

No. 721,660.

PATENTED MAR. 3, 1903.

C. S. BONNEY.
PIPE WRENCH AND CUTTER.
APPLICATION FILED JUNE 23, 1902.

NO MODEL.

Fig. 1.

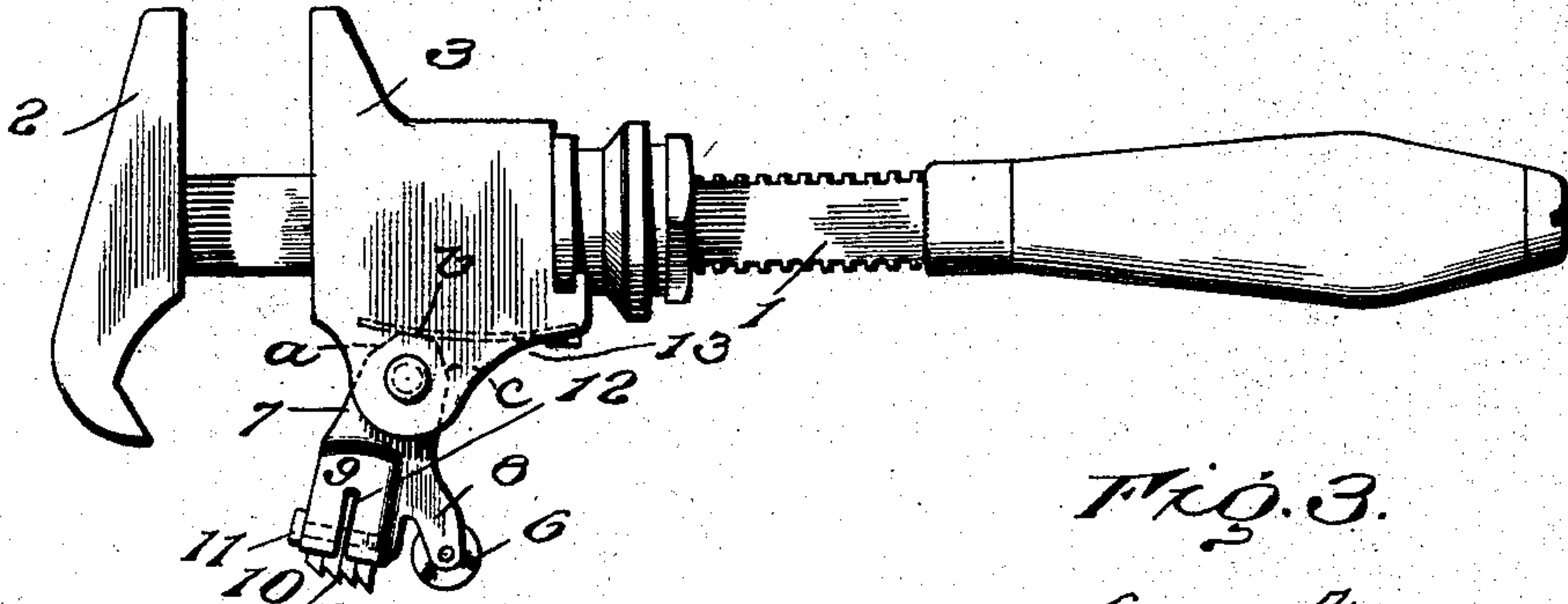


Fig. 2.

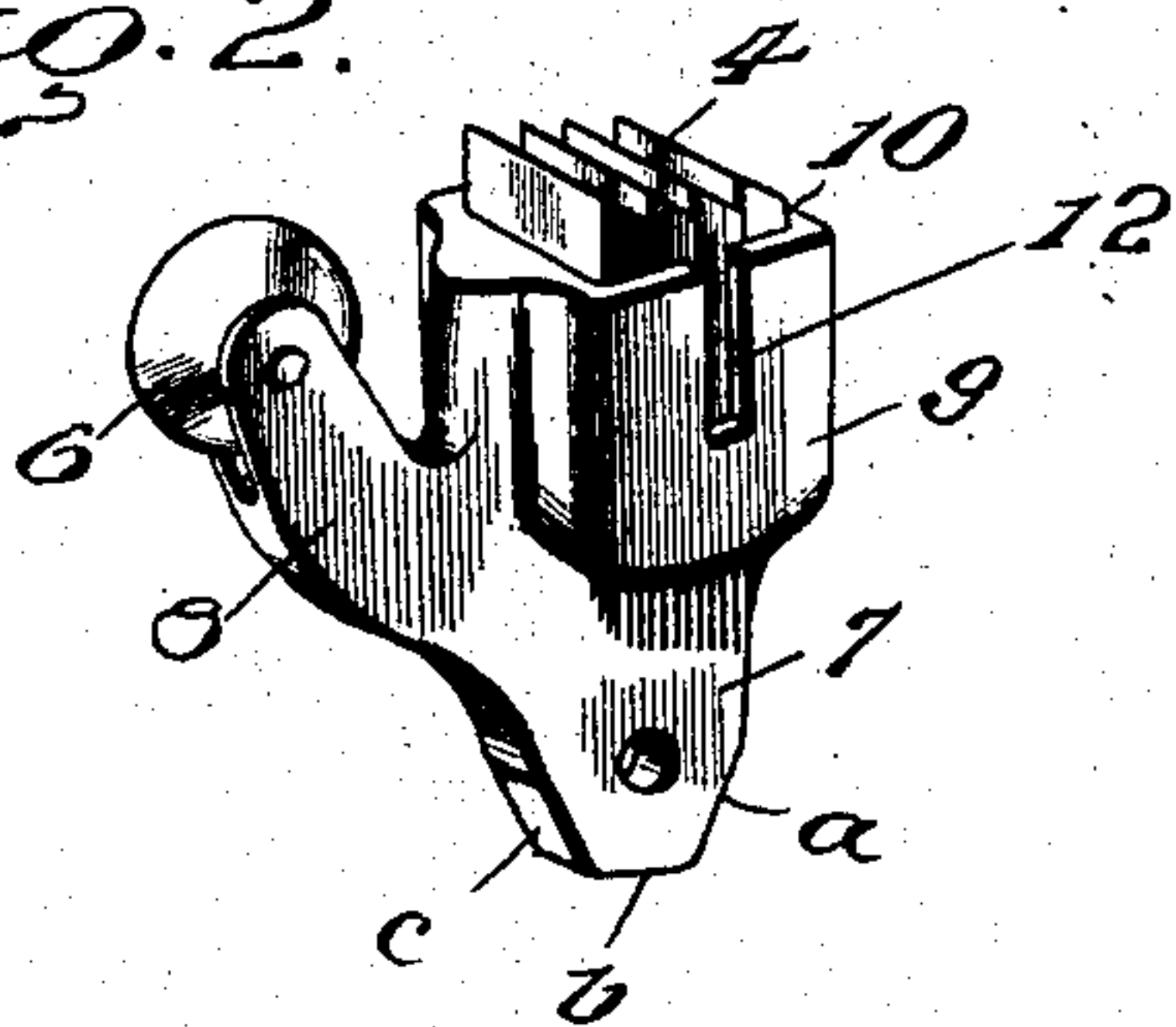


Fig. 3.

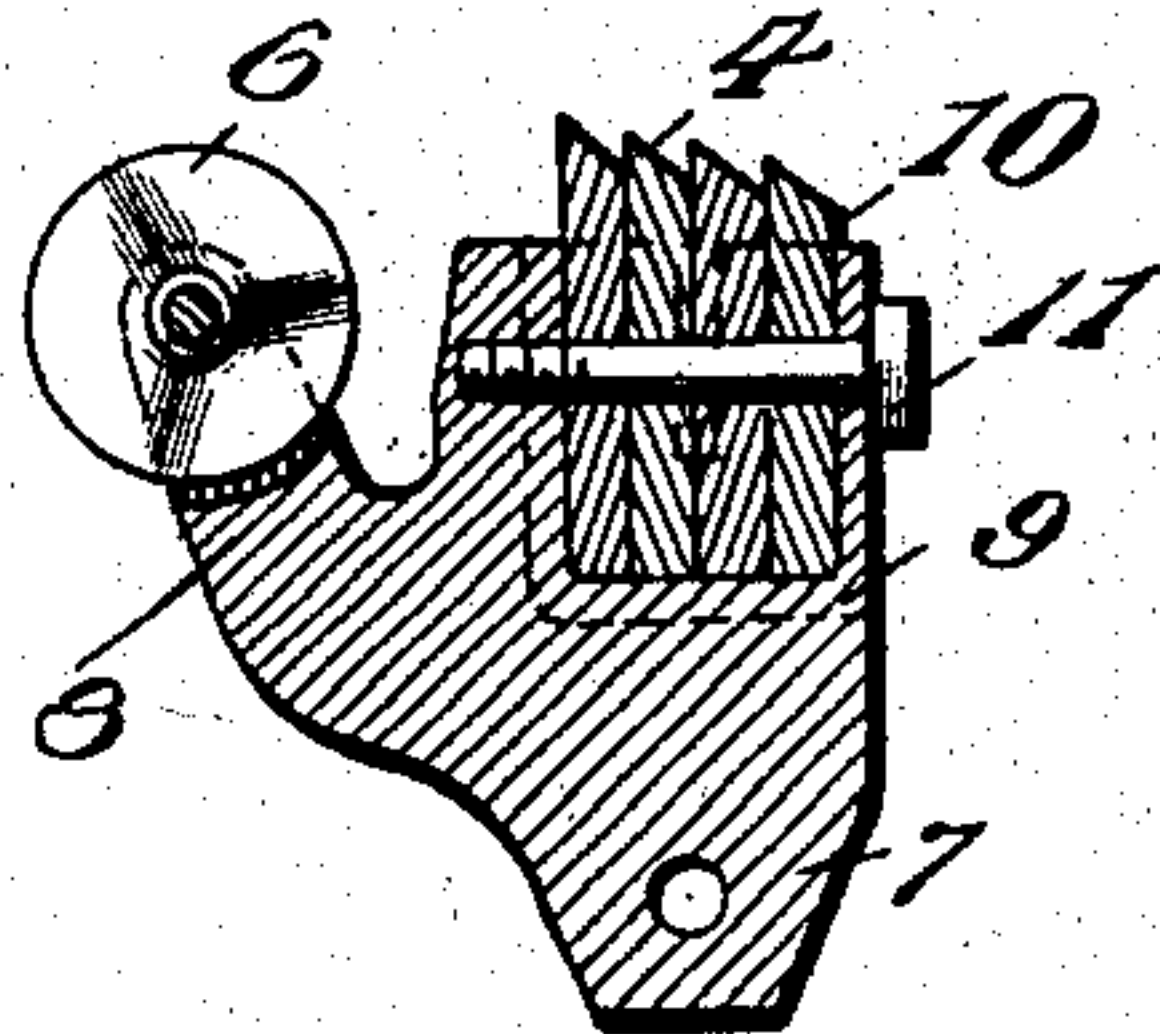


Fig. 4.

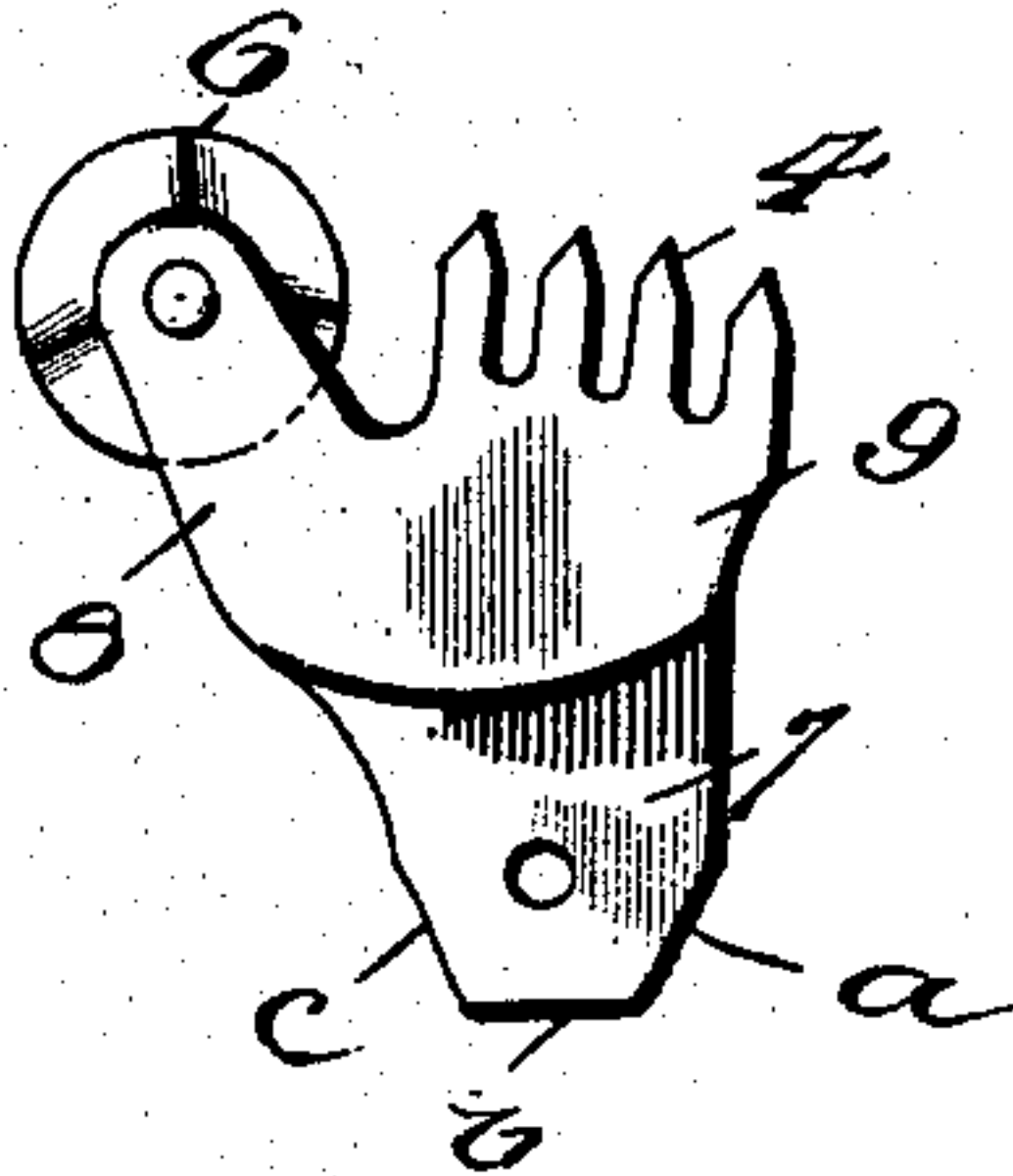
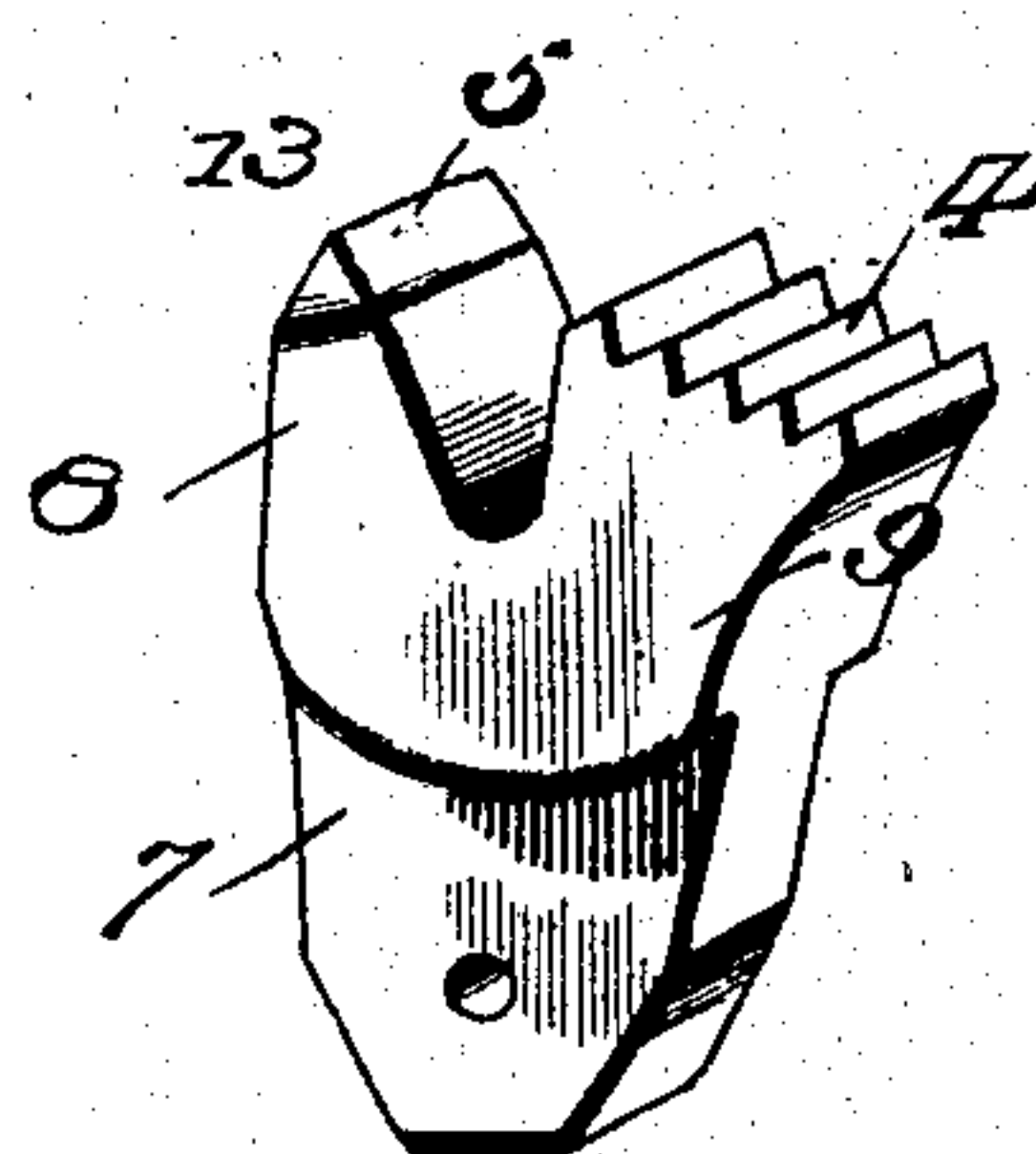


Fig. 5.



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UNITED STATES PATENT OFFICE.

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PIPE WRENCH AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 721,660, dated March 3, 1903.

Application filed June 23, 1902. Serial No. 112,902. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. BONNEY, a citizen of the United States, residing at Portsmouth, in the county of Scioto and State of Ohio, have invented certain new and useful Improvements in Pipe Wrenches and Cutters, of which the following is a specification.

This invention has relation to the type of tool embodying in its construction means for turning nuts and like angular objects and for turning pipes and rods and cutting the same, the purpose being to provide an attachment of novel construction for use in connection with pipes for turning and cutting the same.

For a full description of the invention and the merits thereof, and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a wrench embodying the invention. Fig. 2 is a perspective view of the attachment. Fig. 3 is a central section thereof. Figs. 4 and 5 show modifications of the attachment.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The wrench may be of any construction, and it comprises the stock 1, fixed jaw 2, and movable jaw 3, the latter being constructed to receive the pipe grip and cutter comprising the attachment. The attachment is preferably applied to the movable jaw 3 and is pivoted thereto and comprises teeth 4 and a cutter, which, as shown at 6, is preferably a wheel. The body of the attachment comprises a shank 7 and branches 8 and 9, the latter being provided with the teeth and the former with the cutter. The shank 7 is pivoted to the jaw 3 to admit of bringing either the teeth or the cutter of the attachment into position for active operation, according as the work is to be gripped or cut.

In the preferred construction (shown in Figs. 1, 2, and 3) the part 9 of the attachment

is formed with a socket, into which a series of bits 10 are fitted and secured by means of a bolt or fastening 11. The outer ends of the bits are beveled, so as to form the teeth 4, and each bit is apertured for the passage of the bolt 11, which is threaded into the side of the socket adjacent to the cutter. Opposite sides of the socket are cut away or slotted, as shown at 12, to admit of the inner and outer walls being pressed together by means of the bolt or fastening 11, so as to clamp the bits 10 when in position, so as to preclude any movement or displacement thereof. This construction admits of the bits being readily removed, so as to be sharpened or to be turned end for end when required for any purpose.

In the form shown in Fig. 4 the outer edge of the part 9 is provided with a series of transverse cuts forming spaces between the teeth, thereby admitting of the same being readily sharpened when dulled.

The attachment shown in Fig. 5 is an integral structure, the shank, bit 13, and teeth forming parts of the body. The teeth are not separated by cuts, as in Fig. 4; otherwise they are substantially the same. The bit 13 forms a single tool for gripping a pipe or rod and can be easily sharpened without requiring the attachment or oscillating jaw to be annealed.

The teeth of the oscillating jaw constructed in accordance with the showing in Figs. 2, 3, and 4 can be ground on an emery wheel or stone and need not be annealed to effect sharpening, which is an objectionable feature with devices of this character as generally constructed. The shank of the oscillating jaw is provided with three flat faces, as shown at *a*, *b*, and *c*, for one end of a flat spring 13 to bear against to hold the oscillating jaw in any one of the three positions. The flat face *b* is at the end and the flat faces *a* and *c* are at the edges adjacent to the flattened end. When the jaw is moved to the position shown in Fig. 1, the free end of the spring 13 exerts a pressure against the flat face or end *b* and holds the jaw out of action, and the spring 13 is adapted to bear against either of the faces *a* or *c*, according as the jaw is positioned to bring either the teeth or the cutter into position for use. When the jaw is turned so the spring 13 will bear against either one of

the faces *a* or *c*, an oscillatory movement of the wrench, as when in use, will cause the jaw to automatically tip and permit the teeth to intermittently grip the work preliminary to moving the wrench to rotate the work. The tipping feature of the oscillatory jaw provides for an instant release of the teeth or cutter from the pipe or work when the wrench is moved backward.

10 Having thus described the invention, what is claimed as new is—

1. In a wrench comprising fixed and movable jaws, a pipe-grip and cutter attachment, the latter comprising branched portions and an integral shank pivoted to one of the afore-
15 said jaws, a cutter provided upon a branched portion of the attachment and a series of teeth upon the other, the said cutter and teeth being adapted for independent coöperation with a jaw of the wrench, substantially
20 as set forth.

2. In a wrench, fixed and movable jaws, a pipe-grip and cutter attachment comprising a shank and branched portions, the said at-
25 tachment being pivoted to one of the jaws of

the wrench, a contractible socket provided upon a branched portion of the cutting attachment and having a series of bits terminating in teeth secured therein, the branched portions of the attachment being adapted for
30 separate and independent coöperation with the other jaw of the wrench, substantially as described.

3. A pipe-grip and cutter attachment to be applied to a jaw of a tool, the same comprising a shank and branched parts, one of the parts being provided with a cutter and the other having a socket, opposite walls of which are slotted to admit of contracting said socket, bits placed in said socket, and a fastening
40 for securing the bits within the socket and compressing the latter, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES S. BONNEY. [L. S.]

Witnesses:

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