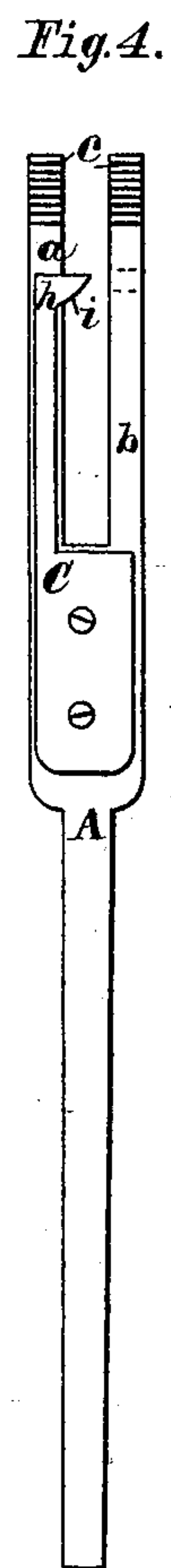
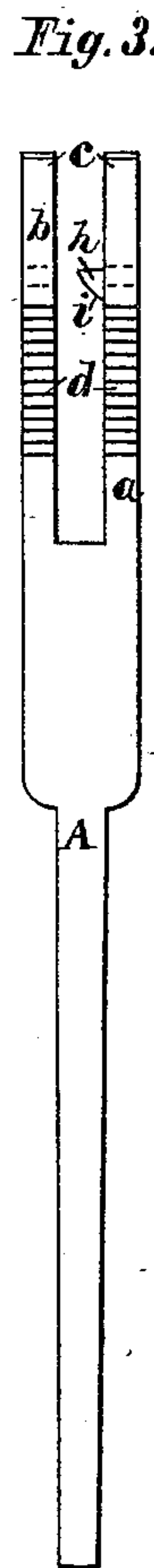
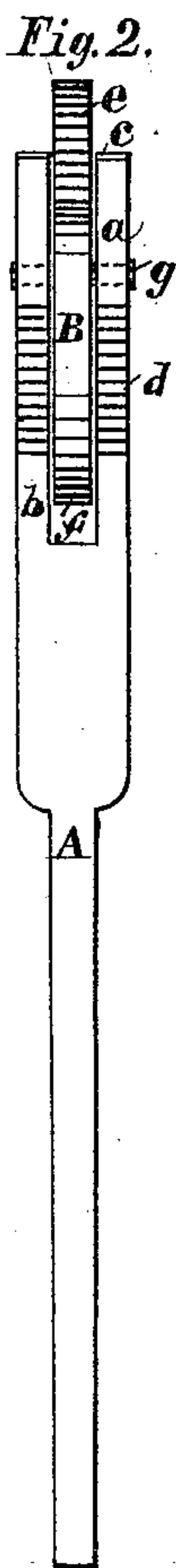
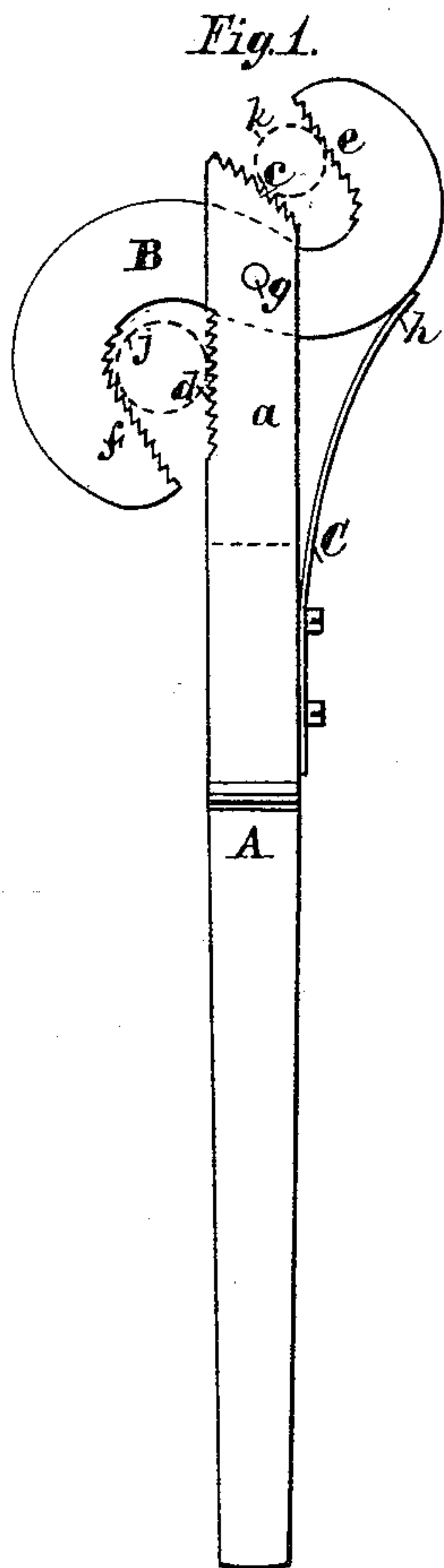


(No Model.)

J. SAMPLE.
PIPE WRENCH.

No. 364,961.

Patented June 14, 1887.



Attest;

W. E. Woodward,
W. E. Woodward, Jr.

Inventor;

John Sample,
per Edw. Summer,
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UNITED STATES PATENT OFFICE.

JOHN SAMPLE, OF NORWOOD, MASSACHUSETTS.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 364,961, dated June 14, 1887.

Application filed February 14, 1887. Serial No. 227,591. (No model.)

To all whom it may concern:

Be it known that I, JOHN SAMPLE, a citizen of the United States, residing at Norwood, in the county of Norfolk and State of Massachusetts, have invented a new and useful Pipe-Wrench; of which the following is a specification, reference being had to the accompanying drawings.

My invention consists in the devices and the combinations thereof, substantially as hereinafter described, and specifically pointed out in the claims, whereby a pipe-wrench is formed comprising, essentially, a shank of two parts, providing a jaw at the end, and also at the front or an edge face, and an S-shaped piece, provided with a jaw at each end, pivoted to said shank between said parts, so that it may be revolved to bring either jaw thereof opposite either jaw of the shank, there being also a spring to press said S-shaped piece and the jaws into working position.

In the drawings, Figure 1 is a side view of a wrench embodying my invention. Fig. 2 is a front view of the same. Fig. 3 shows a side view, and Fig. 4 a rear view, of the piece by itself forming the shank and handle.

The shank consists of two like parallel parts, *a* and *b*, there being a space between them. These parts are joined at their inner ends to form one piece, which extended constitutes the handle *A* of the wrench. The shank is serrated at the end to form a jaw, *c*, which is preferably somewhat curved. The shank is also serrated at the front or an edge face to form another jaw, *d*.

The S-shaped piece *B* is serrated at the inner face of each end to form jaws *e* and *f*. This S-shaped piece is located between the parts *a* and *b* of the shank and pivoted thereto by a pin, *g*, in such a manner that the piece *B* may be revolved between said parts to bring either jaw thereof opposite either jaw on the shank. By preference, one end of the S-shaped piece is smaller than the other, a part of the serrated face of each jaw thereof straight, and the pivot so placed that the smaller, *e*, of these jaws is somewhat nearer the pivot than the larger jaw, *f*.

A flat spring, *C*, is fastened at one end on

the rear face of the shank or handle in such a manner that the free end *h* may press against the rear face of the piece *B* when either jaw thereof is opposite the end jaw of the shank. That portion or projection at the end of the spring which bears against the piece *B* is preferably beveled or tapered at its rear edge at *i*, so that on revolution of the piece *B* the spring need not be sprung out so far as required to slip over the end of this piece, but will be somewhat twisted, so as to slip by the side of the piece *B*.

The normal position of the piece *B* is longitudinal with that of the shank, being swung thereto by the spring. In operation the piece *B* will be swung by hand to bring either jaw thereof opposite either jaw on the shank, and so that the wrench may receive a pipe between either pair of jaws, as required. The jaws will be pressed to the pipe by the spring, so as to be quickly and certainly brought to working position. Pipes between the jaws of each pair are indicated by the dotted lines *j* and *k*.

Not only is a large range of work provided for by bringing either the smaller or larger jaw of the piece *B* opposite either jaw on the shank—which is effected by simply revolving the piece *B*—but great convenience results from having a jaw at the end and also at the front or edge face of the shank, since a pair of jaws may thus be in the best position for the work.

I claim as my invention—

1. In a pipe-wrench, the combination of a shank and an S-shaped piece, providing the opposite jaws, said shank being of two parts, and said S-shaped piece being located between said parts and pivoted thereto, so that it may make a complete revolution, substantially as and for the purposes set forth.

2. The combination of the shank formed of two parts and providing two jaws, one at the end and the other at the front or edge face, and an S-shaped piece pivoted between said parts, so that it may make a full revolution, and provided with a jaw at each end, substantially as and for the purposes set forth.

3. The combination of the shank formed of

two parts, *a* and *b*, providing two jaws, one, *e*, at the end and the other, *d*, at the front or an edge face, said parts being united at their inner ends to a handle, A, an S-shaped piece, 5 B, pivoted between said parts, and provided with jaws *e* and *f* at its ends, and a flat spring, C, fastened at one end to said shank or handle, and having a projection at the other end which bears against said S-shaped piece, and which is beveled or tapered at its rear edge, 10 *i*, substantially as described.

JOHN SAMPLE.

Witnesses:

EDW. DUMMER,

GEORGE D. G. COALE.