

No. 626,037.

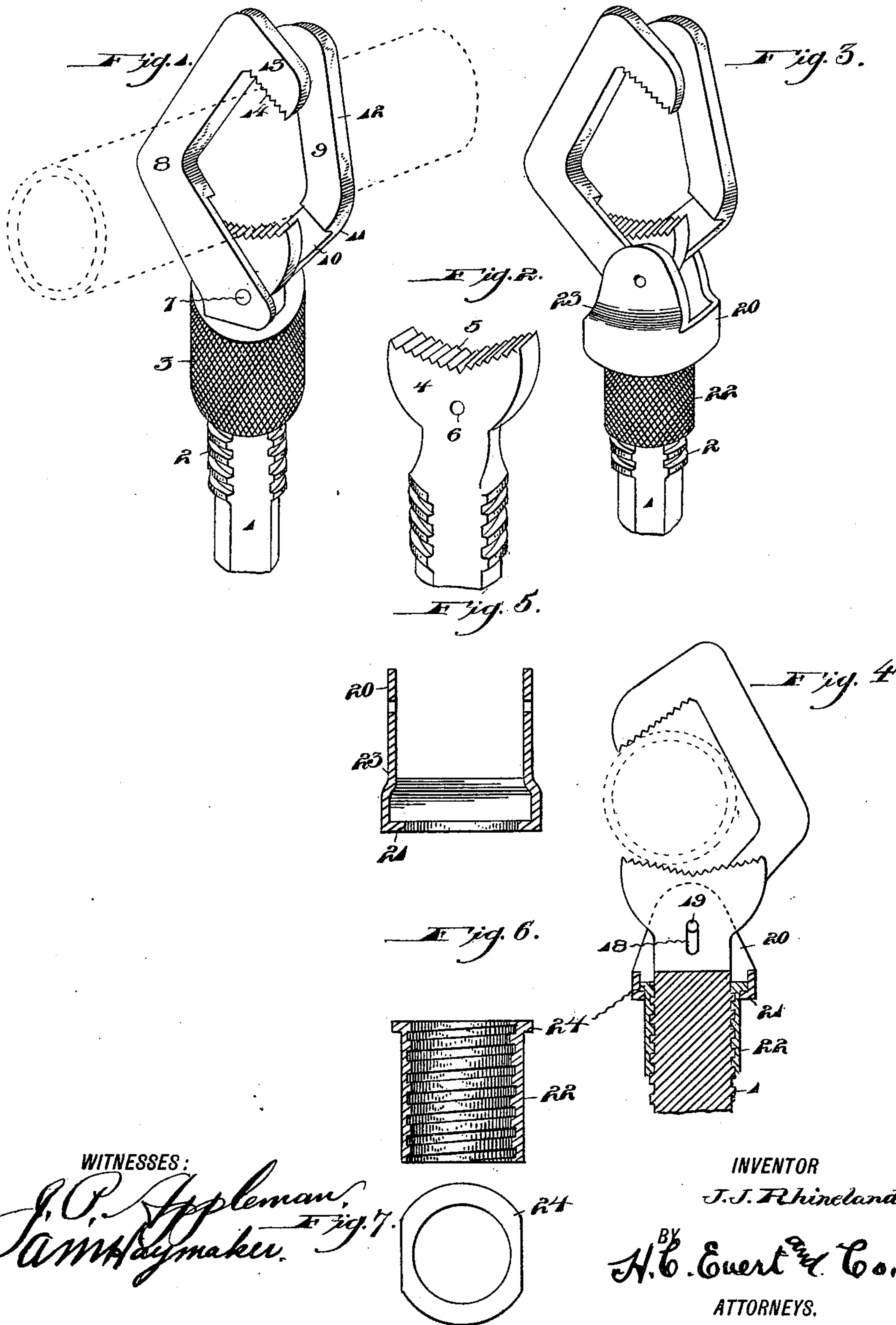
Patented May 30, 1899.

J. J. RHINELANDER.

PIPE WRENCH.

(Application filed Nov. 30, 1898.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES J. RHINELANDER, OF HARMONY, PENNSYLVANIA.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 626,037, dated May 30, 1899.

Application filed November 30, 1898. Serial No. 697,857. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. RHINELANDER, a citizen of the United States of America, residing at Harmony, in the county of Butler and State of Pennsylvania, have invented certain new and useful Improvements in Pipe-Wrenches, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in pipe-wrenches.

The particular object of my invention is to produce a pipe-wrench which can be used with pipes of different diameters, which will be simple in construction, and which will be durable in use.

For a better comprehension of my invention attention is attracted to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of a form of my improved wrench, showing the pipe attached therein in dotted lines. Fig. 2 is a perspective view of a rigid jaw formed on the upper end of the handle of the wrench. Fig. 3 is a perspective view of my preferred form of wrench, having the sliding support, to which the clamping-jaws are pivotally secured. Fig. 4 is a vertical sectional view thereof. Fig. 5 is a vertical sectional view of the sliding support for the clamping-jaws. Fig. 6 is a vertical sectional view of the adjusting-collar. Fig. 7 is a top plan view of the adjusting-collar shown in Fig. 3.

Referring to the drawings, 1 indicates the handle of the wrench, which may be of any desirable length, having formed on two opposite sides thereof the threads 2, upon which the adjusting-collar 3 operates. Formed integral with the upper end of the handle 1 is the rigid jaw 4, the edge thereof being somewhat concaved and formed with a series of gripping-teeth 5, as shown. The rigid jaw is formed with an aperture 6 to receive the pin 7 for pivotally securing thereto the clamping or gripping jaws 8 and 9. The clamping or gripping jaws 8 and 9 are cut away on a portion of their inner face, as at 10, to allow of their operating over the edges of the rigid jaw, as shown. The jaws 8 and 9 are formed as shown—that is, bent outwardly at an incline, as at 11, then inwardly at an incline, as

at 12, then downwardly on an incline, as at 13, the portion 13 being at the outer end of the jaws, forming a hook, and provided on its inner face with a series of gripping-teeth 14.

In the preferred form (shown in Fig. 3) I provide an elongated slot 18 in the rigid jaw, in which the pivotal pin 19 operates. Pivotaly mounted upon the pin 19 are the clamping or gripping jaws, which are of the same construction as that shown in Fig. 1, and rigidly mounted on the pin 19, as shown, is the adjustable support 20. The adjustable support 20 is provided at its lower end on the inner face with a collar 21, which is adapted to support the adjusting-collar 22, as shown. The side of the adjustable support converges inwardly, as at 23, to allow the adjusting-collar to carry the adjustable support in the outward direction owing to the elongated slot, and thereby spread the clamping or gripping jaws. The upper end of the adjusting-collar 22 is formed with an extending flange 24 to prevent the same from becoming disconnected from the adjustable support.

It is thought that the operation of my improved wrench, as well as its many advantages, can be readily understood from the foregoing description, taken in connection with the accompanying drawings.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

1. In a pipe-wrench, a handle having a rigid jaw formed integral with its one end, said handle being also provided with a series of threads, an adjusting-collar operating on said threads and a pair of clamping or gripping jaws pivotally secured to said rigid jaw, substantially as described.

2. In a pipe-wrench a handle having a portion of its upper end formed with a series of threads, an adjusting-collar adapted to operate on said threads, a rigid jaw formed integral with the upper end of said handle, and a pair of clamping or gripping jaws secured to said rigid jaw, substantially as shown and described.

3. In a pipe-wrench a handle having the

upper portion thereof formed with a series of threads, an adjusting-collar adapted to operate on said threads, a rigid jaw formed integral with the upper portion of said handle, 5 said handle having an elongated slot formed therein, a pivot-pin adapted to operate in said slot, a pair of clamping or gripping jaws adapted to be pivotally secured to said pin, and a support secured to said pin adapted to support at its lower end the said adjusting-collar, 10 substantially as shown and described.

4. In a pipe-wrench, a handle, a series of threads formed on the upper portion thereof, an adjusting-nut adapted to operate on said 15 threads, a rigid jaw formed integral with the upper end of said handle the edge thereof be-

ing somewhat concaved and formed with a series of gripping-teeth, a series of gripping-jaws pivotally secured to said rigid jaw which are bent outwardly at an incline, then upwardly at an incline then downwardly at an incline having a series of gripping-teeth 20 formed on the inner face of the downwardly-inclined portion, substantially as shown and described.

In testimony whereof I affix my signature in the presence of two witnesses. 25

JAMES J. RHINELANDER.

Witnesses:

JOHN NOLAND,

E. W. ARTHUR.