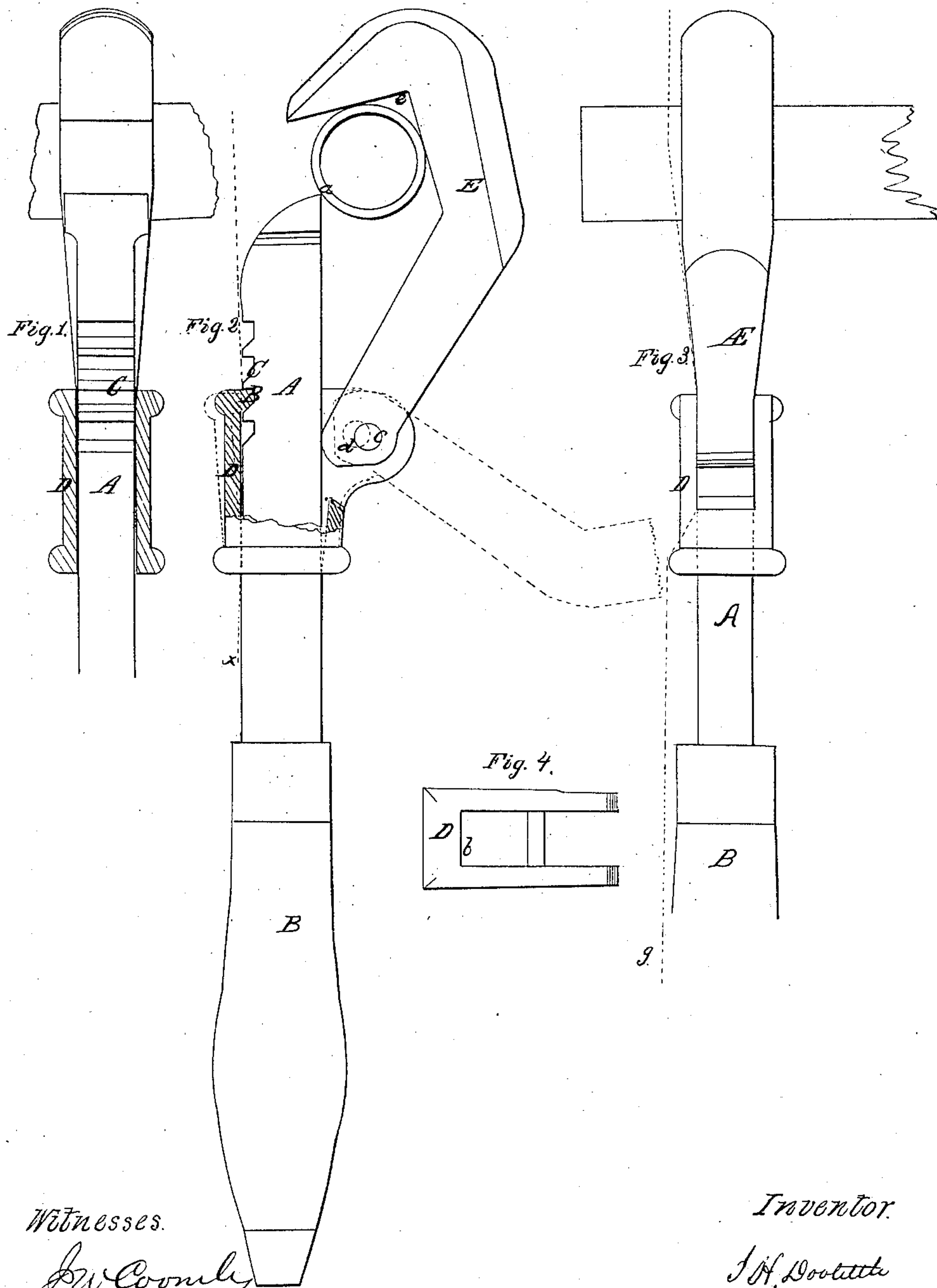


J. H. DOOLITTLE.
WRENCH.

No. 27,622.

Patented Mar. 27, 1860.



Witnesses.

W. C. Cooley
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UNITED STATES PATENT OFFICE.

J. H. DOOLITTLE, OF ANSONIA, CONNECTICUT.

PIPE-WRENCH.

Specification of Letters Patent No. 27,622, dated March 27, 1860.

To all whom it may concern:

Be it known that I, J. H. DOOLITTLE, of Ansonia, in the county of New Haven and State of Connecticut, have invented a new and Improved Pipe-Wrench; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a section of my invention taken in the line *x, x*, Fig. 2. Fig. 2, a section of ditto taken in the line *y, y*, Fig. 3. Fig. 3, an edge view of ditto. Fig. 4, a detached end view of the sliding box or sleeve of ditto.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to obtain a wrench that may be adjusted with the greatest facility to suit different sized pipes and grasp the same firmly so that they may be turned or properly acted upon without being liable to slip on the pipe.

The invention consists in the employment or use of a sliding box or sleeve placed on the shank of the implement and provided with a tooth, in connection with a rack formed at one edge of the shank and an eccentric formed at the end of a hook which is attached to the sliding box or sleeve, the whole being arranged to operate substantially as hereinafter described and effect the desired result.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A represents the shank of the wrench said shank being formed of a rectangular bar secured as usual in a handle B. One edge of the shank A, has a rack C, formed on it, as shown clearly in Figs. 1 and 2, and the outer end of the shank is rounded so as to leave quite an acute edge *a*, at the side of the shank opposite to that where the rack C, is formed, as shown clearly in Fig. 2.

On the shank A, a box or sleeve D, is placed and allowed to slide freely. This

box or sleeve has a tooth or ledge *b*, at its inner side facing the rack C, and in the box or sleeve D, at the side opposite to that where the tooth *b*, is placed, the inner end of a hook E, is secured by a bolt *c*, the hook being allowed to work or swing freely on said bolt. The shank A, it will be seen by referring to Fig. 2, is between the tooth *b*, and the bolt *c*, of hook E, and the inner end of the hook surrounding the bolt *c*, is an eccentric *d*, as shown clearly in Fig. 2.

The lower part of the orifice of the box or sleeve D, fits the shank A, quite snugly, but a certain degree of play is allowed at its upper or outer part to admit of the adjusting of the tooth *b*, in and out from the rack C, and this adjustment is effected by the eccentric *d*, of the hook E, as the latter is moved on its bolt *c*.

The hook E, is of the form shown in Fig. 2, its inner side forming an angle *e*, to receive the pipe (shown in blue) to be acted upon, the pipe having its bearing at the angle of the hook, and the edge *a*, of the shank A, as shown clearly in Fig. 2. When the hook E, is in the position as shown in Fig. 2, and grasps the pipe, the eccentric *d*, keeps the tooth *b*, of the box or sleeve D, in the rack C, and retains said box or sleeve in proper position. When however the hook is turned back as shown in red, the box or sleeve may be moved on the shank as the tooth *b*, may then be shoved out of the rack and the hook E, adjusted to suit different sized pipes, the spaces between the teeth of the rack C, corresponding to the difference in the diameter of different sized pipes.

It will be seen from the above description, that the hook may be adjusted with the greatest facility, and retained in any of its positions firmly grasping the pipe, so that the same may be turned by turning the wrench in the direction indicated by the arrow Fig. 2. Also that there being no intermediate spaces in the rack, precludes the possibility of imperfect adjustments and the consequent crushing of the pipe by the jaw passing under, and avoiding the

great strain on the instrument caused by such an accident, each space being right for a certain sized pipe.

I do not claim any of the within described
5 parts separately; but

I do claim as new and desire to secure by Letters Patent.

The combination of the rack C, on the shank A, the sliding bar or sleeve D, fitted

on the shank with tooth b, and hook E, at- 10
tached; the latter having an eccentric d,
formed at its inner end, all being arranged
to operate as and for the purpose set forth.

J. H. DOOLITTLE.

Witnesses:

GEORGE BRISTOL,
GEO. L. BISSTOL.