



Pacific Electric's Automatic Flagman

An Automatic Flagman of the Magnetic Type with the Warning Disk Swinging Downward Is Giving Excellent Results

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In a previous article published in the August 11, 1917, issue of the Electric Railway Journal an automatic flagman then in use on the Pacific Electric Railway's lines was described, together with some experiences in the developing of an electrically operated device of this character. Since that time further improvements have been made. The former magnetic type was designed so that the warning disk was elevated above the magnetic control box, and when set in motion the movement of the disk was in a horizontal direction. In the improved type the disk on the apparatus hangs and swings downward when placed in operation.

This flagman has no motors or gears, but is controlled by two sets of magnets, which when energized pull an armature from one side to the other, causing the warning disk to swing and a gong to sound.

AT LEFT, SUPERCEDED TYPE OF MAGNETIC-AUTOMATIC FLAGMAN. AT RIGHT, LATEST IMPROVED TYPE OF AUTOMATIC FLAGMAN USED ON THE PACIFIC ELECTRIC RAILWAY

For operating and controlling the flagman a contactor brush is placed on the trolley wire at a distance of approximately 1,500 ft. from the crossing protected. When the trolley wheels of an approaching train or car engage this brush it closes a circuit between it and the trolley wire and current is transmitted over the signal line to the relay signal. The operation of this relay closes the local circuit to the bell and sets the warning signal in motion. Another brush placed upon the trolley wire beyond the crossing causes the bell to come to rest when the trolley wheel of a passing car or train engages it. All lines are provided with intermediate and second intermediate contactors, which operate the relay in case trains are traveling close together, thereby preventing trains from crossing on a dead signal. The line wire used is No. 12 weatherproof iron wire, which was the same for the former magnetic type. The trunking and cable flow used is No. 12 Kerite insulated wire.

The Pacific Electric Railway has 250 of these devices.