

No. 816,151.

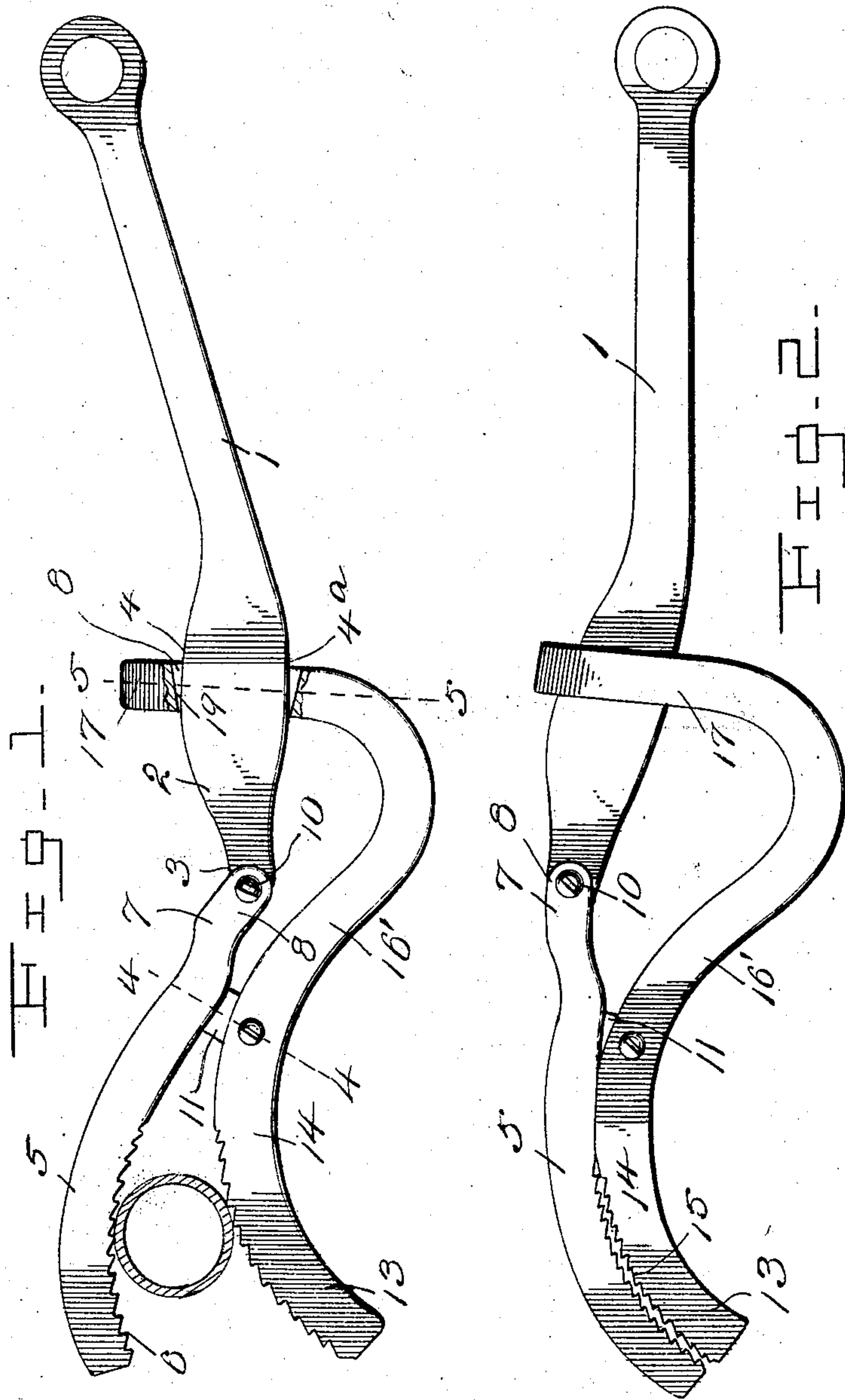
PATENTED MAR. 27, 1906.

S. E. COFFMAN.

WRENCH.

APPLICATION FILED JAN. 19, 1905.

2 SHEETS—SHEET 1.



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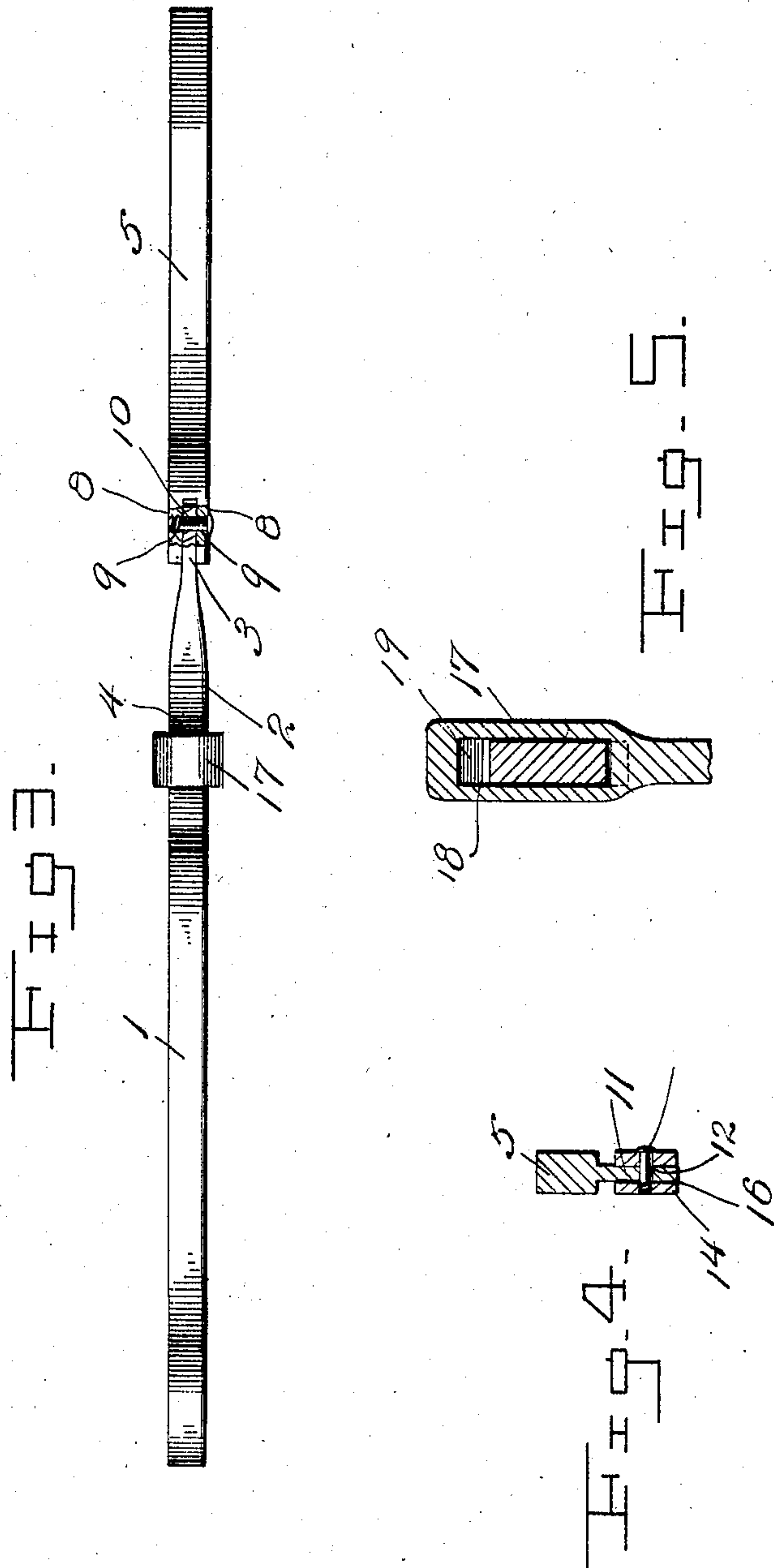
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

SEBURN E. COFFMAN, OF BAGWELL, TEXAS.

WRENCH.

No. 816,151.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed January 19, 1905. Serial No. 241,833.

To all whom it may concern:

Be it known that I, SEBURN E. COFFMAN, a citizen of the United States, residing at Bagwell, in the county of Red River, State of Texas, have invented certain new and useful Improvements in 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 pipe-wrenches.

One object of the invention is to provide an exceedingly simple, inexpensive, durable, and efficient wrench of the character named.

Another object of the invention is to obviate the use of link connections and yet obtain a positive binding action of the jaws upon the pipe, bolt, or other object to which the device may be applied.

A still further object of the invention is to provide a wrench wherein both jaws will be movable with relation one to the other and operated through the instrumentality of a single lever, both jaws terminating short of the rear end of the lever or handle.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claim, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claim without departing from the spirit or sacrificing any of the advantages of the present invention.

In the drawings, Figure 1 is a side elevation of the improved wrench engaged with a pipe, a portion of the wrench being broken away. Fig. 2 is a side elevation showing the wrench in closed position. Fig. 3 is an edge view. Fig. 4 is a section on line 4 4 of Fig. 1. Fig. 5 is a section on line 5 5 of Fig. 1.

Referring now more specifically to the accompanying drawings, the reference character 1 designates a handle, having its inner end 2 curved upwardly, with its extremity reduced longitudinally and transversely, as at 3, the upper and lower surfaces of the handle, by reason of the aforesaid curve and reduced extremity, resulting in the upper and lower cam surfaces 4 and 4^a, as clearly shown in the drawings. An upper jaw 5, having its forward end curved downwardly and provided with teeth 6, has its rear end directed slightly upwardly, as at 7, and bifurcated, as

shown. The bifurcation just alluded to results in spaced ears 8, which are provided with alining perforations 9, designed to receive the pivot-pin, rivet, or the like 10, which also pierces a perforation in the reduced inner end of the handle. It will thus be understood that the upper jaw is pivotally connected to the reduced inner end of the handle. Depending from the upper jaw is a lug 11, having a perforation 12 in its lower end. This lug is preferably formed integrally with the upper jaw and depends from the under face centrally thereof. The lower jaw of the wrench is of a very peculiar form, the outer end 13 thereof being turned downwardly with respect to the portion 14 thereof, the upper face of said turned-down portion being provided with a series of teeth 15. This lower jaw has an opening 16 formed through the upper and lower faces thereof, and directly in the rear of the said opening the jaw is again turned downwardly in reduced form, as at 16', and is curved upwardly at its rear end, as at 17, in a plane substantially at a right angle to the plane of the aforesaid portion 14. The curved or turned-up portion 17 of the lower jaw is enlarged, as shown, and provided with an eye or opening 18, in which the handle 1 of the wrench is slidably fitted. It should be noted that the said opening or the like 18 is preferably of rectangular form and is of such dimensions with respect to the handle as to permit easy sliding or sidewise movement of the handle therein. The upper wall 19 of the said opening is inclined downwardly from rear to front, while the lower wall of the opening is inclined downwardly in a direction opposite to the direction of inclination of the upper wall. By reason of such inclination of the upper and lower walls of the said eye, opening, or the like it will be seen that when the wrench is manipulated to grip a pipe, as illustrated in Fig. 1, the broadened portion of the handle rests upon the forward edge of the lower face of the eye 18, which latter acts as a fulcrum, and when the jaws are thrown apart the corresponding edge of the upper face acts as a fulcrum for the handle.

When the rear portion of the lower jaw slides upon the handle in the act of opening the wrench, the pivot-pin 12, piercing the sides thereof and the aforesaid depending lug 11, causes both jaws to spread apart at their forward ends.

It will thus be understood that in opera-

tion it is simply necessary to tilt the handle 1
rearwardly, when the jaws will be spread
apart. Then by placing the pipe, bolt, or the
like between the jaws and pressing down-
5 wardly upon the handle the pipe or the like
is clamped firmly therebetween for operation,
as well understood.

I claim—

A pipe-wrench comprising a jaw having its
10 rear end bifurcated, a second jaw provided
with a slot, a lug formed integral with said
first-named jaw and projecting from the
lower face thereof, said lug being pivotally
engaged in said slot, said second jaw having
15 its rear end beyond the slot curved down-

wardly and thence upwardly and provided
with an eye, the upper and lower walls of
which converge in the direction of the jaw, a
handle slidably disposed in said eye and hav-
ing one of its ends pivoted in the bifurcated 20
end of the first jaw, said handle having its
portion engaging the eye broadened to con-
tact with the convergent faces thereof, to
provide a fulcrum for the said handle.

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

SEBURN E. COFFMAN.

Witnesses:

W. H. LOVE,
S. W. LOVE.