L. G. MASSICOTTE.

SCREW DRIVER.

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1,206,014. Patented Nov. 28, 1916.

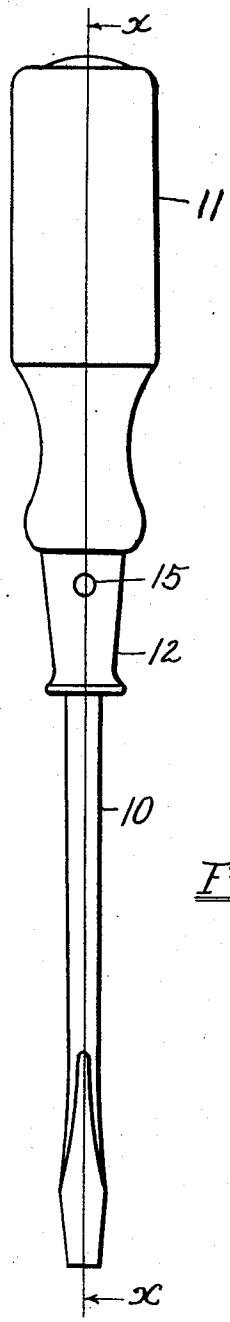


Fig. 1

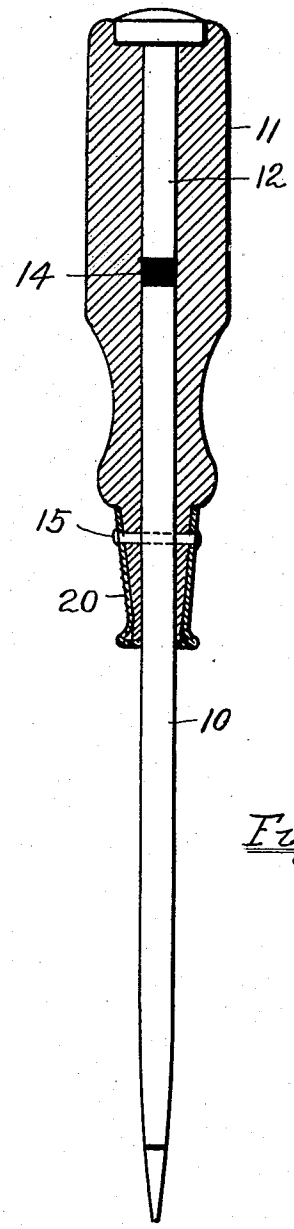


Fig. 2

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UNITED STATES PATENT OFFICE.

LOUIS G. MASSICOTTE, OF PROVIDENCE, RHODE ISLAND.

SCREW-DRIVER.

1,206,014. Specification of Letters Patent. Patented Nov. 28, 1916.

Application filed December 7, 1915. Serial No. 65,517.

To all whom it may concern:

Be it known that I, LOUIS G. MASSICOTTE, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Screw-Driver, of which the following is a specification.

This invention relates to a screwdriver combining with the advantages of that form of screwdriver having the blade and shank part extending entirely through the handle, means for insulating the same against liability to electrical shock through the exposed outer terminal of the shank.

It is well known that in the most common form of screwdriver the handle is formed of wood or similar light material, easily damaged by rough usage, the shank being extended for only a portion of the length of the handle. It is also well recognized by users of screwdrivers generally that it is often found a convenience to use the tool for other purposes than that for which it is legitimately intended, in the temporary absence of the appropriate tool, as for prying and occasionally as a substitute for a cold chisel, involving exceptional straining and even the battering effect of hammer blows. With the common construction as above described, the tool is soon injured and even destroyed by such usage. For the purpose of imparting greater strength and durability under such conditions of use, screwdrivers have been constructed with the shank part integral with the blade, extending entirely through the handle, the outer end exposed to receive and transmit directly to the work the effect of hammer strokes. Hitherto the methods by which this construction has been effected have involved certain disadvantages, which need not be specified here, except in one particular, namely: the danger to the user of receiving electrical shocks whenever the tool is employed in connection with electrical apparatus, the exposed outer end of the shank bringing the hand of the user into contact with an unbroken electrical conductor connecting it with the electrically charged object, thereby establishing the conditions of a short circuit.

The main object of my invention is to provide a screwdriver which, while retaining all the features of utility appertaining to that form of construction as described, with substantially continuous blade and shank coterminous with the handle, has means for preventing shocks due to short circuiting.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a general view of a preferred form of my novel screwdriver; and Fig. 2 is a sectional view of the same on the line X—X of Fig. 1.

Similar numerals of reference designate corresponding parts.

The body of the handle is shown as formed of a single piece of wood, having a cylindrical bore extending through its entire length, the axis of the bore being co-incident with the axis of the handle. That portion of the screwdriver comprising the blade and shank, commonly formed of a single piece of metal, is here shown in three sections, 10, 14, 12, of which the larger sections, 10 and 12, are of metal, the intermediate section, 14, being formed of electrically insulating material of sufficient density to give the necessary resistance as a part of a substantially continuous shank, the three sections when in place being in abutment. Of the two metal sections the one located at the outer end of the handle (12) is preferably formed, as shown, with an enlarged or flanged head, to serve as a protective tip to the handle.

To secure the requisite solidity and rigidity when the several parts are assembled the sections are shaped to a diameter such as to make them a very close fit in the bore of the handle, requiring their being driven to place with considerable force. The metal section, 12, is first inserted from the outer extremity of the bore, the insulating section, 14, and lastly the blade section, 10, similarly introduced from the opposite end, and the three sections forced into close contact, thus imparting to the combination the function of a continuous rod in its resistance to a thrusting force. For the blade end of the handle there is preferably provided a ferrule, 20, and finally, especially to insure against rotary displacement of the parts, a hole is drilled transversely through the ferrule, handle-body and shank, and a pin inserted therein and secured at its ends after the manner of a rivet.

It will be readily understood that the insulating section, 14, effectually prevents the passage of the electrical current to the hand of the user, while all the advantages inher-

ing in a solid one-piece blade and shank are preserved by my improved modification of that construction, as set forth.

Although I have illustrated and described only a single embodiment of the invention, I am aware that modifications can be made in the article itself without departing from the scope of the invention as expressed in the claims. I do not wish, therefore, to be limited to all the details of construction herein shown and described, but

What I do claim is:—

1. As an article of manufacture, a screw driver having a blade provided with a tang, a handle which the tang enters, a metal member in the other end of the handle, and an intervening section of electrically insulating material abutting against the end of the tang and the end of said metal member located at a distance from the end of the handle.

2. As an article of manufacture, a handle comprising a body provided with a small central uniform bore from end to end, a tang entering said bore at one end, a metallic rod entering it at the other end, and a body of dense non-conducting material of the same diameter as the tang and rod located in the bore between them and in close contact with both.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses.

LOUIS G. MASSICOTTE.

Witnesses:
ARTHUR G. BILL,
WILLIAM H. BACKUS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."