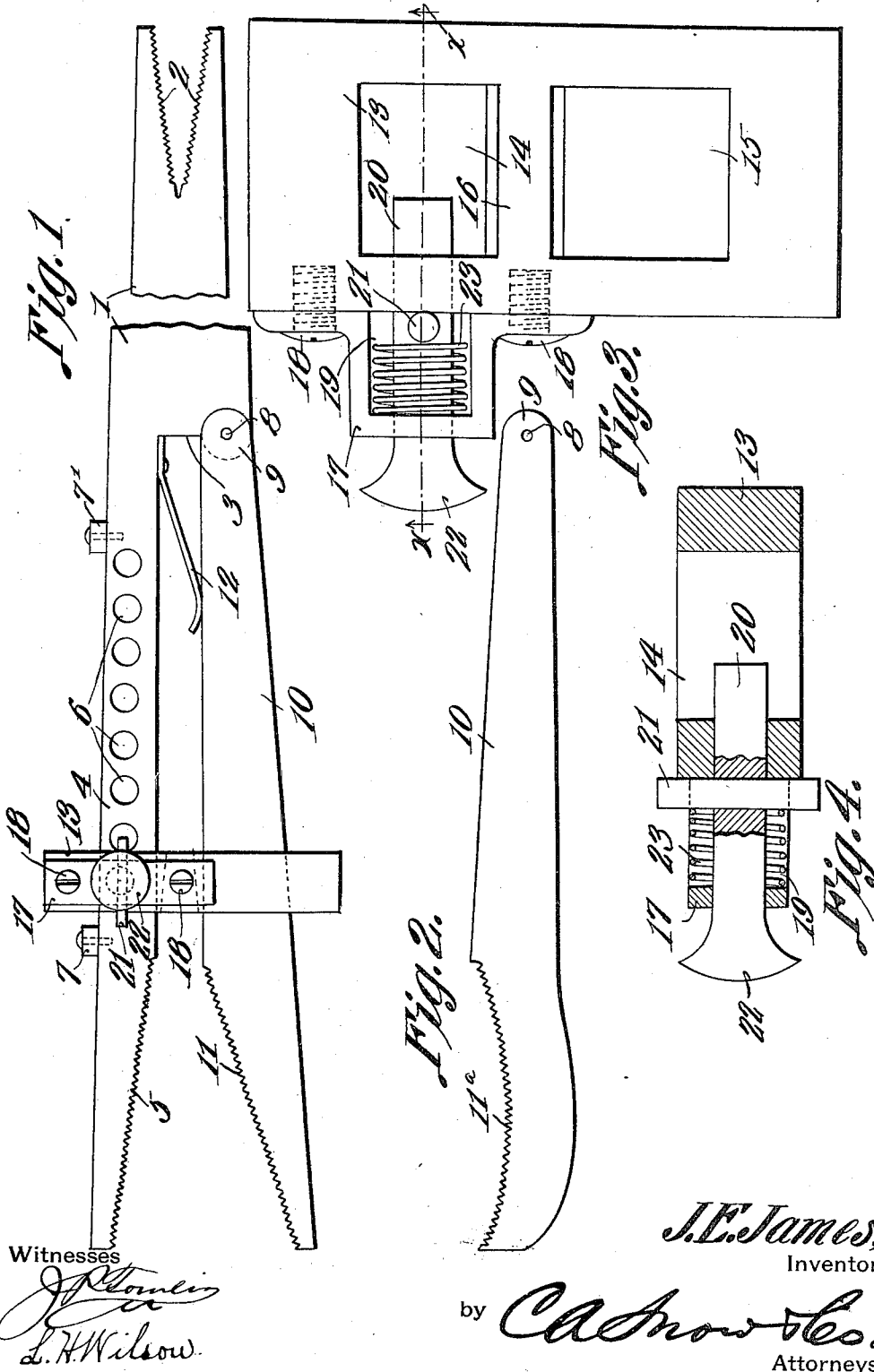


J. E. JAMES.  
PIPE WRENCH.

APPLICATION FILED JUNE 13, 1911.

1,006,755.

Patented Oct. 24, 1911.



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN E. JAMES, OF CHISHOLM, MINNESOTA.

## PIPE-WRENCH.

1,006,755.

Specification of Letters Patent.

Patented Oct. 24, 1911.

Application filed June 13, 1911. Serial No. 632,844.

*To all whom it may concern:*

Be it known that I, JOHN E. JAMES, a citizen of the United States, residing at Chisholm, in the county of St. Louis and State of Minnesota, have invented a new and useful Pipe-Wrench, of which the following is a specification.

This invention relates to an improvement in pipe wrenches, and the primary object of the invention is the provision of a pipe wrench having at one end a non-adjustable pipe wrench of smaller size and at the opposite end a stationary and movable jaw, forming a pipe wrench, the said movable jaw being normally held from the stationary jaw by means of a spring, combined with a sliding yoke mounted upon the stationary and movable jaw to adjust the movement of the movable jaw toward and from the stationary jaw, to accommodate various sized or diametered pipe, said yoke being provided with means which coact with the stationary jaw to lock the yoke in adjusted position, and thereby hold the jaws relative to each other.

A further object of this invention is the provision of a pipe wrench having a stationary and a movable jaw, means for holding the jaw separated, and slidable means upon both of said jaws for regulating the span or distance of separation between said jaws.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings—Figure 1 is a side elevation of the pipe wrench, the same being forced open or broken away to show the extreme end thereof. Fig. 2 is a modified form of movable jaw. Fig. 3 is a detailed view of the sliding yoke and locking member. Fig. 4 is a cross section taken on the line X—X of Fig. 3.

Referring to the drawings, the numeral 1 designates the shank or handle of the pipe wrench, which is provided at its reduced end with a non-adjustable pipe wrench 2, and with the shouldered portion 3 and stationary jaw 4, of the main pipe wrench.

The forward end of the stationary jaw is provided with the serrations or teeth 5 upon the inclined inner face thereof. Provided in one side of the stationary jaw, are a series of circular openings or sockets 6, while upon its upper edge are the stops or abutments 7 and 7' respectively, the purposes of which will presently appear.

Pivoted at 8 to the handle 1 opposite the shouldered portion 3 thereof, is the inner end 9 of the movable or coacting jaw 10, this pivotal point 8 being adapted to be removed to permit the employment of the modified form of locking jaw shown in Fig. 2, which, instead of having the straight inclined serrations or teeth 11 as in Fig. 1 is provided with the curved serrated portions 11<sup>a</sup>.

The flat spring 12 which is connected to the inner face of the stationary jaw near the shoulder 3, has its free end bearing against the movable jaw 10, thereby exerting a tension to hold the movable jaw away from and separated from the stationary jaw 4. In order to hold the said jaws relatively to each other and provide an adjusting means therefor so that the members 5 and 11 of the respective jaws may be brought closely together and into coactive relation for gripping a pipe, the yoke plate 13 is provided, the said yoke plate, being provided with the reduced rectangular opening 14 and the larger rectangular opening 15, said openings being separated by means of the gripping portion 16, whose outer faces are inclined, as shown in dotted lines in Fig. 1. The rectangular opening 14 fits upon and is slidable on the stationary jaw between the abutments 7 and 7', which limit the inward and outward movement of said yoke, while the rectangular opening 15 is slidably mounted upon the body of the movable jaw 10 and is limited by the lugs 7 and 7' of the stationary jaw, in its movement or sliding action upon the movable jaw 10.

In order to hold the sliding yoke at the proper adjustment upon the jaws and thereby lock the jaws relatively to each other, a casting 17 is secured by means of the bolts or screws 18 to one face of the yoke or frame 13 and opposite the rectangular opening 14 thereof. This frame or casting 17, is provided with a rectangular opening therein, and mounted in a bore in the head of said frame 17 and also in the frame or

yoke 13, centrally of the rectangular opening 14, is a locking stud 20, the inner end of which, is adapted to be moved into and out of engagement with one of the respective sockets 6 of the stationary jaw. This adjusting stud or pin 20 is provided with the diametrically projecting pin 21, which is mounted within the frame 17, and is adapted to have the coiled spring 23 surround the stud 20 within the opening 19 of the frame 17, so that its outer end will bear against the head of the frame 17 and its inner end against the pin 21, where the pin 21 projects beyond both sides of the stud 20, the said spring exerting an inward tension, so as to hold the inner end of the stud 20 within the frame or opening 14 and well within the respective opening or socket 6 of the stationary jaw. By means of the head 22 of the stud 20, the said stud may be pulled outwardly so that the yoke or frame 13 may be slid upon the movable and stationary jaws to assume the desired adjustment. As shown the ends of the locking pin 21 of the stud 20 project beyond the facial planes of the frame 17, as clearly illustrated in Fig. 4 of the drawings.

From the foregoing description taken in connection with the drawings, it is evident that a pipe wrench is provided with a non-adjustable wrench portion and with an adjustable wrench portion, the said adjustable wrench portion comprising a movable jaw and a stationary jaw, with means for normally holding the jaws separated, this being a flat spring 12, and with a yoke to slide upon both of said jaws and having means co-acting with one of the jaws for locking the yoke in adjusted position so that the said jaws will be held immovable when desired.

What is claimed is;

1. A pipe wrench having a handle provided with a stationary jaw at one end pro-

vided on one face with a series of sockets therein, a movable jaw pivoted to the handle with relation to the stationary jaw, a spring for holding the movable jaw away from the stationary jaw, a yoke spanning both of said jaws and slidably mounted thereon to regulate the distance of span between the jaws, means carried by the stationary jaw for limiting the movement of the said yoke upon the jaws, and a spring actuated stud carried by the frame adapted to coact with the sockets of the stationary jaw to lock the yoke in adjusted position.

2. A pipe wrench, having a handle provided with a reduced stationary jaw integral therewith, said stationary jaw providing a right-angled shoulder at its junction with the handle, and further provided with a series of recesses at one side thereof, a movable jaw having its inner end pivoted to the handle at the shouldered portion thereof, a spring mounted between the movable and stationary jaws for holding the movable jaw away from the stationary jaw, a yoke provided with two openings therethrough, said openings being adapted to surround their respective jaw, means for limiting the sliding movement of said yoke upon the jaws to regulate the distance of span between the jaws, and a means carried by the stationary jaw for limiting the movement of said yoke upon the jaws, and a spring actuated stud carried by the yoke and adapted to coact with the sockets of the stationary jaw and to lock the yoke and jaws in adjusted position.

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

JOHN E. JAMES.

Witnesses:

D. C. HACKETT,  
E. I. CASEY.