

Spring Switches on Illinois Central

Automatic signal protection provided with push-button auxiliary control

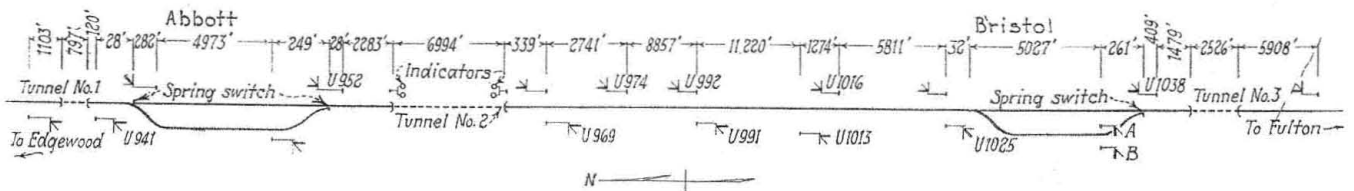
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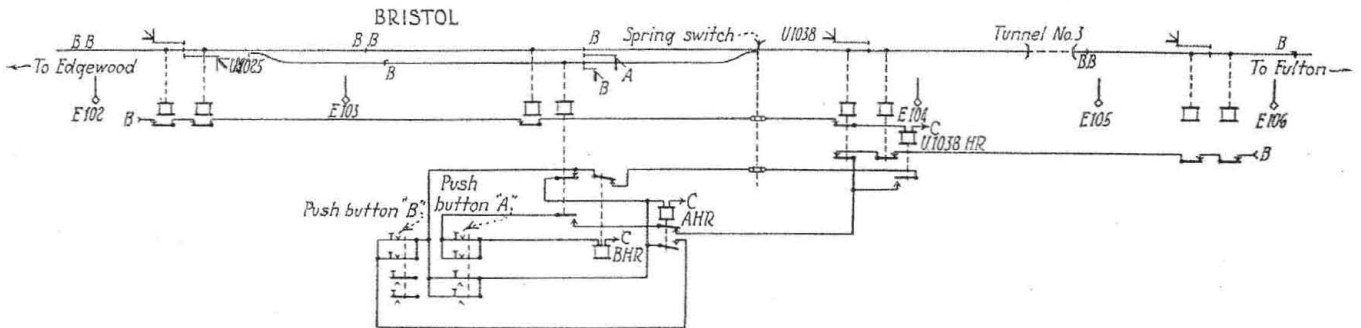
THREE tunnels are located in a short section of the new single-track freight line of the Illinois Central in Southern Illinois, and sidings are located between tunnel No. 1 and tunnel No. 2, and between tunnel No. 2 and tunnel No. 3. Color-light signals are in service, and three spring switches have been employed to improve operation in this territory.

bound train has reached the clearing section for the main track, it will be necessary for the crew of the train on the siding to push button *A*, after the southbound train on the main line has entered the clearing section for signal *A*. This will put signal *B* at "stop" and clear signal *A*.

For the protection of the signal maintainers in oper-



Track and signal plan showing location of tunnels and switches



Circuit diagram showing control for signals A and B

The track and signal arrangement is shown in the diagram.

The siding at Abbott takes up all the available space outside the rock cuts approaching tunnels No. 1 and No. 2. Number 18 turnouts are provided at the ends of this siding, both of which are equipped with spring switches so connected as to, in effect, produce a short piece of double track by diverting all southbound trains through the siding.

The south end of the siding at Bristol is provided with a spring switch, so that trains leaving the siding will not have to stop in the tunnel while the switch is being restored to normal position for main line movement. A special circuit is used in connection with the signals at this location.

Signals *A* and *B*, governing southward movements over the spring switch, both normally indicate "stop." Trains approaching on the main track, clear signal *A*, and trains approaching on the siding clear signal *B*. Both signals cannot clear at once. If a train is occupying the siding approach clearing section, and a train is moving northbound on the main track, signal *B* will clear as soon as the rear end of the northbound train passes signal *A*. The arrangement is, therefore, automatic for the usual train movements.

For other movements, two push buttons are provided whereby signal *B* may be placed at stop, and signal *A* cleared or the reverse. For example, if a train has occupied the clearing section in the siding before a south-

ating an insulated motor car through the 6,995-ft. tunnel, an indicator with a push button is located at each portal so that the men may know whether a train is approaching from either direction before entering the tunnel. Gas masks are provided for these men when it is necessary for them to work inside the tunnels.



Color-Light Signals on the Texas & Pacific