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T.A. CHANDLER.
Comb'd Drill & Nut Wrench.

No. 119,317.

Patented Sep. 26, 1871.

Fig 1

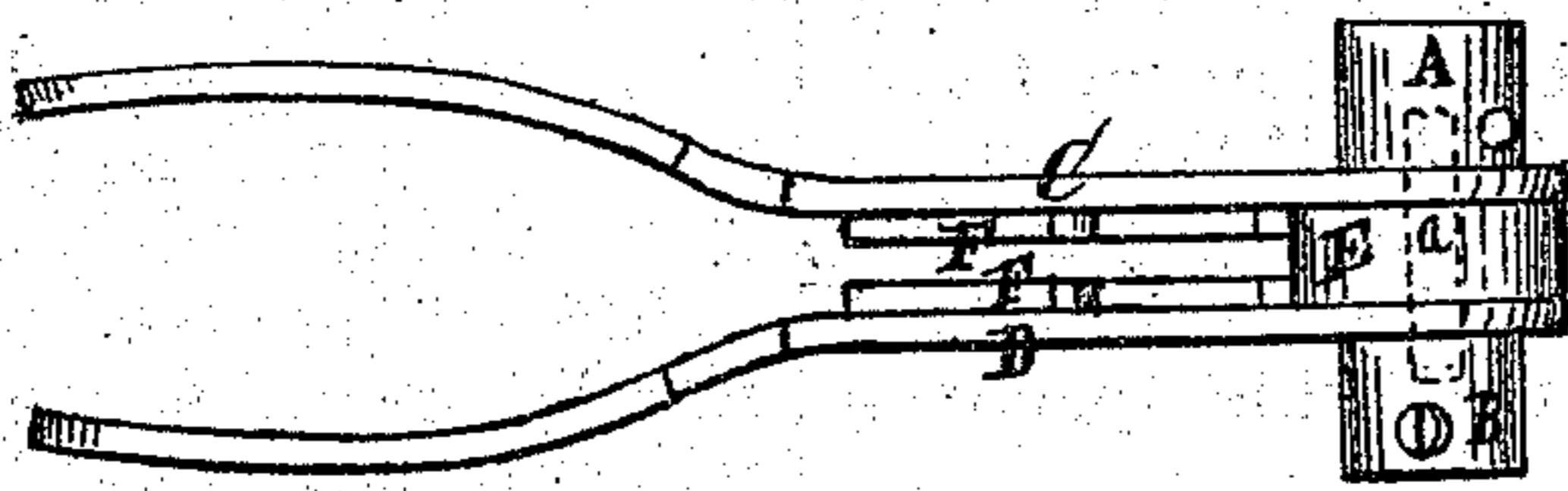
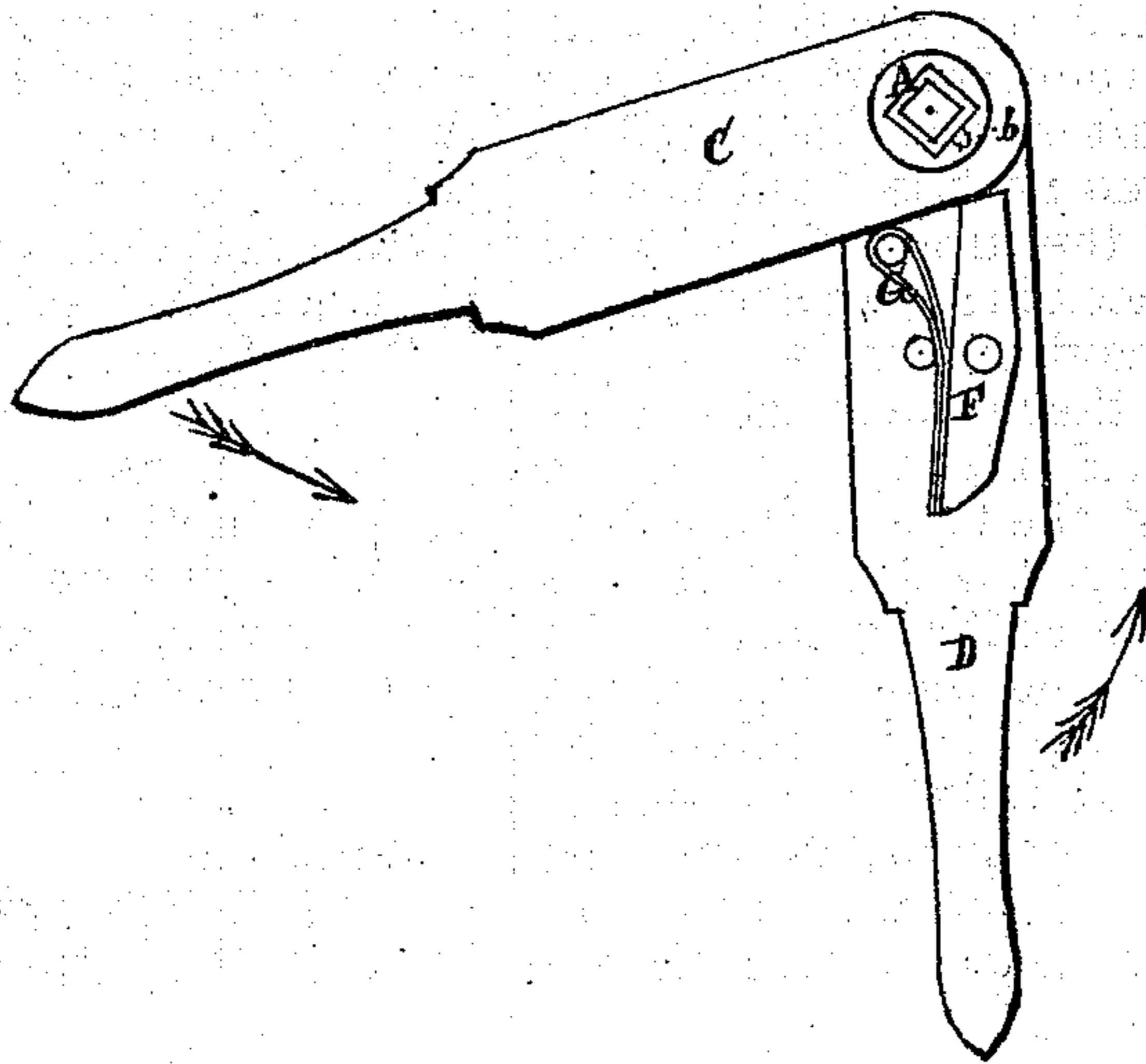


Fig. 2.



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IMPROVEMENT IN DRILL AND NUT-WRENCHES.

Specification forming part of Letters Patent No. 119,317, dated September 26, 1871.

To all whom it may concern:

Be it known that I, THOMAS A. CHANDLER, of Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Nut and Drill-Wrench, of which the following is a full and complete description, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a side view of the wrench. Fig. 2 is a view of the top.

Like letters of reference refer to like parts in the several views.

The nature of this invention relates to a wrench the construction of which is such that it can be used either for working a drill or for screwing up nuts, the same being operated by one or both hands, as hereinafter more fully set forth.

In the drawing, Fig. 1, A represents two sockets. Said sockets are connected to each other by means of a short shaft or neck, indicated by the dotted line *a*. To said neck is fitted closely, but loosely, one end of the arm C D, between which is secured to the neck in a permanent manner a hub or collar, E, having a smooth peripheral face, as shown. To the inside of each of the arms is pivoted a pawl, F, Fig. 2. One end of said pawls rests against the face of the hub or collar E, as shown in Fig. 2, and which is thus kept in contact with the collar by means of a spring, G, exerted upon the outer end of the pawl. It will be observed that the ends of the pawls touch the face of the collar on one side of its axis. Therefore, on pressing the pawls against the face of the collar it will rotate it in one direction, which, as a consequence, rotates the two sockets.

The use of this implement, as above, is for operating a drill for boring holes and for screwing up nuts. When used for drilling, the drill is inserted in the socket A, Fig. 1, and secured therein by means of a set-screw, *b*. Motion is given to the drill by operating the wrench, which is held by one or both hands, and working the handles or arms backward and forward, which, when moved in one direction, as indicated by the arrow, forces the ends of the pawls against the face of the collar, thereby causing it to rotate, together with the sockets and drill. On the reverse movement of the arms the ends of the pawls slide over the face of the collar, but which again rotates it by repeating the first movement of the arms.

In order to use this implement for screwing up nuts the drill is removed and the socket placed on over the nut, which is then operated in the same way as for drilling. To unscrew the nut the implement is inverted, which, on working the handles in the manner as above described, gives a reverse movement to the sockets, thereby unscrewing the nut.

What I claim as my invention, and desire to secure by Letters Patent, is—

The arrangement of the sockets A B and collar E with the arms C D journaled upon the shaft *a* between said sockets and collar, in combination with the pawls F and springs G, as and for the purpose substantially as described.

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