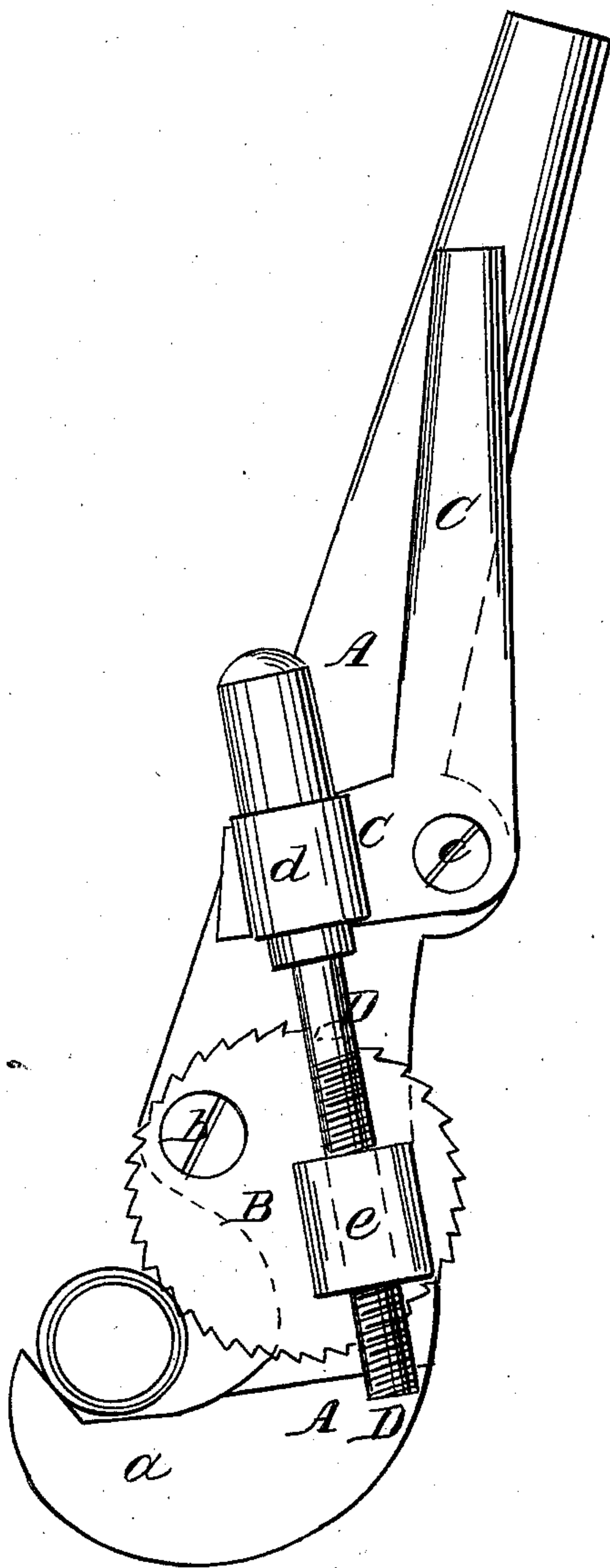


W. H. Downing,

Pipe Wrench.

No. 23688.

Patented Aug. 17. 1869.



Witnesses.

Geo. W. Mabie

Geo. H. Brookes

Inventor.
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United States Patent Office.

WILLIAM H. DOWNING, OF PIONEER, PENNSYLVANIA.

Letters Patent No. 93,688, dated August 17, 1869.

IMPROVEMENT IN PIPE-WRENCH.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM H. DOWNING, of Pioneer, in the county of Venango, and State of Pennsylvania, have invented a new and improved Pipe-Wrench; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which the drawing represents a side view of my improved pipe-wrench.

This invention relates to a new pipe-wrench, which is so arranged that it will securely hold gas and other pipe, and allow it to be turned in either direction, without releasing the pipe, and so that it can be adjusted to different-sized pipe.

The invention consists, first, in the general arrangement of a toothed eccentric-wheel, and of an elbow-lever and connecting-screw on a pipe-wrench, all combined so as to securely retain and lock a pipe of suitable dimensions.

The invention also consists in making the teeth on the wheel project in different directions, so that the pipe may be clamped to be turned in either direction.

A, in the drawing, represents the body or main bar of the wrench, having a jaw, *a*, at one end, said jaw being either smooth or roughened at its biting edge.

To the bar A is pivoted, by a pin or screw, *b*, an eccentric disk, B, which has a toothed edge, the teeth being in two sets, that project in different directions, as shown, each set occupying about one-half the circumference of the disk.

C is an elbow-lever, pivoted, at *c*, to the bar A, above the disk B.

In the short arm of the lever C is swivelled a pin, *d*, which has a cylindrical head.

A similar swivel-pin, *e*, is fitted into the disk B, in the line which is drawn through the axes of B and *b*.

A screw, D, is with its head swivelled in the pin *d*, and is screwed into the pin *e*.

By so turning the screw D that the distance between the pins *d* and *e* is increased or diminished, the position of the disk, during a certain position of the lever, is varied.

The pipe to be clamped is placed between the jaw and disk, and the lever is then swung until the disk firmly holds the pipe against the jaw.

Such pipe cannot be turned against the edges of the teeth, but may be freely revolved in the opposite direction.

The disk, as it has teeth projecting in different directions, will serve to clamp the pipe with either set, so that it can be turned at will.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The pipe-wrench, consisting of the plate A, toothed disk B, lever C, swivel-pins *d e*, and connecting-screw D, all arranged and operating substantially as herein shown and described.

WM. H. DOWNING.

Witnesses:

HENRY BOYER,
JOSHUA NOYES.