

No. 632,847.

Patented Sept. 12, 1899.

W. H. PRESTON.

WRENCH.

(Application filed June 5, 1899.)

(No Model.)

Fig. 1.

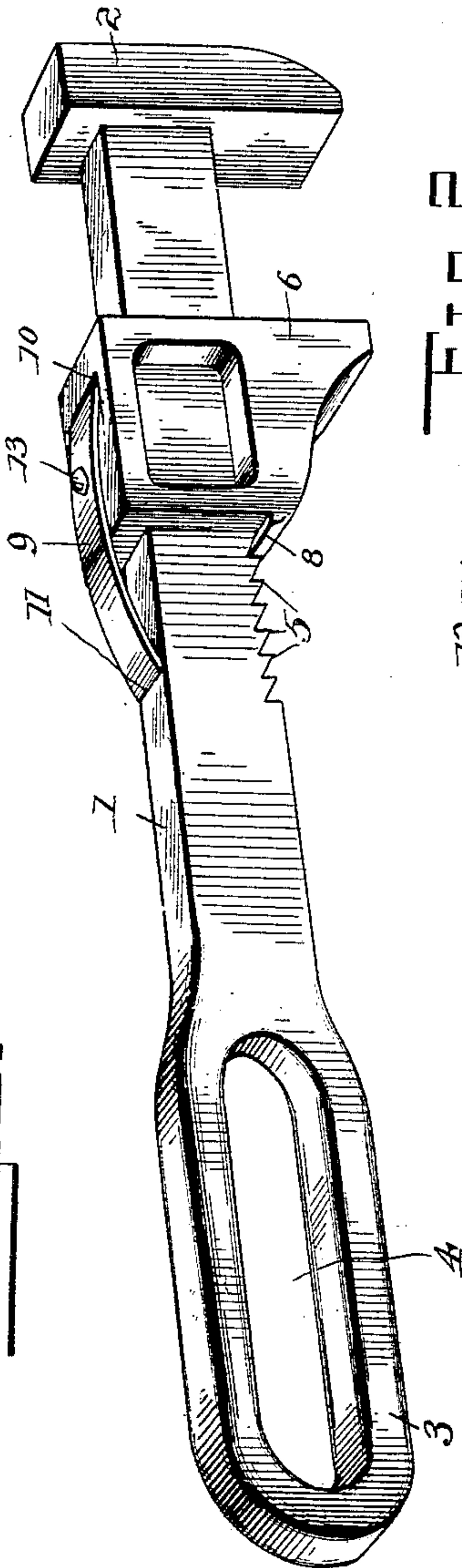
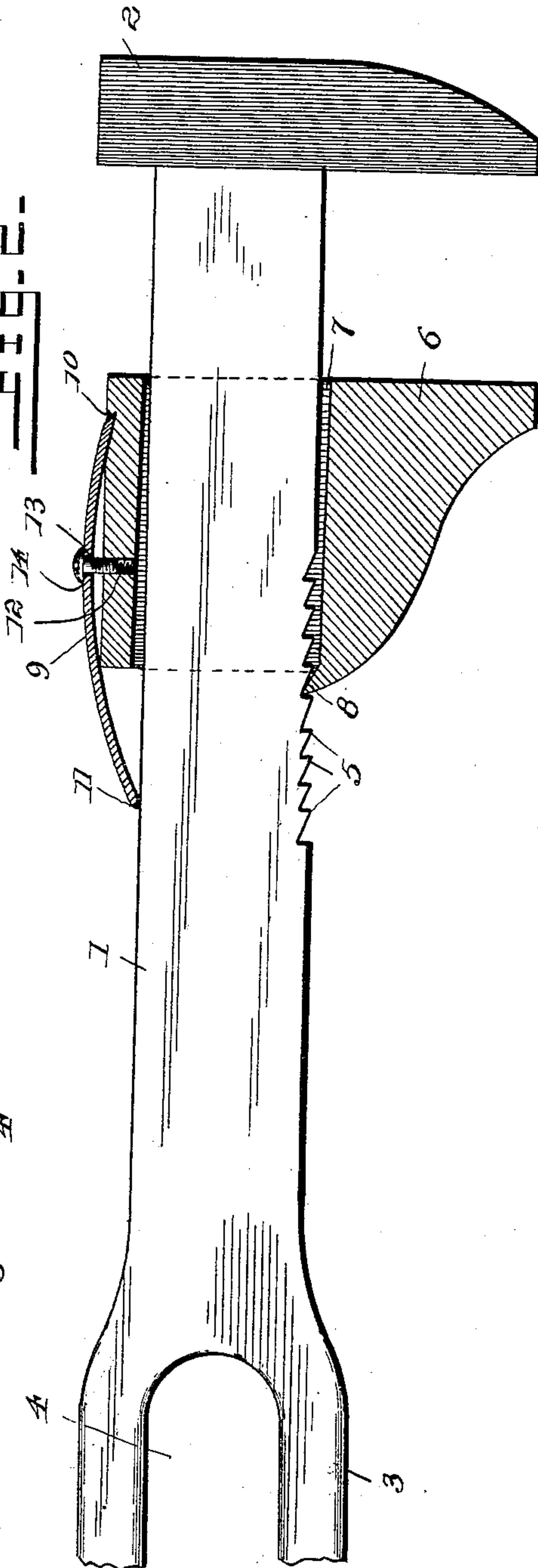


Fig. 2.



Witnesses
F. C. Alden.

[Signature]

By His Attorneys,

Ca Snow & Co.

W. H. Preston, Inventor.

UNITED STATES PATENT OFFICE.

WILLIAM H. PRESTON, OF VALLEY JUNCTION, WISCONSIN.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 632,847, dated September 12, 1899.

Application filed June 5, 1899. Serial No. 719,436. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. PRESTON, a citizen of the United States, residing at Valley Junction, in the county of Monroe and State of Wisconsin, have invented a new and useful Wrench, of which the following is a specification.

This invention relates to sliding-jaw wrenches, and has for its object to provide an improved frictional or gripping engagement with the shank of the wrench, whereby the movable jaw may be locked at any adjusted position.

A further object of the invention is to provide a tension device whereby the gripping or frictional engagement of the movable jaw with the shank of the wrench may be varied so as to take up wear.

To these ends the 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 claims, it being understood that changes in the form, proportion, size, and the minor details of construction may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the present invention.

In the drawings, Figure 1 is a perspective view of the improved wrench. Fig. 2 is an enlarged elevation thereof, the movable jaw being in section to show the engagement thereof with the shank of the wrench.

Corresponding parts in both figures of the drawings are designated by like characters of reference.

Referring to the accompanying drawings, 1 designates the shank of the wrench, which is provided at one end with the fixed jaw 2 and at the opposite end thereof with a handle 3. This handle portion of the wrench is preferably enlarged, so as to form a convenient hand-grasp, and is provided with a longitudinal slot 4 for the purpose of rendering the wrench as light as possible consistent with strength. One edge of the shank is provided with a suitable rack or teeth 5.

As best shown in Fig. 2, it will be seen that the movable jaw 6 is provided with a longitudinal bore or slot 7, whereby the jaw is slidably mounted upon the shank of the

wrench. Extending across the outer end of the slot or bore 7 and upon the nose side of the movable jaw is a pointed or beveled stop-shoulder 8, which projects inwardly across the end of the slot 7 and is adapted to be engaged with the teeth 5, whereby the movable jaw may be held at any adjusted position upon the shank of the wrench. It will be understood that the slot 7 loosely engages the shank 1, so as to permit of a lateral tilting movement of the movable jaw, whereby the stop-shoulder 8 may be disengaged from the teeth 5 when it is desired to adjust the jaw.

To maintain a positive engagement of the shoulder 8 with the teeth 5, a bowed leaf-spring 9 is fitted to the back of the movable jaw and adapted to engage the adjacent edge of the shank 1, whereby said shoulder is normally drawn into engagement with the teeth 5, as clearly illustrated in Fig. 2. This spring is arranged longitudinally of the shank 1 and has one end beveled and seated in a notch or recess 10, provided in the back of the movable jaw, and the opposite free end 11 of the spring projects beyond the opposite side of the jaw and slidably engages the adjacent edge of the shank.

It will be noted that the spring has an engagement at one end with the back of the jaw and near one side thereof, and also engages and passes across the opposite edge of the jaw, so that the spring is bowed intermediate of its points of contact or engagement with the jaw. Fitted in a screw-threaded opening 12, provided in the back of the jaw, is a tension-screw 13, which passes loosely through a smooth opening 14, provided in the leaf-spring 9 intermediate of its points of contact with the jaw, and by means of this screw the tension of the spring may be regulated and any wear thereof may also be taken up.

In adjusting the movable jaw the nose thereof is pressed toward the fixed jaw 2 and also inward toward the shank 1, thereby tilting the jaw and disengaging the stop-shoulder 8 from the teeth 5, whereby the jaw is free to be moved to any desired position upon the shank. When the jaw has been properly positioned, the pressure upon the same is released and the tension of the spring 9 will tilt the jaw in the opposite direction, so as to throw the stop-shoulder 8 into engagement with one

of the teeth 5, thereby locking the movable jaw in place.

The present invention provides an exceedingly simple and durable form of wrench, 5 which has but two movable parts—viz., the spring and the tension screw—which are not likely to get out of order and may be readily replaced when broken or damaged.

Having thus described the invention, what 10 I claim is—

1. In a sliding-jaw wrench, the combination with the shank thereof, of a movable jaw having a frictional locking engagement with the shank, a bowed leaf-spring carried by the 15 movable jaw and slidably engaging the shank, and a tension-screw carried by the movable jaw and engaging the bowed leaf-spring intermediate of the ends thereof, whereby the said spring may be regulated, substantially 20 as shown and described.

2. In a sliding-jaw wrench, the combination

with the shank thereof, of a movable jaw having a frictional locking engagement therewith, a bowed leaf-spring having one end fitted in a socket or recess provided in the 25 movable jaw and the opposite end of the spring engaging and projecting beyond one side of the jaw, the free end of the spring having a slidable engagement with the adjacent edge of the shank, and a tension-screw carried by 30 the movable jaw and passing loosely through an opening formed in the bowed spring intermediate of its points of contact or engagement with the jaw, substantially as shown and described. 35

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

WILLIAM H. PRESTON.

Witnesses:

H. H. SHERWOOD,
E. T. HALE.