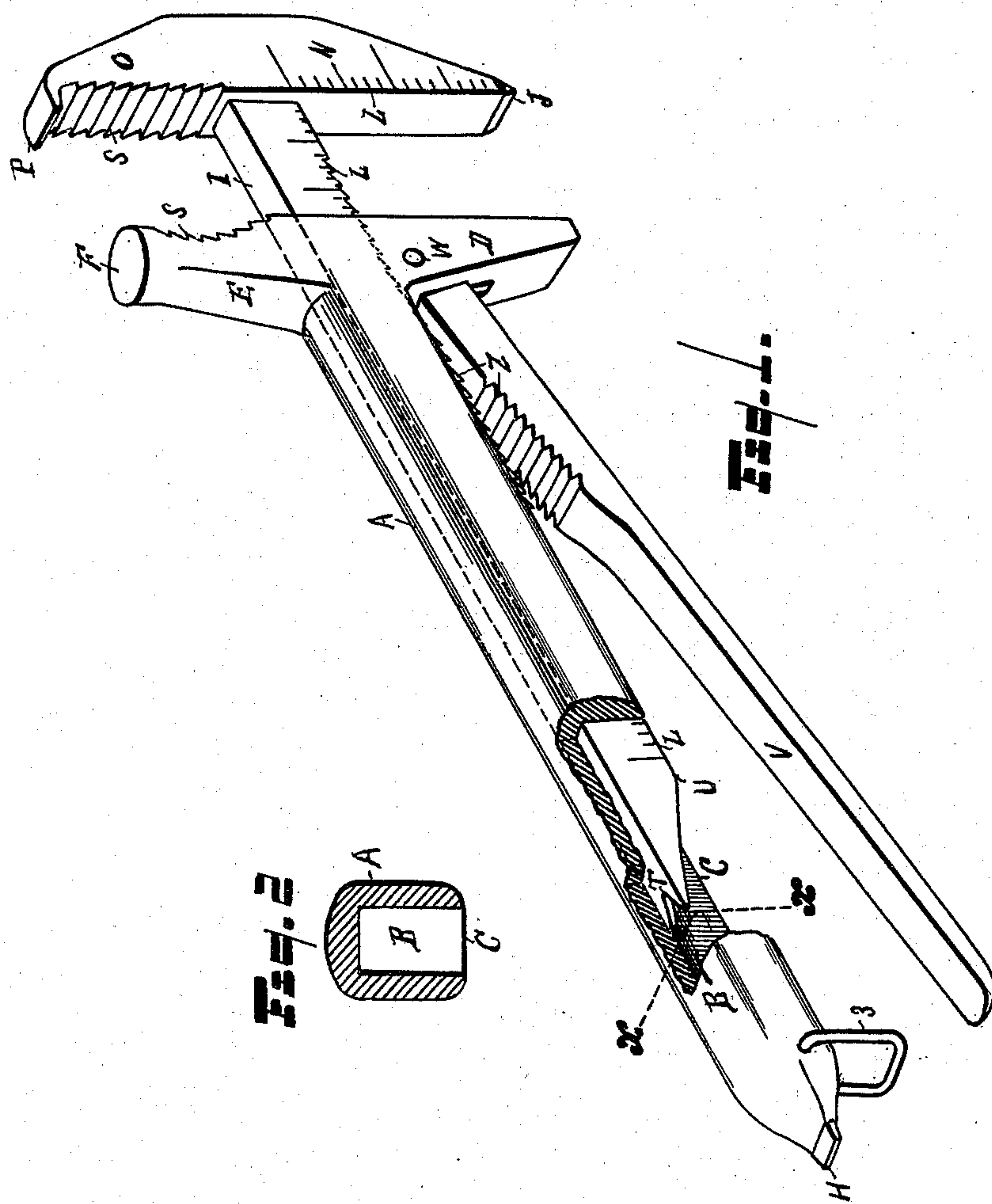


(No Model.)

C. W. BENNETT & C. W. POE.
COMBINATION WRENCH.

No. 535,480.

Patented Mar. 12, 1895.



WITNESSES
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UNITED STATES PATENT OFFICE.

CLAUDE W. BENNETT, OF PENN, AND CHARLES W. POE, OF JONES,
MICHIGAN.

COMBINATION-WRENCH.

SPECIFICATION forming part of Letters Patent No. 535,480, dated March 12, 1895.

Application filed January 12, 1895. Serial No. 534,681. (No model.)

To all whom it may concern:

Be it known that we, CLAUDE W. BENNETT, residing at Penn, and CHARLES W. POE, residing at Jones, in the county of Cass and State of Michigan, citizens of the United States, have invented a new and useful Combination-Wrench, of which the following is a specification.

This invention relates to that class of monkey-wrenches with which other features are combined adapting them for other uses in addition to their regular function as a wrench.

The object of the invention is to facilitate the opening, closing, and holding of the jaws; and further to combine several other features with the wrench, all as more particularly described and claimed below.

In the drawings forming a part of this specification, Figure 1, is a perspective view of the combination wrench showing it open, parts being broken away; and Fig. 2 is a cross section on line *xx* in Fig. 1.

Referring to the lettered parts of the drawings, A is a T-bar having the stem or handle-part chambered out as at B, with one side open at C. This chambered out portion B, extends through the head of the T-bar A, at the center. One side of the head of the T-bar A, forms one of the jaws D, of the wrench proper for ordinary use, and the other side forms one of the jaws E, of a pipe-wrench. The end of the jaw E constitutes a hammer F, to which the stem of the T-bar A, forms a convenient handle, and at the free end of said handle is a screw driver H. This feature is important as the T-bar or rather the head thereof is grasped in the hand in operating the screw driver, and thus a good purchase is had in turning the same.

At I, is another T-bar, one side of the head of which constitutes the other jaw N, of the wrench proper, and the other side forms the other jaw O, of the pipe-wrench. This jaw O, has a projection P, at the end to grip on the pipe being operated upon, in addition to the teeth S, of the pipe-wrench-jaws. This projection P, shuts over the hammer end of the jaw E, when the wrench is closed. The end of the jaw N, is formed into a riveting hammer J, to which hammer the stem of the T-bar I, forms a handle.

On one side of the stem of the T-bar I, and on the jaw N, are characters of a measuring rule, thus forming a small square L L. The free end of said T-bar I, is formed into a tack-claw T, the end of the stem on the under side being beveled up to said claw, thus forming a fulcrum at U, upon which to operate it. The stem of this T-bar I, is endwise detachable in the chambered out portion C, of the T-bar A, and through the head thereof, and is endwise movable therein when opening and closing the jaws of the wrench. The opening and closing of the wrench is hence accomplished by moving the jaws toward or away from each other, during which action the stem of the T-bar I, slides in the T-bar A, as indicated; and the jaws are held at the desired position by a lever V, at the open side C, of the chambered out portion B, one end of said lever being pivoted at W, in a mortise in the jaw D, of the T-bar A.

The contiguous surfaces of the stem of the T-bar I, and the lever V, are provided with engaging notches Z, so set in relation to each other, in a wedging manner, that when the jaws E, D, O, N, are closed onto an object being operated upon, and the lever V, is brought against the stems of the T-bars, the said jaws will grip said object tighter, and the jaws cannot be opened until said lever is raised disengaging the notches Z. Fig. 1, shows the lever raised.

At 3, is a loop pivotally attached to the free end of the T-bar A, for catching over the end of the lever V, for holding it down when the jaws are locked in their used position.

It will be observed that when the hammer F, is used, the stem of the T-bar I, being then of course detached, the lever V, closes the opening C, of the then handle part of said hammer, making it four sided or complete and the same in the hand as if solid.

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

1. A wrench, comprising a bar having a jaw at one end, said bar provided with the chambered out portion open at one side and leading through the jaw, a lever provided with notches on the side, and pivotally attached at one end to said jaw, another bar provided at

one end with the other wrench-jaw, said bar being detachable and endwise adjustable in the chambered out portion of the first named bar, and provided with notches to engage the
5 notches of the lever, substantially as set forth.

2. A combined monkey-wrench and pipe-wrench, comprising a T-bar the head of which forms a jaw of each wrench, said T-bar being provided with the chambered out portion in
10 the stem, said portion leading through the jaw and open at the side, a lever provided with notches on the side and pivoted at one end to one of the jaws, and another T-bar the head of which forms the other two jaws,
15 said bar being detachable and endwise adjustable in the chambered out portion of the first named bar, and provided with notches to engage the notches of the lever, substantially as set forth

20 3. A combined monkey wrench and pipe-wrench, comprising a T-bar the head of which forms a jaw of each wrench, said T-bar being provided with the chambered out portion in the stem, said portion being open at one side
25 and leading through the jaws, and a lever provided with notches on the side and pivoted at one end to the jaw, and another T-bar the head of which forms the other two jaws, the pipe-wrench jaw of this bar being provided
30 with the end projection in addition to the regular teeth, said bar being detachable and endwise adjustable in the chambered out por-

tion of the other bar, and being provided with notches to engage the notches on the lever, substantially as set forth. 35

4. A combination tool, comprising a T-bar the head of which forms two jaws, one of an ordinary monkey wrench and the other a pipe-wrench, one of said jaws being formed into a riveting hammer, and said jaw and the stem
40 of the bar constituting a square, the free end of said stem being formed into a tack-claw, and the side of the stem provided with notches, another T-bar the stem of which is chambered out, said chambered out portion being open
45 at the side and extended through the other jaws with which said bar is provided, one of said jaws being formed into a hammer, and the free end of the bar into a screw driver, and a lever pivoted at one end to the jaws
50 and provided with notches on the side to engage the notches on the first named T-bar, said lever being adapted to close the opening in the side of the stem of the chambered out bar when it is used as a handle, substantially
55 as set forth.

In testimony of the foregoing we have hereunto set our hands in the presence of two witnesses.

CLAUDE W. BENNETT.
CHARLES W. POE.

Witnesses:

WM. EVERLY,
WM. WALTERS.