

# *Radio on the Track*

**R**AILWAYS, which possess their own telephone and telegraph systems, would not appear at first sight to be likely users of mobile radio telephone equipment except, perhaps, for the purpose of coping with emergency or breakdown of their own facilities. There are, however, occasions when the sheer flexibility of such equipment makes its adoption worth while; in the installation repair and maintenance, for example, of modern electrical signal equipment and possibly even in track-laying itself.

In the ordinary way when a job—"an occupation"—is in progress on the line, the supervisory engineer is posted in the controlling signal box, where the signaller can keep him immediately informed of traffic movements; and this engineer keeps in touch with the job it-

self along the track by line telephone. If it is a moving job—if electrical cable is being laid, for example—this involves either constant tapping or retapping of the telephone line beside the track; or the use of "runners". Tapping is a comparatively simple affair where open-wire phone circuits are available. Cable circuits are, of course, another matter.

Where communication facilities between job and supervision are inadequate, time on the job gets lost when work has to be stopped for traffic well ahead of time to eliminate the risk of accidents. To put it the other way round, provided the signal box is in immediate and constant touch with the job, the occupation of the track can continue literally up to the last minute.

The trouble involved in tapping, and the time wasted in waiting for traffic to

*A job is in progress on the line. Walkie-talkie keeps the engineers in touch with each other and with the signaller in the box, who warns them of approaching traffic*





pass, were the considerations which prompted the Signal and Telegraph Engineering Department of B.R.'s Western Region to try out our H.19 "Walkie-talkie" equipment, specifically for electrical signal installation, sighting, testing, and maintenance work. An extension of its usefulness into track-laying operations has already been foreseen—though mainly on outlying sections of single line, where trolleys are still used and have to be physically lifted off the rail every time a train passes.

An L67, 5–10 watt, is normally installed for the job in the signal box, the aerial being clipped to a gutter by an ingenious bracket designed by Mr. J. Vinall. The H.19 walkie-talkies are used up the line. Experience so far has shown

reasonable reception up to one and a half miles. Three miles would pretty well cover any foreseeable need. Signal boxes are on the average three miles apart in England and probably in no case more than five.

Equipment would be kept at Reading, the Western Region H.Q. of the Department, and issued to jobs all over the region when required.

Exceptional weather conditions, involving the jamming of points and signal systems, might well make the equipment most useful in emergency.

At the moment the work is experimental, but if it comes into general use by British Railways, VHF is likely to find work for itself in the traffic as well as the signal engineering departments.

M. W. M.