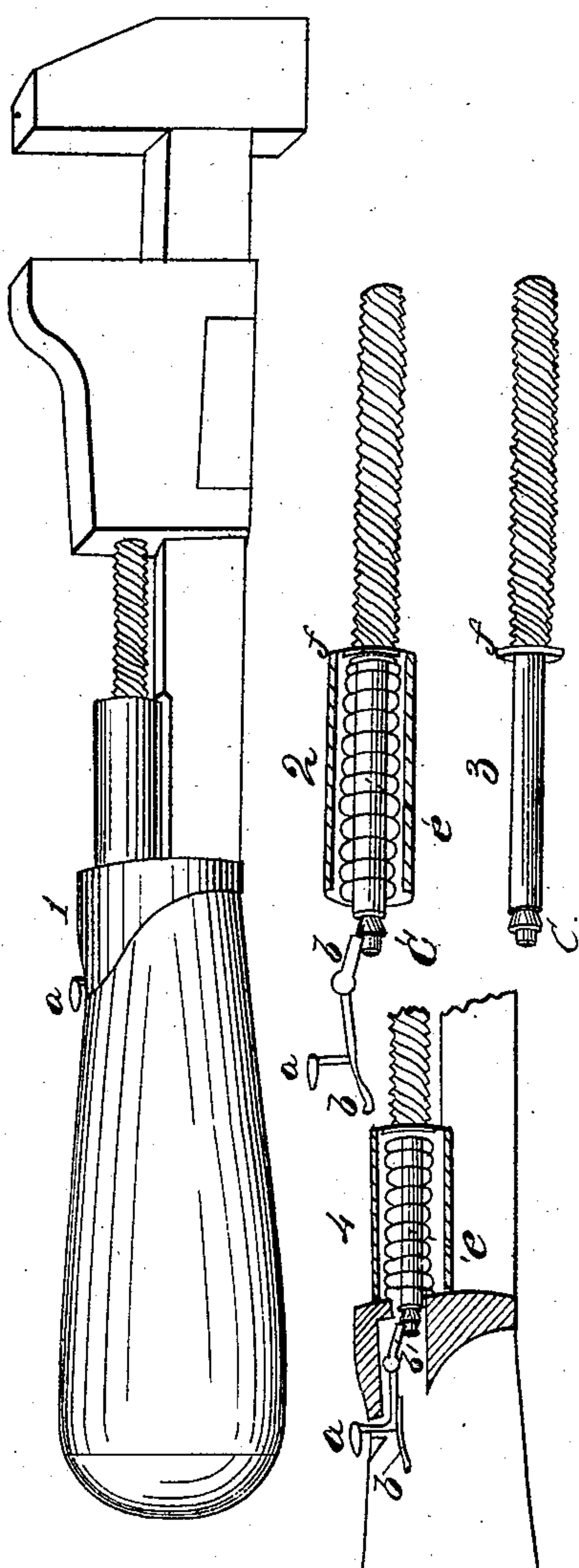


S. H. Noble,

Screw Wrench.

No 12,410.

Patented Feb. 20, 1855.



UNITED STATES PATENT OFFICE.

SAMUEL H. NOBLE, OF WESTFIELD, MASSACHUSETTS.

SCREW-WRENCH.

Specification of Letters Patent No. 12,410, dated February 20, 1855.

To all whom it may concern:

Be it known that I, SAMUEL HENRY NOBLE, of Westfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement on the Screw-Wrench, by means of which improvement the adjustable part of the wrench is made to move backward and forward, thereby obviating the necessity of removing the wrench from the nut, screw, or other body to be turned till it is driven or turned to the desired extent; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a perspective view of screw wrench with applicant's self adjusting part attached. Fig. 2, represents the screw wrench now in use with the improvement of applicant exhibited. Fig. 3, represents the screw as made by applicant. Fig. 4 shows the improvement of applicant as fixed in handle of screw-wrench.

a, b, g, in Fig. 2, represent the thumb piece; *h, h*, in Figs. 2 and 4, represent a steel spring; *c, c, c*, in Figs. 2, 3 and 4, represent a notch cut in lower end of screw; *e, e*, represent spiral spring in Figs. 2, 3 and 4; *f, f*, is an oval part of the screw; *g, g*, in Figs. 2 and 4, represent small round arbors on either side of thumb piece.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

I construct my screw wrench in the common form; I make the upper part of the handle of the wrench hollow to the desired length as represented in Fig. 4. I make my screw in the common form except the end which is notched as seen in Figs. 2, 3 and 4, part *c, c, c*; I inclose a spiral spring in the cylinder attached to the handle of the screw wrench, which cylinder I make hollow and generally longer than in the screw wrench. I also cut slots in the cylinder for the oval part of the screw (viz, the *f*, part to pass up and down the cylinder, see Fig. 3, post *f*; I insert the screw into the cylinder above described and extend the screw into the handle of the wrench (the hollow part) the desired length and so that the part *c, c*, in Figs. 2 and 3, extends into the handle; I then insert the spring *h* as seen in Fig. 4 into the hollow part of the handle

and fasten this spring at the end farthest from the screw to the handle. I then insert into the hollow part of the handle as aforesaid thumb piece *a, g, b*, as seen in Fig. 4, this rests upon one end of spring *h* above described; part *b* of thumb piece *a, g, b*, is a catch which falls into part *c* Fig. 2 above described; part *g* of thumb piece *a, g, b*, has a round arbor on either side, each of which arbors rests in holes made in handle of similar shape and size to the arbors; part *a* in Fig. 1 represents the upper part of thumb piece which extends a little above the top of handle and has a small head formed upon the top.

To operate my invention apply the screw wrench to a nut, screw or other body to be turned as heretofore, and when the nut for instance which we will suppose four sided is turned a fourth of the way around, instead of taking off the wrench and reapplying it to the next side of the nut touch the thumb to the thumb piece as represented in Fig. 1, part *a* and press downward upon the spring *h* as represented in Fig. 4, and the spring *h* will raise the part *h* of the thumb piece *a, g, b*, out of the notch *c* of the cylinder *e* and by applying a pressure on the face of the adjustable jaw of the wrench by force applied at the handle of the wrench the adjustable jaw of the wrench will give backward, and allow space between the jaws of the wrench sufficient to pass over and around the corners of the nut; by removing the thumb from the thumb piece, the spring *h* in Fig. 4, will rise up and lower the part *b* into the notch *c* as seen in Fig. 4, to the cylinder *e* a part of the adjustable jaw is held in its place and prevented from slipping back.

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

The application of the spiral or other spring as seen in Fig. 2, part *e*; the thumb piece part *a, g, b*; and the spring under the thumb piece part *h* in such a manner to the common screw of screw wrench as to create a backward and forward self adjusting motion of adjustable part of screw wrench now in use.

Westfield Jan. 30th 1855.

S. H. NOBLE.

Witnesses:

HENRY FULLER,
EMERSON V. GREENE.