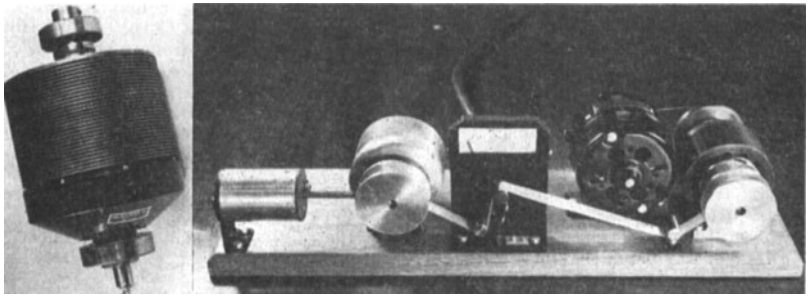
New Products

Further information concerning the material described below can be obtained by writing direct to the manufacturers. As in the case of technical papers, publication of these news items does not constitute endorsement of the manufacturer's statements nor of his products.

All-metal reflectors, made by combining two metals by electroplating, have a front surface protective coating of rhodium which is an element from the platinum family, exceptionally high in reflectivity and reported the only metal available with sufficient reflectance and able to withstand successfully the damaging effects of high-intensity carbon arcs. The manufacturer, Heyer-Shultz, Inc., Cedar Grove, N.J., reports that fabrication to close tolerances permits interchanging similar models made years apart, with a minimum of reflector adjustments by the projectionist.



PM Hysteresis clutches and brakes were recently developed by Duncan & Bailey, Inc., 785 Hertel Ave., Buffalo, N.Y. They provide for smooth application of torque from conditions of 100% slip to zero slip or operate continuously at any slip or torque condition through a wide range of rotational speeds and power capacities. Bearing drag is the only load present when these devices operate in the unenergized conditions and the characteristics of power application depend upon the performance of the control mechanisms employed.

Torque bears a linear relation to control current and for instantaneous application of control power engagement is rapid but shock loads are absent and response time is generally proportional to control power impressed. A typical value for 30 w of applied control power and 100 oz-in. of torque is 100 milliseconds. A one-quarter horsepower unit operating at 1750 rpm has frequency response of 2 cycles per second.

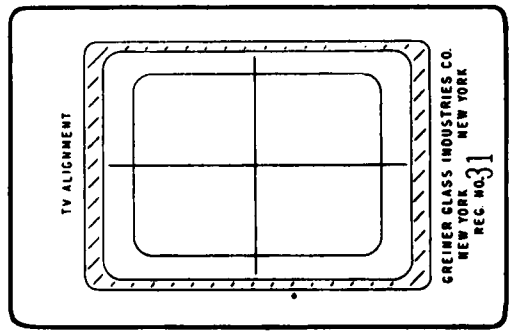
Control current required is roughly one-tenth of the power output of the device when operated as a coupling. Type PM-3 using 25 w of control power will transmit 375 w at 3400 rpm.

With any of a wide variety of servo or external control systems, these units working as either transmitters or drag elements can be used to provide constant speed, torque, tension or repetitive cycling within performance limits of about

1%. Input rotational speeds up to 10,000 cycles are permissible as are rapid cycling operations, limited only by resulting rise in temperature. Design of the housing provides for sufficient heat dissipation and performance is within rated capacities as long as temperature rise does not exceed 300 F for continuous operation.

Illustrations show the external clutch housing and one constant tension application employing two units—one as a transmitter and one as a brake, actuated by a sensing device which responds to changes in diameter of the loaded feed spool. Detailed performance data and dimensions are available from the manufacturer who also designed the FM (fluid magnetic) clutch for specialized and somewhat less severe applications. Magnetic friction grab couplings for industrial applications with torque ratings of 80 in.-oz or 40 ft-lb are also available.

A special viewfinder ground glass for 35-mm motion picture cameras shows the portion of the scene most likely to be reproduced on a home television receiver. This pattern gives the cinematographer an accurate check of the average cut-off losses which must be allowed for in order to have a good visual presentation on television. The etched pattern is based on the first section of the Society of Motion Picture and Television Engineers test film as described and illustrated in the February 1950, JOURNAL, p. 211. The striped area represents the section lost at the time of scanning in the television station. The inside rectangle is approximately 80% of the picture area. Tests indicate that this area is reasonably well reproduced on most home receivers. Television Ground Glass for the Mitchell camera etched with the television aperture is available directly from Greiner Glass Industries Co., 781 E. 142 St., New York 54. Television Ground Glass for other cameras is also available. Prices on request.



Ground Glass × 3

SMPTE Officers and Committees: The Roster of Society Officers was published in the May JOURNAL. For Administrative Committees see pp. 515–518 of the April 1950 JOURNAL. The most recent roster of Engineering Committees is on pp. 337–340 of September 1950 JOURNAL.

Meetings of Other Societies

Audio Engineering Society, National Convention, Oct. 26–28, Hotel New Yorker, New York

Optical Society of America, Oct. 26–28, New York

Theatre Owners of America, Annual Convention, Oct. 30–Nov. 2, Shamrock Hotel, Houston, Texas

Acoustical Society of America, Fall Meeting, Nov. 9–11, Boston