



### Strobe-O-Disc

The tape recorder is becoming more and more useful to photographers, whether they are cine enthusiasts or makers of transparencies, and it would appear that before long they will be indispensable to photographic societies. One of the problems of a photographic club, particularly those which are situated a long way from the big centres, is to obtain lecturers of eminence, especially when the audiences are relatively small. Tape-recorded lectures accompanied by films or slides are a boon in such cases. The Arrowfoto Strobe-O-Disc is a particularly useful adjunct to a tape recorder enabling it to be accurately synchronized with any film projector—8 mm., 9.5 mm. or 16 mm.—running at either sixteen frames per second with a three-bladed shutter or 24 frames per second with a two-bladed shutter, and which, of course, has an adjustable speed control. The device consists of a metal bracket carrying a vertical spindle on which can be placed a grooved disc, the width of the groove being such that it is exactly equal to the width of the standard recording tape. It is advisable to screw this bracket on to a firm baseboard somewhat bigger than the tape recorder itself so that the latter can be slid up close against the bracket. The recording tape is then taken from the feed spool round the disc, back to the recorder and on to the take-up spool in the usual way. The modification merely means that the tape travels a slightly longer path from the feed to the take-up spool, in passing round the disc.

Stroboscopic markings are printed on both sides of this disc. On one side there are two rings of radial lines, the outer ring being designed for  $3\frac{3}{4}$  in. per second and the inner for  $7\frac{1}{2}$  in. per second. If the tape recorder is now started and the stroboscopic disc is illuminated by a lamp running on 50-cycle A.C. mains, the outer ring will appear stationary if the speed of the recorder is exactly  $3\frac{3}{4}$  in. per second while the inner ring will appear stationary at  $7\frac{1}{2}$  in. per second. If now the disc is turned over two other Stroboscopic rings will be seen, the outer will appear stationary when light falls upon it from a projector running at sixteen frames per second with a tape speed of  $3\frac{3}{4}$  in. per second with a three-blade shutter. The inner ring will appear stationary in a similar way at sixteen frames per second at  $7\frac{1}{2}$  in. per second with a three-bladed shutter. If, at the appropriate speed, the the ring does not appear stationary but goes slowly to one direction or the other, then a slight adjustment of the speed regulator on the projector will bring it to the stationary point and the tape will then be perfectly synchronized with the film. A little collar on the spindle enables the height of the disc to be adjusted so as to be on exactly the same level as the tape spools.

Let us imagine that we have an 8 mm. film, upon which we want to comment for a tape recorded lecture, so that the sound is perfectly synchronized with the film. First of all we attach a numbered leader to our film (these leaders can be obtained from the makers of the apparatus and two are given free with each outfit) and we also attach a little Arrowtab (a sticky label which is also supplied with the outfit) to the point of the *tape* where we wish to start recording. It is assumed that the projector has been run for a few minutes without any film so as to get it properly warmed up. We have thus already adjusted the speed regulator of the projector so as to make the disc appear stationary and so we switch on the projector and watch the screen until the last number appears. At that moment the tape recorder is started and we proceed to make the necessary commentary. If, during our recording, the Stroboscopic disc starts to show movement, a very slight touch on the speed regulator will make it still again. For any repetition of this film with the commentary it is only necessary to thread the tape recorder so that our starting point with the Arrowtab is in the same position as before, and then switch on the projector and start the tape recorder the moment the last figure appears on the numbered leader. This little outfit, which is supplied by Arrowtabs Limited, is sold complete with a supply of Arrowtabs for the tape and with two 8 mm. leader strips for the film. Further leader strips are obtainable at two for 3s. 6d. for the 8 mm. size and one for 3s. 6d. of the 16 mm. size. At 35s. 6d. it is within the range of all cine enthusiasts who own a tape recorder and should have a ready sale.

### Arrowtab Minispots

These little adhesive spots for indexing colour transparencies are supplied in a very convenient form, 100 of them being held in a perforated strip of transparent plastic together with a small wooden rod. The strip of plastic is slid over the transparency so as to bring a spot over the right position and this spot is then pressed out of the strip by means of the rod. The spot sticks at once to the strip in the correct position and the plastic strip is lifted away. Slight pressure of the thumb will make the spot adhere everywhere and it will not come away in use unless it is deliberately removed by lifting it up with the fingernail.

These spots are available in red, green, blue, yellow and dark blue, price 2s. per hundred from any photographic dealer. They have been submitted by Arrowtabs Limited, 93 Church Road, Hendon, London, N.W.4, and are proving most useful.