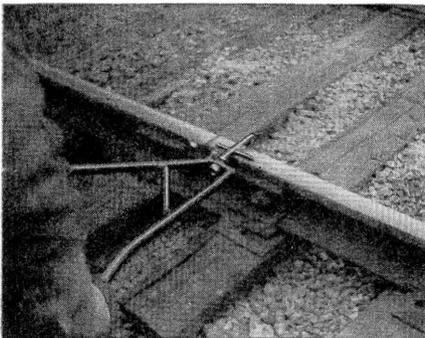


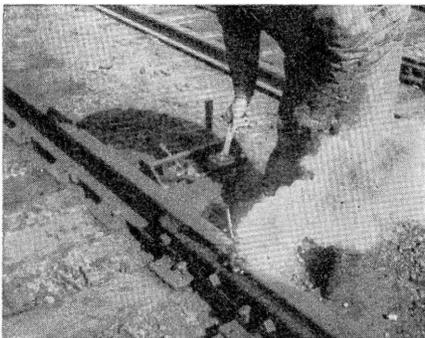
# NEW DEVICES

## Cadweld (Thermex) Signal Bonds

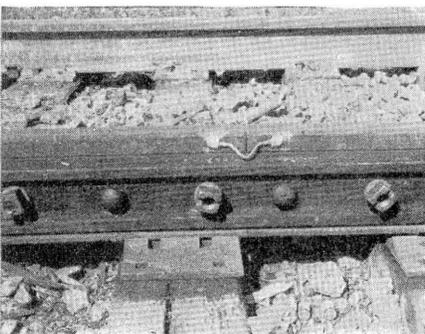
A LITTLE over a year ago, there appeared on the market an unusual signal bond, known as the Thermex bond. It is installed by welding with superheated copper produced from grandular metals. The apparatus for this process has been designed to afford great convenience in handling on the work, being very light weight,



Cleaning the rail



Metal in reaction



The bonded joint

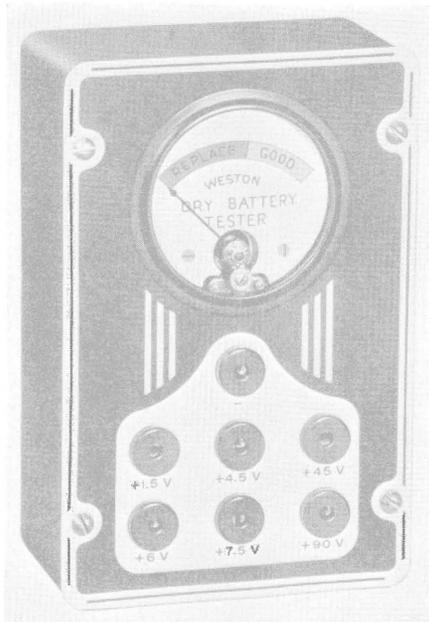
affording no burden to a signalman.

It is claimed that the bond when installed provides certain features important to signal operation: Welded contacts which cannot deteriorate; low track circuit resistance; maximum broken rail protection as the welds are only  $3\frac{1}{2}$  in. apart; and long service life, due to the bond being constructed from corrosion resistant bronze wire of high tensile strength.

The makers of these bonds found it advisable to change the name Thermex, under which it was introduced, to Cadweld and they have issued a complete catalog under the latter name. This catalog is now being distributed and copies will be mailed to all who address The Electric Railway Improvement Co., Cleveland, Ohio.

## New Weston Battery Tester

A POCKET-SIZE battery tester has recently been announced to meet the need for a compact, inexpensive unit for correct testing of dry batteries



Dry battery tester

under load. Made by Weston Electrical Instrument Corporation, Newark, N.J., the new unit will be of particular interest wherever dry bat-

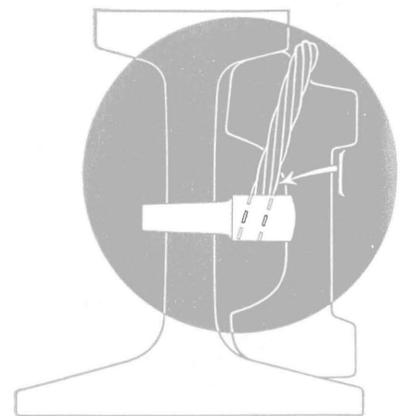
teries should be tested under load. The Weston battery tester will provide positive data about new batteries as well as batteries in service without the need for duplication of any existing test equipment.

In the same manner as the new Weston Tube and Battery Tester (Model 777), the pocket-size unit has been designed to fulfill the fundamental requirements for correct battery testing, i.e., that when the battery shows "good" on the instrument scale, it will be capable of delivering sufficient potential when under full load. In accordance with data from battery manufacturers, the condition of the battery under test is indicated on a "Replace-Good" scale with the "cut-off" point set at the proper value. Most important, however, the current drain on the battery is also adjusted to conform to the requirements of its particular job.

In order to facilitate new battery sales and replacements, the scale consists simply of a "Replace-Good" indication, uncomplicated by voltage indications which might be confusing to the layman. Pin jacks are provided for the different battery voltages encountered—1.5, 4.5, 6, 7.5, 45 and 90 volts.

## New Copperweld Bond

THE natural angle of the hole in the new Copperweld Thru-Welded, Thru-Angle bond, illustrated, directs the



Thru-Welded, Thru-Angle bond

strand away from the rail, eliminating one sharp bend at the point where strand and pin meet. This new bond is also being offered in the Butt-Welded type. Only one long radius bend is required at each end to position the strand on the top of the joint plate. The new bonds are an addition to the regular line of Copperweld stranded plug type bond.