

(No Model.)

T. J. FOWLER.
PIPE WRENCH.

No. 604,526.

Patented May 24, 1898.

Fig. 1.

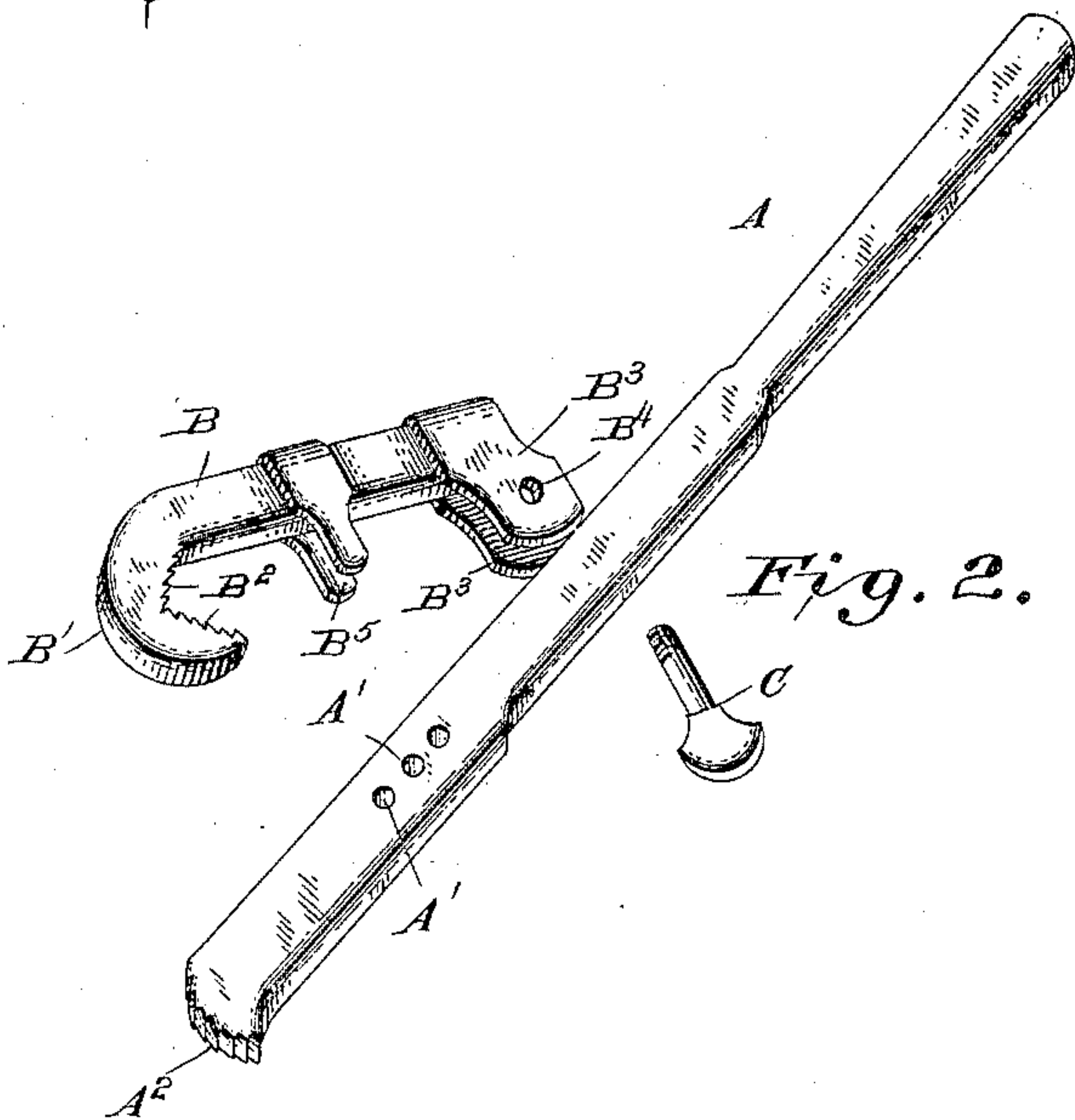
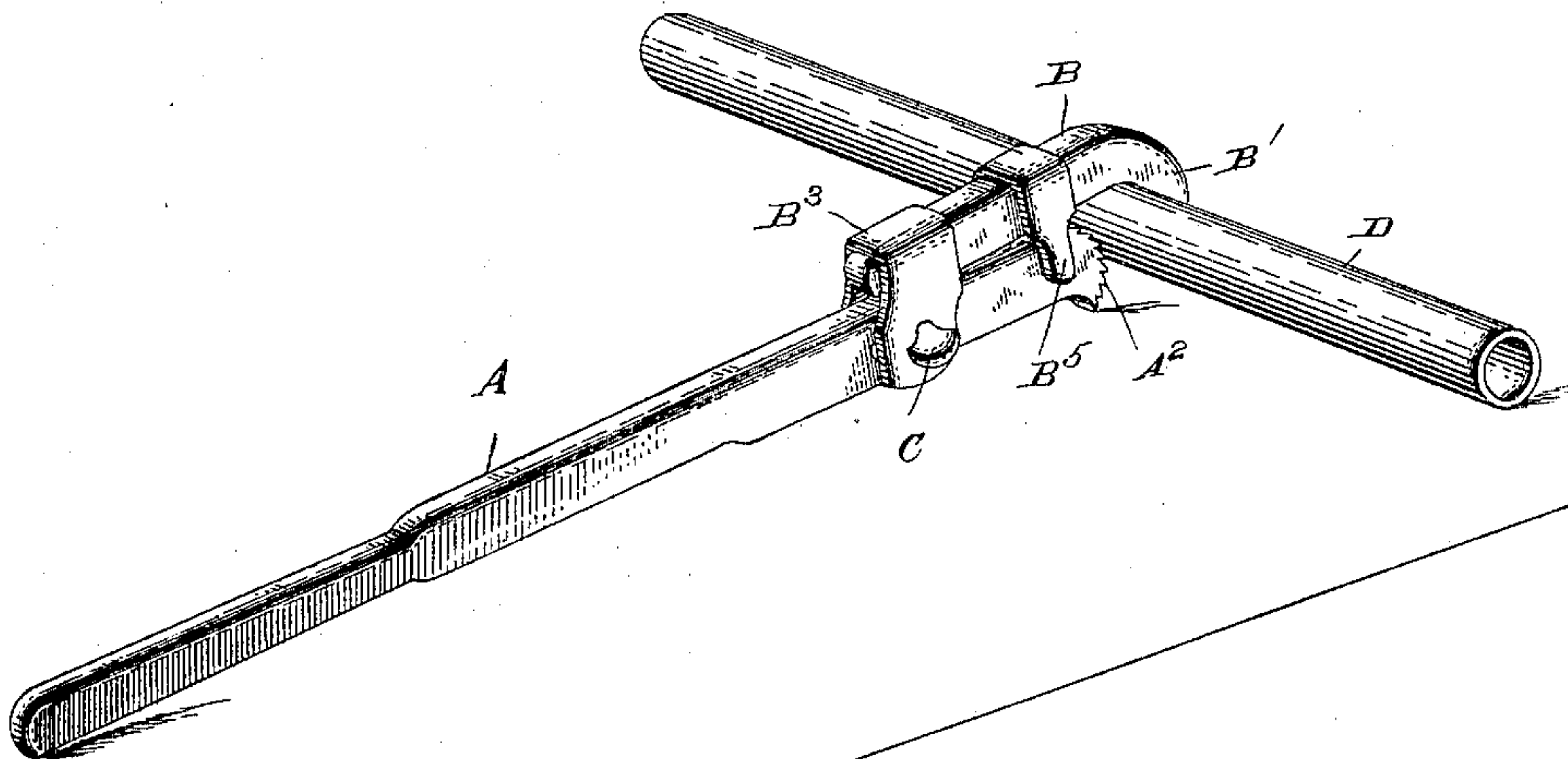


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS JEFFERSON FOWLER, OF TOPAZ, CALIFORNIA.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 604,526, dated May 24, 1898.

Application filed June 26, 1897. Serial No. 642,489. (No model.)

To all whom it may concern:

Be it known that I, THOMAS JEFFERSON FOWLER, residing at Topaz, in the county of Mono and State of California, have invented
5 a new and useful Pipe-Wrench, of which the following is a specification.

My invention relates to wrenches, and particularly to pipe-wrenches, and has for its object to furnish a wrench of this class which
10 shall be extremely simple in construction, very strong, powerful in operation, cheap, not liable to be broken in use, and composed of a minimum of parts.

With this object in view my invention consists in the improved construction, arrangement, and combination of parts hereinafter
15 fully described, and afterward specifically pointed out in the appended claim.

In order to enable persons skilled in the art to which my invention most nearly appertains to make and use the same, I will now proceed to describe its construction and operation in connection with the accompanying drawings, in which—
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Figure 1 is a perspective view of a pipe-wrench constructed in accordance with my invention in position upon a section of pipe and ready for practical operation. Fig. 2 is a detail perspective view showing the several
30 parts of which my improved pipe-wrench is composed detached from each other.

Like letters of reference mark the same parts wherever they occur in both figures of the drawings.

Referring to the drawings by letters, A is the handle of the wrench, having through it two or more holes A' and formed at its end with teeth A², which cut into and grip the pipe being turned.
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B is the movable jaw, provided at its front end with a curve B', the inside of which is V-shaped and provided with teeth B² in both sides of the V, all pointed in the same direction, which will be opposite to the teeth A² of the handle when the parts are connected together. The jaw B is provided with two arms or ears B³ at its rear end and projecting from the bar on the same side as the curve B', set wide enough apart to embrace the handle, and
40 having holes B⁴, as shown, the hole in one arm being of less diameter than that of the other and screw-threaded. This jaw B has
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also two other arms B⁵ projecting from the same side thereof and about centrally between the curve B' and arms B³, which arms B⁵ may be similar in construction to the arms B³, but without perforations, and the same distance apart.
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C is a connecting pivot-screw which is passed through one of the jaws B³, then through one of the perforations A' in handle A, and finally threaded into the opposite jaw B³, thus securely attaching the handle (or fixed jaw) A to the removable pivoted jaw B, the arms B³ and B⁵, lying on both sides of the handle A, acting as guides therefor and preventing wobbling or side strain or twist on the pivot C.
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D is a section of pipe, such as gas or water pipe, and it is shown grasped between the jaws of the wrench in Fig. 1. An inspection of this figure in connection with Fig. 2 will show that the teeth A² of the handle-jaw engage the pipe on the opposite side from the teeth B² of jaw B and that they point in the same direction when considered in connection with the periphery of the pipe D. When it is desired to turn a pipe in either direction, the jaw B, swinging on pivot C, is placed over the pipe with the teeth in contact with the pipe and pointing in the direction to be turned. By now pressing on the lever-handle, so as to bring its forward end toward jaw B, the teeth A² will engage the pipe, as seen in Fig. 1, and pressure upon the lever will tightly grip the pipe between the jaws and carry it around in the direction the teeth are pointing. The more pressure there is required to start the pipe the tighter the jaws will grip it, and the pipe is bound to turn unless the handle breaks. There can be no liability to slip, as the leverage is such that the teeth will be forced into the metal of the pipe.
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The wrench will operate upon a considerable range of sizes of pipe without changing the pivot; but it can readily be changed to adapt the wrench to larger or smaller diameters of pipe.
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My device is cheap, strong, powerful, and certain in operation, and while I have illustrated and described what I consider the best means for carrying out my invention I do not wish to be understood as confining myself to the exact construction shown, but consider
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myself entitled to all such slight changes or variations as might suggest themselves to the ordinary mechanic, such changes and variations falling clearly within the limit and
5 scope of my invention.

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

10 In a pipe-wrench, the combination of a handle-jaw having a series of perforations and a curved or cam-shaped outer end provided with teeth, a movable jaw having its outer end curved or bent to one side, the inside of said jaw being V-shaped and provided with teeth
15 on both sides of the V, two parallel arms projecting from the movable jaw on the same side as its curved end, embracing the handle-jaw

and having perforations to register with those of the handle-jaw the perforations of one arm being of less diameter than the other and 20 screw-threaded, a pivot-screw passing through the perforation of one arm of the movable jaw and one of the perforations of the handle-jaw and threaded into the perforation of the other arm of the movable jaw, and a sec- 25 ond pair of parallel guide-arms projecting from the movable jaw on the same side as the curved end, between the curved end and the pivot-arms, all substantially as and for the purpose set forth.

THOMAS JEFFERSON FOWLER.

Witnesses:

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THOMAS CARNEY.