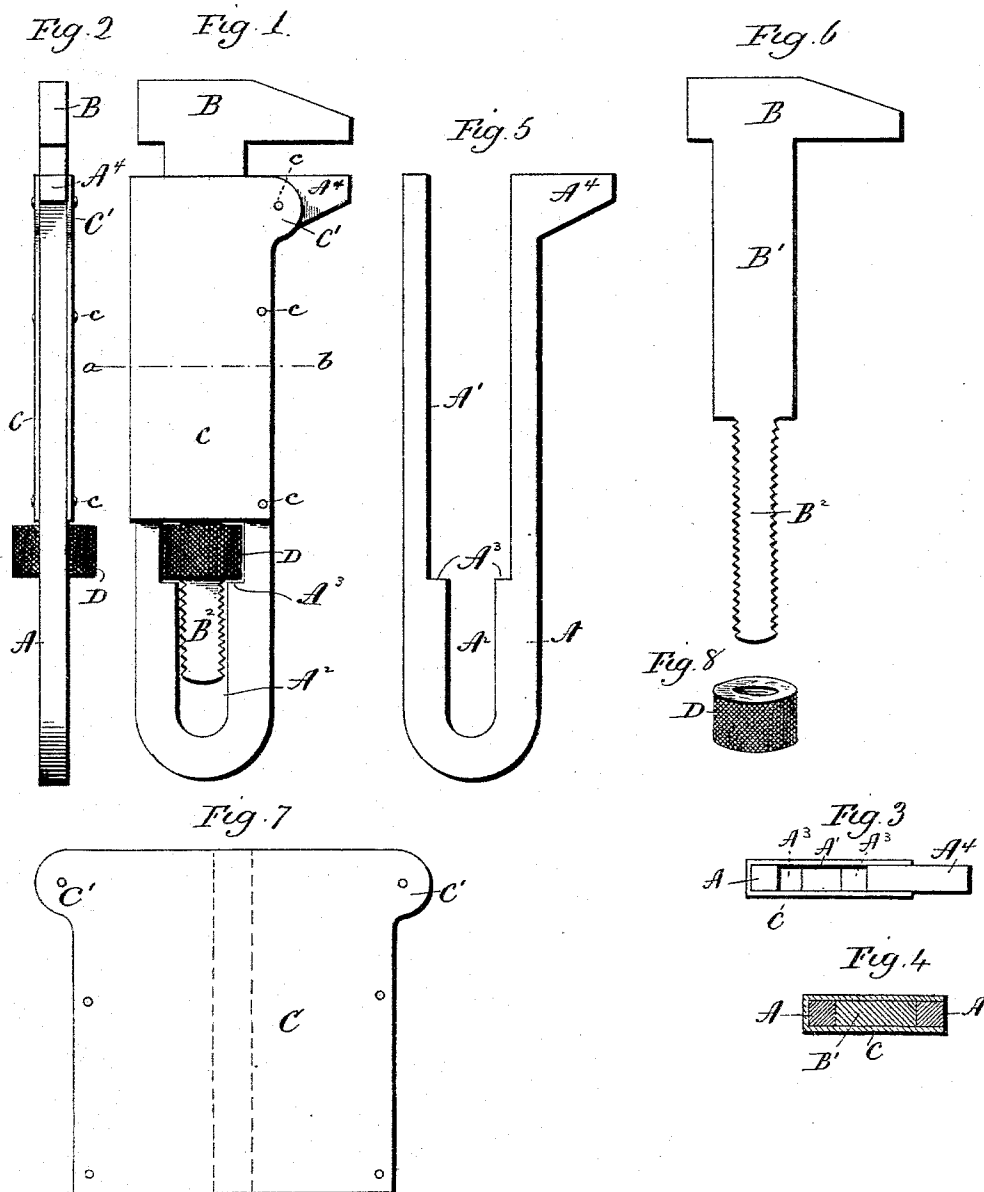


(No Model.)

J. P. LAVIGNE.
MONKEY WRENCH.

No. 533,711.

Patented Feb. 5, 1895.



Witnesses
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JOSEPH P. LAVIGNE, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE
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MONKEY-WRENCH.

SPECIFICATION forming part of Letters Patent No. 533,711, dated February 5, 1895.

Application filed October 22, 1894. Serial No. 526,570. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH P. LAVIGNE, of New Haven, in the county of New Haven and State of Connecticut, have invented a new
5 Improvement in Monkey-Wrenches; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of
10 the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in side elevation of one form which a monkey-wrench constructed in accordance with my invention may assume;
15 Fig. 2, a view thereof in front elevation; Fig. 3, a detached plan view of the body-member and strap of the wrench; Fig. 4, a view of the wrench in horizontal section on the line *a—b* of Fig. 1; Fig. 5, a detached view in side elevation of the body member of the wrench;
20 Fig. 6, a similar view of the integral jaw-member, thereof; Fig. 7, a similar view of the strap, shown as opened out or before bending it into box-like form; Fig. 8, a perspective
25 view of the operating-nut.

My invention relates to an improvement in monkey-wrenches, the object being to produce at a low cost for manufacture a light, simple, compact, durable and effective wrench.

30 With these ends in view, my invention consists in a monkey-wrench having a flat loop-shaped body-member constructed at its open end with an integral offsetting jaw and having a longitudinal guide-way, and a flat movable jaw-member corresponding to the body-
35 member in thickness, and comprising an offsetting jaw, a shank and a screw and a nut mounted in the said body-member, and receiving the screw of the said movable jaw-
40 member which it operates.

My invention further consists in certain details of construction as will be hereinafter described and pointed out in the claims.

As herein shown, my improved wrench has
45 a flat loop-shaped body-member A, having a long, central longitudinal guide-way A' and a clearance space A² forming a continuation of the outer end of the said guide-way, than which it is made narrower so as to form two
50 bearing shoulders A³ A³ between them. An outwardly projecting lug A⁴ formed upon one

leg of the said body-member, constitutes the offsetting fixed jaw of the wrench.

The movable jaw B, the shank B', and the screw B² forming what I shall call the movable jaw-member of the wrench, are formed
55 integral with each other and correspond in thickness to the said body-member, the jaw being proportioned according to the size of the projection A⁴ before mentioned, the shank B' being adapted to fit closely into the said
60 guide-way A', and the screw B² being adapted to enter the said clearance space A².

A strap C, formed of sheet-metal and bent into box-line form so as to fit over the inner
65 portion of the body-member flatwise, is secured thereto by means of rivets *c*, the open upper end of the strap having lugs C' C' which extend out over the base of the projection or fixed jaw A⁴. As thus arranged, the strap
70 holds the shank B', from sidewise displacement in the guide-way A', in which the shank is held against edgewise displacement by the end walls of the guide-way which are formed, as it were, by the two legs of the body-member.
75

An operating-nut D, interposed between the bearing shoulders A³ and the inner end of the strap, receives the screw B² aforesaid, and is rotated in the usual manner, for moving the movable jaw B toward and away from
80 the fixed jaw A⁴.

My improved wrench as will be seen from the foregoing, comprises only four parts, exclusive of the rivets, and is very simple, compact, light, durable and effective.
85

The method which I propose to follow in producing my improved wrench, consists in taking a suitable blank and cutting it in suitable dies so that two pieces will be produced, namely, the body and movable jaw-members,
90 as described.

It will be readily understood that the shank and screw of the movable jaw-member comprise the metal removed from the body-member to form the guide-way and clearance space
95 thereof. I thus produce the two main parts of my wrench with the minimum waste of material, and with the highest economy of labor.

It will be understood, of course, that the movable jaw-member is subjected to subsequent operations, such for instance as the
100 threading of the screw-blank which forms an

integral extension of the shank of the removable jaw-member when the same is cut by dies out of the body-member.

It is apparent that in carrying out my invention I may change the construction and method herein shown and described, and I therefore hold myself at liberty to make such alterations as fairly fall within the spirit and scope of my invention.

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

1. A monkey-wrench comprising a flat loop-shaped body-member having a longitudinal guide-way, and constructed at its open end with an integral offsetting jaw, a flat movable jaw corresponding to the said body-member in thickness, and comprising an offsetting jaw, a shank and a screw, all formed integral with each other, means applied to the said body-member to reinforce the open end thereof, and to prevent the sidewise displacement of the said shank in the said guide-way, and an operating-nut mounted in the said body-member and receiving the said screw, substantially as described.

2. A monkey-wrench comprising a flat loop-shaped body-member having a longitudinal guide-way terminating at its inner end in a clearance space separated from the said guide-way by shoulders, and also having at its open end an integral projection forming an offsetting jaw; a flat removable jaw-member comprising a jaw, a shank and a screw, all formed integral with each other and corresponding to the body-member in thickness, a strap applied flatwise to the said body member to reinforce the open end thereof and to prevent the sidewise displacement therein of the said shank which fits into the said guide-way, and a nut interposed between the outer end of the said strap and the said shoulders, and receiving the said screw by which the removable jaw-member is operated, substantially as described.

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

JOSEPH P. LAVIGNE.

Witnesses:

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