

O. M. MILLER.
COMBINATION WRENCH.

Patented Feb. 8, 1898.

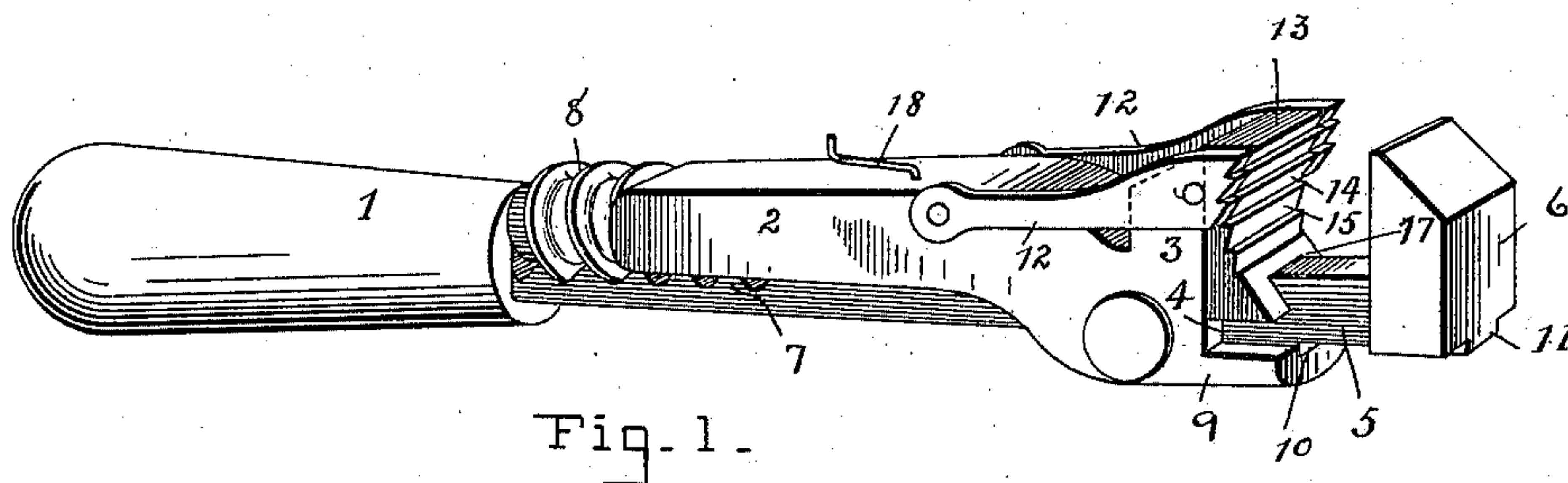


Fig-1-

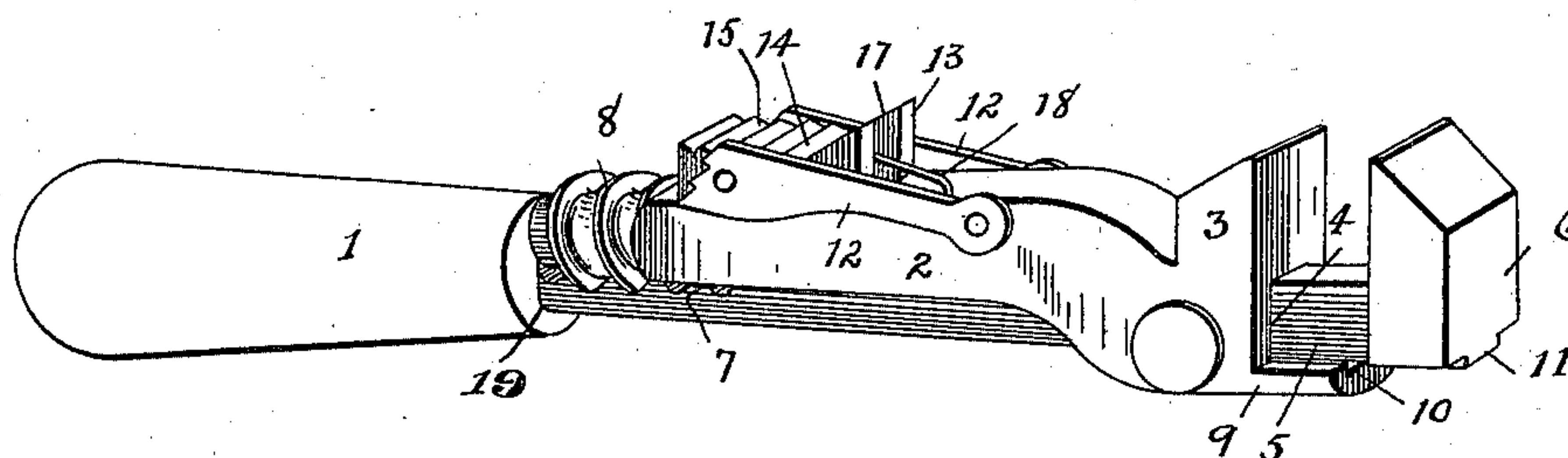


Fig. 2 -

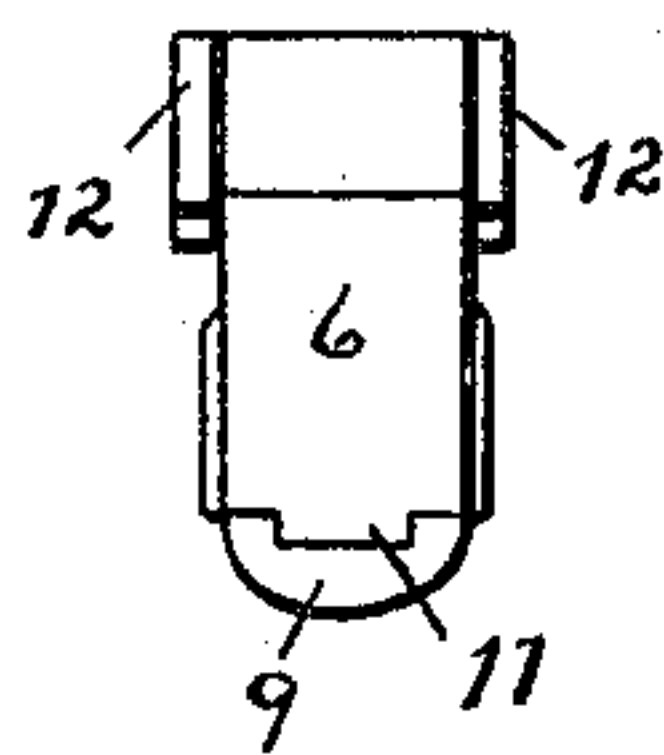


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

OSCAR M. MILLER, OF BENEDICT, NEBRASKA.

COMBINATION-WRENCH.

SPECIFICATION forming part of Letters Patent No. 598,528, dated February 8, 1898.

Application filed May 11, 1897. Serial No. 636,029. (No model.)

To all whom it may concern:

Be it known that I, OSCAR M. MILLER, of Benedict, in the county of Thayer and State of Nebraska, have invented certain new and useful Improvements in Combination-Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to combination-wrenches; and the object of the same is to provide an improved wrench which is capable of use as a monkey-wrench or as a pipe-wrench.

The invention consists in the novel features of construction hereinafter particularly set forth and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of my invention when used as a pipe-wrench. Fig. 2 is a similar view of the same adapted to be used as a monkey-wrench, and Fig. 3 is an end of Fig. 1.

Referring to the drawings, 1 indicates the handle, to which is secured the stem 2 of the stationary jaw 3. This stationary jaw 3 is slotted vertically at 4. Through this slot extends the stem 5 of the movable jaw 6, upon the inner edge of which, adjacent its lower end, are formed the teeth 7. These teeth engage the continuous thread of the adjusting-screw 8, which is journaled on the reduced end of the shank of the stationary jaw adjacent the handle. Raised from the upper face of the stationary jaw, adjacent its rear edge, is the lug 9, which is slotted at 10. In this slot the flange 11, formed on the movable jaw, is adapted to move.

The construction I have just described is adapted for use as a monkey-wrench, and for adapting the same as a pipe-wrench I provide the arms 12, which are pivoted at one end on opposite sides of the shank of the stationary jaw and at their opposite ends are pivoted to the auxiliary jaw 13. This auxiliary jaw is formed on its upper surface with the V-shaped depression 14 and provided with the teeth 15 for the purpose of securely gripping the pipe upon which it may be positioned. The inner edge of this auxiliary jaw is slotted at 17 for the purpose of engaging

the stem or shank of the movable jaw, which passes freely therethrough. The corrugations of the auxiliary jaw are continued upon the upper ends of the arms, which are pivoted on opposite sides thereof, as will appear from the drawings.

When it is desired to adapt my wrench for use as a pipe-wrench, the auxiliary jaw is moved to the position illustrated in Fig. 2, and when said auxiliary jaw is not desired for use it is swung downward to the position illustrated in Fig. 2, where it is locked by the latch 18, which is pivoted to the shank of the stationary jaw.

It should have been mentioned that the handle is provided with the longitudinal passage 19, into which the lower end of the shank of the movable jaw is adapted to extend and move.

From the above description it will be seen that I have produced an improved wrench which may be quickly converted from a monkey-wrench into an effective pipe-wrench, and vice versa, the same being exceedingly simple in construction.

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

1. The combination of a handle, a stationary jaw having its shank secured thereto, said stationary jaw slotted, a movable jaw having its shank extending through the slot of the stationary jaw, means for effecting the movement of the movable jaw, arms pivoted on the opposite sides of the shank of the stationary jaw, and an auxiliary jaw pivoted between the free ends of said arms, the inner end of the movable jaw having a slot formed therein into which the shank of the movable jaw is adapted to move when the auxiliary jaw is positioned upon the stationary jaw, the upper surface of the auxiliary jaw being formed with the depressions and provided with teeth for gripping the pipe to which it is attached, substantially as described.

2. The combination of a handle, a stationary jaw having its shank secured thereto, said stationary jaw provided with a slot, a slotted lug raised from the upper surface of the stationary jaw, a movable jaw having its shank extending through the slotted stationary jaw and movable in the slotted lug, means

for effecting the movement of the movable jaw, arms pivoted on opposite sides of the shank of the stationary jaw, an auxiliary jaw pivoted between the free ends of the arms
5 and adapted to be positioned upon the stationary jaw to adapt the wrench for use upon pipes and the like, and a latch pivoted to the shank of the stationary jaw and adapted to engage the arms of the auxiliary jaw to hold
10 the latter out of engagement with the sta-

tionary jaw when not desired for use, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

OSCAR M. MILLER.

Witnesses:

W. J. HOFFMASTER,
JOE TALBOTT.