibit" is one of the recent developments of the Department of Agriculture's exhibit section. By means of certain mechanism, a little pig, a very fine hen, one of the best bred cows, or the mild little sheep will inform an audience in a very scholarly and instructive discourse how to test cows, or how to raise the best kind of sheep.

Since the summer vacation will soon be here and also the summer fairs and expositions, it is quite timely to bring to the attention of teachers and others interested in visual education, the fact that the educational exhibits of the Department of Agriculture are part of

many of these fairs and expositions. Write to the Office of Exhibits, U. S. Department of Agriculture, Washington, D. C., and they will tell you whether their exhibits will be part of the fairs in your vicinity.

A list of motion pictures may be secured from the Bureau of Mines, Pittsburgh, Pennsylvania. The Bureau of Reclamation, Department of Interior, Washington, D. C. also has some motion pictures which may be borrowed for transportation charges. Charts and posters may be secured from the Government Printing Office, Washington, D. C. at a very small cost. Material that will be of interest to social science classes may be secured from the U. S. Department of Labor, Washington, D. C.

The research work in visual education has also received some consideration from the government. The motion picture division of the Department of Commerce has conducted considerable research concerning the use of motion pictures in the schools and the results have been tabulated and published. Although the government's publications cannot be classed as visual material the subject material will be quite useful to teachers or anyone who contemplates making posters, charts, or maps or for carrying out visual projects with the use of the sand table. Lists of publications may be secured free by writing to the agency in which you are interested.

In the future articles planned for this department, many phases of visual education will be discussed and complete descriptions of the material available as well as the visual education work of the individual agencies will be discussed. New material will also be listed so that teachers will have an up-to-date file of the visual education work of the government.

Visual Education in Chemistry

(*Concluded from page* 170)

to those of the Engineering students in Chemistry 4, while the Chemists (Chemistry 6) make somewhat better records. Below the line is given the record of the experimental group of last semester with whom we used visual education methods. When the accomplishment of this group is compared with that of the preceding five years we see some improvement in the average final examination grade but a distinct decline in the percent of students who win A and B grade.

SECOND SEMESTER 1930-31

	Number Enrolled	Number With-drawn	Av. Final Exam.	Av. Final Grade	Percent Failure	Percent A and B
Chem. 4	291	16	80.5	81.3	3.3	50.9
Chem. 6	193	14	77.8	80.9	4.5	49.7
Chem. 5	297	19	76.6	80.0	6.8	44.4

Table II

In Table II we can compare the accomplishment of students using visual education with others of equal training who did not use these methods. From this table alone it might be concluded that students who are taught by visual education methods are not as successful as those who used other methods. A comparison of Tables I and II indicates that no definite conclusions can be drawn from these data.

COMPARISON OF FINAL EXAMINATION RECORDS

Chemistry 5, June 1931

	Number Enrolled	Average Grade per Question in Final Examination	Average on Visual Education Question
Lecture A	148	7.78	7.28
Lecture B	149	7.55	6.18

Table III

Table III shows the results of an attempt to definitely determine the value of visual education so far as this group of students is concerned. Each lecture section had its own final examination, and in each there were two questions which were based specifically on some of the pictures which were shown during the semester. It is to be noted that the average grade upon the answers to these questions is less than the average grade per question received upon the examination as a whole.

We believe that no definite conclusion can be drawn from this experiment regarding the educational value of motion pictures in the teaching of general chemistry. It is probably better to allow each one to draw his own conclusions. There are, however, several points which should be kept in mind. This is our first experience with systematic visual education methods, and we are fully conscious that we have made mistakes which can be avoided in the future. Furthermore our experience has been far too limited to permit us to pass judgment upon this new form of education. We believe that others may profit from the mistakes which we have made and the disappointments which follow a study of the semester's achievements. We wish to affirm our faith in the educational value of motion pictures and to express our belief that visual education will furnish a valuable method for the training of the youth of the future. From our experience so far we are satisfied that including motion pictures in chemical lectures will not relieve the lecturer of his responsibilities, but it will require him to adjust himself to a new situation. If this can be done successfully, then we believe that general chemistry will at least become less painful and it may even become more practical and more definitely educational.

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.

Begin Production on Series of World's Fair Motion Pictures

Astonishing progress in industry during the past one hundred years brought about through man's ingenuity and development of scientific methods will be vividly dramatized in a series of silent and talking motion pictures being produced by national industries in connection with A Century of Progress International Exposition to be held in Chicago in 1933. The films will be loaned to schools, churches, clubs and other responsible organizations without cost by Atlas Educational Film Company.

Unusual and wonderful buildings of the Exposition will be shown, and thousands of interesting exhibits will be used to best interpret the progress of the past century. Thus in the first of the film series, a one reel picture showing advancement in the food industry, will be shown. Life in old Fort Dearborn, Chicago's early fortress, in the beginning of the nineteenth century, also will be shown. Incidents of fort life, such as preparation of basic foods, trading with friendly Indians, and activities of the soldiers will be photographed with particular care given to reproduction of historic details as they actually existed one hundred years ago. History will repeat itself under the vigilant eye of the motion picture camera. Then will follow the many steps in food manufacture that led to the modern and scientific methods now used.

So it will be with films to follow in the series. Dramatic episodes will portray progress and achievement in numerous industries, from food to furniture. The amazing contrast between the old and the new will be shown, vividly and colorfully, and the progress that no other century in the history of mankind has witnessed will be recorded for the benefit of the many thousand educational and civic institutions in all parts of the United States and also in other parts of the world.

Some idea of the vast amount of advance preparation and record breaking accomplishment of A Century of Progress will be given with the showing of the numerous buildings and exhibits that have been completed for more than a year previous to the official opening of the Exposition. A touch of the spectacular will be introduced with thrilling scenes of the fair grounds taken from the air at night, with fantastic and brilliant electrical lighting effects displayed that no other World's Fair has produced.

Production on the first film in the series is already under way and will be ready for distribution in the early summer. The series will be available in both silent and sound editions in both 16 mm. and 35 mm. sizes.

Pupil's Health Play Recorded by Camera

A motion picture entitled *Grandfather Molar*, showing the presentation of a dental health play by pupils of the Eugene Field School, Chicago, was given its premier showing recently before the bureau chiefs of the Chicago Board of Health, with the president of the board, Dr. Herman N. Bundesen, at the movie projector.

The movie depicts the story of the preparation of the dental play—how the desire for producing the play grew out of a motion picture health lesson, how a scenario was selected, and scenes and properties built or collected—and then shows the play itself as it was given in the school auditorium.

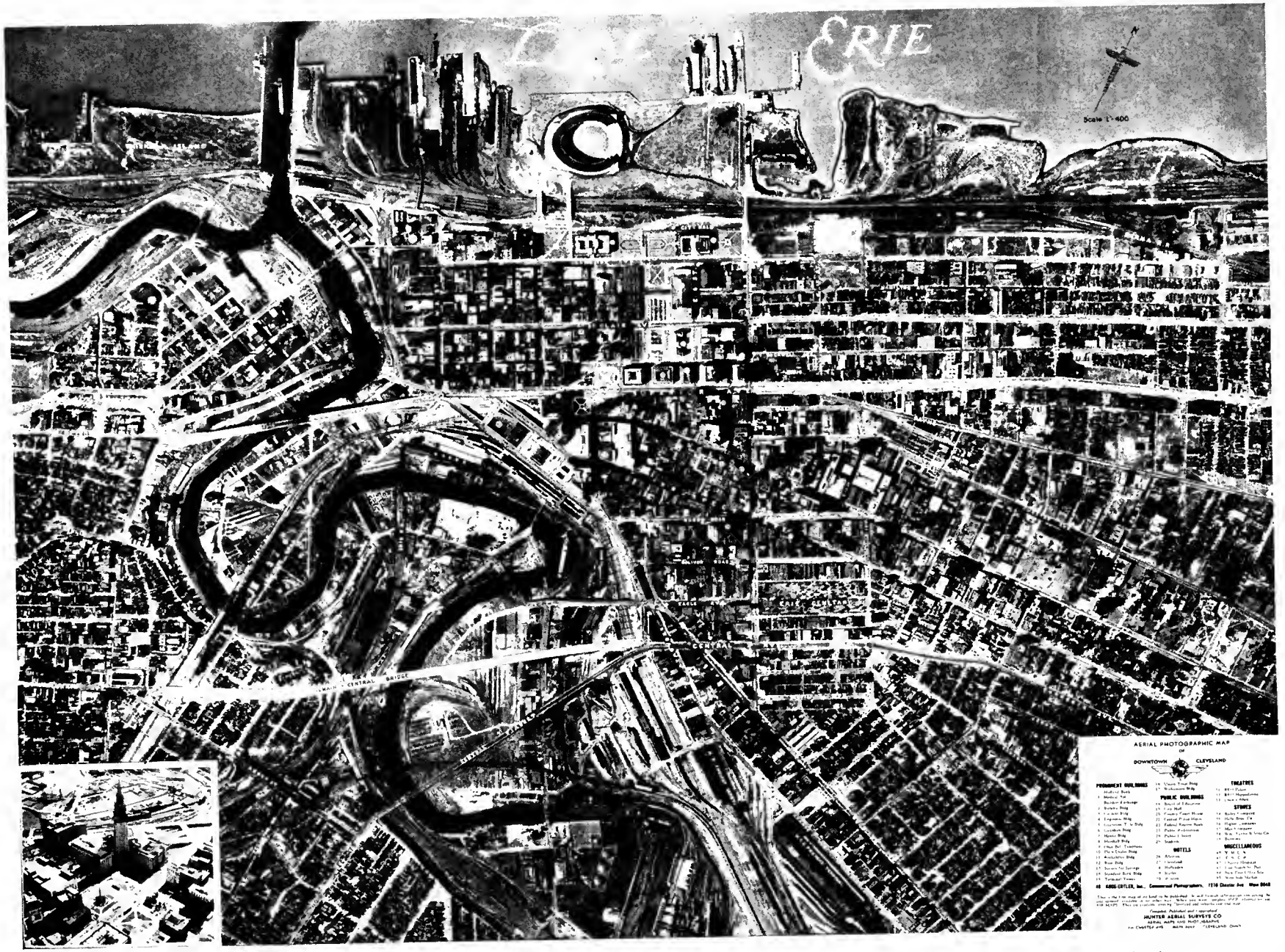
The picture was made with an amateur movie camera by W. F. Kruse, head of the Educational Department of the Bell & Howell Company, and Dr. L. W. Morrey, in charge of the dental service of the Chicago Board of Health. It was produced under the joint sponsorship of the Chicago Board of Health and the Chicago Dental Society.

The film will shortly be made available for showing to teachers and pupils the country over. Applications for securing the film on loan may be addressed to the Chicago Dental Society, 185 N. Wabash Ave., Chicago. It is planned to loan it free to responsible schools and organizations on payment of transportation charges.

New Sound Productions

The Metropolitan Motion Picture Company has completed a four-reel 16 mm. sound motion picture for the Leonard Refrigerator Co. entitled *After Half A Century*, which depicts the different operations and precision methods used in building both the cooling units and the cabinets.

(*Concluded on page* 177)



ON THIS map you can see the city of Cleveland in miniature, just as it would appear if you could study it from a vantage point in the clouds. There is no detail omitted, none added. The accuracy of the information cannot be doubted.

The Geography of Cleveland from the Air

By W. M. Gregory, Director, Educational Museum

(Mr. Glenn Hunter of Cleveland has presented to the Educational Museum of the Cleveland Public Schools, copies of the Cleveland Air Map 27" x 36" for use by pupils in studies of Cleveland. The superiority of air views for geography instruction is recognized by textbook writers who are including many air views in the new editions of geographies. The accompanying suggestions have been prepared for the use of teachers and pupils.)

THIS is an air view of Cleveland. It was taken from an airplane 7,200 feet above the Public Square on September 1st, 1931 at 2:30 P. M. The temperature on the ground when the picture was taken was 62° and in the airplane it was 42°. It shows an area of about twelve square miles at the center of the city.

1. Point to one place where you have been. Name it.
2. Which way is north in the picture? Find the compass directions.
3. Place your view on a table facing north.
4. Is East 9th Street a north and south street?
5. Select two points that are one mile apart.
6. Point to the two bodies of water that are important to Cleveland.
7. How does the picture show that Cleveland is a place where land and water routes meet?
8. Show some of the ways in which the lake front is used.
9. What time of the year was this picture taken? Prove it.

The Cuyahoga River

10. Start at the mouth of the Cuyahoga river and trace it upstream. What is noticeable about its course?
11. How wide is the river? Where is the old bed of the river?
12. Can you suggest why the channel from the river to the lake was made?
13. Place a string on the river from the mouth to the southern edge of the map. If the river were straight how much would it shorten the distance?
14. Can you suggest any advantage in having a meandering river instead of a straight one?
15. Was this curving river of advantage in the early shipping of Cleveland? Why?
16. What do you see in the river near its mouth?
17. What do you see at two of the sharp bends in the river? How long are these boats? How far up the river can they go? How rapidly can they travel in the river?
18. Can you point out "Collision Bend"?
19. Why so many bridges? How many? Why the different kinds?
20. The first bridge between Cleveland and Ohio City was built in at Columbus Road. This was a narrow part of the river. Find the site of this old bridge.
21. Do you see a bridge sketched in?
22. Do you find the old viaduct just north of the High Level Bridge?
23. Do you see a boat unloading ore? Where?
24. Does anything suggest that the Cuyahoga river carries considerable silt? Why?

Lake Erie

25. Show how the lake front is used.
26. What is the harbor line? Point to it.
27. Where is the outer harbor?
28. Why does Cleveland have a breakwater? Can you see it?
29. What guards the harbor entrance?
30. If you took a ride on a lake boat, show the dock where you would go to take the boat. Can you name the large boat at the dock?
31. What other passenger boats are docked?
32. Where is the "city dump"? What is the purpose of this dump?
33. Trace 9th Street from Lake Erie to the Erie Cemetery. What streets does it cross?
34. Locate the coal loading docks on the lake front. How many?
35. Can you find a boat loading coal?
36. Where is the anchorage for the Cleveland Yacht Club?
37. Where is a good place for an airport?

Industries of Cleveland

38. Put your hand on the industrial section of the city. Why is this an industrial center?
39. What industries can you identify?
40. How is the river important to some of these industries?
41. Does the lake influence some of these industries?
42. Make a list of all railroads entering Cleveland and trace their route through the city.
43. What is the relation of each railroad to industry in Cleveland? Can you prove your statement from the view?
44. Find two freight depots. On what railroads?
45. Locate two railroad yards for handling iron ore, coal, and general freight.
46. Does the view give any hint for Cleveland's importance in the iron and steel industry?

Some Buildings and Streets

47. Find the four parts of the Public Square.
48. Account for the direction of Euclid Avenue and Broadway.
49. The main streets extend in what direction? Why? Where do the streets seem to center?
50. Put your hand on the part of the city that appears to be mostly homes.
51. Put your hand on the part of Cleveland where there are many large stores. Can you explain their location?
52. How large is the Stadium?
53. Starting at the Stadium move south to the terminal building. Name some of the public buildings that you pass.
54. Trace out the Public Mall.
55. Can you locate the Board of Education building?
56. Point to the Public Library?
57. Can you point to the statue of Moses Cleveland? Abraham Lincoln?
58. Trace Carnegie Avenue westward and explain its importance in the traffic problem.
59. Trace out another cross-town street.
60. Trace out a location for a lake front boulevard.

Some Geographical Activities for Pupils

61. Make a list of the geographical advantages that are important to Cleveland.
62. Suggest how the lake front will be of advantage to Cleveland in its future growth.
63. Can you explain why the "flats" is the industrial center of the city? Prove it by the picture.
64. What physical feature has determined the East Side and the West Side? The "Flats"? The Lake Front?
65. Note the original plan (1803) of the city which is shown in the streets about the Public Square. Why were the streets not laid out in a true north and south direction? Why is the direction of Euclid and Prospect Avenue almost a true east and west?
66. Make a rapid sketch map of Cleveland showing the geographical factors that have aided the growth of the city into a commercial and industrial center.
67. Can you suggest changes in any of the physical features that would aid the growth of Cleveland?

DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

Interesting Summer Program Planned

The first meeting of the combined Department of Visual Instruction of the National Education Association and National Academy of Visual Instruction will be held in Atlantic City, New Jersey, on Monday and Tuesday, June 27 and 28, 1932. The sessions will be held in the Solarium of the Hotel Jefferson, preceded by registration from 9:30 to 11:30 A. M., Monday. The program has been so arranged that it will not conflict seriously with the general sessions of the N. E. A.

All sessions of the combined Department and Academy will be open to anyone who may be interested and there are no registration fees. Only those who are members will be eligible to participate in the business meeting but the suggestions of those who are not members, presented through appropriate committees or by members, will be given careful consideration.

The following is a detailed program of the session, which will be followed as closely as possible. Those who expect to attend the luncheon meeting on Monday should make reservations by mail, directing them to the local chairman, Mr. A. G. Balcom, Assistant Superintendent of Schools, Newark, New Jersey, and should call for tickets as early as possible after the opening of the registration desk on Monday.

First Session

Luncheon, 12:15 P. M., Monday, June 27

Theme—*Looking Forward in Visual Education*

(Program organized by F. Dean McClusky, Director The Scarborough School, Scarborough, New York)

Presiding—George W. Wright, President, New Jersey Visual Education Society.

Address—"The General Value of Visual-Sensory Aids in Teaching as Demonstrated by Research," Daniel C. Knowlton, Professor of Education, New York University.

Address—"The Major Values in Visual Instruction," Ben D. Wood, Professor of Education, Teachers College, Columbia University.

Second Session

2:30 P. M., Monday, June 27

Theme—*Values of Visual-Sensory Aids by Types and Subjects*

Presiding—John J. Jenkins, Director of Visual Instruction, Bronxville Public Schools, Bronxville, New York.

(Each speaker will be limited to ten minutes for presentation)

I. *The Value of Visual-Sensory Aids*
   1. *In Teaching Reading to Adults* — Winthrop Talbot, Chairman of the Section in Adult Education, New York Society for the Experimental Study of Education, New York City.
   2. *In Teaching Arithmetic and Spelling*—Claire Zyve, Principal, Fox Meadow School, Scarsdale, New York.
   3. *In Science Teaching*—William Lewin, Central High School, Newark, New Jersey.
   4. *In Industrial Arts*—Leonard A. Williams, Director of Visual and Industrial Education, State Teachers College, St. Cloud, Minnesota.
   5. *In the Social Studies*—Lawrence R. Winchell, Rutgers University, New Brunswick, New Jersey.

II. *The Value of Types of Visual-Sensory Aids*
   6. *The Object-Specimen-Model* — Kathryn Greywacz, Curator, Trenton Museum, New Jersey.
   7. *The School Journey*—Raymond Riordon, Director, Raymond Riordon School, Highland, Ulster County, New York.
   8. *Pictorial Materials*—Winifred Crawford, Director of Visual Instruction, Montclair, New Jersey.

The New Jersey Society of Visual Education will give a reception to members of the combined Department and Academy and their guests, Monday evening, in the Solarium of the Jefferson Hotel.

Third Session

1:30 P. M., Tuesday, June 28

Business Meeting

Presiding—C. F. Hoban, Director, The State Museum and Visual Education, Department of Public Instruction, Harrisburg, Pennsylvania.

I. Reports of Committees
   A. *Plans for Merged Organizations and Publicity* —John A. Hollinger, Director, Department of Elementary Science & Visualization, Pittsburgh, Pennsylvania.
   B. *Membership and State Organizations*—Daniel C. Knowlton, Professor of Education, New York University.

C. *Core of a Visual-Sensory Aids Program*—Wilber Emmert, Instructor in Visual Education and Science, State Teachers College, Indiana, Pennsylvania.

D. *Standing Committees* —by the respective chairmen.

E. *Resolutions*—A. G. Balcom, Ass't Superintendent of Schools, Newark, New Jersey.

II. Suggested Methods for Informing the School People of the Country on the Following Declarations:

A. Experimental studies, research, and surveys have revealed definite and important values for visual-sensory aids.

B. A knowledge of these visual-sensory aids and a technique for their use requires special preparation.

C. The contribution that visual-sensory aids make to improved instruction justifies a requirement that every teacher in training in the public schools of the United States take a laboratory course in visual-sensory aids.

D. Some means should be developed to train teachers in service in this course.

III. Suggestions for the Minneapolis Meeting (February, 1933)

IV. Objectives for Next Year—

A. A program of teacher training.

B. Relating visual-sensory aids to the curriculum.

V. Report of the Secretary-Treasurer—Ellsworth C. Dent, Bureau of Visual Instruction, University Extension Division, University of Kansas, Lawrence, Kansas.

VI. New Business

Officers of the Combined Department and Academy

President—C. F. Hoban, Director, The State Museum and Visual Education, Department of Public Instruction, Harrisburg, Pennsylvania.

First Vice-President—F. Dean McClusky, Director of Scarborough School, Scarborough - on - Hudson, New York.

Second Vice-President—W. W. Whittinghill, Assistant Director of Visual Instruction, Detroit, Michigan.

Secretary-Treasurer—Ellsworth C. Dent, Bureau of Visual Instruction, University Extension Division, Lawrence, Kansas.

Local Chairman—A. G. Balcom, Director of Visual Instruction, Newark City Schools, Newark, New Jersey.

Film Production Notes

(*Concluded from page* 175)

Radio Magic, a one reel sound motion picture featuring a new short wave length radio receiver, has just been produced for the Stewart-Warner Corporation of Chicago by the Atlas Educational Film Company in co-operation with the Metropolitan Motion Picture Company of Detroit.

The film traces briefly the development of the radio from the small crystal set to the present Stewart-Warner creation which offers the last word in radio reception. The film then describes, by means of animated drawings, the route traveled by both long and short radio waves in relation to the earth's surface. Reception of programs from foreign stations, ships at sea, police radio messages, communication between airport operator and pilot, and finally an S.O.S. message from a sinking steamer are all dramatically pictured and described.

Many dealers are planning the use of copies of the film for showing before educational institutions.

Modern Dairying in Hawaii Filmed

While Hawaii is on the edge of the tropics where good milk is seldom found, modern dairying has been instituted with the latest equipment, patent feeds, imported mainland herds and utmost sanitation, according to Clarke Irvine, world traveler, writer and cameraman who is finishing the production of a one-reel educational film called *Modern Dairying in Hawaii*, which will be ready for release in both 16 and 35 mm. this summer.

This dairy which is featured, is the Hygienic, formery the Hibiscus, purchased and remodeled completely by Col. Charles E. Davis, retired army surgeon who was an early aggressive for pure milk in New York. He wrecked the old buildings and replaced them with modern steel and concrete construction, imported a herd from the middle west and gave Hawaii a taste of genuine golden Guernsey milk, with cream that has to be pulled from the bottle with a spoon!

Col. Davis has set a precedent in Honolulu, importing scientific feed as worked up by the university experimenters. Various other modern ideas have been incorporated in the dairy, and all of this is pictured together with wonderful tropical scenery, the broad Pacific, and the "pleated" mountains that tower behind the dairy's 1400 acre tract.

Irvine, who toured with *The Birth of a Flower* lecturing in the South Seas and Orient, is preparing to make several one reel features of Hawaiian scenes and customs, for educational purposes.

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Chicago Summer School of the Air

The Chicago Daily News Broadcasting Station, WMAQ, will embark on a new educational venture this summer. It will provide instructional work for children of elementary and junior high schools, which will center about the Social Studies, Geography, Literature, Mathematics and General Science. This will be an extension of the educational work it does during the regular school term, and will be given by the same staff of broadcasters, who are thoroughly familiar with the school curriculum.

While in no sense will this work take the place of that done by the teacher in the classroom, it will provide that supplementary instruction that is so valuable in giving background and understanding to the work of the schools.

It is not presumed that satisfactory instruction can be given exclusively by radio. It will require some mature person to direct the children in their application and activity during the period of the broadcast and during the period of study for carrying out suggestions and reference study between broadcasts. This requires a local leader for the group, whether that group consists of one or a number of children. The Parent-Teacher organizations have always been interested in school extension and vacation experiments; many of the churches maintain vacation schools; many former and present teachers are interested in developing local special classes for children during vacation periods; librarians maintain story hours, YMCA's conduct classes.

Work-books have been prepared giving the lessons or units to be covered during the summer school session; outlines, references and suggestive study are given for each grade or subject taught. As the work progresses reports will be asked for from the leader, also papers and samples of the pupil's work, for correction or comment. A final achievement test will be given for those who desire it.

It should be distinctly understood that no grade promotion should be expected. The satisfaction that should come to a parent and to the pupil in the "Summer School of the Air," of time well spent, of new and better attitudes, skills and knowledge secured and of deficiencies made up should be sufficient reward.

Directory of Agricultural Films

An extensive directory of 16 mm. motion picture films available in the field of Agriculture has just been issued by the Library Division of the Bell & Howell Company. This compilation should be of particular value to county agricultural agents, agricultural societies of every kind, and teachers and students generally. Many individual agriculturists, who to an increasing extent are adding the 16 mm. movie projector to the radio, iceless refrigerator, and similar up-to-date furnishings of the modern electrified farm home, will find the directory decidedly useful.

Twenty-seven mimeographed pages, 8½ x 11 inches in size, are devoted to listing the films. To these pages are added a number of interesting articles on "The Motion Picture in Rural Activities", "Advantage of 16 mm. Film", etc. The directory is bound in a cover and may be had on request to Bell & Howell Company, 1801 Larchmont Avenue, Chicago, with 8c in stamps to cover mailing.

Visual Activities in New York City Schools

The New York High School of Commerce have a miniature museum which contains exhibits showing the various stages of a commodity from its raw form to the finished product. Although products from all over the world are displayed, they are donated by the New York offices of such companies as: The American Brass Company, Cluett, Peabody and Company, the Consolidated Gas Company, the Edison Company, and the L. E. Waterman Company. Universities and the Philadephia Museum are also contributors.

▲ ▲ ▲

At one of its recent meetings, the DeWitt Clinton High School Pan American Club and many of their invited fellow Pan Americans from the clubs of other schools heard the thrilling story of Commander George M. Dyott's South American adventures, which were simultaneously shown in a motion picture of extraordinary interest and beauty. Dr. Hymen Alpern, head of Clinton's Spanish Department, stressed the value of such a program in making students conscious of the rest of America.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

Atlantic Monthly (May) "But Is It Art," by William Orton, now Professor of Economics at Smith College, repeats the question that "has been asked before." He states, by way of introducing his splendid discussion that "years and years ago when Mary Pickford was just Gladys Smith and the prince of pantomime was 'doing' the London halls with Fred Karno, D. W. Griffith was thinking it over, hopefully. And certainly there have been movies now and then that deserved an affirmative answer. But technique has never yet stood still long enough to get the question finally disposed of. Now we have sound—such lots of it—with color on the way. Mass entertainment becomes more massive, its finances more gigantic, its publicity machine more formidable, day by day. Radio, linked up with the movies and what is left of vaudeville, has now captured the entire concert management business; and here is the RCA-Rockefeller combination building what it calls 'a city of art' . . . . The question is still open. Is it art?"

The author has stated his argument beautifully, emphasizing the very serious element so frequently overlooked in such discussions,—that of speed in technical development. While the block system racket and similar commercial ramifications are to be blamed for the present state of the cinema, it is seriously true that time has not permitted much but a breathless and somewhat bewildering keeping in step with the terrific pace in technical evolution. The author then asks "Who cares? I do. And who am I? I am one of many thousands, mark you, Mr. Movie Producer (though I suppose mere thousands are nothing to you)—who have learned somehow to know good from bad, true from false, in more things than clothes, food, and tobacco. You will find us everywhere—from college classrooms and faculty clubs to the fur trades, the hat trades, the needle trades, of New York, Rochester, Chicago, Cincinnati, and points west. I admit you have the aces—as a class we are not rich, but other trades than yours find us worth cultivating. We are not highbrow. We are not socially important enough to make discrimination a disguise for snobbery. We read detective tales (and how we have jacked up their quality, by the way!) along with Thomas Mann and Artsibashev . . . I think you would feel at home with us, Mr. Movie Producer—or you would have done so ten years ago, before you took yourself and your bank account so seriously.

For what we want is not so much the æsthetic—that term has an anæmic sound to modern ears—as the real, the significant, the vital. And to us most of what you offer is as dead as last Sunday's mutton. The cinema must fulfill the prerequisite that applies to all art in any medium whatever: namely, the discovery of something to say, and a way of saying it, uniquely fitted to the particular means of expression.

The development of the silent picture in eliminating the tedious and ridiculous captions and telling a true story of movement in direct and often beautiful picturization was full of promise. But the accession of sound set the whole industry back upon the wrong road—the road of imitation. Here we have a special case of a general and very interesting problem—the relation of technique to art in an age of applied science. In the thirteenth century there was no such problem—for the simple reason that technique was almost entirely manual.

Professor Orton points out that while accumulated wealth was essential then, as now, there was no monetary gain to be made. The great ages of art had no need to produce profit so that "the work people . . . derived an advantage largely denied to workpeople today." The author also indicates that the social pattern of those centuries, based on the fact of manual technique, protected art.

Professor Orton, in his commentary upon the cinema as entertainment asserts that:

Bad taste, false sentiment, and downright vulgarity abound in endorsed pictures—to say nothing of the unendorsed pictures which go merrily on. The European movie, technically inferior as it often is to the American, is far more stimulating, because it is free both to deal seriously with important social issues and to make fun of things in general—including such sacrosanct affairs as marriage and divorce. The American movie, its system clogged and constipated with a sticky diet of stale ideas, has rendered itself almost incapable of either good drama or good farce.

In Section V of his article the writer surveys specifically the points at which the movie industry has developed a beginning of individual technique. The interest that individuals and small groups of individuals, even in Hollywood, have shown in a purely technical aspect of the cinema is a possible door through which salvation may come. Professor Orton feels that a genuine cinematic technique developed as such, may, in turn, be compelled to find something significant to say.

He then discusses cinematic technique itself that may, of its own momentum, push the film forward

into the realm of meaning. Cinema consists of three elements — image, movement, sequence. There follows a scholarly presentation of each of these elements, with the analogies drawn from the other arts and with the special work of technical artists in the film field. It is summed up as an art "that is only just struggling into the Hollywood consciousness."

The seventh and last section of this stimulating exposition concerns itself with some vital suggestions as to the "tabloid tastes" of the American public.

The American cinema for many years has based its policy upon the appeal to the mob mind. It is now paying the penalty—the financial penalty—of having done so. So long as new shocks, new stunts, can be produced every week, idle curiosity may sustain interest; but the shocks and the stunts become more and more expensive as they become less and less effective, and eventually the public is seized with apathy while the industry is in the grip of financial elephantiasis. As a matter of fact, the industry has produced some of the best narrative films ever made anywhere within the past year or so. But it has gone on so long advertising bad work and good work alike in shrieking superlatives that the appeal no longer 'registers.' If the movie industry were to consult the librarians as to what people read in America, it might get some inkling of its own mistake. America is not so completely tabloid-minded as Hollywood thinks it is.

Child Welfare (April) "Movies and Life," by Mary Lue Cochran, is a challenging survey of the outstanding evil appeals to children offered by the movies. Or, perhaps, one should say appeals that have results from one standpoint or another. We know, well enough, that the crime pictures, the attractively presented "easy lady," the powerful and magnificently accoutred gangster-chief, and those films packed with the minute details of criminal safe-guards against ultimate detection, offer suggestions of charm to youngsters who fail to see the subtle associations of these films which prove to the adult that their evil heroes and heroines are not so lucky after all. Above all, as the writer points out, we know that many a sensitive child's emotional balance and nervous resistance are brutally shocked by the horror-film, becoming more and more prominent in a cities schedule of film offerings. Not of less danger, though it be less specific in its emphasis, is the happy-ending film, giving its false standards to youngsters of imaginative and dramatic turns of mind. Miss Cochran closes her discussion with a suggestion that "exposing children to good" is not a difficult, nor a fruitless task, for parents and teachers. It takes time, for the advisor must know her film, but the child, when wisely advised, is far more apt to prefer the good than the poor or harmful film.

This is a thoughtful and directly written appeal by one who is an authority in the field and, at present, engaged in a research project for the Bureau of Juvenile Research of the Yale Institute of Human Relations in cooperation with the Judge Baker Foundation of Boston.

The Historical Outlook (May) "Social Science and the Education Sound Picture," by Dr. Howard Gray, Research Associate, Electrical Research Products, Inc., explains the steps in the process of applying sound films to the social sciences. The aims and contents of the social sciences are defined and illustrated. Then the author presents the selected subjects to be treated in sound films, together with a listing of the standards used to prevent repeating many faults of the silent educational films.

National Board of Review Magazine (April) "Testing Responses to Instructional Films," by Prof. Kirtley F. Mather of the Geology Department at Harvard University, presents the research made by the University to establish "fact not fancy" in appraising the value of the motion picture in education. An eight-chapter (relatively new) textbook and a series of eight audio-film were prepared, neither form of material referring to the other, but both organized from the same basic material. The author then describes the method of the project as it is unfolding. The results when completed will be published in this magazine.

School Executives Magazine (May) "The Teacher Turns Movie Producer," by Louis M. Bailey, discusses the use of educational films made by teaching experts in their own departments. This is an excellent article to sound the depths of the possibilities and the range of subject matter to be treated profitably in films.

New York State Education (April) Mr. Alfred W. Abrams continues his valuable series of articles in this publication with "Analysis of a Picture." Accompanying the account is a picture of Mt. Assiniboine, which he uses to illustrate the characteristics which make the picture satisfactory both as to composition and content, and to suggest pertinent questions.

(May) In this issue Mr. Abrams discusses "Some Standards for Selecting Wall Maps," which are "distinctly visual aids to instruction and learning." In the first place, most maps which are used in class exercises are not legible to each member of the class. The author points out ways in which legibility can be achieved. He also urges the use of a large number of special maps needed for special purposes, unlettered maps and physical maps.

THE FILM ESTIMATES

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

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

As You Desire Me (Greta Garbo) (MGM) Accurate screening of the stage play, with Garbo doing typical work as alluring, sensual cabaret singer, turned wanton by war, memory of former happy marriage gone. Struggle to win back old personality and position interesting and fairly convincing.
A—**Good of kind** Y—By no means C—No

Congress Dances (Lilian Harvey, Conrad Veidt) (U. A.-UFA) Charming, elaborate comedy-operetta of days of Metternich, Napoleon and Congress of Vienna, gorgeously mounted and beautifully acted. Great historical interest. Probably too continental in spirit, manner and style of comedy for general appreciation. A notable picture.
A—**Excellent** Y—**Fine of kind** C—Beyond them

Devil's Lottery (Elissa Landi) (Fox) Sensational and sophisticated story about four winners of huge sweepstakes prizes, all weekending at country estate. Sudden wealth brings unhappiness and disaster to all concerned. Neither skillful nor impressive, save bits of good character acting.
A—Hardly Y—Doubtful C—No

Doomed Battalion, The (Luis Trenker) (Universal) Vivid picture of a bit of the great war in the high Alps, splendidly told and notably acted by largely foreign cast. Extraordinary photography. Hero and heroine unusually fine. Grim, human, and convincing.
A—**Notable** Y—**Very good** C—Very exciting

Famous Ferguson Case, The (Joan Blondell) (First National) One of the poorest newspaper pictures to date. Clumsy direction and chopped-up narrative make a passable story too vague for interest. Dialog often cheap and mostly mediocre, with no notable acting to save it. Supposed propaganda for clean journalism.
A—Mediocre Y—Mediocre C—No interest

Heart of New York (George Sidney) (Warner) A story made up merely of low-comedy and vaudeville stuff—horrible English by burlesque Jewish characters, exaggerated plot and action, etc. Waste of George Sidney. Inane but harmless, and laughable for many.
A—Hardly Y—Probably funny C—Probably funny

Hell's House (Junior Durkin, Pat O'Brien) (Capitol) Serious picture of Reform School problem, sincerely played and directed. Much human and dramatic value in little hero's misdirected devotion to a crook, as well as wholesome and stimulating propaganda on reform school conditions.
A—Rather good Y—**Good** C—Better not

Huddle (Ramon Novarro, Madge Evans) (MGM) Sturdy young Italian goes from steelworker's home to Yale, suffers long and often for his crudity, but sheer grit and nerve make him finally a football hero. Much good comedy and light romance well acted.
A—Fair Y—Probably good C—Probably good

Law and Order (Walter Huston) (Universal) Violent Western of toughest frontier days. Perhaps makes record for hardboiled lawlessness, heavy shooting, and killings that include almost entire cast. Huston convincing as peace-loving, iron-hearted U. S. marshal who quells the chaos.
A—Hardly Y—Perhaps C—Doubtful

Lena Rivers (Charlotte Henry) (Tiffany) Good, wholesome story of unhappiness that taints the life of an illegitimate child—with much character interest, live humor, genuine pathos. Acting is sincere but some of it an amateurish as to bar the picture from deserved success.
A—Fair Y—Fairly good C—Little interest

Letty Lynton (Joan Crawford, Robert Montgomery) (MGM) Perhaps sexiest film to date. Wealthy heroine, let go by long suffering mother, enjoys sex orgies around world. Meets clean hero, "true love," poisons last lover, and perjury by mother, maid and hero brings happy ending.
A—See it and think Y—Pernicious C—No

Love Affair (Dorothy Mackaill) (Columbia) Improbable story designed merely to let Dorothy Mackaill show how to be rich, gay and physically alluring. Heroine even seduces hero. Thoroughly unhealthy story about people leading unhealthy lives with wealth, booze and liaisons as features.
A—Hardly Y—Pernicious C—No

Man Wanted (Kay Francis, David Manners) (Warner) Rich play-boy husband, hard-working editor wife, love each other genuinely but lead independent lives. Hero becomes secretary to editor—hence her divorce and his broken engagement needed for happy ending. Unconvincing and sophisticated, but not offensive.
A—Hardly Y—Unwholesome C—No

Night Court (Walter Huston, Phillips Holmes) (MGM) Elaborate and highly sensational picturization of crooked, immoral, unscrupulous judge, and methods of tricky court procedures. Finely played by Huston and an able cast. Opinions will differ as to effect on the public mind.
A—Well to see it Y—Unwholesome C—No

Night World (Lew Ayres, Mae Clarke) (Universal) Hero's mother killed his father for infidelity and hero becomes sodden drinker. Night club life at its worst—promiscuous love-making, booze, knockouts to jaw, five gang killings. Marriage mentioned once for comic effect and to insure moral ending.
A—Trash Y—Pernicious C—No

Partners (Tom Keene) (RKO-Pathe) Lively and fairly wholesome Western about the search for murder of an old peddler, suspicion points to hero, but peddler's little grandson solves the problem. A bit above average of its kind.
A—Hardly Y—Probably good C—Probably good

Radio Patrol (Robert Armstrong, Lila Lee) (Universal) Propaganda for high duty of police force toward community welfare, but it is heavily cluttered up with crude romance, brutal murder, and hero turning grafter. Chief merit an engaging role by Russell Hopton as pal of hard-boiled hero.
A—Perhaps Y—Doubtful C—No

Rich Are Always With Us, The (Ruth Chatterton) (First National) Silly title for rather good story, beautifully acted by leads, with star's mannerisms much less marked. Smooth highly sophisticated dialog that avoids offensive sexiness, playing up strongly the instability of marriage. Skillfully made picture.
A—**Interesting** Y—Decidedly not C—No

Roadhouse Murder, The (Eric Linden, Dorothy Jordan) (Radio) Unobjectionable murder-mystery-thriller full of hokum and stock devices, undistinguished in acting and direction, but with fairly original central idea. Lively, carelessly made story with burlesque touches, that does not worry about being convincing.
A—Hardly Y—Fair C—No

Sinners in the Sun (Carole Lombard, Chester Morris) (Paramount) Cheap, tawdry stuff about an engaged pair whose movie-wisdom decides that only money can make marriage. So they separate—sexy heroine becomes kept mistress—bulldog-jawed hero a gigolo—when tiring of it, come back to each other for happy ending.
A—Trash Y—Pernicious C—No

Society Girl (James Dunn, Peggy Shannon) (Fox) Rather human and above average prize-fight picture with less fighting than usual. Hero, in love with society girl, loses his buddy manager, the girl, and championship fight, but in the end wins both back. Quite unobjectionable.
A—Fair of kind Y—Fair C—Perhaps

State's Attorney (John Barrymore) (Radio) Disappointing hash made from previous legal-hero films—political aspirations complicated by illicit love, hard-drinking hero performing prodigies now for, now against crooks, and with Barrymore overacting throughout. Waste of time and talent.
A—Disappointing Y—No C—No

Strange Case of Clara Deane (Wynne Gibson) (Paramount) Heroine, devoted to incurably crooked husband, even to the point of taking long jail turn with him, and thus losing her own daughter forever, is beautifully played by Wynne Gibson. A depressing but appealing story.
A—**Interesting** Y—Fairly good C—No

Struggle, The (Hal Skelly) (U. A.) Supposedly propaganda against prohibition by the once great director, D. W. Griffith. Merely a depressing hash of melodramatic hokum, centering around a husband returning to drink, degenerating into a bum and would-be murderer of his own daughter. Futile and worthless.
A—Mediocre Y—No C—No

Trial of Vivienne Ware, The (Joan Bennett) (Fox) The sensational newspaper and radio thriller, now screened for any possible further profits. Hectic murder-trial-mystery trying every device, old or new, to get a thrill. Much hokum, crude and noisy humor, but not sexy.
A—Crude Y—Thrilling C—No

Two Seconds (Edward Robinson) (First National) Lurid, sexy drama about the sordid love of contemptible taxi-dancer, who gets hero drunk enough to marry her. Gruesome consequences follow—hero kills pal accidentally, the girl intentionally, and is finally electrocuted. Largely false and improbable.
A—Hardly Y—Unwholesome C—No

Westward Passage (Ann Harding) (RKO-Pathe) Light, more or less unconvincing, but rather entertaining divorce-problem story, charmingly played by Ann Harding, with able support. Devoted couple separate after constant quarrels—she marries old friend—but gets second divorce and remarries first love. Inoffensive.
A—Fairly good Y—Doubtful C—No

When a Feller Needs a Friend (Jackie Cooper, Chic Sale) (MGM) Wholesome, appealing blending of comedy and pathos with Jackie Cooper notable as little lame boy coddled by his parents into an inferiority complex which wise training by old Uncle Jonas helps him overcome. Healthy theme.
A—**Good** Y—**Very good** C—**Good but sad**

While Paris Sleeps (Victor McLaglen) (Fox) Long-lost father, supposed dead as war hero-escapes prison to find daughter imperilled by Paris underworld. Saves her at cost of life, without revealing identity. Some human bits, but buried under hectic action. Acting very ordinary.
A—Mediocre Y—Worthless C—No

Woman in Room 13, The (Elissa Landi) (Fox) Smoothly played divorcee-and-trial story. Heroine, married to contemptible husband, finally leaves him for hero. Becomes innocently involved with philandering villain, but proper ending is achieved. Some excellent acting in rather convincing story.
A—Fairly good Y—Perhaps C—No

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

"Unto the Least"

ELIZABETH RICHEY DESSEZ

THIS is a true story of motion pictures in a church.

The Bible Class Teacher in a large church in a Southern city wanted to use such pictures as were available in her class teaching. She encountered some opposition to bringing motion pictures into the church but after the first chapter of *The King of Kings* was shown all objections were withdrawn. The member who had registered disapproval most vigorously said in great humility that for the first time in his experience the life of Jesus took on reality. Thereafter pictures continued to be used in that church on one day of the week until the supply of suitable material was exhausted.

Soon after the programs started a young man from another church of the same denomination called on the Bible Class Teacher. He had a small club of young boys, all of the underprivileged class. They did not go to Church or to Sunday School and the young man was seeking ways and means to lead them into paths of usefulness and good citizenship. He had heard of the motion picture shows in the larger church and he wanted to bring his boys in to see the pictures at an hour when projector and films were not in use. The Bible School Teacher gave willing consent, so every afternoon as long as the pictures lasted, the young man brought his group of street urchins in to see the "movies" and to listen to stories of the life and works of the Great Master.

One day when the picture shows had ended one of the boys, evidently appointed spokesman for the crowd, asked their friend if he thought "fellers like us are fit to join the Jesus Man's Church." They were told that "Of such is the Kingdom of Heaven."

And so, on an Easter Sunday, these boys presented themselves at the altar, their faces scrubbed and shining with joy, their clothes clean and patched, as their friend had never before seen them, and were admitted to church membership. This was two years ago and these boys are finding within the church guidance, activity and the opportunity for growth and work.

The contribution made by motion pictures in this instance can be multiplied literally times without number.

Interesting Monograph on Projected Pictures in Worship

A monograph, "How to Use Projected Pictures in Worship," has been prepared by Rev. H. Paul Janes, director of the division of visual aids of the Presbyterian Board of Christian Education, Philadelphia. In its 24 mimeographed pages it treats of both the theory and practice of showing pictures in the church. Mr. Janes has done fine work in preparing and presenting projected picture church services, and he draws upon this experience to state some very interesting observations. He keeps his feet on the ground at all times, even when essaying excursions into discussions of theory.

His statement of the standpoint of the church with relation to the theater struck us as particularly excellent. In this regard he says:

"There is rightly much prejudice against imitation of the theater. There is very little in common between a theater program and a church service.

"The theater is the purveyor of novelty and fantasy. The church is the place of the great and lasting realities.

"To the church men go to meditate on these realities. How futile it is to try to introduce there the technique of the fanciful!

"This does not mean that the theater should be allowed to monopolize anything which the church can use. If we should conclude that nothing can be used in the church which is used in the theater we could do nothing but close all churches at once. The church must learn to use what can be useful to it in a way which will be helpful."

Relative to motion picture projectors, he says:

"Most religious film is available on either 35 mm. or 16 mm. standard-sized film. The rental of 16 mm. film is from one-third to one-half that of 35 mm. film. Where the distance of projection in a room is not over seventy feet, 16 mm. projectors are quite adequate and only an expert can distinguish

between a picture projected on a 16 mm. projector and on an expensive 35 mm. machine."

And he might have added that with some of the high-grade, late model 16 mm. projectors much longer throws are easily negotiated. Pictures up to 16 feet wide are projected by 16 mm. machines of the most modern type.

The monograph is on pages 8½x11 inches in size and is bound in a cover. Copies may be had for 25 cents on request to Mr. Janes.

Some Figures on Church Movie Activities

That churches are increasingly embarking upon motion picture activities in all parts of the country is evident to even the most casual observer of the church field. However, it has not been so clear as to what direction these activities have been taking —that is, to just what uses movies are being put by the various movie-using churches; whether films are being used for Sunday evening services, for auxiliary gatherings, or for fund raising, and whether the churches are themselves making movies.

We are indebted to the Bell & Howell Company for information along these lines based upon a questionnaire sent out to various clergymen. The questionnaire was sent to 16 mm. equipment users, and over 50 per cent of the churches reporting owned both projectors and cameras. About 30 per cent of the churches reporting indicate that they have made use of films for major services. At least 50 per cent use pictures for Sunday School, and the same percentage employ them to stimulate interest in auxiliary gatherings. The same percentage, also, indicates use to arouse interest in missions, while nearly 75 per cent of the churches have used films for raising funds.

Practically half of the churches show pictures of their own activities, and numerous clergymen use a movie camera to make pictures of their travels, so as to live them over with their congregations by means of illustrated lectures after they return home. Numerous churches make films of local town happenings, others of church organization events, while a few make movies of religious subjects—undoubtedly meaning by this, pictures of religious pageants, etc.

The use of rental films is coming into increasing favor, and industrials and scenics available on a free loan basis are especially welcomed.

SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

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

Chicago University to Produce Educational Sound Motion Pictures

TALKING motion pictures, newest and most adaptable tool of the educator, will make the new educational plan of the University of Chicago generally available this autumn to all interested institutions and groups in the country. This unprecedented extension of the University's resources in faculty and equipment to all high schools, colleges, universities, and adult education organizations was announced recently at the University.

This development in the use of educational talking pictures will be achieved through the combined efforts of the University and the American Telephone and Telegraph Company, through various of its subsidiaries. Erpi Picture Consultants, Inc., a research group composed of educational psychologists, and specialists in the various fields of science and scholarship, which for the past four years has been conducting a comprehensive study of the production and use of talking pictures in education, will provide the expert knowledge essential to the program. The Bell Telephone laboratories and the Electrical Research Products, Inc., will contribute the technical skill.

All the pictures produced at the University will be integrated with its actual courses. They will constitute the first effort to combine regular class room material and the talking motion picture medium on a large scale. Although the University will use the entire series in its work, the series will be so arranged that other educational institutions and organizations will be able to use it either in whole or in part.

It is expected that the first unit in the program will be a series of twenty pictures in the physical sciences. The tentative list of titles is as follows:

1. The Solar System
2. The Changing Surface of the Earth
3. Beneath the Earth's Surface
4. States of Matter
5. Combustion and Corrosion
6. Chemical Equilibrium
7. Carbon and Its Compounds
8. The Carbon Cycle in Nature
9. Time and the Calendar
10. Velocity of Chemical Reactions
11. Electrochemistry
12. Heat and Work
13. Electricity
14. Interference of Light
15. Sound
16. Weather and Forecasting
17. Composition of the Atmosphere
18. Energy, Work and Power
19. Eclipses of the Sun and Moon
20. Decoding the Information in a Beam of Light

Through the talking motion pictures, the University will be able to offer educational institutions from high schools to the university level essential elements of its new plan, and the services of its leading teachers and research men, their laboratory facilities supplemented by whatever they need from the visible or invisible world. Facilities specially developed at the University for the new general courses, such as the extensive demonstration laboratories and museums, expensive to duplicate, will be made generally available through the talking films.

Large possibilities are foreseen for the talking pictures in the rapidly expanding adult education movement, and in this aspect of the program the University is particularly interested. The adult education groups are desirous of obtaining ideas and material of high educational level on which to base their programs. The syllabi developed for the general courses provide outlines and reading lists for guidance in independent study, and already are in wide use for adult education work. The combination of the syllabi and the talking pictures, together with specially prepared material to be provided for the pictures, are expected to be of especial service in stimulating the cultivation of interests among those outside the colleges.

Such an experiment in the physical sciences course as "the dance of the molecules"—the thermal agitation of molecular action—must now be demonstrated to each student, who observes through an ultra-microscope the action of colloidal particles. Attendance of a laboratory technician is required to explain the phenomenon as the student makes his observations. Sound films, however, will eliminate this tedious method in such types of experiments, enabling a more effective as well as an economical method of demonstration. Failure of delicate experiments will be eliminated through the use of the talking pictures, and the film presentation will be a perfect demonstration.

The factor of motion which the pictures provide will be particularly helpful in clarifying other forms of experiments, such as those dealing with electrical phenomena. It will be possible, for example, to illustrate the action of a transformer by tracing the flow of electrons in association with the magnetic field, with considerably increased effectiveness over such devices as charts.

Illustration of natural processes, such as the development of deltas, demonstrated on a stream table at the University, can be achieved in the films, eliminating the necessity of duplicating the equipment elsewhere. Such famous experiments as Michelson's determination of the speed of light can be brought to any class room in the country with the talking pictures.

The pictures will be a valuable tool for teachers, and there is no possibility that they will be substitutes for teaching, nor any miraculous method of inculcating knowledge. The University particularly through its School of Education, has been devoted to experiment in educational methods, and the development of new ideas and techniques. One of the primary reasons why production of the series of sound pictures is to be undertaken is the desire to experiment with the possibilities of talking motion pictures in education. When the pictures are ready for use next autumn the University will be availing itself of practically every possible means of disseminating educational opportunities.

New Film on Mechanical Drawing

The first educational motion picture made expressly to teach Mechanical Drawing has been recently produced in San Diego, California, by Floyd W. Cocking of the Roosevelt Junior High School, as author, and James H. House of the Visual Education Department of that city, as Director. It is a 16 mm. film of 480 feet, or about 20 minutes running time.

Here is an excellent example of truly educational film made by educators themselves, with nothing more elaborate in the way of equipment than a standard Filmo Camera and regular drawing outfit.

The film gives brief correlation of drafting to industry and then takes up the study of drafting by means of photographed demonstration showing use of instruments, drafting technique, layout of a plate, choice of views in drafting, and the actual construction of typical drawings.

During a recent review of this film in the Bureau of Visual Instruction of the Chicago Public Schools, an opportunity was presented to test the reaction not only of the instructors present, but also of several junior high school boys. From the comments of the boys, while the film was being shown, it was evident that even in such a short and condensed presentation, knowledge was acquired in a most interesting and effective way. The method of sharpening the pencil, the determining of the location of a line to be drawn, by placing the pencil point and then bringing the angle ruler up against it, and similar points, were vividly described by the boys after the film had been shown.

An Introduction to Mechanical Drawing is a notably good piece of work. It will interest anyone, young or old, and should be of definite teaching value in any course on Mechanical Drawing anywhere. The film is available only by purchase from the author, who will be glad to supply terms, prices, etc., on request to him direct.

We shall have the pleasure, in an early issue, of presenting the author's own account of a teaching test made with this film in the San Diego Schools.

What Should a Course in Visual Instruction Include? *

H. A. HENDERSON

MORE than two hundred courses in Visual Instruction will be offered this summer in teachers' colleges and universities in the United States. These courses are listed under different headings, about one-third of which are "Visual Education" or "Visual Instruction"; one-eighth are "Visual Methods in Primary Reading"; one-eighth are "Visual Methods in Teaching Geography"; the remainder are based on "History," "Social Science," "General Science," or are included in a general course in "Method." The visual method in teaching procedure has been found applicable to every subject in the curriculum.

The time is past when the director of a course in Visual Instruction needs to take time in arguing the effectiveness of the "sense" methods of teaching. This is done for him in practically every educational department. The teacher in training is constantly admonished to get away from the lecture method and a fixed textbook assignment followed by an oral examination. He is urged to socialize the recitation and to encourage creative thinking. This can only be done effectively when the child has a background of sense experience.

It has become very apparent to educational leaders that teachers must be trained in the use of educational tools and devices that can bring these sense experiences to the classroom. Therefore the course in "Visual Instruction" should be first of all a *laboratory course*. The instructor of such a course should not only be familiar with the various types of visual aids but also be able to teach their use, manipulation and care.

A well equipped laboratory for a course in visual instruction should contain: a blackboard, bulletin board, maps, models, museum collection, projection apparatus including two or three types of stereopticon machines, direct and indirect projectors, strip or film slide projector with picturols, a 16 and a 35 mm. moving picture machine, talking picture machine, several types of screens, organized sets of slides for primary, intermediate and high school subjects, slide-making material, stereographs and stereoscopes, sand table, commercial catalogs from the various educational equipment concerns, necessary material for making posters, cartoons and graphs, and flat pictures applicable to the teaching of definite lessons to be mounted and cataloged by the students.

Each of the above should be thoroughly discussed as to its value and use and the mechanical manipulation mastered. In addition to these the place of the school exhibit, school journeys and dramatization should be given careful attention.

In order that the students of this visual method of teaching may derive full benefit from the course it is necessary that each one should do some supervised practice teaching following the recognized psychological lesson procedure:

1. Motivate by bringing some known experience before the child.
2. Create interest by relating this known to new and hitherto unknown experiences.
3. Give the student a concrete and meaningful vocabulary.
4. Assign tasks and sources of information for research work.
5. After the research work has been done, hold a conference with the class allowing the students to present and discuss pictures, objects, drawings and any other evidences of things they have learned and to bring up questions of things they would like to know or do.

Of course it is much better if this teaching can be done with regular classes of children but the visual instruction class can be used very satisfactorily.

Since the subject-matter differs widely in the lower grades from that of the upper grades, it is much better to have a separate course in Visual Instruction for grade teachers and for Junior and Senior High School teachers.

The following are a few of the reference books which should be accessible to the students:

"Visual Instruction in the Public Schools," Anna V. Dorris; "Picture Values and Visual Aids," Doctor J. J. Weber; "Fundamentals in Visual Instruction," William H. Johnson; "Exhibit Planning," Evart G. Routzahn; "The Child and the World," Margaret Naomburg; "The Educational Screen" and other magazines.

Finally the director of a course in Visual Instruction should keep before the class the following purposes:

1. To give a background of correct imagery for descriptions outside the child's experience.
2. To raise problems the answers to which may be found by reading, i. e., to motivate silent reading.
3. To make the lesson vivid and interesting.
4. To focus the attention of the entire group upon a given subject for socialized class discussion.
5. To create an atmospheric background for the teaching of appreciation and literary interpretation.

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*Reprinted from the April issue of *The Indiana Teacher*.

Visual Instruction in Summer Schools of 1932

(Courtesy of Keystone View Company)

Institution	Courses	Instructor (or Dep't)
Alabama		
State College for Women, Montevallo	Visual Education	H. W. James
State Teachers College, Montgomery	Visual Education	W. M. Menchan
University of Alaama, University	Methods in the Use of Visual Aids	W. C. Crosby
Arizona		
University of Arizona, Tucson	Visual Education	George A. Stracke
Arkansas		
A. and M. College Monticello	Special Methods	James H. Hutchinson
State Teachers College, Conway	Visual Aids in Primary Reading	Training School
California		
San Jose State College	Intermediate Grade Curriculum	Albion H. Horrall
	Rural Education	Elsie Toles
	Kindergarten-Primary Curriculum	Emily De Vore
	The Principal and His School	Walter Bachrodt
State Teachers College, Fresno	Principles and Newer Phases of Education	Lewis B. Avery
Chico State Teachers College, Mount Shasta	Geology	Mr. Livingston
	Physiography	Mr. Meigs
San Francisco State Teachers College	Reading in the Elementary School	Mrs. Stewart
	Demonstration School	Grace Carter
Stanford University, Palo Alto	The Principal and His School	Walter Bachrodt
Colorado		
University of Colorado, Boulder	Methods in Visual Instruction	Rupert Peters
	Visual Aids in Geography	Rupert Peters
Florida		
State Teachers College, Tallahassee	Primary Methods. Geography Methods, History Methods	
Georgia		
State College for Women, Milledgeville	Visual Education Principles	G. H. Webber
State Teachers College, Americus	Primary History, Geography	Mrs. J. C. Hinson
Illinois		
Western Ill. State Teachers, Macomb	Geography and Education	
Indiana		
Ball State Teachers College, Muncie	Principles of Teaching, Elementary Grades	Lillian M. Dinius
	Principles of Teaching, High School	D. T. Cushman
State Teachers College, Terre Haute	Visual Instruction	H. A. Henderson
University of Indiana, Bloomington	Visual Education	Hugh W. Norman
Iowa		
University of Iowa, Iowa City	Use of Visual Aids in Teaching	College of Education and Extension Division
Grinnell College, Grinnell	Visual Aids	A. P. Twogood
Kansas		
University of Kansas, Lawrence	Visual Instruction in Elementary and Secondary Schools	Ellsworth C. Dent
State Teachers College, Emporia	Visual Education	J. P. Drake
State Teachers College, Pittsburg	Visual Education	Jane M. Carroll
	Teacher-Training Classes Primary Grades	Ethel Moore Peck
	Intermediate Grades	Daphne Cross
Kentucky		
University of Kentucky, Lexington	Visual Instruction	Louis W. Clifton
Massachusetts		
Boston University	Primary Education	Teresa R. Flaherty
Boston College, Newton	Visual Methods	Joseph Hennesey
	Teaching Art through Visual Aids	Alfred F. Burke
Minnesota		
State Teachers College, St. Cloud	Principles of Visual Instruction	Leonard A. Williams
	Visual Aids in Instruction	Leonard A. Williams
Missouri		
Washington University, St. Louis	Principles of Teaching	Frank Lee Wright
	Elementary Teaching	S. C. Gribble
Nebraska		
State Normal College, Chadron	Methods in Social Studies	C. H. Bright
New Jersey		
Rutgers University, New Brunswick	Methods Course in Visual Education	Lawrence R. Winchell
	Administration of Visual Aids	Lawrence R. Winchell
New York		
Buffalo State Teachers College	Geography Methods	Charles D. Cooper
Cornell University, Ithaca	Visual Aids in Teaching	Frank E. Lutz
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	Geography Methods	Gertrude Nichols
	Use of Visual Aids	John J. Jenkins
State Normal School, Oswego	Geography Methods	Isabelle Hart
	Primary Reading	Marietta Odell
	History Methods	Marion Mahar
State Normal School, Potsdam	Geography Methods	Mary Rowley
	Primary Reading	Anna Murtaugh
New York University	Visual Aids in Education	John H. Shaver
	Methods in Visual Education	John H. Shaver
	Teaching Elementary Science	Lewis M. Dougan
	Teaching of General Science	Ellsworth S. Obourn
	Teaching and Supervision of History in Elementary Schools	C. M. Bennett
	Teaching of History in Secondary Schools	Daniel C. Knowlton

	Visual Aids and Visual Methods as Applied to the Teaching of History and the Other Social Studies	Daniel C. Knowlton
North Carolina		
University of North Carolina, Chapel Hill	Primary Methods	Sally Marks
Ohio		
Cleveland Teachers College	Primary Reading	Mary Cameron
	Geography Methods	C. Langdon White
Oklahoma		
Agricultural and Mechanical College, Stillwater	Visual Education	J. C. Muerman
Pennsylvania		
State Teachers Colleges at		
Bloomsburg	Visual-Sensory Aids	H. H. Russell
California	Visual-Sensory Aids	Newton Kerstetter
Clarion	Visual-Sensory Aids	H. S. Manson
East Stroudsburg	Visual-Sensory Aids	Elwood Heiss
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Duquesne University, Pittsburgh	Visual Aids	I. A. Hemel
Elizabethtown College, Elizabethtown	Visual Education	Lavinia Wenger
Immaculata College, Immaculata	Visual Education	Sister Maria Alma
Marywood College, Scranton	Visual Aids in Teaching	Sister M. Sylvia
Misericordia College, Dallas	Methods in Visual Instruction	Sister Mary Immaculata
Seton Hill College, Greensburg	Visual Education	Helen Schmadel
		S. G. Livingood
Temple University, Philadelphia	Projection Apparatus and Illustrative Material	John T. Garman
South Carolina		
Universtiy of South Carolina, Columbia	Visual Aids	A. R. Childs
Tennessee		
East Tenn. State Teachers College, Johnson City	Visual Aids in Geography	Ina Yoakley
	Primary Grades	P. W. Alexander
	Intermediate Grades	Letha Shewmaker
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Texas		
University of Texas, Austin	Visual Instruction	J. J. Weber
North Texas State Teachers College, Denton	Visual Instruction	Hugo J. P. Vitz
Wisconsin		
State Teachers College, La Crosse	Problems in Education	Dorothy Blotter
State Teachers College, Milwaukee	Geography	Louise W. Mears
		Grace Gottschall

Plan Second 16mm. Exposition

Second annual 16 mm. national motion picture exposition will be held at the Hotel Victoria, New York City, the week of Sept. 19 under the management of A. D. V. Storey, executive secretary of the Board of Trade. The exposition committee includes Julius Singer of Show-At-Home Movie Library, Joseph Dombroff of Willoughbys, H. O. Bodine, A. D. V. Storey and G. P. Foute of the Raven Screen Co., who is president of the 16 mm. Board of Trade.

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.

Da-Lite Announces New Type Screen

The new projection lamps and the greater illumination they afford has made possible the much desired large picture in the school room despite the difficulty in totally darkening the room. Hence a larger than ordinary screen is now much to be desired and the Da-Lite Screen Company, pioneer builders of theatre and non-professional screens offer a most unique product in the form of the Da-Lite De Luxe Challenger.

This new screen is the tripod type, the tripod being very staunch and rugged. The screen case is fastened to the tripod with a pivot connection thereby keeping the screen case and tripod a complete unit. When the screen case is swung to a horizontal position with the tripod standing erect, the lower edge of the screen is 45″ from the floor which is the most desirable height for school room use. The erection of the screen is accomplished with a crank operated worm and gear mechanism located and housed on the back of the tripod. This mechanism operates with practically no effort at all and quickly raises the projection surface, from the case, up to the desired height.

The Da-Lite De Luxe Challenger may be conveniently stored in a corner by simply leaving the tripod in a standing position and swinging the screen case to the vertical where it latches firmly into place, or the entire unit can be completely collapsed into a small, compact bundle and be entirely out of the way.

It is being furnished in two sizes, both with the very fine Da-Lite glass bead surface which is known to have the most desirable reflecting qualities of any screen surface yet available. The two sizes are 45 by 60 inches and 52 by 72 inches.

History Slide Series

Two new series of slide units on History are available from the C. W. Briggs Company of Philadelphia. One series comprises 20 units on United States History arranged by Edward F. Paddock and Louis Walton Sipley. This series has been prepared to closely follow the recommendations of the Committee of Eight on teaching of history. The series has been broken up into units corresponding to approved methods both in area and emphasis.

The second series comprises 12 units on Ancient and Medieval History arranged by Mr. Sipley to correlate with any standard text. The 12 units cover (1) Egypt, (2) Assyria, Babylonia, Persia and the Hebrews, (3) The Rise of Greece, (4) The Golden Age of Greece, (5) The Graeco-Oriental World, (6) Rise of Rome, (7) The Roman Empire, (8) The Decline of Rome, (9) Romano-Teutonic Europe, (10) The Feudal Age, (11) Age of the Renaissance and (12) The Reformation.

Both series include a great number of maps drawn specially for this work. Both series are available in both glass slides and in filmslides. Glass slides are in color or plain, filmslides in black and white only.

Morgana Color Process for Filmo Cameras and Projectors

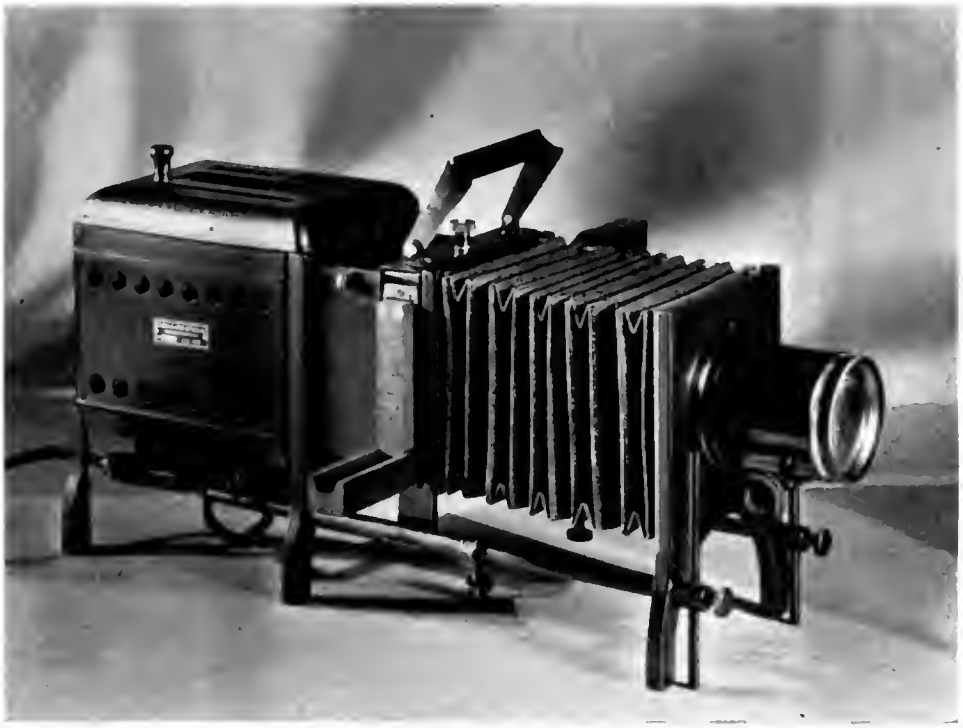
Filmo cameras and projectors designed for taking and showing color motion pictures by the Morgana Color Process are announced by the Bell & Howell Company. This company states that it considers Morgana the best two-color additive process that has appeared.

In this process color is not inherent in the film itself but is obtained by special filters in the camera and projector in conjunction with special mechanism. Different types of mechanism are employed in the camera and projector respectively, the projector mechanism embodying a radically new principle never before applied to motion picture technique. It is this unique projector mechanism that is largely responsible for the outstanding results obtained, which include a total absence of the flicker which has heretofore seldom been dissociated from two-color additive processes.

The Morgana Color Process was invented by Lady Williams of Pontyclun, South Wales. While the Process does not parallel the advantages of three color systems, we are informed, it has these major distinguishing features: (1) Regular panchromatic reversal film is used. (2) Duplicates may be made just as from panchromatic reversal film exposed for black and white movies. (3) Any Filmo lens may be used. The filters in the camera are behind the lens seat. (4) Pictures may be taken under adverse light conditions. Merely open the lens one stop to allow for the two-color filters. (5) Screen pictures 10 feet wide may be shown with a Filmo projector.

ECONOMIZE

BOTH MONEY AND TEACHING EFFORT



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The simple operation, convenient size and projection efficiency of the Model B, conserves the teacher's time, eliminates unnecessary effort during the illustrated lesson and effectively improves the educational result.

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A Trade Directory for the Visual Field

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Bray Pictures Corporation (3, 6)
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Carlyle Ellis (1, 4)
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Producer of Social Service Films

Columbia Pictures Corp. (3, 6)
729 Seventh Ave., New York City
(See advertisement on page 183)

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)
130 W. 46th St., New York City

General Electric Company (3, 6)
Visual Instruction Section,
Schenectady, N. Y.
(See advertisement on page 185)

Herman Ross Enterprises, Inc., (3, 6)
630 Ninth Ave., New York City
(See advertisement on page 189)

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.
(See advertisement on page 162)

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 187)

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
300 W. Adams Bldg., Chicago, Ill.

MOTION PICTURE MACHINES and SUPPLIES

Ampro Projector Corp. (6)
2839 N. Western Ave., Chicago, Ill.
(See advertisement on inside front cover)

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)
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Ideal Pictures Corp. (1, 4)
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Regina Photo Supply Ltd. (3, 6)
1924 Rose St., Regina, Sask.

United Projector and Film Corp. (1, 4)
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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 165)

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

SLIDES and FILM SLIDES

C. W. Briggs Co.
628 Callowhill St., Philadelphia, Pa.
(See advertisement on page 185)

Eastman Educational Slides
Iowa City, Ia.

Edited Pictures System, Inc.
130 W. 46th St., New York City

Eye Gate House Inc.
330 W. 42nd St., New York City
(See advertisement on page 189)

Ideal Pictures Corp.
26 E. Eighth St., Chicago, Ill.

International Artprints
64 E. Lake St., Chicago, Ill.

Keystone View Co.
Meadville, Pa.
(See advertisement on page 187)

Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
(See advertisement on page 162)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 161)

Stillfilm Inc.
4701 W. Pico Blvd., Los Angeles, Cal.

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

STEREOGRAPHS and STEREOSCOPES

Keystone View Co.
Meadville, Pa.
(See advertisement on page 187)

STEREOPTICONS and OPAQUE PROJECTORS

Bausch and Lomb Optical Co.
Rochester, N. Y.
(See advertisement on page 191)

E. Leitz, Inc.
60 E. 10th St., New York City

Regina Photo Supply Ltd.
1924 Rose St., Regina, Sask.

Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
(See advertisement on page 162)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 161)

Stillfilm Inc.
4701 W. Pico Blvd., Los Angeles, Cal.

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

Educational SCREEN

COMBINED WITH

Visual Instruction News

CONTENTS

Single Copies 25c

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SEPTEMBER 1932

The AMPRO

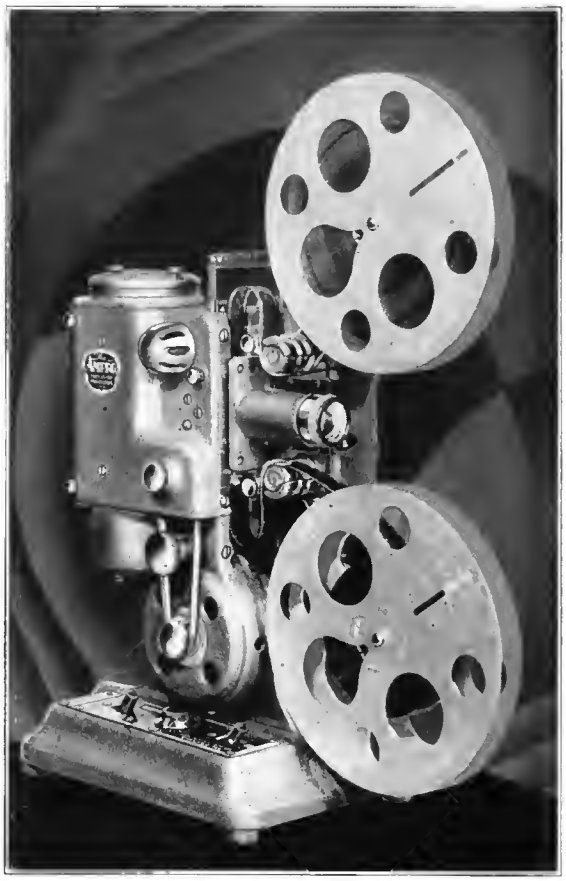
New 400 Watt 16 m.m. Projectors

The Leading Instruments for Visual Education in Schools

THE coming school season finds visual education an integral part of our educational system. The extensive libraries of 16 mm. safety motion picture film are now available at nominal cost, and the subject matter has been edited to the end that the teacher finds the motion picture an effective aid in teaching.

Whether your subject is botany, physics, history, biology, civics, science, or whatever it might be, you will find motion pictures holding the interest of your classes. Your pupils will have a more vivid grasp of your subject. With less effort your teaching efficiency will be gratifyingly increased.

The Ampro Projectors lead in the school field because they have been designed to meet the needs of teachers. The operation is simple enough to permit any pupil to operate the projector. It is rugged enough to stand much more than ordinary abuse. The illumination is unsurpassed, and sufficient for auditorium as well as classroom use.



Model AD, DeLuxe, illustrated above, with 400 Watt Biplane Filament Lamp, seal grain gold bronze finish, Chrome Plated Parts, automatic pilot light, 2" Bausch & Lomb Projection Lens, DeLuxe bronze Carrying Case, accessories and 1 reel.....$200.00

Model AS, Standard, with 400 Watt Biplane Filament Lamp, seal grain black finish, nickel plated parts, 2" Bausch & Lomb Projection Lens, black carrying case, accessories and 1 reel ...$175.00

Both models operate on either alternating or direct current 100-125 Volts.

Write for free descriptive circular.

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Makers of Precision Instruments Since 1914

A Partial List of Schools Using Ampro Projectors

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Board of Education, Hackensack, N. J.
Westside High School, Newark, N. J.
Gettysburg College, Gettysburg, Pa.
Board of Education, Morgan, Utah
Reel School Student Body, Avenal, Calif.
Jefferson Union High School, Daley City, Calif.
Visual Education Dept., Pasadena City Schools, Pasadena, Calif.
Roosevelt Jr. High School, Canon City, Colo.
Central Jr. High School, New Britain, Conn.
Dept. of Visual Education, City Hall, Atlanta, Ga.
Flower Tech. High School, 3545 Fulton Blvd., Chicago, Ill.
Museum of Science & Industry, Chicago, Ill.
Illinois School for the Deaf, Jacksonville, Ill.
North Side High School, Ft. Wayne, Ind.
Roosevelt High School, Des Moines, Iowa.
Argentine High School, Kansas City, Kans.
Polytechnic Institute of Brooklyn, Brooklyn, N. Y.
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Gentlemen: Please send me descriptive literature on the new 400 watt Ampro projectors for schools.

Name ..... Position .....
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Educational Screen

Combined with

Visual Instruction News

SEPTEMBER, 1932

VOLUME XI NUMBER 7

CONTENTS

Contents of previous issues listed in Education Index.

General and Editorial Offices, 64 East Lake St., Chicago, Illinois. Office of Publication, Morton, Illinois. Entered at the Post Office at Morton, Illinois, as Second Class Matter. Published every month except July and August.
$2.00 a Year (Canada, $2.75; Foreign, $3.00) Single Copies, 25 cts.

EDITORIAL

TEACHING visual ways to teachers has been a *sine qua non* of substantial progress for the visual field from the beginning. Pitiful indifference and laggard efforts in this direction—on the part of Training Schools, Departments of Education and Normal Colleges throughout the country—have given visual instruction an infancy two decades long, and at least a decade too long.

Such advance as has been made must be credited largely to the forward-thinking and energetic minority of the teaching world. It was the progressive few who possessed the vision, conviction and initiative sufficient to embark alone upon the effort to realize these values in their own classrooms. The major strength of the field still resides in those isolated individuals who are *doing* things with visual aids.

They were necessarily self-taught, were heavily handicapped in their lonely struggle, and spent years of precious time in repetitive trial and error, knowing little or nothing about their colleagues who were earnestly and patiently making the same trials and errors. The number of such workers has greatly increased through the years, yet the present thousands are still but the pioneers of what is to be in visual instruction. They made countless mistakes, but achieved countless values.

There is now hope of getting beyond the stage of the solitary pioneers. We are beginning what should have begun ten years ago—teaching the teachers. The number of teacher-training courses in visual methods shows a gratifying increase every year. Such courses will pass on to the rank-and-file what the pioneers have learned. They will provoke study and experiment on a national scale. They will stimulate comparison and evaluation, selection and elimination, synthesis and coordination, until the motley mass of miscellaneous results achieved by pioneer theory, research and practice can evolve into sound, systematic method.

In this issue, therefore, we are particularly glad to offer articles that give more than usual emphasis to the teacher-training idea. We shall continue such offerings in coming issues whenever and wherever worthwhile material can be found. The vital need of the field is the dissemination of what is known by thousands among the tens of thousands who want to know. Teacher-training courses, adequate in quality and number, will do this more effectively than any other means at hand. Such courses will gradually transform mere acquiescence into action, and the real future of visual instruction can begin.

THE EFFORT to emphasize teacher-training will not interfere in the least with our settled policy of supplying concrete accounts of the actual workings of visual instruction in individual classrooms. Exactly how one teacher uses visual aids in teaching a specific topic of a particular subject can hardly fail to interest and benefit other teachers of the same subject. This issue carries such material and more is coming. It is a great satisfaction to us that more such material is in our hands and in preparation this September than we have ever had at the opening of a school year. It is significant not only of increasing visual activities in schools but of growing interest on the part of the teachers in passing on their experience to their colleagues.

THE MOST complete bibliography yet put out on the visual aids field was doubtless that by Dr. J. J. Weber, published by THE EDUCATIONAL SCREEN nearly three years ago. Dr. Weber is renewing his activities in the field, which will be welcome news to many. Among other things, he has prepared a supplement to his former work which will go far toward covering the publications on the subject since the appearance of his former work. The new material will be presented in forthcoming fall numbers.

WITH REGRET we announce that, due to temporary illness of its editor, the Church Department is necessarily omitted in this issue. It will be resumed in October.

THIS ISSUE marks a further change in THE EDUCATIONAL SCREEN combined with VISUAL INSTRUCTION NEWS. Our page size increases to standard dimensions, which should please not only advertisers but readers as well.

At the suggestion of many of our subscribers, we also adopt the common magazine practice of identifying all the writers of one issue in a single paragraph rather than weighting article headings with titles, position and address of the author. Contributors to this September issue are given below.

Contributors to this Issue

HARLAN L. HARRINGTON, Principal, John Hancock and Lincoln Schools, Quincy, Mass.

C. F. HOBAN, Director, Museum and Visual Education Department, State Department of Public Instruction, Harrisburg, Pa., President of the Visual Instruction Department of the National Education Association.

S. D. HORNING, Teacher, Pasadena City Schools, Pasadena, Calif.

B. W. KEELY, Specialist in visual instruction at Des Moines, Iowa, closely in touch with visual work in schools throughout the State.

ADELINE KELLER, Teacher, Betsy Ross School, Forest Park, Ill.

MARGARET A. KLEIN, Director, Children's Bureau, U. S. Department of Labor, Washington, D. C.

FRANCES MALUCKY,, Educational Assistant, Educational Museum, Public Schools, Cleveland, Ohio

MARY V. ROBINSON, Director of Exhibits Division, Women's Bureau, U. S. Department of Labor, Washington, D. C.

ELEANOR SKIMIN, Teacher, Northern High School, Detroit, Mich.

GEORGE A. STRACKE, Member of staff of School of Engineering, University of Arizona, Tuscon, Ariz.

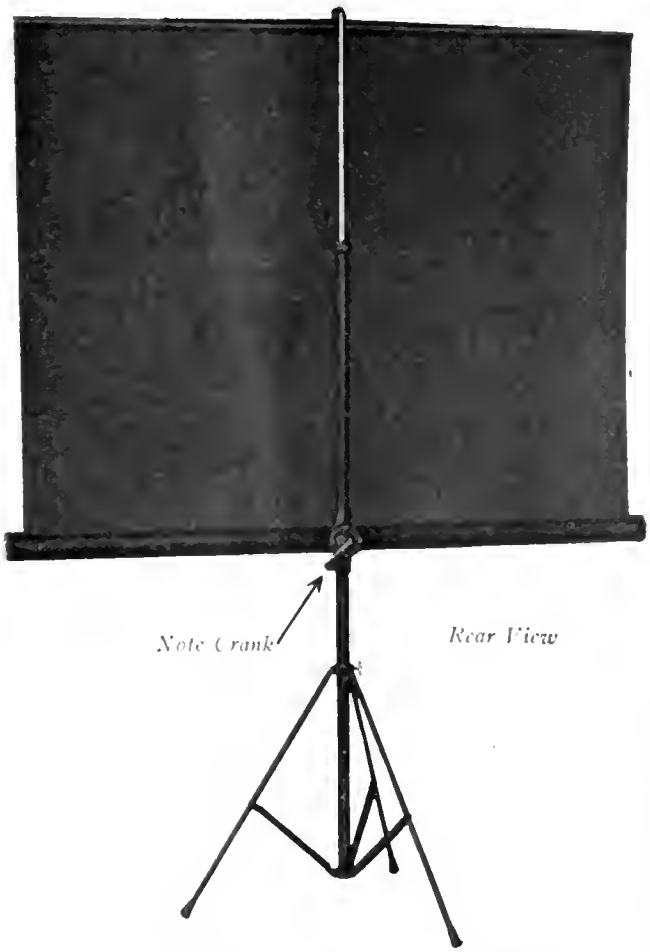
WILLISTON WIRT, Educational Director, St. John's Presbyterian Church, Berkeley, Calif.

Again DA·LITE *Scores!*

In Presenting The New DeLuxe CHALLENGER

A

Larger, Stronger Model With
New Operating Features
Never Before on a Tripod Screen



THE popularity of the Da-Lite Challenger has brought about an insistent demand for a larger model of this screen.

And here it is—a product of the world's greatest experience in theater screen building. The New De Luxe Challenger possesses inherent features that proclaim Da-Lite's advanced screen engineering. It has a Da-Lite Supersurface screen—either Da-Lite ultra fine glass bead, the Da-Lite silver, or the mat white.

The De Luxe Challenger comes in three sizes—a full 60"—72" and 96 inch. The tripod and stand are of heavier construction than the smaller model Challenger, and its easy operating features enable a child to erect the screen! The finish is of beautiful brown crackle lacquer and sparkling nickel.

No other portable screen can boast of such ease of erection and portability. Note in the photo above the crank which operates a worm gear, and raises or lowers the screen with ease. Here's all you do to set up the New De Luxe Challenger:—open the legs of the tripod and tighten the set screw . . . next you position the screen roller horizontally with the slotted side up . . . now raise the screen and hook it over the gooseneck on the extension rod . . . and *turn the crank at the back to extend the screen to full height!* There you are—a rigid wrinkle-free screen, perfectly flat, because of the unique flat spring suspension hanger at the top of the screen which prevents any possibility of sagging. In a jiffy the New De Luxe Challenger is ready to reflect to an eager audience a sparkling presentation that only a Da-Lite can give!

For Full DETAILS:

Send for descriptive pamphlet just off the press. Also get your copy of the Da-Lite folder. It describes and shows the most complete line of portable screens on the market—all uniquely Da-Lite.

Look at These Features

CONSTRUCTION

Note in above photo the strength of the base and extension rod. The large standard type Mapcase has an adjusting screw for increasing or decreasing tension as necessary.

FINISH

Beautiful brown crackle-lacquer with bright nickel trim an unobtrusive and dignified effect.

EASE OF OPERATION

It's the crank that does the trick! Free acting motion operates worm gear and smoothly raises extension rod to full height or lowers it within its housing.

SIZES AND PRICES

Three practical sizes: 45" x 60" — $40.00
52" x 72" — 55.00
72" x 96" — 75.00

WEIGHT

Thirty pounds for the 45" x 60" size — Forty pounds for the 52" x 72" screen.

The DA·LITE SCREEN CO., INC.

2721 N. CRAWFORD AVE., CHICAGO, ILL.

Possibilities of Visual-Sensory Aids in Education*

C. F. HOBAN

AS A preliminary to this discussion, I quote from the report of Henry S. Pritchett's Vocabulary Test which shows that the average college senior knows but sixty-one out of one hundred words in familiar use by educated people; and in connection with Doctor Pritchett's report, the comment of one of the many newspapers that printed an anlysis of his findings—"We are unable to think of any argument," says the Milwaukee Sentinel, "that releases college education from the responsibility of at least providing its disciples with a sufficient vocabulary to converse with men and women of ordinary culture."

I also quote from the report given at the Minneapolis meeting by Miss Elda Merton, Assistant Superintendent of the Waukesha, Wisconsin, Public Schools. Miss Merton's data covered an investigation of the preparation of students going from elementary to junior high schools. The results showed that the children had approximately a fifty per cent knowledge of the subject matter of the elementary curriculum.

My personal investigations sustain the Pritchett and Merton statements. I have tried groups of words from the elementary curriculum such as malt, skewer, latex, Nokomis, travois, and found that some of the words were absolutely without meaning to those questioned, and others only superficially known. These are but few evidences of the prevalence of verbalism in American schools.

The cure for verbalism, in my judgment, lies in the effective use of visual-sensory aids both in the instructional and learning processes. But the effective use of visual-sensory aids in instruction requires preparation on the part of teachers so that they may know these tools of teaching, where to get them, and how to use them; and the responsibility for this knowledge and this technique rests on the shoulders of the teacher-preparation institutions of the country.

As comprehended in modern instructional and learning procedures, visual-sensory aids are those concerned with the visual, auditory, and tactile senses. These sensory aids are regarded as essential tools of teaching and have the potential possibilities of reducing verbalism, retardation, failure to master curriculum matter, and elimination from school. Summarized, all visual-sensory aids are included in the following types; apparatus and equipment, school journeys or field trips, objects-specimens-models, pictorial materials (flats, stereographs, slides, film-slides, films), and the miscellaneous group such as dramatization, exhibit, pageant, etc.

The values of visual-sensory aids in the instructional and learning processes have been definitely established through scientific investigation. During the past year, it has been my privilege to have had close contact with a research student from Duke University, who, fired with a desire to carry out the plea of the director of his graduate work, Doctor W. A. Brownell, to do something worthwhile, something constructive, something that will contribute to educational procedures, made a critical analysis of all known experimental studies in the field of visual education. Every major experiment in this and foreign countries, and all theses in the graduate schools of the United States—a total of more than one hundred—were thoroughly studied. The analysis reveals reliable testimony that the proper use of visual-sensory materials: increases initial learning, effects an economy of time in learning, increases permanence of learning, aids in teaching backward children, motivates learning by increasing—interest, attention, self-activity, voluntary reading and classroom participation.

The frequency of these outcomes—which range from not fewer than three to more than twenty—is eloquent testimony of the possibilities of visual-sensory aids in education; and right here is a challenge to every superintendent and supervising official in this country. Instruction in the schools of our country can be improved by teacher preparation in these techniques and attention to the use of these materials on the part of supervisory officers.

No school official will deny that apparatus and equipment are essential classroom tools, and that teachers should know the minimum amount of standard equipment and apparatus necessary for satisfactory outcomes in the respective subjects and school activities. This knowledge is very important from the economic and professional viewpoints. My own experience with fifty-four teacher groups—ranging in number from fifty to eighteen hundred—during the past two years, is that a very small percentage of the teachers know standards for evaluating materials and the minimum amount of standard equipment necessary.

The school journey or field trip is a rich and valuable medium for instruction and learning. Grinstead, as a result of the outcomes of his experi-

*Address before the College Section of the National Education Association, Atlantic City, N. J., June 30, 1932.

mental studies, gives the following illuminating conclusions:

Properly conducted school journeys—

1. Bring about an increased interest in school work and a sustained interest in the topic studied
2. Assist the pupil's comprehension
3. Clarify principles
4. Help children to organize their knowledge
5. Develop constructive thinking
6. Stimulate interest in natural and man-made things and situations
7. Help pupils to find themselves
8. Constitute a cooperative enterprise
9. Blend school life with the outside world
10. Enable or compel a teacher to conduct a more logical and orderly recitation.

Reports from education departments in foreign countries sustain these conclusions. Great Britain, progressive European countries, and Japan make the school journey central in their educational procedure. Local journeys are a definite part of their school schedules. Long journeys are encouraged in England, Germany, Sweden, Italy, Czechoslovakia. Two cities in this last progressive republic—Prague and Brno—have specially built busses to take crippled children on educational trips. The Japan department of Education reports that local school journeys are used regularly by elementary and secondary schools. Longer or distant journeys are made at least once and sometimes twice a year.

What has been cited is convincing evidence of the possibilities of this medium of instruction. The United States could consistently pluck a leaf from the notebooks of foreign countries so far as school journey procedure is concerned. May I say that as a superintendent of schools I would expect every teacher not only to know how to organize, conduct and check a school journey or field trip, but would expect them to make it a part of the school procedure.

Equally valuable and closely related to school journeys and field trips is the effective use of objects-specimens-models and museum lessons. More than a half dozen of the experiments examined testify to the worth of this type of visual aid and the museum as an asset to school work. Especially significant is the extent to which the group of lowest mentality children profit through the use of object-specimen-model materials and visits to museums. Objects-specimens-models provide, for instruction, realistic and concrete elements. They enable pupils to see and handle materials which are being discussed thus revealing such characteristics as three dimensions, coloring, weight, texture, etc. By object is meant the thing itself; specimen means a part of the thing—as for example, a piece of coal, wood, clothing, etc.; model, a replica or representation in miniature.

Museums, and they are becoming increasingly accessible to teachers and children, have a wealth of material that, if used, will enrich and vitalize subject matter. Closer cooperation between school people and museum officials will make these materials available to schools in the areas served. There is a growing feeling that schools should have their own collections of object-specimen-model materials and they can be assembled and made useful to practically every subject in the curriculum. There are limitless opportunities in this respect in the fields of geography, history, and science. Again I would expect teachers to know the sources of these materials, how to assemble and house them, and an effective technique for their use when occasion demands.

We can profit by the practices of foreign countries, where school journeys and museums are interrelated. In these countries, wherever museums are within reach of the schools, they are used frequently and fruitfully.

No comment is necessary regarding the values of pictorial materials since they are so well known and so widely used. I strongly suggest that the school people of the country become familiar with the twenty or more experiments that have been conducted with stereographs, slides, and films. Pictures tell a story more graphically and tersely than words. They bring the world and its activities to the child. In my work with school groups, I find few teachers who are in possession of definite standards for evaluating pictorial materials. To use pictorial materials effectively in instruction requires that teachers know standards of evaluation, guiding principles for their use, their adaptation and relationship to the curriculum, and when and how to use them. Untold damage has resulted through a lack of this knowledge. It is highly proper at this point to suggest that the greatest guiding principle for the use of visual-sensory materials is that of justification. This principle should be impressed vividly upon the mind of every person engaged in the instruction of children.

Radio is here and has a place on this evening's program. That precludes any discussion of the subject by me. Radio-vision belongs to the visual-sensory field. Its development thus far has been very interesting. I am referring particularly to what has been accomplished in the fields of geography, history, literature, mathematics, music, and science.

From the standpoint of enriching, vitalizing, and improving the quality of instruction, the possibilities of visual-sensory aids are very great. The

(*Concluded on page 202*)

The Mounted Picture as an Aid in Geography

FRANCES MALUCKY

THE picture is essential to learning modern geography and it should be the center of geographical instruction in showing man's present adjustment to his environment. The pictures to be used must be so organized as to be study material for pupils. The Geography Curriculum is used as a guide for the selection of views. All pictures must be closely integrated into each unit of the curriculum.

Organization of Mounted Picture Sets

The mounted pictures necessary for the units of a curriculum are organized in unit sets of 20 to 25 views. The views, original 8"x10" photographs, are mounted on dark gray durable tagboard. Printed on the back of each picture are the "Study Helps", which promote definite pupil activity in studying the picture.

One picture from the unit picture set on Switzerland is here used as an illustration of the treatment given each picture in the unit. This view of Lauterbrunnen Village shows man's adjustment to a mountain valley environment. To understand this relationship the pupil studies the picture, guided by the "Study Helps".

The "Study Helps" with the accompanying exercises guide the pupil in an interpretation of the picture. They are written to capture the child's interest, encourage and challenge him to analyse the picture, and solve his own problems. The vocabulary and method of treatment for each unit set should be adapted to definite grade levels. Each Study Help consists of:

1. Study Questions
2. Game or Puzzle
3. Vocabulary Building
4. Information Paragraph

A typical example of the Study Helps appears under the picture accompanying this article.

Study Questions

The questions are so stated that the pupil must actively study the picture. The first questions seek the simple obvious relationships which are clearly shown. Whenever possible the questions call for the simple geographical inferences of relationships. The answers should be verified by comparing the picture information with a physical, rainfall, temperature, or soil map of the region.

Sometimes the questions can be answered only by referring to other pictures, maps or graphs in the same unit set. For example, general landscape scenes are followed by close-up or detailed views of some specific object in the picture. In the Switzerland unit set, Picture No. 1 is a general view of the Lauterbrunnen Valley, and Picture No. 2, a detailed view of a chalet. The questions on the picture of the chalet ask the pupils to find the location of several chalets in the valley (Picture No. 1) and tell why they were built on the alps. This cross-reference to other closely related views in the set creates a united concept of the region. (See the Study Questions for pupils, I. under Study Helps.)

Game or Puzzle

The game or puzzle is used as a check-up on the facts studied in the picture. Playing the game or solving the puzzle is a pleasant challenge to the child. Several types of games used in unit sets of pictures are stated below:

(a) *The False or True Game*
1. The winters in Switzerland are mild.
2. It lies in the north temperate zone.
3. Fishing is the chief industry.
4. Switzerland is a mountainous country.

(b) *Puzzle. Choose the correct words.* (*Multiple choice type.*)
1. Switzerland is a (hilly, level or almost level, mountainous) country.
2. The natural vegetation suggests that the rainfall is (scant, moderate, heavy.)
3. Switzerland lies in the (temperate, frigid, torrid) zone.

(c) *Fill in Game* (*Completion type.*)
1. The village of Lauterbrunnen is built in the .....
2. The mountain peaks are snow-capped throughout the year because of the high.....
3. ..... is an important industry in the village.

(d) *Puzzle. Match correctly the parts of the sentences.*

(Sentence matching type)
1. The valley of Lauterbrunnen .....(c).....
2. The mountain sides are .....
3. The chalets are built.....

(a) of wood.
(b) river valley.
(c) is U-shaped.
(d) forest covered.

(See Puzzle for pupils, II under Study Helps.)

Vocabulary Building and Paragraph of Information

Each picture requires the use of a geographical vocabulary. All of the new words are called to the child's attention and he is asked to identify them on his picture. Thus is formed a close association between the word concept and its object. (See Vocabulary Building for pupils, III under Study Helps.)

The information paragraph gives the location, the season and describes in an explanatory manner the geographic relationships shown in the picture. These three items are essential and of value. The location definitely places the picture in its world position. The time or season helps to explain why man is engaged

in certain activities such as making hay in summer, or wood carving in winter. The explanatory description not only tells how man has adjusted his life to the environment, but explains some of the reasons therefore. (See the paragraph for pupils, IV under Study Helps.)

Class Action with the Picture

The teachers and pupils use the mounted pictures in geography instruction as follows:

1. *Preview*

   In an introductory lesson the unit set of pictures is given to the class. Each pupil may formulate some study problems which his picture suggests. These problems are solved by the entire class using the pictures as work or laboratory material.

2. *Individual Study Tool.*

   Each child works with an individual picture, the Study Helps entice him to try to understand the things seen. He is guided to think geographically in solving his own problems. He may write the answers or use the questions and games as silent study helps. Pictures and text books are used interchangeably. By the end of a week each pupil in the class has worked with every picture in the unit set. Thus he should have a clear concept of the geographical relationships which occur in this region.

   If geography problems are solved by group work, several pictures may be studied and observed by the group. The information may be pooled and later presented to the class using the pictures the group has studied. After class reports have been given, the groups may exchange their pictures. In

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Village and Valley of Lauterbrunnen

STUDY HELPS
(For Pupils)

I. Village of Lauterbrunnen, Switzerland, in mid-summer.

1. Locate the land most used by these people. Why?
2. Where is the village of Lauterbrunnen? Why?
3. What is growing on the slope nearest you?
4. What is the most common crop of this region?
5. Why are the chalets in the field?
6. For what are the chalets used?
7. How many falls do you see? Why are these beautiful?
8. Which one is the Staubbach Falls?
9. Suggest the source of the falls.
10. What is the shape of the Lauterbrunnen Valley? Draw it.
11. What can you infer as to the origin of this U valley?
12. Point to a small side valley which enters the Lauterbrunnen high above its floor.
13. Where do you see bare rock? Is it used by man? How?
14. Is there any evidence of avalanche rock from these cliffs? Where?
15. Can you give a reason for letting the trees grow on the high slopes?
16. Where are the mountains snow covered? Why?
17. The Jungfrau is feet above sea level and the village is feet. Does this account for the difference in temperatures which the picture shows? How?
18. Where are glaciers?
19. From the picture, infer how these people earn a living.
20. Is life pleasant here? Why?
21. Give illustration as to how these Swiss people have adjusted their ways of living in a U shaped mountain valley.

II. Swiss Puzzle. Match the parts of sentences.

1. The valley of Lauterbrunnen — (d)
2. Switzerland is a
3. Dairying is carried on
4. The mountainsides are
5. There are small glaciers
6. The chalets are built
7. The Falls of Staubbach
8. Switzerland lies in the

(a) in the alps.
(b) on the mountains in the distance.
(c) north temperature zone.
(d) is U shaped.
(e) mountainous country.
(f) add to the scenic beauty of Lauterbrunnen.
(g) forest covered.
(h) river valley.
(i) of wood.

III. Vocabulary Building.

1. Find in the pictures the features listed below.
2. Write sentences about your picture using these words:

valley floor	trail
hanging valley	chalet
U shaped	alpine hayfield
falls	snow-capped peaks
alp	

IV. Lauterbrunnen Valley, Switzerland, in mid-summer.

The Swiss village of Lauterbrunnen is in the deep, steepsided U shaped valley along the Lauterbrunnen stream. This glacial stream joining others forms the head waters of the Rhine River. The Staubbach Falls drop 980 feet from the alp above to the valley floor. Its water turns into a misty spray as it falls and it appears as a delicate lacy curtain spread on the side of the dark valley wall. The contrast of the white snows, the bright blue sky, the green of the grassy alps, and the deep valley are all combined in this small valley of the Lauterbrunnen. Snow-capped peaks, among which is the Jungfrau, are in the background high above the valley. This scenic beauty attracts many tourists. Dairying and tourists are sources of income to these Swiss people.

this way each group makes a detailed study of every picture in the unit set.

3. *Lantern Slide Lesson, Games, Vocabulary Building.*

Many of the mounted picture units are duplicated in lantern slide sets. The mounted pictures may be studied in preparation for a slide lesson in which the pupil who has prepared the view projected on the screen can lead the class discussion. He may ask his class mates some of the questions suggested in the Study Helps; play the game or puzzle with them; point and identify the surface features suggested in the vocabulary list; and as a summary read the paragraph of information. After the slide lesson, the pupils may wish to refer and study in detail some lantern slide views. They can do so by using the mounted pictures as they are duplicates.

Children play the games with their classmates during free time. One pupil may hold the picture and the others try to answer the questions from the picture. This gives the drill that is essential in successful geography instruction.

Each new word of geographical significance is listed and the teacher makes certain that the pupil clearly associates the word with the geographical object in the picture. Some pupils keep an individual vocabulary in their note books. In some class rooms the geography vocabulary is placed on the blackboard or on a chart. This list will provide material for language activities.

Possibilities of Visual-Sensory Aids in Education

(*Concluded from page* 199)

achievement of these possibilities rests entirely with the teacher-preparation institutions and the school supervisory officers of our country.

As I approach the conclusion of this discussion, I call the attention of the presidents of teacher preparation institutions and the superintendents of schools of the country to the following four declarations made in Washington in February when the National Academy of Visual Instruction and the Department of Visual Instruction of the National Education Association were merged:

1. Experimental studies, research, and surveys, have revealed definite and important values for visual-sensory aids.
2. A knowledge of these visual-sensory aids and a technique for their use require special preparation.
3. The contribution that visual-sensory aids make to improved instruction justifies a requirement that every teacher in training in the public schools of the United States take a laboratory course in visual-sensory aids.
4. Some means should be developed to train teachers in service in this course.

These are sound constructive declarations. The consensus of opinion of students of this subject is that combination visual-sensory aids courses—visual aids in history, visual aids in science, etc.—is a mistake since such a procedure results in much confusion and duplication of effort. The feeling prevails that the core curriculum of a visual-sensory aids course should consist of the following elements common to practically all subjects; research, historical background; psychological aspects and verbalism; projectors and projection; school journeys; objects-specimens-models and museum procedure; pictorial materials; photography—still and motion picture camera techniques; blackboard and bulletin-board technique; administering and budgeting visual materials; radio-vision; bibliography.

I am absolutely in accord with this thought. I believe this core material should be the initial course in visual-sensory aids and that it should be mandatory. Surely no educator would defend repeating these common elements and techniques in art, English, geography, health, history, mathematics, music and science. It is my firm conviction that next to educational psychology, this visual-sensory aids course possesses greater values, from the instructional and learning viewpoints, than any other professional course in education.

It may be of interest to the National Education Association members to know that Pennsylvania's Superintendent of Public Instruction in an enthusiastic believer in the possibilities of visual-sensory aids. I commend his viewpoint to the other State Superintendents of the country. Pennsylvania's Board of Teacher College Presidents has made a visual-sensory aids course mandatory in all the State-owned teacher preparation institutions of our Commonwealth. I commend their action to the teacher college presidents of the country.

The slogan of this meeting is "Looking Ahead in Education." The values of visual-sensory aids as revealed in scientific studies and practice have been pointed out. I recommend to the teachers of our country a wider use of school journeys and of objects-specimens-models in instructional procedures.

If a course in visual-sensory aids be made mandatory on the part of every person preparing to teach in the schools of the nation; if superintendents of schools will encourage teachers in service to take such a course—either in extension or at summer schools; and if visual-sensory aids be used effectively in the school rooms of America, I predict that the next ten years will witness one of the greatest contributions to the improvement of instruction that have ever been made in the history of our country.

Programming in Visual Education

S. D. HORNING

IS IT possible to make a schedule for visual education material such as slides, films, special pictures, and so forth, which are not kept in the classroom?

The essentials involved are, First: a definite course of study in which visual aids have been assigned a definite place.

Second: a chairman, committee, or some interested individual in each school to make the schedules. This is necessary in order to get the desired material at the right time, to prevent duplication, to make arrangements for presentation, to train a crew of projector operators, and if necessary to assist in instructing teachers in the use of visual education materials.

Third: a visual education department, local, county, or state, or some commercial concern that can furnish the desired material according to schedule.

Fourth: a corps of visual-educationally minded instructors is essential in order to make out a satisfactory schedule. They must appreciate the problems of the visual education department.

The Course of Study. In most school systems a definite course of study has been provided which makes it possible for every instructor to know the approximate time at which the class will be studying a specific topic. If the course of study is to be followed and covered this type of schedule is necessary. The problem then arises as to the proper time, in reference to the order of topics studied, to introduce the visual aids.

May I say here that this article is treating only such aids as films, slides, and so forth, which must be obtained from a visual education department or where a special education room is necessary. Such material as is available in the classroom will be used whenever needed.

The time to introduce films and slides depends on the subject material and the use to be made of it. If visual aids are to introduce the new topic they should be shown after a very short class introduction. If they are to be used as a review or summing up to make the subject more vital, they should be given at the close of the study of the topic. It will be difficult to use material in which special equipment is necessary at the exact time the detail of the subject is given.

Every course of study should have a bibliography and a sufficiently detailed description of visual aids to insure the proper selection by the instructor.

The Visual Chairman in the Individual School. To avoid duplication, although there is a definite course of study in which visual aids have been enumerated, the actual scheduling must be done by a committee or by some interested individual assigned to the job. Giving the students a chance to remark, "This is the third time I've seen that rattle-snake crawl from that hole", or, "I've seen that every month this semester" should be avoided if possible.

Available materials from all sources must be studied, proper selections made, and dates assigned. In a school using a central visual education room, it is well that each department be assigned a certain day of the week. After the material has been selected and the dates made out the orders must be arranged and sent to the visual education department or to the various sources of material. The research necessary to secure visual aids from outside sources, and the correspondence connected with booking and scheduling them should be duties of the central visual education department rather than of individual schools. The selection and scheduling should be done six months to a year before the order is needed. Even then some companies fail to keep the schedule. It will also be found advantageous to post the schedule by days, giving the department and periods in which the special material is to be used. It is thus available at any time to all the instructors and to the operators.

The Department of Visual Education. A good local visual education department is a great asset in programming. Although it may not be able to furnish all the desired material from its own department, all material within reason should be made available through it. It is absolutely imperative that films be made obtainable on the desired date for the majority of departments.

The Attitude of Instructors. A visual-educationally minded teaching corps is essential to a good visual education program. Some instructors may look upon it as so much "extra bother," or as a diversion. Much of this attitude can be overcome by the committee or the chairman. Other educative factors are essential to create the desired attitude. It should have begun in the teacher-training institution. However, the proper attitude cannot be built up if suitable material is not available. This responsibility must be assumed by the producers. Entirely too much material has been offered under the guise "Educational".

In conclusion, may I say that the success of visual education, provided good material is available, rests very largely on the individual or committee who does the scheduling or programming, secures material at the proper time, trains the operators, and creates a visually-minded teaching corps. The efforts of all concerned must be directed toward producing and delivering to the classroom, according to schedule, material suitable for the purpose of instruction.

"What Is Being Taught in Courses in Visual Instruction?"

GEORGE A. STRACKE

AS THE answer to that question could only come from a study of the courses themselves, each of the eighty-six institutions listed in the 1931 Directory of the National Academy of Visual Instruction as offering such courses was asked for a detailed outline of its course. Replies were received from forty-four institutions or approximately half. Of these, eleven stated that they had no course or department of visual instruction or that courses were no longer being offered. Among the others, some offer the work in regular sessions, others in summer sessions only, and a few in both. To determine the amount of time allotted to the course or the units of credit allowed was impossible in a majority of instances. The lower limit was fourteen one hour periods, while the upper limit was a division of the work into three classes, each consisting of three one hour classes and one laboratory period per week for one semester.

Analysis of the outlines revealed a total of forty-nine topics, of which eight were taught in but one course each, while two were listed in thirty courses. The thirty-three universities, colleges, and normal schools which sent outlines displayed a remarkable concurrence in emphasis on twelve topics. Seventy-five to ninety per cent of the institutions listed these topics, which are given in inverse order of their frequency:

1. The Philosophy and Psychology of Visual Instruction
2. Projectors — Operation, Mechanics, and Optics
3. Motion pictures — Types (16mm. and 35mm.), Standards of Evaluation, and Instructional, Informational, Auditorium or Entertainment
4. Sources of Visual Aids
5. Lantern Slides and their Use
6. Stereographs and their Use
7. Photographs and Prints and their Use
8. Exhibits
9. Organization of a City Department
10. History of Visual Instruction
11. Field Trips
12. Care, Repair, and Storage of Materials and Equipment

Seven additional topics were offered in a majority of courses. Five courses were unanimous on these and the twelve listed above. The second group consisted of:

13. Museum trips
14. Specimens
15. Models
16. Bibliography
17. Film slides
18. Blackboard Materials and Technique
19. Photographic Principles and Practice

Ten institutions agreed on fifteen of the above nineteen topics.

The remaining thirty-one topics are indicative of the diversity of opinion existing among visual education instructors as to the value of these phases of our work. Most of them are offered only in one or two, or at the most, five institutions. One-third or less of the courses included:

Visual Aids in Specific Subjects
Television
Types of Visual Aids (General Discussion of)
Organization of a School Department
Maps
Charts and Graphs
Teacher Training
Diagrams
Standard Equipment Recommendations
Photographic Darkroom Practice
Research
Classroom Conditions
Globes
Laboratory Practice in Preparation of Visual Aids
Dramatization
Demonstration Lessons Involving Use of Aids
Functions of a State Department
Posters
Tests of Visual Aids
Radio
School and Community
Still Films
Cartoons
Organization of a County Department
Textbook Illustrations
Screens
School Museums
Puppets
Classroom Demonstrations and Experiments
Duplicating Processes—Mimeograph, Hectograph, etc.

Some courses which do not list a number of these topics as such may teach them as phases of the more general topics. Whenever such inclusion was indicated, however, the sub-topic has been listed, in order to make this survey as comprehensive as possible.

The importance of some, undoubtedly, has been underestimated, and any arithmetical count such as it was necessary to use here, is not a measure of their true values. A weighted value arrived at by consideration of the relative importance and history of the department or institution offering each topic might effect a considerable change.

All of the nineteen topics included in the first two divisions above, together with possibly four or five of the remainder, including:

Teacher Training
Research
General Discussion of all types of Visual Aids
Demonstration Lessons Involving the Use of Aids
Laboratory Practice in the Preparation of Aids

constitute a good basic outline for a course of study in visual instruction.

This digest is offered in the sincere belief that one sure method of discovering the effectiveness of one's own teaching methods is to learn what others are doing in the same field.

The Doctors Say, "Use Stereoscopes"

B. W. KEELY

WHEN Dr. Oliver Wendell Holmes perfected the stereoscope in the form which has been most popular from his days to ours, he probably had no thought about its therapeutic value. To him it was an instrument which would add pleasure to the pursuit of knowledge or pleasure for its own sake. Such it has proved to be to literally millions of people.

But it was soon discovered that not all persons were able to interpret the stereograph correctly and comfortably. Furthermore, for some years, outstanding eye physicians of the world have been using stereoscopes of various types for the discovery and treatment of those hidden discomforting and retarding eye conditions which result probably from our neglect to give the eyes their proper recreation and training. The stereoscope is the only instrument with which it is possible to detect and treat these conditions successfully.

It has been stated on good authority that if two eye-physicians were to examine the eyes of the children of any school—one physician using the regular vision and health tests and the other, the stereoscope to test for faulty co-ordination of the two eyes—the one using the stereoscope would discover more cases needing attention than the first.

David W. Wells, M. D., F. A. C. S., whose years of research in his practice in ophthalmology and whose lectures and writings have done much to restore normal, comfortable, binocular vision to many thousands of people, writes:

> "A recent review of one thousand cases of eye strain shows that 25 per cent needed treatment because of some failure of the two eyes to work together properly. Since each person is obliged to learn the art of using the two eyes together as a part of his own experience, and has no instruction whatever, some of us learn it well and some of us learn it quite imperfectly. Now it is quite possible that, if a child were given a stereoscope and set of views, many of those who now fail individually to pick up a good fusion faculty might very likely, with this early training, develop this capacity, and so be saved from much eye strain later in life."

The reason for Dr. Wells' belief in the value of the stereoscope as a therapeutic instrument lies in the fact that ability to see stereoscopically depends upon the proper co-ordination of the externi-recti muscles as well as the stimulation of some certain fusion center in the brain. These muscles can be developed by exercise, just as can any other muscles. Probably the only effect on the fusion center is the development of the sense of awareness when once it begins to function.

In order to interpret a stereograph properly, the eyes must converge and diverge under perfect nerve control, as differing details of the picture are perceived. Fortunately, the accommodation is relaxed, and the delicate ciliary muscles, which are constantly fatigued by the vast amount of "close work" demanded in modern times, can take a rest.

It thus appears that the daily use of the stereoscope by all children between the ages of 5 and 12, during which period the fusion sense is being developed, would result in positive eye betterment for all. It would relieve and strengthen those eyes which are considered normal; it would assist many to attain normal fusion ability; and it would point out, for further assistance from the eye-physician, those who are unable to interpret properly and comfortably the stereoscopic pairs of views.

It is highly probable that the schools will soon be asked to include such eye conservation exercises in their daily programs as of equal importance with toothbrush drills and physical training exercises.

Psychologically, to stimulate the use of stereographs as an adjunct to regular school work and for their intrinsic worth would be much more effective than to introduce them for their eye training value only. This is in line with modern theories of motivation as an essential factor in the learning process. Setting up exercises have been superseded by free play as more effective in physical development. Likewise correct eye habits will be formed more readily as an incidental process in a fascinating and motivated exercise in learning than they will in formal drill of any type.

It is fortunate that so many schools already have exactly the equipment necessary to put this program into effect. Thousands of 600 sets of stereographs, Primary Sets, and other collections in schools are in daily use. Others, just as valuable, have been allowed to become inactive, through neglect and inertia. Most of the subject matter of these old sets is just as important for regular class work as it ever was. With revisions made to bring these sets up to date, they have great value in the modern teacher's daily program. Broken stereoscopes are easily and cheaply repaired, and new material is available in any quantity and on a wide variety of subjects.

School executives and teachers will welcome this new incentive to the use of material already at hand and of known intrinsic value. Schools for once may be able to show that they are already carrying out a program which the experts have just discovered to be effective and valuable.

GOVERNMENT ACTIVITIES IN THE VISUAL FIELD

CONDUCTED BY MARGARET A. KLEIN

The Federal Women's Bureau and Visual Education

MARY V. ROBINSON

THE MOST effective educational program calls for a well-balanced combination of available mediums. Uncle Sam was satisfied several decades ago to present information on a variety of subjects in black and white statistical and technical reports, which were of incalculable value to the initiated but often as meaningless as Greek to the average person. Today, however, Uncle Sam realizes the importance of also parading facts in sufficiently attractive regalia to interest the man on the street, the woman in the home, and the child in the school. Such displays when characterized by color, action, and illumination serve as an entering wedge upon an individual's attention and help to fasten facts more definitely in the mind.

A die-hard of the old regime, objecting to such popular methods, voiced the opinion that if people wanted information they would avail themselves of it, irrespective of form. This is a debatable point. But the real truth is that many people must be made to want information, and a wise teacher instead of scorning exhibits will employ them, not as a royal road to learning, but as sign posts and invitations along the way. Such aids are now available from Uncle Sam on many unsuspected subjects.

Are you a teacher confronted with the problem of trying to present in your social science classes, to girls and boys in their teens, the complicated subject seemingly remote from their interests of women's gainful employment? If so, you will perhaps welcome this message on how to obtain cooperation from the Women's Bureau.

The Women's Bureau, charged with the task of formulating standards and policies to promote the welfare of wage-earning women and of collecting and distributing facts about their problems, is a young organization, created in July, 1918. Its investigations reveal the need to get over to the public many facts of vital concern, in view of the dove-tailing of the problems of breadwinning women with those of men wage-earners of the family and of the community. It has, therefore, from the beginning aimed to supplement its published reports with material designed for visual instruction.

Each year the bureau receives a greater number of requests for such graphic materials, as the results of two trends: First, the growing interest in visual education; and second, the increasing appreciation of the social and economic importance of questions concerning women workers.

Users of the Women's Bureau exhibits include educational institutions; groups interested in health, industrial, labor, social, civic, and religious matters; women's clubs and organizations; employees; and State Departments of Labor.

The past few years have brought a striking increase in the use of these exhibits by schools, colleges, and universities, and even by the junior high and grade schools. In many places the subject of women wage earners has now been given a definite place in the curriculum, in connection with civics or economics courses. Doubtless there are thousands of schools which want graphic materials for more effective presentation of this subject but which are unaware of the ability of the Women's Bureau to meet such needs.

Available exhibits from the bureau include motion pictures, models, maps, charts, posters, and folders. Material is sent to every State in the Union and to foreign countries upon request. The displays are lent free of charge, the borrower paying the transportation costs on all material that can not be sent under frank. Certain wall exhibits are sent free for permanent use. Others such as motion pictures and one model, of which there are a number of copies, can be borrowed for intensive use during a school term.

The Women's Bureau offers a motion picture library of four subjects in both the 16 mm. and 35 mm. film. The aim behind the pictures has been to simplify technical matters and to tie them up with the everyday interests of the average person. Though dealing in facts and not fiction, the pictures have certain entertaining features in the form of animated cartoons, rhymes, and scenes showing how familiar things like candy, cigars, shoes, automobiles are made in these days of mass production.

The most recent picture "Behind the Scenes in the Machine Age" (3 reels) stresses modern technological changes or the substitution of machines for hand labor as a factor in unemployment of women, pointing the need of a well-balanced program for adjustment of displaced workers. This theme is one phase of the general subject of human waste in industry which is treated in the picture from the viewpoint of women, with emphasis on the efforts of the Women's Bureau to improve the situation through its investigations and standards for women's employment in the way of shorter hours, better wages, and safe, sanitary, and comfortable working conditions. "Woman's Work

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DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

President's Address in This Issue

Dr. Hoban's splendid address, delivered at the recent N. E. A. meetings at Atlantic City, appears in full on a preceding page. It was the first discussion of visual education on the general N. E. A. program. The interest and enthusiasm it aroused should ensure visual instruction its proper, permanent place on future programs of the National Education Association.

Next Meeting in Minneapolis

The winter meeting of the combined Department of Visual Instruction will be held in Minneapolis, Minnesota, concurrently with the meeting of the Department of Superintendence of the N. E. A. Plans for the winter meeting are well under way and a good attendance is expected. Visual instruction directors and workers in the north central section of the United States will be asked to assist with the program. More complete information concerning plans will appear in later issues of this magazine.

Department to Publish Directory

The annual directory of visual instruction directors and active users of visual aids throughout the United States is being prepared at the present time and should be available for distribution in October. It will contain the names and addresses of approximately three thousand of the persons who are most active in the field.

As in the past, the directory will be sent without charge to each member of the Department, but those who are not members will be obliged to purchase it at $2 the copy, postpaid. The directory is of greatest value to manufacturers and distributors of visual instruction materials and equipment, many of which maintain membership in the Department and receive this service without extra charge.

News Bureau Service Established

Important developments in the field of visual instruction will be covered by the news bureau service which has been established through the office of the secretary of the Department of Visual Instruction. These news releases will be mailed to educational journals throughout the United States, as well as to other magazines which may apply for the service. The releases are furnished without charge to newspapers or periodicals.

Those who desire to report developments to the news bureau service should send complete information to the central office of the Department of Visual Instruction, 1812 Illinois Street, Lawrence, Kansas, where they will be given prompt and careful attention. Magazines which desire the service should direct their requests to the same address.

Membership Increasing Steadily

Membership in the Department of Visual Instruction of the N. E. A. is greater than at any time in the history of the organization and is increasing each month. Several branch organizations are being developed during the fall and other groups are becoming interested in such possibilities. The increasing membership is making it possible for the Department to offer the news bureau service to magazines, to publish the annual directory, and to make plans for other services to members. As the membership increases, the extra revenue derived from membership fees will be used to increase the value of the organization to its members.

Membership Application Blank

Office of the Secretary-Treasurer,
Department of Visual Instruction &
National Academy 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 .....

Street .....

City & State.....

I am ☐ / a member of the National Education
I am not ☐ \ Association.

NOTE—Make checks payable to the Department of Visual Instruction.

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

United States Has 1,400 Museums

Museums, for years large city luxuries, are rapidly becoming the educational need of every community in the United States, according to Laurence V. Coleman, director of the American Association of Museums, reporting to the Federal Office of Education in the United States. There are now 1,400 museums in the United States, most of which are regarded as important and necessary sources of education. Every two weeks, on an average, a new museum was founded in the United States during the period 1928 to 1930. Growing public interest in archeology and history, scientific progress and geographical discovery during the last several years has resulted in decided museum development. Museum service for every American will soon be a reality, says Mr. Coleman in his Biennial Survey Report, "Recent Progress and Conditions of Museums," Office of Education Bulletin 1931 No. 20, Chapter 22.

The trend in modern times is distinctly away from museums embracing more than one field. There is much discussion of decentralization, and subjects are replacing objects as museum exhibits. Museums of today are not only found in houses or buildings, but also in trails through woods and fields, "paths of learning." Park historians are being employed to teach history education in a classroom built by nature. During the past decade 13 trail-side museums have been established, including Wayside Museum at Coolidge, New Mexico, and those in Glacier National Park and Yellowstone National Park systems.

America's museums range from merest beginnings in rooms to large establishments with buildings and extensive educational and technical activities. Some have exhibits and nothing more. Others are almost disembodied services using temporary displays. Historical houses, themselves exhibits, are the homes of many passive museums.

The majority of museums recently established are devoted to art, science and history. The study reveals, however, that there has been a total neglect of art in State and National appropriations for recently established museums. State support is largely directed toward museums which deal with science, and national support is largely given to outdoor museums. Small town museums favor history, large cities give art first place.

Thousands of school classes now visit museums, and workable methods of meeting the needs of pupils are being developed. A revolution in museum practice is the exhibition of subjects rather than objects. In 1929 the new Buffalo Museum of Science opened with chapter of natural history, expounded in the following succession: Physics, astronomy, geology, biology, botany, invertebrate zoology, vertebrate zoology, evolution, heredity, geography and concepts of each science.

Forty of 50 recently established museums have been in communities with fewer than 100,000 population, Mr. Coleman points out. Most decided museum development in recent years has been in the States of Maine, New York, Pennsylvania, New Jersey, Ohio, Indiana, Illinois, Wisconsin, Michigan, and the Pacific Coast States.

Visual Activity at California School

One of the outstanding features of Education week at the Julia C. Lathrop Junior High School in Santa Ana, California, was the demonstration of visual aids used in the Social Science department.

The week opened with motion pictures given to the United States history and geography classes. Films on the lives of great American Statesmen and the leading world industries were among those shown.

Still films concerning the history of California and colored slides on the Orient were explained by students. Stereoscopes and stereographs were placed in all class rooms and stimulated interest. Clay and paper replicas had been made to show the early mission life in California. Bolsa wood was cleverly used to represent the development of transportation through the periods of water, land, and air.

The historic characters of Betsy Ross, Benjamin Franklin, Martha Washington, George Washington, The Minutemen, Priscilla and John Alden, Miles Standish, Balboa and Columbus which had been dressed by students were on display in the form of dolls.

Large posters and pictures secured from Foreign Tourist Bureaus had been grouped and assembled by Miss Hazel Nell Bemus, Director of Visual Education in the city schools. These lent an air of vivid color to the entire exhibit. They were also an incentive for students to be on the alert for interesting and worthwhile pictures.

A most unusual use of pamphlets of United States and foreign travel pamphlets and folders were the browsing table helps mounted by Miss Bemus. The pictures cut from pamphlets are mounted on the telescopic folders and labeled. These may be laid on the library table or placed in a standing position on the table where they attract the eye of the student.

At the disposal of the department were various for-

eign exhibits received through the exchanges made by the Junior Red Cross. Outstanding in this group were those recently received from Samoa, Japan, New Zealand, and Jugo-Slavia. Commercial exhibits of linen, flax, wool, cork and aluminum direct from great industrial plants made real the relationship between the raw materials and the manufactured articles.

The success of this exhibit was due to the combined efforts of all the teachers of the Social Science Department and their principal, H. G. Nelson.

Film Strip Prices Lower

New low prices for United States Department of Agriculture film strips will prevail during the fiscal year 1932-33, 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, 1933, will range from 14 to 85 cents each, depending upon the number of illustrations in the series. The majority of the 135 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.

The popularity of film strips among extension workers, teachers, and others has been due primarily to the reasonable prices charged for them, the convenience with which they can be handled, and their effectiveness in educational work. A list of available film strips 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.

Writer to Conduct Cinema Course

Harry Alan Potamkin, formerly foreign correspondent for the National Board of Review, now member of Exceptional Photoplays Committee of the Board and correspondent for *Close Up*, as well as contributor to the general and film press here and abroad (*Revue du Cinema, International Review of Educational Cinematography, Proletarskoy Kino of Moscow*, etc.) will conduct a course on the cinema at the New School for Social Research, New York, beginning October. The course is in the evening and therefore all adults and students, educators and artists, professionals and amateurs, who wish to enjoy the first course considering the film on equality with the other arts and sciences, will find time to attend. The lectures will treat the film historically and for its contemporary and future manifestations. The economic, social, political network of cinema will be established; the inter-relationships of the various national cinemas —of U. S. A., France, England, Sweden, Italy, Germany, Japan, Russia, etc.—will be examined; the basic aesthetic principles will be sifted from the film-fallacies and "primitive phenomena;" pivotal films will be analyzed; the film-animation will be scrutinized in and beyond the American "cartoon" to the Japanese rice-paper cut-out and the Soviet multiplication-film; film-humor will be the subject of one lecture, to begin with the jumping-jack film and proceed to explicit satire. The lectures will be accompanied by film-excerpts, full films and other accessory, as well as by specialists representing important cinema fields.

Motion Pictures Rate High in Advertising Survey

"Motion Pictures in Industry," a 10-page report issued by the National Industrial Advertisers Association, in cooperation with the Association of National Advertisers and the United States Department of Commerce, gives in concise form the results from a questionnaire sent to 2000 industrial advertisers, covering the three main classes of business films—Sound Motion Pictures, Silent Motion Pictures and Still-Films.

Of the 110 concerns reporting, 82 used silent motion pictures, 14 used sound motion pictures and 48 used still-films. There were a considerable number that used combinations of these various types, but comparatively few used all three classifications. Of the motion picture users who indicated the size of film they used, 35% used 16 mm. film only, 17% 35 mm. film only and 34% both 16 mm. and 35 mm.

To the question, "Do you consider your film activities successful?" all of the sound film users answered "Yes." Again 100% replied that their sound film expenditures were "as resultful as the same sum spent on other promotional activities." The replies to these same questions in the case of silent films were 82% for "success" and 75% for "comparison with other promotional activities." Of particular significance was the fact that companies reporting showed an average of 11% of the advertising and sales promotion budget was spent on sound films—3% was the figure for silent films.

That movies prepare the sales background was strikingly demonstrated by the fact that the sales force of 90% of the companies reporting tried to be present at film showings and follow up the prospects present.

Distribution, usually the chief problem in any film project, is broken down into charts, and indicates the great variety in the type of audiences reached and the methods of showings in the case of the films of many representative companies.

Subjects such as "Silent vs. Sound," "Cost of Production," "Weights and Costs of Projectors," and many other salient facts are covered in the report, with the interpretations and conclusions of the Committee. The report packs a lot of valuable and interesting information for those using or contemplating the use of the screen for advertising, promotion or

sales. Copies can be obtained for 50c from the National Industrial Advertisers Association, 420 Lexington Ave., New York City, attention C. F. Ivins, Vice-President, The Pathescope Company of America, Inc., Chairman of the Motion Picture Committee, under whose auspices the survey was conducted.

Radio and Film Strip Lectures on Agriculture

The combined use of radio and film strips in rural education was the subject of a recent experiment conducted by the agricultural extension service at Ohio State University, in cooperation with five county agricultural agents.

In broadcasting the illustrated radio meeting from the Ohio State University's radio station, a film projector was set up in front of the speaker in the studio. The projector was operated by an attendant, who at the signal of a gong struck by the speaker turned to the next picture on the strip. This method insured that the speaker would not forget to warn agents at local meeting places of a change in the picture. Each slide was conspicuously numbered and at each sound of the gong five agricultural agents in five different counties in the State turned simultaneously to the next picture on their film strips.

Local discussions on the subjects emphasized in the radio talks and film strips were led by agents immediately after the illustrated part of the program. During the discussion period, questions were phoned in to designated phones at the university. Later, the questions were answered by radio.

Ninety-eight per cent of the farmers and homemakers attending the meetings, which were on poultry raising, indicated they considered them successful and asked for similar discussions on other topics. They also suggested other uses for the illustrated radio meeting, such as, at farmer's institutes, for class work in schools, study groups of many different types, community organizations, and cooperative associations.

A Report from a Visual Worker

After spending ten years in Europe gathering visual education material for a number of American educational institutions, covering fourteen different countries, Mr. R. Raffius is now touring Asia to secure similar material depicting the industry, commerce, agriculture, transportation and life of the people in general. He writes:

"I arrived in Beirut well equipped with photographic paraphernalia. From here I launched upon an extremely ambitious itinerary. I travelled the transdesert route into Iraq from where I emerged with an excellent set of negatives. From Basra I took the boat for Karachi, India, for a trip up the Indus Valley as far as the Kashmir country. My itinerary from here will lead me to other parts of India, the Ganges Valley, Assam, the plateau region of Deccan, Mysore, Gurma, Ceylon, The Federal Malay States, Siam, French Indo-China, China, Japan, Manchuria, and such nearby Pacific Islands as The Philippines and The Dutch East Indies. I intend to turn west again and cover such territories as I have missed, such as Afghanistan, Persia and parts of the Near East, Palestine and Syria —finally back to Europe."

Visual Education for Boy Scouts

WILLISTON WIRT

In many localities where the Boy Scout movement has flourished it is the custom to hold once each year a Merit Badge Exposition. Each troop selects one of the ninety or so merit badges to portray, and is assigned a booth in the local auditorium where the showing is to be held. With the interest and co-operation of some thirty boys on each individual subject, a great deal of ingenuity results, and some very striking displays are achieved.

In the Exposition held at Berkeley, California, February 12 and 13, 1932, Troop 6 was assigned the Merit Badge in Lifesaving and Swimming. Since a portrayal of this subject involves certain activities in and under water, some discussion was held as to the possibilities of importing a canvas tank for the occasion. Limitations of cost and space, however, precluded such a plan, whereupon the suggestion was made that 16 mm. motion pictures of the activities be made in some outdoor pool, and that these be thrown on the screen during the Exposition.

This was done. A camera was borrowed, and 100 feet of film purchased. The Instructor in Swimming at the University of California, himself a Scoutmaster, provided a sunny corner in an outdoor, heated swimming pool. A number of scouts of Troop 6 who were adept at the various "holds", "breaks", and swimming strokes, were put through their paces in the water, and photographed.

The results exceeded all expectations, and were primarily responsible for the Troop being awarded Third Prize. In the booth, during the Exposition, one of the scouts would explain in detail each of the necessary functions involved in earning a right to wear the Life Saving Merit Badge. Other scouts would be called on to demonstrate the motions involved in each separate test, and then a portion of the motion picture would be run off, showing the results to be achieved in the water. It was felt that the pictures were superior in educative value to what an actual demonstration in the water would have shown, for the reason that the angles from which the pictures were taken, and the lighting involved which made it possible to discern the actions beneath the water, could not have

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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.

A Free Loan Teaching Film

Charles High Productions have a one-reel 16 mm teaching film on home canning, entitled *Capping Nature's Finest,* which they offer on a free loan basis to schools, churches and community meetings.

This motion picture will create a firm desire to do more storing of fruits, vegetables and meats in the homes for future use. During the peak financial years just passed, the storing of money has been paramount and the home storing of food neglected; approximately 30 million town and city dwellers discontinued home canning and 20 million newly established families have gained no knowledge of the simple canning process.

Life's first necessity is food, storing of food is nature's first by-law of self-preservation. This film teaches its audiences accurately the most modern methods of home canning as approved and taught by our United States Department of Agriculture.

Car Maintenance Shown in Movie

Keeping the Cars Rolling is the title of an interesting movie produced for the Chicago Rapid Transit Company by Charles E. Keevil and Lester H. Reichard, of the company's staff. The original purpose of the picture, which was filmed with a 16 mm. Bell & Howell amateur camera, was one of employee education, but while preparing the scenario it was seen that the subject could be so treated that the film would be interesting to the general public and thus be useful in public relations work. The finished film of 650 feet gives a clear and interesting account of the inspection, painting, and overhauling of elevated cars as practiced by this company. It is being shown to schools, clubs, and other organizations in Chicago, and can be secured for similar showings on application to the transit company.

E. M. Newman Making New Series for Vitaphone

E. M. Newman, the famous traveler, lecturer and author, who completed a series of thirteen Travel Talk shorts for Vitaphone, is back at the Brooklyn Vitaphone studio and is now whipping into short subject form, the vast amount of film material which he has gathered during his many trips around the world. Mr. Newman's new Vitaphone series will not be Travelogues, but something entirely different from his previous motion picture work. Each short, no two of which will be alike, will be based upon a single idea having an international scope.

Two of the series which are now available are *Transportation of the World,* showing the various modes of travel as used in various sections of the globe, and *An Oriental Cocktail,* presenting a fascinating trip through the Orient.

Edison's Menlo Park Activities Told in Sound Picture

The re-enactment of the creation of the incandescent lamp, the making of the foil record which marked the first practical reproduction of the human voice and the story of many other momentous occasions taking place in Thomas A. Edison's Menlo Park Laboratory are vividly told in a 13-reel sound motion picture produced, with RCA Photophone recording equipment, for the Ford Motor Company by the Metropolitan Motion Picture Company.

Its title, *Reminiscenses of Menlo Park,* suggests its purpose, which is to preserve for posterity the sound picture story of Edison's work in the development of his most important inventions. Edison's original Menlo Park Laboratory, which has been transported to Henry Ford's Greenfield Village at Dearborn, Michigan, forms the setting for the entire story.

In the picture, Frances Jehl, who assisted Edison in his work many years ago, and who is now custodian of the Laboratory, tells the story of these important experiments. As he conducts the audience through the Laboratory, he points out various apparatus, explaining their importance toward the development of these inventions, and, in a number of cases, re-enacting the entire story.

Metropolitan has also completed a sound picture of the building of Gar Wood's new boat, Miss America X, with which he defended the Harmsworth Trophy on Lake St. Clair this summer. Coincident with the laying of the keel, the filming of the picture began. Each day or so additional footage was shot to show the progress of the construction.

Anti-War Film

Must War Be?, a five-reel picture directed by Walter Niebuhr for the Peace Film Foundation of New York, had its premiere Aug. 12 at Unity House, Forest Park, Pa., summer resort. Governor Pinchot of Pennsylvania, Dr. Harry Elmer Barnes of the New York "World-Telegram" and David H. Robbins of the Peace Films Foundation were among those present. The picture contains accurate records of important events, together with actual scenes of war preparations by the big powers.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

The Irish Monthly (July) "Is It Education?" by the Rev. H. E. G. Rope, M. A., attacks bitterly the vaunted advantages of visual education. After introducing his theme that "it is commonly assumed that greater ease in learning, as in other activities, justifies the contempt of former methods and conditions, and unanswerably demonstrates the superiority of 'our innovations'," the writer attacks the frequent verbosity of educational method. From that he passes to the "cinema (if we must use that barbarous abbreviation)" and suggests that "it does not enhance one's confidence in the judgment of Signor Mussolini to learn that he has patronized the International Cinematograph Institute whose object is to develop to the uttermost this new invention as a means and instrument to education." The writer prefers the comment of a leader writer he quotes from the Daily Telegraph of July 23, 1929: "If we regard education as an affair purely of the intellect then no amount of instruction by means of films will teach a student to read for himself or think for himself or to make his own discoveries. At best the film can only become a more or less valuable extension of the black board; at worst it might be a positive hindrance to developing the habit of serious reading."

This author seems a bit behind time in his knowledge of these things. The dangers he point out have long ago been recognized and fairly well disposed of. Signor Mussolini probably knows that the Institute he so trusts has long ago learned that the educational film is, *and will always be,* a supplementary form of aid, never to displace either teacher or text book. Signor Mussolini may also know that the film is *better* than an extension of the blackboard, because the blackboard can present only *static* images, whereas the film offers *moving* images, and psychological experiment has proven conclusively that the moving image arrests and holds the attention better than the still form. Witness the extra expenditure of the advertiser in these matters, and he counts the cost as balanced by any gain closely!

The author then points to the bad effects of compulsory education against the so-called illiteracy in agricultural portions of the country, where such education often fails to "combine inherited instinct with scientific knowledge." The article closes with the comment, "Better ten million times such illiteracy than the continued 'culture' of the garage, the film house, and the dancing hall, and all of the vapid boredom of 'Progress'."

This is a human document, this bit of Irish criticism! One remembers the charm of the Synge dramas with their lovely fisher folk idiom; one recalls the struggle of the Celt to have his young generations remember things Celtic, even to the language itself. All this sense of rebellion against destroying the essential beauty of an ancient empire, shrunk now to a slender fringe of islands, dominated by another empire, shines through this commentary on modern education, and particularly visual education. The writer has allowed his emotion to blind him to a progress as certain as the passing of the Celtic Empire of earlier days. The international-mindedness for which we all pray will smooth away these emotional blocks that insinuate themselves into the simplest and smallest problems, even into that of visual education and its worth. The charm of simple rural life *is* infinitely better than the cheap sophistication these simple people ape, once they become soaked with Hollywood civilization. But, after all, *what* has that to do with the staid subject of visual education, unquestionably established as an efficient aid to the fundamental methods of education?

The Nation (July 6, August 17) "Morals, Facts and Fiction," by Alexander Bahsky, discusses our modern attitude toward animals in relation to the Buck film, *Bring 'Em Back Alive.*

Like the Chinese Mandarin of old who surrounded himself with every rare and aesthetic experience and yet could slaughter human life without turning a hair, or like the ancient Roman who copied so appreciatively all that Greek culture had to offer, yet gorged himself like a beast and slew Christians as enthusiastically as he copied Grecian art, so we view the life of an animal as next to worthless. Therefore we do not object to the killings in this film. The critic has, however, more cheerful comment to make anent this production. Facts as facts are not interesting generally. It is when they are unfamiliar facts that audiences find them arresting. Thus, the facts of the jungle life depicted in this film fascinate film audiences. Of such interest were the Alpine scenes in *The Doomed Battalion.* Similarly, morals interest audiences when in the garb of a film like *The Dark Horse* with its showing up of American political follies.

In the August 17th number, we find Alexander Bahsky's "Concerning Dialogue," in which he points out that the old cry against dialogue in the talkies, in films, because dialogue belonged to the legitimate

drama, is only the same old cry originally made *against* dialogue in the legitimate drama, because talking "intellectualized drama," whereas it should remain visual to appeal directly to the senses! He further suggests that speech is an integral part of human experience and belongs in both the film and the drama, but that Hollywood has made the mistake of taking over dramatic dialogue completely and putting it into the film. Even with a good amount of deflation, it is still too much stressed and throws the film back to the rigidities of its earlier stages. Dialogue in the film is and must be of a length and kind particularly adapted to that medium.

Reviews of Reviews (English) (July) "The Film in National Life" (George Allen Unwin, Ltd.) is the report of an unofficial body, a committee on Education and Cultural Films, established in November, 1929 to advise on production, selection, distribution and use of films. Included on the committee were such diverse personalities as J. L. Meyers, Lord David Cecil, Mr. C. T. Cramp, Mr. St. John Ervine, Gen. Sir W. T. Fune, Dr. Winifred Cullis, and Sir Richard Gregory. The findings of the committee are encouraging. They felt that there was a need for a higher standard of production as usual, but they felt, as well, what is not as usual; namely, that there was a new interest in a more constructive use of the film. They found that all countries have some positive control and co-ordination of film production, Italy's control being the most marked. In Russia, of course, the control is drastic, almost a matter of complete government production, with no injury, however, to the artistic quality, as one might suppose such propagandic control might result in. The art of Russian and German film production they found unrivalled except by the work of the Frenchman, M. Réné Clair.

The Saturday Review (July 9) "Are Films Degrading?" is a brief debate, "No" being upheld by J. Deffell and, "Yes" by C. P. Herries. The English gentleman who espouses the affirmative offers vitriol in the form of general assertion upon general assertion. His statements have been made hundreds of times on both sides of the Atlantic. He graciously admits that "the film should not and need not" degrade, but that it does because "it debases the currency of language and that vile disservice is the result of the 'talkies', that bastard art form which has supplanted the silent film with all its magic power". We recognize the British prejudice against American slang and a not unusual dislike of the talking form of films, characteristic of any nation. But beyond that the writer's statements are simply assertions that bear no weight as reliably proven. The talkie further degrades because "it bewilders, cheapens, obscures, bores and degrades the mind." Mr. Herries then speaks of the Novelette of Victorian days, read behind closed doors, but considers its evil influence mild indeed, beside the modern cinema "which distorts every moral value and undermines every foundation of civilized society." Such wholesale condemnation would seem to stamp the film output of the world as an inexcusable performance. It would seem that the gentleman is as lacking in discrimination as he would have us believe the film world is in decency. His opponent comes back at him on that very score. Says Mr. Deffell, "Emphatically NO! . . . Are plays degrading? Are novels, are friends degrading?" He answers his own question by suggesting that these things are degrading only when we, ourselves, select degrading representatives of those experiences. He asserts that he should hate to be forced to defend the vulgarities of Mickey Mouse, but that the large mass of film production deserves no such calumny as offered by his opponent. He suggests that one sees, in the first place, other footage than that of the feature film at any movie-house program. For example there are educational shorts and travel films. As for the feature film, there are plenty that measure up to a decent standard if one selects his pictures carefully. Those who frankly dislike the cinema as an art form or an amusement cannot judge its output fairly. Such films, concludes Mr. Deffell, as the German films of the Siegfried legend, *Varieties*, and the incomparable French productions, *The Miracle of Wolves, Le Vert Galant* and *Napoleon*, and even our own Mr. Victor McLaglen in *A Girl in Every Port*, need no defense. One may disagree with a critic's choice, as one might easily draw a line at *A Girl in Every Port*, but the statement behind the choices is sound, and a much fairer presentation of his subject than that offered by the negative side.

The Living Age (May) "Letters and Arts" reports briefly upon the work of V. I. Pudowkin, a leading Russian Director who has "procured entirely new effects by adapting the technique of slow motion to the ordinary film." This gentleman is one of the several referred to in Professor Orton's invaluable discussion of the cinema and its technique in the May issue of the *Atlantic Monthly*. In twelve items the editor gives the continuity of one sequence in the Russian's experiments,—a man swinging a scythe. It was found that his formula applied "produced the desired effect upon the spectators, who claimed that they experienced a wholly new sensation of moisture, weight, and force." He concludes that slow-motion is not a trick to be used, "not a distortion of an actual process but a conscious guidance of the attention of the spectator to some significant happening. It offers a new method of emphasis. It is a 'close-up' of time."

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"

Almost Married (Alex. Kirkland, Violet Heming) (Fox) Grim, murder-mystery thriller of real merit for tense action, fine acting, continuous dramatic suspense, granting initial promise of long-lost husband gone mad with jealously and bent on killing. Decidedly above average of its kind.
A—**Good of kind** Y—Thrilling C—Too thrilling

American Madness (Walter Huston, Pat O'Brien) (Columbia) A masterpiece, timely, clean, strong, virile, direction and action to delight the intelligent audience. Concerns banking, mob hysteria, bank runs, and value of character versus collateral. Fine dramatic values. A picture in a hundred.
A—**Excellent** Y—**Very good** C—Mostly beyond them

Bird of Paradise (Dolores Del Rio, Joel McCrea) (RKO) Effective screen version of the tragic love of a white man for South Sea island princess. Thrilling action, beautiful photography, against background of native superstition, tribal ceremonials, etc.
A—**Good of kind** Y—Douhtful C—No

Blondie of the Follies (Marion Davies, Robert Montgomery) (Columbia) Clever, deftly played, sophisticated story of two show girls and one irresistible man. The old over-worked motif, "Love but don't marry—it kills love," is now replaced by "Can't marry unless you really love—can only live together". Promising new motif for a whole series of future films.
A—Depends on taste Y—Pernicious C—No

By Whose Hand? (Ben Lyon) (Columbia) Lively murder-mystery yarn, laid mostly on through train, with breezy, wisecracking reporter again the chief factor in solution. Rather complex story, but fast-moving and more or less gripping throughout. Uneven in acting values and convincingness.
A—Hardly Y—Exciting C—Hardly

Congorilla (Mr. and Mrs. Martin Johnson) (Fox) Interesting picture of animal and native life in the Belgian Congo, filmed by the Johnsons with genuine African sound effects. Studies of engaging tribes of pygmies. Corillas particularly entertaining. Many humorous touches.
A—**Excellent** Y—**Excellent** C—**Excellent**

Devil and the Deep (Tallulah Bankhead) (Para.) Submarine commander is cruel husband, hence wife is easy subject for seduction by the hero, woodenly played by Gary Cooper. Enraged husband's attempt at grim, under-sea revenge fails and he dies insane. Sensational but ordinary, save for Laughton's acting of the husband role.
A—Hardly Y—By no means C—No

Divorce in the Family (Jackie Cooper) (MGM) Fine work by Jackie as unhappy little son of divorced parents, both still devoted to him. Strong supporting cast with two exceptions. Generally human, appealing story, but dialog and actions are sometimes more theatrical than realistic.
A—**Good** Y—**Very Good** C—**Good**

Downstairs (John Gilbert, Paul Lukas) (MGM) Hero is brazen, vulgar cad, in service as chauffeur in Viennese baronial castle. By thievery, blackmail and promiscuous seduction, he disrupts whole household. After six gay reels he meets grotesque tragic end. Nasty bits of action and offensive dialog.
A—Unpleasant Y—Pernicious C—No

Down to Earth (Will Rogers, Irene Rich) (Fox) Much comment from Will Rogers on the depression in his usual serious-humorous vein, but little else. Story and action so exaggerated as to border on burlesque. Unconvincing. Film can hardly strengthen Will's hold on his public.
A—Hardly Y—Passable C—No interest

Exposure (Lila Lee, Walter Byron) (Tower) Belated picture of the tabloid-newspaper thriller cycle, of some real merit in plot, human interest and acting of the leading roles. Much of it rings true, but some situations and episodes are trite and cheaply sensational.
A—Passable Y—Doubtful C—No

First Year, The (Janet Gaynor, Charles Farrell) (Fox) Skillful screening of fine stage-play by Frank Craven. Domestic realism at its best, genuine character portrayal, human and humorous. Two small town boys after one girl. She chooses correctly, though there is much doubt about it at times. Minor roles well done.
A—**Pleasing** Y—**Excellent** C—**Good as far as it interests**

Guilty As Hell (Edmund Lowe, Victor McLaglen) (Para.) Stupidly chosen title for ordinary murder-mystery, unobjectionable save for a few cheap, risque lines inserted in dull dialog. Audience shows murderer at start, cast spends rest of film hunting for him. Lively action and good suspense, but acting and dialog mediocre.
A—Passable Y—Perhaps C—Hardly

Hold 'Em Jail (Wheeler and Woolsey) (RKO) Another "howling" farce comedy about two wisecracking specialty salesmen, who land in jail where their horseplay antics make havoc of prison discipline. Hilarious football game between rival prison teams is the climax.
A—Depends on taste Y—**Funny** C—**Funny**

Hollywood Speaks (Pat O'Brien) (Columbia) And speaks about as would be expected. Moviedom probably unaware that this supposed portrait of its life shows nothing but elementary impulse, sex obsession and cheap intrigue. Wisecracking reporter is only bit of normal human interest. Likely to confirm the widespread and unfavorable opinion of Hollywood life.
A—Cheap Y—By no means C—No

Horse Feathers (Four Marx Brothers) (Para.) Typical fast and furious horseplay, foolish or vulgar antics and slapstick, more riotous than ever. Funny to those who enjoy this quartette's particular brand of humor. Supposedly their best to date.
A—Depends on taste Y—Doubtful C—Doubtful

Igloo (Native Cast) (Univ.) Seemingly vivid, convincing and intensely interesting portrayal of Eskimo tribal life in extreme north. Childlike pleasures and tragic struggle against hopeless odds. Life at its simplest and grimmest. An important film if true, but some obvious faking casts grave doubt upon autheaticity of whole
A—Exceptional Y—Good if true C—Too strong

Jewel Robbery, The (Wm. Powell, Kay Francis) (Warner) Daring methods and charming manner of clever jewel thief prove irresistible to bored young wife of millionaire. She assists his escape from police and promises further meetings. Lively acton, sophisticated dialog. Crook hero made very glamorous.
A—Fairly good Y—Very doubtful C—No

Lily Christine (Corinne Griffith) (British production) Rather interesting and fairly convincing picture, sincerely played and directed, concerning two fine English people whom circumstances involve in serious divorce tangle. Fine acting by Colin Clive.
A—Quite good Y—Better not C—No

Madame Racketeer (Alison Skipworth, Richard Bennett) (Para.) Fine bit of character work by star as "countess" with long checkered career as swindler and jailbird. Her chronic crookedness made most engaging, but action borders on burlesque sufficiently to make story harmlessly amusing throughout.
A—**Amusing** Y—Probably good C—Hardly

Mr. Robinson Crusoe (Douglas Fairbanks) (U. A.) Light, breezy, whimsical picturizing of extremely modern Robinson Crusoe in self-chosen exile on South Sea island. Builds in few months elaborate living quarters and ingenious mechanical contraptions — which couldn't be done single-handed in twenty years.
A—Fairly amusing Y—**Amusing** C—**Amusing**

My Pal the King (Tom Mix) (Univ.) Distinctly different from usual Mix picture. Lively heroics and Western thrills combined with pleasing, fanciful story of mythical kingdom with child monarch whom Mix rescues and restores safely to throne, defeating plots of treacherous cabinet.
A—**Good of kind** Y—**Very good** C—**Excellent**

Old Dark House, The (Boris Karloff) (Univ.) Melodramatic, tense mystery story of single night spent by some wanderers who have sought shelter from storm in sinister old house. Gripping, chilling, harrowing. Aims at scare and succeeds masterfully.
A—**Good of kind** Y—Doubtful C—No

Passport to Hell (Elissa Landi, Paul Lukas) (Fox) Complicated, improbable story. "Heroine" tricks young German military officer into marriage. He is assigned to post in African jungle. She and young engineer fall in love. Confused situations result in husband's suicide. Waste of good cast.
A—Hardly Y—No C—No

Purchase Price, The (Barbara Stanwyck, George Brent) (Warner) Cheap, shoddy film about cabaret singer who becomes mail order bride of boorish Dakota farmer. Absurd, burlesqued situations and actions. Inexcusable mishandling of Arthur Stringer's fine story, "The Mud Lark."
A—Stupid Y—Worthless C—No

70,000 Witnesses (Phillip Holmes, Dorothy Jordan) (Para.) Lively, wholesome thriller, combining football, convincing crooks and detectives, a novel murder, and some excellent comedy by Charles Ruggles in choice role of tippling reporter. Highly improbable in spots but healthily entertaining for practically any audience.
A—**Amusing** Y—**Entertaining** C—**Exciting**

Skyscraper Souls (Warren William) (MGM) Super-rich banker is tricky financier and expert seducer of women. Stays married for protection. Smooth, sophisticated sex stuff dominates the whole picture. Charming heroine and engaging hero serve mainly to supply moral ending.
A—Depends on taste Y—Pernicious C—No

Speak Easily (Buster Keaton) (MGM) Riotous slapstick comedy. Keaton ridiculous college professor tricked into becoming backer and manager of cheap show which becomes ludicrous Broadway success. Naive antics with some questionable burlesque sex stuff. Tries hard to be funny; partially succeeds.
A—Silly Y—Doubtful C—Hardly

Stranger in Town (Chic Sale) (Warner) Probably best so far of pictures built around Chic Sale's typical old-man roles. Homely, laughable story of belligerent old grocer fighting the depression in general and the chain stores in particular. With much talk and action he wins.
A—Fair Y—**Good** C—**Good**

Two Against the World (Constance Bennett) (Warner) Wealthy heroine, shielding married sister, permits brother to believe her guilty of liaison with worthless cad whom he kills. Lawyer-hero unwilling prosecutor, but brother's confession brings acquittal by "unwritten law" defense.
A—Trite Y—Doubtful C—No

Vanishing Frontier, The (John Mack Brown) (Para.) Harmless, mildly entertaining story of California in 1850 when rule by military force was gradually ended by steady opposition from native Spanish inhabitants. Notably good cast, save for unctuous acting of hero and his weird attempts at Spanish accent.
A—Perhaps Y—Rather good C—Fair

War Correspondent (Jack Holt, Ralph Graves) (Columbia) Two brazen braggarts wrangle over same girl, with Chinese war as lurid background. Cowardly, wisecracking war correspondent wins out over tough, brutal hero who is impossibly heroic and equally unadmirable. Again violence and excitement are supposed to make "drama".
A—Hardly Y—Unwholesome C—No

White Zombie (Bela Lugosi, Madge Bellamy) (U. A.) Another naive, artificial scare film, made as horrible as possible by weird effects, ghastly make-ups, and exaggerated acting. Exploits the superstition that the dead are made to rise and work for witch doctors. Grewsome love story woven in. Almost no human interest.
A—Waste of time Y—Certainly not C—No

SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

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

The Decoration of School Room Windows as a Visual Aid in Teaching

HARLAN L. HARRINGTON

IN THESE times when teachers' programs are more than full and when every moment of the school day has to be used for worthwhile work, any device which tends to make the pupils' work more interesting and at the same time more instructive is of great value. At the John Hancock and Lincoln Schools in Quincy, Massachusetts, the teachers have been making use of such a device for the past year with a great deal of success and enjoyment. It is not a new idea and no claim is advanced for its originality, window decoration having been employed by teachers for many years during holidays and times of special celebration. However, we feel that the method used in these schools is a little out of the ordinary and that we have gone a little farther than just building decoration.

The materials used are inexpensive and very easy to obtain. Most teachers have a goodly supply of colored chalk short-ends, practically useless for board work, but just the thing for our purpose. These are crushed to a fine powder, mixed with powdered Bon Ami, moistened with water to the consistency of thin cream and are then ready for use. These different colors are applied to the window panes with brushes in whatever designs are desired. If properly done, the results will be found to be very good from the inside and still better from the outside. Care should be taken that the mixture is not applied too thickly. When the value of the decoration has become exhausted, wiping with a dry cloth will remove all of the designs completely and polish the glass, leaving the window panes in better condition than before using, a condition that never obtains when designs are pasted on the windows.

We have found that this device opens up many opportunities for self-expression by the children otherwise lacking in the various rooms. It gives the younger children a chance to become familiar with handling a brush and the older children an opportunity to plan and execute much original work. This work has been in many cases merely decorative but from time to time there has been some fine correlative work with history and civics, particularly in connection with different holidays and patriotic celebrations. When this work is done by all the rooms in a building, the pupils not only benefit as stated above but the building itself becomes very noticeably attractive on the outside. This in itself is a good lesson in civics for the pupils.

The window work in the lower grades necessarily has to be of a simple nature, in many cases the teacher furnishing the outline in the window and the pupils doing the filling with the proper colors. At other times the pupils may experiment themselves with simple designs. As specific examples, at Christmas there were drawings of Santa Claus in some rooms; candle designs in others; Christmas trees in others, and so on. During the Washington Bicentennial celebration, silhouettes of Washington in black and white, hatchets or cherry trees in colors, or some other appropriate designs were in order and were used with marked success. Many of the rooms have had quite elaborate snow scenes worked out on the windows during the winter.

In the upper grades, the work has been done entirely by the pupils, the teacher acting merely as advisor. During February, one of the fourth grade

rooms had pictures of five prominent Americans born during that month, on five different windows flanked by appropriate designs, i.e., Lindbergh, with airplanes; Edison, with the first electric light; Longfellow, with scrolls, and so on. During the same month, a sixth grade room had pictures of Lincoln and Washington in white on black ovals, with scenes from the life of each in other windows. For the Bicentennial, a fifth grade room worked out a set of scenes from the life of Washington which was not only very well executed but was of much aid to the teacher in teaching about his life. Last spring one of the buildings dressed itself up for the Easter season. Naturally, there was

little opportunity here for correlation with anything save drawing but the results were very gratifying. One room had a design consisting of a large blue bowl filled with vari-colored flowers; another had a design of daffodills; another had purple irises alternating with white lilies; another had boxes of tulips of various colors.

The opportunities are endless. The interior of each room is very attractive, while from the outside the building as a whole has taken on an appearance that is eliciting much favorable comment. The teachers have found that there are many times when this work is of definite, practical aid in teaching, and in general have taken to the idea with a great deal of enthusiasm. In fact, the teachers seem to get as much pleasure out of helping and supervising the pupils' activities as the pupils themselves show in planning and executing the work, which appeals to me as teaching on its highest plane.

A Shorthand Moving Picture Film

ELEANOR SKIMIN

AT THE request of THE EDUCATIONAL SCREEN, the writer is glad to give the field some account of a film recently made in her classroom for use in teaching shorthand to High School classes.

Shorthand is essentially a skill subject. Before training can be given in the development of any skill, it is necessary that the precise nature of that skill be understood. The skillful person, whether he be a dancer or a bricklayer, has acquired a series of smoothly functioning habits of action. He is the master of his profession or trade. 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 been done so frequently that it is done automatically and with little attention.

The moving picture attempts to analyze the precise nature of writing shorthand. The hand position in the first picture, shows very conclusively that the hand should be held with palm down and wrist level. The reason that the wrist must not be turned much to the side, is that this position prevents the hand from sliding easily across the paper. To make this sliding movement easily, the hand should rest upon the third and fourth fingers. The fingers slide upon the nails. You will notice, in the picture, that the hand, in executing the oval exercise, followed by the horizontal strokes—r, l, k, g, n, m—does so with a very rhythmic stroke and with a quiet movement.

The pen should be grasped easily and lightly in a position which is natural to the form of the hand of the writer. The thumb and first finger should not be drawn in or tightly pressed against the penholder. The first finger should rest nearer the point of the pen than the thumb. It is well to stop the picture and hold the position for a few minutes so that students may look at it very carefully and get a good eye-picture of the correct position.

"The eye's a better pupil and more willing than the ear;
Fine counsel is confusing, but example's always clear;
We can soon learn how to do it, if we only see it done;
We can watch your hands in action, but your tongue too fast may run,
All lectures you deliver may be very wise and true,
But we'd rather get our lessons by observing what you do."

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. The moving picture brings this out very clearly. Exercises should be given to develop this movement. When the sideward movement is not properly carried out, the shorthand becomes cramped and shorthand forms can not be easily formed. The second aspect of the writing movement is the up and down characters which are made with more finger action than the horizontal strokes. The important thing to learn is to combine the two movements. Specific exercises will facilitate this combination of the sideward movement and writing of shorthand character forms. The oval drills, to the count of three, followed by p, b, will develop the proper finger action in the formation of these characters. Likewise with f and v and the strong up-and-down strokes—t, d, sh, ch, and j. You will notice in the moving picture that all the writing is very quiet. There are not a lot of flourishing arm movements which are detrimental to fast writing.

Another aspect of writing movement which has not received as much attention as it should, is rhythm. You will notice that the trained writers in the picture are writing with rhythmic movements. The good writer, as contrasted with the poor writer, writes smoothly and quietly. There is no excessive movement in his hand, while writing. He has control of his hand and its movements. The untrained writer, in the picture, shows very conclusively that her hand is not trained; her hand clutches her pencil and she is working altogether too hard to get her dictation, while the trained writer goes on smoothly, quietly, and carefully, with a marked degree of confidence that she is getting what is being dictated.

Sir Galahad the Deliverer

Suggestions for an Art Lesson Correlated With Visual Aids

ADELINE KELLER

ASSIGN reading of adventures of the quest for the Holy Grail to pupils of class. Have each pupil study carefully just one adventure. When the slide relating to his adventure appears have him tell of it. The list of slides used is given below, together with some of the topics for discussion.

Typical Medieval Castle.

Why is this castle located at this point? (strong, defense position.)

The Infancy of Galahad.

(Appearance of vision to mother and child.)

"The Accolade."

(Knighting of Sir Galahad.)

"Round Table of King Arthur."

(Tell here of Sir Galahad's coming to the round table.)

The Departure or Benediction upon the Quest.

(Why did Galahad seek the Grail?)

The Castle of the Grail.

(Tell of his first visit to the Castle.)

The Loathly Damsel.

(Why was she called loathly?)

Conquest of the Seven Deadly Sins.

(What were the seven deadly sins? How was each conquered?)

The Key of the Castle.

(How did Galahad obtain it?)

The Castle of the Maidens.

The Ship of Solomon.

City of Sarras.

The Golden Tree.

The Burial of Leister.

Sir Galahad as Watts the artist pictured him (preferably a colored slide).

Material for the lesson was drawn from "Great Pictures and Their Stories," Book V, by Lester.

Pupils should discuss questions and material on pages 105-117 freely in connection with corresponding slides. Teacher should read material to class and have brief discussion on it before presenting slides so children will feel well acquainted with subject and willing to add thoughts when slides are shown.

Impress point that Abbey is the artist in all except cases starred and that the original painting adorns the library in Boston.

Suggestions for special work:

1. Draw own frieze for school room of Galahad's story. (Explain meaning of frieze to pupils.)
2. Write short composition on "Why I think this was a good type of decoration for a public library."
3. List places in home city where "story-telling friezes" can be seen.

Visual Education for Boy Scouts

(*Concluded from page* 210)

been duplicated in a small demonstration tank. Moreover, there was no limit to the number of spectators viewing the picture, and it could be run an indefinite number of times, while the crew explaining and demonstrating could be frequently changed. Following the Exposition, the film will be available for other troops or organizatons which desire instruction in Life Saving.

Suffice it to say, that another year will find this particular Troop making full use of "visual education" in this particular enterprise.

The Federal Women's Bureau and Visual Education

(*Concluded from page 206*)

Past and Present" (1½ reels) contrasts women's former industrial work in the home with their factory jobs of today. "Within the Gates" (2 reels) gives the story of Dad's shirt from the picking of the cotton to the sale of the shirt over the counter, portraying women's part in the mass production and business methods characteristic of our civilization. "The Story of the Women's Bureau" (1 reel) tells of the origin, aim, standards, and activities of the bureau with typical scenes of its staff at work.

For the use of classes not equipped for showing movies, the Women's Bureau offers a photographic display illustrating women's work in a wide variety of plants, including textile mills, laundries, metal shops, food factories, and so on.

A model entitled "Steps to Safety and Efficiency" for Wage-Earning women, and consisting of three panels with seven scenes, illustrates the beneficial and wide-spread effects of good standards for employed women, which make for the well-being of industries, the workers, the home, the family, the race, and the Nation. This exhibit is available in two sizes. The smaller model, of which there are a number of copies, is well adapted to class-room use, being light in weight and designed for table display, with very nominal transportation costs.

More detailed descriptions of the above equipment as well as of available wall exhibits, such as posters and charts on different subjects pertaining to women workers, can be obtained by writing to the Women's Bureau, U. S. Department of Labor, Washington, D. C.

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.

A Novel Ciné Kodak

Eastman Kodak Company has just introduced the Ciné-Kodak Eight, which is designed to lower the cost of home movies considerably since a 25-foot roll of film in this new camera, which is small enough to fit in a coat pocket, will give as many pictures as 100 feet from other cameras using 16mm. film.

The new camera loads with a 25-foot roll of special 16mm. film, but it exposes only half the width of the film at a time, recording a series of complete images on each half. When the 25 feet have run through once, the spool containing the film is removed and placed on the supply spindle. The other half of the film is then exposed. The width of each image being thus reduced by half, the height is similarly reduced and the number of images down the length of the film is doubled in consequence, thus quadrupling the number of images recorded in a given length of film. When the exposed film reaches a processing station, it is processed, slit down the middle, spliced end-to-end, and then returned to the movie maker as a 50-foot reel of 8mm. film with perforations down one side. Perforations on the special film for the Ciné-Kodak Eight are spaced half as far apart as on other 16mm. film.

The special 25-foot rolls of film have an extremely fine-grained panchromatic emulsion that assures a clear, sparkling screen image in spite of great magnification. A black coating on the back of the film reduces the possibility of halation.

The Ciné-Kodak Eight, equipped with a Kodak Anastigmat *f*.3.5 lens, is the lightest, smallest home movie camera with a film capacity permitting four minutes of projection. The low cost of both the apparatus and the film, together with the novel compactness and simplicity of the equipment at no sacrifice of convenience, promise that the Ciné-Kodak Eight will find wide acceptance among the large group of persons who wish to make movies but who feel that they cannot afford the special features of 16mm. equipment.

Two Kodascope Eights have been designed for the projection of the new 8mm. movies. Both Kodascopes have the capacity to project 200 feet of 8mm. film at a single showing—the equivalent of 400 16mm. feet—with a running time of 16 minutes.

The Kodascope Eight, Model 60, is equipped with a 100-watt pre-focussed projection lamp with a decentered filament. The projection lens has a focal length of one inch. A high-speed motor-driven rewind requiring no changing of belts or reels, and provision for plugging in a table lamp to turn on automatically when the projector is turned off, are other features. The Kodascope Eight, Model 20, also has a one-inch lens. It is equipped with a dependable lamp for adequate illumination. The size of both projectors permits very easy carrying.

As in the case of full-width 16mm. movies, titles will be available for splicing into film exposed in the Ciné-Kodak Eight. Miscellaneous successful professional motion pictures for showing with the Kodascope Eight also will be prepared, under the name "Cinegraph Eight."

A New Leica Projector

Leica owners as well as all miniature camera owners will be interested in the new Udimo Film and Glass Slide Projector which is now being distributed by E. Leitz, Inc., New York City. This projector uses single frame, double frame and the half vest pocket (3x4cm) size pictures.

The new Udimo Projector permits the use of all the interchangeable Leica objectives and also the 80mm. and 120mm. special projection lenses. The projector is provided with large film spools to accommodate 35mm. film up to 35 feet in length. Interchangeable sliding gates are used for covering the different picture areas on the film and glass slides.

Another novel feature of the new projector is the glass slide changing magazine which holds 60 2x2 inch glass slides. The slides are automatically changed from one side of the projector to the other during the showing of the pictures. This arrangement is of special value for lecturers who wish to keep their pictures in definite sequences and at the same time have an opportunity to change the order of the pictures.

"Projecting Leica Pictures" is the title of a new Booklet No. 1209 giving complete information about the Udimo Projector. Copies of this new booklet may be secured from E. Leitz, Inc., 60 East 10th St., New York, N. Y.

Two Lenses Announced by Bell & Howell

Two newly developed Cooke lenses are now offered by the Bell & Howell Company, Chicago. Both are for 16 mm. ciné use, one being for the Filmo 70 Camera and the other for the Filmo Projector.

The Filmo Camera lens is the Cooke 1-inch F1.3. It is asserted that this objective has the fastest work-

(*Concluded on page* 222)

Among the Producers

(*Concluded from page 220*)

ing speed yet satisfactorily attained in a Filmo Camera lens, which should be welcome news to many 16mm. film users. This new lens, being one and nine-tenths times as fast as the F 1.8 lens, is most desirable for filming sporting events in slow motion under weak light, theater productions, indoor athletic events, surgical operations, home interior scenes, factory processes, etc. Used with supersensitive panchromatic film, it permits getting fully exposed scenes under heretofore impossible light conditions.

The Filmo Projector lens is an extremely wide angle objective, for giving the largest possible screen image when distance from projector to screen is necessarily closely restricted. Its focal length is only .64-inch, whereas the shortest focal length previously offered in a Filmo Projector lens was .75-inch. It also gives a brighter picture, for its working aperture of F 4 is a large one for a lens of such short focal length. This new lens should prove useful for window displays, convention booths, and exhibits with either continuous or regular projector. At 24 inches a picture approximately 14x11 inches in size is shown; at 36 inches 21x16 inches.

Slides on France

Three new sets of glass slides on France have recently been released by Eastman Educational Slides of Iowa City. The titles of them are "The Spirit of the French as shown in Architecture," "The Spirit of the French in Costume," and "Every Day Life in France."

In this group of slides they have endeavored to show first the spirit of the French as expressed in their architecture, which is the most easily studied of any expression of the national life. Selections have been made from the beautiful, interesting and historically important structures in France.

The set on the French spirit in costume explains in an interesting way why the French are today the leaders in the world of style, and how they have expressed this spirit through the centuries.

In the "Every Day Life of the French" is shown a number of unique customs of the people which differ decidedly from those of English-speaking people. The street life of Paris, the method of building farm houses in a cluster, and the public market of the peasantry are a few of the customs depicted.

Distribution for Electrical Research Library

An announcement, viewed as significant of the growing importance with which the motion picture industry regards the non-theatrical field, is contained in the statement by J. R. West, Manager of the Non-Theatrical Department of Electrical Research Products, that the talking pictures made by his company will, in future, be available to religious, educational and industrial organizations through the Educational Film Exchanges in Seattle, Los Angeles, Chicago and New York. These four exchanges, in conjunction with the New York office of Electrical Research Products will serve as the nucleus for the nation wide distribution of an unusual library of educational, religious, scientific and musical subjects that have been prepared over a period of three years under expert supervision.

Most of the pictures in the library are one or two reels. Many of them have been prepared strictly from a pedagogical standpoint. Others combine learning knowledge with such general entertainment value that they have already had theatrical showings.

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for

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We, therefore, offer Simplex-Acme Sound Projector with the complete confidence that it will meet every requirement of schools, colleges, churches, auditoriums and large commercial organizations. The Simplex-Acme for the first time relieves owners of the necessity of paying a tremendous price for standard professional apparatus and thus frees them of the handicap created in using inferior equipment. Although the Simplex-Acme is reasonably priced it is sold with the absolute guarantee that it will give the finest professional projection and within certain reasonable limitations is unsurpassed by any apparatus regardless of price.

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(See advertisement on ontside back cover)

Eastman Teaching Films, Inc. (1, 4)
Rochester, N. Y.

Edited Pictures System, Inc. (1, 4)
130 W. 46th St., New York City

F. C. Pictures Corp. (3)
265 Franklin St., Buffalo, N. Y.
(See advertisement on page 216)

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 219)

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.
(See advertisement on page 194)

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 221)

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
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(See advertisement on inside front cover)

Bell & Howell Co. (6)
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Eastman Kodak Co. (4)
Rochester, N. Y.
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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.
90 Gold St., New York City
(See advertisement on page 223)

Regina Photo Supply Ltd. (3, 6)
1924 Rose St., Regina, Sask.

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

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PHOTOGRAPHS and PRINTS

Publishers' Photo Service, Inc.
105 W. 40th St., New York City
(See advertisement on page 219)

SCREENS

Da-Lite Screen Co.
2721 N. Crawford Ave., Chicago
(See advertisement on page 197)

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SLIDES and FILM SLIDES

Conrad Slide and Projection Co.
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Eastman Educational Slides
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Ideal Pictures Corp.
26 E. Eighth St., Chicago, Ill.

International Artprints
64 E. Lake St., Chicago, Ill.
(See advertisement on page 216)

Keystone View Co.
Meadville, Pa.
(See advertisement on page 221)

Radio-Mat Slide Co., Inc.
1674 Broadway, New York City
(See advertisement on page 219)

ROLAB
210 E. 73rd St., New York City.
(See advertisement on page 217)

Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
(See advertisement on page 194)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 193)

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STEREOGRAPHS and STEREOSCOPES

Keystone View Co.
Meadville, Pa.
(See advertisement on page 221)

STEREOPTICONS and OPAQUE PROJECTORS

Bausch and Lomb Optical Co.
Rochester, N. Y.
(See advertisement on page 217)

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(See advertisement on page 218)

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327 S. LaSalle St., Chicago, Ill.
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REFERENCE NUMBERS

(1) indicates firm supplies 35 mm. silent.
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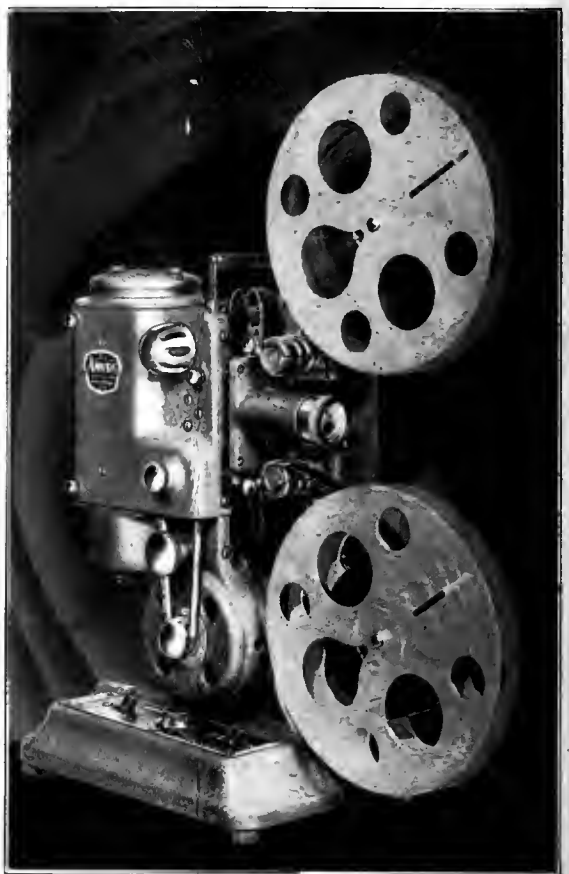

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OCTOBER, 1932

VOLUME XI NUMBER 8

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Contents of previous issues listed in Education Index.

General and Editorial Offices, 64 East Lake St., Chicago, Illinois. Office of Publication, Morton, Illinois. Entered at the Post Office at Morton, Illinois, as Second Class Matter Published every month except July and August.

$2.00 a Year (Canada, $2.75; Foreign, $3.00) Single Copies, 25 cts.

The Sources and Uses of the Visual Aids in the Teaching of Biology

HOWARD L. REED

IF THERE be any one subject which it would be impossible to teach properly without the use of visual aids it is the subject of Biology. Within the limits of this article it would of course be impossible to cover thoroughly the sources and uses of all visual aids available, such as field trips, pictures, charts, models, blackboard diagrams, dissecting microscope, hand lens, the compound biological microscope, the micro-projector, the Balopticon (Stereopticon), and the motion picture film. I shall consider chiefly, therefore, visual aid material to be used with the biological microscope and the micro-projector. Realizing that many teachers are concerned with the teaching of Biology in the Junior and Senior High Schools I shall attempt to cover the subject in such a manner that this article may be of value to them in obtaining and preparing materials for such laboratory work as they may have time and use for.

While much of this material for laboratory and demonstration work may be purchased it is easy for the teacher to prepare and obtain most of it himself and thus conserve finances. Generally it is very interesting to the teacher to prepare the material himself and also I believe that the student enjoys studying living material far better than stained mounts of such things as Paramoecium, Amoeba, etc., because after all Biology is a vital subject. In my opinion the proper use of visual aids in the biological laboratory will make every student a lover of the subject of Biology. Too often there is a lack of proper materials (generally unnecessarily so), or if it is available it is not used properly and to best advantage by the teacher. I shall not only try to explain the simplest means of obtaining good laboratory material for microscopic work and micro-projection work but also to explain what seems to me to be the best method of using and presenting the material.

In regard to the micro-projector, which I shall consider mainly in this article, I would mention the following important facts:

(1) It is used to demonstrate material and show it to the student so that the teacher may be certain that the student will see the proper organism or organisms or tissue when using the microscope in the laboratory individually,

(2) That it is an essential piece of apparatus if the students do not individually have a compound microscope,

(3) To stimulate interest in the subject and prevent the characteristic despondency of new students of the subject who always have difficulty in "knowing what to look for" under the biological microscope when they are working independently (often we cannot be sure that they are really seeing what we want them to see).

Pictures, Charts, Models, Blackboard Diagrams

These constitute a most resourceful and valuable form of the visual aids and I believe that the proper use of them cannot be overestimated. In regard to this phase I shall name some of the best sources of these visual aids, such as: The General Biological Supply House, Clay Adams and Company, Inc., Dennoyer-Geppert Company, E. B. Muller and Company, A. J. Nystrom and Company, Perry Pictures Company, Waverly Company, Boston Society of Natural History, George H. Conant, and W. M. Welch Scientific Company.

Blackboard diagrams should be used continually to illustrate structures and this is a matter for each individual teacher to develop to the best of his or her own personal ability. Careful labeling of diagrams should always be emphasized.

Microscopes

Hand lens and dissecting microscopes may be obtained from any reputable optical house such as the Spencer Lens Company, or Bausch and Lomb Optical Company. These pieces of apparatus are essential for the examination of flower parts and small structures that are not readily discerned with the naked eye.

Each student should have a compound Biological microscope. It should be equipped with one low power (16 mm.) objective, one high power (4 mm.) objective and one 10 X ocular in order to achieve satisfactory results in the microscopical examination of micro-organisms or plant tissues. Spencer Lens and Bausch & Lomb both supply a very good type (conforming to above mentioned requirements) for about $70.00. This piece of biological apparatus will last indefinitely if cared for properly and thus while the initial cost may be somewhat high the upkeep is practically nothing.

Stereopticons and Slides

The Balopticon represents another invaluable visual aid to the biology teacher and should be used very extensively. Good machines may be obtained from the Spencer Lens Company or Bausch and Lomb Optical Company.

I shall list the names of several companies who supply excellent slides for these machines and who will

gladly send catalogues to interested teachers gratis. However, the teacher may very cheaply prepare lantern slides himself or herself and in many cases to suit his or her particular demands better than those to be purchased. The following non-commercial sources afford a very good assortment of material to choose from: American Museum of Natural History, 77th St. and Central Park, West, New York City, N. Y.; Buffalo Society of Natural Sciences, Buffalo, New York; Indiana University, Bloomington, Indiana; Iowa State College, Ames, Iowa; Mass. Dept. of Public Health, University Extension, State House, Boston, Massachusetts; United Fruit Company, 1 Federal Street, Boston, Massachusetts; United States Dept. of Agriculture, Washington, D. C., and University Extension Division, University of Wisconsins, Madison, Wisconsin.

There are, of course, many commercial companies specializing in supplying educational slides, such as Keystone View Company, Jas. C. Muir, Williams, Browne and Earle, C. W. Briggs & Company, Spencer Lens Company, and others.

Motion Picture Films

This type of visual aid is excellent and can not be overemphasized. Its use will increase tremendously without doubt, as soon as more material becomes available for the subject of Biology. The following companies supply excellent material of this type, and many of the films may be rented as well as purchased: Bell and Howell Company, Bray Products Company, Carter Cinema Producing Company, Eastman Teaching Films, Inc., National Motion Pictures Company, and Powers Pictures.

The Source and Preparation of Living Cultures

The source of this type of material, is of course, practically unlimited and my hope is to cover such parts or material as will be of value to the teacher in the average introductory courses of Botany and Zoology.

For this work the teacher should collect his or her own material, and when possible take students along and show them the sources of the material and thus fix important and interesting parts of the subject in their minds. Every student should be taught how to collect material and to have a fair knowledge of the flora and fauna in his particular locality.

The teacher should provide himself or herself with a copy of Ward and Whipple's "Fresh Water Biology" (published by John Wiley and Bros., Inc., Philadelphia, Pa.), which is an excellent reference work to use in the identification of plants and animals commonly found in fresh water. A copy of Gray's "Manual of Botany" is essential in identifying the higher plants (published by American Book Co., Boston).

Algae and Protozoans are very abundant in all streams, rivers, ponds, pools, etc., and the teacher should examine material from these places in nearby localities to obtain what he needs for his course (in the nature of living material). Of course one can collect this material in some of the pond water and it will keep very well for a day or two if it is going to be used within that time for micro-projection purposes or class room microscopic work. However, the best way is to start a small aquarium and then these materials may be grown and kept for several months or even indefinitely with proper attention and then the teacher will have his material at any time desired without the necessity of a special field trip.

I started a 13 gallon aquarium this last fall and had scores of species of organisms available for nearly five months. The aquarium should be kept in a light place if one wishes algae to thrive. For animal life (other than the microorganisms from the river), to keep the aquarium balanced, I used two goldfish and two small turtles, and for vegetable matter (other than the microorganisms), I used Elodea, Cabomba, Myriophyllum and Sagittaria plants.

If one does not wish to keep an aquarium the following solutions may be used to advantage in keeping organisms in good condition for a week or two:

Moore's Solution

Ammonium Nitrate	0.5 Grams
Potassium Phosphate	0.2 Grams
Magnesium Sulphate	0.2 Grams
Calcium Chloride	0.1 Grams
Iron Sulphate	a trace

Knop's Solution

Potassium Nitrate	1 Gram
Pot. Phosphate (K_2HPO_4)	1 Gram
Magnesium Sulphate	1 Gram
Calcium Nitrate	3 Grams
Chloride of Iron	a trace

Dissolve the first three items in 1 liter of distilled water. Add the Calcium Nitrate (a white precipitate will be formed). When a more dilute solution is made from this stock solution, the bottle must be shaken thoroughly in order that a proper amount of the precipitate may be included in the diluted solution. The above formula makes a 0.6% solution and this is used where vegetative growth is desired, while a 0.2% solution is best for showing reproductive processes and rapid cell division.

Most teachers desire at some time or other to grow their own culture of Amoeba, Paramoecium and Euglena and thus obtain excellent material for microprojection and so I shall outline methods for growing cultures of these microorganisms.

Dr. J. A. Dawson in a paper in the American Naturalist, gives minute instructions for rearing amoeba. The following is a summary of his suggestions:

1. Collect a quantity of water and pond weeds from ponds or sluggish streams nearby. (We have found that lily pads and colonies of oscillaria growing in stagnant ponds are a prolific source of amoeba.)

2. Place about 30 to 40 cc. of the collected water

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Visual Aids In An Assembly Program

HOMER G. SHATTUCK

A GOOD assembly program is the heart of any well organized school. It must be interesting, inspirational, entertaining, and educational. The only way such endeavors can hope to succeed is by appeal to the pupils through sight and sound.

The Rye High School is fortunate in having a beautiful, thoroughly equipped auditorium. In it we have worked out two types of assembly programs around which the development of school spirit grows.

In the informal assembly there is light or familiar music coming through our sound system as the pupils enter. After a few announcements, the program is turned over to the musical director. Here is the place in which we use music slides. This visual aid has many advantages. In a semi-darkened room, the center of attention is on the screen. The director can actually point to the notes if he is teaching a new song. He is also in a position to be seen simultaneously with the song. Sometimes the singing is accompanied by the music of the best orchestras.

We do not sing at every informal assembly however. Often there is a speaker who uses both slides and movies to illustrate his lecture. Sometimes there is just a sound movie for entertainment. Our sound equipment also helps in incidental talks and discussions of school business by the principal as well as the practicing of cheers and selling campaigns. A glimpse at our projection and control room shows how we are able to do this.

In our formal assembly an organ selection instead of familiar music is playing as the pupils enter. As the organ music fades, the lights fade, curtains part, and a shrill bugle call sounds, "To The Colors". Here Boy Scouts in uniform, standing in a subdued red or purple light hold the two flags. The school rises and the salute follows. "Taps" is softly played as the flags are taken to their standards. This is so timed that as the boys are back in position, "Taps" is finished and the large curtain almost closed. To hold attention, bright red foot lights now come on the curtain. Almost immediately we hear organ music, this time religious. The foot lights fade, the curtain opens, and we see a red Bible with only two red spots lighting the whole scene. Against that background of soft organ music comes a voice. It is the principal who leads the Bible reading and the Lord's Prayer. The voice against the organ music is truly inspirational. Heads rise after the prayer and the organ swells in volume until the end of the selection. The scene fades out as the curtains close and the house lights are brought up.

This whole demands a perfect synchronization of events which can be attained by a system of signal lights or by electric clocks. It is evident that these scenes take longer to explain than to execute. The whole does not run over four or five minutes but the appeal certainly arouses a sense of unity and cooperation to one end.

The extraordinary things about this serious part of our formal assembly which I have described is:

1. it takes place without any teachers being seen
2. that through our own actual experience we have discovered that our pupils give to this part of the program most unusual and reverent attention
3. that schools fail to realize the tremendous value of that loose term, "mass psychology". I am not a student of psychology. Certainly I cannot explain "mass psychology" but I do know, however, that concentration of attention through sight and sound will produce effects which would seem impossible under any other circumstances.

Projection and Control Room

During the remainder of the assembly period there may be a stage presentation prepared by one of the different departments or possibly an exchange program; an orchestra, band, or play from another school. This incidentally offers a splendid opportunity for development of school spirit and good sportsmanship. Occasionally a professional entertainer, traveler, or speaker gives the remainder of the program.

You may have begun to wonder about our sound outlets. Two sets are used, the proscenium (back of the grill on each side) and the movie (on the stage). The proscenium speakers, being double

dynamic on each side, are used almost exclusively for the assembly programs. The projection screen drops immediately in front of the movie speakers for regular "talkie" entertainments. The author maintains a Stagecraft club of pupils who are trained to operate this equipment and handle the program. This offers very valuable practical experience for those interested in this type of work.

If we are to accomplish our aim in the assembly program, we must appeal to the pupils. Most schools lack a sense of showmanship, a plan, the courage to attempt something different or to dare the unusual. They neglect to look ahead, to have a schedule, to utilize the really most important opportunity: that of a united school in one auditorium. I know of no better place for visual work than to make this very heart of the school, the assembly, unique through sight and sound.

Sources and Uses of the Visual Aids in the Teaching of Biology

(*Concluded from page 229*)

into each of several finger bowls, together with a small amount of vegetative material (such as the lily pads or oscillaria and possibly a small amount of organic material taken from the bottom of the pond). Dilute this daily by adding 10 cc. of non-toxic distilled water (or spring water) until the volume is about 70 cc.

3. Allow these cultures to stand and examine every few days. If amoebae are present, they will usually become abundant within 10 days or two weeks. (Care must be taken to avoid starting such cultures with too great a quantity of organic material.)

4. As soon as the amoebae become abundant, start small cultures by pipetting about 5 cc. of the medium containing amoeba into each of several glasses.

5. In the course of a few days, add 5 cc. of distilled water to each watch glass culture (i. e., add a small amount each day until 5 cc. have been added).

6. At the time the watch glass cultures are started, add to each small culture a piece of boiled timothy hay stem (a piece 15 to 20 mm. in length).

7. Watch cultures daily for a period of one to two weeks. Do this by placing the watch glass on the stage of a binocular microscope.

8. At the end of two weeks, discard all watch glasses which do not contain amoebae.

9. It is now time to transfer the smaller cultures to finger bowls. Stir the culture well by forcing a stream of the culture medium against the bottom of the watch glass to dislodge the amoebae. Transfer all the medium in the watch glass to a finger bowl and add water to bring the volume up to approximately 30 cc. At the same time add pieces of boiled timothy hay stems (50 to 60 mm. long which have been cut into 15 mm. pieces). To this may also be added a boiled wheat or oat grain.

10. At five or ten day intervals, add 10 cc. of pure distilled water and add more boiled hay stems each time that water is added. (Do not add more than 40 to 50 mm. of boiled hay at one time). By this slow addition, bring cultures to 65 or 75 cc. of total volume.

A culture of this kind should thrive for about a month. If it is to be kept for a longer period, it will be necessary to sub-culture as follows:

Siphon or pour off half the culture medium. Agitate the medium remaining in the culture to dislodge the amoebae from the bottom of the bowl. Divide this remainder into two equal parts and proceed as before to gradually bring up the volume of food and water.

The culture of amoeba is quite difficult, so do not give up if success does not result from the first effort. If it is impossible to find amoeba in your locality, purchase a culture from some biological supply house as "Turtox."

Handling Amoeba in the Laboratory

Always pipette amoeba from the bottom of the culture. If a purchased culture is being used, always allow the shipping bottle to stand for an hour or longer to allow the media to settle to the bottom. To test the culture to determine whether or not amoebae are present, pipette a large drop of sediment from the bottom of the culture onto a clean microscope slide and examine this drop under a binocular microscope. (If no binocular is available, place a cover glass over the drop of water and examine under the low power of the compound microscope, with the light cut down as already suggested).

If amoebae are present, they will be seen at once through the binocular microscope, because of the large size of the field. If the amoebae are not found in the first drop do not give up but make a thorough search of several drops. If specimens are found the class slides may now be prepared as follows:

Clean as many glass slides and cover glasses as there are students in the class. Lay these out on a tray and put in a warm place so that the amoebae will not be chilled when they are placed on the slide.

About 15 minutes before the class starts, pipette one drop of culture medium, taken from the bottom of the culture, onto the center of the slide and cover with a cover glass. Look at each slide through the binocular microscope to be sure that several amoebae are present. As soon as the students arrive at the laboratory, give them their microscopes and after they have received their preliminary instructions, pass out the slides. Warn the students to add a drop of water to the slide at the edge of the cover glass when the mount shows signs of drying.

As the teacher knows that there are amoebae on every slide, it is not necessary for him to wear himself out trying to find specimens for each student. When the cries of distress begin, the teacher can tell the students to "look again."

The concluding installment in November will discuss chiefly the use of the Compound Microscope and the Micro-Projector in the teaching of Biology.

New Developments In Visual Aids

SARAH A. HINE

VISUAL aid to education in the Newark Museum Educational work has always differed from visual aids in many museums and schools in that no slides or films are used. The Visual Education Department of the Newark schools supplies these. As far as possible the self activity of the child is emphasized in Museum work in connection with visual aids or instruction. For instance:

1. When school classes visit us they handle some objects and take part, through questions and answer, in the explanation of the subject matter. There is no lecture as such. The subject is developed by relating it to the child's experience, as is done everywhere, thereby giving him a chance to express his thoughts about it while it is being developed.

2. Special exhibits have been arranged to supplement school work such as:—Every day life, used by 1st and 2nd grades; Habitations of Man and Transportation, used by most grades; North American Fisheries Exhibit, etc. These are used as school projects by many classes; also the Exhibit of the Story of Newark: The Story of our Modern Culture and how it began; the Exhibits of Ten Cent and Fifty Cent Articles, used by docents of classes to further good taste in house furnishing objects.

Many models have been added to exhibits used by school classes such as the models of:

1. Light house with flashing light.
2. Cave dwelling with inner room in which are wall paintings of bisons, mammoth, deer.
3. Pile dwelling, such as was found in the lakes of Switzerland.
4. A number of new models have been added to the story of the Earth Exhibit:—the sabre-toothed tiger, sphenodon, eocene whale, brontosaurus, mastodon.
5. The Mechanical Models which show 106 movements in a series of ten groups. By turning a knob a child can set each group in motion.

An exhibit at the Museum of some of the activities of Newark teachers, illustrating their hobbies, included a great variety of interesting things such as a loaf of bread, fine wood carving, books published, paintings, decorated articles, needle work and many others.

Models made in the schools were given to the Museum. Some are in the Lending Department for circulation among all the schools: Ann Hathaway Cottage; Arab Tent; Eskimo Igloo; Tipi; Japanese Garden; Mt. Vernon Garden; Viking Feast Hall.

Other models made by the schools are not suitable for transportation but are used with visiting classes:

Indian pueblo	Tree house
Medieval castle	Mount Vernon
Spanish patio	Cape Cod Cottage

Paintings are lent to the schools to beautify the rooms or to supplement school work.

Many objects in the Lending Collection have been placed in sets so the children by grouping objects may make a continuous story about the objects they borrow. For example, a set which might be chosen by a girl who came to select objects for her lesson on Chinese life includes: bamboo, bamboo basket, book, bowl and chopsticks, coin, doll, fan flag, hair ornament, mirror case, baby's shoe, model of a bound foot shoe, thimble, sandals, and labels.

The stories made from these vary with the ability of children, but by putting things together which have even a slight connection, the child by using the story-telling labels and school books can make a simple story something like this:

"The native Chinese dress is very different from ours as this doll shows. This man wears, over his trousers, a robe with a skirt opened at the side. Over this he wears a coat which buttons close about the neck. Officers and other gentlemen, as well as ladies, carry fans.

"The baby's shoe was probably made by her mother, who has carefully embroidered a tiger face on it to keep away evil spirits. The model of a bound foot shoe shows the old custom of binding the feet of a girl of a good family, beginning when she was from five to eight years of age and keeping them always bandaged. It was sometimes very painful and now the government forbids it.

"A girl is taught household duties, weaving, embroidering, sewing of all kinds. Her thimble is like ours but without a top. She probably made the mirror case of rose satin very carefully embroidered. In it she kept her mirror of polished glass. A lady takes great care of her hair, sometimes using many ornaments in it."

The story can go on describing the chief article of food, how it is grown and eaten; another characteristic plant, the bamboo, and its uses. Then something about boys, their schooling and books, feet not bound, their regard for the flag, the value of money and so on.

In addition to about 9,000 other objects which schools may borrow, structo looms are lent with patterns for weaving. The pupils, then, may set up the warp threads and weave the patterns.

Two vocational schools have installed cases in which exhibits related to school work are placed by the Museum. These are changed every two months. The Boys' Vocational School made the cases.

Branch Museums have been established in nine Branch Libraries, two of which are in Department stores. Books on the subject matter are available and the circulation has increased. Teachers and children avail themselves of these exhibits in their vicinity.

Special loans to churches, clubs, department stores and individuals have increased threefold in the past year.

Visiting teachers from the Child Guidance Department of the Newark Schools have cooperated with Junior Museum clubs by sending children who would be benefitted because of association, in constructive work, with other children or because they needed additional outlets for their capabilities.

Children in the clubs arrange their own exhibits. Junior and Senior Stamp Clubs have a large exhibit in the spring, and a small bi-weekly exhibit through the fall and winter; Boys' and Girls' Nature Clubs arranged their own exhibits of minerals, seeds and leaves; the Little Club, composed of children under ten years of age, carry out a project for several weeks, such as an Indian project, and they exhibit, in a case in Junior Museum, the best objects made at each meeting, namely moccasins, tipis, papoose carriers, etc.

The Junior Stamp Club prepares a monthly bulletin contributing voluntarily the subject matter and printing it themselves on a hectograph.

Objective Presentation in Educational Procedure

STELLA E. MYERS

IN ORDER to deal with the relation of represented objects to the educational procedure, we must understand the present-day aims of education and the learning process, with which education is chiefly concerned. Formerly, we emphasized procedure from the point of view of the instructor in pondering over "Methods of Teaching." Now, we emphasize functioning in the pupil and attempt to discover "How We Learn." An attempt is here made to assemble the aims of education as expressed by various leading educators, after which we shall consider the process of learning.

Aims of Education

First, all should understand something of the sweep of creation in its physical, biological, and social aspects, and the need of fitting one's own life into this movement. Everett Dean Martin says, "No one who is really a creature of his own times is really educated." This long view of world tendencies may give some clew to future changes, and an insight into vital trends will assist in making adjustments to a changed environment. Seabury says, "Whatever patterns society or we as individuals may establish in the future must be sufficiently fluid so that they change with the expansion of our inner life, for fixity is synonymous with death and stagnation. Evolution ceases when crystallization begins." Growing forms cannot be crystallized; the principle of growth involves change and expansion. "In its simplicity, the distinction between the old and new points of view is really found in this contrast between rigid perfectionism as a way of goodness and the evolutionary spirit which centers responsibility upon taking the next upward step." O'Shea says that to know how the world is constructed and how it operates is to reduce fear.

Second, according to Judd, we need a mastery of the common devices of civilization. This will include, aside from physical devices, a working knowledge of social institutions, enabling us not only to live together in small and in large groups, but to promote the well-being of the members of such groups.

Third, all should have, as far as possible, aesthetic appreciation and creativeness. L. P. Jacks speaks of man "as a citizen of a universe, which can be loved, enjoyed and reverenced." Aesthetic reactions have a tendency to raise the tide of life. Dewey, in his recent work, "Philosophy and Civilization," makes much of the integrating and harmonizing effect of plastic art upon the observer. These three aims of education, if met successfully, will insure: (1) Bodily and intellectual wants supplied; (2) Social harmony with a giving as well as a getting from all groups, whether large or small, to which one belongs; (3) An aesthetic appreciation of all beauty with a tendency to create it where needed. If one desires a more detailed statement of the aims of education, and, perhaps, a more comprehensive one, that of Bernard Iddings Bell may satisfy: "By education is meant the process, or combination of processes, by which a child is helped to discover, at least partially: (1) His own potentialities; (2) The nature of the things and people which surround him, how they came to be the way they are, how they behave; (3) Those ultimate realities, at which words can only hint, which are the springs of courage, serenity, peace; (4) And finally a method of correlating his world with himself and both together with the ultimate.

If one has been truly assisted to these four kinds of knowledge he will be able to take command of his own further development, he will be fitted fairly well to be the captain of his own soul and to share with others in the architecture of our mutual fate. If any one of these four developments is grievously neglected, the result is apt to be a lopsided and even a dangerously lopsided man.

From the fourfold definition it follows that educational discipline must necessarily be of four sorts,

none of which is to be forgotten: (1) Artistic nurture, whereby the child is assisted to discover how he may creatively express himself and, in the expressing of himself, know himself; (2) Scientific instruction, through which the world, physical and social, its nature, its history, the rules by which it runs; (3) Contemplative training, by which he learns how to sense the ultimates which lie beneath thought and beyond the world as perceived by the senses; and (4) Philosophical culture, which leads him to relate, for himself, in himself, in a systematic whole, that which the artistic, scientific and contemplative disciplines have revealed to him."

"How We Learn"

As to how we learn, we have the interesting and perplexing question, "How to learn how we learn." Many different schools of psychology have attempted to answer this query travelling by very different routes. Some have been skeptical, saying that a thing cannot observe itself; that the inside cannot observe the whole. The different schools, however, have all contributed something that seems to be of value. Perhaps, none thus far have found the ultimate ways of looking at mental activity. One leader of thought is trying to locate a common ground in the dynamics of consciousness. We shall speak of the chief means of pursuit of this elusive phase of living as all seem to be trails that help to approach the objective.

I. Study of the conscious processes as distinguished from their organic conditions and correlates.
   1. Analytic and synthetic methods.
      A. Study of structure—existential school.
      B. Unit is the "act."
      C. Unitary wholes as units.
   2. Functionalism.
   3. Purposive activity—School of "ends".

II. Study of reflex action.

III. Study of the unconscious.

The existential students try to determine by analytic methods what are the elements of consciousness that they may find out its contents and structure. Nervous processes affect the mental processes. Dewey offers the criticism of this group that conscious processes may be structureless. Structuralists have analyzed so completely that Bergson remarked, "We kill that we may dissect." Taking a contrary stand, others consider the act of thinking as indefinable, as a whole, which emerges from a disposition, tendency, or attitude. Ideas only exist as parts of wholes, the whole preceding the parts. The total mental state is the determining factor as to what ideas shall be revived.

Each central idea is like a magnet in an electric field that "holds together all that comes within the range of its influence." Mental events are linked together by meanings, interest being all that binds them together. Others, holding to a synthetic system, are really super-synthetic in their view, since they see much more in perceiving than the simple whole, made up of the sum of its parts. They find these wholes even in reflexes and in all intelligent performances. A melody is much more than, and something quite different from, the succession of notes, from which it derives. A painting could never be understood by a study of its physical elements. It is not the sum of these, and probably not a summation of the interpretation of its several units.

Still others do not study the constitution of consciousness, either by analysis of its elements or by a study of it as an entirety. They investigate it as it functions. The method is empirical since mental acts are studied as they work in dealing with the world. The contents of consciousness are studied in relation to the context, the environment. Thought arises as a result of adaptation to the environment. When the equilibrium of an organism is disturbed, there is a delayed response, which induces thought. The organic correlates are also determined.

There is a foreign end, however, and the motor activities are only means to that end. Some learn of learning by the goals pursued. A journey is often rated by its objective points. Desires are the motor power. We can control hands, feet, vocal organs, for the most part, only by controlling our desires. A stimulus, acting upon the human organism, as it now is, including native propensities as affected by the life history of the individual, results in a purpose, which leads to its goal. We have native capacities and forces within us driving us to some ends of nature. All movement and action comes from an inherent energy of the organism striving towards an outlet determined by its structure. Ideals are said to be the strongest motives to human action. The aim of educators should be to implant general principles, which will engender ideals. This will result in more powers than in attempting to develop skill in special subjects.

A certain division of psychologists take nothing for granted that is too elusive for their physiological laboratories. They can determine no signs of anything in the individual but bodily activity. They study motor and glandular behavior, which result from stimuli of the environment. Consequently, by arranging sets of proper stimuli, any sort of human being that is desired can be turned out of this factory. Before mass production takes place, probably the human species will be so standardized that the product will be assured to be of a high grade. The realm of the unconscious is thought by one school to contain the residua of the life-long consciousness. If these left-overs can be pried out, we shall be able to determine the nature of the conscious processes that now are, from those that have been. This method of the study of mental activity seems to be more helpful in pathological cases than revealing of normal procedure.

(To be concluded in the October issue)

GOVERNMENT ACTIVITIES IN THE VISUAL FIELD

CONDUCTED BY MARGARET A. KLEIN

Needed---More Public Health Exhibits

CHARLES WHITEBREAD

THE LONG period of ignorance, mystery, and superstition relative to conditions affecting the public health, which promote or prevent longevity, ended with the development of the medical sciences. Owen (1840) established the length of biological life by the development of the bones. He fixed the normal life as five times the number of years required to perfect the bones. Twenty years are needed to complete the process of bone perfection in man, and figuring on this basis the length of man's life should be one hundred years. The cell theory of Virchow (1858) taught that all tissues of the body are living units of high vitality, made to perform certain functions, after which they die and are cast out of the body, and are replaced immediately by new cells. This process of renewal goes on until the entire body is renewed, and it is the maintenance of this renewal which regulates health and longevity. Pasteur (1862) disclosed external forces not previously appreciated when he revealed the life-history of bacteria, the greatest health and life destroyers of mankind.

The new ideas that diseases are caused by germs which pass from person to person, and that their control requires notification and isolation, now took definite form. Knowledge of the organisms causing disease, the devising of laboratory methods of discovering and diagnosing disease, and a familiarity with the means by which diseases are spread, then developed rapidly. These discoveries soon led to correct ideas concerning sources of contagion, and the parts played by air, water, milk, and insects, in the dissemination of diseases.

The first assistance rendered in health matters by cities and towns of the United States was by the appointment of temporary committees to cope with disease outbreaks. Local Boards of Health were appointed at Petersburg, Virginia, in 1780; at Philadelphia in 1794; and at New York City in 1796. Permanent health organizations did not materialize until much later, and even then progress in this direction was slow.

The public health movement on a large scale took definite form first in England with the Public Health Act and General Board of Health of 1848. Louisiana created a State Board of Health in 1855 to deal with matters of quarantine. The creation of the Massachusetts Board of Health in 1869, and the Virginia and California Boards of Health in 1870 followed.

As it functions today, the United States Public Health Service is the outgrowth of one hundred and thirty-five years of experience and legislation. Congress in 1798 established the Marine Hospital Service for the care of sick and disabled merchant seamen. The Act of Congress of April 29, 1878, marked the beginning of quarantine regulations at seaports. By 1912 the service had taken on its present organization as the United States Public Health Service. This good work has progressed until at the present time other government bureaus have become interested in various phases of public health, and each state has some legal provision for local health organizations, although in the majority of small towns and rural districts there is no board of health or health officer.

Many voluntary organizations have been formed which operate more or less independently, such as the American Medical Association and the American Public Health Association which deal with all phases of the health question, and others, as typified by the National Tuberculosis Association, American Heart Association, American Society for the Control of Cancer, etc., which aim to conquer specific diseases. Museums have and are cooperating in the much-needed educational phase of public health work. The first museum public health collection was established in the American Museum of Natural History, New York City, and the second in the United States National Museum, Washington, D. C.

The health collection of the United States National Museum was inaugurated in 1922 in response to requests to the Smithsonian Institution from public health workers throughout the country, who were of the opinion that the Museum maintained by the government should take a part in the development of an educated and trained public opinion concerning matters pertaining to health, thus stimulating interest in the establishment of health exhibits by other museums of the United States.

The southeast court gallery of the Arts and Industries Building (Old National Museum) of the Museum group was assigned for the installation of the health collection. This gallery has been completely filled with appropriate permanent material, the first section of which illustrates what germs and parasites are, how water is polluted, how to get pure

water, waste disposal, fresh air (ventilation, housing, etc.), how pure milk is obtained, how insects transmit disease, how animals transmit disease, healthful farm surroundings, etc. The second part of the collection deals with the way life begins, care of the mother before the baby is born, care of the mother and child at birth, care of the baby before he goes to school, healthful school surroundings, diseases of children, what the public health nurse does, importance of play and recreation, care of the teeth, eyes, and feet, care of the child in school, sanitary school houses, what mental hygiene is, social hygiene, dressing for health, the adolescent period, early adult life, healthful working conditions, the value of first-aid and life-saving, dangerous diseases, why we should be physically examined periodically, etc.

While the national health collection has failed to stimulate museums throughout the United States to develop such exhibits, it is nevertheless serving a very good purpose where it is seen annually by a large proportion of the nearly two million visitors from all parts of our own and other countries who pass through the Museum buildings each year. The opinion of visitors that "there ought to be such a collection in every city" is most encouraging to those in charge of the development of the exhibits.

The foregoing facts have been given to show the length of time which has elapsed since the birth of the medical sciences; also to make it clear that the public health workers have been very alert since that time to educate the public to think right concerning matters of health. In spite of all that has been done to weed out the old superstitions and misconceptions, insofar as they relate to medicine, it is astonishing to learn such facts as the following taken from an item in the December, 1929, number of the Long Island Medical Journal:

> "Twenty-two per cent of high school students interviewed in a recent survey believed that a horse hair left in a bottle of water would become a snake, 18 per cent that a mad stone applied to a dog bite was the proper treatment for rabies, 59 per cent did not know that the mosquito was the only carrier of malaria, and 26 per cent thought that warts could be removed by means of charms."

This quotation is sufficient, at least it seems so to me, to justify the title of this paper. Surely the existence of such beliefs among those with training above the average is ample proof that further intensive instruction is needed concerning the simple matters of health which should be included in the knowledge of all educated persons.

The methods of fighting superstitions and misconceptions are numerous, but visual education, in my opinion, is the best method of teaching in all instances where it can be made applicable. If other means of imparting knowledge pertaining to hygiene, sanitation, and preventive medicine by means of the eye have not been developed elsewhere to a greater degree proportionately than they have at museums, then much remains to be done, as, to the best of my knowledge, only two museums in this country have public health exhibits. The following excerpt from a public health journal would indicate that more museums should undertake the development of public health collections:

> "Is it not time to create at a museum of health in which would be collected suitable material for demonstrating the history and progress of public health in America, the manner in which disease may be prevented, controlled, and eradicated, the life history of the various microbic and animal parasites of man, and the methods of promoting public health?"

If there is any doubt relative to the public's appreciation and interest in museum health exhibits it should be dispelled by statements such as the following by a former director of the American Museum of Natural History:

> "It (the public health collection) is the exhibit that is most studied of any exhibit in the Museum, and I see more individuals taking notes of this than I do of other exhibits."

The public needs enlightenment on matters pertaining to health, and museum models and exhibits are among the best means of diffusing knowledge. Let us hope, therefore, that the possibility of museum treatment of the subject of health in a popular way will be realized by more museums as time passes, and that such institutions will render a full measure of assistance to the public health authorities and workers who need the cooperation of all if the best results are to be obtained.

Editor's Note: Because of the high importance of the subject, Mr. Whitebread wisely devoted most of his attention to a discussion of plans and activities looking to the promotion of Public Health by systematic methods. Yet "Health" is but one of the many subjects treated by the National Museum.

For example, the Division of Graphic Arts of the United States National Museum maintains several traveling exhibits illustrating the various processes of the graphic arts for the use of schools, colleges, public libraries, museums and other organizations that are interested in "How Prints Are Made."

We are glad to announce for a future issue an article by Miss Margaret A. Klein, editor of this department, which will give a detailed account of the wonderful models, posters and industrial exhibits on view in the National Museum on a wide range of subjects.

DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

Visual Aids Prominent at Teachers Meetings

The rapid increase in the use of visual aids among the schools of the Central States is indicated by the increase in service demands upon the various organizations which offer visual instruction service and by the emphasis upon visual instruction developments and methods at the meetings of the state teachers' associations.

The Kansas State Teachers Association will meet November 4 and 5 in six sections. At each section, there will be one or more demonstrations of the use of visual aids, particularly at the Geography, History, General Science and Biological Science round tables.

The Colorado Education Association will meet in Denver on November 10 and 11. A special program has been arranged for the Visual Education Section, under the direction of Mr. Robert Collier, Jr., of South High School, Denver. The central theme of the meeting will be "Visual Education by Student Exhibits." Very complete exhibits, prepared by students of the Denver schools, will be on display, supplemented by exhibits of visual instruction materials and equipment. At the close of the Friday afternoon program, there will be demonstrations of the latest developments in motion picture projection equipment.

The Missouri Teachers Association will meet in Kansas City on November 11 and 12. The visual instruction round table will be held at two o'clock Friday afternoon. Mr. Rupert Peters, Director of Visual Instruction among the schools of Kansas City, will be in charge of the round table. The program will include an illustrated lecture and a discussion of recent developments in the Visual instruction field.

Department Branches Organizing

Minnesota

For administrative purposes, the Minnesota Association has been districted into eight divisions. Under the direction of Mr. Donald K. Lewis, Central High School, Red Wing, who is acting as organization chairman of the Minnesota Branch, there will be a chairman in charge of Department memberships in each district.

The Minnesota Branch expects to be well organized in time to assist with and act as hosts to the Department of Visual Instruction when it meets in Minneapolis concurrently with the Department of Superintendence of the N. E. A.

Iowa

The organization and development of the Iowa Branch of the Department of Visual Instruction is being sponsored by Mr. H. L. Kooser of the Visual Instruction Department of Iowa State College; Mr. L. W. Cochran of the Extension Division of Iowa University; and Miss Margaret Brick of the Des Moines City Schools. Meetings of special groups for presentation of Department information and organization plans were held in Sioux City on October 7 and in Council Bluffs on October 14. Other meetings will be arranged in other sections throughout the year.

California

Mr. Robert S. Johnson, in charge of the Department of Visual Instruction, University of California, is assisting with the organization of the California Branch of the Department. Those who use the extension service of the University will be given an opportunity to join and assist with the final organization of the Branch.

Reports from the Visual Aids Section of the Southern Branch of the California Teachers Association indicate that it may become the Southern California Branch of the Department, with headquarters at Los Angeles or at San Diego. The Visual Aids Section has been active for some years and should form a thriving Branch of the Department.

Arizona

The organization of the Arizona Branch of the Department will be directly in charge of Dr. Max P. Vosskuhler, Director of Extension at the University of Arizona. Prof. George A. Stracke, whose interesting discussion of visual instruction courses appeared in the September issue, will assist with organization plans.

Texas

Mrs. Charles Joe Moore, in charge of the Visual Instruction Bureau of the Extension Division of the University of Texas, has appointed a committee to assist with the organization of the Texas Branch. Mrs. Moore, as many will recall, was formerly Vice-president of the National Academy of Visual Instruction and has been an active worker in the visual instruction field for the past several years.

Because of the "la'ge size" of Texas, Mrs. Moore has asked for a larger assisting committee than will be needed in the small states of California and New York.

Connecticut

Mr. Edwin W. Johnson, extremely active visual instruction worker and Director of the Department of Visual Instruction of the Bridgeport Public Schools is assisting with the development of the Connecticut Branch. It has been suggested that a membership contest be arranged between the Texas and Connecticut branches for the purpose of determining the relationship, if any, between area and interest in progressive educational movements.

Chicago

Plans are well under way for the organization of a Chicago Branch of the Department of Visual Instruction. Mr. Dudley, the founder of the National Academy of Visual Instruction, called together a representative group of workers in the visual field last July. It is planned to hold a number of meetings during the school year when programs helpful in daily teaching will be presented.

Membership Application Blank

Office of the Secretary-Treasurer,
Department of Visual Instruction &
National Academy 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 .....

Street .....

City & State.....

I am ☐ } a member of the National Education
I am not ☐ } Association.

NOTE—Make checks payable to the Department of Visual Instruction.

The Passing of a Pioneer

Adolph Lomb, vice-president of the Bausch & Lomb Optical Company, died at his home in Pittsford, N. Y., a suburb of Rochester, on Sept. 30th, after a brief illness. He was 66 years old.

Mr. Lomb, the eldest son of Capt. Henry Lomb, the co-founder of the Bausch & Lomb Optical Co., had been connected with the optical institution established by his father and John Jacob Bausch for 53 years. He entered the company when a young lad of 14, leaving temporarily to continue his university studies. He was a graduate of the University of Rochester, Class of 1892, and had also taken advanced work at the Massachusetts Institute of Technology and the University of Berlin, Germany.

Besides being an executive of the Bausch & Lomb Company, Mr. Lomb was identified with a number of scientific and patriotic societies, chief among which was the Optical Society of America. Mr. Lomb had been treasurer of that organization since its inception and one of its most beneficent financial supporters.

Carrying on a work instituted by his father, Mr. Lomb was interested in the welfare and activities of Civil War Veterans and the Sons of Civil War Veterans. He was a trustee of the Henry Lomb Camp, Sons of Union Veterans.

He also was prominently identified with German-American Societies in Rochester and during the strained days of the World War was active in promoting the best interests of German born residents in the United States. Among the tributes paid Mr. Lomb's memory was one from Former Judge John D. Lynn, who was United States Marshall in Rochester during World War days. Judge Lynn in expressing his personal sorrow at Mr. Lomb's passing, said in part:

"Mr. Lomb, through his great understanding and sympathy with the German-born citizens of Rochester, added to unselfish patriotism, did more toward maintaining peace and preserving amicable relations between the so-called enemy aliens and their adopted country than any other person in Rochester. His passing will be deeply mourned."

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.

First Century of Progress Motion Picture Released

The first motion picture to be released in the Century of Progress series being produced by the Atlas Educational Film Company is titled *Chicago—Wonder City of the World.* The film presents advantages offered by Chicago as a vacation city and contains an invitation to attend its 100th birthday anniversary celebration and A Century of Progress International Exposition in 1933.

The motion picture contains many unusual views of Chicago and includes scenes taken at familiar points of interest. The striking "loop" skyline with its score of towers and other interesting scenes of Chicago life will be presented in an effort to attract visitors to the city and to the Fair. As a playground the city is aptly presented with thrilling sports "shots" taken at the ball parks, race tracks, beaches, bridle paths, golf courses, and the numerous other spots where sport lovers seek amusement. Concluding the film are unusual views of many of the World's Fair buildings and exhibits now completed. The picture will serve as a guide to the many thousands who will view it and gives a complete pictorial presentation of Chicago and its many attractive features.

It will be circulated through the entire non-theatrical field of exhibitors consisting of universities, colleges, high schools, churches, clubs, and other responsible organizations. Circulation will be national in scope, and already demands for the entire series have set a record for educational production. Copies of the films will be available in both 16 mm. and 35 mm. sizes and will be loaned without charge.

A Film on Movie Making

In the short feature *How Movies are Made,* Ralph Staub, Director of Columbia's *Screen Snapshots,* gives a detailed exposition of picture making, revealing to the lay audience, for what is probably the first time, the complete course a story idea pursues in reaching the screen.

The camera travels from the executive offices where the story assignment is made, through the authors' quarters, the drafting room, the carpenter shop, the sound department, the casting office, the wardrobe department, the property rooms and the laboratories. Seen in action are the set dressers, extras, stars, director and cameramen in the actual process of shooting a scene. The exposed negative is traced through the sound department and laboratory to the film editor, where with the aid of a "Moviola" the final phase of production takes place.

A New Health Subject

The latest addition National Motion Pictures Company has made to its library of health films is a one-reel motion picture entitled *Forming the Habits of Health.* The production shows in narrative form the importance of habit formation and interestingly reveals the experiences of a girl who sets out to form habits which result in a definite improvement in health. This film is available on both 16 mm. and 35 mm. widths.

Famous Operas Filmed

Educational Film Exchanges, Inc., have contracted for the release of a series of six Operalogues, produced by the Kendall de Valley Operalogue Company in Los Angeles.

One of the world's most famous operas, condensed so as to concentrate the essence of melody, is the basis of each of the two-reel Operalogues. Realizing the importance of "motion" in motion pictures, the producers assert that as much attention is being given to the visual flow as to the reproduction of the world's finest music.

Two in the series have already been completed. They are *Milady's Escapade,* based on *Martha,* by Von Flotow, one of the most melodious operas ever written, and *Vendetta,* a modernized version of Mascagni's masterpiece, *Cavalleria Rusticana.*

United Air Lines Show Films

United Air Lines are using motion pictures for promoting interest in air travel. A 16 mm. 800 foot film, *Across America in Twenty-seven Hours,* is being shown by the Air Lines' traffic representatives before luncheon clubs, business men's organizations, women's clubs, colleges, and high schools. Ten Bell & Howell Filmo projectors are being used for presenting the movies in various parts of the country.

The film consists of a pictorial narrative of a flight from California to New York and includes many remarkable views of planes flying over scenic and historic country, particularly the western mountain areas. There are splendid shots of the big

(Concluded on page 241)

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Fall Courses in Visual Instruction

Dr. George Roemmert, formerly of Munich, Germany has lectured before groups of science teachers on several occasions. Except for a few contacts that he had with educational institutions, these talks have been a single lecture of one hour duration giving no adequate opportunity for study of his technique or for him to present a full interpretation of his work.

Recognizing the interest that there has been in Dr. Roemmert's work, Boston University School of Education has engaged him for a series of seven meetings organized as a special course of instruction for science teachers, under the auspices of the department of Visual Education of the School of Education in cooperation with the New England Biology Teachers Association, and the Massachusetts Branch of the National Academy of Visual Instruction.

The course includes discussion and demonstration of the laboratory technique of collecting, preparing, preserving and projecting micro-organisms. The demonstrations are shown by micro-projection methods and include interesting phenomena from both biological and physical sciences. Experiments are performed with living protozoa which show important phenomena associated with physiology and behavior of these living cells.

The micro-projector is used also to illustrate botany, physics, and chemistry, including a microscopic study of foods, textiles and commercial products; growing of crystals; electrolysis; the use of polarized light; and exposition of Brownian Movements.

Dr. Roemmert will also present techniques employed, with simple methods for successful micro-projection; will display micro-projection apparatus made by high school students; will present methods of illumination and methods of mounting slides to secure greatest clarity and brilliance of picture.

The meetings which began September 27th, are held twice a week and offer one hour credit.

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Mr. Abraham Krasker is again conducting a course on Visual Education this semester at Boston University, in which he discusses the use of teaching aids such as motion pictures, slides, filmslides, still film, pictures, exhibits, models, trips—and the preparation of the teacher for their use. Each member of the course selects from available illustrative materials suitable aids for teaching a specific subjects or subjects in a given grade, correlating it with the course of study.

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Dr. Joseph J. Weber writes that he is to teach a 15-weeks' course in visual instruction in Angola, Indiana, in connection with county institute work, beginning October 8th. This work is being carried on under the direction of the Extension Division of Indiana University, of which Mr. H. W. Norman has charge.

Ohio Acquires New Visual Collection

The Visual Instruction Project sponsored by the State Department of Education for the purpose of obtaining funds with which to purchase a state collection of visual aids, was reported in the November 1931 issue of The Educational Screen. It will be recalled that the funds were to be raised by an illustrated lecture on Ohio, given by Mr. B. A. Aughinbaugh, Supervisor of Visual Instruction.

According to Mr. B. O. Skinner, State Director of Education in Ohio, the schools of the state had been spending annually over $120,000 on the rental of educational motion pictures and $100,000 on other visual aids. This rental money had been going to the coffers of other states where visual-aid collections were maintained.

The Ohio schools need not continue this practice any longer however, as their own State Department of Education has built up during the past year a library of films, lantern slides and filmslides which may be rented at a very low cost. By cooperation and promotion of this project Ohio will in time have a free collection of such aids.

Visual Manual for Pasadena Schools

The Visual Education Department of Pasadena, California, supervised by Harry H. Haworth, has prepared a helpful handbook entitled "Visual Aids in Education," which is being distributed to the teachers in the city schools.

In Part I classroom and auditorium equipment is described and illustrated; the question of screens is treated; and suggestions are given on the use of flat pictures and other visual aids. Part II is an impressive listing of the Department's available material—motion picture films, lantern slides, stillfilms, stereographs, wall prints and exhibits—classified by subject.

England Plans a National Film Institute

The report of the English Commission on Educational and Cultural Films, entitled "The Film in National Life," so impressed the English government officials that Parliament has decided to provide a fund for the development of the film as a means of entertainment and education, to be administered by the Privy Council. The plan is to establish a film institute similar to those already existing in Germany and Italy, financed by income from a non-commercial source, so that it will be independent of commercial interests.

The function of the Film Institute is not to produce films but to act as a "middle man" between the film trade and the public or the various organizations concerned. In regard to the entertainment films, it will try to organize film-going opinion, so as to influence cinema-hall managers to give their patrons a chance of seeing films of good entertainment value, both from British and from Continental and other studios. Film-goers' circles will be formed in every large town, and linked up with the film societies which are springing up everywhere for the purpose of arranging special private performances of films not usually shown in the public halls. The Institute will circulate critical lists of new films, and negotiate on behalf of provincial film societies for the supply of films they want at reasonable rentals.

The Institute will also undertake to sponsor schemes for the production of films required by various social, religious and cultural organizations. There are many bodies engaged in welfare work, philanthropy, research and popular education, which are anxious to use the film as an instrument of publicity, but cannot get their requirements met.

The problem of the long overdue introduction of the film as an instrument of teaching in schools, colleges and educational institutions will also be tackled by the Institute. An authoritative body is needed to sponsor experiments and report upon them; to provide a group of expert teachers to collaborate with the trade in making instructional films; and to test and recommend suitable projector apparatus.

The institute will also be required to adopt a method of classifying films according to their educational value.

It will thus serve as a valuable clearing house for information on serious film matters for the Empire, and will form a national library of films for reference and loan purposes.

Film Production Activities

(Concluded from page 239)

Boeing 14-passenger-mail tri-motored transport with a background of the Rockies and the Sierras, and fine aerial views of fourteen cities flown over on this 2700-mile flight from the Golden Gate to the Statue of Liberty.

Interior scenes of the plane in flight, including the serving of lunches by uniformed stewardesses, give the public a new appreciation of the comforts now available in the modern multi-motored transport.

An interesting part of the film is the depiction of the many new aerial navigation aids, such as the two-way radio telephone whereby pilots talk to ground stations and to pilots of other planes hundreds of miles away, and the directive radio beam, whose dots and dashes hold the pilot on his true course even if the landmarks of the course are not visible. There are interesting views of the cockpit and its instrument board with ninety instruments and controls.

"We know of no other effective sales solicitation method than the showing of such films," said a United Air Lines official.

Contributors to this Issue

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Ethel M. Hill, Teacher in Art Department, Central Avenue School, Newark, N. J.

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Margaret A. Klein, Director, Children's Bureau, U. S. Department of Labor, Washington, D. C.

Stella E. Myers, Writer and Research-worker, formerly in charge of Visual Instruction in the Public Schools of Forest Park, Ill.

Howard L. Reed, Massachusetts College of Pharmacy, Boston, Mass.

Homer G. Shattuck, Head of Visual Education, High School, Rye, N. Y.

Joseph J. Weber, Professor of Education, Valparaiso University, Valparaiso, Ind.

Charles Whitehead, Phar. D., Assistant Curator, Division of Medicine, U. S. National Museum.

Correction

In the September issue, the entry under George A. Stracke was incorrect. It should read

George A. Stracke, Instructor in Visual Education, Department of Education, University of Arizona, and member of the Committee on Visual Education for the Public Schools, Tucson, Arizona.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

School Executives Magazine (September) In his article on "Organizing and Administering a Visual Instruction Program", Mr. C. R. Crakes, Principal of the High School, Moline, Illinois, presents a definite and comprehensive plan for the administration of a visual instruction program in school systems of smaller cities having probably two junior high schools and one senior high school.

He discusses the selection of the personnel, the qualifications, duties and salary of the director. Some estimates of equipment costs are reviewed, showing a yearly cost of $1.00 per pupil in a school of approximately 3600 enrollment, but the amount should be decreased as the collection of visual aids increase to a point where less rental material is required. Sources for projection equipment and various aids are included in the discussion, together with a suggested list of minimum equipment needed. After the material has been determined by the department it should be classified, using a card index system. The procedure followed by the Moline Visual Department in distributing the aids to the teachers is outlined, accompanied by reproductions of the forms used.

Mr. Crakes' article should prove immensely enlightening and helpful to the school systems who are contemplating the organization of visual departments. As regards the cost, he says, "the old argument that money is not available for a visual aid program is seldom sound, especially when we see funds being used for other projects which have less scientific data to support their claims for a place in the educational sun."

International Review of Educational Cinematography (July) Among the comprehensive features of this issue we find such valuable discussions for the educator as, "The Cinema and the Rural Exodus", "Acoustics in Educational Sound Films", "The Use of Motion Pictures in Character Education". One might list the entire contents table, but these subjects indicate the range of interest from a purely technical to a distinctly social and educational aspect in films in education.

(August) This issue deals with the cinema in Turkey, Austria, Peru, from the viewpoints, respectively, of the technical film, the "Urania" films, and Censorship. We find the final discussion of "Students and the Didactic Film" which has been running "serially" and some interesting comments under "Technical Notes" on "The Motion Picture and the American School".

McCall's (September) "To the Movies, but Not to Sleep," by Henry James Forman, is the "first of three articles revealing the far reaching influence of motion pictures on the sleep, health and conduct of America's children, based on the findings of a four-year investigation, supported by the Payne Fund, and directed by eleven eminent members of the Motion Picture Research Council. After establishing a measuring standard, by experimentation and observation, for normal sleep the movement and the lack of movement being the prime factor involved, further research was conducted upon children, not in private homes but in an institution.

"Obviously, Dr. Renshaw and Dr. Miller could not conduct their experiments among boys and girls in private homes. No matter how grateful they might be for the facts revealed, the parents would certainly have vetoed any proposal to use their children for experimental purposes. Besides, too many disturbing factors would have been encountered. Children go to bed at different hours. Their food varies widely. For these reasons it was decided to carry on the work at a home maintained at Columbus by the Ohio State Bureau of Juvenile Research. The routine of institutional life offered the regularity and uniformity necessary for scientific investigation. Any age group, from six years old to eighteen, could be used. The subjects were normal, average boys and girls both as to health and intelligence. This point is very important. The institution is not a reformatory or an orphanage and the findings cannot be dismissed on the theory that these children reacted differently than would children from private homes. Dr. Renshaw was emphatically certain that the boys and girls with whom he worked were happy and contented. A total of 170 children of both sexes took part in the inquiry. They were observed, with the aid of precise instruments, for 347 nights. Records were kept, covering 3,591,000 minutes, 59,850 hours or 6,650 child-nights of sleep. So much for the thorough nature of the work.

* * *

"The first discovery made by Renshaw and Miller is that Johnny tosses in bed a good deal more after seeing a picture show. He tosses more than his sister, for it develops that girls are somewhat less affected than boys. Johnny's restlessness is not limited to the night immediately following his film debauch, but extends for three or four nights afterward. He tosses most during the early hours when, as has been proved many times, sleep is most valuable. Some children, curiously

enough, sleep more quietly after a movie show. But even in these cases, it is declared, the beneficial effect of the hours in bed is reduced. All of which, it is quite certain, is rather too complicated for effective use in a Mother-Johnny movie debate. But Renshaw and Miller drew one conclusion which is simple enough. Any deviation from normal, whether greater or less tossing at night, is bad. The movies cause such deviation. The same effect can be achieved, if any parent wishes to try it, by keeping Johnny awake for two or three hours beyond his normal bed time, or by awakening him that much earlier. He will be irritable and cross the next day. His sleep, if carefully observed, will be roughly comparable to that after a movie show.

* * *

"The tossing and turning, following a movie, is greatest during the early part of the night when sleep should be the most sound. But it is not followed, later on, by recuperative slumber. The loss, Renshaw's studies showed, is not made up. A minority among the children slept with less tossing after going to the movies, but this, in Renshaw's opinion, did not prove that benefits had been obtained by the excursion. The conclusion drawn was that 'changes in motility *in either direction* indicate increased fatigue.' The movies sometimes had the effect of a sporific drug and served as a depressant. About two and a half times as many children showed an increased restlessness, however, as showed a decrease."

The article accounts for the causes behind the movement—result thoroughly, if popularly.

For additional comment on the above article we are indebted to B. A. Aughinbaugh, Director of Visual Instruction, State Department of Education of Ohio. Below is given Mr. Aughinbaugh's own report of the results of an interview he secured with the Dr. Renshaw mentioned in the McCall's article.

Question. Dr. Renshaw, this article states that "whether it is good or bad as a picture, the motion picture detracts from the healthful quality of sleep." Does this mean that the motion picture per se is the cause, or does it mean the content is to blame?" *Answer by Dr. Renshaw.* "It is the content."

Question. Were there comparative tests to see if there was any difference between the child hearing the story, reading an illustrated text of the story, or seeing the picture only? *Answer.* There were not. I wanted to make such a study but this was stopped for lack of funds.

Question. What children were used in the study? *Answer.* The wards of the Juvenile Research Bureau. (*Note*) This is a Bureau which studies children sent to it by the Probate courts of the state mostly because they are obstreperous.

Question. In what theater did the pupils see the pictures? *Answer.* The Rivoli. (*Note*) This is a small neighborhood theater in a not very high class part of the city. It is owned by a Greek. Dr. Renshaw places it in the "for dollars only" class.

Question. Do you condemn the use of motion pictures in education as being detrimental to the health of the child? *Answer.* I certainly do not. I think the motion picture is one of the greatest aids educators can use. I use it myself in my own classes. I sincerely trust that no interpretations can be put on my work to arouse any such idea. The work was not complete, and the article published in McCall's is full of half-truths which are very misleading. I objected to such publication. This is the work of scientists and for scientists. I undertook it chiefly because we have been interested in the subject of the sleep of children, and of sleep in general. This winter I am undertaking a study down in Georgia on the subject of the effect of caffeine on sleep. There is a considerable war on between the coffee interests, and a popular drink manufacturer on the one hand, and the makers of coffee without caffeine on the other.

Question. Was the subject of the effect on eye-sight studied? *Answer.* Yes. We found the motion pictures did not affect the eye-sight.

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"

Age of Consent (Dorothy Wilson, Richard Cromwell) (Radio) Another preposterous "college," co-educational, where life consists in brazenly sophisticated, smart aleck conversation and continuous girl-chasing. Real love and sex impulse thoroughly jumbled. John Halliday's fine professor role chief point of intelligent interest.
A: Absurd Y: Pernicious C: No

Back Street (Irene Dunne, John Boles) (Universal) Finely acted, intelligently directed, mature problem play of convincing though depressing reality, effectively portraying the brief happiness and long heartaches in being the "other woman" in a man's life. Irene Dunne notable as the unhappy heroine.
A: **Good of kind** Y: Unsuitable C: No

Big City Blues (Joan Blondell, Eric Linden) (Warner) Country boy—ambition—big city — bad influences — suspicions of murder, etc. Shows New York life as glorified mixture of cheap crookedness, chorus girls, playboys, gaudy night clubs and hectic booze parties. Waste of Joan Blondell's talent.
A: Cheap Y: Unwholesome C: No

The Blonde Venus (Marlene Dietrich) (Paramount) Cabaret-singer heroine, unfaithful wife, turned out by husband, kidnaps her child, and is hounded by detectives from town to town. Finally surrenders child. Follow poverty, degradation, then sudden success in Paris night clubs, and final reconciliation.
A: Unconvincing Y: No C: No

Cabin in the Cotton (Richard Barthelmess) (First National) Serious picture of social conditions where "poor whites" in the cotton belt wage unequal conflict with "planters." Earnest acting by hero and cast makes story quite human and convincing. Bette Davis thoroughly unpleasant in unpleasant role.
A: Rather good Y: **Interesting** C: No interest

Chandu, the Magician (Edmund Lowe, Bela Lugosi) (Fox) Well produced screen version of the radio serial. Struggle between Chandu, a yogi with hypnotic powers, and ambitious madman affords plenty of exciting action reminiscent of old-time thrillers. Lot of hokum but good fun if not taken seriously.
A: Fairly amusing Y: **Entertaining** C: Exciting

Crash, The (Ruth Chatterton, George Brent) (First National) Another heavy husband-lover problem in the exact Chatterton manner. Spoiled but happy with husband's wealth, she is ready, when he loses all, for divorce and Australia with rival. But husband more appealing after all. Notably good cast.
A: Good of kind Y: Unsuitable C: No

Crooked Circle, The (Ben Lyon) (World Wide) Mystery picture with same formula—haunted house with secret passages, mysterious gang of criminals and weird characters —but made more entertaining than average by comedy of Zasu Pitts and James Gleason. Good suspense and "different" ending.
A: Good of kind Y: **Amusing** C: Exciting

Crooner, The (David Manners, Ann Dvorak) (First National) Modest, engaging college boy stumbles into popularity as cabaret singer with his own band, is exploited into radio star at huge salary, till success turns his head and he crashes. Well acted and unusual degree of human interest in characters.
A: Rather good Y: **Excellent** C: **Good**

Doctor X (Lionel Atwill, Fay Wray) (First National) Murder-thriller that aims to outdo all previous attempts at thrill and horror. Pseudo-medical college, creepy doctors, stock scare devices, weird murders and suicides, with the gruesome novelty of cannibalism supposedly practiced by murderer. Waste of cast.
A: Mostly absurd Y: No C: No

Fast Companions (James Gleason, Tom Brown) (Universal) Simple little story of lovable but dishonest jockey who reforms to set a good example to a misguided waif who crosses his path. Elements of pathos and humor, together with a certain degree of charm, make a rather appealing picture.
A: Fairly good Y: **Entertaining** C: **Yes**

Flames (John Mack Brown) (Monogram) Sensational melodrama about two firemen, two girls, an evil-intentioned boss, and a terrific fire that allows some spectacular heroics on the part of the hero. Just another movie.
A: Mediocre Y: Worthless C: No

Ghost Valley (Tum Keene) (RKO) A western melodrama made according to the usual formula of hard riding, straight shooting and much fighting. A mass of plot and counter-plot and mystery involving a deserted mine in which gold has been discovered.
A: Hardly Y: Rather good C: Good but exciting

Hat Check Girl (Sally Eilers, Ben Lyon) (Fox) Lively mixture of night-club life, booze parties, gangsterism, and a murder. Rather complicated and fast-moving plot built on trite situation of poor girl in love with rich boy, whose father causes temporary trouble.
A: Mediocre Y: No C: No

Hearts of Humanity (Jean Hersholt) (Majestic) Sentimental melodrama concerning East Side Jewish pawnbroker, his worthless son and adopted Irish orphan (Jackie Searl) who takes the blame for misdeeds of the son. Sad story with little to relieve it. A waste of Jean Hersholt.
A: Hardly Y: Perhaps C: Sad

Heritage of the Desert (J. Farrell McDonald) (Paramount) Fairly good Zane Grey Western, with adequate riding and shooting thrills, heavy villains properly killed off, and some strikingly fine backgrounds and photography. Rather mediocre as to acting, for too many colorless beginners have important roles.
A: Fair of kind Y: Fairly good C: **Good of kind**

I Kiss Your Hand, Madame (Marlene Dietrich) (Stanley) Foreign production, silent, with titles in English and musical score added. Light romance of aristocratic heroine's love for supposed head-waiter who proves to be a Count incognito. Pleasingly acted, fairly well photographed and interesting as early Dietrich film.
A: Fairly good Y: Rather good C: Unsuitable

Last Man, The (Charles Bickford) (Columbia) Heavy melodrama, tough and two-fisted in Bickford style, about Suez waterfront dives, big time thievery and wholesale murder on the high seas, with usual romance threaded through. One or two novel situations and well sustained interest throughout.
A: Good of kind Y: Exciting C: Better not

Love Me Tonight (Maurice Chevalier, Jeannette MacDonald) (Paramount) Light, lively romance, elaborately set and costumed, of a tailor who loved a princess quite in operetta style. Merry mixture of songs, comedy of character and situation, and much very elementary rhymed dialog. Limited vehicle for Chevalier.
A: **Amusing** Y: Sophisticated C: No

Most Dangerous Game, The (Joel McCrea, Fay Wray) (RKO) The superb Cooper-Schoedsack photography wasted on feeble, artificial, preposterous scare-story about crazed Cossack hunter who tired of tigers and now hunts men on South Sea Island. Grisly thrills, mediocre acting, and silly comedy by Robert Armstrong.
A: Waste of time Y: No C: No

Movie Crazy (Harold Lloyd) (Paramount) Lloyd at his ingenius best again in typical vein—unequalled in his invention of crazy mishaps cleverly strung into more or less of plausible plot, against interesting background of Hollywood production activity. Clean, wholesome, hilarious fun.
A: **Very good of kind** Y: **Excellent** C: **Excellent**

Night Club Lady (Adolphe Menjou) (Columbia) Thrilling murder-mystery with several sensational murders, good suspense throughout, well acted by Menjou as the great detective, but with rather crude comic relief and some incredible features. Supporting cast rather undistinguished.
A: Good of kind Y: Doubtful C: No

Night of June 13, The (Clive Brook, Lila Lee) (Paramount) Murder-mystery pleasantly different from average. Ordinary people, living humdrum lives in suburban village suddenly jolted by apparent murder in their midst. Generally convincing, well-acted, much character comedy, and rollicking good fun.
A: **Amusing** Y: **Excellent** C: **Very good**

One Way Passage (William Powell, Kay Francis) (Warner) Powell and Francis at their best as smooth, crook hero and sensuous heroine. Sensational adventures and ardent love affair deftly directed and acted, good comedy and suspense, picturesque and logical tragic ending. Glamorous crooks and their doings dominate film.
A: **Very good of kind** Y: Doubtful C: No

Pack Up Your Troubles (Laurel and Hardy) (MGM) Another mixture of typical nonsense, slapstick and horseplay by this comedy pair —much of it laughable, bits of it vulgar, and one quite pathetic incident. Total effect probably harmlessly amusing. Enjoyable as vacuous fun over elementary human nature.
A: Perhaps Y: **Funny** C: **Funny**

Painted Woman, The (Peggy Shannon, Spencer Tracy) (Fox) Sex, booze, violence and murder in another episode of the South Seas. Complications in the life of a waterfront Magdalene struggling continuously against brutal sailors and other male derelicta, before finding real love and happiness.
A: Hardly Y: No C: No

Phantom Express, The (William Collier, Jr.) (Majestic) Dull and amateurish railroad mystery-melodrama. The villains, in their attempts to seize a Western railroad from its rightful owners, disguise an airplane as a ghost train to cause wrecks. Children will doubtless enjoy it.
A: Hardly Y: Fair C: Good but exciting

Phantom President, The (George M. Cohan) (Paramount) Hilarious, romantic farce with preposterous story about medicine faker elected to presidency of United States, through mistaken identity. George M. Cohan plays dual role in his own old-fashioned manner and Durante does his best slapstick comedy. Fast and funny of its kind.
A: **Good of kind** Y: **Amusing** C: **Funny**

Sniper (Russian Soviet Production) (Amkino) Certain phases of the Great War grimly shown with typically stolid but earnest Russian acting, and heavily loaded with propaganda on Soviet revolution. Some original bits of technique, but mostly crude photography, clumsy direction and rather dull story.
A: Hardly Y: No C: No

A Successful Calamity (George Arliss) (Warner) Human, realistic, social comedy in the exact Arliss style, with only such changes from the old Kummer stage play as improve the screen version. Able cast supports adequately the fine character work of the star. Intelligent entertainment.
A: **Excellent** Y: **Excellent** C: **Good as far as it interests**

This Sporting Age (Jack Holt) (Columbia) Roughneck heroics by Jack Holt as army Captain and champion polo player. Evalyn Knapp, as his engagingly wilful daughter, steals acting honors by large margin. Story climaxed by cheap seduction and polo-game murder.
A: Hardly Y: Better not C: No

Those We Love (Mary Astor, Kenneth MacKenna) (World Wide) Film version of John Golden's stage play. Happily married couple estranged when persistent vamp enters their lives, but wife forgives for the sake of their son (well played by Tommy Conlon). Trite situation quite convincingly and inoffensively handled.
A: Fair of kind Y: Mature C: No

Tiger Shark (Edward G. Robinson) (First National) As pleasant change from gang roles, Robinson has a realistic, human part as elementary, appealing Portuguese deep-sea-fisherman. Simple life of simple folk convincingly portrayed. Fine fishing scenes. Well handled love triangle. Grim, violent and tragic ending for "shark settles everything."
A: **Very good of kind** Y: Probably good C: Too strong

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

Missionaries and The Cinema

INTEREST in missions is beginning to be stimulated in an important degree by the showing of movies made by missionaries in the field. The general mission boards are realizing the value of such pictures to an increasing extent, and they are giving substantial encouragement to the making of them.

Reports from clergymen and church leaders everywhere indicate conclusively that mission films are interesting subjects for parish showings, and also that they arouse intensive interest in mission work. This is very frequently translated into substantial contributions of money for carrying on activities in the foreign field.

Because of the important status of missionary films in the realm of church movies, the following article on Missionaries and the Cinema from the *International Review of Cinematography* will be of special interest:

"Missionaries have always made use of illustrations, doubtless understanding that in order to give a clear idea of things nothing is so useful as a drawing or sketch. Past centuries have handed down to us works of missionaries in which the descriptions of the ethnography, geology, flora and fauna of distant countries, much more inaccessible then than now, were illustrated with drawings made with great care by draughtsmen of talent working under the authors' directions. A collection of drawings of this type in fact almost allows us to follow the progress of engraving, not so much as an artistic expression but as a method of popularizing information.

"There is therefore nothing to marvel at if as soon as photography was within everybody's reach a camera appeared as part of the outfit of a missionary. At the head houses of the various missionary congregations can be seen collections of photographs of extraordinary interest and historical and ethnological value.

"The cinema has not entirely taken the place of the photographic camera as a means of visual documentation for missionaries any more than it has for other people, but the cinema was not long in winning the approval of these pioneers of civilization. The missionaries have given us numerous films, which are all the more interesting inasmuch as the missionary cinematographist does not go to more or less unexplored countries merely to make films according to his taste and judgment, but as a result of long residence in one country has the time to observe and choose those objects and events which are worthiest of being registered.

"We have already referred in our column 'Book and News Notes' to films taken in all parts of the world by missionaries of various lands and faiths, films considered important by experts and valuable for purposes of scientific study. Some missionaries have even gained fame as experienced operators, as, for instance, Father Dufays, whose film 'From Dakar to Goa', enjoyed a success in the public cinema palaces and caused discussions in the technical press. This 'white' father, carried away by the passion of the cinema, is today gathering together in Africa with his machine material for an important film on French penetration in Central Africa up to Timbuctoo. The film, which will have as title 'The Blood on the Sand', will recall the sacrifices of the pioneers of European civilization in these regions, the first missions of the White Fathers, who suffered martyrdom for the faith, the murder of Father Richard, and the massacre of the Flatters mission, together with similar events. During his wanderings for the preparation of the film, Father Dufays takes care to film whatever seems to him interesting from the historical or folk-lore point of view. He has thus been able to film at Chardaia in Southern Algiers the preparations for a nuptial banquet. 'I shot the whole ceremony', he told a reporter of Ciné-Magazine, 'in the women's quarter and I am sure that I made an original document such as no one has hitherto seen and which perhaps no other European will see again for a long time.' Commenting on the difficulties of the undertaking our contemporary justly remarked: 'This is another proof that the missionary cinematographist is in a position to film documentary pictures of human life quite out of reach of other operators'."

* * *

"An interesting news-item of the Fides Agency takes us from the torrid Saharan desert to the icy solitudes of Alaska, and reports the activity of another outstanding cinema enthusiast, the Reverend Bernard J. Hubbard, Director of the Geological section of the Santa Clara University.

"The priest left New York in December 1930 and covered over 4000 miles by airplane and over 1500 on sleighs, the greater part of the time alone, in

(Concluded on page 252)

Supplementary References for Students of Visual Instruction

JOSEPH J. WEBER

DURING the past summer school session at the University of Texas, Miss Anna Hyde, a graduate student in my class in visual instruction, made a cursory search for references to supplement my comprehensive bibliography published in the January to June, 1930, issues of the EDUCATIONAL SCREEN. No attempt at completeness is claimed for the following list of references. The list is presented at this time, because it may prove more useful in published form to students and teachers of visual instruction at the beginning of a new school year than if it were held up for standard treatment in my private office. It is my intention to continue work with these references and bring out a carefully prepared supplement for next summer's visual instruction classes.

Abrams, A. W.—Class exercise on Laredo. New York State Education 19:149-52, November 1931.

Abrams, A. W.—Some fundamentals of visual instruction. New York State Education 19:48-49, September 1931.

Abrams, A. W.—Visual instruction in New York state schools. Education 52:284-87, January 1932.

Aughinbaugh, B. A.—The application of the motion picture to the problem of the rising cost of education. Educational Screen, 10:193-94, 197, September 1931.

Aughinbaugh, B. A.—The motion picture and the school. Educational Screen 9:228-29, October 1930.

Avery, R.—Blackboard picture for Christmas. Instructor 41:50, December 1931.

Avery, V.—Present day musical films and how they are made possible. Etude 49:16-17, January 1931.

Bailey, L. M.—16-mm film in industrial efficiency work. International Review of Educational Cinematography 3:537-41, June 1931.

Barnick, C. H.—Is cinematography a separate art form? International Review of Educational Cinematography 3:534-36, June 1931.

Boykin, E. M.—Cinema rooms revive the intimate theater. House Beautiful 71:442-45, June 1932.

Boylston, E. R.—Mother Goose pageants. School Arts Magazine 30:317-19, January 1931.

Boylston, E. R.—Using waste material in creative art. School Arts Magazine 30:381, February 1931.

Bragdon, C. S.—Motion pictures in a junior high school. Educational Screen 9:103-104, April 1930.

Cameron, J. R.—Motion pictures with sound. New York, Cameron Publishing Co., 1929.

Chew, W. N.—Say it with movies. Survey 66:104-105, April 15, 1931.

Covell, A. H.—A study of motion pictures and slides. Educational Screen 11:12, January 1932.

Crabtree, J. I.—Verichrome film, its properties and methods of handling. American Photography 26:336-43, June 1932.

Davis, M. D.—Lectures without the lecturer. School Life 16:142, April 1931.

Dent, E. C.—Relation of publicity to the visual instruction program; abstract. National Education Association Proceedings 1931:950-53.

Educational Screen—Films for Washington and Lincoln programs. 11:20, January 1932.

Educational Screen—Talking picture in education as England sees it. 10:231, October 1931.

Elementary School Journal—Instructional value of sound motion pictures. 32:4-6, September 1931.

Elementary School Journal—Visual education in Wisconsin; pictorial history of scenes, customs, resources, etc. 31:654-55, May 1931.

Emery, J. N.—The motion picture as a classroom aid. Educational Screen 9:164-65, June 1930.

Encyclopaedia Brittannica—Illustration of books 12:106-108.

Enlow, E. R.—More statistical interpretation of the Knowlton-Tilton Experiment. Educational Screen 10:259-60, November 1931.

Enlow, E. R.—Some tentative standards for city visual education programs. Educational Screen 10:167-69, June 1931.

Enlow, E. R.—Statistically speaking—a flagrant misinterpretation. Educational Screen 8:228, October 1929.

Evans, M.—Visual instruction program. Sierra Educational News 27:40-41, December 1931.

Faithfull—Picture-statistics. New Era 12:280-81, August 1931.

Fandrei, M.—Visual education equipment data, public residential schools in the United States. Volta Review 34:64-68, February 1932.

Fox Film Corporation—Sound motion pictures as a factor in education. 850 Tenth Avenue, New York City, 1931.

Fisher, N. L.—Animals in illustration. School Arts Magazine 28:604-606, June 1929.

Fisher, N. L.—Make-believe homes. School Arts Magazine 28:418-21, March 1929.

Franklin, G. T.—Metal films. School Science and Mathematics 32:78-81, January 1932.

Gabriel, P.—Visual aids to instruction. Journal of Education 114:93-95, September 14, 1931.

Glover, J. G.—The use of motion pictures in business courses. Educational Screen 9:104-105, April 1930.

Goins, J. L.—Utilization of blackboards by high school teachers. School Review 40:381-86, May 1932.

Grassmuck, E.—New geographic education. New Era 12:230-33, July 1931.

Grosvenor, M. B.—Color camera's first aerial success. National Geographic Magazine 58:344-53, September 1931.

Hammond, I.—Organized educational trips. School 20:216-17, November 1931.

Hampton, B. B.—A history of the movies. New York, Covici-Friede, 1931. Reviewed in the Educational Screen 11:81, March 1931.

Hankin, G. T.—Mechanical aids in education. New Era 12:261-63, August 1931.

Haworth, Harry H.—Administration of a department of visual instruction. Junior-Senior High School Clearing House 5:218-22, December 1930.

Hoban, C. F.—Responsibility of teacher training institutions for the preparation of teachers in the technics of visual and other sensory aids; abstract. National Education Association Proceedings 1931:957-59.

Hoban, C. F.—English and German students make long trips at low cost. School life 16:146-47, April 1931.

Hopkins, B. S., and **Dawson, H. G.**—An experiment in visual education in elementary college chemistry. Educational Screen 11:136-37, 169-170, May, June 1932.

International Review of Educational Cinematography—St. Elizabeth in our days. 3:1051, November 1931.

Journal of Home Economics—Sound motion pictures and education; results of the test in Washington, D. C. 23:967, October 1931.

Keith, Mrs. R. G.—Visual method of library instruction. Wilson Bulletin for Librarians 6:694-700, June 1932.

Kruse, W. F.—How one school makes its own teaching films. Educational Screen 10:109-110, April 1931.

Lewin, W.—Photoplays of interest to English teachers. English Journal 21:55-57, January 1932.

Lewin, W.—Use of visual aids in literature. English Journal 20:589, September 1931.

Lewis, Park—The cinema and the eye. Educational Screen 10:297-98, December 1931.

Literary Digest—Teaching by talkies. 106:23, August 16, 1930.

Magill, W. H.—Visual education vs. degrees of reality in experiencing. Educational Outlook 6:83-89, January 1932.

McClusky, F. Dean—The administration of visual instruction in the public schools. Junior-Senior High School Clearing House 5:207-14, December 1930.

McClusky, F. Dean—Visual Instruction—its value and its needs. New York, Mancall Publishing Co. (In preparation.)

McClusky, Jenkins, Knowlton, and Merton — A syllabus of a proposed textbook on visual instruction. (Inquire of E. C. Dent, Bureau of Visual Instruction, University of Kansas, Lawrence, Kansas)

McDaniel, N.—Sources of information and supplies helpful in visual education. Volta Review 34:68-69, February 1932.

McDaniel, N.—Visual education. Volta Review 34:60-62, February 1932.

McIntire, G.—Visual instruction in Indiana. Educational Screen 11:139-40, May 1932.

Meador, M.—Art pictures an effective aid in the teaching of geography? Educational Methods 11:97-103, November 1931.

Miehling, Rudolph—Sound projection. Mancall Publishing Corp. 1929.

Miller, L. P.—Practice teaching in the use of visual aids; the Bucknell plan. Educational Screen 10:241, October 1931.

Mixsell, F. H.—Visual aids in history teaching. Sierra Educational News 27:44-45, November 1931.

National Education Association Journal—New educational talking pictures. 20:128, April 1931.

Nature Magazine—Photography's advance 19:198, 273, Supplement 2, April, June 1932.

Newcomb, R. V.—Cinematography at the University of South Dakota. Educational Screen 11:70-71, 91, March 1932.

Neblette, C. B.—High-frequency photography. Photo-Era 65:231-32, 289-91, October, November 1931.

Nally, E. J., Jr.—The sound film in education. Educational Screen 11:39-41, 60, May 1932.

Osburn, D. F.—Use of visual aids in teaching general science by a contract method. California Quarterly of Secondary Education 7:14-18, October 1931.

Perkins, E. W.—Drawing from motion pictures. Educational Screen 10:105-107, April 1931.

Persing, E. C.—Visual materials and science teaching. Science Education 16:18-23, October 1931.

Photo-Era—New Victor animatophone projector. 66:53-55, January 1932.

Pittsburgh, Pa., Board of Education—Handbook for the use of visual aids—elementary schools, junior-senior high schools, 1929.

Norton, R. E.—The picture lending library of the Buffalo Museum of Science. Educational Screen 11:132, May 1932.

Poole, I.—Motion picture in the classroom. Educational Screen 10:169-71, June 1931.

Popular Science—Lifelike depth given to movies. 121-22, July 1932.

Publishers' Weekly—On the illustration of books. 119:1787, April 4, 1931.

Reitze, A. W.—Organization of a city department of visual aids. Educational Screen 11:4-6, January 1932.

Reitze, A. W.—Suggested plan for a city department of visual aids. Educational Screen 10:261-62, November 1931.

Rich, S. G.—Illustration of children's books. Nation 129:589-90, November 20, 1929.

Rinehart, M. R.—Your child and the movies. Ladies Home Journal 48:8-9, April 1931.

Rotha, Paul—The film till now. London, Jonathan Cape.

Santelli, C.—Children and war films. Living Age 338:664-70, August 1931.

Saul, L. B.—Honor and glory, Virgil Mantuan, be to thy name. Progressive Education 8:589-96, November 1931.

School and Society—Courses in the mechanics of visual instruction in the American Museum of Natural History. 32:723, November 29, 1930.

School and Society—Educational films in Great Britain. 32:721-22, November 29, 1930.

School and Society—Films and exhibits of the Children's Bureau. 33:48-49, January 10, 1931.

School and Society—Science fair for children. 34:724-25, November 28, 1931.

School and Society—School museums of Philadelphia and Pennsylvania. 33:583, May 2, 1931.

School and Society—Talking films in English schools. 33:556-57, April 1931.

School and Society—Use of education films in Great Britain. 32:85-86, July 19, 1931.

School Review—Deriving values from educational tours; reply to J. M. Clifford. 40:411-12, June 1932.

School Review—Studying the problem of motion pictures in England and America. 39:491-95, September 1931.

Science—Stereoscopic projection for motion pictures. n. s. 72: sup 12, November 7, 1931.

Scientific American—Color still photography for amateurs. 146:366, June 1932.

Selzer, C. A.—Psychological principles of visual education. Pennsylvania School Journal 80:359-60, January 1932.

Sigman, James G.—The organization of a department of visual education. Junior-Senior High School Clearing House 5:214-18, December 1930.

Smith, H. N.—Organizing the visual instruction program. High Points 13:40-44, November 1931.

Smith, L. M.—Pageantry and the school music department. Etude 49:405, June 1931.

Smith, M. E.—Trip to Palestine; teaching social science through activities. Grade Teacher 49:287, December 1931.

Spicer, E. V.—Visual education in the city public schools. Volta Review 34:63-65, February 1932.

Texas Fire Insurance Department—Rules and regulations of motion picture theatres. Austin, Texas, 1929. 17 p.

Thomas, K. C.—Teacher-and-pupil-made slides; utilizing the creative talent of pupils in illustrating school subjects. Grade Teacher 49:270-71, December 1931.

Tonsor, C. A., Jr.—Visual material, its use in secondary school classes. High Points 13:48-49, September 1931.

Turner, G. L.—Motion pictures in high school literature. English Journal 20:572-75, September 1931.

Twogood, A. P.—Visual aids in teaching fundamentals of mechanical drawing. Industrial Education Magazine 33:308, June 1932.

Vande Erve, J. and J. M.—Modification in lantern slide projection technique diagram. Science n. s. 72:532-33, November 21, 1930.

Viborel, L.—Hygiene teaching in schools by cinematography. International Review of Educational Cinematography 3:639-51, July 1931.

(*Concluded on page* 255)

SCHOOL DEPARTMENT

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Using Slides With the Study of Geography in the Fourth Grade

VESTA J. BLAISDELL

THE following is a report of conversation, which took place between a group of fourth grade children and their teacher during the showing of a set of slides in color on the country near the Tigris and Euphrates Rivers in Asia, Mesopotamia. This group of pictures was used as a review in the study of Geography. The imaginative journey to this distant land was much more vivid after seeing the slides.

Following the discussion of the meaning of Mesopotamia, the first slide was shown. (The teacher's remarks are printed in Italics.)

"Do they have much rain in this land?"

"The land is a desert."

Slide 2

"This is a site of a destroyed city on the Euphrates River." *"What are the people doing?"*

"They are carrying the bricks down the hillsides to be used in making their own house."

Slide 3

"This is a village on another river near the Euphrates River. What is the name of this river?"

"The Tigris River."

Slide 4

"We are now back on the Euphrates River south of Babylon."

The story of Babylon was discussed.

Slide 5

A little girl asked, "Why is the ground so high?" It was explained that the buildings had crumbled and in turn those buildings had crumbled away.

"Why do the bricks crumble?"

"The people make bricks from the clay soil and dry them in the sun."

"Their bricks are much larger than ours," one child observed.

"That is one of the ways the natives make a living."

Slide 6

"I know what that is. That is travelling on a raft on the Tigris River from Bagdad to Basra."

There were a great many people on the raft. Their clothing was discussed and compared with other pictures of these people travelling on a steamer from Basra up the Tigris River.

"They wear loose clothing."

"Do people living in a hot, dry land wear more or less clothing that people living in a hot, wet land?"

"They wear more clothing in a hot, dry land."

"Why?"

"Because they need protection from the sun."

"What is there to protect people who live on a hot, wet climate?"

"The trees."

"Is this a large raft?"

"No, the large ones are about fifty feet long."

"What keeps the raft from sinking with so many people on it?"

"Goat skin bags are filled with air and tied on the bottom of the raft."

"What do goat skin bags look like?"

"Like funny shaped balloons."

"How many goat skin bags do they have to use?"

"That depends on the size of the raft. The large rafts must use about a thousand skins. This raft probably used about three hundred skins."

"Notice the sand bars in the river."

"The river must be shallow there."

"What is very likely to happen at this point in their journey?"

"If a rock punctured some of the goat skin bags, they would have to stop along the bank of the river and repair it before they could go on."

"How would they know that some of the bags had burst?"

"One end of the raft would drag in the water."

Slide 7

"They are getting water from the river."

"The donkeys are hitched to long ropes. Goat skin bags are fastened on the ropes. The bags are let down into the river and filled with water; then they pass over the pulleys. When they are high up on the framework, the water pours out into the ditch. The ditch carries the water to the gardens."

"They have to water their gardens because there is very little rain."

"They want a good crop of dates."

Slide 8

"Those are water buffaloes."

"They do work for the people."

"One of them has his head under the water and his back is out of the water."

Slide 9

"That is a narrow street in Bagdad."

"The houses are made of bricks that they get from the ruins."

Slide 10

"This is a market place."

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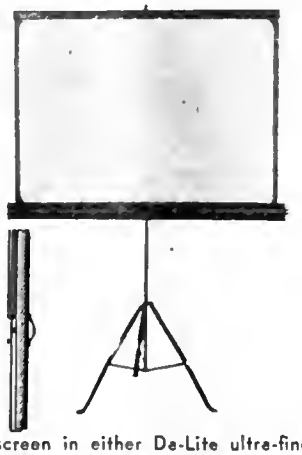

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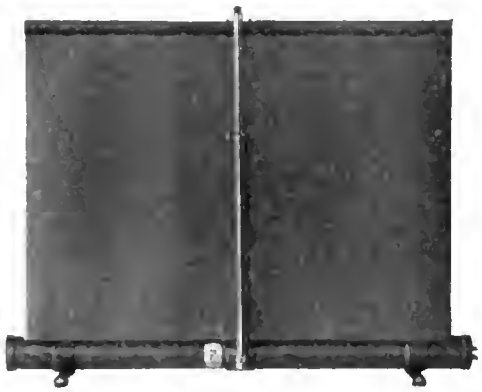

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"In the bazaars they sell carpets, jewelry, dates, and grains."

"Bazaars are little booths along both sides of the street."

Slide 11

"They are digging for ruins."

"This is called excavating."

Slide 12

"That tent is made of camel's hair cloth."

"It is just the color of camels."

"The women are grinding grain."

"They are Arabian people."

Slide 13

"This is a tomb where they bury their dead."

Slide 14

"They are making boats."

Slide 15

"There is another ruin."

"Yes, this is the ruins of an old palace."

Slide 16

"This is a picture of some Jewish Scribes at the tomb of Ezekiel near Babylon."

"They must be writing stories of the Bible."

"Yes, they are copying parts of the Bible in different languages."

A Roman House

ETHEL M. HILL

SOME time ago the Art Museum in our city asked the art department to construct models of the habitations of man—these to be loaned to the public schools later.

We chose a Roman house because the majority of our pupils are Italians. This created great interest. Some of our children had been in Pompeii and had seen the House of Pansa so we decided to construct that as far back as the open court.

This involved much research work here in our library and local museum and also in New York City in the Metropolitan Art Museum where we studied especially the Roman Court which has been there for so many years. Many sketches were made of Roman articles like furniture, lamps, pottery, chariots, etc.

A plan was made to scale of Pansa's house and the frame was constructed. A group of boys made a special study of the ancient method of tiling roofs and then brought their study down to modern times by observing closely the roofs of some of our gas stations. After a long time of thought and discussion they decided to get a building paper in the neighborhood, cut and shape dowel sticks to the correct size, cover the latter with the paper and paint a tile red. This proved very successful and effective.

Then groups were formed for the various steps that followed—the construction of the furniture, the

modeling of statues, the storekeepers, the members of Pansa's family, the pottery, bread and cakes for the cook shop, fruits of those times for the fruit store, etc.

One group drew the patterns for the walls and the mosaic floor, traced these to the walls and floor and others painted the designs following closely the colors used in Roman times.

Some of the girls made the cushions, draperies for the doorways, mattresses for the peculiar Roman beds, and awnings and garlands for the shops.

Much of the shopping had to be done. This was the work mostly of the girls who searched the stores for suitable material and colors. A general color scheme of Pompeiian red and black, some yellow green, yellow and light blue have been used throughout. The girls found a beautiful red tapestry for the curtains, red and black striped neckties for the cushions and one day at a sale of bridge napkins obtained very suitable material for the shop awnings.

One group of boys spent a share of their week-end sketching the great bronze doors of our Art Museum and the Hall of Records from which to make a design for our two-leaved door at the entrance to the vestibule.

After long deliberation it was decided to make a frame and cover it with heavy linoleum to be used for the foundation and street. A pattern of the street and sidewalks representing the paving of ancient times was drawn on paper, transferred to the linoleum and cut out with wood block tools. It will be painted later.

This project is not finished. The painting of the floors must be completed, a fountain made, the outside walls stuccoed and painted, chariots constructed and horses modeled.

When completed it will represent the work of four or five classes, all of which have had their eyes opened to the fact that art in all its phases has entered into the lives of all people—that the Roman ancestors of most of the pupils based their whole lives upon the great principles of art—consciously or unconsciously—and with the Greeks have given us the heritage of an appreciation of the beautiful in a setting of usefulness that has never been surpassed.

The Church Field

(*Concluded from page* 245)

order to visit the Jesuit missions on the banks of the Yukon. The reverend gentleman also covered some 300 miles on foot, carrying over 100 pounds of baggage on his back in order to reach Aniakchak, the great erupting volcano of Alaska.

"The account of this trip is both simple and highly impressive. It was made with temperatures that went as low as 50 below zero, in tempests of snow and winds as violent in their way as the simoons of the Saharan regions. Father Hubbard brought back a film on the life of the missionaries and Eskimos of Alaska, one of those unpretending pictures without other intent than to show things as they really are." (Father Hubbard is again in Alaska. He has two Bell & Howell Eyemo cameras.)

"The documentary cinema is already in the debt of the missionaries for some notable pictures, but still, more may be expected of them. The improvements in cinema technique have placed at their disposal a magnificent instrument, which in some countries can only be used by persons acting under the impulse of a powerful ideal, faith or science or maybe both."

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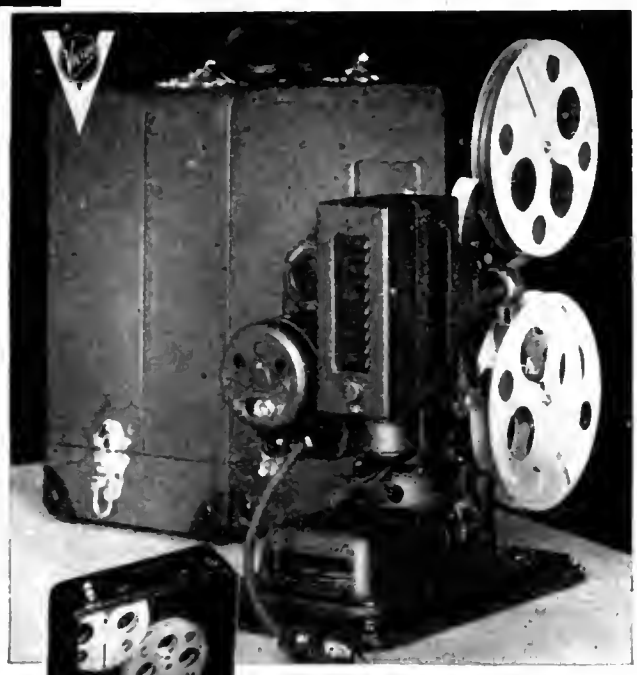

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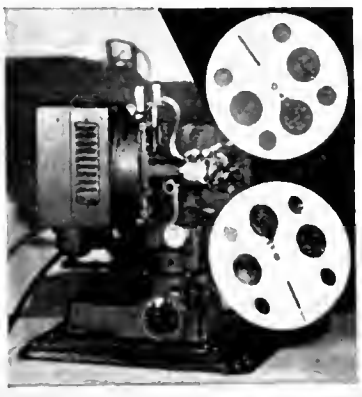

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AMONG THE PRODUCERS

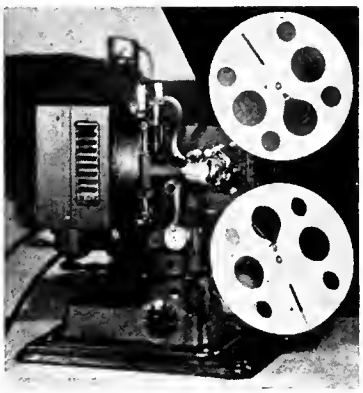
Where the commercial firms — whose activities have an important bearing on progress in the visual field — are free to tell their story in their own words. The Educational Screen is glad to reprint here, within necessary space limitations, such material as seems to have most informational and news value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

Victor Introduces New Series Projectors

The Victor Animatograph Corporation, Davenport, Iowa, is featuring a complete new line of projectors consisting of three highly improved models at reduced prices.

Taking the place of the previous Models 3 and 7 is the new Model 10 Regular, which is priced at $143.50 against the old price of $175.00. This Model is supplied with the 400 Watt-110, 115 or 120 Volt lamp, but may also be used with 200 and 300 Watt lamps if desired. In addition to the well known exclusive Victor Features, the new model has many improvements. It is said to be much more quiet and smooth running than its brilliantly-performing predecessors.

The Premier Hi-Power Model 10FH is the feature model of the new Victor line. The powerful 400 Watt-100 Volt biplane filament lamp is supplied as standard on this equipment, but 200, 300 and 400 Watt lamps of line voltage ratings may also be used. The recently perfected Victor Hi-Power optical system which is said to be twice as efficient as the regular direct optical system, is supplied as standard equipment on the Model 10FH. This, coupled with the use of the intensely brilliant 100 Volt, 400 Watt lamp, gives very intense illumination. A unique feature of the lamp resistance in this model is its adjustability, in five volt steps, for line voltages of from 100 to 120 volts. This is said to eliminate the hazard of overloading and shortening the life of the extremely sensitive 100 Volt lamp. Other interesting new features of the Premier Hi-Power model are a new rack-and-pinion tilting device and an automatic pilot which turns on when the projection lamp is extinguished by a turn of the resistance control knob.



New Model 10FH Premier Hi-Power Projector

The Victor Universal Hi-Power Model 10RH is identical to the Premier Hi-Power except for the lamp resistance. The built-in universal resistance of the 10RH is of the variable rheostat type and is equipped with separate motor for forced cooling and with ammeter and variable resistance control. This type of resistance is said to be preferable to fixed resistance for the reason that it permits lamps to be operated at maximum efficiency at all times regardless of line voltage fluctuations. Also, it permits the user to obtain any degree of intensity desired, from a dim glow up.

The Premier Hi-Power Model 10FH will list at $156.00 and the Universal Hi-Power Model 10RH at $186.00—which represent substantial reductions. All Victor Projectors are now priced with carrying cases separate. Two types of cases are offered: a side opening style and a lift-off style.

DeVry Buys Q.R.S. DeVry Corporation

An important recent business development was the purchase of the Q. R. S.-DeVry Corporation by Herman A. DeVry, Inc. With the acquiring of the Q. R. S.-DeVry Corporation, Herman A. DeVry, Inc. will move their plant to their former location, taking over the building at 1111 Center Street which Mr. DeVry built to house this company in 1922.

After three years at the above location, Mr. DeVry merged the DeVry Corporation with the Q. R. S.-Corporation in 1929, forming the new Q. R. S.-DeVry Corporation. In 1930 Mr. DeVry left this company and organized his new company, Herman A. DeVry, Inc.

In taking over the Q. R. S.-DeVry Corporation the new company plans a considerable increase in manufacturing schedule, and the famous DeVry Sound-on-Film Projector, which has already received recognition as an important force in modern selling and teaching and which is now manufactured by Herman A. DeVry, Inc., will be continued. In addition, the Corporation will manufacture sound heads for theatrical machines, amplifiers, public address systems and a recently developed 35 mm. sound camera complete with amplifier to sell at a popular price.

New developments are predicted in the 16 mm. field, and a complete service organization will handle all service and repairs on all types of motion picture equipment, sound or silent, 35 or 16 mm.

The main office will be located at 1111 Center Street, Chicago, Illinois, and preparations are being

made for the reorganization of this new plant on a greatly increased production basis.

New Releases in Stillfilm Library

Stillfilm Incorporated, of Los Angeles, has added many new subjects to its library of some 60,000 pictures which covers practically every phase of the elementary and junior high curricula and a multitude of subjects suitable for senior high school work, especially as regards the social studies.

The newly released Stillfilm sets include twelve on Geography, one on the Telephone Industry, three on History, one on Nature Study and one Primary Story.

Filmo Equipment Now Guaranteed for Three Years

The Bell & Howell Company announce the extension of the guarantee on all Filmo cameras and projectors to three years. A two year guarantee has been given on Filmos since the first models were marketed in 1923.

An additional new feature of the Bell & Howell guarantee, and one which is believed to be unique in the photographic industry at least, is the provision for free annual cleaning and lubrication for the duration of the guarantee. Under the terms of this provision, the owner may have his camera and projector thoroughly gone over once a year for three years. It is expected that this free service will be commonly requested just previous to periods of intensive equipment use—for instance, on cameras, in the spring, ahead of the vacation season. Thus users can, without cost, assure themselves in advance of carefree operation when such operation is most desired.

Supplementary References for Students

(*Concluded from page* 247)

Walters, O. S.—Projected visual aids in social teaching. Kansas Teacher 33:16, September 1931.

Watkins, Ralph—The learning value of some motion pictures in high school physics and general science as an illustration of a simplified technique in educational experimentation. Educational Screen 10:135-37, 156-57, May, June 1931.

Waugh, F. A.—Children need not be chloroformed. School and Society 33:665-67, May 16, 1931.

Weber, J. J.—Visual aids in education. Chicago, Educational Screen, 1930. 215 p.

Williams, E. L.—Practical study of the relation of industry to education; tour of the central states. Industrial Education Magazine 32:257-60, February 1931.

Wyman, C. E.—Visual education in a representative junior high school. School and Society 33:592-93, May 2, 1931.

Yates, R. E.—Technician talks about the talkies. Scientific American 143:384-85, November 1930.

Zimmerman, B. L.—Visual aids in the city schools. Sierra Educational News 27:12-13, October 1931.

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General Electric Company (3, 6)
Visual Instruction Section,
Schenectady, N. Y.
(See advertisement on page 252)

Herman Ross Enterprises, Inc., (3, 6)
630 Ninth Ave., New York City
(See advertisement on page 251)

Ideal Pictures Corp. (1, 4)
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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.
(See advertisement on page 226)

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 255)

Williams, Brown and Earle, Inc. (3, 6)
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Edited Pictures System, Inc. (1)
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630 Ninth Ave., New York City
(See advertisement on page 251)

Ideal Pictures Corp. (1, 4)
26 E. Eighth St., Chicago, Ill.

International Projector Corp.
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.

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(See advertisement on page 252)

SCREENS

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(See advertisement on page 249)

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Eastman Educational Slides
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630 Ninth Ave., New York City
(See advertisement on page 251)

Ideal Pictures Corp.
26 E. Eighth St., Chicago, Ill.

International Artprints
64 E. Lake St., Chicago, Ill.

Keystone View Co.
Meadville, Pa.
(See advertisement on page 251)

Radio-Mat Slide Co., Inc.
1674 Broadway, New York City
(See advertisement on page 252)

Society for Visual Education
327 S. LaSalle St., Chicago, Ill.
(See advertisement on page 226)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 225)

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STEREOGRAPHS and STEREOSCOPES

Keystone View Co.
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(See advertisement on page 251)

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(See advertisement on page 251)

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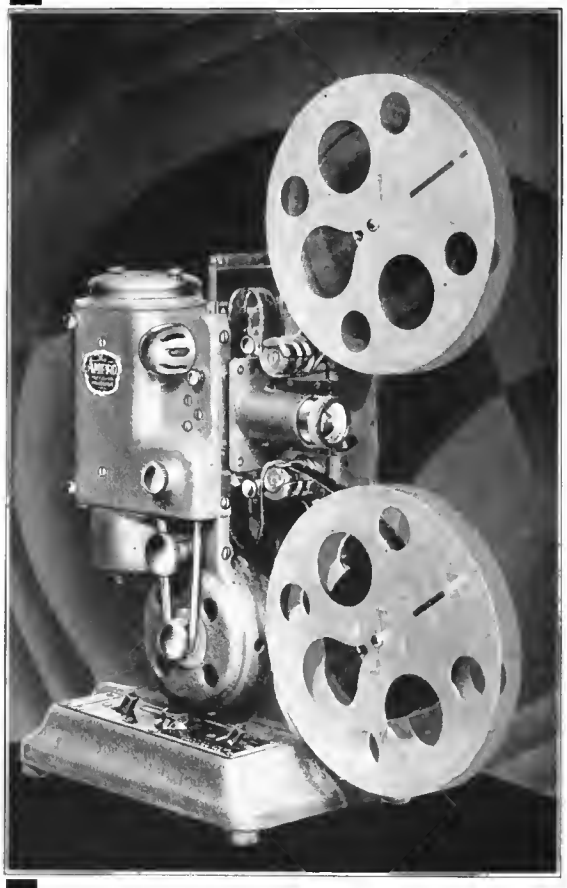

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"With kindest regards, I am

Very truly yours,

A. G. BALCOM,
Asst. Supt. of Schools

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Visual Instruction News

NOVEMBER, 1932

VOLUME XI NUMBER 9

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General and Editorial Offices, 64 East Lake St., Chicago, Illinois. Office of Publication, Morton, Illinois. Entered at the Post Office at Morton, Illinois, as Second Class Matter. Copyright, November, 1932, by the Educational Screen, Inc. Published every month except July and August.

$2.00 a Year (Canada, $2.75; Foreign, $3.00) Single Copies, 25 cts.

Responsibility of a School District For Financing a Visual Instruction Program*

ALBERT LINDSAY ROWLAND

BEFORE the financial responsibility of a school district for a visual education program can be discussed, there must be clearly in mind what is meant by a visual education program.

At the risk of repetition, therefore, and with apologies for presenting what may be obvious, there appear to be four kinds of visual material, pictures, representations other than pictures, specimens and excursions.

Pictures:

Photographic prints. Illustrations in books. Descriptive leaflets. Posters. Charts. Graphs. Slides —glass and film. Motion picture films.

Representations:

Sand table models of land and water formations, historical scenes and incidents, community organizations, industrial plants, etc. Relief maps. Machinery models—air planes, printing presses, cotton gin, engines, boats, etc. Dolls. Puppet shows. Dramatic representations. Pageantry.

Specimens:

Raw materials. Manufactured products. Intermediate stages between the two. Weapons. Uniforms. Utensils. Jewelry. Rugs. Furniture. Garments.

Excursions:

To historical sites. To natural phenomena—rivers, water falls, rocks, rock foundations, caves, mountains, etc.—trees, shrubs, flowers, ferns, moss, mushrooms, etc. To observatories for stars, moon, sun, snow, ice, fog, mist, rain, dew. For animals. For birds. For insects. To manufacturing plants. To farms. To distributing centers—stores, wholesale and retail. To cities—service stations, gas, electricity, power, water, telephone, street paving, sewage disposal, fire and police service. To government buildings—courts, legislative sessions, executive offices, etc. To publicity agencies—publishing plants, newspapers, magazines, books.

Many of these visual aids are embodied in text books. The blackboard provides an elastic device for the teachers to manufacture such material. Old and current magazines and newspapers; pictures, drawn or painted by the children, provide additional material. If projection apparatus is available many films and slides are free, costing only the transportation charges. Reproductions of famous paintings may be had for small cost and if carefully preserved by mounting and filing, may be added to year after year until a really fine collection may belong to a school with very weak financial support.

Portraits of famous men and women; reproductions of historical documents and manuscripts; photographs of musical instruments; books, weapons, armor, royal regalia, natural wonders, are available at small cost. In fact, a teacher who is sensitive to the value of such pictures for instructional purposes may, with the help of his pupils, gather an astonishing volume of such material in picture postcard form without any expense whatever.

Every class room, however, should be provided with a filing cabinet, or better yet, a specially constructed closet with drawers of several sizes, to hold, alphabetically arranged, these pictures, large and small, that come to make this valuable collection which must always be the core of the visual education program as it is the most permanent and at the same time the most growing feature of that program.

Similar specimens may be collected and housed with careful classification until a formidable array of valuable material is a prominent part of the class room equipment. True, some of the specimens and often the most valuable will be but loaned and must return periodically to the owner, but they may usually be reborrowed when needed and a valuable home contact is thus made and maintained. People like to lend their treasures of this sort if they know they will be appreciated and cared for.

Many schools are provided with a collection of rocks, beetles, butterflies and other things, all carefully mounted and labeled, but generally collecting dust in some forgotten cabinet. This is a sad commentary upon the succession of teachers who have presided over that class room. Where was their instruction in the value and use of visual aids? Where was their technique in the use of such material? Forgotten, or perhaps, never learned, but with the best of teachers there is the need for enlisting the interest of the pupils by calling for some freshly found material. The labor of producing such specimens will, of itself, earn respect for the existing collection, the visible evidence of some other collector's painstaking efforts in the cause of scientific or historical truth.

A wealth of illustrative material will respond to the diligent search of a pupil whose interest has been aroused and whose assistance has been sought by a wise and inspiring teacher. Hats of a bygone

*Address delivered before the Visual Education Round Table at Pittsburgh, December 30, 1931.

generation, exotic trinkets from a trip abroad, a piece of coal fashioned into an inkstand, a coral ornament, an Indian vase, a Japanese carving, a Swiss music box, a thousand things that money alone could not procure are produced for the asking and give enchantment to the subject of study. Nor is it the children of wealthy parents who provide the richest contributions. The pupils in a poor mill district provided, on one occasion, when the American Indian was the subject of study and discussion, the fullest display of arrowheads, blankets, headdresses, tomahawks, beads, and the like, of any of a group of schools engaged in this project. The cost to the school was, of course, nothing.

Representations require a minimum of equipment to be supplied by the school. I recall a second grade class that designed and built an airplane in their class room, made largely from orange crates and cardboard which was big enough for two pupils to ride in, one in the pilot's seat and one in the space for the passenger. They were particularly proud of the glass windshield which one of their members brought to school and which was rigged up in front of the pilot and behind the propellor. Of course, the completed machine had to be painted. In fact the painting did much to establish the illusion of a real airplane. Usually the teacher must buy the paint because school boards have not yet learned that paint, regular house paint, is a proper educational supply. This is also true of carpenter tools and work benches for primary grades. However, in this case, the school district was enlightened and supplied both paint and tools.

Dramatic representations require usually some simple costuming. Often these, like the historical and scientific specimens, may be had by appealing to the children. It is well, however, if each class room can develop a supply of shawls and scarfs, boots and hats, weapons and implements for dramatic purposes. A small expenditure for such things is more than justified by the increased vividness of the lessons taught.

Excursions frequently involve transportation, the cost of which is usually met by the pupils individually. Many school districts, however, own their own bus or busses and these are available for trips between times of the regular transportation schedules. If the excursions are wisely planned and are made an integral part of the course of study, the cost of transportation is a reasonable charge against the school district. We must abandon the idea that the only legitimate expenditures under the head of instructional equipment and supplies are for textbooks, pencils, and paper. Children do not learn by books alone, but by everything they see and do. Books are indispensable but they are poor pale things in comparison with a real flag of the colonial period, a dramatic representation of the signing of the Declaration of Independence, or a trip to Independence Hall.

But I am supposed to be discussing the cost of a visual education program and the financial responsibilities of a school district in this regard.

The average expenditures for current expenses in 1930 for the third class school districts of the Commonwealth of Pennsylvania was $84.75 per pupil in average daily attendance. Including debt service and capital outlay it was $124.45, distributed as follows:

A.	General Control	$ 5.90
B.	Instruction	60.60
C.	Auxiliary Agencies	2.90
D.	Operation	9.10
E.	Maintenance	3.35
F.	Fixed Charges	3.00
G. & H.	Debt. Serv. & Cap. Outlay	39.60
		$124.45

Reduced to percentages of total expenditures, these items appear approximately as follows:

A.	General Control	5%
B.	Instruction	48%
C.	Auxiliary Agencies	2%
D.	Operation	10%
E.	Maintenance	3%
F.	Fixed Charges	2%
G. & H.	Debt. Serv. & Cap. Outlay	30%
		100%

Assuming a school district, whose assessed value of real property is $100,000 for each teacher employed, and whose assessed value is 50% of the real value according to the opinion of the secretary of the school board, and whose school tax is 25 mills, the funds available for school purposes from local taxation without deducting for exonerations or adding the per capita tax is $2500 per teacher. Allowing 45% of the total income for salaries, $1125 becomes the average salary and $1375 remains for other purposes. As approximately 50% is chargeable to the B. item of instruction, 5% is available for instruction costs other than salaries or $125. Judging from my own experience, I would say that of the sum 40%, or $50 per teacher, should be spent for visual aids using this term in its broadest sense. If there are 50 teachers in the system, $2500 should be allocated in the budget for this purpose.

With such a sum a school system would be able to set up a good visual education program, slowly acquiring projection apparatus, slides, specimens, maps, globes, tools, sand tables, dramatic properties, etc., as well as provide the consumable materials such as paper, paint, lumber, modeling material, and also set aside a sum for transportation to points of historic, literary, and scientific interest

The Encouragement of Music Appreciation Through Visual Aids

ALEXANDER M. HARLEY
LOUIS A. ASTELL

THE TEACHER of academic subjects including music, who employs any objective presentation including pictorial reproduction or graphic representation, is making use of visual aids[1]. The score and baton as well as as the stereopticon slide and film are after all properly designated as visual aids. In terms of music these aids merely contribute to the important sensory capacity of audition. The significance of this last statement is found in the difficulties confronting a violin student, who attempts to master pitch in the absence of a highly developed sense of hearing. When visual aids are properly selected and integrated with the more or less subjective discussions of abstraction[2], classrooms, lecture halls, and orchestra pits take on an added meaning for the student.

An interesting angle in the application of visualization to creative composition in music has been suggested by del Castillo[3] who has predicted that a new form of music might result from the motion picture with its flash-back, rapid movement, and shifting scenes. With the present ascendency of sound productions it seems that adequate opportunities for the development of this theory are at hand.

As visual aids several new devices in the fields of acoustics and music may be expected to yield definite contributions to music appreciation generally. Among these devices are to be found the portable and photographic types of Osiso[4]. Through the use of this instrument evidence has been obtained in support of the hypothesis that for pianos, "every difference of hammer velocity connotes a difference both of intensity and of tone-color." What the Osiso is revealing with sound under direct control and observation, the "rapid record oscillograph"[5] is yielding for picturization of sound in cable and telephonic transmission.

The Strobophotograph camera designed by Professor Milton Metfessel[6] and recently improved by Tiffin and Roger, holds an important place as a visual aid for music. Through this camera pitch and time are graphed. The resulting fractioned graphs or "pattern scores" are used to evaluate vocal and instrumental work[7]. In developing procedures whereby recognized artists in music can perfect their work with scientific accuracy, Doctors Seashore and Tiffin point out that "we shall ultimately establish norms of artistic achievement." These benefits for the creation, interpretation, and transmission of music, very naturally, will be accompanied by an increased appreciation for standards of value above the present average.

In the field of visual aids designed for use in the average classroom where music interpretation is taught, important material is now available. This material ranges from convenient methods for explaining, historical, theoretical and technical aspects[8] to sound pictures which are beginning to appear.

In the pictorial group are biographies in lantern slides with lecture manuscripts of some of the greatest composers. One excellent series has been edited by the Staff of the *Musical Courier* of New York[9]. This more common type of service is in keeping with the offerings available for other classroom subjects.

Supporting this material are both slide sets and films more closely identified with the musical compositions. In the "Visu-Aural" system[10], dramatic stories in the form of operatic music are synchronized with films and colored slides for scenes and characters. The duration of the presentation may extend from ten minutes to an hour.

A series of one-reel films on *Famous Music Masters*[11] represents a definite contribution for music appreciation. This series of films consists of incidents from the lives of great musicians accompanied by their own music. These films are issued with full orchestration, especially arranged and synchronized. The following composers are included in the series: Balfe, Beethoven, Bizet, Brahms,

(1) Weber, Joseph J., "Is the Term 'Visual Education' Scientific?", *The Phi Delta Kappan*, II, 78-9, 83 (Oct., 1928). Dorris, Anna V., "Visual Instruction in Public Schools," Ginn, 1928, pp. 6, 15.
(2) Roach, Charles, "Visual Education—What is It?", *The Educational Screen*, 7, 225 (Dec., 1928)
(3) del Castillo, M. G., "The Motion Picture and Music," *Ibid.*, 5, 540 (Nov., 1926)
(4) Briand, William, "The Human Element in Piano Tone Production," *Journal of the Acoustical Society of America*, I, No. 3, 357-367, April, 1930.
(5) Bell Telephone Laboratories, Inc.
(6) *Journal of General Psychology*, 2:135-139, 1929.
(7) Seashore, Carl E., and Tiffin, Joseph, "An Objective Method of Evaluating Musical Performance," *Science*, 72 480-482, Nov. 7, 1930.
(8) Dodd, L. E., "An Apparatus for Visually Demonstrating Musical Scales and the Physical Basis of Harmony," *School Science and Mathematics*, 28, 10-23, January, 1928. Kinsley, Georg, "A History of Music in Pictures," 352 p. New York. 1930, E. P. Dutton, $10.00.
(9) Sims Visual Music Company.
(10) Educational Music Bureau.
(11) Fitzpatrick Pictures, Inc

Chopin, Foster, Gounod, Handel, Hayden-Mozart, Liszt, Mendelsshon, Nevin, Rossini, Schubert, Schuman, Strauss, Wagner, and Verdi.

Still another series of films is the *Famous Melody Series*[12]. Here the folk songs of the various nations are presented in individual reels. Character portrayals in native costume are included to enhance the screen story. These films are so designed that the audience may sing during the projection of the pictures.

Among the talking pictures are the "Music Appreciation" and "Symphony Orchestra" Series[13]. The former aims to promote greater enjoyment through increased understanding, while the latter explains and demonstrates the instruments of the orchestra, by choirs and individuals for junior high school music courses. These films are completed with a unit of instruction for the series.

Gregory's recent study[14] of the entire field of visual aids in England and European countries reveals interesting comparative data. The work in Germany is especially noteworthy.

The sociological principles underlying visual aids, like music itself, are sufficiently sound to transcend national life and the spoken language[15]. A moment of sober reflection discloses the fact that these two agencies, singly and in combination, are basic in the establishment of a universal language of multiform expression. It is interesting to note that the fabric in this case would be, in part at least, made up of a most desirable factor; namely, appreciation. This may be the significance of the British International Film Distributor's Plan[16] in which the organization has engaged Mr. Edmund Meisel, the celebrated Hungarian composer and conductor, to write original musical compositions for the film productions. Mr. Meisel's own distinctive contribution takes the form of synchronized music and sound composed to form a musical interpretation of the actions and emotions of the characters as well as the theme of the story. "Every character in the film," Meisel states, "is given a distinctive motif, music and sound combined to suggest the character of the person portrayed. Noises and miscellaneous sound effects are woven into the musical composition itself, becoming an integral part of the orchestral score."

In Berlin, the central organization for the distribution of visual material is known as the T. W. L. Concerning this institution, Doctor Gregory says that no institution in this country possesses visual material as well adapted to technical instruction. The lantern slide collection includes music and art material in addition to that for geography, history, literature, and science.

What is true of visual aids sociologically is also true of them educationally and psychologically. As such an aid is of direct value in supporting imagery, so also it may serve in the process of thinking[17], in the principles of imitation, in self-expression, and in the student participation.

Interesting applications for the idea of visual aids as a means of encouraging music appreciation are to be found. The prepartion of a scenario such as *Musical Shoes*[18] illustrates the point from a somewhat novel angle and in contrast with such projects as the presentation of operettas and other musical stage productions.

All of these aids, it will be noted, belong in the same class as the flash card for teaching such things as chords, keys, and time elements; and as wall charts to show the various types of scales, key signatures, and transposition for different instruments.

But the story does not end here. When visual aids such as these have been justified economically[19] to the complete satisfaction of the tax payer and patrons, we are at yet another vista. On one hand is television and on the other, the developments of the sound picture. The significance of these two instruments rightly used for the cause of music alone can not be measured.

What a day in the annals of music appreciation to have Walter Damrosch and John Philip Sousa together with their respective Orchestra and Band available to music lovers the world over and for all time through the sound pictures! In yet another day, the worthy successors of such great leadership may be heard and seen by television simultaneously in the classrooms of America. From such an Athenaeum then we may look forward to an unreckoned appreciation for music and to a wealth of masters in the divine art.

(Note—A short bibliography on music appreciation selected for helpfulness to music teachers and students will be found in Beattie, McConathy, and Morgan's, "Music in the Junior High School," New York; Boston: Silver, Burdett and Co., 1930, pages 142-43.)

(12) Pathe Exchange, Inc.

(13) "A New Force in Modern Education," 16 pp. Department of Educational Talking Pictures, Electrical Research Products.

(14) Gregory, William M., "Visual Education in Europe," *The Educational Screen*, 8, 292-294 (Dec., 1929), 9, 4-5, 14, 39-40, 60, 68-69, 90, 100-102, 122, 132-3, 151 (Jan. to May, 1930, inclusive).

(15) Rogers, James Edward, "Recreation Annexes the Movies," *Movie Makers*, 4, 306-307 (May, 1929).

(16) Forkert, Otto, "Foreign Notes," *The Educational Screen*, 8, 267 (Nov., 1929).

(17) Graves, W. E., "Imagery and Thinking," *The Educational Screen*, 6, 261 (June, 1927).

(18) Hacker, Leonard, "Musical Shoes," *Movie Makers*, 4, 94 (February, 1929). See also the following:
Sargent, Epes W., "Illustrating Songs," *Ibid*, 4, 290, May, 1929.
Richards, Arlen, "Bringing Music to Life," *Ibid*, 4, 449, 474-475 (July, 1929).

(19) Chapman, W. P., "The Economic Aspect of Visual Education by Motion Pictures From a Parent's Viewpoint," *The Educational Screen*, 9, 167-169 (June, 1930).

The Sources and Uses of the Visual Aids in the Teaching of Biology

(Concluded from the September Issue)

HOWARD L. REED

RAISING Paramoecium is as easy as "falling off a log" and should be attempted by every biology teacher. Start a mixed protozoan culture as already directed. The Paramoecia which develop in this culture will be used to inoculate permanent cultures. If time is not available to wait for Paramoecia to appear in this way they may of course be purchased from a biological supply house or obtained from most pond water.

The permanent culture should be started as follows:

Obtain a six inch by eight inch battery jar and fill it with pure distilled water to a depth of five or six inches. Add 30 or 40 grains of boiled wheat. After several days a heavy bacterial scum will develop on the surface of the water. Two days after this scum appears, inoculate by pipetting Paramoecia from a mixed culture. When Paramoecia develop in the mixed culture, they will usually appear first at the surface of the water around the edge of the jar. To be sure these are the large Paramoecia pipette some of them into a watch glass and examine under an ordinary binocular dissecting microscope. If most of the ciliates are the large Paramoecia they can be used to place in the permanent culture. Start new Paramoecium cultures every three weeks if you wish to have them available at all times.

Handling Paramoecium in the Laboratory

These protozoans are not found upon the bottom but are more apt to be found evenly distributed throughout the culture. If the culture is heavy, a drop of water taken from any part will contain plenty of specimens. If the culture is not heavy the paramoecia may be concentrated by wrapping the culture or bottle, leaving only the surface of the water exposed to light. The ciliates will collect on the surface and may be easily obtained therefrom.

One of the greatest difficulties in studying paramoecium is to get them to stay in the field of the microscope. This problem is especially difficult if the compound microscope is being used. If a small amount of sediment from the bottom of the culture is placed upon the slide with the paramoecium, some of the specimens will become entangled and may be observed with ease. Some teachers place a few fibers of cotton (absorbent) on the slide and the paramoecia become entangled in this. Many times when the water has nearly evaporated from the slide the paramoecia will slow down so that they can be studied.

Growing a Culture of Euglena

This form is also very easy to rear. Proceed in the same way as in culturing for Paramoecium except that boiled rice should be used as a source of food material instead of wheat. Place about 60 grains of boiled rice in a gallon battery jar filled to a depth of five or six inches with pure distilled water. Allow this to stand and ferment until it forms a bacterial scum. Several days after this appears inoculate with euglena. Cultures of this protozoan can be kept going for a long time. Euglena cultures should be kept where they will get plenty of light. The material used to inoculate the culture may be obtained from duck ponds where the water becomes very stagnant. Any green film appearing on the surface of stagnant pools is apt to be Euglena.

Handling Euglena in the Laboratory

Euglena is very strongly attracted by light and will collect on the lighter side of the culture or bottle. They do not move as rapidly as paramoecium and can be studied without slowing them down.

In general, for microorganisms the teacher will find that the best thing to do is to go out on a field trip and collect water from ponds, ditches, pools, etc., and any material that looks as if it might be of vegetable origin (usually clinging to rocks or floating free in the water), place it in a screw-cap vial (labeling as to place of collection) and then upon returning to the laboratory examine collected material and identify. Ward and Whipple's "Fresh Water Biology" as a reference will generally enable the teacher to identify the material and after this procedure has been carried out several times the teacher will begin to become acquainted with the available material in his locality and thus know where to obtain what he desires at any future period without the necessity of extensive search.

Before the class demonstration, involving the use of the micro-projector, it is advisable to examine the material and make mounts that will show the living material to best advantage. One difficulty in preparing mounts ahead of time is that the water on the slide evaporates and the organisms die. The following method is generally helpful in preventing this occurrence: Take your micro-slides and with melted paraffin make a square outline in the center of each slide (the size of the cover glass); then place your water containing the microorganisms in the area encircled by the paraffin (which solidifies almost immediately); next warm the cover glass gently over an alcohol lamp

flame and place it evenly over the square outline of paraffin on the slide. This will prevent the loss of water by evaporation and the material will keep for several hours without any harm to the micro-organisms on the micro-slide.

Preservation and Fixation of Material

Many times the teacher collects material at times when it is available so as to be sure to have material ready for class work later on and as it is sometimes difficult to keep the material in a living condition, it becomes advisable to preserve it in suitable solutions without detriment to the material.

A solution which will preserve green algae in good natural color is made as follows:

Potassium chrome alum	10.
40% Formalin	5.
Water	500.

This fixative will not plasmolyze such forms as Vaucheria and most algae fixed in it will be well preserved for microscopic examination or micro-projection.

For general use one of the most useful fixatives is the "F.A.A." solution or "Turtox Universal Fixative." This solution, which will be found dependable is made as follows:

50% Alcohol	100.
40% Formalin	6.5
Glacial Acetic Acid	2.5

This fixative is excellent for most plant tissues and for many of the smaller animal forms. Its usefulness is due also to the fact that many tissues may be left in it indefinitely.

Another useful pickling solution commonly used for algae, etc., is the so-called Biological Solution, which is made as follows:

Alcohol, 95%	10%
Formalin, 40% solution	2%
Glycerine	5%
Water	83%

Many fleshy fungi (mushrooms) may be preserved in their natural color in the following solution:

40% Formalin	6 cc.
50% Alcohol	100 cc.

In some case it may be necessary to use even as much as 50% of the 40% formalin solution and 50% of the 50% alcohol.

A 4% solution of 40% formalin is very useful for preserving many plant organs.

25% alcohol and 5% glycerine in water also is very good for many plant organs.

Staining Plant Material for Microscopic Work and Micro-projection.

In regard to the preparation of stained mounts of sections of plant tissues and organs for microscopic work and micro-projection it is advisable to give some data because most botany teachers wish to discuss the histology of such things as roots, leaves, stems, vascular bundles, etc.

Many sections of plant material may be satisfactorily obtained by means of a sharp razor but a sliding microtome gives best results for general work. The rotary microtome is best for delicate tissues as mushrooms, etc. Embedding in paraffin and celloidin are very valuable but are somewhat complicated and very lengthy processes so I shall refer the teacher to a suitable text in regard to those methods.

The sections obtained may be stained by various methods, many of which will give excellent results in the hands of the experienced technician, however, I shall outline a method which the most inexperienced teacher can use without fear of overstaining (the most common difficulty) or of making other common errors. The results are always the same and the double staining gives good contrast between various types of tissues, i. e., soft cellular tissue as parenchyma will take a red stain and lignified tissue or woody tissue will be stained green.

I worked out this method several years ago because my students were having considerable difficulty in their staining in the process of making a canada balsam permanent mount. They were constantly overstaining by other methods we employed. The method is as follows:

1. Take thin sections and boil in a 10-20% solution of chloral hydrate (for 5 minutes). This removes starch, chlorophyll, resin, etc., i. e., it clears the section so that any of the opaque cell constituents will be removed.

2. Wash the sections in a dish of tap water to remove any chloral remaining in the tissues after the process of clearing.

3. Place the sections in 50% alcohol and to this add 5 or 10 drops of a solution of methyl green dye (0.5% in 50% alcohol). Allow the sections to remain in this solution until the sections are entirely stained green (heating gently will hasten the process).

4. Place the sections in 70% alcohol for 30 seconds (dehydration gradually).

5. Transfer the sections to 95% alcohol for 30 seconds (further dehydration).

6. Transfer to 100% alcohol for 30 seconds (complete dehydration).

7. Transfer sections into clove oil.

8. Add 10-20 drops of safranin or methyl red dye solution (2% in absolute alcohol) to the clove oil. Allow the sections to remain in this solution until the sections show tissues stained red in places against other tissues which are green (hold up to light to note this), or if not certain allow the sections to remain in this solution for several hours (they cannot overstain).

9. Transfer the sections to cedar wood oil.

10. Place section on a micro-slide and with aid of a blotter remove the excess of oil around the section and

add two or three drops of Canada Balsam (Balsam of Fir) and place cover slip on the Balsam.

This is what is known as a permanent mount and it may be kept indefinitely. Any material prepared in this manner is always available for micro-projection and the teacher should prepare sections of various plant organs in this manner until he or she has a collection to be used for this phase of the work each year. These slides can of course be used for ordinary microscopic work in the classroom giving the students more opportunity to study the sections in detail after the micro-projection demonstration has taken place.

If the teacher does not have the time to prepare permanent mounts he may obtain them (excellent matrial of this sort) from the General Biological Supply House.

Undoubtedly there are many things which I have not had time to cover in this article which may be of particular interest to some teachers but any who read this paper and wish for more information concerning any of the things mentioned or other data of biological material can feel free to write or call upon me. I shall be glad to furnish any information that I have concerning this type of work.

Objective Presentation in Educational Procedure

(Concluded from the September Issue)

STELLA E. MYERS

LEARNING is an active procedure, not a passive one at any time. An organism interacts with its environment; learning takes place during this activity. Human beings have more neurones and more connections between them than have animals. The difference between animal and human learning is a quantitative one. When an organism is disturbed by the environment, it reacts along the line of tendencies produced from the original nature of the organism and from its previous experience. If no response is forthcoming, thinking is induced. Animals make innumerable manipulations in response to a stimulus, but they do not "stop and think". An integration of the new experience with the old takes place. This gives both the new and the old experiences a new meaning.

Meumann says that the observed datum is raised to a "greater clearness and to higher degree of awareness." Thorndike and Gates say, "Experiences should be constantly reorganized and reintegrated so that (the child's) wants become increasingly those which, by promoting the welfare of others, rebound to satisfy his own desires." Our methods of reconstructing our experiences form our habits. Each thing to which we attend connects with some other thing. Through association in this manner, we acquire meanings, and only by association. Kilpatrick says that we would lose the world as we know it if we lost meaning. Bode sums up all thinking as a discovering and testing of meanings. He calls meanings the tools of thinking. Much is made by many writers of "insight", which seems to be "meaning" raised to its highest pitch. Experience only affords the opportunity for insight, but does not guarantee it.

To speak more fully of the exact form which the thinking activity takes, Freeman says that if there is careful discrimination between the sensations, clear-cut sensory impressions result. Some hold that mental imagery forms the very structure of thought. Seabury says, "Every voluntary action of the human being is first an image of the mind." . . . Practice and experience in image-making are of use chiefly because they cut mental images of actions and thoughts necessary to carry on a certain physical or mental process." Dimnet says, "All we can say is: That most of our mental operations are inseparable from images, or are produced by images. We do not differ in this form from the dear animals near us. . . . All these images may succeed one another with the rapidity of lightning, and . . the concatenation will be called thought, but in reality it will only be a sequence of images. . . . Our mind is active on a constant succession of more or less connected images. . . ." This author recommends that for thinking we form a background of images. Dewey is making much of the perception of dominant qualities. He says, "The net outcome of prior experiences gives a dominant quality . . . to a perceived existence." It is through dominant qualities that ideas are connected. Thinking depends upon controlled association. Spearman maintains that thinking is discovering relations between correlates, or is discovering a correlate when another correlate and a relation are known. In "Creative Mind" (p. 20), an analysis is made of the ten, and only ten, relations that may exist between ideas.

Dr. Henry S. Pritchett in his twentieth annual report of the president of the "Carnegie Foundation for the Advancement of Teaching," makes a strong point of "effective education through related ideas", which he considers is lacking in our loosely constructed curricula, but which he finds largely developed in the German system of schools. He says there the organized subject-matter is an "ever expanding structure of thought and experience, having its respective parts fused and inter-related to rep-

resent an orderly, coherent, and significant world. This body of knowledge . . . is a living and growing thing in all its parts, and by skillful review and cross relationships is finally presented to the pupil as part of himself with continuous roots reaching far back in his consciousness. It signifies to him, not a lot of discarded beginnings, but a veritable organic achievement with recognizable features into which he has wrought his convictions, his tastes, his insight."

There are many conditions favoring thinking and the learning process, both physical and mental; perhaps two of these might be singled out for mention at this time. Thorndike and Gates claim that intensity or readiness of wants is the chief means of controlling the educational process. Kilpatrick says that the deeper the feeling and the stronger the determination to solve a problem, "the more fully do set and readiness, satisfaction and annoyance" help him, to learn from the situation. Dimnet, whose "Art of Thinking" sold to the extent of 100,000 copies in nine months, makes quite a point of an evocative mood to induce thinking. He says, (pp. 206; 208): "There is in us a stratum more sensitive than the rest, which we know and where we go at will. . . . We know from experience that the response is sure. . . . Our life with its peaks . . . of sentiment, effort, nobility, or increased intelligence, is a veritable mine of evocative moods. . . . No sooner are we conscious of them than the phosphorescence of intuitiveness begins. Poets know it well. . . . Who cannot remember such moments, and who, remembering them, does not realize that he is where his soul is the most active. . . . Such experiences, renewed when we wish, do more than years of conscious effort or laborious study to teach us what thought is and where it is." As to the method of approach to a situation, we may view it as a whole or may take it piecemeal. Dewey claims that we first recognize a dominating quality in a situation as a whole. "It is the first stage in the development of explicit distinctions. All thought in every subject begins with just such an unanalyzed whole. The immediate existence of quality, and of dominant and pervasive quality, is the background, the point of departure, and the regulative principle of all thinking." Sayers says that an insight of the whole governs the part activity.

Intensivity and vividness may be enhanced by emotional tone. Benson says in his "Psychology for Teachers" that there is an emotional glow when one feels himself into the task, which results in closer attention, greater effort, and more rapid progress. "As long as our thoughts 'touch' the emotions, their stores of energy are tapped." "No progress, however, is made in subjects that bore the child." The "emotional glow" seems to be a sublimation of emotion. Some claim that emotion hinders rather than helps thought, which is evidently true if the emotion is crude or violent.

The following table indicates in what respects the use of representation of the objective world accords with the primary facts of learning .

The Application of Visual Methods to the Laws of Learning

Features of Laws of Learning	Features of Visual Methods
1. Clear sensory images.	1. Defined, accurate presentation (Thorndike) Words are powerless for: Shape; size; proportion; position; color.
2. Synthetic before the analytic.	2. Objects are seen as wholes first.
3. Discovering relations is the essence of thinking.	3. Things related are perceived simultaneously, not sequentially as in linguistic presentation.
4. Insight from meanings.	4. Functions and uses are apparent, giving meanings.
5. Original tendencies in the individual are reinforced and developed.	5. Sight is the sense that from infancy is used more than any other; when used without symbolism it is perhaps the most natural way of obtaining sensations. Vicarious motor activity is also an immediate method of perception.
6. Extensive interaction with the environment; integration with past experience.	6. Not only a ready means of interaction with a large environment at hand, but brings the distant near. The past has many elements that are significant in the present environment. These features can be integrated most readily, and with the fullest meaning, if experienced vicariously by means of representation or the drama.
7. Set; readiness.	7. The uniform and quick responses of children to graphic presentation indicate that there is a constant readiness for learning by that means.

GOVERNMENT ACTIVITIES IN THE VISUAL FIELD

CONDUCTED BY MARGARET A. KLEIN

Motion Picture Activities of the U. S. Department of Agriculture

RAYMOND EVANS

THE MOTION picture activities of the United States Department of Agriculture are carried on through a unit of the Extension Service officially known as the Office of Motion Pictures. This office operates in Washington, a small, but complete motion picture laboratory with its corp of photographers, editors, film splicers, etc., and maintains an educational film library of about 250 subjects (a total of 3,000 reels in all) which are distributed throughout the country. They are used primarily by county agricultural agents, to assist them in their extension activities. During the last fiscal year 5,219 copies were shipped to these agents.

The subject matter covered by the films issued by the Department of Agriculture is as varied as the work of the many bureaus of the Department. There is neither time nor space to describe all the films in this article but some idea of the scope and nature of the subject matter may be gained from the following list of films, selected as representative, from some forty releases of the last two years:

Wool-Marketing and Manufacture (3 *reels*) Bureau of Agricultural Economics. Shows the handling of wool from the fleece to the finished fabric. Covers the whole process of manufacture. Of interest to the general public.

Rabbit Raising (2 reels) Bureau of Biological Survey. Breeds of domestic rabbits; rabbitries of various types; possibilities of rabbits for meat and fur.

Routing Rodent Robbers (2 reels) Bureau of Biological Survey. Shows why and how cooperative control of ground squirrels and prairie dogs is conducted.

Agricultural Explorations in Ceylon, Sumatra and Java (2 reels) Bureau of Plant Industry. Acquaints the public with little known fruits and ornamental plants now growing in this country as a result of work of agricultural explorers in Ceylon, Sumatra and Java where scenes were made.

The Realm of the Honeybee (4 reels) Bureau of Entomology. The life history of the honeybee.

Building Truck Trails in the National Forests (1 reel) Forest Service. Shows how the cost of building truck trails in National Forests is lowered by the employment of modern machinery.

An International Study of American Roads (Talking Picture in 6 reels) Bureau of Public Roads. Designed to illustrate the many types of highways in the United States, their use and service to the country. It shows highway construction methods and machinery; types of automobile traffic and the significance of our highway system to town and country. Scored by the United States Marine Band.

Marketing Live Poultry (1 reel) Bureau of Agricultural Economics. Points out the necessity for culling on the farm; contrasts old marketing methods with the modern; shows care of live poultry enroute to market; government inspection of poultry killing and dressing in city slaughter houses.

Pop Goes the Weevil (3 reels) Bureau of Entomology. A story picture showing how the Sweetpotato Weevil may be controlled. Prepared especially for use among the sweetpotato growers.

Two Generations (3 reels) Forest Service. A story picture on the handling and utilization of woodlands. Prepared especially for use in the hardwood section of the South.

While designed primarily for the use of county agricultural agents and home demonstration agents of the State Extension Services, these films, when copies are available, are loaned to any person or agencies prepared to make good use of them. Thus, they are available to schools, churches, granges and scientific organizations, as well as to individuals who may have good occasion for presenting them. The Department makes no charge for these pictures, but the borrower is expected to pay transportation charges from Washington and return.

Since the funds provided for purchasing copies of films for circulation are scarcely more than adequate to satisfy the demand from extension workers and the Department's own field men, it is futile to hope that the Department will be able to satisfy the increasing demand from outside sources. This is true not only as regards 35mm. copies of films, but especially in regard to copies on 16mm. stock. Most of the recent releases of the Department are available on narrow-width film, but the number of copies available in this size is wholly inadequate to satisfy the demand. To meet requests from schools alone would necessitate increasing the number of copies in circulation manyfold. In view of this situation, users who have occasion to make more or less intensive use of Department of Agriculture films frequently find it worthwhile to purchase prints from Department negatives. The government itself cannot sell prints, but the negatives are deposited with a commercial laboratory which furnishes prints to authorized purchasers at a relatively

(*Concluded on page* 270)

DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

Metropolitan Chicago Department Branch

Following the call of the Organization Committee, a meeting was held in Chicago, Saturday, October 15, at the Allerton Club. The purpose of this meeting was to organize a Chicago Metropolitan Visual Education Association.

The meeting was called to order by Mr. William H. Dudley, of Chicago, a National Delegate. He explained its purpose, and following directions of the Organization Committee, appointed a nominating committee, to select candidates for President, Vice-President, Secretary-Treasurer, and five members of an Executive Committee.

William J. Hamilton, Superintendent of Schools, Oak Park, Illinois, spoke on the "Intelligent Use of Visual Material." His address was followed by a demonstration of the use of visual aids in teaching Spanish, by Mr. Albert H. Goodrich, a teacher in the Marshall Senior High School, Chicago.

A business meeting followed, and the following officers were elected:

President—H. Ambrose Perrin, Superintendent of Schools, Joliet.

Vice-President—W. C. Petty, County Superintendent of Schools, Lake County, Waukegan.

Secretary-Treasurer—S. Naomi Anderson, Field Supervisor, Visual Instruction, Chicago Public Schools.

Executive Committee: Paul G. Edwards, in charge of Visual Instruction, Chicago Public Schools; William F. Kruse, Bell & Howell Company, Chicago; Charles S. Winslow, Principal, Lincoln School, Chicago; Stella E. Myers, Chicago; J. Ritchie Patterson, in charge of Visual Instruction, Chicago Public Library.

Two meetings of this organization are planned before January 1st, one in November, and one in December.

Colorado Visual Group Has Interesting Meeting

The annual meeting of the Visual Education Section of the Colorado Educational Association was held at the Morey Junior High School in Denver on Thursday and Friday afternoons, November 10 and 11. The meeting on Thursday was combined with the meeting of the Science Section. A detailed schedule of events is given below:

Thursday

1. The Preparation of Student Science Exhibits —Clifford F. L. Mohr, West High School, Denver.

2. A Student's Opinion of Science Exhibits—Albert Milzer, West High School, Denver.

3. "Science converzationes" of Oundle School—Paul L. Essert, Supervisor Secondary Education, D. P. S.

4. Interesting Bits of Colorado History by Visual Education—Anna Louise Johnson, D. P. S.

5. "Cold Light." A Lecture Demonstration—Byron E. Cohn, University of Denver.

Friday

1. "The Preparation of Natural History Displays for School Use"—Robert Niedrach, Colorado Museum of Natural History.

2. New Cellophane Roll Films for Slide Lanterns —Earl C. H. Davies, West Virginia University.

3. The Visual Education Division of the National Education Association—Miss Lelia Trolinger, University of Colorado.

4. Business Meeting. Election of Officers.

5. The New 16mm. Talking Motion Picture Equipment. Demonstration—Wayne M. Akin.

6. Recent Developments in the 35mm. Talking Motion Picture Machines and Films. Demonstration—J. J. Morgan.

In addition to the usual displays of projection equipment and visual instruction materials of various kinds, there were displays and demonstrations by chemistry students of South and West High Schools, Denver. Another attractive exhibit, which depicted early Colorado history, was prepared by students of the Denver Public Schools.

Westchester County Group Organizes

A group of visual instruction workers and teachers of Westchester County, New York, met at Rye on Thursday evening, September 29, for the purpose of laying plans for the year. The final organization meeting was held on Wednesday, October 19.

At the organization meeting, certain definite aims were formulated, as follow:

1. To hold the meetings the third Wednesday of each month at the schools of the various members in charge of the meetings.

2. To send a notice, with a brief summary of the next meeting, to each member.

3. To distribute, bi-monthly, mimeographed material indicating the sources of the best visual aids.

4. To have no dues other than school or individual membership in the Department of Visual Instruction of the N. E. A.

5. To have practical demonstrations of the use

of visual instruction materials, arranged by members of the group.

6. To provide for an open forum at each meeting for the discussion of individual problems and general interchange of information.

7. To encourage visual instruction courses among the teacher training institutions of the State.

Pennsylvania Science and Visual Education Meeting in December

The meetings of the Department of Science and the Visual Education Round Table of the Pennsylvania State Education Association will be held as a joint session on December 29, in the State Museum Auditorium. The program, as given below, should be of interest to all who may find it possible to attend.

1. The Object-Specimen-Model Collection as Developed for use in the schools by the State and City Teachers Colleges.

2. Some Uses of Visual Aids in Teaching the Social Studies—H. H. Shenk, Professor of History, Lebanon Valley College.

3. Visual Education in Relation to the New Courses in Eighth and Ninth Grade Science—John T. Garman, Special Assistant, Division of Visual Education, Philadelphia Public Schools.

4. Demonstration of Micro-projection Apparatus and Other Visual Aids in the Field of Science—George Rommert, Munich, Germany.

5. The Revised Course in Chemistry—David Pugh, Pennsylvania State College.

6. School Journeys in the Field of Science—John A. Hollinger, Director of Science and Visualization, Pittsburgh Public Schools.

7. Business Session.

Notice of New Directory

THE NEW 1932-1933 VISUAL INSTRUCTION DIRECTORY will go to press within a few weeks. If you are a director or teacher of visual instruction, or if you are interested in the latest news and developments in the field of visual instruction your name should appear in this directory.

The point is this—we have many hundreds of names which are to appear in the directory and in all probability your name is included in the lists which we have in this office—**BUT**—in order that you may be spared the annoyance of seeing your name misspelled or incorrectly listed—we are asking you to fill out the following slip and mail it to the Department of Visual Instruction, 1812 Illinois, Lawrence, Kansas. Your cooperation will be appreciated.

Name ..... Date .....

School or Position .....

Residence .....

City ..... State .....

Government Activities

(*Concluded from page 268*)

low contract price, established by competitive bidding. It is the policy of the Department to encourage the purchase of copies of its films by those who make regular and intensive use of them, so that they will not be deprived of their use.

About a year and a half ago the Department began making talking pictures. The progress in this work has been relatively slow, largely because hitherto the cost of portable projectors equipped for sound has been too high to make it possible for the average county agent to consider their purchase. However, the Department has released about a half dozen sound pictures, and now that the cost of portable sound projectors is more nearly within the reach of the county agent, the prospect seems to be good for the development of talking pictures in the agricultural extension field.

In this connection, recent developments in the 16mm. field are of interest and promise. Several manufacturers have been working on the development of 16mm. sound-on-film projectors with such success that good 16mm. sound-on-film pictures are now an accomplished fact. The Department of Agriculture has as yet released no sound pictures in this size, but it will probably do so when suitable projection equipment is made available to those who habitually use Department films. This development will hang in great measure on the trend of business among farmers. Just now, few if any, rural communities have surplus funds to expend on high-class equipment for visual education.

Contributors to this Issue

Louis A. Astell, Formerly Research Associate, Institute of School Experimentation, Teachers College, Columbia University, New York, New York.

Raymond Evans, Chief, Office of Motion Pictures, U. S. Department of Agriculture.

Ruth Gardinor, Teacher, Scarborough School, Scarborough, N. Y.

Alexander M. Harley, Director of Music, Maine Township High School, Des Plaines, Illinois.

H. Paul Janes, Director, Division of Visual Aids, Presbyterian Board of Christian Education, Philadelphia, Pa.

Margaret A. Klein, Director, Children's Bureau, U. S. Department of Labor, Washington, D. C.

Stella E. Myers, Writer and Research-worker, formerly in charge of Visual Instruction in the Public Schools of Forest Park, Ill.

Howard L. Reed, Massachusetts College of Pharmacy, Boston, Mass.

Albert Lindsay Rowland, President of Shippensburg Teachers College, Shippensburg, Pa.

Correction

In the October issue, the entry under Sarah A. Hine was incorrect. It should read

Sarah A. Hine, In charge of Educational Department of the Newark Museum Association, Newark, N. J.

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.

Travel Subjects Released in Sound

No. 1, a one reel sound movie, depicting a transcontinental journey from Chicago to the North Pacific Coast on the North Coast Limited of the Northern Pacific Railway, is now completing its second year of showing at theatres throughout the country. Ray-Bell Films handled this distribution in cooperation with the railway Advertising Department.

During this time it has been shown in approximately 1,000 theatres in 32 states to an audience totaling over 1,500,000 people. So great has been the demand for the reel that at times it was difficult to fill the requests for bookings with 31 prints. The shooting of the scenes and sound recording of this picture actually took place on railroad property and therefore it is a realistic trip aboard a modern transcontinental train. This dramatic story of a transcontinental train—entertaining—educational—elicited praise from several dramatic critics and theatre managers.

It was thought advisable, following the fine reception and favorable comments accorded the first sound release, to have more of such reels available to fill requests being received. Hence the railroad has just completed three new one-reel sound releases, *The Mountain That Was God*, *To The Olympics*, and *Yellowstone on Parade*.

The Mountain That Was God, a beautiful sound reel, many scenes of which are in natural color, is a journey through Rainier National Park to Mount Rainier, the mountain that the Indians worshipped. *To The Olympics*, a thrilling scenic and educational reel, is a journey by forest trails through the Olympic Peninsula, said to be the greatest wilderness area of the United States. In *Yellowstone on Parade*, a trip through Nature's Wonderland, Yellowstone National Park, interesting and dramatic description by off-stage voice and well chosen musical background hold attention as spouting geysers, towering waterfalls, beautiful scenery, and glimpses of wild animal life pass in review. This reel and *The Mountain That Was God* were produced by Ray-Bell Films, Inc.

Probably the best recommendation that could be given these reels is the fact that the Paramount-Publix Theatres Corporation, with their high standards of exhibition requirements, have accepted these three new reels for showing in their houses throughout the country.

A Civics Film

A new film which many Departments of Visual Education have secured for their libraries is the two-reel 16mm subject entitled *Interdependence*, presented by the Moses Kimball Fund for the Promotion of Good Citizenship, and produced by the University Film Foundation in cooperation with the Harvard Graduate School of Education.

The film aims toward the better understanding on the part of the individual of his place in present-day interdependent society and his relations and responsibilities to other individuals. It is a splendid introduction to the dependence of nations upon each other and should be useful in history, geography, civic and science classes.

Health Production

Under the lengthy title, "Search for the Elusive Vitamins A & D", Health Products Corp. have produced an interesting 3 reel, 16mm film on cod liver oil, its value, sources, and manufacture. Genuine glimpses of the Gloucester waterfront and fishing industry, thrilling activities of the fishermen on the high seas in pursuit of the cod, handling and disposal of the catch, comprise Reel One. Then follow scenes in the research laboratory where thousands of white mice are happily and unconsciously serving the human race by demonstrating the varying effects of presence and absence of vitamins in daily food. The factory processes involved in supplying the finished oil to the public in liquid or tablet form conclude the subject. With the obtrusive trademark omitted from the titles, and a few more titles added, the subject would have still greater appeal and educational value. Advertising in "educational films" should be subtle and indirect to be effective and acceptable.

An Experiment in England

The town of Chesterfield, in Derbyshire, England, has made a film "designed to show clearly how its schools prepare the children specifically for the posts they are to fill after school life." After reorganizing its schools and remodelling its system about four years ago, Chesterfield produced *The New Generation* to show what it had done.

The first section shows shots of town life, factories and homes. The second, nursery schools,

(*Concluded on page 274*)

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Visual Group in Indiana Active

Indiana has taken a forward step in the organization of a Visual Instruction Section of the State Teachers' Association. This is the second year for the new group, and the membership has been tripled over that of last year.

It is planned to divide the state into a number of sections with a representative from each division. In this way those members who are interested in visual instruction will be kept informed concerning the latest developments in the program. The following material was prepared by the resolution committee, under the chairmanship of George McIntire, for presentation at this month's meeting.

Whereas, the production and use of visual instruction materials has become widespread in Indiana; and *Whereas,* the efforts of a centralized group are necessary for the standardization of the visual instruction program in order that all pupils of the public schools may share the advantages to be derived from the use of visual aids in instruction; Therefore *Be It Resolved*: That the Visual Instruction Group of the Indiana Teachers' Association adopt a working program by means of which the organization may realize the desirable goals indicated in the aims set forth in this report; and *Be It Further Resolved*: That the President of this group is hereby authorized to appoint such committees as he may deem necessary for the attainment of these goals.

Aims

1. To co-operate in every way possible with the combined National Academy of Visual Instruction and the Department of Visual Instruction of the National Education Association of the United States.
2. To make some definite effort toward encouraging schools all over the state to designate some one individual as director or at least someone who will be held responsible for the building up of local school visual libraries and the extension of facilities for the use of the same.
3. To encourage all schools in the building up of local libraries of the principal visual aids, such as motion pictures (for larger cities only), glass slides, film slides, prints, mounted pictures, exhibits, and stereographs.
4. To insist that schools provide convenient filing systems for visual aids in order that any particular print or slide may be secured with no loss of time.
5. To disseminate information concerning the leading experiments which have demonstrated the value of the principal visual aids.
6. To encourage school systems to finance the visual instruction program through the regular school budget.
7. To disseminate information concerning the low per pupil cost for the use of visual aids.
8. To encourage all users of visual aids to co-operate in making the state visual aid library larger and more helpful to all schools of the State.
9. To recommend that a course in Visual Instruction be made a part of the curriculum of prospective teachers in training.
10. To urge that teachers in service make a careful study of the use of visual aids, both through reading and through careful and purposeful experimentation.

Who Is the Most Extensive Commercial User of Motion Pictures?

What company is the largest user of motion pictures for business purposes? The current issue of *Filmo Topics* carries a particularly interesting article tending to show that Caterpillar Tractor Co., which has increased its motion picture sales promotion activities during the depression, is a strong contender for the title.

The article states that "in Caterpillar files, many records give proof to the effectiveness of movie selling. A Michigan dealer's salesman, going from farm to farm with his projector, sold eight tractors last winter in a region where they had never been sold before. A representative sold eight tractors, a grader, and a snow plow to the government of Afghanistan after interesting the officials with motion pictures and then defeating the royal elephants in competitive demonstrations. Another representative showed pictures before the Emperor of Ethiopia, who became interested, requested a demonstration, and ordered three complete Caterpillar road building units.

" '16mm films,' says Mr. Snider of the Caterpillar Company, 'are particularly adaptable to dealers and salesmen, and practically every Caterpillar dealer throughout the world is equipped with one or more 16mm projectors and a complete library of films of various subjects supplied free to them by the Caterpillar Tractor Co.

"Although silent pictures compose the greater part of the firm's film library, a start has been made in the use of sound films in the hands of traveling

school crews who visit dealers' schools during the winter. Prospective purchasers are invited to these schools.

"In explaining the economy of the motion picture sales method, Mr. Snider says, 'Actual demonstrations are often costly and in some localities almost impossible due to lack of proper conditions. For instance, it is difficult to demonstrate snow removal in July, yet the record of sales of snow plows shows that they are usually purchased in July for delivery in the fall. Motion picture films make it possible to show actual snow removal scenes, or any other kind of work gathered from the four corners of the world, briefly, and at little expense.'"

The Education Index Appears in New Form

The first cumulated volume of *The Education Index* has just been published by the H. W. Wilson Company. It contains a complete index to the contents of THE EDUCATIONAL SCREEN for the past three and a half years and to 116 additional leading educational periodicals of the United States, Canada, and countries abroad, by author and subject in one alphabet. The periodicals were chosen by the subscribers themselves, and additional ones are added similarly from time to time.

In addition to the periodicals completely indexed, 19 other magazines are covered selectively, thus rendering the current literature of the educational field readily accessible—to libraries, research departments, and interested individuals.

The *Index* attempts to give adequate representation to all phases of educational publication. It includes periodicals both popular and technical; it indexes magazines of parent instruction and those dealing with the advanced clinic; it traverses the complete range of pedagogy from kindergarten to seminar, with attention to all departments and aspects. In short, it constitutes a complete guide to the best in current professional literature for educational workers in every branch of the field.

The Education Index, which was begun in 1929, follows the school year and is published on the cumulative plan in nine monthly issues, from September through May, with a cloth-bound cumulated volume each June. The first permanent bound cumulation covers the period from January 1929 to June 1932. The H. W. Wilson Company plan to publish permanent volumes every third year, thus reducing the indexing to the fewest alphabets possible.

British Plan Motion Picture University

What is alleged to be the biggest move for establishing the motion picture as a medium for education is announced by Sir James Marchant, who, in collaboration with Sir Oswald Stoll, plans to establish in London a university in which teaching will be done entirely by film. "Such a venture," states a preliminary report, "can be made financially successful."

Sir Giles Gilbert Scott has prepared a design for the university, which will consist of a central hall with lecture halls, or theatres equipped with "talkie" apparatus radiating from it. A Zeiss Planetarium will be installed in the central dome. Films will be prepared recording lectures and demonstrations by experts in the leading branches of knowledge—science, history, travel, and literature; industrial processes, languages, the teaching of handicrafts, and other lines. The university will be open each day and evening at nominal fees.

Schools and colleges will be supplied with lecture films from this central source, and vans equipped as theatres will travel throughout the country giving lectures on such subjects as agriculture and poultry farming. The university will also contain an ordinary motion picture theatre where foreign films will be shown in their original language; Sir James Marchant, who has been prominently associated with educational films in the past, states that last year exhibitions were given in 86 colleges to 14,650 scholars.

Librarian Forecasts Filming of Rare Books

Professor Edward A. Henry, director of libraries of the University of Cincinnati, believes that the reproduction of valuable books and manuscripts on film will solve one of the greatest problems now confronting the country's largest libraries.

"At present, research scholars undertaking certain lines of study have been compelled to travel to the great library centers of America and Europe to consult original sources and precious manuscripts which were not permitted to circulate, but the film reproductions will make the majority of this material available to savants everywhere. Thus rare and inaccessible literature and documents from all sources of the world can be put into general circulation and be on file in the form of filmed books in the larger American research libraries," Professor Henry said in an address before the university faculty recently.

According to Professor Henry, the scholar desiring to use a filmed book will come to the charging desk of the library and ask for a certain manuscript. He will receive a number of small spools, each con-

taining about five feet of film. He also will be given a small projector which can be used at a study table in an ordinary general reading room even in broad daylight, or he may be directed to a special reading room equipped with projectors. The picture will be projected on a screen about one foot square in the center of a table. When a professor desires to use the document on a larger scale, a darkened classroom will be employed. A 1,500-foot film can be stored in two circular tin boxes about two inches square and a foot in diameter, the professor pointed out. The Library of Congress, Yale University library and the Huntington University library in California now are prepared to copy books and manuscripts on film, it is understood.

Berlin University Course on Movies

During the coming winter, lectures on various film problems will be held at the Berlin University. Professor Dr. Eggert will lecture on "The Basic Principles and Applications of Photography" dealing especially with sound and color film. Dr. Heinrich Beck, in his course on "Practical Photography", will also include the film in his work. Several other courses on musical history and, particularly, on authors' and inventors' rights will presumably touch upon film problems insofar as these are connected with the subject involved.

Bulletin Service Again Available

The National Geographic Society's bulletin service to teachers, the Geographic News Bulletins, was renewed in October. The cream of geographic news is contained in these Bulletins illustrated from The Society's picture files.

To teachers who request the service, the reports are sent each week from The Society's headquarters in Washington, D. C., for thirty weeks of the school year. Five bulletins accompanied with illustrations and maps go out with each issue. Applications for the Geographic News Bulletins should be accompanied with twenty-five cents to cover mailing costs.

Film Production Activities

(*Concluded from page* 271)

infant and junior schools. The last section shows scenes from factories and workshops, in which children who appeared in the earlier sequences are seen at the jobs that have been found for them. So, in twenty minutes, one follows children in arms through their infant schools, right up to the time when they first begin earning their living.

The framework displays the outstanding features of the Chesterfield scheme; the modernization of every school; the fact that the education received by children up to fifteen is such as will fit them for earning a living and helping the life of the town to go on. The film shows that education, on the Chesterfield system, is not something that ends with school.

A Free Loan Film

The Charles High Productions have just completed an interesting one-reel 16mm educational film, showing in detail how the famous "Kerr" glass jars are made.

This film conducts its visitors thru the big factories without discomfort from fumes, terrific heat and flying glass dust that often prevails. It shows great mounds of sand, lime, and soda ash being mixed and fed into mammoth furnaces and what happens to the moulten glass as it flows in never ending streams into the machines that mould sparkling glass jars.

Three Industrials Finished

Three 16mm industrials recorded by RCA Photophone system have been completed. The productions, all three-reelers, are *The Story of Rope,* for Plymouth Cordage Company; *The Story of the Wright Arch Preserver Shoe,* for E. T. Wright Company, both delivered to Worcester Film Corporation; and *The Rambling Reporter,* produced for the A. & P. Tea Company by William J. Ganz Company.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

Science Education (October) "Sound Pictures in Elementary Science," by Melvin Brodshaug and John E. Strayer, discusses the special advantages talking pictures offer the teaching of science, citing two studies which are now being made by the University Film Foundation, and Erpi Picture Consultants.

The authors state that the talking picture "imparts information, knowledge, and understanding, but probably the greatest contribution it can make to science education on the elementary level is in developing appreciations, interests, and attitudes." They predict the extension of the course of study to include elements which are now omitted due to the difficulty of teaching them by means of traditional or present methods. In addition to the contributions made to the teaching value of the motion picture by such processes as animation, telescopic, micro, time-lapse and slow motion photography, the addition of sound and speech aids in clarifying concepts, increases the emotional response of the audience, adds an intimate touch not found in the silent film, enables the screen to portray related action continuously without the interruption of titles, and contributes to the illusion of reality.

The rest of the article treats the technical side of equipping the classroom for 16mm sound pictures. It advises the purchaser to be familiar with the characteristics of good equipment of the sound-on-disc type, which it claims to be superior in ease of operation to the sound-on-film. With respect to the technical superiority of the two types, the article says, "sound-on-film method is in general use in the theatre today not because of any technical superiority but because of commercial considerations of ease in shipping film programs quickly from town to town. In the school field this is not a factor . . . There are technical reasons why 16mm sound-on-film cannot yet provide quality of sound equal to good theatrical reproduction."

New York State Education (October) "The Place of Visual Instruction in the Modern School" is the subject to be discussed in a series of articles to appear in this publication. F. Dean McClusky, Director of the Scarborough School, New York, begins the series, treating the question from the viewpoint of the educational psychologist.

He declares that "the place of visual instruction in the modern school is not that of waging war on language but rather that of cooperating with language . . . There should be a correct association in the mind of concrete images (emphasized by visual instruction), with verbal images (emphasized by other instruction)."

Regarding the place of concrete imagery in the instructional process he says:

"Visual materials and aids give the pupil and teacher something concrete to talk about and to elaborate, in terms of language. They are also of value in providing correct concrete images to be associated with word images thus counteracting the dangers of verbalism. The task of the visual educator is to determine: what devices will best assist in making the subject most interesting, which will be the most economical, and which will present material which can be presented in no other way."

International Review of Cinematography (August) "The Motion Picture and the American School" is the title of a highly informative and comprehensive article by W. F. Kruse, educational director of the Bell & Howell Co., appearing in this issue.

Mr. Kruse emphasizes at the outset of his paper the necessity of coordination of the sources of educational film material in America, and then proceeds to a valuable listing and discussion of these sources as they now exist, among them being the visual instruction departments of various municipal school systems, state visual instruction centers, museums, individual school film libraries, federal government departments, commercial producers, libraries of equipment manufacturers, industrial concerns who have made "free" commercial films, distributors of commercial films, etc.

The article then takes up such subjects as the relative contribution of silent and talkie school films, reasons for 16mm acceptance, and the trend of development in equipment.

The writer is especially interesting and illuminative in a discussion of the place of films in the school. He takes the stand that there is unanimous recognition that the place where the film contributes most to the school is in the classroom. He adds: "The bulk of the films now available to schools is made with the requirements of the classroom distinctly in mind. These classroom films bear an increasingly close relationship to the text book and the study outline. More and more the educator is demanding factual film material that will fit his courses, not in a highly edited or pre-digested form,

(Concluded on page 279)

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)

Air Mail (Pat O'Brien, Ralph Bellamy) (Universal) Very interesting story of the life of mail plane pilots, mostly believable and told at high tension. One scene in which a comrade shoots a pilot to save his suffering after a crash is a ghastly falsity. Good comic elements.

A—**Good** Y—Probably good C—Too exciting

All-American, The (Richard Arlen) (Universal) Good wholesome football picture, especially interesting because of real football stars shown in the big game at climax. Plot concerns gridiron star who crashes when success turns his head. Entertaining mixture of drama, romance and comedy.

A—**Very good** Y—**Excellent** C—**Excellent**

Aren't We All? (Gertrude Lawrence) (Paramount) English Society comedy, English cast, produced in England and in heavy British style. Sophisticated, dignified Lonsdale play about husband and wife, each straying a bit from conventional paths. Intelligent, moderate entertainment.

A—Rather good Y—Hardly C—No interest

Big Broadcast, The (Bing Crosby, Stuart Erwin) (Paramount) Hodge-podge with mere thread of plot, featuring Crosby and Erwin as actors, serving to bring on a group of radio "stars" to do their characteristic stuff in screen vaudeville. Bathroom scene cheap attempt at comedy rather than harmful.

A—Mediocre Y—Amusing C—Harmless

Bill of Divorcement (John Barrymore) (RKO) Realistic, forceful portrayal of shell-shocked English veteran, cured of inherited insanity, trying to take his place again in his home. Katharine Hepburn compelling as clear-thinking daughter making ultimate decisions for all concerned. Excellent production.

A—**Excellent** Y—**Mature and good** C—Not for them

Broadway to Cheyenne (Rex Bell) (Monogram) Melodramatic thriller of little merit except lively action, about gangsters who operate first in New York, then in the West. Coincidence heavily overworked, plot none too plausible, and acting ordinary. Merely another pot-boiler.

A—Elementary Y—No C—No

Forbidden Company (John Darrow) (Chesterfield) Wholesome, human, unpretentious, sincerely acted romance of rich boy and poor girl. Son's father opposes, but his mother wins out for his happiness. Moviedom's critics are amazed that "it is so good without a sexy situation in it."

A—**Good** Y—**Very good** C—Fair

Hell's Highway (Richard Dix) (RKO) Grim prison drama showing horrible life—flogging, sweat-box, etc., in a convict labor camp. Meant as expose' of conditions supposed to exist. Action not always clear. Good singing by Negro convicts. Ribald jesting.

A—Hardly Y—No C—By no means

Hot Saturday (Nancy Carroll, Cary Grant) (Paramount) Cheap glorification of the gay life of flaming youth in small town. Virtuous heroine, misunderstood, finally driven by scandal to marry the young rake-hero who had always scorned marriage. Artificial story, many false notes, mediocre acting.

A—Cheap Y—Better not C—No

Kongo (Walter Huston, Lupe Velez) (MGM) Outdoes original stage play in grim atmosphere, grewsome sufferings and gross cruelty. An orgy of depraved human nature at its worst, running riot in African jungle heat. Fine cast used for exceedingly depressing entertainment.

A—Depends on taste Y—Certainly not 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"

Life Begins (Loretta Young, Eric Linden) (First Nat'l) Clinical but strong, well-acted picture laid inside great modern Lying-In hospital. Some good comic relief but some in very bad taste. Poignant, grim, depressing scenes, but generally convincing, human and interesting. Far better than vulgar publicity.

A—Unusual Y—Very doubtful C—Certainly not

Madison Square Garden (Wm. Collier, Sr., Jack Oakie) (Paramount) Fast-moving, cleverly made, well acted, with humor and some human interest. Glorifies prize-fighting and the so-called "sporting public," with terrible English, cheap slang and wisecracks. Crudity, crookedness and bad taste made glamorous.

A—Depends on taste Y—Doubtful C—No

Monte Carlo Madness (Sari Maritza) (UFA-First Division) Mythical kingdom romance, made abroad, with foreign actors trying to talk English. A queen incognito pursues and wins the stolid, hero-captain of her only warship. Scenically fine, well enough acted, but implausible and rather heavy in total effect.

A—Perhaps Y—No C—No

Night After Night (George Raft, Constance Cummings) (Paramount) Elaborate picturization of the speakeasy world in New York, lavish in money, booze and women. A highly improbable romance is supposed to elevate the tough, low-born but ambitious hero-proprietor, and thus redeem the whole. Gay life shows up to good advantage.

A—Hardly Y—By no means C—No

Night Mayor, The (Lee Tracy, Evalyn Knapp) (Columbia) Evident attempt to capitalize the Jimmie Walker situation, with both plot and acting utterly obvious. Happy-go-lucky combination of wine, women, song, and politics, topped off with happy ending for the Jimmie Walker hero. Elementary entertainment.

A—Mediocre Y—No C—No

Once in a Lifetime (Aline McMahon, Jack Oakie) (Universal) Merry farce-comedy about three ham vaudevillians who crash Hollywood and end up in positions of high authority. Hilarious satire on movie people and methods, thoroughly funny throughout even when ailly. Some excellent character work, especially by Aline McMahon.

A—**Amusing** Y—**Very amusing** C—Probably good

Parisian Romance, A (Lew Cody, Marion Shilling) (Allied) Light, humorous, sophisticated story of girl who gives up humble but devoted lover for gay Parisian rounder. Luxury and gaiety for a time. Then, he nobly withdraws to permit heroine's marriage and a moral ending. Typical role for Cody.

A—Perhaps Y—No C—No

Payment Deferred (Charles Laughton, Dorothy Peterson) (MGM) Masterful character-role by Laughton, fine supporting cast, in absorbing, grim, realistic study of London bank clerk, who commits sordid poison-murder for much needed money, with dire consequences to him and his devoted little family. Strong, relentless tragedy.

A—**Notable of kind** Y—Unsuitable C—No

Phantom of Crestwood, The (Ricardo Cortez, Karen Morley) (RKO) The radio murder-mystery-serial filmed, involving a double murder and its difficult solution. Mature and sordid situation. Good suspense, good cast, and more plausible story than most of the kind.

A—Fairly good of kind Y—Doubtful C—No

Rain (Joan Crawford, Walter Huston) (U. A.) Famous stage-play now made into pretentious trash for purposes of mere sensation and cheap appeal. Concerned chiefly with flaying "reformers" and glorifying sexiness of heroine. Huston wasted on wooden role. Publicity more lurid than the film.

A—Trash Y—Pernicious C—No

Red Dust (Jean Harlow, Clark Gable) (MGM) Cheap, crude sex stuff in tropic heat of rubber plantation. Hard-boiled, he-man hero scorns marriage but wins his women; first, the pretty, brazen young vulgarian, then the new foreman's charming young wife (Mary Astor) then, "moral ending" with hero "going noble."

A—Mediocre Y—Unwholesome C—No

Six Hours to Live (Warner Baxter) (Fox) Excellent acting by fine cast, headed by Baxter's splendid performance. Strange but well-presented story of man resuscitated for just long enough to complete a great task before dying. Improbable but absorbing.

A—**Very good** Y—**Good** C—Of little interest

Smilin' Through (Norma Shearer, Leslie Howard) (MGM) Famous stage play screened almost perfectly. Great emotional appeal and beauty of sentiment. Shearer's double role beautifully done, Heggie and March notably fine, but Leslie Howard is unforgettable in his dual characters.

A—**Excellent** Y—**Excellent** C—Beyond them

Strange Interlude (Norma Shearer, Clark Gable) (MGM) Serious effort of producer and cast to screen famous drama which was simply too big for them. Impressive for the uncritical, or for those who never saw the original. Mechanized "asides" rather grotesque. Praise-worthy effort but disappointing.

A—Only fair Y—No C—No

Thirteen Women (Myrna Loy, Ricardo Cortez) (RKO) Artificial, harrowing story about whole sorority except one, driven to death and suicide by fiendish classmate through aatrology and mental suggestion. Highly sensational, mobidly thrilling, grewsome and unrelieved. Terrible for children.

A—Hardly Y—Very doubtful C—By no means

Trouble in Paradise (Kay Francis, Herbert Marshall) (Paramount) Sophiaticated action, suggestive dialogue, lavish setting in Venice and Paris for exploits of attractive crook and two women who love him—his partner and one of his victims. Trite theme. One comedy acene notably fine.

A—Depends on taste Y—Very unwholesome C—No

Washington Merry-Go-Round (Lee Tracy) (Columbia) Finest picture of kind in many moons. Strong, intelligent, thought-provoking fiction exposing crooked politics and invisible government at Washington. Ably written and directed, Intensely dramatic and splendidly played by veteran stage actors.

A—**Excellent** Y—**Excellent** C—**Good but beyond them**

Wild Girl (Joan Bennett, Charles Farrell) (Fox) Most colorful and absorbing Western, unusual for lively action, varied characters, real human interest, sane comedy, fine frontier atmosphere and gorgeous setting among the Redwood forests. Excellent cast. Some scenes probably too strong for many children.

A—**Fine of kind** Y—**Very good** C—Doubtful

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

Why Use Pictures In Worship?

H. PAUL JANES

THERE are three incidents in the New Testament which will illustrate, not what worship is, but what induces or stimulates it.

On being thrown out of the synagogue for chiding the leaders who ridiculed the "prophet" who had restored his sight, the former blind man was sought out by Jesus who asked him if he believed on the son of God.

"Who is he Lord, that I might believe on him?" was the man's response. (John 9:36)

When Jesus declared that the one who had healed his blindness was the son of God, the man said:

"'Lord, I believe,' and he worshiped him." (John 9:38)

On the morning of His resurrection, after the others had left the tomb, Mary Magdalene remained to weep. Because she had not found the stone rolled against the door and His dead body within the tomb, so certain was she that His body had been stolen away that when she saw Him standing before her, the image of His full form partially diffused by her tears, she took Him for the gardener and asked Him where they had laid the Lord's body. When Jesus called her by name she immediately recognized Him and uttered but one word, "Rabboni." (John 20:16)

When the doubting disciple had touched the wounds in His side and hands Thomas uttered that noble prayer: "My Lord and my God." (John 20:28)

In each of these incidents worship followed an identification of God in the personal experience of the worshiper.

A Christian experience is not a vague intangible thing. It is a normal experience with a Christian meaning. When a man or a woman comes to appreciate some good or beautiful experience of his own and identifies that experience as coming from or because of God, worship is the natural spontaneous human response.

Since worship is a real phenomenon, those who seek for God in worship should be aided in their efforts to respond to His Holy Spirit's promptings by every means available to those whom He has ordained to lead in public worship.

If this is true, then the leader of worship can see that his responsibility in conducting public worship is to use every means available to help others to identify and to appreciate the good and beautiful in their experiences and their meanings in terms of the Christian Gospel.

In the interest of efficiency and growth, God has endowed man with certain psychological attributes or qualities which should be taken into account by His leaders in worship as He reveals the way to them.

Worship may be more easily induced in a properly lighted room. For centuries it has been known that psychological semi-darkness with the point of interest lighted provides an advantageous atmosphere in which to induce and aid public worship. The knowledge of this fact has been taken into account by the builders of some of the world's greatest churches.

Reactions of persons to what is going on in the room are definitely affected by the atmosphere created with light. Distractions are often amplified or reduced, the attitude of reverence stimulated or thwarted, inhibitions aroused or left dormant, emotions released or suppressed, and the attention held or distracted because of the lighting conditions in a room. Certain fundamental principles are involved in the lighting of any place of public meeting.

In semi-darkness ordinary visual distractions are reduced. It is a well-known fact that in an evenly lighted room an object moving on the peripheral area of the vision pulls at the attention with more force than an object moving on the point of focus of the eye. On the other hand in a softly lighted room the eye is seldom drawn away from the lighted center of interest of worship by trivial distractions. Any minister will recall times when services conducted in fully lighted rooms have been interrupted at a critical point by so simple a distraction as a late arrival. To disregard this psychological principle is to invite the disturbances which must occur as a consequence and the dissipation of the energies of the leaders who must combat them. So familiar have these distractions become that few realize how important they are.

Emotions are more easily released in semi-darkness. Inhibitions suppress the emotions in a fully lighted sanctuary. Seldom is a person subjected to so harsh a lighting of his features, revealing his most intimate feelings, as that to which he subjects himself in the average church. Most people naturally avoid conspicuousness. This is one of the

reasons why the back seats in a church are filled first. Semi-darkness at least partially relieves this situation. Because worship is emotional, when one feels the desire to sing or to pour out his heart in prayer to a sympathizing and understanding God he should not be restrained from full expression.

When the point of interest is lighted in a semi-darkened room it is difficult for a person without conscious effort to keep his eye from being drawn to the lighted object. Just as birds of passage are attracted to a flashing beacon, so the human attention is drawn and held by a properly lighted center of interest.

With visual distractions reduced, reverence heightened, emotions released, and the attention held by an illuminated point of interest, it is reasonable to expect that worship should be more effective, more interesting, and that it should attract larger attendance.

Considering these facts, aside from any values which pictures may bring into this atmosphere, projection in itself is an essential convenience for providing hymn lyrics and written sentiments which the congregation may desire to repeat together.

And if pictures can be used as an artistic medium to emotionalize words in much the same way as music is used, or if pictures are used to recall experiences and to stimulate desirable vicarious experiences which are essential in identifying and appreciating the good and beautiful which comes from God or is God, and to the interpretation and understanding of these experiences, then pictures have an additional value and may be of inestimable aid in the conduct of public worship.

Reversible Film

Most of us take it for granted that everyone understands all, or nearly all, about reversible film —the film that is usually used with 16mm cameras. However, it might be well to reproduce here the following information on reversible film that recently appeared in *Personal Movies* magazine, in case some of our readers are not informed on some of the points discussed:

"Reversible film is so named because the negative obtained after the exposed film is developed is subsequently reversed into a positive—the finished film being the original one that has been exposed in the camera. When the exposed roll of film reaches the laboratory it is developed into a negative. In the latter process all the silver halide particles of the emulsion which have been affected by light are reduced to metallic silver. The remaining emulsion remains unaffected. The film is now subjected to a bleaching bath which dissolves away all the developed silver grains leaving only the unexposed emulsion. It is then cleared of the bleach, resensitized, and exposed to light. After this second exposure the image is developed as a positive. The film is then fixed, washed and dried.

"There are two kinds of reversible film available to the amateur: panchromatic and supersensitive panchromatic. Panchromatic film is more reasonable in cost and serves well for all-around work. It is sensitive to all the colors of the spectrum, having an excess of sensitivity to blue. Its speed is sufficient for most purposes.

"Supersensitive film, as its name suggests, is faster than the type just mentioned. This, however, is not its outstanding advantage as many individuals are wont to think. As most of your filming is accomplished outdoors in daylight, you have no doubt discovered that regular panchromatic film possesses sufficient speed to record the subjects you photograph. The superior advantages of the new supersensitive emulsion lies in its improved color sensitivity which closely approximates that of the eye. As compared to the regular panchromatic film it has a 400 to 500 per cent greater sensitivity to the red, 200 per cent to the green and 75 per cent to the blue. This will enable a more correct rendition of the subjects you film.

"The speed of supersensitive panchromatic film is rated as twice as fast as normal panchromatic film to daylight and three times as fast to tungsten light. The reason for its great speed with the latter type of illumination is due to the abundance of red in the light provided by the tungsten lamp. Therefore its real speed value to the amateur is obtained when using it indoors with mazda light illumination. Ordinary house lamps may be put into play to provide sufficient light to take successful movies.

"Another property of supersensitive film is that it is soft working. This has reference to the contrast between the different tones in the finished film. A hard working emulsion produces contrasty results. There are decided dark and light portions. At times the results it produces appear snappy, at other times they may seem harsh. In a soft working emulsion there is a soft graduation between the different tones of the images. Contrast may, of course, be present, but it is not very decided. Scenes will be reproduced in a more pictorial fashion, and portraits will be rendered more artistically. Normal panchromatic film is in itself not a hard working emulsion, but the supersensitive panchromatic film produces softer results.

"Supersensitive film is of great value when employing very heavy filters such as the A and F filters both of which are red. With normal panchromatic film the A filter would require a 10 to 12

times increase of exposure, and the F filter about a 25 times increase. Filters allow the light of their own color to pass through and retard the other colors of the spectrum. Therefore red filters admit red light. Since supersensitive film possesses about 500 per cent greater sensitivity to red than normal "pan", only half as much increase in exposure would be required."

Pastor Shows Films With Bible Lectures

Rev. William Russell Hamilton, pastor of the First Baptist Church of New Albany, Indiana, states that he "has taken his Filmo Camera over a vast extent of territory, including parts of Europe and Asia." He sent with his letter a copy of his church calendar in which he states that during four weeks that he spoke to audiences in Georgia he addressed between 18,000 and 20,000 people who were enthusiastic about the new light his lectures and movies threw upon the Bible. On four occasions his audiences numbered over 4,000.

Among the Magazines

(*Concluded from page 275*)

but in short lengths of authentic 'documentary' topic material that shows actual pictures of the thing studied in natural motion and in relation to its milieu."

McCall's (October) Here appears the second of the series of articles by Henry James Forman presenting in condensed form further results of the Motion Picture Research Council's years of research under the Payne Experiment Fund. It is entitled "Movie Madness" and rates vastly higher in interest and significance than the previous article reviewed here last month. "Movie Madness" is excellent reading for any thoughtful parent.

The findings here described concern the emotional effects of sensational pictures upon the young and sensitive audience, and discusses both the immediate and future results of such repeated excitation upon the nervous system of the child. The influences here studied are physiological rather than psychological and, as such, are of immense foundational importance in any consideration of the total effect of movies on character and behavior. These findings are the more significant because the tests were conducted with average "thrill" pictures rather than with extreme examples which are frequent in the theatrical output.

The size of the national movie audience is stated as 77,000,000 per week, of which 23,000,000 (or 36%) are minors, and 12,000,000 (17%) are 14 years old or younger. "Very few" of these youngsters go in company with their parents "when opportunity is presented for lessening many of the more harmful effects."

Many specific examples are given of the hysterical outbursts that occur in the theatre, of the retiring rooms provided in many large theatres whither youngsters, excited beyond control, can be hustled off by ushers to be quieted by attendant nurses, of mothers rushing out of theatres with terrified children clinging to them, etc., etc. But more significant than isolated examples is the summarized conclusion quoted from Dr. Frederick Peterson and confirmed by the findings of the research committees, that "scenes of horror, if sufficiently strong, have an effect very similar to shell-shock—such scenes, when repeated often, are sowing seeds in the system for future neuroses and psychoses, nervous disorders that may continue in adult years."

The article gives interesting details on methods and electrical devices used in the research, concrete results from individual investigators of particular topics, and quotes generously from results by outside investigations. An important consideration is the substitution of hours in a movie house, where the child is "a mere receptacle into which emotions are poured," for hours that would be better utilized in the open where action and reaction can operate to make emotional excitation wholesome.

SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

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

Visual Aids in a Modern European History Unit—A Guide Sheet

RUTH GARDINOR

THIS unit was conducted for the purpose of determining to what extent visual aids in teaching are a factor in promoting mastery.

Part I in Modern European History is composed of two units the first of which is considered here. A guide sheet was prepared for every individual student and a time limit set within which each could progress at his own rate of speed.

On the first day of the unit an introductory test was given to determine the students' knowledge of the material. This was followed by a "bird's eye view" of all the unit presented by the instructor. Class periods were devoted to discussions of the listed topics with related exercises to map work, informal debates, drill check ups, floor talks and lantern slide studies. At the close a final unit test was given. The results were more satisfactory than had been anticipated. The visual aids were found to be an important factor in pupil performance.

Part I

The Battle for Democracy

A. Introduction

In the last 17th and 18th centuries, Europe was suffering from a severe case of chronic absolutism. The symptoms were easily detected—a ruler greedy for power controlling the government; a favored few dependent upon the generosity of the monarch; a church existing upon the fat of the land at the price of a starving peasantry; a vast population living from hand to mouth. Europe had been like this for centuries. The disease had been slow and insidious, feeding upon the weakened power of feudal knights. By the time people realized what had happened, there was no escape. Under such a condition one lived and died in the social class of his father. There was no chance for the baker to advance beyond the bakery or the peasant to be more than a peasant. The weavers in the city wove as their guild or society directed; the peasant struggled to get enough food from his miserable garden to supply his family, while unable to protect his plants from the hunting dogs of the nearby noble. Now and then the distant rumble of war was heard as Louis struggled for his "natural boundaries" or Peter for his "window on the Baltic". Occasionally it came nearer, laid waste to the fields, burned the homes and claimed the best of youth and manhood. Protest was futile, utterly useless, and he who so ventured was likely to languish in jail and repent of his folly.

It was a long time before anyone really worried about such things and wondered how they happened. It was still longer before they hit upon a remedy. That, like the disease, came slowly. Men began to be daring and venture out in ships toward new lands; they discovered strange people, new products; came in contact with amazing beliefs and doctrines. Gradually they came to realize that something was wrong back home—a man ought to be allowed to sell twenty yards of cloth a day if he wished, whether or not his guild approved; a merchant who brought gold and wealth into his country ought to be able to say how it shoud be spent. There followed a painful period of Petitions of Rights, Jury trials, charters and protests. Colonies at first content to remain obedient offspring, became fired with youthful independence, threw off the parental yolk and set up their own government. There was a great deal of shouting about the Rights of Man, Liberty and Freedom. People rose blindly and fought for what their leaders directed. They burned bastilles, beheaded kings, stormed palaces and set up a guilliotine for general slaughter. Europe groaned and suffered: the cure seemed worse than the disease. When the smoke of battle cleared, the name "Democracy" was invoked to remedy all the ills man ever had. It was set upon a pedestal, worshipped and idolized. An era passed and a new one opened.

B. Objectives for Part I

1. To build up a conception of European History as a panorama of related events and personalities.
2. To stimulate an international viewpoint through a study of other nations.
3. To arouse a critical attitude and the recognition of the need to collect facts on all sides of the question before drawing conclusions.
4. To lay a basis for an understanding of world affairs today through a study of history in the past.

C. Learning Activities for Part I

1. Reading

The reading will be of three types:

(a) "Skimming" intended to build up a background of impressions as gained from diaries, biographies, novels, etc.

(b) Detailed or factual reading for study exercises.

(c) Analytical reading for the author's ideas for outlining, etc.

Sources available:

Text: Schapiro and Morris: Civilization in Modern Europe.

Reference books: Hayes: Political and Social History of Modern Europe. Cross: A Short History of England. Green: A Short History of the English People. Ashton: Social Life in the Age of Queen Ann. Ogg: Economic Development of Modern Europe. Giles: Old English Chronicles. Davis: Life on a Medieval Baroney. Parsons: The Stream of History. Belloc: The French Revolution. Mathews: The Eve of the French Revolution. Carlyle: The French Revolution. Becker: Modern Europe. Hassall: The French People. Adams: The Growth of the French Nation.

2. Visualization:

(a) The map work is intended to help the student associate historical events with the places where they occurred and build up a conception of the relation between geographical factors and history.

(1) Desk maps are available for drill work, testing and projects.

(2) Keystone map slides will be used to supplement the class work. These may be projected upon the blackboard and the outline filled in by students. The class will have access to the following Keystone slides:

1. Map of the World. 2. Map of Europe (physical). 3. Map of Europe (political). 4. Map of North America 1689. 5. Map of North America 1763. 6. Map of North America 1783.

(b) Historical slides serve to enrich the reading material, present personalities as human and real, picture famous events as intensely vivid.

(1) The Yale Chronicle Collection provides the following slides:

1. Routes of Early Explorers. 2 Critical Region in French and Indian

Wars. 3. Louisburg. 4. An English Galleon. 5. Cartoons on American Revolution—(a) Horse "America" Throws Rider; (b) Ghosts of Washington and George III. 6. Printed Warning to Stamp Collectors. 7. Notice of Boycott on British Goods. 8. Harbor of Boston.

(c) Diagrams and charts are valuable in clarifying the trend of historical developments and in visualizing economic conditions. Opportunity will be afforded the class of working out such diagrams through group discussions.

Note: Figures 1, 2, 3 are results of this.

(d) The preparation by students of glass slides showing the charts suggested in (c) will be one phase of the visual work.

Note: Figures 1 and 2 were made on slides by a committee from the class.

3. Written papers at the end of the unit are intended to be a reflection of the student's impressions of the unit as gained from his reading, class discussions, visual work, etc.

UNIT I

The Rise of Democracy

A. Introduction.

At the beginning of the 18th century absolutism was firmly entrenched on the continent of Europe. Under such monarchs as Louis XIV, Peter the Great, Frederick the Great, Maria Theresa, government existed only in the personality and power of the reigning sovereign. In England, however, the old type of control was weakening. The rise of a prosperous ambitious middle class meant the paralleled decline of absolutism. By gaining control of the purse strings this class wedged its way into at least partial control of government machinery. A continuation of this trend is found in the struggle for American Independence across the Atlantic.

B. Time.

The time set for this unit is 5 weeks. If you find it will take less for a satisfactory completion, you are free to devote the remaining days either to further study of this unit or to a different subject. *Budget your time to be spent in outside preparation.*

C. Procedure for Student:

(a) Be prepared to outline the bird's eye view

given by the instructor and to answer questions upon it.

(b) Read the following pages in Schapiro: pp. 175-224.

(c) Start reading in any of the supplementary books on the accompanying list. Organize your reading to cover the following topics for discussion:

1. The characteristics of absolutism. 2. The Age of Louis XIV. 3. Military absolutism under Frederick the Great. 4. Peter's work in Russia. 5. The Balance of Power. 6. Parliament vs. Stuarts. 7. Mercantilism.

(d) You are free to present your report of the reading in any of the following ways:

1. Floor talk. 2. Organized debate. 3 Class discussion conducted by you. 4. Review of one or several books. 5. Library cards containing notes.

(e) Make use of the other aids to help you. Any student or group of students is at liberty to set up the lantern and project maps upon the board or to organize a group project under the supervision of the instructor.

1. Wall maps. 2 Map slides. 3. Diagrams, charts. 4. Debates. 5. Model meetings. 6. Models in miniature.

(f) A notebook is required. It must contain:
1. Notes on discussions, floor talks, debates, etc. 2. Attached notes on supplementary reading. 3. A paper written at the end of the unit reflecting your impressions of the book. 4. Written exercises based on detailed, analytical reading.

(g) Questions:
1. Imagine you are a young middle class merchant under Louis XIV. Prepare a list of 5 grievances you might have against the government.
2. Draw a map showing the acquisitions of territory made by Louis XIV. List in order of importance 5 reasons why these wars were *not* beneficial to France.
3. A prominent writer describing the period 1650-1715 in Europe has called it the "Age of Louis XIV". Read Hayes and list 5 reasons for considering this an appropriate title.
4. Give 6 reforms instituted by Peter the Great in Russia. What 3 of these were likely to be only temporary? Give a reason for your choice of each.
5. On a map show the growth of Prussia from the duchy of Brandenburg in 1415 through the reign of Frederick the Great.
6. What is meant by the "balance of power"? Describe 3 situations when this principle was followed by leading European nations.
7. Define "benevolent despot". List 5 reforms of Joseph II of Austria. Give 3 reasons why these reforms were not likely to succeed permanently.
8. Read in Schapiro on the Puritans of England under James 1 and Charles I. Distinguish between a Puritan and a Separatist. Account for the political influence of the Puritans under Charles I.
9. Beard claims that the economic forces in history are the controlling and dominating factors. What 2 facts in English history under the first two Stuarts are evidence of this?
10. Outline 5 principal steps by which Parliament gained power as a check on the king from 1620-1690.
11. List below the principles of the Bill of Rights.
12. Compare and contrast the Puritan and Glorious Revolutions on the following points:
    (a) Leaders. (b) Immediate causes. (c) Achievements.
13. Identify or define the following terms:
    Revolution. Stuart. Tudor. Anglican. Puritan. Ulster. Court of Star Chamber. Long Parliament. Cavalier. Roundhead. Protectorate. Lord Protector. Tory. Whig. Habeas Corpus. Cabinet System. Hanoverians. Rump Parliament. Personal Rule of Charles I.
14. The American Revolution has been considered the continuation of that movement in England which attempted to strengthen popular control. State 3 facts

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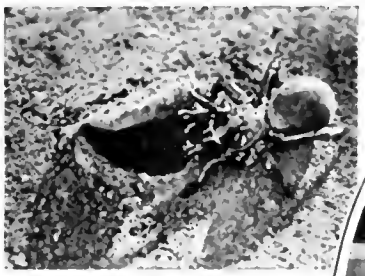

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in American History which substantiate this.

15. On a map of the world locate:
    (a) The nations of the world which you have studied so far this unit as they were in 1763.
    (b) The colonial possessions of England, France, and Spain as they existed after the Treaty of Paris 1763.

(h) Suggested topics for further reading:
1. Social Life in France under Louis XIV. 2. Literary Achievements of the Age of Louis XIV. 3. English Literature under the Stuarts. 4. Drama in the 18th Century. 5. Early Explorers. 6. Life in the American Colonies. 7. Biographies of Personalities in European History.

Introductory Test Given on First Day of Unit I

1. Associate *each* of the following with a country in Europe:
   Louis XIV. Frederick the Great. Bill of Rights. Cromwell. Parliament. Catherine the Great. Charles I. Peter the Great.
2. Describe the kind of society you would expect to find in an absolute monarchy.
3. The process by which England's government became democratic has been termed evolutionary. Explain what this means to you.

Final Unit Test

Answer *4* Questions

1. Identify *10* of the following:
   Doctrine of "natural frontiers". Colbert. Treaty of Paris 1763. Partition of Poland 1772. John Hampden. Personal Rule 1629-1640. "Window on the Baltic". "Liberum veto". Separatists. Protectorate. Pride's Purge. Benevolent despotism.
2. Define "balance of power". On a map of Europe indicate by arrows or some other device, three (3) situations when this principle was followed. *Note*: You may add any explanatory notes in the margins of the map or on reverse side.
3. By diagram or otherwise describe the classes in society that were characteristic of an absolute monarchy.
   List *5* privileges enjoyed by the nobles.
4. The process by which Great Britain gained a democratic government has been termed "evolutionary". Give *5* facts as evidence of this.
   Use diagram if you wish.
5. Answer either (a) *or* (b):
   (a) On a map locate the colonial possessions of England, France and Spain after the Treaty of 1763.
   (b) On a map indicate the steps in the acquisition of territory by the Hohenzollern Family through 1763.

Classroom Use of "The Educational Screen"

A number of classes in visual instruction the past year used THE EDUCATIONAL SCREEN as a textbook in the course, and many are continuing to do so this semester. Among them is Mr. Abraham Krasker's class in Visual Education at Boston University. In studying the magazine, the students were advised to look for these items:

1. To learn the vocabulary used in the subject.
2. To learn the possible use made of teaching aids in their particular teaching subject.
3. To make special note of the methods of use discussed in the magazine.
4. To list the advantages claimed for the use of visual aids.
5. To keep in touch with the progress in the use of teaching aids.

At the close of the term a few students handed in papers in which they listed their findings under the above headings.

STATEMENT OF OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of The Educational Screen and Visual Instruction News, publlahed monthly except July and August, at Morton, Ill., for October 1, 1932

State of Illinois, County of Cook, as.

Before me, a notary public in and for the State and county aforesaid, personally appeared Nelson L. Greene, who, having been duly sworn according to law, deposes and says that he is the 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:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:
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Business Manager, Ellsworth C. Dent, 1812 Illinois St., Lawrence, Kansas.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)
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(Signature of editor, publisher, business manager or owner.)

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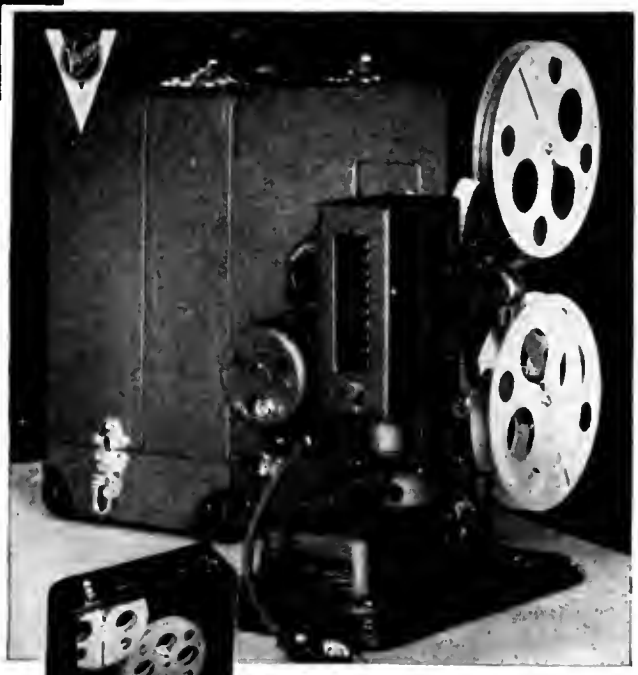

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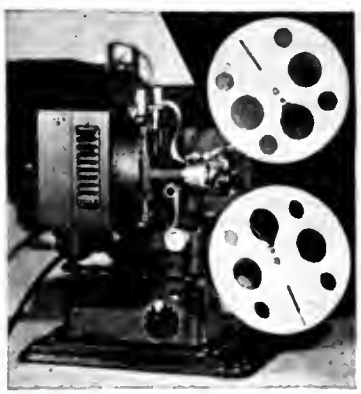

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General Electric Company (3, 6)
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Ideal Pictures Corp. (1, 4)
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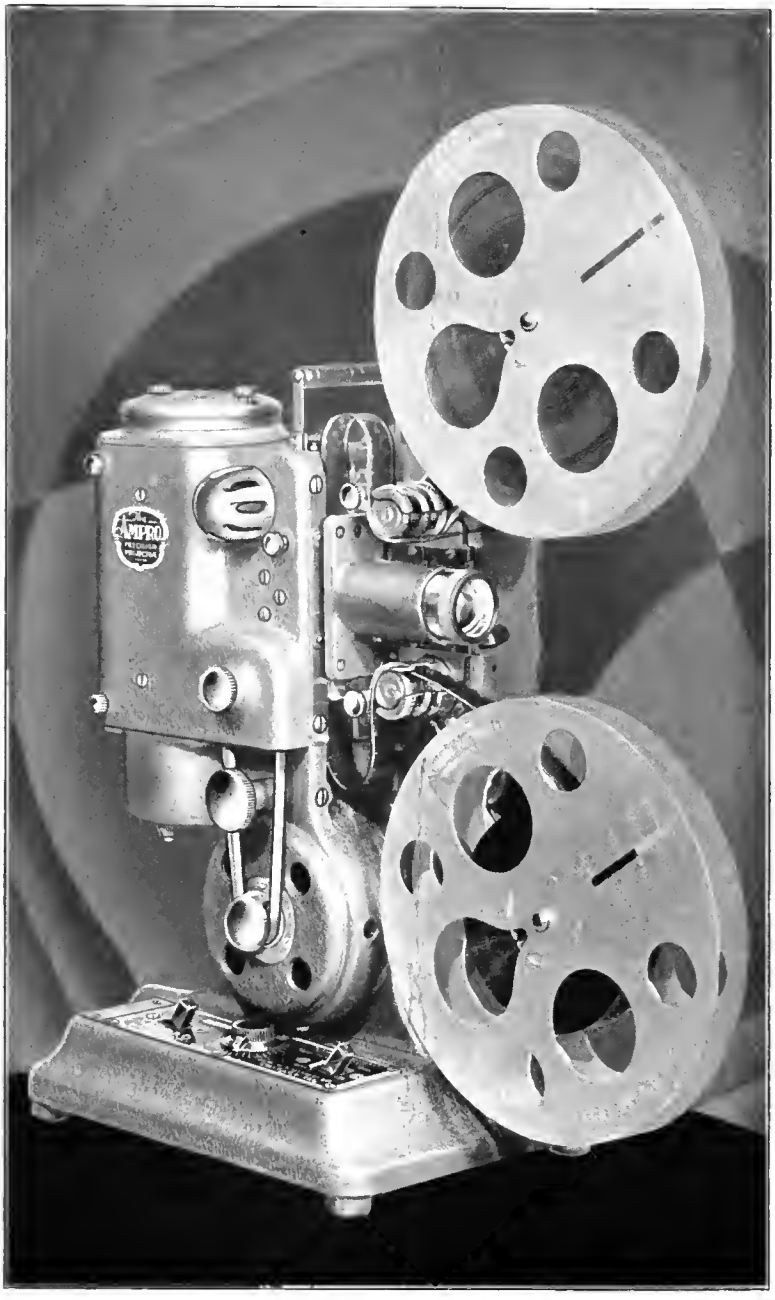

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Letters from Ampro users have been particularly gratifying in this respect. For instance, Mr. Walter L. Ernst, Director of Visual Education, Austin High School, Chicago, Ill., wrote recently: "We have been using Ampro Projectors for two years with two other makes. Our teachers prefer Ampro over the others to the extent that they would almost prefer to use no machine if an Ampro is not available. We have found the Ampro simple, reliable, almost fool-proof, and that it shows a picture with detail superior to any other we have tried."

Mr. Rupert Peters, Director of Visual Instruction of the Public Schools of Kansas City, Missouri, also wrote recently: "The eighteen Ampro Projectors we own are giving excellent satisfaction. . . . We now own six makes, due to purchases made by a Supply Committee. It would simplify our work decidedly if this could be reduced to one, and we would be perfectly willing to have that one the Ampro."

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Visual Instruction News

DECEMBER, 1932

VOLUME XI NUMBER 10

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General and Editorial Offices, 64 East Lake St., Chicago, Illinois. Office of Publication, Morton, Illinois. Entered at the Post Office at Morton, Illinois, as Second Class Matter. Copyright, December, 1932, by the Educational Screen, Inc. Published every month except July and August.

$2.00 a Year (Canada, $2.75; Foreign, $3.00) Single Copies, 25 cts.

EDITORIAL

Thomas Edward Finegan

THE history of American education can show no name so significant in the new realm of visual instruction, and at the same time so prominent in the whole field of general education, as the name of Thomas E. Finegan. His death at Rochester on November 25th last, left a vacancy among the leaders in the visual movement that it will take long to fill.

Dr. Finegan's career was a model of tireless energy and dynamic efficiency. Born in 1866, in a small village of Schoharie County, New York State, son of a blacksmith, helper in the smithy and on his father's farm, Thomas Finegan earned his way steadily through the local schools, through State College for Teachers at Albany, through Hamilton College—winning his coveted Master's degree in 1894, and admission to the bar the same year. From 1889 to 1915 he was successively Principal of West Fulton Public Schools, School Commissioner of Schoharie County, Supervisor of Examinations in the New York State Department of Public Instruction, Chief of the Law Division of the New York State Education Department, and Assistant Commissioner for Elementary Education in the State of New York.

In April, 1915, Dr. Finegan became Deputy Commissioner of Education for New York State and in that office his practical administration in the school system began to be felt. Many of his reforms exist today as he proposed them. Under his influence hundreds of special school laws which blocked uniformity of education by permitting wide control by local school boards were wiped out. He was in a great measure responsible for building up the specialized educational systems which have been developed to meet the needs of modern life in vocational education, health care and training in the schools and the reduction of illiteracy in foreign-born adults, particularly those who were parents. In the latter endeavor his last achievement as an official of the New York school system was to obtain the passage of a measure in the Legislature zoning the State into fifteen districts for carrying out this work. When Governor Smith signed the bill he called it the most practical method of spreading Americanism by intelligent education that had ever been proposed.

From New York State, Dr. Finegan moved to Pennsylvania, upon appointment as State Commissioner of Education. He took up his duties on September 1st, 1919, and in the next four years completely reorganized the school system of Pennsylvania. In addition to his required duties in the official public school systems of two States Dr. Finegan had aided in other projects. He directed a series of surveys in the school system of Buffalo and completed a similar service for the city of Philadelphia. In 1923 he was requested by commissions in both the House of Representatives and the Senate to conduct a survey of school conditions in the national capital, which he accomplished, submitting his report to the Senate the same year. Four years later he headed a committee to investigate conditions in Pittsburgh and in 1929 he was appointed by the Secretary of the Interior to an advisory committee arranged to report a plan for the Federal Government's participation in education.

The Eastman Kodak Company appointed Dr. Finegan the director of an experimental program in developing motion pictures for a regular curriculum branch of public school instruction in 1927. Dr. Finegan's experiments with 11,000 school children in a dozen American cities led to the incorporation of Eastman Teaching Films, separate from the Eastman Kodak Company, and production of more than 200 educational films now in use in hundreds of American and foreign cities.

Dr. Finegan was president and general manager of the new company from the start, and at the time of his death the company was occupied in developing programs of moving pictures to be used in schools, colleges, universities, technical institutions and medical schools.

Notwithstanding the demands of an almost continuous administrative career, Dr. Finegan found time to produce numerous books, brochures and addresses on many phases of education. He was a Trustee and past President of the N. E. A. Department of Superintendence. He was on the editorial staff of the Encyclopedia Americana and Winston's Loose Leaf Encyclopedia. Nine universities gave him honorary degrees. His active membership in numerous clubs, associations, and learned societies of the law and education, coupled with his wide range of executive experience, gave Dr. Finegan a breadth of personal contact, acquaintance and friendship seldom achieved by an educator. To quote from the Journal of Education, "Few men have had the ardent personal friendships that Dr. Finegan enjoyed from the day that he became a country schoolmaster in New York State at seventeen years of age." None who knew Thomas E. Finegan will ever forget the man. The educational field he served will never forget his service. The field of visual instruction, his last sphere of activity, must suffer a profound loss.

Why Visual Education Now?

EZRA E. MACY

DURING the present general economic deflation the schools of the country are having a period of depression as well as business interests. If schools are to operate on reduced budgets, and if present high standards are to be maintained, there must be some means of continuing the work that is vitally different from the procedure usually suggested in the past.

There perhaps has never been in the world's history such an increase of knowledge and inter-relationships as that which has occurred during the past generation. "The child cannot possibly assimilate his due share of this preparation for effective citizenship unless the learning processes are speeded up."(1) To do this, school work will not be simplified nor will time covered in school courses be extended.(2)

"School systems while being confronted with reduced budgets must at the same time meet the problem of abnormal increases in enrollment." This increased enrollment is due to the fact that the economic conditions have kept more pupils in school who otherwise would have gone to work.(3)

Frasier asks the question, "What does education need in these days of crisis?" His reply is that it must go onward without delay, the demands of the time being so great that it must be expanded rather than contracted.(4) Upon taking stock of education's finances, "we find that the rapidly increasing demand for educational opportunities has not been met by a proportionate increase in revenue."(5) Of the income of the country only 2.4% is spent in the support of education.(6)

An educator's problem then is to strive to be economical in his administration and at the same time increase the efficiency of his educational program.(7) His school costs must not be increased and in some instances there must be retrenchment and reduction of expenses. Teaching efficiency at the same time should not be impaired or standards lowered.(8) In business and industry people are insisting on getting the most for their dollar, therefore it follows that he should realize the need in public education for new economies and increased efficiency. (9)

To accomplish this many different schemes for curtailing school expenditures have been suggested to educators. Among the various economies suggested the most practical is that effected by the introduction of new techniques of instruction, which permit the increase of class size without impairing efficiency of instruction or overburdening the instructor. Modified laboratory methods if substituted for the old recitation methods will solve this problem.(10)

Increasing school costs during a period warrants the study of any plan and experiments with it by which administrators could decrease them.(11) The use of various visual aids will help in lowering the cost rather than raising it. Enlow(12) gives a four fold economy in the utilization of visual aids:

(a) Greater amount learned; with greater satisfaction to the learner;
(b) More of it retained after the lapse of a period of time;
(c) A reduction in the number of "repeaters" to be taught again;
(d) A saving in the school life of the pupil whose failures are reduced.

Kilpatrick states, "Because of the educational decline of family and community, the school must become a place where real life, real experiencing goes on."(13) The use of visual aids will tend to make the study of many abstract subjects real and meaningful.(14) "The most vital element essential to a sound and progressive program in the use of visual aids is a serious and professional attitude on the part of teachers and school authorities in the use of such aids."(15)

What visual education will do in working wonders in special opportunity classes is shown where such a class, taken to a library and given books, were delighted so much that "voices were shrill as they shoved

(1) E. R. Enlow, "Schools Extravagant Today," *Educational Screen, Combined with Visual Instruction News*, XI, 4 (April, 1932), 103.
(2) Thos. E. Finegan, "Classroom Films," Reprint from *Harvard Teachers Record*, April, 1931.
(3) David E. Weglein, "How Shall School Officials Meet the Economic Crisis?" *Nation's Schools*, IX, 5 (May, 1932), 21.
(4) Geo. W. Frazier, "Education in a Time of Crisis," Reprint from *Nebraska Education Journal*, March, 1932, in *Journal of the National Education Association*, 21, 6 (June, 1932), 174.
(5) *Utilization of Talking Pictures*. Chicago, Ill. Vitaglo Corp.
(6) Finegan, op. cit.
(7) James A. Brill, "Economical Enrichment—An Example," *American School Board Journal*, 84, 6 (June, 1932), 32.
(8) Geo. L. Roby, "A Crisis in Education," published by Benton Review Shop, Fowler, Ind.
(9) *Lest Our Ideals Perish*, published by General Theatre Corporation and Fox Film Corporation.
(10) Gale Smith, "Reducing Cost of Schools by Means of New Techniques of Instruction," *A Crisis in Education*, published by Benton Review Shop, Fowler, Ind.
(11) L. S. Bloomfield, "Class Size in Senior American History," *Historical Outlook*, XXII, 3 (March, 1931), 107.
(12) Enlow, op. cit.
(13) W. H. Kilpatrick, *Education for a Changing Civilization*, p. 85. New York: McMillan & Co. 1928.
(14) Geo. E. Hamilton, "How to Use Stereographs and Lantern Slides," *Visual Instruction News*, IV, 2 (November, 1930), 9.
(15) Finegan, *op. cit.*

the books under their neighbors' noses and told them to, 'Lookit the pitchur'."[16] The correlation of subjects as a visual aid in instruction is another way of economizing in school work. An example of such a project would be a poster combining art with New England history and geography. The question was raised as to how much art is used in connection with other class work.[17] In an article on school exhibits Kunou said, "Educators should realize that we are in the midst of the visual as a factor in mass education.[18]

School economy where visual aids have been used is shown by the results obtained. Before 1910 Racine, Wisc., had 10% of failures below the high school. During that year lantern slides were introduced and in four years time the failures list was cut in half thereby promoting 250 pupils "who without improved instruction would have been required to repeat the course." Based on the average cost of a year's schooling this was a saving to the Racine taxpayers of $10,000 to $15,000 for the year.[19] A recent investigation shows that Chicago, which has the largest department of visual instruction of any school city in the world, made an average increase of 24% due to the use of visual material or a saving of approximately $8,000,000 per year in the educational budget.[20]

Education must keep up with the modern machine age by enlisting machine efficiency, as has been done in other phases of our national life, or fail at its mighty work.[21] The use of educational talking pictures in the school in a period of economic depression is likely to be thoughtlessly dismissed as an expensive luxury. "However, an actual examination of their cost reveals that they may be used with decided economy and that by their aid superior teaching effectiveness may be assured."[22]

More students may be handled in less time, at less cost, and by fewer teachers in an educational method using sound motion pictures. Many more may be grouped in classes without losing class interest or creating teaching load. In such a program the largest group is limited only by the capacity of the school auditorium while discipline is only a small part of that found in the ordinary class, due to the heightened interest of the student audience, leaving the teacher more time to prepare lessons.[23] The large class according to another finding forces the student to greater self reliance and less upon the teacher.[24]

Talking motion pictures require no increase of expenditures for upkeep or building space. Instead the wise administrator can increase the utility of existing buildings by lengthening the school day and adding evening classes without increasing the teaching load.[26] "The motion picture offers a facile tool of communication for conveying information on a mass production basis and this is the basis on which schools must operate to reduce costs, or even to hold these costs level, in the face of such increased demands,"[27] especially when the most eminent teachers of the time can present to the students any phase of human activity at a cost of one cent per pupil.[28] Enlow[29] found that the average cost of a visual aid program was on the average 60c per pupil per year.

"Four fifths of a class will learn a certain lesson by film when only two fifths would have learned it orally from the teacher."[30] They will learn faster, more thoroughly and more willingly as a result, therefore no school should consider itself abreast of the times unless it makes educational movies available to coordinate with the text.[31] "The greatest teaching genius could not in 10 hours convey to the mind what these pictures can convey in 15 minutes," said Arthur Brisbane.[32] "Talkies" *talk*, and, since children learn and understand from the spoken word long before they can read, it behooves educators to see that proper care is taken of this crucial period in the child's development when he learns more through his eyes, ears and hands, than during any equal period for the remainder of his life!"[33] Teachers have noticed the fact that the every day life of children has been profoundly influenced by movies, so they now wish to utilize this means to deeply impress the facts of world life.[34]

In the Milwaukee Vocational School "time is of essence" because the school must in a short time make

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(16) Olive E. Powers, "Lookit the Pitchur," *School Life*, XVII, 10 (June, 1932), 194.
(17) "Trends in Art Education," *Journal of the National Education*, 21, 5 (May, 1932), 161.
(18) C. A. Kunou, "School Exhibits," *Industrial Arts and Vocational Education*, 21, 5 (May, 1932), 151.
(19) H. W. Norman, *Visual Education*, Bulletin of Extension Division, Indiana University, X, 8 (April, 1925), 5, quoting J. Paul Goode, *Visual Education*, April, 1920.
(20) Paul G. Edwards, Visual Instruction in "Sixty-eight High Spots of Chicago Schools," *Journal of Education*, CXIV, 17 (December 7, 1931).
(21) Editorial, *Educational Screen*, X, 8 (October, 1931), 255.
(22) Brill, *op. cit.*
(23) *Utilization of Talking Pictures, op. cit.*
(24) Bloomfield, *op. cit.*
(26) *Utilization of Talking Pictures, op. cit.*
(27) B. A. Aughinbaugh, "The Application of the Motion Picture to the Problem of the Rising Cost of Education," *Educational Screen*, X, 7 (September, 1931) 193.
(28) *Lest Our Ideals Perish, op. cit.*
(29) E. R. Enlow, "Visual Instruction Costs," *Visual Instruction News*, V, 1 (September, 1931), 5.
(30) Germaine Dulac, "The Meaning of Cinema," *International Review of Educational Cinematography*, Year III. 12 (December, 1931), 1100.
(31) William F. Kruse, *The World Brought to the Farmer by 'Filmo' Motion Picture Equipment*, published by Bell & Howell Co., Chicago.
(32) Arthur Brisbane, Reprint from *Rochester Journal and Post Express*, April 17, 1931.
(33) James Rorty, "Will the Talkies Revolutionize Schools," *Parents Magazine*, VII, 2 (February, 1932), 18.
(34) *Lest Our Ideals Perish, op. cit.*

up as far as possible the loss sustained by 15,000 children who were unable to finish regular school courses. Here a school achieved a saving by making its own films. A film producer quoted $2,500 to $3,000 for a production that cost the school not over $200.[35]

The sound motion picture which combines the picture with motion and speech, is the closest approach to actual experience, having a higher quantity of stimulus-response-per-unit-of-time than the printed word.[36] As slow-motion, stop-motion and X-ray pictures make things visible which the human eye cannot see so does the amplified sound record render audible sounds which the human ear cannot hear, thus giving the student experiences and knowledge which he could get in no other way. Realizing the benefits to be derived the University of Chicago is beginning production of films for use in freshman and sophomore work.[37]

The results of an experiment with sound motion pictures carried on by Washington officials July 7-10, 1931, showed a 38% gain in ability to answer a set of questions after seeing pictures over the scores gained without seeing them. This increase in factual knowledge is in addition to any other values usually ascribed to visual aids.[38] Dr. Freeman of the University of Chicago tested groups before showing films and afterward. These tests indicated that those who had film instruction made a gain from 15% to 33%, enabling failing pupils by this additional experience to pass class work.[39]

A music program was estimated to cost $1.38 per pupil but with educational sound pictures covering the same work it was estimated at 3¾c per pupil, with the cost still less in platoon schools.[40] It is difficult to estimate the value of an aid to education in money, but if the minimum improvement is set at 10% of the present annual cost of public education ($2,400,000,000) there would appear an annual saving of $240,000,000 when sound motion pictures are used.[41]

A feature that cannot be overlooked is the conservation of human energy by using talking motion pictures. The strain on teachers of continual class repetitions drains them of their strength and creativeness. "The talking picture never gets tired, never ill, never goes on a vacation.[42]

Bacon, the philosopher, pointed out the failure of humans to understand each other because of language errors. To correct this the talking moving picture is "teaching the peoples of the world about each other, how to appreciate each other and so unite nations by that sympathy which alone can bring the security and peace so necessary to the progress of humanity."[43] Madame Dulac says, "The Cinema is a marvelous international language and for that very reason it creates affection and understanding between peoples."[44]

To summarize we find that there now is a tendency to curtail school expenditures when more expenditure is really needed; that of all the suggestions as to ways to economize the use of visual aids is the most promising; that proof has been had to the effect that visual aids actually save money where their use has been evaluated; that of all the visual aids sound motion pictures is one of the most effective; that the use of sound motion pictures is a means of international communication which will eventually bring about the things necessary to human understanding and progress; and lastly, instead of cutting educational costs, we will eventually devote the largest fraction of the tax dollar to additional school expenditures rather than to Mars.

(35) William F. Kruse, "How One School Makes its own Films," Reprint from *Educational Screen*, April, 1931.

(36) *Sound or Silent Pictures*, published by National Theatre Supply Co. New York City, 1931.

(37) *A New Tool for Effective Education*, University of Chicago Press, Chicago, Ill.

(38) *Sound Motion Pictures as a Factor in Education*, Fox Film Corp., New York City, 1931.

(39) *Filmo for Education*, published by Bell & Howell Co., Chicago.

(40) Brill, *op. cit.*

(41) *Lest Our Ideals Perish, op. cit.*

(42) *Utilization of Talking Pictures, op. cit.*

(43) Mme. la Contesse Apponyi, "The Cinema, Instrument of General Culture and Human Solidarity," *International Review of Educational Cinematography*, Year III, 12 (December, 1931), 1138.

(44) Dulac, *op. cit.*, 1094.

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The Classroom Picture

DANIEL C. KNOWLTON

ANY attempt to classify or appraise the vast amount of available pictorial material quickly reveals that much of it is of trivial value in connection with classroom work. Of course, the same comment might be made concerning textual material. All too many people are ready to accept the printed page at its face value, although the reading public, generally speaking, has learned to exercise a certain amount of discrimination. Because something appears in print, they do not immediately attach value to it. In the same manner, the classroom teacher has learned to discriminate in the choice of textual and reading materials for his pupils. Indeed, the teacher has a tendency to demand that every page of a textbook shall be crammed with data to the point of making it a dry compendium.

Frankly, however, the teacher goes to the opposite extreme in his reliance on pictures. No such critical appraisal accompanies their selection. Each and all are regarded as potent vehicles of communication, even though there be a question as to the real message they embody, if any message at all. No great effort is made to identify the various type of pictures or to weigh them in the scales of actual content. The usual attitude is that "a picture is a picture."

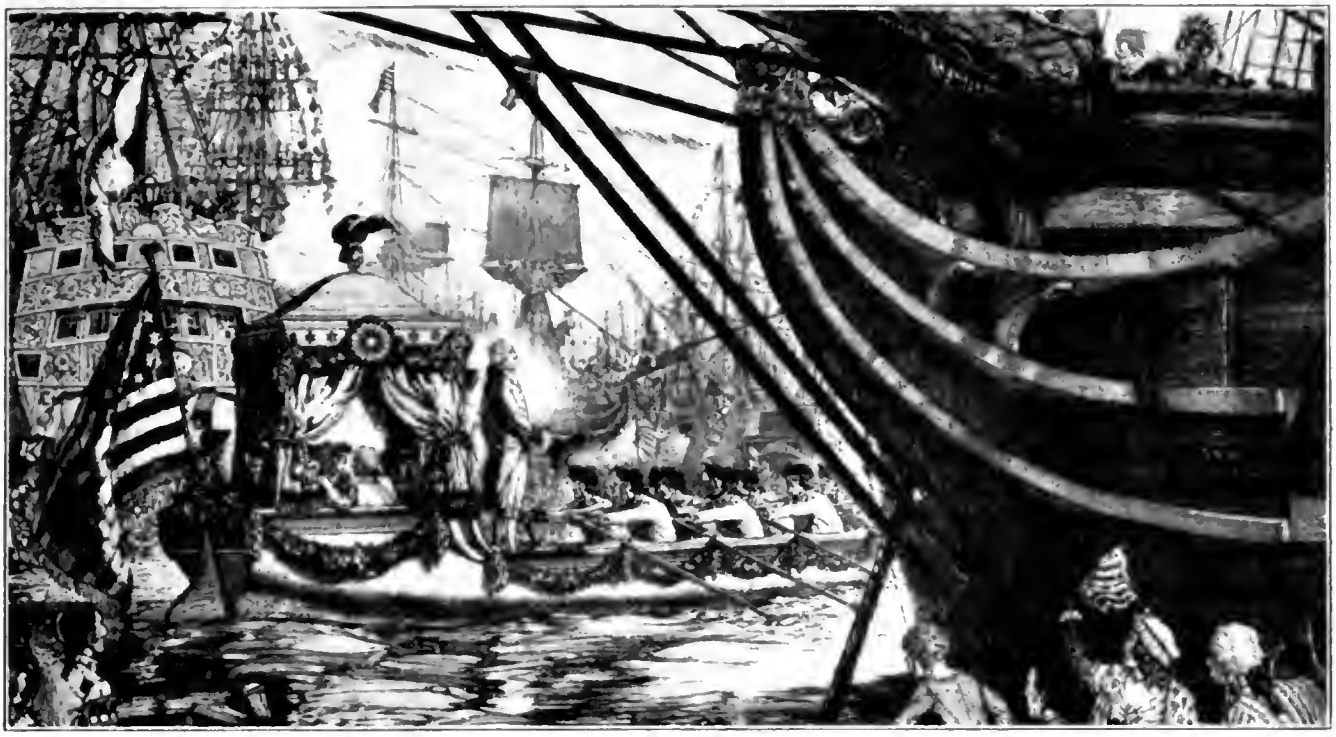
The Surrender of Cornwallis

It is conceivable that this lack of critical appraisal, as in the case of the printed page, may arise from the idea that, after all, a picture is merely a medium for interesting the pupil and, as such, is somewhat transient or inconsequential as compared with the printed text. This judgment is a fair one since, in too many cases, pictures adorning the pages of textbooks, as well as in newspapers and magazines, are of this character. While a picture may convey to some pupils a more pleasing,—or shall we say a less disagreeable,—sensation than so much printed matter, it is frequently a total loss as a means of facilitating the learning processes or as a medium for challenging thought. Much of the pictorial material in fairly general use represents the accumulation of the years and its existence and survival are attributable to a variety of circumstances. Much of it is valueless.

Such a characterization naturally would not apply to the conscious effort of an artist or photographer to reproduce or register a situation, or embody an idea, or even to create a beautiful scene. The point to be emphasized is that the underlying purpose giving rise to these pictorial representations is often the key to their value and thus to their use in the classroom. For example, a Trumbull, as the self-appointed, official painter of Revolutionary scenes, will attempt to catch the meaning of the situations he depicts, and to transfer to his canvas a note or a feeling in harmony with the scenes.

In this age, the perfection of the photographic lens has supplied the teacher with a countless number of pictorial representations. No expense was spared to secure adequate pictures of last summer's eclipse of the sun. Such pictures become an important source of study for our knowledge of the natural world and, similarly, the world as shaped and moulded by man may be appraised from the study of pictures. But for the world which antedates the camera, other pictorial sources must be sought. As already has been stated, these sources too often fall short of providing a basis for serious, prolonged study. It is certain that for supplying added data, or in providing a record of the concrete and the external, the picture often provides the essential basis for appreciation as no extended textual treatment could possibly do.

History, more and more, is conceived as something to be seen in addition to something to read about in a book. As the dynamic stream of life, generation in and generation out, it must be re-seen, re-created and re-lived to be fully understood and



New York Welcomes the President-Elect

appreciated. Textual material may accomplish this through word pictures and vivid descriptions. But pictures,—actual representations of what occurred, —certainly have value here; they are almost a *sine qua non*, if the past is to be really grasped.

In this connection, the recent effort of The George Washington Memorial Association, Inc., New York City, to bring back through careful reconstruction outstanding aspects of Washington's career is particularly significant. A group of distinguished historians and educators were invited to suggest twenty scenes throughout Washington's life which might be so reconstructed by twenty distinguished American artists. The twenty situations were to be such that not only would they convey to the student an adequate conception of Washington and his services but, at the same time, would lend themselves readily to the talent of the respective artists. The result is a series of twenty remarkable etchings done with accuracy and fidelity and, at the same time, with rare beauty and artistic skill. The list of subjects follows: Washington and His Mother; Washington, the Surveyor's Assistant. Washington on his Mission to the Ohio; Washington at Braddock's Defeat; Washington's Courtship; Washington at Pohick Church; En route to the First Continental Congress; Washington Assumes Command; The British Evacuate Boston; The Retreat from Long Island; Washington at Valley Forge; Washington and Lee at Monmouth; The Surrender of Cornwallis; Washington Prevents a Military Dictatorship; Washington's Farewell to his Officers; Washington, the Planter; The Constitutional Convention; New York Welcomes the President-Elect; Lady Washington's Levee and Washington at Mount Vernon.

For the student, the opportunity is presented of following Washington on his tour of inspection at Valley Forge, seeing with his eyes the sufferings of his men, and experiencing with him the rigors of that terrible winter. Again, we are present with him three years earlier as he faced for the first time an eager but inexperienced group of patriots out of which he was expected to forge an army and drive the British from Boston. His loyalty to the country which he served, transcending all personal considerations, is clearly seen as we peek into the "Temple" at Newburgh to witness his vigorous gesture of refusal of the offer of a dictatorship. The picture of "Washington, the Planter," conveys some of that charm which Mount Vernon had for him as he came back to his estate after the years of absence which marked his public services.

While some of this feeling may be conveyed through the printed page, a more physical—often a more intimate — contact is made possible through the medium of the picture and a number of vital points of contact with these happenings is established by the painstaking care with which every detail of costume, environment and action was studied in order that the situation might be recreated as it actually was. For example, the introduction into the classroom of a picture such as, "'Washington on his Mission to the Ohio," suggests very definitely the nature, size and location of the French Forts in 1754, their distance from the English outposts,

the routes by which they were reached by the little party, the perils encountered and the reception of the mission by the French authorities. Likewise, in the farewell scene at Fraunce's Tavern, the artist not only has brought back each detail of the setting, but has registered the portraits of those present and their characteristic poses. This subject offers a natural and an effective basis for an appraisal of Washington's services and those performed by his associates, of his place in their affections and in those of his fellow countrymen. In similar fashion, the picture of the session of the Constitutional Convention is suggestive of the personnel of the Convention, the relative importance of the parts taken by its various members, the influence of the different sections of the country upon its work, the reasons for Washington's selection as President of the Convention and the services which he rendered, the nature, number and length of the sessions, the work done in the meetings and outside and a host of other pertinent considerations having to do with the time, the place and the actors.

A rich body of data for the work of the classroom is supplied by pictures of this type and a useful array of exercises, similar to the above examples, as well as a thorough discussion of the use of the pictures in the classroom, is contained in a Teachers' Manual which accompanies the series. Among other suggestions, this presents exercises of a truly historical character, such as comparisons with more fanciful or less accurate representations, dramatizations, subjects of conversation such; for example, as on the occasion of Washington's leave taking on December 3, 1783, the preparation of a version of it by some one of the actors, the preparation of a diary, the drawing of other related scenes, etc., etc.

Pictures such as these, sound and artistic, supplemented by adequate notes and teaching suggestions, constitute a classroom tool of genuine value, almost indispensable to the alert teacher who would make history really live.

Administrative Set-Up of the Los Angeles City Schools

ANNETTE GLICK

IT IS almost axiomatic that it is oftenest in periods of social and economic upheaval that there comes a new evaluation of principles and standards, of definition of terms, of mobilization of inert energies and forces. Certain it is that through the tearing down and building up, through the opposing tendencies of centripetal and centrifugal forces which Los Angeles has just experienced in its reorganization of the entire administrative organization, there may come a distinctly forward, rather than backward step, in educational philosophy and achievement.

There was no mistaking the cold and yawning pit of the budget needs for 1932-1933 which could only be filled through a resurrection of the Miraculous Pitcher. It was required that just short of $7,000,000 be saved, this representing the difference between the school budget of 1932-1933 over the previous year, and this could not be done through finger-nail parings; generous slicings had to come from somewhere.

Accordingly eight major committees from the teacher-principal-supervisorial-administrative groups were appointed, with sub-committees working under them, to make recommendations to the Board of Education as to just how the feat could be accomplished with no lowering of the standards of education already set up. Exhaustive and analytical questionnaires were sent out by these groups, and opinions and plans and constructive criticisms secured from the entire teaching force of ten thousand persons.

In the case of the analytical pamphlets asking for recommendations sent to the body of elementary principals and to the entire body of high school teachers, the questions did not deal in broad generalities, but were most specific in their detailed judgment of the supervisorial divisions as to the functions and services performed, and the possibility of effecting economies,—at the same time preserving past standards through (1) elimination, (2) merging with some other closely related department, or (3) maintaining the set-up as already instituted.

Forty-seven teachers, principals, supervisors, and administrators acted upon the major committees; their period of labor was protracted and exhaustive; the United States was combed for the best of administrative plans, and the data gathered and submitted with recommendations, occupied numerous volumes of thorough-going and keenly analytical reports, tables, and studies.

The major committees representing the elementary and secondary principals and teachers and the administrative and supervisorial groups acted independently of one another, but notably and curiously, came almost to the same conclusions as to the means of effecting the necessary economies. In

order to summarize these independent surveys, a disinterested expert was engaged to interpret the reports and merge them into one comprehensible whole.

As a result of this summation and of its own investigations, the Board of Education effected an entire revision of the administrative organization of the Los Angeles City Schools, accomplishing a direct estimated saving of $6,804,381, (including $979,621 from the surplus) or 19.9% over the budget of the previous year. This, according to the plan of the Board of Education, has been done without shortening the school year materially or detracting seriously from the program of education, and in spite of the fact that attendance has increased by 14,672 over the average daily attendance for the previous year.

Principal savings were secured through a cut of 10% in salaries of all teachers and other employees, transferring a number of administrative and supervisory employees to the teaching staff, the elimination of vacation schools, reduction in insurance, shortening the effective school year by one week, and eliminating two days of Institute attendance. One of the largest sections affected was the entire number of special teachers of agriculture, home economics, and manual training, with the three separate supervisorial divisions representing them. The teaching of these three subjects as separate subjects in the curriculum was entirely eliminated in the first six grades, though being retained as before in the seventh to twelfth grades. The former supervisorial divisions of agriculture, home economics, and manual training were allocated to the enlarged division of Vocational and Prevocational Education, as sub-divisions or parts, while the former special teachers were assigned to regular classrooms.

This change, it was maintained, was not an economy step primarily, but rather a change in line with the best educational philosophy, by which these subjects in the elementary grades would be taught not as isolated tool subjects, but rather integrated as a vital part of the unit of instruction, growing out of the child's interests and aptitudes. However, though economy was not the main reason for this change, it did effect a saving of three quarters of a million dollars annually.

Operating upon the Biblical injunction, as stated in the elementary principals' report: "Every branch in me that beareth not fruit he taketh away; and every branch that beareth fruit, he purgeth it, that it may bring forth more fruit," the reorganization groups suggested and made definite changes in the supervisorial divisions, actually eliminating some, as penmanship and American Historical Research, and merging and combining others. The verdict of the teachers and principals' committees was adverse to the old-style supervision of the pre-Normal School days, when adolescents were graduated from high school and catapulted into the teaching ranks. They committed themselves instead to a newer form of paternalistic advice and helpfulness which lies at the antipodes from the old "holier-than-thou" dictation. However, to retain the best features of supervision, the elementary principals' committee proposed the formation of a curriculum council of twenty-five members, representing the tool subjects, the cultural subjects, and health, elementary science, adult education, vocational, citizenship, etc., which should meet regularly for the purpose of directing the formation of the course of study and educational research. This central body should also serve as an advisory council and direct the work of sixty demonstration teachers who would go out on call, only, and in no way undertake the task of formal, dictatorial supervision.

It was the opinion of this large group of elementary principals, with its ears close to the ground, that while direct supervision was not needed, a central supervisory office was needed. Definite opinions were secured from all principals in the system with regard to the supervisorial departments in particular, through the medium of the questionnaire, as to whether the work of each department could be done (1) without any supervision at all, (2) with the assistance of a central advisory office, or whether it could be (3) discontinued or (4) consolidated with some other department.

Partially in line with these recommendations, the Board of Education returned to the classroom six hundred certificated employees of the supervisorial and administrative forces, including teacher assistants, counselors, supervisors, and supervisorial assistants.

While the Curriculum Council as recommended was not put in force, the Board of Education retained the essentials of supervision, but with overlapping and duplicating of the former cumbersome, involved system eliminated and further clarified and organized. Whereas, formerly three separate divisions of industrial arts, primary manual arts, and fine arts existed, now all were combined in one large department of the fine and applied arts. Where, also, agriculture, commercial education, home economics, manual education, and salesmanship had existed separately, now they were combined in one division of vocational education.

What is more important, the whole administrative set-up was simplified by instituting three major, over-all divisions, these being (1) Curriculum (2) Instruction, and (3) Service, each of the first two under a newly created Deputy Superintendent, and the last under a Director.

(*Concluded on page 302*)

GOVERNMENT ACTIVITIES IN THE VISUAL FIELD

CONDUCTED BY MARGARET A. KLEIN

A School Journey to Washington

EACH year during the early Spring months, there comes to Washington, the National capital, an "army." "Armies" are not new nor exciting to Washington as the capital city seems to be the mecca for "armies" of every sort; the bonus army, the army of hunger marchers, the jobless army, the farmers army, and numerous other groups that have come to Washington at various times, to lay their grievances before the President and Congress.

The Spring army that I have mentioned has no grievance but comes for pleasure as well as for educational purposes. They come from all parts of the country both by motor and by train and they are always welcome in Washington. It is an army of high school students who annually visit Washington in vast numbers, duly chaperoned by teachers and sometimes there is an additional chaperone supplied by the various transportation companies.

The trips are planned by the transportation companies and may be either three or five days in duration. Motor transportation is provided for going from one place to another and considerable sight-seeing may be accomplished in the few days that these students are in Washington.

It is quite timely that this month's article for the Federal Department of THE EDUCATIONAL SCREEN should be devoted to a discussion of the important phases of a school journey to Washington. Visual educationalists generally place great stress upon the school journey and it ranks high as a visual aid for educational purposes. Visiting the scene of action gives one a sense of realism and first hand knowledge and the high school student who is fortunate enough to be part of Washington's spring army of students will gain considerable knowledge that he will never forget.

Since Washington and nearby Virginia and Maryland abound in historical scenes, I would advise students and teachers to review their histories before starting on their Washington trip.

The first point of interest is usually Mt. Vernon, the home of George Washington. It is now accessible over the beautiful new Mt. Vernon boulevard and through historic Alexandria.

On the return trip there are several points of interest in Alexandria. Among them are Christ's Church where Washington attended church. The Washington family pew has not been changed as the others have and consequently one can get an idea of the seating arrangement of the church in Washington's day. One may also find in Christ's Church the pew of Robert E. Lee, who attended this church during his boyhood days when he lived in Alexandria and also when he lived at Arlington after he was married. A small bronze marker on the altar railing marks the place where he knelt when he was confirmed and joined the church.

In Alexandria one may also find old Gadsby Tavern —known as City Tavern until 1794—the scene of some of the most interesting and important events in Colonial history and later during the period of establishing the American Republic. This tavern is linked with the French and Indian war for it was at Gadsby's Tavern that Washington had his headquarters when he was commissioned a Major on Braddock's staff. It was from the steps of this famous old tavern that Washington viewed his last military review and gave his last military order just one month previous to his death.

The two monuments in Washington that attract the most attention are of course the Washington monument and the Lincoln Memorial. By means of an elevator it is possible for one to go to the top of the monument and look out through small windows and get magnificent views of the city and surrounding country. The guide book describes the Lincoln Memorial as "a thing of classic beauty and simplicity. Its massive proportions fit perfectly into the magnificent scheme of its setting. For beauty and grandeur its equal is not to be found in Washington." I would go a little farther and say its equal is not to be found in United States. I was delighted to hear a newspaper man say it was the most beautiful memorial in the United States and he made the statement after a tour of the country.

From the Lincoln Memorial one travels across the new Memorial bridge to Arlington National Cemetery with its Tomb of the Unknown Soldier, its beautiful amphitheater, whose gleaming white marble walls are surrounded by a veritable forest of evergreens, and the Custis-Lee mansion from which General Robert E. Lee went to assume command of the Confederate Forces.

Personally, I like to think of the Washington monument, the Lincoln Memorial and the Custis-Lee mansion as an avenue of history. It represents the beginning of the Republic of the United States and the preservation of the Union.

The Custis-Lee mansion combines colonial and civil

(*Concluded on page* 307)

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 Eastman Releases

Eastman Teaching Films, Inc., announces that it has ready for release a series of six 16mm kindergarten pictures, which were edited by a group of teachers selected by the Kindergarten Teachers Association of the city of Rochester, N. Y. This is a series of pictures on animal life, representing animals in their native habitats. The titles are: *Animals of the Cat Tribe, Ship of the Desert, Monkeys and Apes, Bears, Seals and Walruses,* and *Three Jungle Giants.* Of these films, the first three mentioned are half-reels and the others quarter-reels.

Another new Eastman production is a two-reel subject on *Free Schools—The Hope of Democracy.* The purpose of this film is to show the public the service which schools are rendering, and to aid them in their present battle to maintain prevailing standards in education. It also serves to counteract much of the propaganda directed against the so-called frills in our public school curricula. This subject can be purchased in either 35mm or 16mm size.

Travel and Adventure Films

Recent additions to the excellent Fox travelogue series, *The Magic Carpet of Movietone,* are: *Ricksha Rhythm,* which depicts activities in Shanghai; *Sicilian Sunshine,* showing humble homes and palaces, modern streets and mountain trails of Sicily; *From Kashmir to the Khyser,* a journey through Persia, India and Afghanistan; *Berlin Medley,* revealing Germany's great city by day and night; *Gorges of the Giants,* with a background of canyons and gorges of the Yangtze River; *Venetian Holiday,* including scenes of the daily life along the banks and on the canals of Venice. Music replaces the usual narrative in most of these films.

Another group of similar subjects, having instructional as well as entertainment value, is the *Vagabond Adventure Series,* produced by RKO Pathe. Some of the latest are: *The Door of Asia,* an enlightening trip through Manchuria, showing the Mongolians pursuing their hard manual labor in all fields of activity as their ancestors did a thousand years ago; *Land of Gandhi,* centering about the peoples of India and contrasting modern methods of manufacture which have slowly found their way into the backward country, and the old-fashioned hand work; *Through the Ages,* a travelogue on Mexico. All are accompanied by dialog.

University of Kansas to Make Industrial Movies

The University of Kansas, through its Bureau of Visual Instruction, has just initiated a new type of visual instruction service that should work out to the benefit not only of the schools but also of the industries of the state. The University is prepared to use its Filmo movie making equipment for taking industrial movies to show to Kansas schools industrial processes and plants in that state. This is a part of what is termed the "Know Your State" movement.

In outlining the service, the Bureau states: "Actual mention of trade names, factory names, etc., would be kept out of the film, except as they might appear in close-ups of the plant. At the beginning of each reel of motion pictures, or set of slides, there would be one credit title, such as 'This picture furnished to the schools of Kansas through the courtesy of The Cherry Store Company, Hutchinson, Kansas.'

"The Bureau of Visual Instruction reserves the right of final decision as to subject matter and its arrangement, titles, etc., but will follow as nearly as possible the suggestions of those who are sponsoring the film or slides."

New U. S. Agriculture Films

A 3-reel talking picture entitled *4-H Club Work—What it is and Does,* just released by the U. S. Department of Agriculture, covers the salient features of boys' and girls' club work. A pictorial cross-section of this great movement of rural youth is shown by scenes made in various sections of the country; in Maryland, dairy club scenes; in West Virginia, canning club scenes; in Iowa, scenes illustrating the work of corn clubs and pig clubs; and, among others, scenes made in South Dakota and Montana exemplifying the work of calf clubs. The film is scored with incidental music as a background for a lecture delivered by R. A. Turner of the Extension Service in Washington (sound-on-film recording).

The sheep herder and his charges are the featured players in the silent film *Approved Sheep Management on National Forests.* Filmed in the mountains of Montana and California, the movie is replete with magnificent mountain scenery and with scenes of the everyday life and duties of a sheep herder. The approved management shown involves the use of pack animals for moving the camp outfit with the

sheep, thus assuring fresh feed and clean bed grounds daily. Unusual sheep grazing scenes are shown, as well as marketing activities.

Renewed Interest in Industrial Pictures

Renewed interest in production of commercial and industrial pictures is being manifested by advertising agencies and their clients, a checkup of the situation in New York shows. Latest commercial production to be released is one made by Malkames Film Productions, for Hershey Chocolate Corporation under title of *The Gift of Montezuma.*

The picture has a color sequence and is in four reels. Original version of the production in six reels recently played the Steel Pier, Atlantic City, for two weeks.

Administrative Set-up of the Los Angeles City Schools

(*Concluded from page* 299)

The Curriculum Division, headed by its superior in the form of a Deputy Superintendent, consists, in turn, of two main sub-divisions, (1) Course of Study, and (2) Supervision. The Course of Study is headed by two directors, on a parity, one in charge of elementary, and the other secondary education. The Supervision group includes, headed by supervisors: (1) Art (2) Music (3) Physical Education (4) Vocational and Prevocational Education and (5) Educational Research.

The Division of Instruction, headed also, by a Deputy Superintendent, consists of the nine assistant superintendents in charge, as before, of groups of schools and of the newly created sections of special schools and classes. The last includes development schools and schools for the blind and handicapped children.

The Division of Service, in which the Visual Education Section now falls, consists of the seven parts:

1. Attendance and Employment of Minors
2. Health Service
3. Library and Text-Book Activities
4. Safety
5. School Savings
6. Student-body Finances
7. Visual Education, including California History, the Classical Center, and to a limited extent, the Nature Exhibit.

The committees recommended, almost without exception, that the formerly independent divisions of Classical Center and American Historical Research, which dealt in realia and reproductions principally, be united with the Visual Education Section, and this was brought about in part.

Through the union of the departments of California History, the Classical Center, and in time, probably, the Nature Exhibit, the Visual Section, in spite of its necessarily serious retrenchments in personnel and budget, can look forward to an increased period of usefulness. One of the members of the staff, the former supervisor of the California History Division, added as Curator to the Visual Education Section, brings high technical skill and wide information as to sources and uses of all forms of objective material.

It is generally agreed that the purpose of visual education, expressed simply, is to give the child some form of concrete experience, as opposed to mere verbalism; also that visual aids consist of (1) the representation, as pictures, reproductions, and models, and (2) the reality, as the school excursion, realia, *objets d' art,* and objects of material culture. It is also generally accepted as a "law" of the use of visual aids, that each form contributes some quality which the others do not, as:—

the stereograph: the illusion of the third dimension feature
the lantern slide: magnification and intense light
the motion picture: motion and the continuity of events
the flat picture: individual, close range examination
objects-specimens-models: reality, genuineness, and the sensory experience of handling

The value of visual aids thus exists in their conjunctive use, rather than in the placing of exclusive dependence upon any one.

The Los Angeles Visual Education Section of the Los Angeles City Scools, it is believed, has made notable progress in (1) the balanced preparation of many forms of visual aids, and in (2) instruction to teachers as to the pedagogy of use. It is hoped, also, with the aid of the new Curator, to equal the accomplishments of other cities in the use of the object-specimen-model as an important member of the family of visual tools.

One good which it is expected will result from the administrative reorganization, is the closer degree to which the Visual Education Section will act and work through the regularly constituted supervisorial groups. Due to the former complex set-up, the evaluation, purchase, organization, and instruction in the use of visual materials was somewhat independently arrived at, though consultation with the supervisorial departments was maintained in theory. With the duties and functions of the supervisorial departments now clearly indicated, the means by which the Section will consult with them and act through them in selection, organization, and instruction will be a diurnal, rather than seasonal matter.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

New York State Education (November) The second article in the Visual Instruction Series appearing in this publication, "The Blackboard as a Visual Aid in Education" by Waldo F. Bates, Jr., Dean of Art School, State Teachers College, Edinboro, Pennsylvania, is a welcome discussion of a visual aid which remains the most used of all in public school teaching.

The writer claims a greater superiority for the blackboard over other visual aids because of the fixation of attention of the pupils. He advises every teacher who has not received a practical course in blackboard drawing to train herself to draw freely and clearly before her pupils, since in order to carry their full import, blackboard drawings must be made before the children, without copy and with the full confidence of one who knows how. He suggests a technique for using the blackboard, which will always remain because of its inexpensiveness.

Among those who are contributing the articles in this series are, F. Dean McClusky, C. F. Hoban, Daniel C. Knowlton, Homer G. Shattuck, A. L. Jones, Ellsworth C. Dent, George Hamilton and John J. Jenkins. The discussions are accompanied by a "Question and Answer" page, devoted to the answering of questions of interest to all. Questions which cannot be answered through the pages of the magazine are answered by individual correspondence. The advisory committee for this service is composed of F. Dean McClusky, Daniel C. Knowlton, Grace Fischer Ramsey, L. Wales Holden, Alan H. Nicol, John A. Haeseler, and Mary V. Rowley.

The Journal of the National Education Association (November) In her article, "The Selection and Use of Pictures," Zoe A. Thralls, Assistant Professor of Elementary Education, University of Pittsburgh, advocates the use of pictures to accomplish better results in the teaching of Geography. "An ideal picture," she states, "should show a human activity in its natural setting." She summarizes the selection of pictures under the following heads:

(1) Their geographic quality; (2) their contribution to an understanding of the major relationships developed at a specific teaching level; (3) the maintenance of a proper balance so that children will not secure a one-sided view of man's adjustment in a specific region; (4) the inclusion of key items, natural or cultural, characteristic of a given region or activity.

In reading a picture, children should be taught to recognize the significant natural and cultural items and the relationships between the two. According to the author, pictures may be used to contribute to a unit in four ways: (1) for motivation, (2) for assimilation, (3) for summarization, and (4) for application and testing.

Catholic School Interests (November) The first installment of "The Place of Visual Education in the Elementary School," by William H. Johnson of Loyola University, summarizes the psychological processes involved in visual learning. He cautions teachers not to exaggerate the importance of the visual appeal to the exclusion of other forms of instruction. He says: "Visual instruction should be considered in relation to other methods of instruction, to other teaching devices, to the type of subject-matter to be taught and to the learning process as a whole."

He divides the types of visual aids into two groups: (1) the real objects or activities themselves, (2) representations of these objects or activities. Then follow discussions of the excursion, the flat picture, and the stereograph. Other types will be treated in the following installment.

International Review of Educational Cinematography (October) Among the articles in the October issue of this splendid publication is Mr. Wilber Emmert's "Core of a Visual-Sensory Aids Program," which represents the combined judgments of the leaders of visual instruction in the United States as to what such a course should contain.

Two other articles which should be of interest to our readers, are: "Wholesome Films for Children a Great and Growing Need," by Florence Jacobs, and "Language-Teaching and the Talking Film" by F. Juer Marbach.

Book Reviews

VISUAL INSTRUCTION: ITS VALUE AND ITS NEEDS, a report prepared by Dr. F. Dean McClusky for the Motion Picture Producers and Distributors of America. McCall Publishing Corporation, New York City. Price $1.50.

This report, prepared and published at the request of Will H. Hays, President of the Motion Picture Producers and Distributors of America, is fresh from the press and ready for distribution. Probably the chief purpose is to acquaint the motion picture interests of the United States with the recent rapid strides in the application of visual aids to instruction

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DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

Branch Activities

Arizona

The department of Visual Instruction of the Arizona Educational Association held its annual meeting on Friday, October 28. Mr. George A. Stracke, Director of Visual Instruction in the Senior High School, Tucson, was chairman of the Department. The following discussions were presented as a part of the program:

"The Motion Picture as an Aid in the Promotion of Community Relationships"—Orville Oldfather, St. David.

"Visual Aids in the Teaching of Science"—C. E. Young, Phoenix.

"What the University Has to Offer the Public Schools in Visual Aids" — Dr. Max Vosskuhler, Director of Extension, University of Arizona.

"Visual Education"—George Stracke, Tucson.

Plans for converting the Department of Visual Instruction of the Arizona Educational Association into the Arizona Branch of the Department of Visual Instruction of the N. E. A. were discussed and are now under way.

Indiana

Activities of the Visual Instruction Department of the Indiana State Teachers' Association were fully described on page 272 of the November issue. Mr. George McIntire, Director of the Department of Visual Instruction of the Michigan City, Indiana, Public Schools, is the President of the Department of Visual Instruction of the Indiana State Teachers' Association and is starting at once to carry through the program as outlined.

Iowa

A group of active visual instruction workers from various sections and schools of Iowa held a breakfast meeting at the Fort Shelby Hotel in Des Moines on Friday, November 4. In addition to pertinent discussions of visual instruction methods and problems, plans were laid for the organization and development of the Iowa Branch of the Department of Visual Instruction. The following officers were elected: *President*, Miss Margaret Brick, West Junior High School, Des Moines; *Vice-President*, Mr. W. B. Zukor, Dubuque University, Dubuque; *Secretary-Treasurer*, Miss Nina V. Mitchell, Simpson College, Indianola.

An active membership campaign has been launched and plans are being prepared for a visual instruction round table at each of the sectional teachers meetings in the future.

Much credit is due the newly elected officers, Dean William F. Barr of Drake University, Herold L. Kooser of Iowa State College, and H. L. Cochran of the University of Iowa for their efforts in starting the Iowa Branch.

Minnesota

The organization meeting of the Minnesota Branch of the Department of Visual Instruction was held in Room 405 of the St. Paul Auditorium at 4:30 on the afternoon of Friday, October 28. Preliminary organization plans had been laid by Mr. Donald K. Lewis, of Central High School, Red Wing, who had been asked to serve as Chairman of the Organization Committee. More than fifty visual instruction workers attended and much enthusiasm was in evidence. Many matters were discussed and the following resolutions were adopted:

1. That the Minnesota Branch of the Department of Visual Instruction will fill a very definite and outstanding need.
2. That a progressive and educational campaign for new members will be conducted.
3. That interest and active enthusiasm can best be stimulated within the respective Divisions.
4. That some method is needed for broadcasting inexpensively suitable visual instruction information to aid the teachers of Minnesota.

For organization purposes, the state has been dided into eight divisions, following the divisions of the Minnesota Educational Association, and a chairman has been appointed to handle the organization within each division. The divisions and their chairmen are as follows:

Central Division—Leonard A. Williams, Director of Visual Instruction, St. Cloud Teachers College.

Northeastern Division — Indianola Willcuts, Supervisor of Art Education, Duluth Public Schools.

Northern Division—Leonard C. Murray, Superintendent, Aitkin Public Schools.

Southeastern Division—Ella C. Clark, Supervisor of Intermediate Grades, Winona Teachers College.

Southwestern Division—E. H. Metag, Principal, Lincoln Junior High School, Mankato.

Western Division—S. G. Reinertsen, Superintendent, Moorhead Public Schools.

Minneapolis Division—Fred D. Lewis, Principal, Ramsey Junior High School, Minneapolis.

St. Paul Division—J. O. Johnson, Principal, Central High School, Stillwater.

In keeping with the recommendation of the fourth resolution, as mentioned above, Mr. Lewis is to prepare a series of articles on visual instruction to be used in forthcoming issues of the Journal of the Minnesota Education Association, which reaches the majority of the teachers of the state.

1933 Directory Nears Completion

The Visual Instruction Directory for 1933, which is practically ready for the press and will be available for distribution early in January, is the most complete list of visual instruction directors and workers ever published. More than 1500 names have been added to the list in the 1931-32 Directory. There have been many additions to the ranks of visual instruction workers during the past eighteen months, with but few dropping out.

The directory, as in the past, will be mailed to all members of the Department of Visual Instruction without charge. This will include only those who have paid dues for the year, or who have indicated that dues will be paid later. Those who apply for membership at any time between now and the close of 1933 will be entitled to a copy upon receipt of the membership application. Those who are not members of the Department may secure the Directory at the usual price of $1.50 per copy, postpaid. Applications for memberships or requests for the Directory should be mailed to the Department of Visual Instruction of the N. E. A., 1812 Illinois Street, Lawrence, Kansas.

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.

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Visual Section at Ohio Teachers Meeting

A splendid Visual Instruction Program is planned in connection with the Ohio Teachers Association Convention, Wednesday morning, December 28th, at the Southern Theater, Columbus, under the chairmanship of E. J. Arnold, Superintendent of Schools, Nelsonville.

There will be a demonstration by Mr. B. A. Aughinbaugh, State Supervisor of Visual Instruction, of some motion pictures and slides from the new collection of visual aids now being distributed by the State Department of Education. The first two of a new series of educational talking pictures produced by the University of Chicago will also be shown. The titles are *Oxidation and Reduction,* and *Molecular Theory of Matter.*

The following questions will be discussed:

"What is needed to arouse the teacher's interest in the use of visual aids."—D. H. Sellers, County Supt. Schools, Miami county.

"What we need in the way of educational moving pictures."—J. H. Davison, Principal, South High School, Lima.

"Should a school purchase a 16mm or a 35mm projector? Should it be a silent or sound projector?" —H. C. Pendry, Supt. Schools, Athens.

"Economical aspects of visual instruction."—J. D. Stover, Assistant Supt. Schools, Cincinnati.

"Training the child in the appreciation of good pictures."—Edgar Dale, Research Assistant, Bureau of Educational Research, Ohio State University.

Summary.—Vernon M. Riegel, former Director of Education.

Children's Film Showings

The Lenox Little Theater located in the Lenox School, a private school in New York City, holds Children's Matinees every Friday afternoon continuous from 2 to 5 and every Saturday from 11 to 5. Sponsors of the matinees are Clara S. Littledale, of Parents' Magazine; Sidonie M. Gruenberg, Director Child Study Association; Jessica Cosgrave, Finch School; Mrs. Franklin D. Roosevelt, Todhunter School; Mrs. H. H. Beers, Editor, Horace Mann School Bulletin.

Another recent New York City film plan for children was that of "Juvenile Day" arranged by United Artists on two Saturdays at the Rivoli Theatre on Broadway during the run of Douglas Fairbanks' latest picture *Mr. Robinson Crusoe.* At this time the picture was available to children for the entire day at a special rate, through contacts established with various social and religious groups. One thousand ministers, 500 public schools, 300 Y. M. C. A. groups, 1,000 parochial schools and a similar number of leaders of women's clubs were notified, in addition to boy and girl scout associations.

The Little Picture House of New York City held a special screening for children on the Saturday morning following Thanksgiving and at holiday time there will be showings every morning between Christmas and New Years to provide the children with special vacation entertainment.

A Year's Activity at Buffalo Museum

The Annual Report of the Buffalo Society of Natural Sciences contains some telling figures on the activities of the Visual Education Division, of which Edith F. Busch is Curator.

During the year 260,794 slides were loaned in 8,875 sets. In the schools 133,646 slides were circulated in 4,806 sets. A total of 811 lanterns as well as 194 microscopical slides were also loaned. While the microscopical slides owned by the Society number over 2,000 those available for the loan service are slightly over one thousand. The collection of slides today numbers 71,109 slides in 1,799 sets.

Forty-eight school sets numbering 1,166 slides were titled and in many cases bound and placed in circulation. Eight sets in the insect collection were entirely revised, many of the new slides having been added to these. Two sets of slides on genetics, numbering 76 slides, have been added. To meet the enormous demand for bird slides four duplicate sets of common birds numbering 25 each are on order.

In the Loan Exhibit Bureau, according to Laura O'Day, Loan Exhibit Custodian, forty-nine new sets of visual materials were prepared this year, making a total of 74 sets available for educational use. In addition to the sets of visual materials, 2,000 separate pictures were mounted this year, and 3,000 mounted prints were added to the collection in the form of a permanent loan made by the New York State Department of Education to the Buffalo Board of Education. These bring the total of separate mounted pictures up to 5,500 prints.

In the Picture-Lending Library, Ruth E. Norton, Art Librarian, reports that during the year 95 pictures were mounted, titled, cataloged, and added to the reg-

ular loan collection. The Carnegie Art Reference Set, deposited by the Carnegie Corporation for the use of the community, includes 1,800 mounted prints (of which 800 have been received); 35 samples of textiles; 178 titles; and a text for the entire set which will be sent as soon as completed. Four hundred of these pictures and the 35 textiles are ready for use. Five thousand University Prints were donated and are to be mounted and used in the Reference File. Approximately 1,200 prints, mostly on architecture, were purchased. The 1,750 mounted pictures, which for several years have been stored here but never arranged for practical use, were cut down, labeled, and filed for use in the Reference File. More than 6,000 art slides in the collection of the Division of Visual Education were inventoried, repaired, and cleaned; about 35 sets were revised, recataloged and provided with new title lists.

150,000 Projectors in Use in England

According to a report from the Department of Commerce, Mr. Adrien Brunel has just completed a survey of the home movie market in England, which reveals the fact that there are now 150,000 users of home projectors in that country. Practically all are substandard, and it is estimated that after the Christmas sales this number will be increased to 200,000. Since the introduction of panchromatic negative for sub-standard camera users, the quality of home films has improved tremendously, this proving a great impetus to sales, Mr. Brunel states.

Danish Law Compels Showing of Cultural Films

Under a new Danish law now in preparation, the program of Danish motion picture theatres must in future be made up in part by films of cultural value. A company called "Dansk Kulturfilm" is reported to have been formed expressly for making such films. It plans to produce, purchase and sell historical and topical quality films, as well as newsreels. By showing Danish landscape films, it will also endeavor to make Danish touristic propaganda abroad. All negatives produced by the company will be incorporated in State archives to be created.

A School Journey to Washington

(*Concluded from page* 300)

war history. The land was originally owned by George Washington, who deeded it to George Washington Parke Custis, the grandson of Martha Washington. His only daughter Mary Ann Randolph Custis married Robert E. Lee and they resided at the Arlington estate until the Civil War broke out when General Lee moved his family to Richmond. The government confiscated it for a National Cemetery in 1865.

Of course there are the White House, the Capital, and the Library of Congress all with their wealth of historical interest. The lighting effects of the Library may be considered as one of its points of interest and this necessitates an evening visit to the Library. Fortunate, indeed, are the students who come to Washington during the time that Congress is in session. Visitors are admitted to the galleries and usually space is reserved for the sight seeing parties who are on a scheduled tour. The guide always explains the seating arrangement of the Senate and the House of Representatives not only of the members but of the presiding officers, the reading clerk and the press.

The government buildings are as a rule not included in tours, except the Government Printing Office where the interest is centered in the printing of paper money, and the National Museum. Many of the buildings are simply office buildings and consequently would not be of interest as part of a school journey.

Most of the places I have mentioned are connected with the history of our own country but Washington also is the location of the Pan American Building with its Latin-American atmosphere and where the student can get considerable information about the South American countries.

If time permits, a journey should be planned to nearby Virginia, especially the Jefferson Davis highway to Richmond. This would include Fredericksburg and civil war scenes too numerous to mention in this article. The State of Virginia has erected markers with a short account of the historical event at places of interest along all the highways. It is a splendid idea and it would be a help to students of history if other states would follow Virginia's example. A guide book with a reproduction of the subject material on these markers is available at a very small cost and I shall be glad to send the address of the publisher to anyone who may be interested enough to write me for it.

I have not attempted to discuss all the points of historical interest in Washington and nearby Virginia and Maryland but I have only commented upon a few of the outstanding ones.

A school journey to Washington need not be confined to historical data but students who are interested in other subjects will find available information on almost every subject, in the various Government departments.

In the next issue of THE EDUCATIONAL SCREEN, I shall describe some of the exhibits at the National Museum and since I have devoted most of this article to historical points of interest, I shall not discuss any of the historical exhibits but rather industrial and health exhibits.

THE FILM ESTIMATES

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

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

Blessed Event (Lee Tracy, Mary Brian) (Warner) Fast, clever newspaper story of hard, unscrupulous columnist, working havoc with his news of babies coming, very finely played by Tracy. Feuds with crook and crooner, night club shootings, risque wisecracking, and slangy dialog at its "best."
A—Good of kind Y—Hardly suitable C—No

Call Her Savage (Clara Bow) (Fox) Hodge-podge that tries to combine (into one big moneymaker) Clara's previous roles, and adds some more like "motherhood", four-hour wife of a waster. Crazy actions and checkered conduct explained by making her illegitimate, half-caste Indian. Clara's acting ability somewhat improved.
A—Absurd Y—No C—No

Conquerors, The (Ann Harding, Richard Dix) (RKO) Very effective picture of recurrent depressions and recoveries since 1873, showing how America always moves on to greater heights. Characters age with passing of time. Touching, impressive, well acted, timely and encouraging. A picture very much worthwhile.
A—Very interesting Y—Excellent C—Good

Evenings For Sale (Herbert Marshall, Mary Boland) (Paramount) Delightful character comedy, laid in exotic Vienna, where the romance-hungry, middle-aged heroine meets an ex-count gigolo. Finely played by the stars, and fine supporting cast, with Charles Ruggles inimitable as the valet, refreshingly sober.
A—Charming Y—Very good C—Little interest

Faithless (Robt. Montgomery, Tallulah Bankhead) (MGM) Suave, smart, unwholesome stuff about noble hero with only $400 a week and haughty heroine with millions. Both lose all! She sponges, borrows and is "kept". He forgives, marries her, falls sick and she nobly goes on street to save him. Well done but not convincing.
A—Depends on taste Y—Decidedly not C—No

Golden West, The (George O'Brien) (Fox) Hodge-podge thriller from Zane Grey's story of old family feud which begins in the South prior to the Civil War and finishes in the West when hero breaks down the age-old barrier and helps put the railroad through. Mixture of romance, drama and comedy.
A—Hardly Y—Fair C—Fair

Goona Goona (Made on Island of Bali) (Security) Fascinating picture of life, customs and exquisite scenery of Bali, with remarkable native orchestra and cast. Colorful romance, love-making and infidelity delicately done, with logical tragic ending. Mature but nothing offensive.
A—Very Interesting Y—Doubtful C—No

He Learned about Women (Stuart Erwin, A. Skipworth) (Paramount) Very timid and rich bookworm-hero starts out naively to learn life. Easy prey for the arch-swindler, faultlessly played by Alison Skipworth, who is won by his innate goodness, thwarts plot—and good comedy then degenerates into the old-fashioned "chase."
A—Rather good **Y—Amusing C—Amusing**

I Am a Fugitive from a Chain Gang (Paul Muni) (Warner) A man's life permanently blasted from day he was innocently involved in petty hold-up. Not drama, but tense and often harrowing narrative of grim suffering and bestial cruelties in lowest stratum of prison world. Strong, sensational, hardly entertaining.
A—Depends on taste Y—No C—No

If I Had a Million (All-star cast) (Paramount) Rather novel, but undramatic hash about crazy rich man bequeathing a million apiece to strangers. Effect on each makes an episode by itself. Elementary entertainment, now funny, now tragic, uneven in interest and plausibility.
A—Perhaps Y—Probably good C—Hardly

Klondike (Lyle Talbot, Thelma Todd) (Monogram) Unskilful attempt at melodramatic problem play. Surgeon fails in important operation and flies to Alaska to build his life over again. Elementary in acting and direction, improbable and unconvincing, and largely uninteresting.
A—Mediocre Y—No C—No

Last Mile, The (Howard Phillips) (World Wide) Realistic, harrowing picture of reactions of prisoners in death row, awaiting death chair. Against capital punishment but one-sided. Reason for present plight never shown. All sympathy for criminals, no thought of victims. Distorted from orlginal and confused.
A—Good of kind Y—By no means C—By no means

Little Orphan Annie (Mitzi Green) (RKO) Selected episodes from the well known newspaper strip picturlzed to make a mildly dramatic story about Annie, Mickey and the dog. Rather obvious and uninspired, but combines pathos, comedy and adventure in a way to delight children.
A—Passable Y—Little interest **C—Very good**

Maedchen in Uniform (German Production written, directed and acted solely by women) Masterpiece of vivid realism and charm, beyond Hollywood to equal. Life in pre-war boarding school. Intense character interest, superb dramatic values, beautiful acting and photography. Faulty only in its sound. Industry's hint of Freudian motif mere dirty publicity.
A—Excellent **Y—Mature but good** C—Beyond them

Magic Night (British Dominion-U. A.) (Jack Buchanan) Elaborate romance, lavish backgrounds, foreign cast. Dashing Viennese officer loves flower-shop girl, but a countess is father's choice. Songs, music, acting and voices only fair, and dramatic construction and direction distinctly poor.
A—Hardly Y—Harmless C—No interest

Mask of Fu Manchu (Boris Karloff, Karen Morley) (MGM) Another labored and hectic attempt to scare. Absurd piling up of artificial horrors—animal, mechanical, electrical, chemical—till drama and charater interest are buried. Naive nightmare by and for elementary minds.
A—Stupid Y—No C—By no means

Okay America (Lew Ayres, Maureen O'Sullivan) (Universal) Fast, well-made, sensational newspaper melodrama, about hard-boiled but attractive young columnist, who is also radio star and becomes go-between in big kidnapping case. He solves all, shoots big gangster, and dies by gang guns. Glamorous night life.
A—Good of kind Y—Better not C—No

Prosperity (Marie Dressler, Polly Moran) (MGM) Another riotous comedy-farce made for the two stars, on same sure-fire lines, very timely amusement for the "depression". Dressler splendid as bank-owner who falls, but comes back triumphantly. Human, appealing, laughable. Moran overacts as usual.
A—Good Y—Very amusing C—Amusing

Rackety Rax (Victor McLaglen) (Fox) Football taken over by two rival racketeers who buy two colleges and supply their own toughs as players. Machine guns, gats, brass knuckles, etc., feature in the game. Conglomerate of absurdity and burlesque. Doubtful taste.
A—Worthless Y—Probably funny C—Better not

Rockabye (Constance Bennett) (RKO) From East-side nobody, she becomes great stage success with ambitions to be a "lady". Finally pronounced so when she at last renounces all and returns her fiance to his wife and newborn son. Some unconvincing acting and several impossible scenes.
A—Mediocre Y—Not good C—No

Sherlock Holmes (Clive Brook) (Fox) Famous character in modern setting plus a fiance who urges him to retire, but the jail escape of Moriarty (well played by Ernest Torrence) keeps Holmes busy thwarting the criminal's plans. Some falsities and dramatic weakness but suspense good. Clive Brook convincing in title role.
A—Entertaining Y—Good C—Good but exciting

Tess of the Storm Country (Janet Gaynor, Charles Farrell) (Fox) Old-fashioned, sentimental melodrama, with Janet likable as skipper's daughter who finds herself in false position and almost loses her lover. Much hokum and improbability. Fine sea and coast scenes. Not a picture for the Gaynor-Farrell team.
A—Fair Y—Good C—Probably good

That's My Boy (Richard Cromwell, Dorothy Jordan) (Columbia) Rather unusual football picture. Exploitation of modern football involves fine young hero in both tricky finance and genuine and wholesome love-affair. Heroically pays debt of honor by naive method, weathers a storm of disgrace, but wins through and keeps sympathy of audience.
A—Good Y—Entertaining C—Fairly good

Too Busy to Work (Will Rogers, Marian Nixon) (Fox) Excellent character comedy with slight plot but much charm. Rogers is convincing, wistfully appealing, intensely human as chronic loafer seeking the man who stole his wife and baby. Pleasing pathos, some of Rogers' best humor, and sad but satisfying ending.
A—Very good Y—Very good C—Good

Three on a Match (Warren William, Joan Blondell) (First Nat'l) Three girl schoolmates live varied lives and meet again ten years after graduation. Much character change for no good reason. Cheap conduct by cheap people. Mother and child episode very offensive. Distorts all values.
A—Trash Y—By no means C—No

Under Cover Man (George Raft, Nancy Carroll) (Paramount) Virtuous heroine thoroughly tangled with crook-hero in maze of swindlers, roues, mistresses, night clubs, lavish apartments, booze, guns, etc.—saved at last by detectives and under cover man (two for good measure). Nothing in acting or plot to save it from mediocrity.
A—Mediocre Y—Certainly not C—No

You Said a Mouthful (Joe E. Brown) (First Nat'l) Hilarious, crazy nonsense film, with clever photography, about hero unable to swim who wins marathon from Catalina to mainland. Mediocre acting, dull dialog, but funny for those who laugh easily. Too long and labored.
A—Tiresome Y—Harmless C—Probably funny

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

16 mm. Movies on the Mission Field

NINA B. BERCOVITZ, R.N.

THE public health program of the Pyengyang Union Christian Hospital includes lectures to the Korean public. At present these are carried out through the mothers' clubs. The lectures are mainly on subjects related to baby health and welfare. In connection with this program, it was decided to make a set of motion pictures to supplement the lectures.

The subject of the first reel includes the technic for giving an infant a bath, including washing of the head and also cleaning of the nose and eyes. This was first performed in the hospital. Following that it was repeated in a Korean house by a Korean nurse with only what was found in that home.

The second reel shows a mother feeding her baby every four hours. Following the feeding, the baby is placed in its bed. This is made of a straw basket which cost originally about 50 sen (25 cents U. S. A. gold). The child is shown at rest in the basket instead of being carried constantly on the mother's back. Following that, the preparation of gruel and coddled egg and milk are shown. All of this was done in a Korean kitchen on charcoal fires and with such equipment as is found ordinarily in an average Korean home.

The technical equipment for this work consisted of a Bell & Howell Filmo 70 camera and tripod, with F 1.8 Cooke lens, and 4-inch telephoto lens. The light used was an average 500-watt frosted bulb with a painted metal reflector. Most of the work was taken with the camera set at 32 frames per second. This was true especially with the bathing because most Korean mothers have never seen a baby given a bath, and we wanted the action in the pictures slowed up somewhat.

For projecting, the pictures were thrown on a sheet in the front of the church. The average audience has included from 300 to 500 women. Most of these Korean mothers have never seen motion pictures, and the idea was entirely new. They had to adjust their thinking to motion pictures.

The plan that has been followed is to have my Korean nurse first explain to the mothers what they may expect to see on the screen. She also explains the ideas back of the pictures. Then she sits down and the pictures are shown. While the reel is being rewound the nurse again explains to the mothers what they have seen and gives them a chance to think back over their first experience with a movie and to ask questions. Then the film is shown a second time. It has been most interesting to hear the reactions of the women. I have universally heard one expression which translated from the Korean means "I have learned well tonight."

Our last experience was about a week ago with a group of 2000 country women who had come into Pyengyang for ten days of intensive Bible study. We have a large gymnasium in connection with one of our schools here, and it was announced that we would be showing pictures in the gymnasium on a certain evening. A large sheet was hung up at one end of the room, and the women as they entered sat down on straw mats. The women came with great eagerness, probably because they thought they would have a new experience. And truly a new experience they had. Two thousand women were packed into that gymnasium that evening. My Korean nurse had quite a time at first explaining to that large group of women what we were going to do. Then the lights were turned off, and I turned on my projector. A brilliant white frame about six feet square was thrown on the screen. Then the motion pictures began. First, the Korean baby was shown having its eyes and nose cleaned and then its head washed. At first a shocked hush came over the audience, and they seemed to be holding their breath. Then all of a sudden the silence was broken as they saw the baby's head being washed. They burst out in a hysterical laugh, and that was suddenly followed by another hush only to be followed again by a laugh. The whole group of 2000 country women seemed to be gripped by some sort of an emotion which they were unable to control. Then came the slow motion, showing in detail close-up pictures of giving the bath. They saw the little baby's body shine as the soap lather became thicker, and then they saw the dirt come off. Then came the picture of the diaper (unknown to Korean mothers). The silence grew heavier. Then as the diaper was placed on the baby, they became more and more quiet, and finally, through to the end of the reel, there was never so much as a cough—the audience was spellbound. When the film was finished, the nurse quietly got up and began telling what they had seen. She scarcely had to raise her voice to make the entire 2000 women hear—they had seen clearly and were

beginning to understand. Then the lights were turned off, and the projector was turned on again, and this time everything slowed down—through the entire second showing we never heard a sound except the heavy breathing of women. The pictures were clear, brilliant, they could be slowed down when necessary, speeded up when necessary—and at the end of it all 2000 women went back to the country having learned that a baby can be bathed. They learned how to use a diaper. They learned about feeding a baby every four hours instead of every time it cries. They learned to keep the infant in its crib, they learned how to prepare milk by using Carnation and boiled water, etc.—they truly said, "We learned well this evening."

We are now in the midst of prepartions for making a film on Tuberculosis which we hope will be of added interest and of more general value to the Korean public. This film will also be entirely Korean, and will include the adaptation of fresh air, and sunshine to the Korean house, with its hot floor for sleeping.

In addition to the work on health films, my camera has been used in photographing the missionary work of our Pyengyang Mission station. This is stated to be one of the greatest mission stations in the world, and the work includes every phase of missionary endeavor. The camera has gone into the smallest churches and taken the people at their Sunday School hour. It has gone into the Sunday School Kindergarten, and even under most adverse light conditions has taken the infants learning their first lessons of God. It has gone to the great South Gate Church with 2000 communicants sitting on mats on the floor, and shows them receiving the Sacraments of the Lord's Supper. It has gone into the operating room and demonstrates our Korean surgeons doing actual operations. These pictures are prepared for the churches in America and are for stimulating interest in the missionary work.

We have been making pictures for the past year and one half under most adverse light and weather conditions. In more than 3000 feet taken with the camera, we have not had to discard a single foot of film because of mechanical difficulty. This means economy of operation.

Our latest experience with the camera has been in making pictures of Korean Evil Spirit Worship, Ancestor Worship, and the celebrations of the Korean festivals in connection with the Korean "Oh-Wahl-Tan-Il" (Fifth day of the Korean Fifth Month celebration). In the pictures of spirit worship we were driving along a country road and found the Evil Spirit Worship going on outside of a house where a patient was sick. The object of the worship is to drive the evil spirits out of the sick person in the hope that he will get well. I drove the car beyond a short distance and left it running with a companion at the wheel ready to move promptly if necessary. Then, taking the camera under my coat, I sauntered back to the place where the "devil worship" was going on. I joined the crowd standing around, and asked what was going on. After watching for a few minutes, I slipped the camera out of my coat and took pictures of the weird dance motions, etc. The operation of the camera being so quiet made it possible for me to make more than fifty feet of film without anyone realizing what I was doing. The practice of "devil worship" is gradually passing away, but a permanent record of the practice has been made on motion pictures.

Ancestor Worship was also filmed in much the same way. I was able to be close at hand for some pictures. Even being within twenty feet of the subjects as they worshipped did not attract their attention. In other cases, Ancestor Worship was taken with the 4-inch telephoto lens at some distance from the subjects. They were not aware of my presence in the locality at all, and the result is close-up views of the worship.

In the case of the celebrations in connection with the Festival of the Fifth Month-Fifth Day of the Korean calendar, we mingled with the crowds and took what pictures we wished without attracting any attention. This festival is the great play day of the Korean calendar. This is the one day especially planned for women to play. Their greatest diversion is swinging; great straw rope swings are prepared, and the women, young and old alike, swing to their hearts' content on this day. It is their one day of play.

Nebraska Pastor Enthusiastic Over 16 mm.

A Nebraska pastor writes: "I am very enthusiastic over 16 mm. films, as I think they present a wonderful opportunity to schools, churches, and other institutions where the cost of the larger films is prohibitive. I use the projector to exhibit films in our church parlors on different occasions. In these programs I usually have one or two reels of special interest to the children, some scenic and industrial films, and from one to three reels of missionary pictures. These 'shows' are fairly well attended. No admission fee is charged. Once in a while not even a collection is taken.

"I hope soon to start a small library of my own, so that at intervals I can 'carry a picture show' to shut-ins, invalids, and to the children's and old-people's homes that are in the reach of my church."

SCHOOL DEPARTMENT

CONDUCTED BY DR. F. DEAN McCLUSKY

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

The University of Chicago Film Productions

NOVEMBER 14th last was an interesting date for visual instruction. Simultaneous showings took place, in New York, Washington and Chicago, of *Oxidation and Reduction,* and *The Molecular Theory of Matter,* the first two films completed by the University of Chicago in its new series of educational motion pictures.

The auditorium of Chicago's Oriental Institute was packed with an invitation audience of educators keenly interested to see the initial demonstration. They found both curiosity and interest fully justified.

First on the program, President Robert M. Hutchins discussed in a general way the use of sound films as an educational tool in the hands of the teacher. He was followed by Professor Schlesinger who outlined the scientific phases of the two particular films to be shown, and told of some of the problems involved in producing such pictures. (Vice-President Woodward and Professor Lemon represented the University at the showing in New York City, and Dr. Carey Croneis, of the geology department, presided at the Washington preview.)

Subject matter in the physical sciences was selected for the initial pictures of the series because those sciences have a tradition and background of presentation through demonstration-lectures. The two pictures just produced illustrate principles fundamental to the study of chemistry, and also demonstrate the application of the scientific method, by presenting in series of experiments the observation of a phenomenon, the formulation of a hypothesis, its experimental verification, and finally the expansion of the scientific law to fields beyond that originally postulated.

Each of the subjects, condensed into a film that runs ten minutes, requires for presentation in the University physical sciences general course by lecture-demonstration from two hours to two and one-half hours of class-room time, in addition to 3 hours of preparatory work by the staff. In smaller colleges and high schools, in which the instructor has no laboratory assistants, the films will save considerable time as well as insure a perfect demonstration of the experiment.

Talking pictures not only effectively visualize demonstrations—impossible under class-room conditions, such as the use of the machine gun and the explanation of the principles of the coke oven, but also demonstrate experiments that might not be feasible for educational institutions with limited laboratory equipment. Failure of delicate and often expensive experiments is eliminated.

After the preparatory discussions, most welcome and valuable for inducing the right audience attitude, the two films were run. The off-stage voice commanded perfect attention in the otherwise silent hall. Explanation and interpretation, expertly designed and accurately timed to the movement of the picture, left no doubt in the audience mind of the high educational values in such materials.

In the picture, *Molecular Theory of Matter,* the pressure exerted on a container by continuous bombardment of molecules of gas is made clearer by a brief scene which provides the analogy of bullets from a machine gun striking a specially built target which has a recording device that registers the force exerted by cumulative impacts of the bullets. Variations in rapidity of firing and amount of charge behind the bullets illustrate the comparable action of gas molecules

with changes of temperature and pressure—an experiment impossible in the class-room.

The picture, *Oxidation and Reduction,* Professor Schlesinger said, affords a striking example of what can be done in the presentation of a simple phenomenon through talking pictures. It also permits of an effective and speedy means of tying up a theoretical discussion of principles with their practical application in industry. This picture, with a quick scene of the use of an oxy-hydrogen blow torch in cutting an iron plate, presents in five seconds a comparable experiment in the University demonstration-lecture that has taken several minutes and occupied the student mind with incidental aspects of the demonstration. Operation of a coke oven, impossible in the class-room, is demonstrated by the film.

The demonstration closed with perhaps the most significant performance of the evening. The accompanying voice was shut off, the *Molecular Theory of Matter* was run again in silence, and Professor Schlesinger supplied his own running comment upon the phenomena as they moved. This feature of the talking picture answers the chief objection made to "talkies" in some quarters—that the production is fixed and rigid, hence unadaptable to different classes which vary endlessly in their preceding knowledge and hence in their needs at the moment of showing.

The film's voice is indeed unchangeable, but so is every printed page of textbooks. Discussion by the teacher adjusts and adapts the textbook page to the exact learning stage of the class—and the able teacher can and will do exactly the same thing with the educational talking picture. The film's voice will present the topic authoritatively and comprehensively; the teacher's voice will adapt, supplement and amplify, to fit the exact needs of each individual class.

These two pictures will be followed by three films, dealing with Electrostatics, Energy and Transformation and Velocity of Light.

Production is also contemplated of talking motion pictures in the three other broad fields—the humanities, the social sciences, and the biological sciences. A printed syllabus with suggestions for the use of the films will be provided for each talking picture produced.

The films are made for 35mm Western Electric sound-on-film projector, but may also be used on a 16mm sound system. The motion picture films, sound equipment, and printed syllabi are being distributed by the University of Chicago Press.

Use Films to Teach Languages

In cooperation with the International Cinema League, students of modern language in New York high schools will soon be receiving instruction with the aid of foreign language films, according to plans

of the Board of Education. Under the new system, more importance will be placed on the life, customs, habits, art and history of foreign lands.

Motion Pictures Aid Drawing Classes

Professor Justus Rising, of the practical mechanics department of Purdue University, has enlisted the aid of motion pictures to improve the university's teaching of the fundamentals of mechanical drawing, as reported in the student-published *Purdue Exponent*. Professor Rising has developed a visual presentation of the elemental factors of the mechanical drawing course which is taken by all engineering freshmen at the university, and has made motion pictures of these fundamental requisites.

Four films were made as a beginning. The titles of these films were: *Sharpening the Pencil* (including general preparations); *Use of T Square and Triangles; Sketching Straight Lines; Lettering—Part* 1. W. F. Kruse, educational director of the Bell & Howell Co., cooperated in making these pictures, which were all "shot" on 16mm film. Films covering other topics comprehended in the course have now been completed and others are in preparation.

The application of these films in actual classroom practice is described as follows: "While still experimental in application, approximately one-third of this year's freshman class is studying with the aid of movies. Expressions of opinion have been secured from this group, the greater number believing their work is not only more interesting, but also much more readily grasped. The remaining two-thirds of the class are being instructed by the ordinary controlled methods, and at the end of the year it is hoped some sort of comparison can be made to indicate the relative benefits of the new type of instruction. Two aims of this new method are to improve the instruction to the student and to speed up the work, making it possible to cover more ground."

Student-Made Lantern Slides in Physiology

MURIEL PETTIT

THE classes in Physiology under my direction in the Girls High School have been making lantern slides over two years with very gratifying results.

The materials we have used are Standard Eastman Kodak and Gaevart lantern slides, Cover glass slides, Keystone etched glass slides, Traceoline, cellophane, clear and amber, Higgins India Drawing Inks, Pelican's India Drawing Inks, Thaddeus David's Slide Inks, (their own and Keystone) Velox water colors, Joseph Gillott's Lithographic pens No. 659, Telegraphic pens No. 1876, ordinary class room pens, Keystone colored slide pencils and some very good brushes. Illustrations are traced, or drawn freehand, larger or smaller, and traced with black and colored inks. Fresh materials also are drawn.

In our experience we have used to our best advantage the India Drawing Inks with fine lithographic pens and brushes for the gelatin film slides which have first been cleared in a hypo-sulphate bath, rinsed in clear water and dried on a rack. If water colors are used, they may be used safely by the most skillful workers as they dry so rapidly. For the plain glass slides we obtained our best results with the David's Slide Inks, the Esterbrook Telegraphic pens No. 1876 and the brushes. Either type of ink and any good pen or brush may be used for clear cellophane. For the etched glass slide and Traceoline either type of ink serves equally well, but the life of a pen is short with either of these materials. They do not give the clear-cut picture on the screen that comes with the gelatin film or plain glass slide or clear cellophane, but they are very good. For immediate use in a class the etched glass slide is exceedingly good, one may write an explanation while explaining a difficult point and throw it on the screen as a climax of the explanation.

For general class use we find the etched glass slides with ink or pencil, and the plain glass slides with ink best, because all may take part and the slides may be washed and used again. For a permanent collection the girls most skillful in art must be the ones to do it.

The clear and amber cellophane are used for our typed slides, also Traceoline, which is not so clear. We have arranged the outline of the course of study furnished by our Board of Education in broader and more detailed form which we throw on the screen together, with our illustrations. We have arranged a variety of tests for the screen, using the true-false, multiple choice, blank word, and diagrams or illustrations with numbers. Such tests can be run through quickly conserving the time and energy of the teacher and student.

And So....

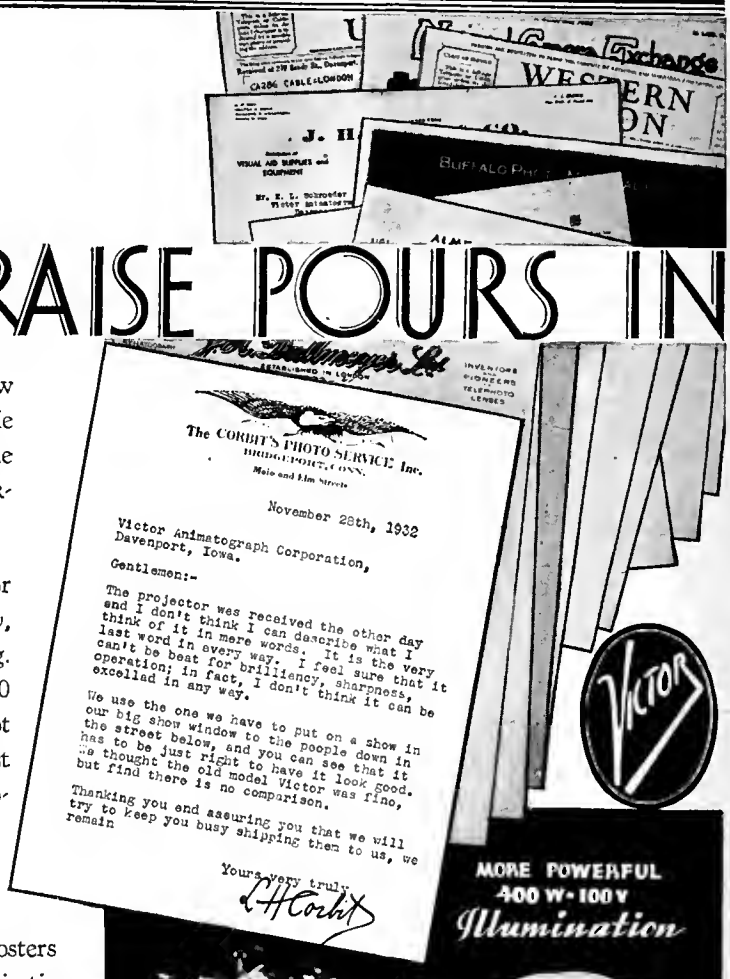
THE PRAISE POURS IN

IN NOVEMBER Victor announced the New MASTER MODEL 10 SERIES .... promising the movie world a 16 m/m Projector far in advance of the rest in BEAUTY, FEATURES, CONVENIENCES and PERFORMANCE — not to mention VALUE!

Movie Makers have come to know that when Victor announces improvements, *Something Really New, Something Decidedly Worthwhile,* is in the offing. In spite of that, the appearance of the Master 10 Series created a "stir" such as the industry has not known for many a day .... for even the most ardent Victor Boosters failed to anticipate a projector as fine as this!

And so the Praise Pours In —

From dealers, new purchasers, old Victor Boosters and prospective buyers comes a flood of enthusiastic endorsements of this latest Victor achievement! More and more dealers everywhere are switching to Victor exclusively. More and more buyers everywhere are learning that these new Victors are unmatched in everything the careful buyer wants — BEAUTY, PERFORMANCE, COMPLETENESS, VALUE! If you haven't seen the new VICTOR 10's, give yourself a treat .... Ask any Dealer. For illustrated descriptive literature and name of nearest dealer, write direct.



VICTOR ANIMATOGRAPH CORPN.

DAVENPORT, IOWA

EASTERN BRANCH, 242 W. 55th, NEW YORK CITY
WEST COAST BRANCH, 650 So. Grand, LOS ANGELES, CAL.

Sold by Better Dealers Everywhere

MODEL 10 VICTOR MASTER
16 mm Series *Projectors*

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.

Edited Pictures System, Inc. (1, 4)
130 W. 46th St., New York City

General Electric Company (3, 6)
Visual Instruction Section,
Schenectady, N. Y.
(See advertisement on page 311)

Herman Ross Enterprises, Inc., (3, 6)
630 Ninth Ave., New York City
(See advertisement on page 314)

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 315)

The University of Chicago Press (2, 5)
5750 Ellis Ave., Chicago, Ill.
(See advertisement on page 312)

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.

MICROSCOPIC PROJECTION EQUIPMENT

Clay-Adams Company, Inc.
117 E. 24th St., New York City.

MOTION PICTURE MACHINES and SUPPLIES

Ampro Projector Corp. (6)
2839 N. Western Ave., Chicago, Ill.
(See advertisement on inside front cover)

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

Herman Ross Enterprises, Inc.
630 Ninth Ave., New York City
(See advertisement on page 314)

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 page 290)

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 316)

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 289)

Herman Ross Enterprises, Inc.
630 Ninth Ave., New York City
(See advertisement on page 314)

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

Herman Ross Enterprises, Inc.
630 Ninth Ave., New York City
(See advertisement on page 314)

Ideal Pictures Corp.
26 E. Eighth St., Chicago, Ill.

Keystone View Co.
Meadville, Pa.
(See advertisement on page 315)

Radio-Mat Slide Co., Inc.
1674 Broadway, New York City
(See advertisement on page 310)

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

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 313)

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

STEREOGRAPHS and STEREOSCOPES

Keystone View Co.
Meadville, Pa.
(See advertisement on page 315)

STEREOPTICONS and OPAQUE PROJECTORS

Bausch and Lomb Optical Co.
Rochester, N. Y.

Herman Ross Enterprises, Inc.
630 Ninth Ave., New York City
(See advertisement on page 314)

E. Leitz, Inc.
60 E. 10th St., New York City

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 313)

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

Index to Volume XI (1932)

The Educational Screen

FORMAL ARTICLES

(Arranged Alphabetically by Authors)

GOVERNMENT ACTIVITIES IN THE VISUAL FIELD

(Conducted by Margaret A. Klein)

(Arranged in Chronological Order)

FILM PRODUCTION ACTIVITIES

(Arranged in Chronological Order)

DEPARTMENT OF VISUAL INSTRUCTION NOTES

(Conducted by Ellsworth C. Dent)

(Arranged in Chronological Order)

NEWS AND NOTES

(Conducted by Josephine Hoffman)

(Arranged in Chronological Order)

AMONG THE MAGAZINES AND BOOKS

(Conducted by MARION F. LANPHIER)

(Arranged in Chronological Order)

BOOK REVIEWS

(Arranged in Chronological Order)

FILM ESTIMATES

The number of films covered by Film Estimates for the years are as follows: Jan. 31, Feb. 35, Mar. 26, Apr. 26, May 28, June 30, Sept. 33, Oct. 33, Nov. 28, Dec. 27. Space forbids listing these films.

THE CHURCH FIELD

(Conducted by R. F. H. JOHNSON)

(Arranged in Chronological Order)

SCHOOL DEPARTMENT

(Conducted by DR. F. DEAN MCCLUSKY)

(Arranged in Chronological Order)

Book Reviews

(Concluded from page 303)

procedure. It is further designed to give some indication as to the probable future trends in the pedagogical use of motion pictures and other visual aids.

The report is divided into ten divisions, each of the first nine a reply to the following questions:—

1. What is visual instruction?
2. Has educational research demonstrated the value of visual instruction?
3. Has the acid test of the classroom experience shown that visual methods are valuable as aids in instruction.
4. Has the experience of museums, libraries, newspapers, publishers, advertisers, etc., shown that visual presentation makes a valuable contribution to a more complete understanding and appreciation of the world in which we live?
5. What has the experience of commercial enterprise shown us about the development and manufacture of visual materials?
6. What is the actual and potential market for the major types of materials used in visual instruction?
7. Is the market for these materials being adequately supplied?
8. What appraisal is possible of the methods and product of the several major sources of pedagogical motion pictures?
9. What are the fundamental principles upon which must be based the future development of visual education if effective results are to be obtained?

Section X is a brief review of visual instruction development among foreign countries.

The report is 125 pages in length, printed attractively, and including many interesting halftones of visual aids at work. It should be of interest to all visual instruction directors and instructors in charge of visual instruction courses, as well as to those who are interested in the production and distribution of visual instruction materials and equipment. E. C. D.

STORM by Peter Neagoe. New Review Publications, London. Price 90 cents.

What is the cinematographic style in fiction? Is it the short alternation of quick scenes? Or something deeper than imitation of one phase of technique?

Roots of cinema: magnification and isolation. Words and actions hung and framed on the screen almost as illustrated mottoes on the wall ("God Bless Our Home"). *Montage* was a full stop like any other work of genius: what was novel and stimulating has been standardized to trick. Magnification and isolation remain true magic.

Some of the stories in *Storm* have this direct and luminous method of presentation—i.e., are cinematographic fiction. The title story is best. "The willow-scented air rushed into John's lungs. He clenched his fists and struck them together. He could have moved a wall with his shoulder. Could fell a bull with his fist. He swung out and struck a mighty blow full in the night's face. He whirled about striking the fierce blow. Then he walked on, crushing the road under foot. Then he ran and jumped."

This does in fiction what Dovenkof did in scenes of *Earth*. OSWELL BLAKESTON.

Teachers' Programs

Sound motion picture programs are put on by members of the University of Wisconsin Bureau of Visual Instruction staff which should be of interest to City Teachers Associations, Parent-Teacher Associations, Teacher Study Groups, Training Schools, Teachers Colleges, and sections of the Wisconsin Teachers Association. These programs include projector and sound equipment, screen, operator, and films. The subjects available are: *The Teaching of Reading, Dynamic Learning, The Elementary Teacher as a Guide, Creative Approach to Education,* and *Guidance in Public Schools.*

THE NEXT LOGICAL STEP . . .

A Filmo MOVIE CAMERA *for Your School*

THE Filmo School Projector placed a most useful, efficient, simple teaching tool in the hands of thousands of schools. Many of these schools have found that a Filmo 16 mm. motion picture camera is the next logical step in the extension of effective visual education.

Text books are written by teachers. Why should not *visual* aids to teaching be made by educators too?

Any teacher can quickly master the art of producing really excellent movies with a Filmo Camera. Load the film, set the lens and press the button. What you see in the viewfinder, you get on the film. With Filmo, you get theater-clear, theater-brilliant movies of the professional quality that has made Bell & Howell 35 mm. Professional Cameras the preferred equipment for a quarter century in Hollywood and other film studio centers of the world.

Teacher, made educational films are not only practicable, but they are often better adapted to local needs. And in many cases they are cheaper than purchased films. For years extension divisions and other university departments, and certain large city schools too, have used Filmo Camera as a teaching and publicity tool. It is decidedly advantageous and easily possible for *every* school, large or small, to broaden its visual instruction program this way.

The cost of Filmo Cameras is moderate. Worthy companions of Filmo School Projectors, they give perfect, carefree service year after year . . . are guaranteed for three years. They inherit the fine design, precise construction, and adaptability to varied conditions of B & H Professional Cameras, yet are amazingly simple to use effectively. In price, they range from $92 up, depending upon the versatility required for the types of work to be done.

Filmo titling, editing, and film cleaning equipment is also available, as well as other Filmo accessories for every purpose. Thus schools may equip their own 16 mm. movie-making departments as completely as any professional studio.

Producing films at Purdue University to teach mechanical drawing. Students will now learn more easily and quickly through these movies than by actual demonstration. Every student will see the demonstration at close range and from the same point of view.

Bell & Howell Filmo 70-DA Camera

BELL & HOWELL FILMO

Personal Movie Cameras and Projectors

Bell & Howell Company, 1817 Larchmont Ave., Chicago; New York, Hollywood, London (B&H Co., Ltd.) Established 1907

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Gentlemen: Please send full information on Filmo Cameras for school use and your special booklet on visual education.

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School .....

Address .....

City ..... State .....

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