B. DONOHUE.

COMBINED WRENCH AND PIPE-CUTTER.

No. 195,589. Patented Sept. 25, 1877.

Fig. 1.

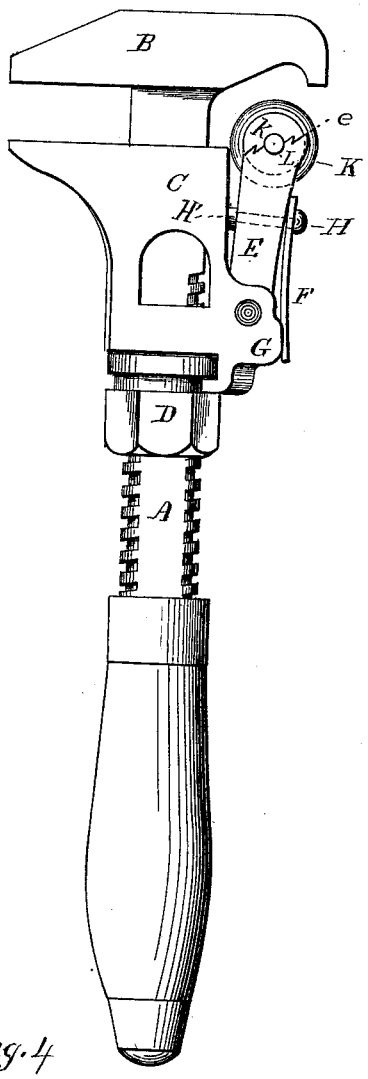


Fig. 2

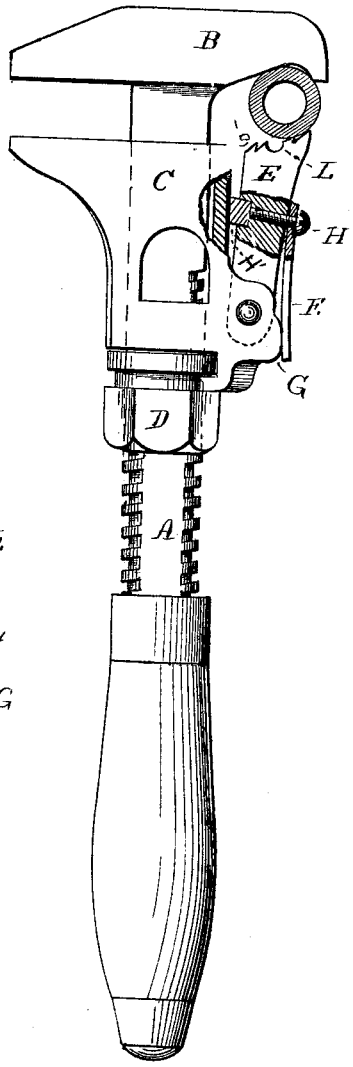


Fig 3

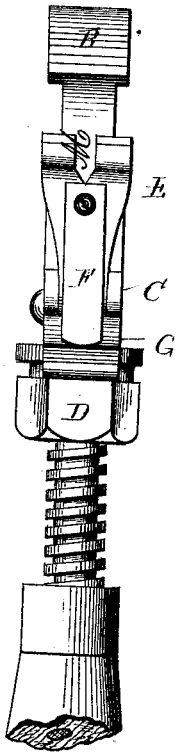
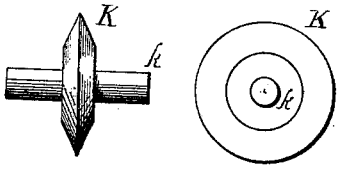


Fig. 4



WITNESSES.

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BERNARD DONOHUE, OF YONKERS, NEW YORK.

IMPROVEMENT IN COMBINED WRENCH AND PIPE-CUTTER.

Specification forming part of Letters Patent No. **195,589**, dated September 25, 1877; application filed September 1, 1877.

To all whom it may concern:

Be it known that I, BERNARD DONOHUE, of Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Combined Wrench and Pipe-Cutter, of which the following is a specification:

This invention has for its object to produce a combined tool that can be employed as a nut-wrench, a pipe-wrench, or a pipe-cutter, at will; and it relates particularly to that class of pipe-wrenches in which are employed two griping-jaws, capable of adjustment toward or from each other, one having an independent movement, and being provided with a spring-jaw, by means of which it may be held in contact with the surface to be griped.

The spring-jaws in wrenches, as thus constructed, after adjusting themselves to the article to be grasped, have a tendency, upon applying power to the wrench, to be carried below the center of the pipe, binding their bearing-surface underneath the pipe, and crushing said bearing-surface into the same, thus injuring the pipe.

My invention consists in the combination, with the stationary jaw of a wrench and the sliding jaw thereof, of a spring-jaw provided with a recess for a rotary cutter, and open-ended slots forming bearings for the journals of said cutter, as more fully hereinafter set forth.

In the drawings, Figure 1 represents a side elevation of my improved wrench with the cutter. Fig. 2 shows a similar view with the cutter detached; Fig. 3, a top view of the same; and Fig. 4, detached views of the cutter.

The letter A represents the shank of the wrench, and B the stationary jaw of the same. C represents the movable jaw, operated by the screw-carrier D on the thread of shank A. The letter E represents the spring-jaw, pivoted to the movable jaw C, and F the spring attached to said jaw E, and bearing against the rear part of the jaw C. The bearing or griping surface *e* of the pivoted jaw E is inclined and provided with teeth or serrations, as usual, to take better hold of the articles to be grasped.

The above-described parts are common to this class of wrenches, and are constructed in the usual manner.

The letter H represents a screw, by means of which the spring F is held in place, and H′ a block set in the pivoted jaw E, which bears against the movable jaw C, to which the latter jaw E is attached. The object of said block is to raise the bearing-surface of said jaw E above the center of the pipe or article to be grasped, and thus prevent all tendency of said jaw to bind under the pipe or crush into the same, as in the wrenches of this class as heretofore constructed.

In order to adapt the wrench to be used as a pipe-cutter the spring-jaw E is provided with a detachable cutter, which may be inserted or removed at will. Said cutter is preferably in the form of a rotary cutting-disk, K, mounted a shaft, *k*. It is adapted to rest in bearings L, formed on the bearing-surface of the jaw E, the rotary cutter sitting in a slot, M, in the said jaw, formed therein for the purpose.

The disk, when inserted in the jaw, is kept in position by the pipe, tube, or other article, against which its cutting-edge is brought to bear for the purpose of cutting said article.

When the device is to be employed as a pipe-wrench the cutter is removed, allowing the teeth or serrations of the jaw E to take hold of the pipe; and when it is to be employed as a pipe-cutter the cutter is inserted in said jaw E, and its cutting-edge brought to bear upon the pipe by shifting the movable jaw C.

As constructed, all tendency of the spring-jaw to bind against or crush the pipe is obviated, and the tool is adapted to be used, as occasion may require, either as a nut or pipe wrench or pipe-cutter.

Having thus described my invention, what I claim is—

In combination with the stationary jaw of a wrench and the sliding jaw thereof, the spring-jaw, pivoted to the movable jaw, and provided with a recess for a rotary cutter, and the open-ended slots forming bearings for the journals of said cutter, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

BERNARD DONOHUE.

Witnesses:

DUDLEY DUYCKINCK,

H. AMHELP.