

contends that he saw his home signal change to a proceed indication as he approached. Therefore, in the words of the Bureau of Safety, the "reason for the occurrence of this accident could not be definitely determined," a statement which has been applied to numerous other accidents that occurred under conditions where the important party may have had, or at least conscientiously believed that he had, the proper signal. Therefore, this accident should not be marked up against automatic interlocking as such.

Now as to locking the door after the horse has been stolen: After the accident, the road on which the engineman contends that he "had" the signal, replaced the semaphore home signals with color-light signals and installed smashboards. This road also revised its speed restrictions. The inclusion of smashboards in an automatic plant increases the first cost and the expense of operation; it also introduces numerous complications and devices that are bound to cause failures. The principal purpose of the smashboard is to ascertain whether a train passed a home signal when it was not indicating proceed. In other words, smashboards, or derails for that matter, are, in effect, only a means of fixing the guilt and of throwing fear into the engineman. The same results, with even more extensive benefit, can be accomplished by electrically-operated recording devices such as are standard in at least one state. Furthermore, these devices, in addition to recording the sequence of operation of the signals, also record the time of passing and the speed of all trains while traversing approach sections and the plant. The fact that such a device is in service at an automatic plant will be an important factor in insuring not only proper observance of signals but also compliance with speed restrictions, which in itself is a very important factor in eliminating accidents.

## A Call-On Signal Is Different from a Stop-and-Proceed Signal

FOR several years there has been considerable discussion regarding the elimination of train stops at stop-and-proceed signals. In the current report of Committee I of the Signal Section, an extended explanation is given of the progress that is being made in this direction. For example, the Illinois Central has in effect, on its lines outside the Chicago terminals, a modification of the stop-and-proceed rule reading as follows: "On two or more tracks, trains may pass stop-and-proceed signals without stopping, at a speed not to exceed 15 m.p.h." These instructions have been in effect on 1,375 miles of track for the last two years

and the results have been entirely satisfactory. A similar rule has been in effect since 1928 on the train-control territory of the Rock Island, which now includes more than 342 miles of double track between Blue Island, Ill., and Des Moines, Iowa, on which it is reported that the results have been highly satisfactory in eliminating train delays.

An operating officer of another large road, in discussing this subject, said that his road was not yet ready to eliminate stops at stop-and-proceed signals, because of some recent accidents at interlockings where call-on signals are used, and that, on the contrary, they were considering a change in the rules to require a train to come to a full stop before accepting a call-on signal. Therefore, it was not likely that his road would adopt an exactly opposite policy for permissive signals.

In further discussion it was brought out that the function of a call-on signal is considerably different from that of a stop-and-proceed automatic signal. In the first place, on many roads the use of the call-on signal is limited to the directing of train movements into side tracks, passing tracks, etc., and this slow-speed signal is so interlocked that its indication cannot be obtained in place of any regular signal governing a prescribed through route. Other roads which use the call-on as a substitute for a high arm in case of a track circuit failure, etc. require a train to stop before accepting the call-on. This seems to be good practice, based on the idea that, at an interlocking, an engineman encountering a call-on signal is confronted with

### "Things Are Getting Better in This Country"

*"Down here in the Reconstruction Finance Corporation we are in a position to know that things are getting better in this country—in a damn sight better position to know what is going on than are those fellows in that security peanut stand in Wall street."*

*"Bank failures are falling off. The banks are beginning to make loans again. It makes no difference what Wall street thinks down there where that peanut gambling is going on."*

*"You can take it from me we are approaching prosperity. The mass attitude of the people has changed from pessimism to optimism, but, of course, it will take time to realize the full results. Business is a ponderous machine and takes time to get in motion."*

*From a statement made by General Charles G. Dawes, president of the Reconstruction Finance Corporation, before the Ways and Means Committee of the national House of Representatives at Washington, D. C., on April 21.*

various possible routes through the plant and although he may readily see a train ahead, he does not know that he may follow the same route, and may conclude that he is to follow a route which is unoccupied. On the other hand, an engineman encountering a stop-and-proceed automatic block signal knows absolutely that the block ahead is occupied or that a rail is broken, or a switch not lined properly, etc., and governs his speed accordingly. The operating officer admitted that there might be something to this point and said that he intended to follow developments on those roads which have revised their rules to eliminate stops at stop-and-proceed signals.



A rotary snow-plow on the electrified Bernina Railway between St. Moritz, Switzerland, and Tirano, Italy