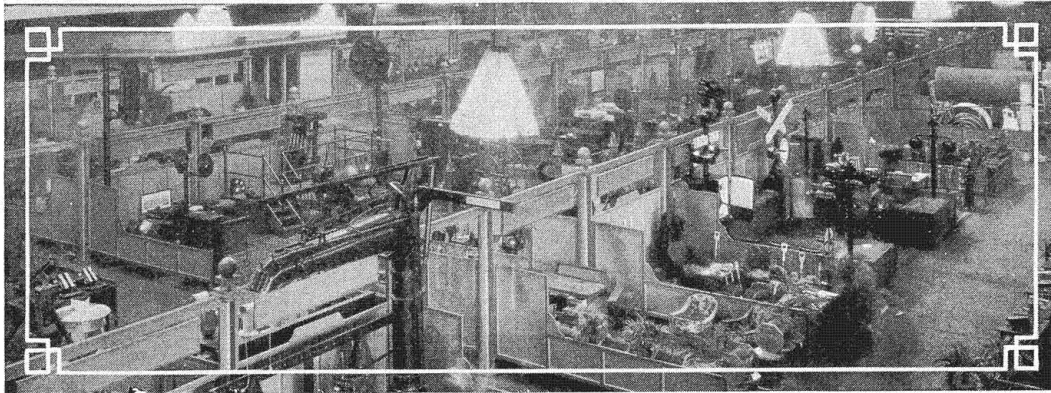
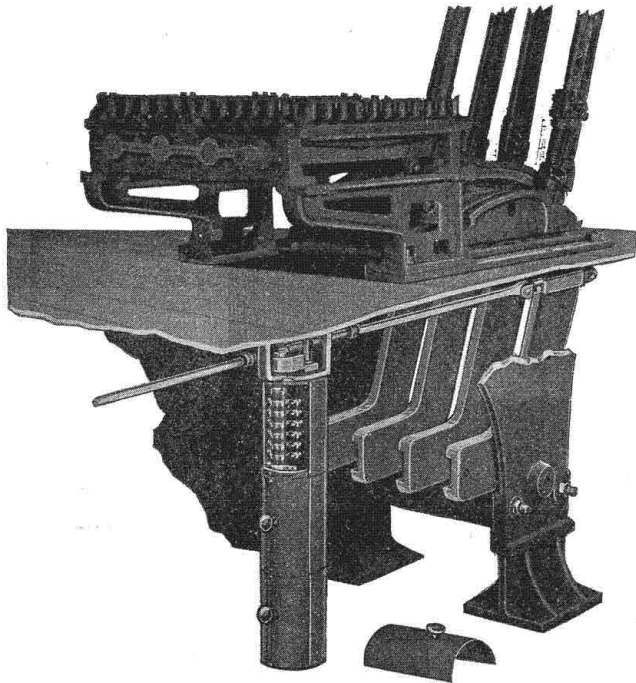


New and Improved Devices



Saco Lever Circuit Controller

THE Signal Accessories Corporation, Utica, N. Y., has developed the Saco circuit controller for mechanical interlocking levers. It is designed along simple lines without the use of gear wheels or complicated connections. The Saco circuit controller is fastened vertically below the floor line at the rear of the interlocking machine. The controller is operated by means of a rod connected to the circuit controller



Application of Saco lever circuit controller to mechanical machine

shaft and to the machine lever below the floor. Both rod and circuit controller are out of sight and out of the way.

The Saco circuit controller can be placed on every lever of an interlocking machine. It is $4\frac{1}{2}$ in. wide and can be placed side by side on any number of levers with ample clearance space. The circuit controller itself is composed of sections in multiples of six circuits each and as many sections as needed can be attached. The sections are interchangeable and can be added or removed at any time as circumstances may require.

Sections are compact and a complete circuit controller having 6 sections of 36 circuits is approximately 4 ft. long including the housing for attaching to the floor. The making and breaking of circuits is accomplished in the usual manner by hard rubber or fiber disks having heavy phosphor bronze bands mounted on them. Adjustment is simple. All wires are brought out through outlets in the rear of the controller facing the machine. Each section is provided with a sheet steel cover which is easily removed by turning a set screw one-quarter turn.

Saco circuit controllers can also be furnished to be attached to the rocker arm and thus give an indication as soon as the latch handle is operated.

New Long-Range Search-Light Signal

A NEW search-light signal having all the indications in one head has been developed and placed on the market by the Union Switch & Signal Company. It is equipped with standard $8\frac{3}{8}$ -in. diameter long-range lenses and illuminated by a bayonet-socket, candelabra base, S-11, single filament, 11-volt, 11-watt lamp. Indications are given by a three-position relay, carrying a vane with 1-in. colored roundels of very thin heat-resisting glass. The relay operates on a battery or on a-c. through a copper-oxide rectifier. The relay armature winding, which is the controlling element, has a resistance of 250 ohms; the field, which is energized locally, has a resistance of 500 ohms. The normal working voltage of this signal is 8 volts on the field and armature. With 6 volts, the pick-up is from 6 to $6\frac{1}{2}$ volts. With 8 volts on the field and 12 volts charge on the armature the minimum release value is 2 volts. This release value is for full center or "red" position of the relay.

The mechanism is compact and can easily be taken out and replaced. The working parts have been enclosed in a glass case to facilitate inspection. The relay contacts are rugged and the whole mechanism has been given the same refinement in manufacture as has been given to the standard track and line relays. The horizontal and vertical adjustments are separately controlled and are incorporated in the supporting structure; jam nuts insure that once the adjustments are made they can be locked securely and permanently.

This signal can be furnished for installation either as a high or dwarf signal. When used as a high