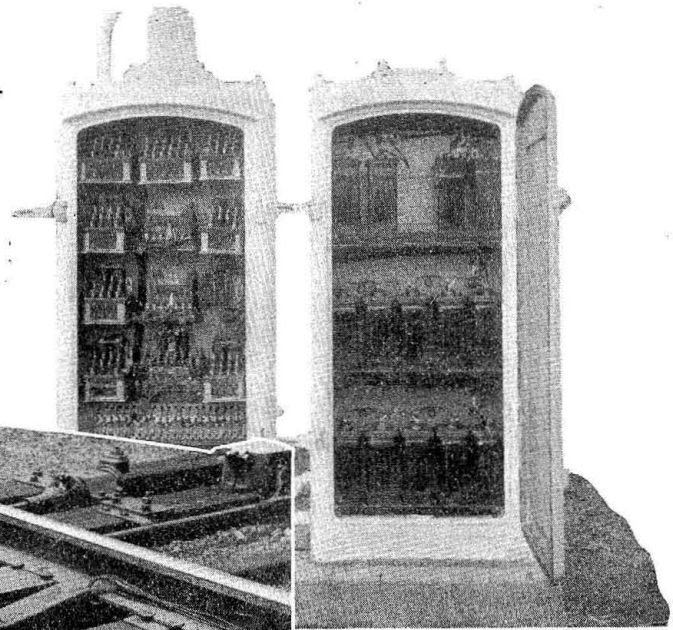
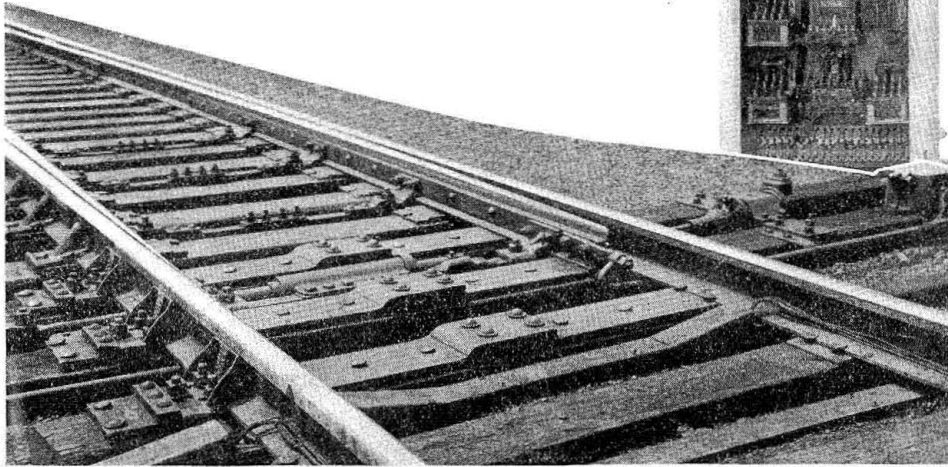


D. & R.G.W. Expedites Trains With Centralized Control

Remote switch machines, spring switches and direction of trains by signal indication assist in eliminating delays



Above—Relay and storage battery housings

Left—Close-up of spring switch and oil buffer at Mitchell

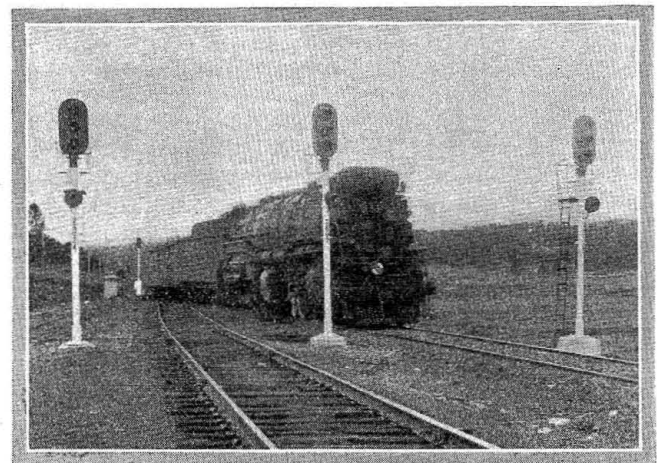
TRAIN movements through the Tennessee Pass tunnel on the Denver & Rio Grande Western have been expedited materially by an installation of centralized traffic control, including power-operated switches and signals, by means of which train movements are directed by signal indication without written orders. This district extends for one mile east and six miles west of the tower at Tennessee Pass. The centralized traffic control system, signals and switch machines were furnished and installed by the General Railway Signal Company.

The tunnel is 2,577 ft. long, with the summit of the grade at the middle, at an elevation of 10,250 ft. The single-track line approaching the tunnel from the east is on a 1.42 per cent grade. Two passing sidings at Tennessee Pass have capacities of 100 cars each. The switches at the east end of the passing sidings are provided with power-operated switch machines, controlled by the signalman, which eliminates the necessity of stopping the trains to throw the switches.

Approaching the tunnel from the west, a grade with a maximum of 3 per cent extends from Minturn, 20 miles, to the west portal and thence 1 per cent to the summit in the tunnel. Double track extends from Minturn to Deen, 15 miles; then a section of single track for 2 miles to West Mitchell; then a section of double track for 2.5 miles to East Mitchell. From the latter point, the single track extends through the tunnel to Tennessee Pass.

The traffic consists of from four to six passenger trains and from 3 to 10 freight trains each way daily. Between Minturn and Tennessee Pass one helper engine is used on most of the passenger trains, and

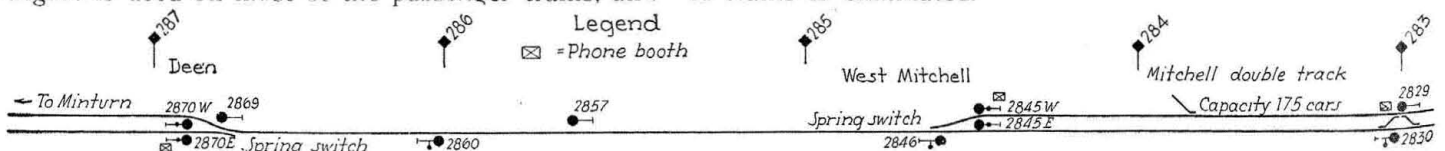
two helper engines on freight trains. Approximately 95 per cent of the helper engines on eastward trains return light from Tennessee Pass to Minturn, which greatly increases the number of movements in this territory. Westward freight trains are loaded to



A westbound train entering a passing track at the east end 3,000 tons, and eastward to 2,800 tons. In the month of October, 1928, the gross tons eastward were 481,000 and westward 313,000.

Method of Operation by Signal Indication

In the territory from the east switches at Tennessee Pass to the end of double track at Deen, all train movements are directed by the indication of the signals, without written train orders, and the superiority of trains is eliminated.



Track and signal plan of the territory

