Takes 3 “D” cells.

Insert on left side after removing plate.
Insert negative sides first so all positive sides are pointing Out.
Replace cover

This instrument is used to measure electrical resistance. It contains a very sensitive galvanometer and three precision sets of variable and fixed resistors, as well as temperature compensation. Some of these test sets (but not this one) also contain a standard cell, whose electrical output was known to six digits of precision (a millionth of a volt)!

When the bridge is balanced, the galvanometer senses no current passing through it, and comes to rest at the null or 0 position. Since the galvanometer deflects with only a few microamperes of current, the unknown resistance can be determined with great accuracy.

These were used to find line faults by measuring the line resistance to the fault. By knowing the resistance of the line wire in ohms per mile, and the resistance to the fault, the location of the fault can be determined.

The Murray and Varley tests were specifically used for finding wire faults.