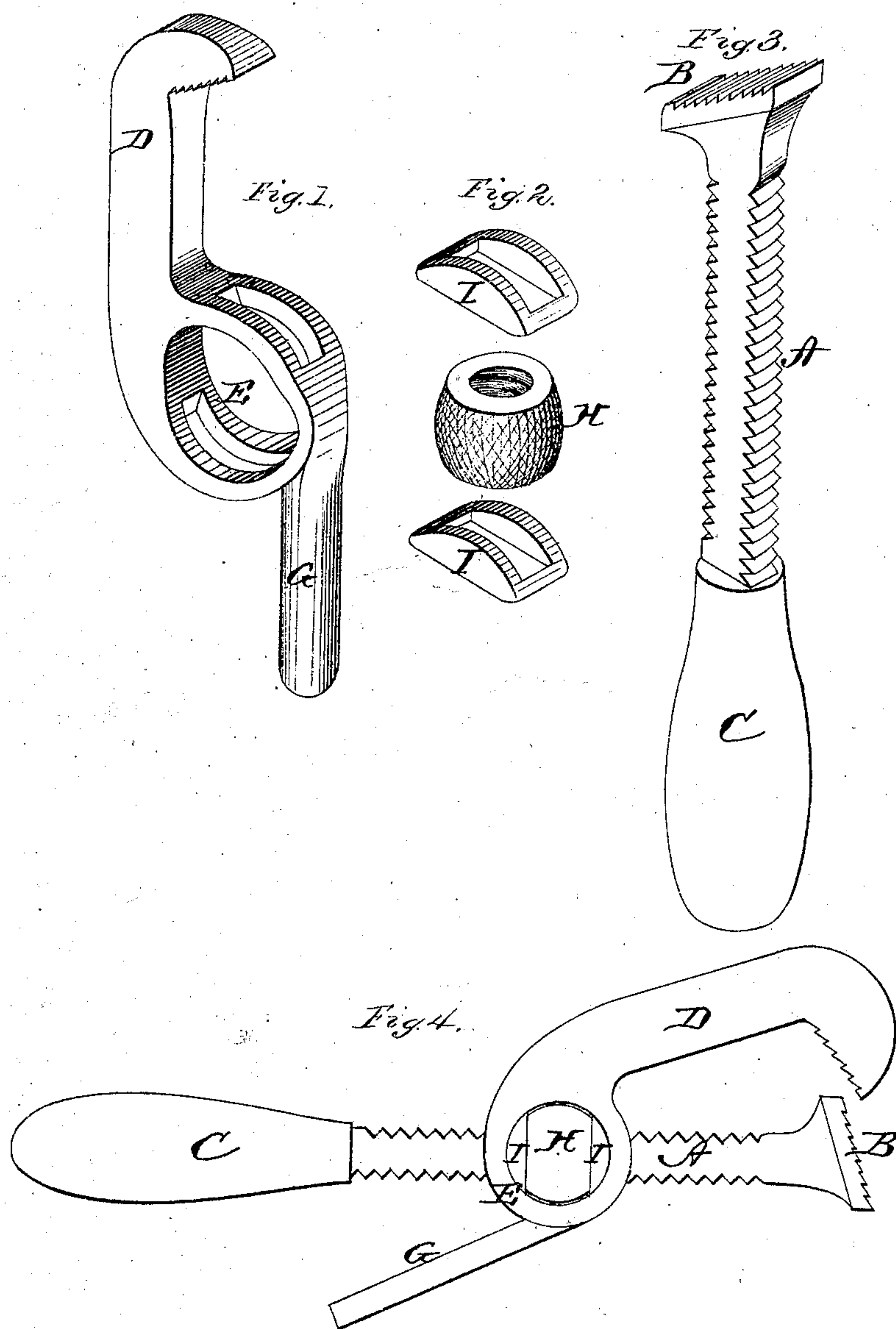


A. SECOR.
Pipe Wrench.

No. 133,804.

Patented Dec. 10, 1872.



Witnesses
John A. Ellis.
Wm L. Ellis

Inventor
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UNITED STATES PATENT OFFICE.

ALFRED SECOR, OF NORTH ADAMS, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND JOHN J. MARSH, OF SAME PLACE.

IMPROVEMENT IN PIPE-WRENCHES.

Specification forming part of Letters Patent No. **133,804**, dated December 10, 1872.

To all whom it may concern:

Be it known that I, ALFRED SECOR, of North Adams, in the county of Berkshire and State of Massachusetts, have invented certain new and useful Improvements in Pipe-Wrenches; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a pipe-wrench, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing in which—

Figures 1, 2, and 3 are detached perspective views of the various parts of which my wrench is composed; and Fig. 4 is a side view of the wrench complete.

A represents the stem of the wrench, provided at its outer end with a head, B, which is formed upon it and corrugated or toothed on its outer surface. On the other end of the stem A is fastened the handle C in any suitable manner. Two sides of the stem are smooth or flat, while the other two are threaded, as shown in Figs. 3 and 4. D represents the movable jaw, at the inner end of which is formed a ring, E, and on the other side of this ring is formed or attached a handle, G, extending in opposite direction to that of the jaw D. This ring E is slotted at the top and bottom, as shown in Fig. 1, for the passage of the stem, the slots being, however, large enough to allow of the jaw swinging back and forth. Within the ring E is placed a nut, H,

and two washers, I I, one at each end of the nut. These washers are in the shape shown in Fig. 2, so that they will, with the nut H, fill the ring E, and they are slotted sufficiently to move freely up and down on the stem A.

After the nut and washers are placed within the ring E the inner end of the stem A is passed through, the nut screwing onto the stem, and then the handle C is put on. It will thus be seen that the movable jaw D has not only the motion up and down on the stem A, but that it also has a swinging motion on the nut and washers as a center. By means of the handle G the swinging jaw is thrown on the pipe.

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

1. The movable jaw of the wrench, when the same has an independent motion upon the washers I I as well as an up-and-down motion upon the stem, substantially as and for the purpose herein specified.

2. The jaw D with slotted ring E and handle G, constructed and arranged substantially as and for the purposes herein set forth.

3. The combination of the threaded stem A with jaw B formed upon it, the swinging jaw D with ring E and handle G, the nut H, and washers I I, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ALFRED SECOR.

Witnesses:

A. G. POTTER,
WM. H. SANFORD.