

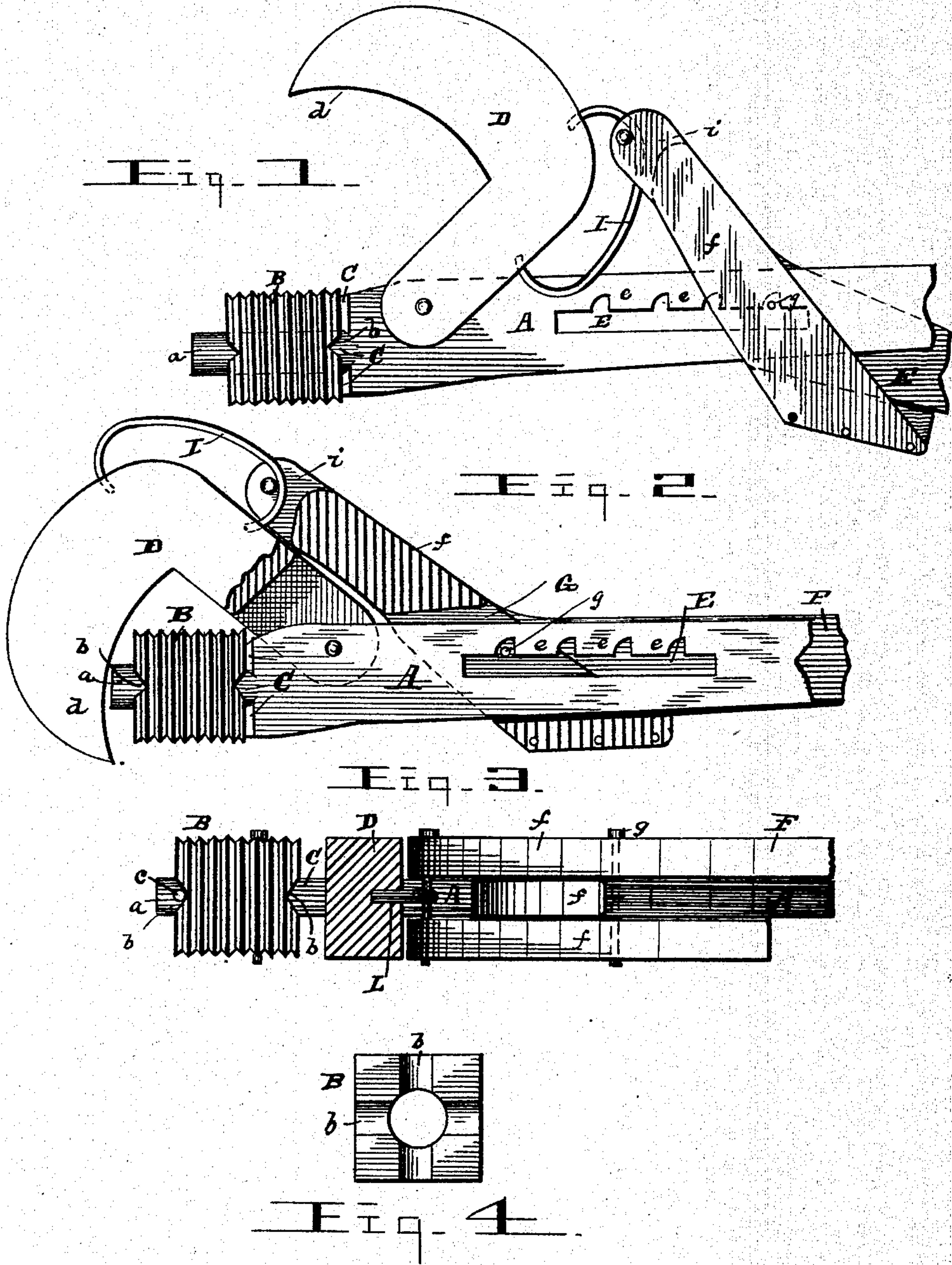
(No Model.)

D. B. WHITEHILL.

PIPE WRENCH.

No. 388,607.

Patented Aug. 28, 1888.



Witnesses.

C. W. Sully
P. L. Brooks.

Inventor,
D. B. Whitehill.

By his Attorney

J. H. Alexander.

UNITED STATES PATENT OFFICE.

DAVID B. WHITEHILL, OF NORTH CLARENDON, PENNSYLVANIA.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 388,607, dated August 28, 1888.

Application filed April 16, 1888. Serial No. 270,763. (No model.)

To all whom it may concern:

Be it known that I, DAVID B. WHITEHILL, of North Clarendon, in the county of Warren and State of Pennsylvania, have invented certain new and useful Improvements in Pipe-Tongs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a side view of my improved pipe-wrench with the handles and jaws opened. Fig. 2 is a similar view of the parts closed. Figure 3 is a top view, partly in section. Fig. 4 is a detail.

This invention is an improvement in pipe-tongs, its object being to provide an adjustable grip-wrench which will bite the pipe securely; and it consists in the novel construction and combination of parts of the wrench, as are hereinafter clearly described and claimed.

Referring to the drawings by letter, A designates the handle proper of the wrench, the front end of which is formed into a stub, *a*, upon which is mounted a reversible and revoluble angular block, B, the sides of which are milled or serrated to bite the surface of the pipe. At the base of stub *a* are formed angular shoulders C C, which engage corresponding grooves, *b*, in the ends of block B, each face having a corresponding groove, so that the block can be turned on stub *a* to bring any one of its faces uppermost, and the corresponding grooves engaged with shoulders C to keep it in such position. Each end of block B is similarly grooved and engaged by a pin, *c*, in the outer end of stub *a*, which locks the block thereon. These grooves permit the block to be reversed when its teeth or serrations become worn near one end.

D represents the angular jaw, one end of which is bifurcated and embraces handle A, to which it is properly pivoted. The other end, *d*, of the jaw is curved, as shown, so as to properly co-operate with block B to bite a pipe or rod. Handle A is slotted at E in rear of the pivot of jaw D, and in the upper edge of this slot are formed a number of forwardly-inclined teeth, *e*.

F is a supplementary handle provided with a forwardly-inclined head, *f*, having a slot, G, by which it is engaged on handle A and kept thereon by a pin, *g*, passing through the walls of slot G and through the slot in handle A.

Pin *g* is adapted to be engaged with any one of the teeth *e*, and when so engaged and the handles drawn together the end of head *f* impinges against the rear rounded edge of jaw D and forcibly closes the same, the extent of the closing varying according to the different teeth with which handle F may be engaged. To insure the opening of the jaw in all positions, I employ a loop, I, attached to or formed on the rear edge of the jaw, said loop playing through a closed slot, *i*, in the end of head *f*. When the handles are separated, the head *f* will, through loop I, draw back jaw D, as shown.

In use the handles are separated, opening jaw D, which is loosely engaged with the pipe or object to be turned. Handle F is then properly shifted on handle A and closed, forcibly turning jaw D toward block B, and consequently causing it to firmly bite the pipe. Handle A is then operated to turn the entire wrench.

The adjustable angular block B may have differently pitched and sized teeth on its several faces, to better engage varying sizes of pipe, and the block can be readily removed for sharpening. The adjustability of handle F on handle A permits the jaw to be forcibly closed thereby upon varying sizes of pipe with an equal amount of leverage.

Having described my invention, I claim—

1. The combination of handle A, having a stud, *a*, and shoulders C on its front end and a revoluble angular block mounted on stud *a*, and having grooves in its ends for engaging shoulders C, with the angular jaw pivoted to handle A, and the operating-handle therefor, all constructed and arranged substantially in the manner and for the purpose described.

2. In a pipe-wrench, the combination of the handle and its pivoted jaw with a supplementary adjustable handle having an angular head loosely connected with the pivoted jaw and adapted to open the latter when the handles are opened, all constructed and arranged substantially as and for the purpose described.

3. The combination, with the handle having
a toothed slot and the jaw pivoted thereon,
of a supplementary handle having a slotted
head adjustably engaging the slotted handle
5 and also loosely engaging the pivoted jaw,
whereby the jaw is opened when the handles
are opened and forcibly closed when the latter
are closed, all constructed and arranged to
operate substantially in the manner as and for
10 the purpose described.

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

DAVID B. WHITEHILL.

Witnesses:

MARGE E. WHITEHILL,
A. H. SIMPSON.