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is to be delivered to a train, the signalman will display yellow flashing-light signal with stop indication on the home signal governing movements of the train involved. Proceed signal will not be displayed until after this combination of signals is acknowledged by the engineer by two short sounds of the engine whistle.

"If yellow flashing-light signal is displayed with proceed signal before proper acknowledgment by engineer of train governed by such signal, train must be stopped and report promptly made to superintendent.

"The signalman will also comply with Rule 221a by displaying train-order signal at the tower in addition to the above."

### Yes, in All Cases

M. A. BAIRD  
Supt. Tel. & Sig., Erie  
Cleveland, Ohio

The answer is "Yes, in all cases." It is my opinion that an approach indication is practically as essential for a train-order signal as it is for any other signal in stop position.

### Few Train Orders Used

J. P. MULLER  
Engineer of Signals & Telegraph, Boston  
& Maine, Boston, Mass.

We do not give an approach indication on our automatic block signals to indicate the position of train-order signals. On considerable of our heaviest traffic territory we have C.T.C. signaling in service, and train orders are used only on rare occasions under abnormal conditions. On practically all of the remainder of our double-track territory, we use a 45 deg. position of the train-order signal, under direction of the dispatcher, to permit inferior trains to proceed in the same direction on the time of superior trains. This, of course, eliminates many orders in this territory. On single track, our rules specify that orders should not be sent to a superior train at the meeting or waiting point if it can be avoided. If it is necessary to so place such an order, special precautions must be taken to insure safety.

From a technical signal standpoint, and, to a certain extent, from an operating viewpoint, it would undoubtedly be desirable to give an approach aspect for a train-order signal. Such a signal should be located at least full braking distance from the train-order signal, which, in many instances, would mean

locating it on the second or third automatic signal from the train-order signal, unless existing automatic signals were relocated or an entirely separate signal erected for this purpose. For this reason, an entirely distinctive indication should be provided, as otherwise the engineer receiving a standard automatic approach signal, followed

by the next automatic signal being in either clear or approach position, might think he was following a preceding train and overlook the fact that he was receiving an approach to a train-order signal indication. To provide such a system would involve considerable installation and maintenance expense.

## Location of Signals at Spring Switches

*"When installing a signal for the protection of a spring switch in the facing point direction, how far from the switch should the signal be located?"*

### Practice on the Seaboard

F. H. BAGLEY  
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Line, Norfolk, Va.

On a single track railroad, the spring switch is usually installed on one of the passing track switches. If this is done in automatic signal territory, we make use of one of the entering signals at the head block for checking the spring switch. These signals are usually located about 15 or 20 ft. from the switch point. If this happens to be in non-automatic signal territory, the signal would be located about the same distance from the switch points, and, if the visibility of this signal does not equal braking distance, we install a distant signal. Of course, in automatic signal territory, the intermediate automatic signal would become the distant signal.

### Definite Distance Impracticable

C. A. TAYLOR  
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I do not think that it is practicable to set up a definite distance at which a signal protecting facing point movements over a spring switch should be placed from the switch as I feel that the location of the signal would be governed to a great extent by local conditions. If the track is tangent for some distance in approach of the switch point, I see no reason why the signal should not be placed within 40 or 50 ft. of the switch, provided such a location is not undesirable due to a high fill or deep cut. If such conditions are encountered within a few feet of the switch, I see no reason why the signal should not be placed far enough back from the switch

point to have it located on good solid ground.

There may also be conditions where there is a sharp curve approaching the switch, and if the signal were located within a few feet of the switch point the view of approaching trains might be materially restricted. If the view of the signal, under such conditions, could be greatly improved by locating it 200 to 300 ft. in approach of the switch point, I would see no objection to such a practice.

Where the curvature of the track is such that only a very short view could be had of the signal, unless located from 1,000 to 2,000 ft. in approach of the switch, I think in such a case the facing point signal should be placed near the switch and a distant signal provided.

## Unusual Signal Trouble

A. C. JOHNSON  
Signalman, Union Pacific,  
Grand Island, Neb.

One night I was called out for a signal at stop in the Columbus yards and to my relief it was at stop when I arrived.

About four blocks west of the signal are the coal chutes and a crossover from the main line passing track. At the insulated joint on the lead rail, between the switch point and frog, I found a piece of brake shoe had fallen down and been run over by the wheels, pulverizing the shoe and wedging a piece of the brake shoe between the rail ends of the insulated joint, causing a perfect short.

At another time this same joint, believe it or not, was shorted out by an engine slipping the drivers directly on the joint which caused a perfect weld across the end post.