A COUPLED TAPE PROGRAMMER AND BUFFER BOX¹

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The use of a tape programmer for scheduling reinforcements may generate serious considerations as to its location within the laboratory. Long film loops may create a problem of space allocation, and care must be taken to ensure against mechanical damage and tangling of the tape. Therefore, we developed a unit in which both a Gerbrands tape programmer (interval or ratio) and a buffer box³ are used.

Figure 1 demonstrates the features most critical for proper functioning of the unit.⁴ The respective components are rigidly attached to a mounting board, one above the other, so that the programmer's sprocket wheel is close to and aligned with the inside edges of the buffer box. In the example shown, the box rests on brass spacers of appropriate length.

Slots in the box for entrance and exit of the film loop are separated by a metal spacer whose width is equal to the diameter of the sprocket wheel, and the guide strip attached to the top wall is adjusted to prevent the film from spilling out. A sheet of window glass or clear plastic may be slid up or down in grooves in the side walls, permitting adjustment of the film. It rests on an adjustable stop (not shown) attached below the bottom wall.

A buffer box which may be modified in the manner described is commercially available from Dresser Products, Inc., 1050 Broad Street, Providence, Rhode Island (catalog number 5691). Its inside depth, 0.625 inch, is satisfactory for 16-millimeter film; and its size, 12 by 18 inches, can accommodate a 50-foot loop.

We have found it convenient to mount the units on the sides of closed-type relay racks, to wire the programmer switches and motors to Nuway studs on bakelite control panels attached to the units, and to establish a library of programmed tapes filed in movie-reel cans.

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³A buffer box is an accessory used in conjunction with data-processing systems. When perforated paper tape is fed at a faster rate than it is rewound on a take-up spool, the slack tape passes in and out of the box, and tangling is avoided.

⁴We wish to thank Richard Sparer for his drawing of the apparatus.

Fig. 1. Diagram of the tape programmer and modified buffer box.