

A. G. LAMB.

HAND TOOL.

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952,570.

Patented Mar. 22, 1910.

FIG. 1

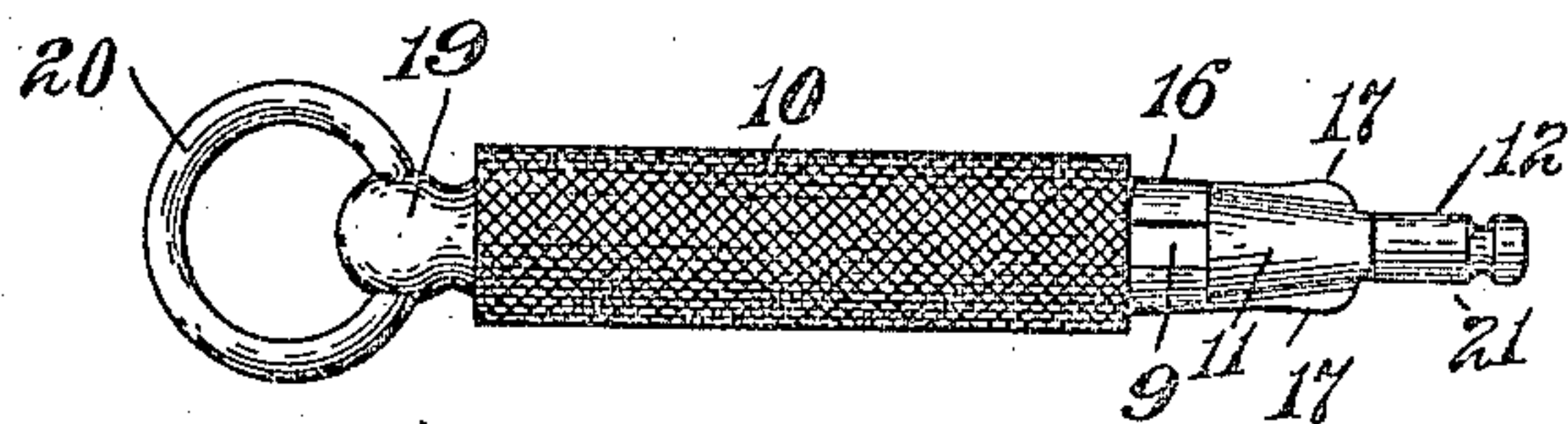


FIG. 2

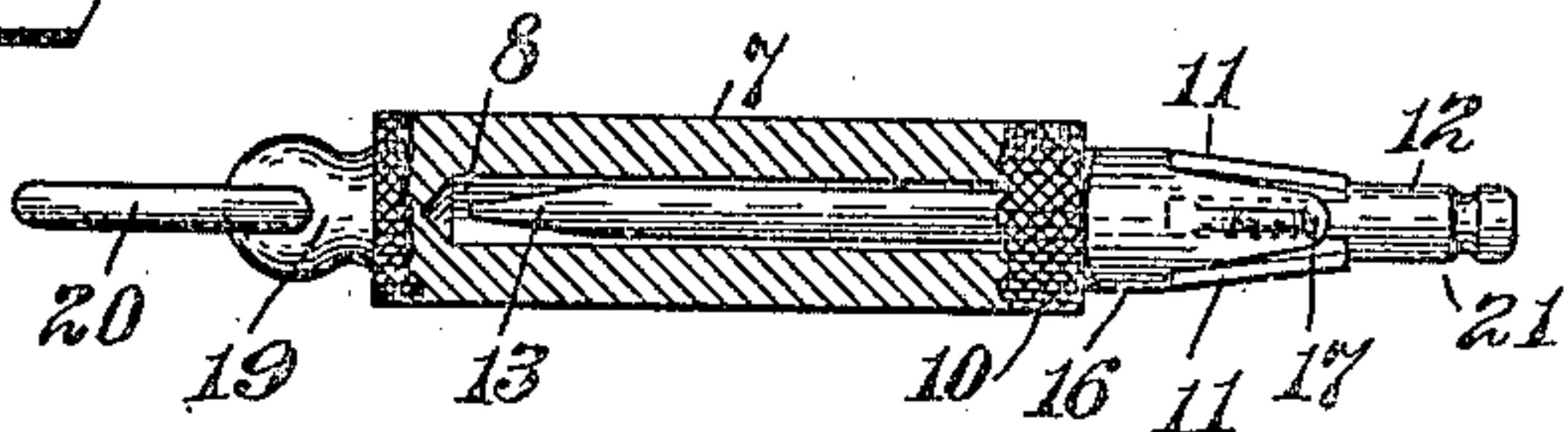


FIG. 3

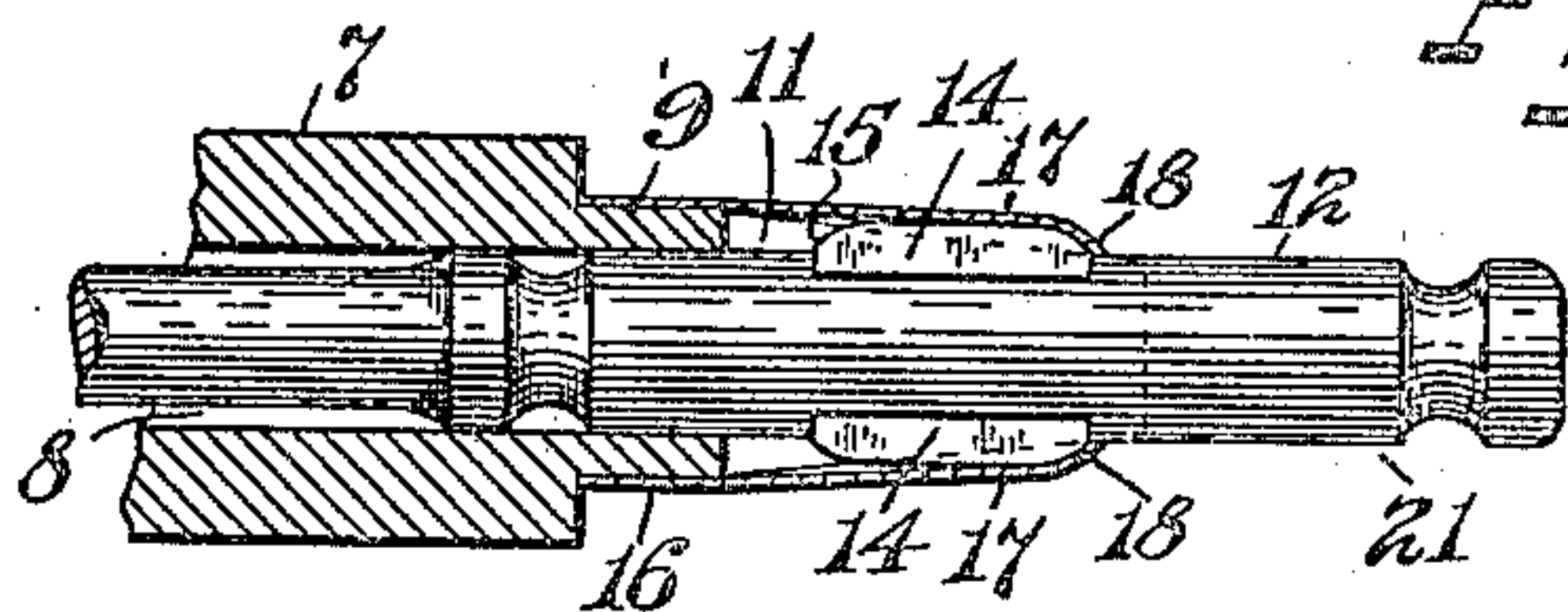
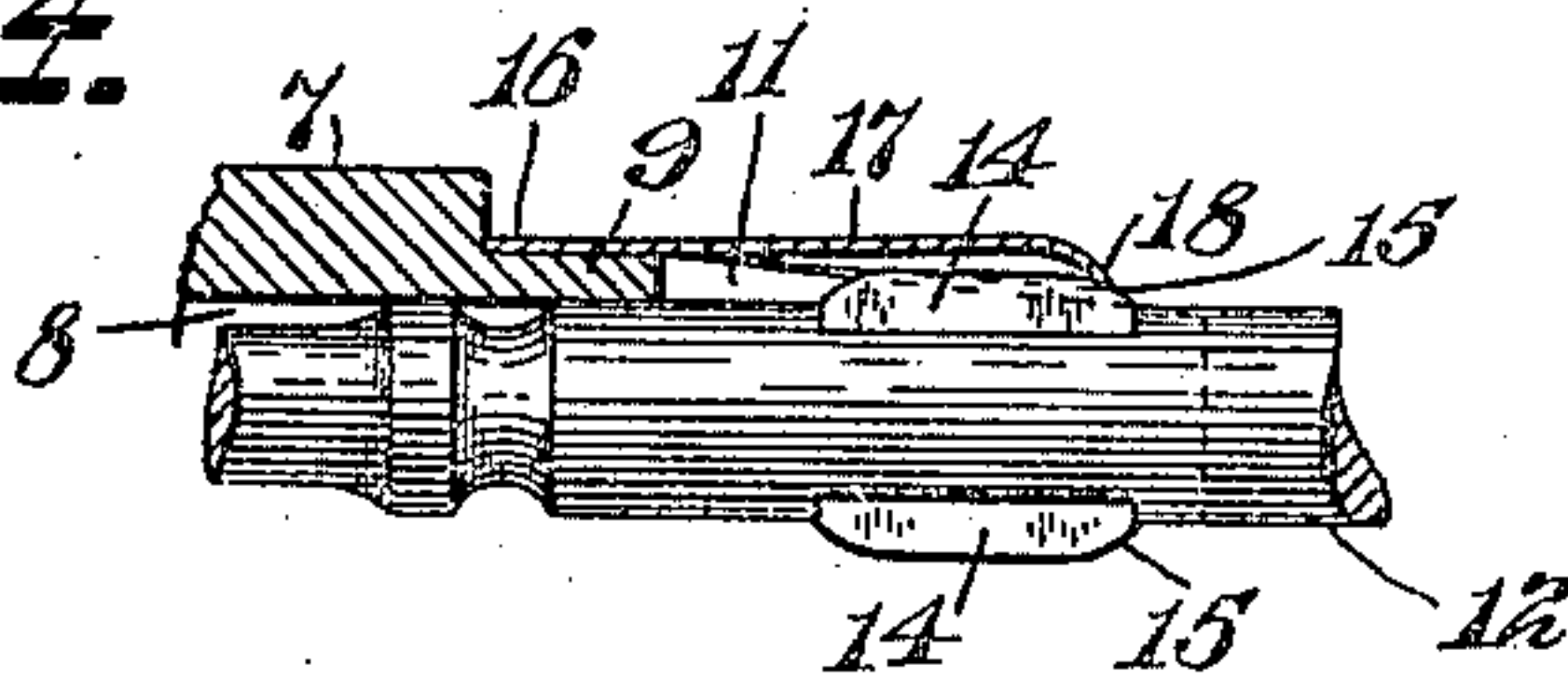


FIG. 4



Witnesses:

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UNITED STATES PATENT OFFICE.

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HAND-TOOL.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, AMHERST G. LAMB, a citizen of the United States, residing in Torrington, in the county of Litchfield and State of Connecticut, have invented certain new and useful Improvements in Hand-Tools, of which the following is a specification.

This invention relates to hand tools wherein the blade portion is removably carried by the handle and may be reversed in the handle so that either end shall extend outward from the handle and the other end be housed within the same.

This improvement is peculiarly applicable to screw drivers, and although useful on all sizes of tools is especially adapted for use on those which are intended to be carried in the pocket.

In the drawings accompanying and forming a part of this specification Figure 1 is a side view of a practicable embodiment of my invention applied to a pocket screw driver, this view being drawn to a scale twice the size of a present commercial form of the tool. Fig. 2 is a view similar to Fig. 1 but showing the device rotated a quarter turn and showing a portion of the handle in longitudinal section. Fig. 3 is a broken away enlarged view partly in longitudinal section of the right hand end of Fig. 1, and Fig. 4 is a detail of the parts illustrated in Fig. 3 but showing the blade at a slight distance from its seated position.

In the form of my invention which is illustrated herein the handle portion 7 is chambered out to provide a centrally disposed cylindrical socket 8 which enters one end of the handle. The end of the handle which is entered by the chamber or socket is of a reduced diameter compared with the rest of the handle, a portion of the reduced diameter being represented by the reference character 9, and the other portion of the handle may be knurled as at 10 for affording a strong grip for the fingers. The extreme end of the handle may be tapered and slotted inwardly forming a pair of fingers 11 extending longitudinally of the handle. The slotting will extend radially of the handle.

The tool which is illustrated herein for employment with the handle is a screw driver blade and embodies a shank portion 12 which will have a working fit with the socket 8 of the handle. The shank is shown

as carrying a screw driver blade 13. In Fig. 2 the blade is seen in its housed position within the handle. For the purpose of preventing the shank from turning in the socket or housing and for holding it in position against accidental displacement, it is provided with longitudinally extending and radially disposed lugs in the nature of fins 14. The fins may be produced upon the blade in some suitable manner as for instance rolling or stamping with a die in such a manner that they are integral with the blade. One edge of each fin is secured to the shank and the other edge projects therefrom and such outer edge or the face thereof will be tapered toward the ends. The fins as above stated are radially disposed and tapering presenting sloping faces 15 radially of the blade. When the tool is intended for reversal in the handle both ends of each fin will be provided with these faces. The fins are intended for interposition between the fingers 11 for preventing rotation of the blade relative to the handle.

A spring member 16 is shown mounted upon the portion 9 of the handle and in the present instance is shown as a collar securely clamping the same. A pair of spring members 17 are carried by the collar and overlie the recesses between the fingers 11, and are long enough and located in the proper positions to be raised by the faces 15 when the fins are being inserted between the fingers 11 and be raised and to ride over the fins and down the sloping face 15 upon the outer ends of the fins. In case the blade is not inserted far enough into the handle for the spring fingers to extend all the way down in front of the fins, enough cam action will be exerted between the ends 18 of the spring fingers and the faces 15 to draw the blade back into its proper position. As for instance if the parts are left in the position illustrated in Fig. 4 the fingers will bring the blade back to its proper seat in the handle. It may frequently in practice be desirable to provide a head 19 and ring 20 at the back end of the handle.

When the blade is housed in the manner illustrated in the drawings it will be necessary to engage the outer end 21 of the shank by the fingers and draw the same out from the handle and then reverse it and place the end 21 within the socket of the handle when the blade which was heretofore housed will be in position for use.

Having thus described my invention, I claim:

1. In a hand tool the combination with a tool blade having a pair of fins on its sides, said fins being provided at the ends with faces sloping radially of the blade, of a handle having a socket for the blade and a pair of fingers for interposition between the fins and a pair of spring fingers for engaging the fins and riding over said sloping ends, said spring fingers being long enough and located in the proper position to pass over the said fins and ride down the sloping faces at the farther ends for drawing the tool to its proper seat.

2. The combination with a tool blade having a pair of fins on its sides, said fins at their ends sloping radially of the blade, of

a handle having a socket for each fin, and a spring finger mounted on the handle adjacent to each socket for engaging and retaining the fin therein.

3. The combination with a tool blade having a lug on its side, of a handle having a socket for the lug, a spring collar mounted on the handle adjacent the socket, and a spring finger carried by the collar and overlying the socket and located in position to overlie the said lug therein when the blade is in the handle and the lug is in position in the socket.

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Witnesses:

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