

R. E. KIDDER.  
Tool-Handle.

No. 223,146.

Patented Dec. 30, 1879.

Fig. 1.

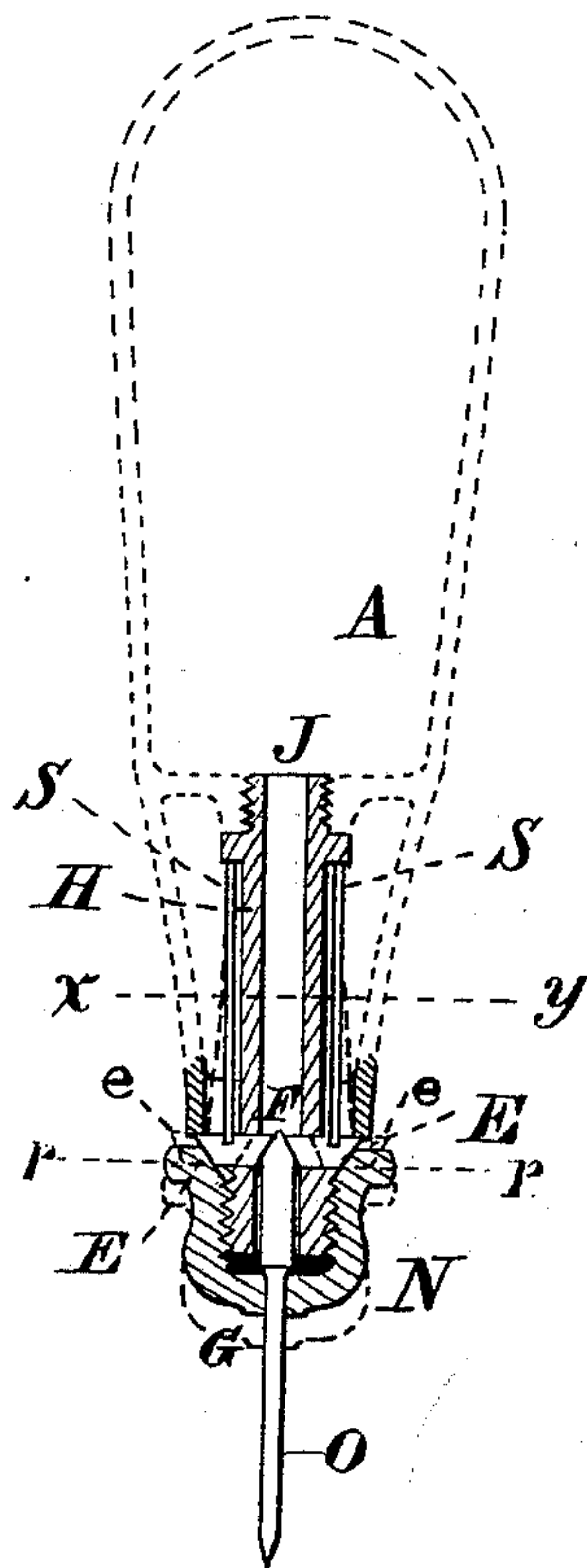


Fig. 2.

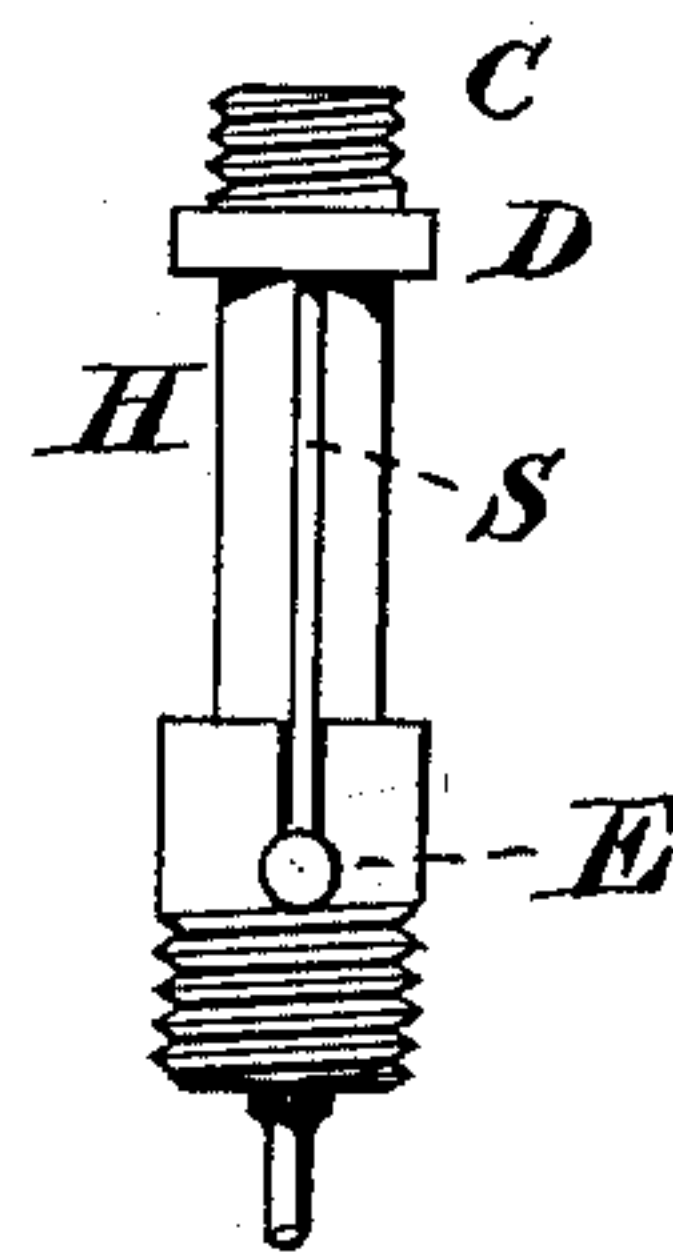


Fig. 3.

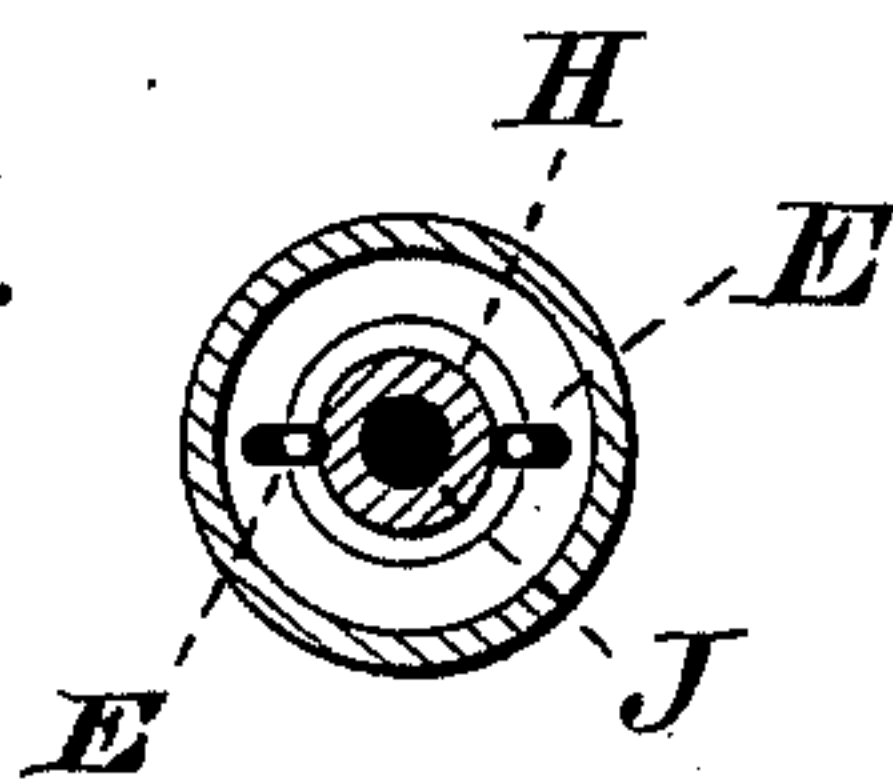
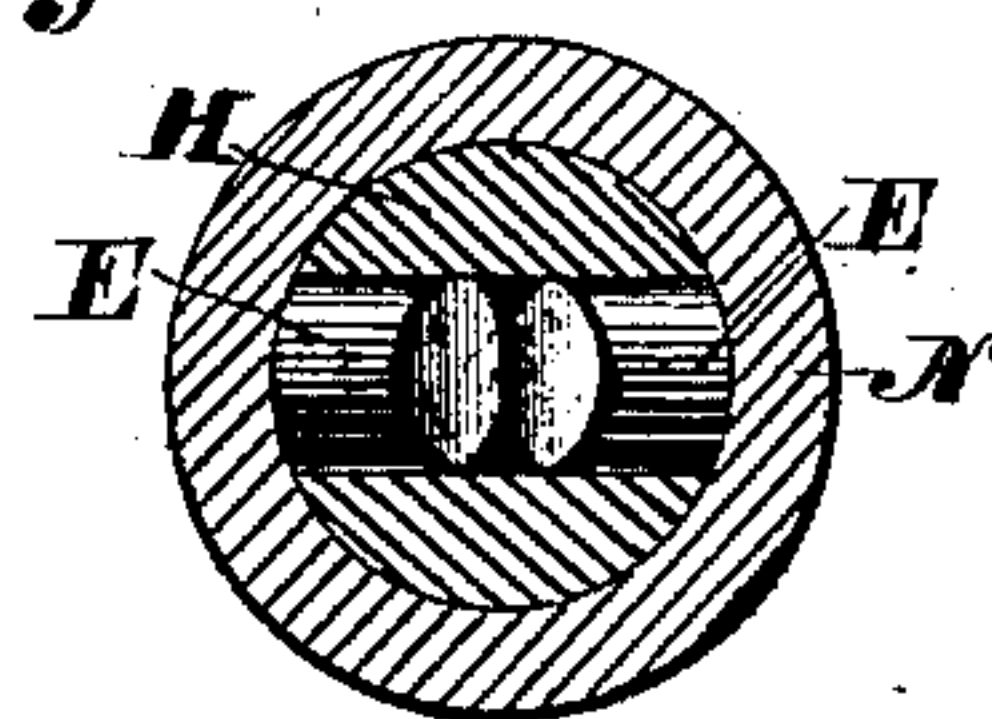


Fig. 4.



WITNESSES;

Edward H. Hill.  
Edward F. Tolman.

INVENTOR;

R. E. Kidder.

BY HIS ATT'Y.; J. J. Arnold.

# UNITED STATES PATENT OFFICE.

RICHARD E. KIDDER, OF WORCESTER, MASSACHUSETTS.

## IMPROVEMENT IN TOOL-HANDLES.

Specification forming part of Letters Patent No. **223,146**, dated December 30, 1879; application filed May 13, 1879.

*To all whom it may concern:*

Be it known that I, RICHARD E. KIDDER, residing in the city and county of Worcester, State of Massachusetts, have invented a new and useful Improvement in Tool-Handles, of which the following is a specification.

My invention relates to the holding of awls or small tools in their handles and making the awls and tools from round wire enough larger than the tool to form a shoulder to hold it by, and beveling the end of the straight shank, making planes or inclined surfaces by which to hold it from turning round in the handle, and is particularly applicable to the holder for which Letters Patent were granted to me dated March 24, 1874, numbered 148,888.

Its nature is shown in the following description and accompanying drawings of the holding mechanism and awl embodying my invention.

In said drawings, Figure 1 is a central longitudinal section. Fig. 2 is a side view at right angles to Fig. 1, and Fig. 3 is an end view. Fig. 4 is a sectional view on the plane *pp*, Fig. 1, showing the bottom of the socket as made by the slides *E E*.

*H* is the holder, having a screw on its outer end, on which the cap *G* fits, and a hole, *J*, through which the tools can pass from the handle *A*, and having two slides, *E E*, from opposite sides, with springs *S S* to hold them out to position shown at *ee* in broken lines when not forced in by the cap *G*, their outer ends being beveled, so that when the cap *G* is screwed down it shall force them in, as shown

in Fig. 1, and their inner ends beveled to fit the end of the tool *O* when in that position.

The tool *O* is made of round wire, of suitable size to slide through *J*, with the end beveled, as at *F*, and a shoulder, *N*, at the junction of its shank and the small part of the tool, against which the cap *G* rests, holding the tool by pressing it toward the slides *E E*, which, being forced in, make a beveled bottom to the socket fitting the end of the tool, and hold the tool firm.

In operation, by unscrewing the cap *G* the slides *E E* are released, the springs *S S* throw them out, and the tool *O* can slide back into *J*; and to put it into working order again it is slid forward until its shoulder *N* hits the cap *G*, which is then screwed on and presses the slides *E E* in, and, by means of the shoulder, forcing the end *F* of the tool against them, holds it from turning in *H* when in use.

Having thus fully described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

The combination, in a tool-holding mechanism, of a socket having a cylindrical hole with a bottom fitting the planes at the end of the tool made by the slides *E E*, having relieving-springs *S* and a cap, *G*, operating said slides and holding the tool against them by means of its shoulder, substantially as and for the purposes set forth.

R. E. KIDDER.

Witnesses:

STE. VERDI,  
J. G. ARNOLD.