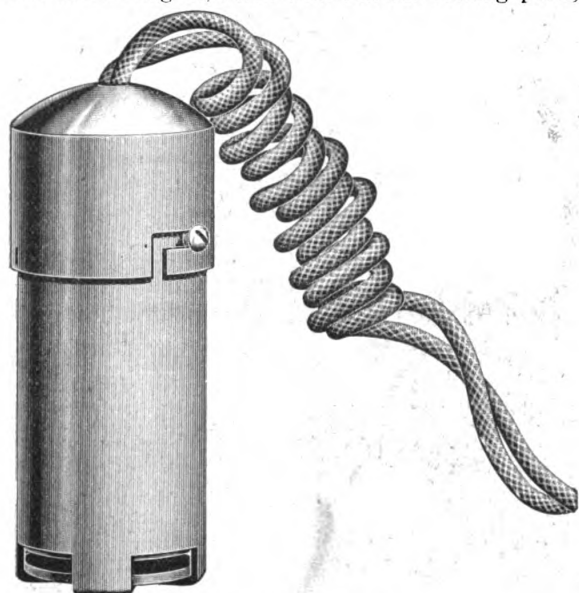


A New Track Circuit Tester.

In the accompanying cut is shown a new device for track circuit testing. This device is simply an iron-clad electromagnet, fitted with suitable binding posts,



Track Circuit Tester.

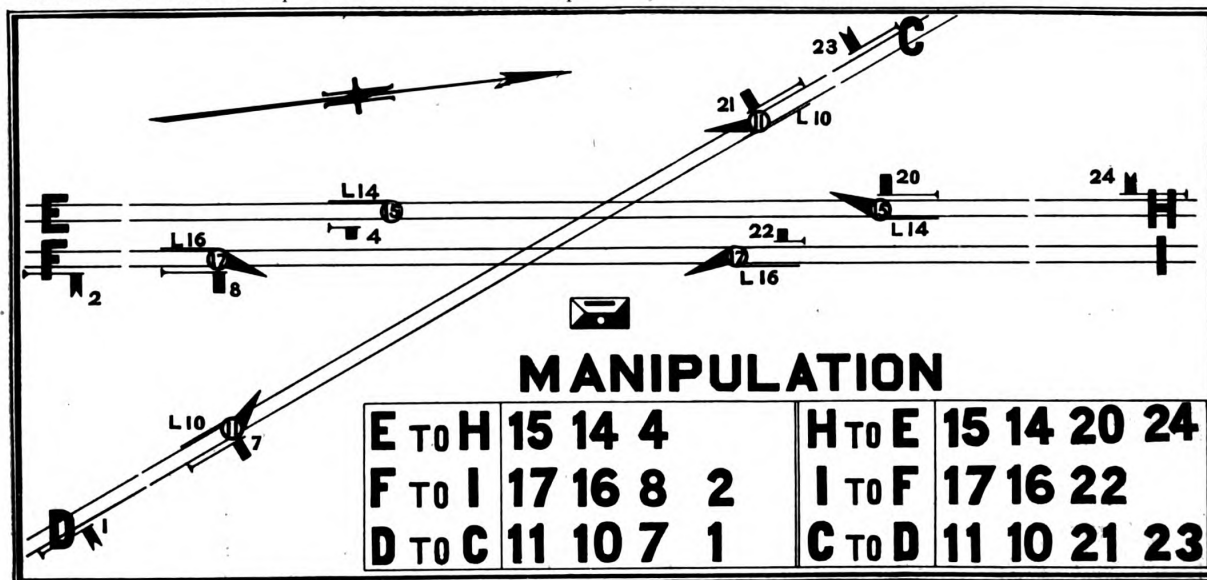
wires and terminals and having an easy working armature. The magnet is wound to four ohms resistance unless otherwise specified. This tester is espe-

Willson's Gummed Paper Letters and Figures. These are made in a great variety of sizes and styles, and are of highly finished glazed waterproof paper, heavily gummed with the best fish glue. If put on with ordinary care and rubbed down well, they make permanent labels or numbers for general purposes. Draftsmen and engineers will, however, readily perceive their special usefulness in the drafting department.

Large titles, filing numbers, names of towns, rivers, and other land marks on maps and plans, as well as any arrangement of large letters such as the above, are ordinarily laboriously blocked out by hand at the expense of much time and patience, and very often with poor workmanship and a lack of neatness. But they may be much more easily made up with Willson's Gummed Paper Letters and Figures, and when so made must necessarily be neat, uniform and accurate,—and the time required to paste the Letters or Figures on a plan is but a small fraction of the time generally spent in "inking in."

Willson's Gummed Letters and Figures will adhere readily and permanently to either side of any quality of tracing cloth or paper, and the small amount of moisture used in sticking them on will not wrinkle or draw up the tracing cloth as does India ink. Being opaque, and having sharply defined machine cut edges, the Paper Letters and Figures make excellent blue or vandyke prints.

The illustration shows a Manipulation Chart which was made with standard sizes of the Letters and Figures. The styles used represent but a few of the many which are available. Almost any kind of characters can be furnished.



Manipulation Chart Made with Willson's Gummed Paper Letters and Figures.

cially designed for the use of signalmen in testing for track circuit troubles. Its usefulness for trouble hunting will be apparent at a glance. The tester is of convenient size to be carried in the vestpocket, and its extremely reasonable price places it within the reach of every repairman and maintainer. This instrument is manufactured by the Bryant Zinc Co., Chicago and New York.

Willson's Gummed Paper Letters and Figures.

The Manipulation Chart shown above is an illustration of what may be done in the drafting room with

The Tablet & Ticket Co. of New York, Chicago and San Francisco are the manufacturers, and they supply Willson's Gummed Paper Letters and Figures at exceedingly reasonable prices.

The Wireless Dry Battery Holder.

Perhaps in no line of work where dry cells are used is there greater necessity for positive connections for the battery set than in railroad signaling. Trouble with binding post contacts is an old story. Few maintainers have not experienced difficulty in securing good service from dry batteries on account of the