SYMPOSIUM ON THE SLIDE-FILM

Due to the considerable increase of interest in, and the use of, slide-film projectors of all sorts for educational and commercial purposes, a symposium on the subject was held at the Chicago Convention of the Society on April 30, 1936. Following are three of the papers presented in the symposium, and the joint discussion that followed two of them.

IMPROVEMENTS IN SLIDE-FILM PROJECTORS*

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In seeking the perfect complement to the motion film, we come to the younger but equally efficient slide-film—each performing a definite job. There has never been a doubt of the instructional value of still pictures, or slides, whether for educational or industrial purposes. In recent years the need for visual selling and visual instruction has steadily increased and with this demand has come a constant growth of the acceptance of the slide-film.

This medium is known by a multiplicity of names—still-films, strip-films, film-slides, and so on, but they all refer to a short strip of 35-mm. non-inflammable motion picture film upon which has been printed in sequence a series of photographs, charts, drawings, or titles. Two designations are now quite generally used: in the educational field such films are called *filmslides* (one word) or *Picturols;* and in the industrial field *slide-films;* the reason for the two designations being perhaps that in the educational field they take the place of the *glass* slide, hence *film* slide, while in the industrial field the difference lies in the minds of the users between *motion* films and *slide* films. It would be a distinct service to the trade if the SMPE would suggest one standard name as a general designation for such still films as are here under consideration.†

Equipment for projecting such films has been on the market for many years. The first standard *S. V. E.* film stereopticon was originally known as the "Arto." A few years after its aggressive distribution began, two of the largest optical concerns introduced similar equipment: first the Spencer Lens in 1925, and about a year later, the Bausch & Lomb slide-film projector. These were followed by slide-film attachments for use on standard glass slide projectors, which have not proved very convenient or satisfactory. However, new models designed to show slide-films only have been produced very rapidly during recent years, and it is with regard to this trend of advancement that we are especially interested.

In the development of motion picture equipment we have gone from little il-

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† The editorial style adopted is *slide-film.*

lumination to greater illumination, whereas the progress in slide-film projectors has been partially the reverse. The 200-watt Picturol projectors were in wide use in schools and industries when a demand came from industry for a small unit for use by contact salesmen for showing the pictures to very small groups of persons. The Society for Visual Education immediately developed the first of a series of very small 50-watt projectors, which, because of their efficiency and low cost, were widely adopted and utilized during all the years of the recent depression. The first and most interesting of these, perhaps, was the self-enclosed *S. V. E.* Jam Handy Pocketer, which actually slips into a man's pocket. The unit

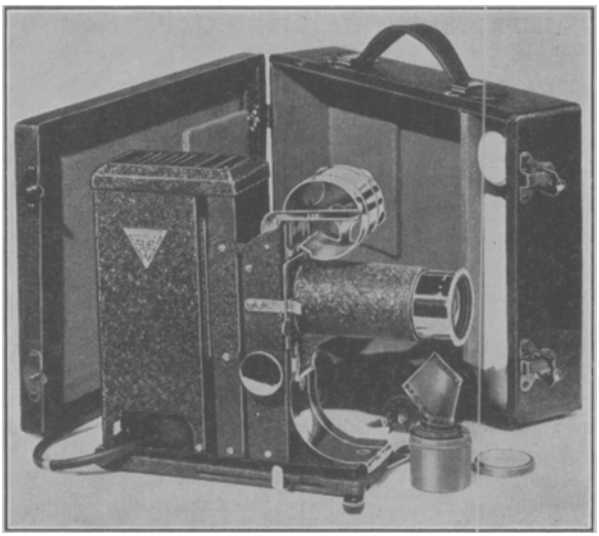

FIG. 1. Model *F* Picturol projector.

was original in design and size, and was the pioneer in utilizing the *T-8*, 50-watt, bayonet base projection lamp. This pocket projector served a definite need, and undoubtedly aided in establishing the demand for compactness and portability in projection equipment of this type. Subsequently, half a dozen other 50-watt models were added to the *S. V. E.* line, two of which, like the original, are also self-enclosed units.

The addition of sound to the slide-film permitted larger audiences to be served; with a consequent need for greater illumination, which has been generously supplied in the two latest models of single-frame film stereopticons—the *S. V. E.* Picturol projector model *F*, a 200-watt unit (Fig. 1), and the even newer Picturol projector model *Q* (Fig. 2), a 100-watt unit. As in all standard single-frame film stereopticons, the aperture is the same as that used for silent motion pictures. The model *F* presents some interesting details. Since no shutters are necessary in film stereopticons and because of its compact construction, the illumination of

the model *F* 200-watt projector compares favorably on the screen with 400- or 500-watt 16-mm. motion picture projectors (Fig. 1).

Optical systems used in film stereopticons are very similar to those utilized in motion picture projectors with the exception of the aperture plates and the all-important heat-absorbing heat-resisting element—without which slide-films can not be successfully used if the maximum illumination is to be obtained. Double aperture plates, which act as pressure plates to hold the film flat during projection, assure a sharp image over the entire screen and also tend to dissipate the heat.

The new model *F* 200-watt equipment is the first *manually* operated slide-film projector having a rear aperture glass releasing mechanism, a patented feature used exclusively for a number of years in the *S.V.E.* automatic projector de-

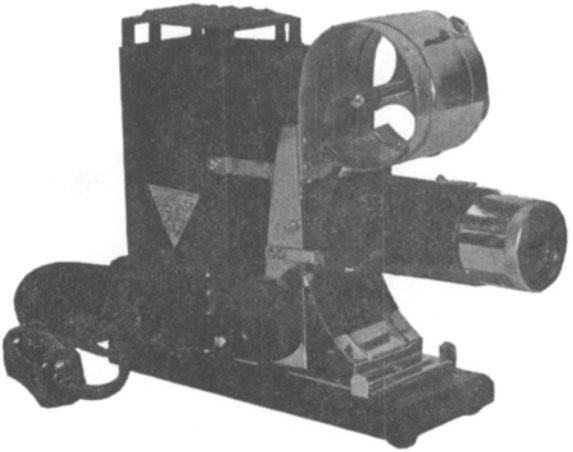

FIG. 2. Model *Q* Picturol projector.

signed for advertising purposes. The purpose of the releasing feature is to protect the emulsion side of the slide-film while it is being moved between the aperture glasses. The release operates in synchronism with the operating button by means of a cam that moves the rear aperture glass back instantly when the operating button is turned in either direction. The glass is held in a free position until a complete new frame is brought into position, and is then automatically returned to the normal projection position.

The new model *Q* projector embodies most of the important features of the model *F*, but has been designed to take care of smaller groups and therefore utilizes a 100-watt, *T-8*, bayonet base projection lamp; and, due to the location of the light-source with respect to the optical system, a remarkable amount of illumination has been obtained (Fig. 2).

In particular reference to the educational field, in which there has always been a comparison between the *glass* slide and the *film*-slide, it has seemed advisable to consider a picture projected from an area larger than that of the single-frame

35-mm. film. *S.V.E.* has therefore developed a new line of double-frame projectors to meet not only the need for better quality projection in the classrooms, but more particularly, the immediate requirements in the amateur field, in which the use of double-frame cameras, such as Retina, Leica, Contax, Super-Nettle—and the more recent Argus Candid Camera—is now rather extensive. These new *S.V.E.* combination projectors accommodate both single-frame and double-frame slide-films, and also project 2 × 2-inch glass slides, or individual slide-films of either size mounted between two pieces of 2 × 2-inch glass. They have been designed to provide greater ease of operation, a better distribution of illumination over the double-frame area, and to meet the demand for a more popular priced equipment than previously available. Some of the special features of these two new models are as follows: The model *AA* double-frame Picturol projector is

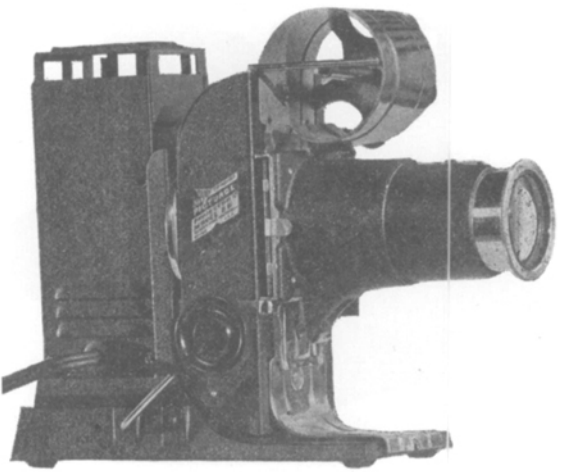

FIG. 3. Model *BB* Picturol projector.

equivalent in many ways to the model *F* previously described, and is also a 200-watt unit; while model *BB* (Fig. 3) is a 100-watt unit comparable to the model *Q*. Both are provided, however, with two masks, one being the standard single-frame aperture and the other a double-frame aperture. The masks are easily interchangeable, so that the projector is instantly adapted to take either the single-frame or the double-frame film (Fig. 3).

The head of the projector is of a swivel design so that it will show either horizontal or vertical pictures by merely turning the head of the projector to the appropriate position, and it is novel in that it may be swivelled either to the left *or* the right as occasion demands.

The two most important and entirely new features of the equipment are the framing and the take-up. A new framing mechanism has been devised that permits the double-frame film to be brought into view with a single half-turn movement of the operating button. By merely moving a control button, a single-frame film is brought into view by a quarter-turn of the operating button.

Since the new double-frame films of a given number of frames are twice as long as the single-frame films, and due also to the fact that sound slide-film productions run to much greater length than silent, need for a take-up has been created, and this feature is embodied on the new *S. V. E.* model *AA*. It has a threefold purpose: It not only acts as a take-up for the film, but rewinds it ready for projection, puts it into its own container, and eliminates handling the film except at the ends. A new type of film-can makes it possible to attach the empty can to the bottom of the film-track, the film-can acting as a take-up for the strip of film. It automatically winds the film from the outside to the inside, so that the film is ready for rethreading into the top magazine without the necessity of rewinding or otherwise handling the film.

Up to this time the present single-frame slide-films have seemed to meet the needs in the sales field adequately, and it is our opinion that the industrial motion picture producers will continue to prefer the single-frame as standard for their purpose, but that remains to be seen.

However, a great deal has been said recently in educational circles about the desirability of the use of visual equipment in the classroom where such equipment is as easily available to the teacher as a book or a map. The Picturol method provides just that; and this new tri-purpose equipment with a very portable sound-on-disk reproducer will, we believe, adequately fulfill the daily requirements of the classroom teacher for visual-auditory equipment, accompanied, of course, by the existing single-frame and the resultant libraries of educational double-frame slide-films with sound.

DEVELOPMENTS IN SOUND SLIDE-FILM EQUIPMENT*

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Sound slide-films, or talking still pictures, are being used extensively by large national merchandisers as a sales and training medium. The programs, produced for these organizations on films and disks, are on the subjects of sales and service training, and for inspirational meetings, direct consumer solicitations, and on special subjects such as announcement of changes of company policies, advertising programs, and so forth.

These programs consist of a series of interesting still pictures illustrating the subject matter, manually synchronized with the audible text by the operator, who receives his cues for advancing the pictures from a melodious tone superimposed upon the recording. The pictures are changed as frequently as necessary to follow the sequence of the continuity. Each picture is arrested long enough to illustrate a thought to be absorbed by the audience.

Although the pictures are stills they express action, change with such frequency, and are of such wide variety that interest never lags. The average program of 15

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