## AUTOMATIC RINGING.

The labour is frequently so great in ringing subscribers on boards of 100 line capacity that a Warner Pole Changer is used. This changer is operated by two cells of Gordon battery and supplied with current from a chain of dry batteries of 60 cells. Its function is simply to transform the direct current naturally given out by the batteries to an alternating current like that produced by an ordinary hand generator.

Cost, including cabinet ånd batteries, $\$ 45$.
TOLL LINES.
Where it is desired to separate the toll lines from the regular switchboard, switching stations are used as described on page 7 of this letter. They are screwed to the cabinet or to the wall at a convenient point.

## BRIDGING TELEPHONES WITH SPECIAL DEVICES.

The following special telephones of the bridging type of the same general design as type ' K ,' described on page 3 of this letter :-

Type ' $K$ ', with grounding key.-A simple device for ringing each other on the same line without signalling exchange. By depressing a key, the exchange is signalled without ringing parties on the same line. Described, Bulletin 28. For cost add 25 cents to regular price of type ' K .'
' North's Type ' $K$ ' with Silent Ringer.-Another simple device for toll party lines, or where for any reason it is desired that exchange record the subscriber calls. Exchange is signalled without ringing other subscribers' bells on the same line. Can be used on party line with ordinary telephones, thus admitting of an inexpensive classification of toll and full service subscribers. Described in Bulletin 28. For cost add $\$ 1.25$.
' North's Type 'K,' Selective 1, 2; 3, or Party Ringer.-Still another simple device, enabling exchange to call one of 2,3 or 4 parties on the same line without ringing the other. The subscribers do not ring each other in calling exchange. Reduces the ringing on heavily-loaded party lines. For instance, if there are 12 telephones on a line, it is reduced one-half by a two-party system; three-fourths $k y$ a four-party system. For cost add $\$ 2$ for two parties, and $\$ 2.50$ for four parties.
' North's Type ' $K$ ', with Condenser.-For ringing through on a party line with one or more receivers off the hook. For cost add $\$ 1.50$.

## GENERAL POLICY.

The North Electric Company has built its extended and growing business among rural companies by a liberal policy. Every product is sold on an unconditional and unlimited time guarantee-should defects appear, they are made right without cost or quibble. We never ask any questions regarding the responsibility of a broken part. If a farmer breaks a ringer in trying to adjust it, we send him another and leave the payment to his conscience.

No device is offered for sale until it is known to be out of the experimental stage. Even after it is tested in our own laboratory as far as it can be carried, it is then sent to some of our operating company friends and used under all conditions and classes of service.

We are not mere assemblers of parts, but makers from raw material-we give the purchaser the cost maker's profit. The plant is on an economical basis, and like all large concerns, the individual profits are small-we depend on the annual volume for a net result.

It is possible to enlarge any of our switchboards by adding units like a sectional book-case. All parts are interchangeable. They are milled and bored in jigs-ac-

