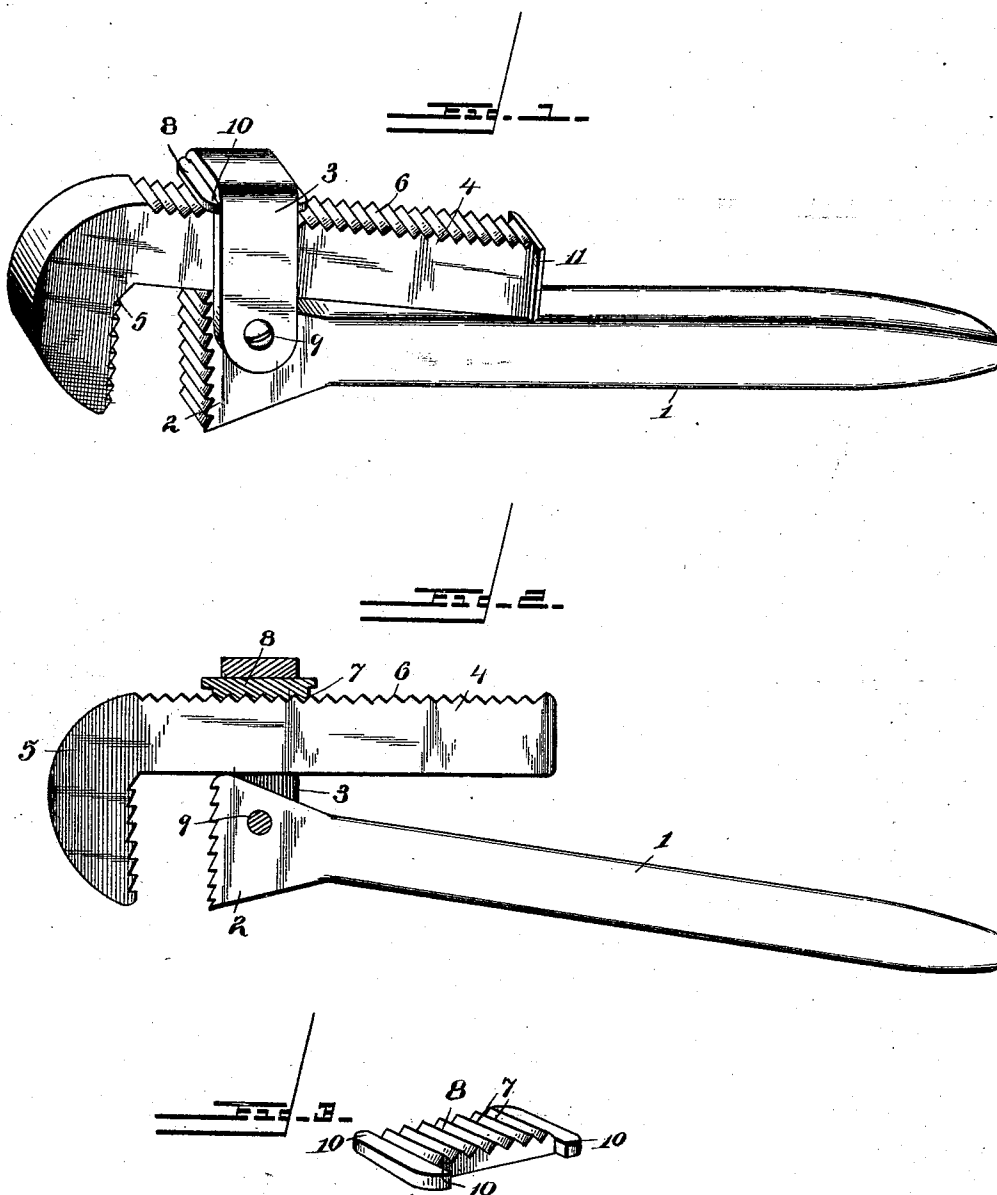


(No Model.)

J. WELFLE.
PIPE WRENCH.

No. 551,879.

Patented Dec. 24, 1895.



Witnesses

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UNITED STATES PATENT OFFICE.

JOSEPH WELFLE, OF HAMBER, OHIO.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 551,879, dated December 24, 1895.

Application filed September 30, 1895. Serial No. 564,208. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH WELFLE, a citizen of the United States, residing at Hamber, in the county of Henry and State of Ohio, have invented a new and useful Pipe-Wrench, of which the following is a specification.

This invention relates to improvements in pipe-wrenches.

The object of the present invention is to improve the construction of pipe-wrenches and to provide a simple, inexpensive, and efficient one, capable of ready adjustment, and adapted to clamp securely a pipe or other surface.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a wrench constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a detail perspective view of the notched plate.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a shank having its upper or outer end enlarged and provided with a rigid jaw 2, which has outwardly-shouldered teeth, and pivoted to the rigid jaw is a rectangular loop or frame 3, which receives a short shank 4 of a movable jaw 5. The movable jaw 5 is provided with inwardly-shouldered teeth, which co-operate with those of the rigid jaw and which are adapted to engage effectually the surface of a rod or pipe or the like as soon as pressure is applied to the shank or handle 1.

The shank of the movable or adjustable jaw 5 is provided at its outer edge with teeth 6, which are engaged when the wrench is in use by corresponding teeth 7 of a removable plate 8, arranged within the outer end of the loop or frame 3. The shorter shank 4 is adapted to slide freely in the loop or frame 3 to adjust the jaws when there is no pressure applied to the shank or handle 1, and as soon as the wrench is applied the inner end or shoulder of the rigid jaw engages the inner edge of the shank 4 and forces the latter into engagement with the teeth of the removable

plate 8, thereby locking the parts in their adjustment. The swinging movement of the loop 3 on the pivot 9 causes the jaws to engage the surface of a rod or pipe to be held or rotated. When the shank 4 is in position for adjustment, the jaws are slightly divergent; but as soon as there is any pressure exerted on the handle of shank 1 the jaws move toward each other and produce a clamping action on the rod or pipe.

The removable plate 8 is provided on its inner face with the teeth 7, and it has at its ends laterally-projecting lugs 10 located at both edges of it and engaging the adjacent edges of the loop or frame, whereby it is securely held in operative position. The shorter shank is provided at its inner end with a flange 11, which prevents the parts from being entirely separated by limiting the outward movement of the adjustable jaw.

It will be seen that the wrench is simple and comparatively inexpensive in construction, and that it is strong and durable and positive and reliable in operation.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

What I claim is—

In a wrench, the combination of the shank or handle 1, provided at its outer end with a rigid jaw having teeth, a loop or frame pivoted to the rigid jaw, a movable jaw having corresponding teeth and provided with a shank 4, having teeth at its rear edge, and arranged within the loop or frame, and the removable plate arranged within the outer end of the loop or frame and provided at its inner face with teeth for engaging those of the shank 4, and having at its ends oppositely disposed lugs engaging the edges of the loop, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOSEPH WELFLE.

Witnesses:

G. F. HAYS,
E. E. GARDNER.