

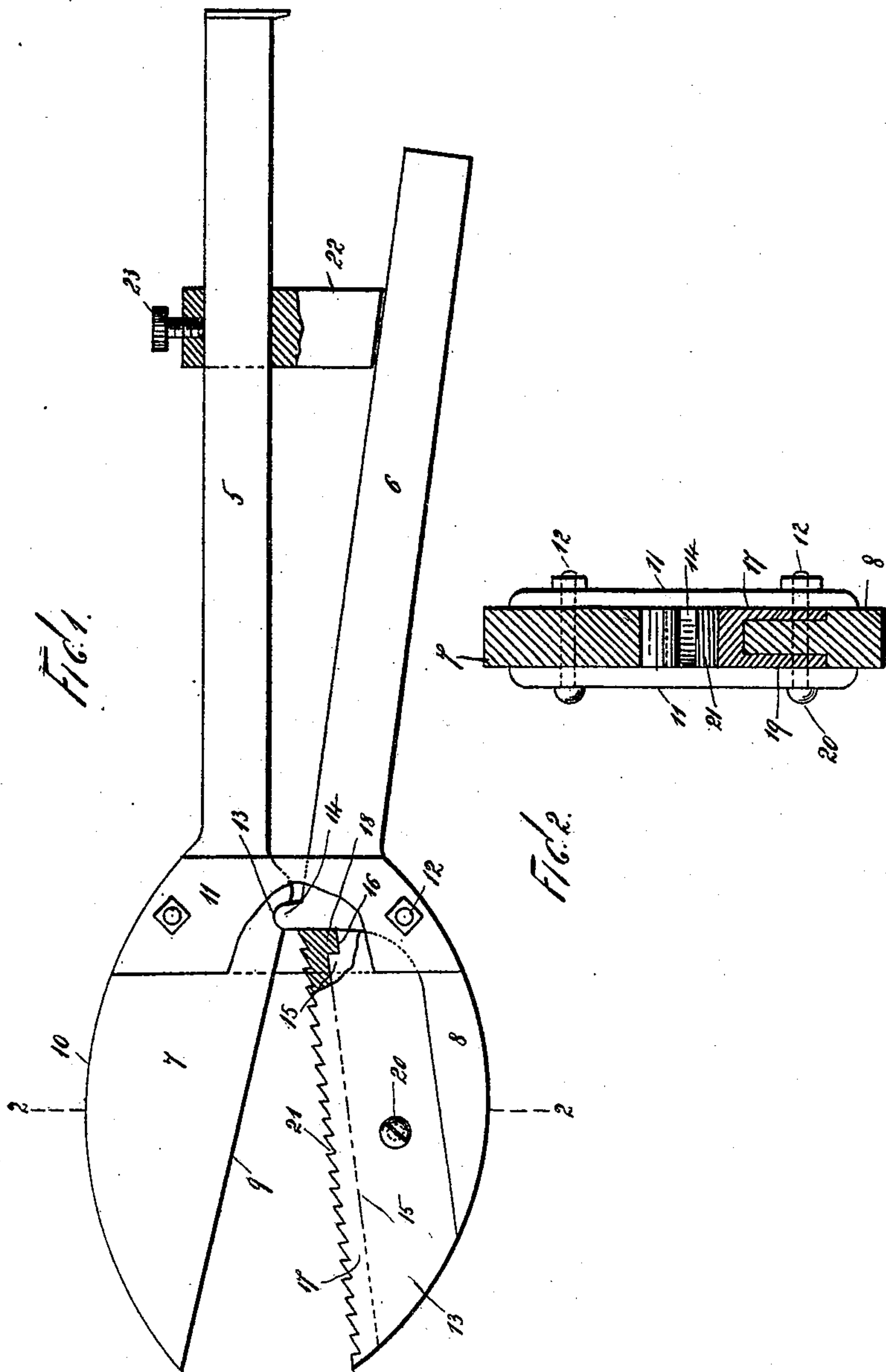
No. 641,271.

Patented Jan. 16, 1900.

J. H. CONDY.
PIPE WRENCH.

(Application filed June 19, 1899.)

(No Model.)



WITNESSES

John Buckler,
F. A. Stewart.

INVENTOR

Joseph H. Condy,

BY

Edgar Tate & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

JOSEPH HENRY CONDY, OF STOCKTON, CALIFORNIA, ASSIGNOR OF ONE-
FOURTH TO RANDOLPH C. STROUP, OF SAME PLACE.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 641,271, dated January 16, 1900.

Application filed June 19, 1899. Serial No. 721,018. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH HENRY CONDY, a citizen of the United States, residing at Stockton, in the county of San Joaquin and State of California, have invented certain new and useful Improvements in Pipe-Wrenches, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to wrenches, and particularly to what are known as "pipe-wrenches," and the object thereof is to provide an improved wrench of this class which is simple in construction, effective in operation, and also strong and durable, and which may be quickly and easily repaired; and with these and other objects in view the invention consists of a wrench constructed as herein- after described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which--

Figure 1 is a plan view of my improved wrench, part of the construction being shown in section; and Fig. 2, a cross-section on the line 2 2 of Fig. 1.

In the drawings forming part of this specification the separate parts of my improvement are designated by the same numerals of reference in each of the views, and in the practice of my invention I provide a wrench comprising two handles 5 and 6, provided, respectively, with jaws 7 and 8. The jaw 7 of the handle 5 is straight on its inner edge, as shown at 9, and preferably convex or segmental on its outer edge, as shown at 10; but the form of the outer edge of said jaw is immaterial and the shape of the inner edge may be varied slightly without departing from the scope of my invention. The jaws 7 and 8 of the handles 5 and 6 are connected at their heels or adjacent to said handles by transverse plates 11, which are bolted thereto, as shown at 12, and the connection between said jaws and said plates is a pivotal connection, or, in other words, the handles and jaws are free to swing on the bolts 12. The jaw 7 is also provided in line with the bolts 12 with a notch or recess 13, circular or segmental in cross-section, and the jaw 8 with a corresponding

lug or projection 14, which enters said notch or recess, and said notch or recess and the said lug or projection form a fulcrum on which the handles and jaws are free to swing in the manner of ordinary levers. The jaw 7 is also preferably straight on its inner edge and is cut out longitudinally down to the line 15, (shown in dotted and full lines in Fig. 1,) and adjacent to the lug or projection 14 said jaw is provided with an inwardly-directed angular notch or recess 16, and I also provide a supplemental jaw 17, mounted on the jaw 8 and provided at its inner end with an angular lug or projection 18, which enters the angular notch or recess 16, and said supplemental jaw 17 is provided with side flanges 19, which are countersunk in the sides of the jaw 8, and the supplemental jaw 13 and the jaw 8 are connected by a screw or bolt 20. The inner edge of the supplemental jaw 8 is provided with the usual teeth 21.

Mounted on one of the handles, preferably the handle 5, as shown in the drawings, is a slidable block 22, provided with a set-screw 23, by which it may be keyed to said handle, and by adjusting said block longitudinally of the handle 5 said handles 5 and 6 may be adjusted relatively or the limit of their inward lateral movement on their pivots 12 fixed, and any suitable device may be substituted for the block 22 for accomplishing this object, such as a set-screw passed through one of the handles and bearing upon the other.

One of the chief features of my invention consists in the fact that the handles do not cross each other, and the strain produced in operating the wrench serves to force said handles together instead of forcing them apart, and by adjusting the inward movement of the handles the operator is enabled to use the points of the jaws instead of the heels thereof in manipulating a pipe or other device, which facilitates the operation of the wrench in corners or narrow spaces.

Another important feature of my invention consists in the fact that one of the operative jaws is removable. This removable part consists of the supplemental jaw 13, which may be removed and replaced by a new one simply by removing the bolt or screw 20, and the notch or recess 16, formed in the jaw 8, and the cor-

responding lug or projection 18 on the supplemental jaw 13, which enters said notch or recess, serve also to prevent the displacement of the supplemental jaw and relieve the strain on the screw or bolt 20, the pull on said supplemental jaw in the operation of the device being outward and the strain being consequently largely borne by the lug or projection 18.

10 My improvement may also be applied to ordinary pliers, as will be readily understood, in which devices by reason of the fact that the handles are crossed the strain is thrown upon the hand or hands; but by means of my
15 improvement when applied to pliers the strain is removed from the hand or hands, as the said handles are forced inwardly instead of outwardly, and the jaws of the device are thus prevented from slipping and are held firmly in
20 connection with the object to which they are applied. This statement also applies to the operation of the device as a pipe-wrench, and a further advantage consists in the fact that
25 with my improved wrench the more pressure that is applied to the handles the tighter the jaws will grip the device to which they are applied.

With ordinary pipe-wrenches it is customary to jam the jaws onto the pipe in order to
30 cause them to more securely grasp and hold the pipe; but with my improvement this is not necessary, as the movement of the handles in the same direction operates to force the jaws together and cause them to more se-
35 curely grasp and hold the pipe, and with my improvement it is not necessary to grip the handles in operating the wrench, the only movement necessary being to depress both handles.

40 My improved wrench is simple in construction and operation and also comparatively inexpensive, and it will be apparent that changes in and modifications of the construction described may be made without depart-
45 ing from the spirit of my invention or sacrificing its advantages.

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

50 1. A wrench of the class described, comprising two handles, each of which is provided with a jaw, said jaws being connected at their

heels by transverse plates bolted thereto, one of said jaws being provided in line with said bolts with a notch or recess, and the other 55 with a corresponding lug or projection which enters said notch or recess, substantially as shown and described.

2. A wrench of the class described, comprising two handles, each of which is provided 60 with a jaw, said jaws being connected at their heels by transverse plates bolted thereto, one of said jaws being provided in line with said bolts with a notch or recess, and the other with a corresponding lug or projection which enters 65 said notch or recess, and one of said jaws being also provided with a removable supplemental jaw, substantially as shown and described.

3. A wrench of the class described, comprising two handles, each of which is provided 70 with a jaw, said jaws being connected at their heels by transverse plates bolted thereto, one of said jaws being provided in line with said bolts with a notch or recess, and the other 75 with a corresponding lug or projection which enters said notch or recess, and one of said jaws being also provided with a removable supplemental jaw, and means for limiting the inward movement of the handle, substan- 80 tially as shown and described.

4. A wrench of the class described, comprising two handles, each of which is provided 85 with a jaw, said jaws being connected by means of a transverse plate pivotally secured to each, said jaws engaging each other pivotally adjacent said plate, substantially as shown and described.

5. A wrench of the class described, comprising two handles, each of which is provided 90 with a jaw, said jaws being connected by means of a transverse plate pivotally secured to each, said jaws being provided respectively with a notch or recess and a lug or projection which operates in connection therewith, sub- 95 stantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 10th day of June, 1899.

JOSEPH HENRY CONDY.

Witnesses:

GEO. H. BUTTRICK,
CHAS. A. MARTIN.