(No Model.)

C. H. JOHNSON.

COMBINATION TOOL.

No. 366,322. Patented July 12, 1887.

Fig. 1.

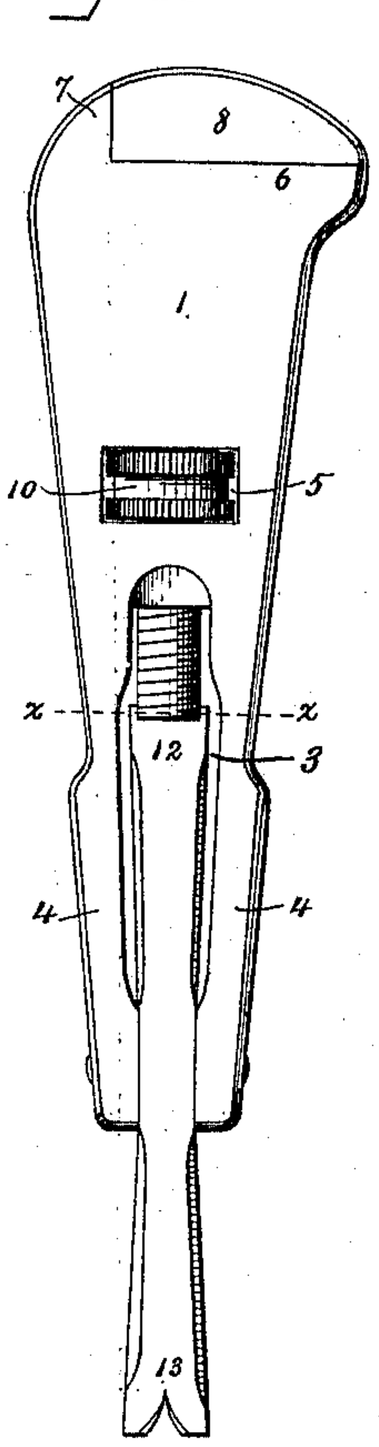


Fig. 2.

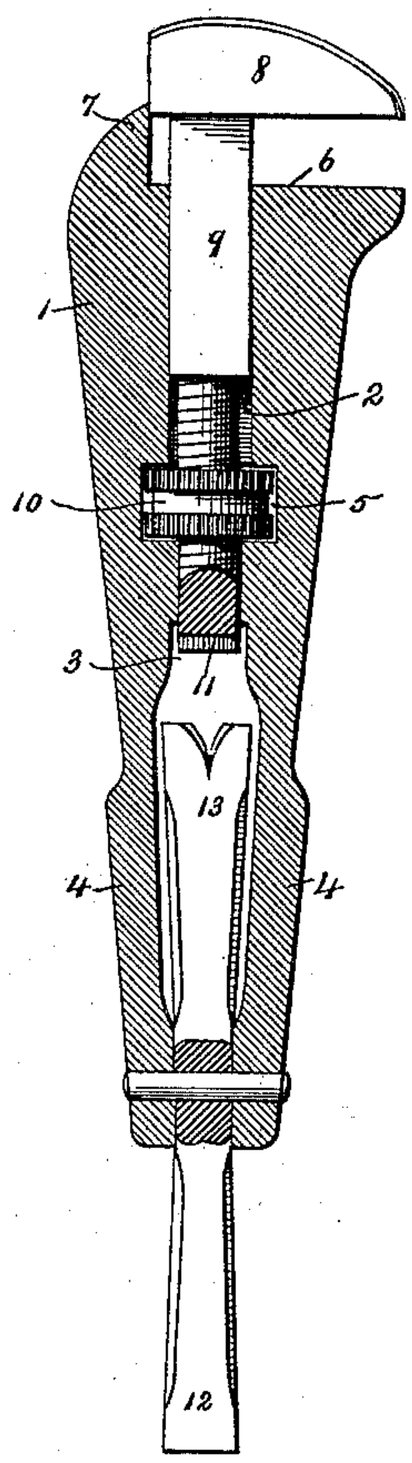


Fig. 3.

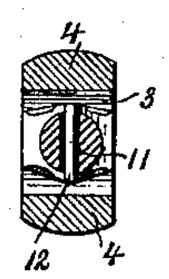
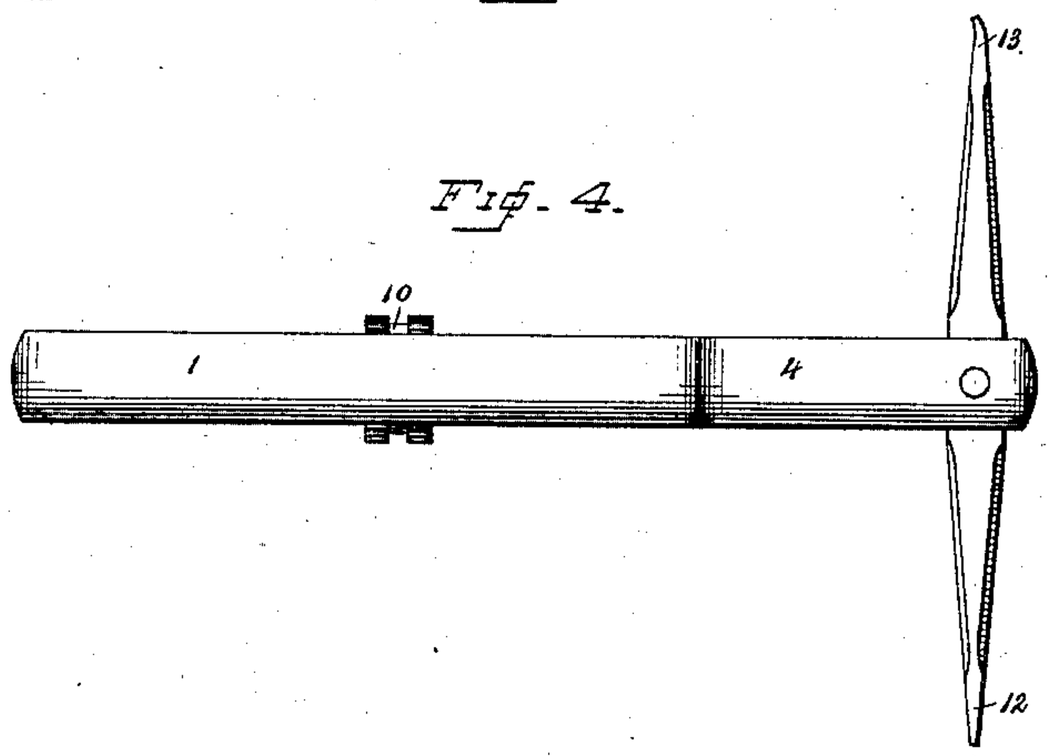


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES H. JOHNSON, OF BIRMINGHAM, CONNECTICUT.

COMBINATION-TOOL.

SPECIFICATION forming part of Letters Patent No. 366,322, dated July 12, 1887.

Application filed November 3, 1886. Serial No. 217,883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. JOHNSON, a citizen of the United States, residing at Birmingham, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Combination-Tools; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has especial relation to the class of tools in which a screw-driver and tack-drawer or a pair of similar tools are combined with a wrench, and has for its objects to simplify and cheapen the construction and to greatly improve the mode of operation of the device as a whole and of the independent tools.

With these ends in view I have devised the simple and novel construction of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to indicate the several parts of the device.

In the drawings, Figure 1 is an elevation of the device complete and in the closed position; Fig. 2, a longitudinal section of the handle, the tools being in elevation and the wrench in a partially-opened position; Fig. 3, a cross-section on the line *x x* in Fig. 1; and Fig. 4 is an elevation illustrating the manner in which the screw-driver is used when great power is required.

1 denotes the body of the device, which is cast in a single piece. This body is provided with a longitudinal opening, 2, the purpose of which will presently be explained, which extends from the upper end of the body and opens into a transverse opening, 3, extending through the body from side to side and from about the middle to the lower end thereof, so that side pieces, 4, are formed on opposite sides of said opening. A short distance above transverse opening 3 is another transverse opening, 5, which is adapted to receive the operating-burr, as will be more fully explained. The upper end or top of the body is made horizontal to the line of the central opening to form the stationary jaw 6 of the wrench. At the back of the stationary jaw the metal is extended upward, forming a support, 7, for the movable jaw in use.

8 denotes the movable jaw of the wrench, whose shank 9 lies in longitudinal opening 2. The lower portion of this shank is screw-threaded and passes through the operating-burr 10. The burr is of course held stationary in transverse opening 5, so that as it is rotated the shank and movable jaw are thrown in or out, as may be. At the extreme lower end of the shank is a slot, 11, the purpose of which will presently be explained.

12 and 13 indicate, respectively, a screw-driver and tack-drawer, which are formed at opposite ends of a single piece of metal. This piece is pivoted midway of its length between the lower ends of side pieces, 4, so as to be reversible. When the movable jaw of the wrench is thrown outward, as in Fig. 2, this piece is free to turn, so that either the screw-driver or the tack-drawer may be turned outward. When the movable jaw is drawn in, as in Fig. 1, slot 11 is adapted to engage either the screw-driver or tack-drawer, as shown, and to lock it firmly in place. When the screw-driver is in use, it is locked by the engagement of the tack-drawer with the slot, and vice versa. When the screw-driver is in use and great power is required, or when the position is such that the body cannot be conveniently used as a handle when in the locked position, the screw-driver may be turned at an angle to the body and the body used as a lever to move the screw, this position being indicated in Fig. 4.

It will of course be understood that the details of construction may be varied within reasonable limits without departing from the spirit of my invention.

I claim—

1. The body having a longitudinal opening, and a movable jaw whose shank slides in said opening and is provided at its lower end with a slot, 11, in combination with a reversible screw-driver and tack-drawer pivoted at the lower end of the body, either of which is adapted to engage said slot, whereby the other is locked in position for use.

2. The movable jaw having a threaded shank with a slot at its lower end, and the body having a central longitudinal opening and trans-

verse openings 3 and 5, in combination with a reversible screw-driver and tack-drawer pivoted in opening 3, and an operating-burr lying in opening 5, through which the threaded shank passes, substantially as described.

3. The body having side pieces, 4, longitudinal opening 2, and support 7, in combination with a reversible screw-driver and tack-drawer pivoted between the side pieces, and a movable jaw which bears against the support and whose shank is provided with a slot to engage either screw-driver or tack-drawer to lock the other tool in position for use.

4. The body, the movable jaw whose shank slides therein and is provided with a slot, 11, in combination with a reversible screw-driver and tack-drawer pivoted at the lower end of the handle, said parts being adapted to turn freely or to be locked by engagement with said slot.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES H. JOHNSON.

Witnesses:

A. M. WOOSTER,

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