

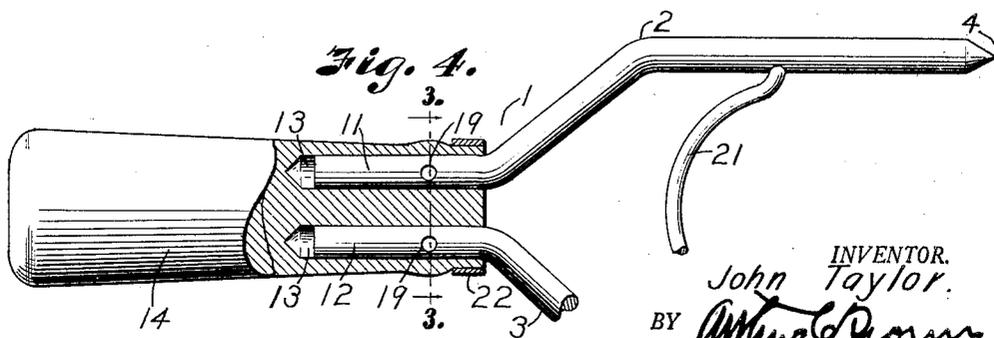
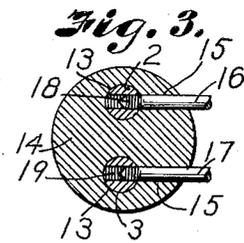
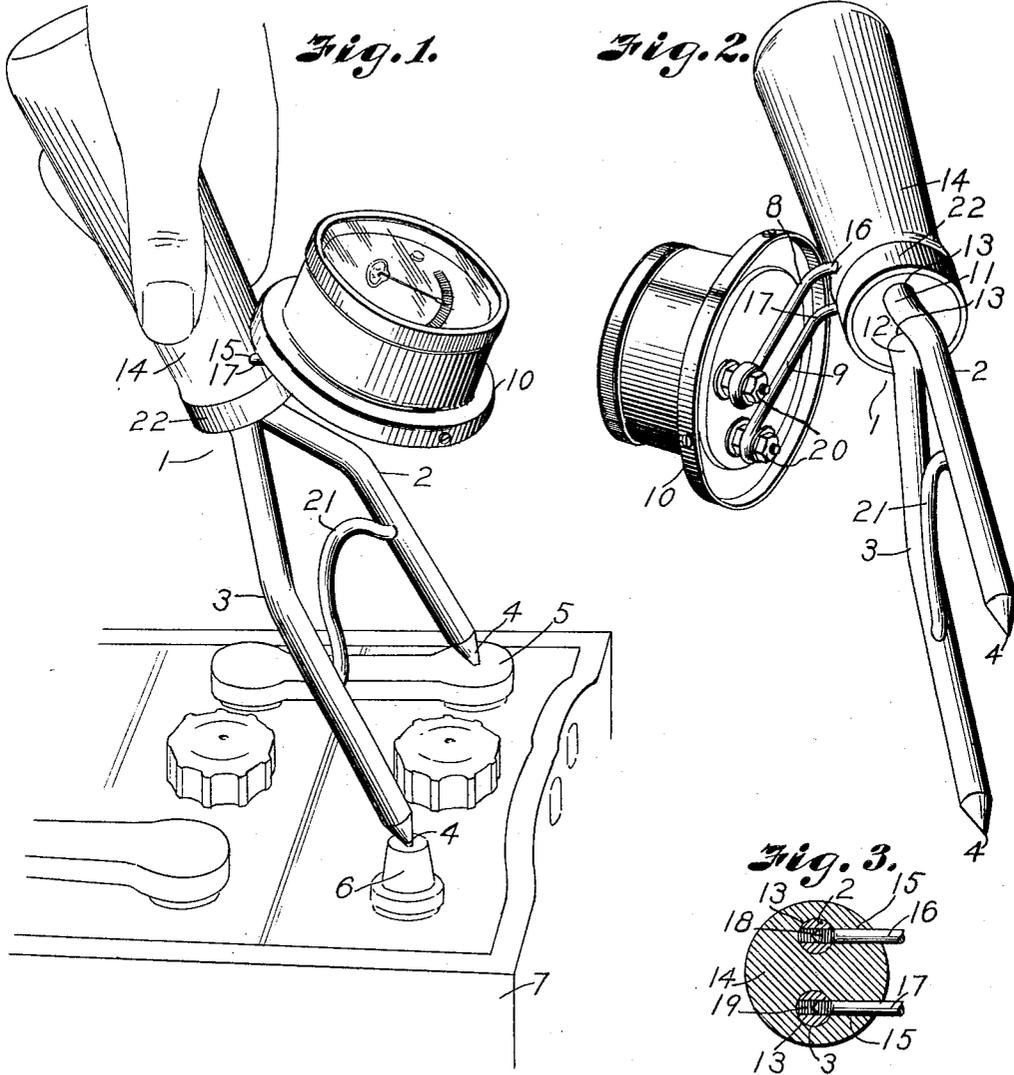
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J. TAYLOR

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BATTERY TESTER

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# UNITED STATES PATENT OFFICE

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BATTERY TESTER

Application filed June 14, 1928. Serial No. 285,347.

My invention relates to battery testers and has for its principal objects to attach a voltmeter securely to contact prongs, to strengthen the connection between the voltmeter and contact prongs, to securely retain a handle on the prongs, and to fix the handle on the contact prongs by the means connecting the prongs with the voltmeter whereby a stable and sturdy device will be produced in which hazard of accidental separation of the connectors from the contact prongs will be avoided.

In accomplishing these and other objects of the invention I have provided improved details of structure, the preferred forms of which are illustrated in the accompanying drawing, wherein:

Fig. 1 is a perspective view of a battery tester embodying my invention, and its application to a storage battery.

Fig. 2 is a perspective view of the tester illustrating the manner of attaching the voltmeter to the contact prongs.

Fig. 3 is a cross section on the line 3-3, Fig. 4.

Fig. 4 is an elevational view, partly in section, illustrating the mounting of the contact prongs in the handle.

Referring in detail to the drawing:

1 designates generally a battery tester including spaced contact prongs 2 and 3 provided with contact points 4 for coincidental contact with the anode 5 and cathode 6 of a battery 7 whereby current may flow through the prongs, connectors 8 and 9, and a voltmeter 10, for ascertaining the voltage of the battery.

The base ends 11 and 12 of the prongs opposite the contact points are bent toward each other and then into parallelism, and inserted in longitudinal sockets 13 of a handle 14, for support of the prongs by the handle. The prongs are fixed in engagement with the handle by means connecting the prongs with the voltmeter, as will now be described.

Side openings 15 are provided in the handle, which extend to the longitudinal sockets 13, and the outer ends 16 and 17 of the connectors 8 and 9 are bent suitably for

insertion into said openings 15 for properly positioning the voltmeter in relation to the handle and contact prongs. The tips of the ends 16 and 17 are screw-threaded as indicated by 18, and screw-threaded radial openings 19 are provided in the ends 11 and 12 of the contact prongs to receive the tips of the connectors whereby the connectors latch the prongs to the handle. The connectors comprise leads from the voltmeter, and are removably attached thereto by screws 20.

The contact prongs are stabilized in spaced relation by a brace bar 21 which also serves as a resistance member and a shunt element for well known purposes. A ring 22 mounted on the end of the handle serves to strengthen the structure.

In assembling the device, the voltmeter, connectors, contact prongs and handle are assumed to be separated. The handle ends of the contact prongs are inserted in the longitudinal sockets of the handle, the threaded openings 19 of the prongs registering with the side openings 15 of the handle. Each of the connectors is then separately applied to the prongs and handle, the outer end of a connector being inserted into an opening 15 of the handle and into the related prong opening, to engage the threaded connector tip with the threads of the opening. The connectors are then attached to the voltmeter.

The contact prongs are, therefore, securely latched in the handle by the connectors, and the connectors are fixed in the prongs against accidental disturbance of current-conducting function. The joints between the connectors and the prongs are shielded by the handle, and the engaged ends of the connectors are re-enforced by the handle to prevent breakage at the joints.

What I claim and desire to secure by Letters Patent is:

1. In a battery tester including a meter and prongs having parallel spaced ends, a handle having longitudinal sockets to receive the prong ends and lateral openings communicating with the sockets, and conductive connectors having portions mounted

in said openings and engaging the prong ends for securing the same in said handle and opposite portions extending outwardly and downwardly from the handle and conductively connected at their outer ends with the meter.

2. In a battery tester including a meter, a pair of prongs having base ends provided with screwthreaded radial openings, a handle adapted to receive the base ends of the prongs and having side openings, and conductive connectors having screwthreaded tips on one end adapted to enter said openings of the prongs for securing said prongs in said handle, the remainder of said connectors extending outwardly and downwardly from said handle, and means for securing the opposite ends of the connectors conductively to the meter for supporting the meter in spaced, inclined relation with the handle.

3. In a device of the character described, a handle having a pair of elongated longitudinal sockets opening to one end face of said handle, and provided with apertures communicating with said sockets, a pair of prongs having portions insertable in said sockets provided with screwthreaded openings, and a pair of connectors having screwthreaded inner ends insertable in said apertures for mounting the same in said screwthreaded openings for securing said prongs in said handle, the outer ends adapted for attachment to a meter or the like for supporting the meter from the handle and also serving as electric conductors to said meter.

In testimony whereof I affix my signature.

JOHN TAYLOR.

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