

There is no question but that an efficient stores department can serve a useful and economic purpose on a railroad. However, in an enthusiastic effort to justify their own position, the men in these service departments may unknowingly hinder the efficiency of other departments. Signal officers should, therefore, take steps to call the attention of the stores officers and higher executives to any errors or misdirected efforts that affect the workings of the signal department. If some one else is adding an unjustified charge or delay to the installation or operation of equipment for which another is responsible, it is plainly the latter's duty to bring the matter to the attention of the proper authorities.

### Prepare Now for Winter

**A**N extremely cold winter tests the maintenance of signal and interlocking equipment severely. Signal maintainers now have at least two months in which to prepare for this test by checking up on the condition of apparatus and making repairs before winter comes. A consistent program of inspecting and repairing bonding will prevent failures after snow and ice cover the tracks. A few nails and a little paint on trunking on which renewals have been delayed, will help to keep out water and ice, and perhaps prevent broken wires until next spring. A careful inspection of signals, relays, terminal boards, switch circuit controllers, etc., as well as seeing that all terminals are tight, will prevent trouble and frozen fingers later. A maintainer may consider that, in general, his territory is in good condition. However, he may be surprised at the potential sources of trouble he may find if he adopts a practice of inspecting certain equipment throughout his territory at periodic intervals. Ordinarily winter weather results in so many failures on account of causes that cannot be prevented, that an extra effort should be made to anticipate and eliminate the defects caused by ordinary wear and tear of equipment. A definite program of inspection during the next few months will assist in bettering the performance record when the winter test comes.

## Letters to the Editor

### Santa Fe Governs High Speed Main-Line Movements with Dwarf Signal

Topeka, Kan.

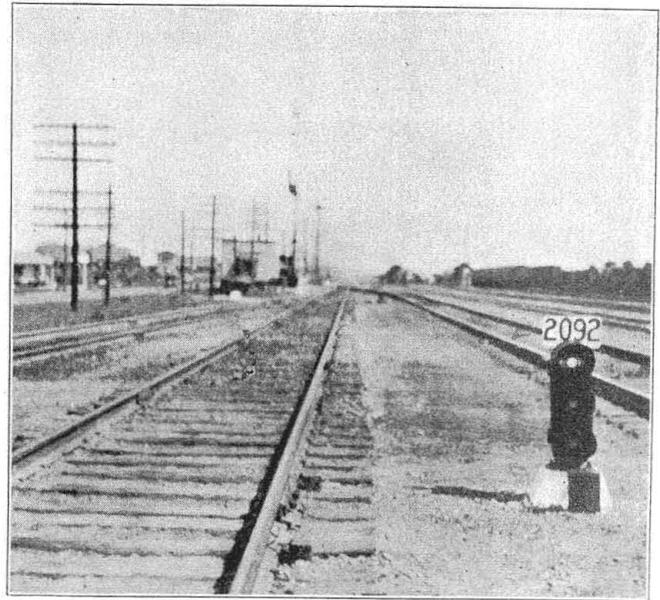
TO THE EDITOR:

A double-track junction switch on an east-bound main line track of the Atchison, Topeka & Santa Fe has been protected with a three-aspect dwarf signal for fairly high-speed main-line movements with considerable success. This dwarf signal installation, shown in the illustration, has met with the unanimous approval of the enginemen operating on this territory, and is one instance, of which there are many others on the Santa Fe, of using dwarf light signals for main-line movements. The three indications of this dwarf signal are: (1) stop, (2) proceed at restricted speed, and (3) proceed. Exactly similar indications are employed, no matter at what height the dwarf signal may be located above the rail.

This dwarf signal installation is of economic significance, because, although all of the tracks involved are not shown in the illustration, a sufficient number are visible to demonstrate the fact that an extensive supporting structure would be necessary to mount signal 2092 on a bridge or cantilever.

In the proposed revision of the A.R.A. Signal Sec-

tion signal rules, two signals are illustrated, namely, one at least 25 ft. above the rail to the signal and the other a dwarf or low home signal located close to the ground. Both signals display the same aspect,



Dwarf signal 2092 governs eastward main-line movements over a double-track junction switch, fairly high speeds being permitted

but the indications of the two are different. It would seem that somewhere in between the two heights of these signals, one 25 ft. and the other 1½ ft. above the rail, the signal indication changes from:

"Stop;

Prepare to stop at next signal—train exceeding medium speed must at once reduce to that speed.

Proceed.

to

"Stop;

Proceed at restricted speed;

Proceed at not exceeding slow speed."

The fundamental question is at what height above the rail does this change of indication occur? To secure the greatest visibility, the Santa Fe installs color-light ground signals 13 ft. 6 in. above the rail. Which of the foregoing indications should be used for this mounting height, which is midway between the 25 ft. and 1½ ft. heights referred to in the revision of signal rules?

THOMAS S. STEVENS.

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Semaphore signal on Northern Pacific