

(No Model.)

J. H. JOHNSON.  
WRENCH.

No. 591,553.

Patented Oct. 12, 1897.

FIG. 1.

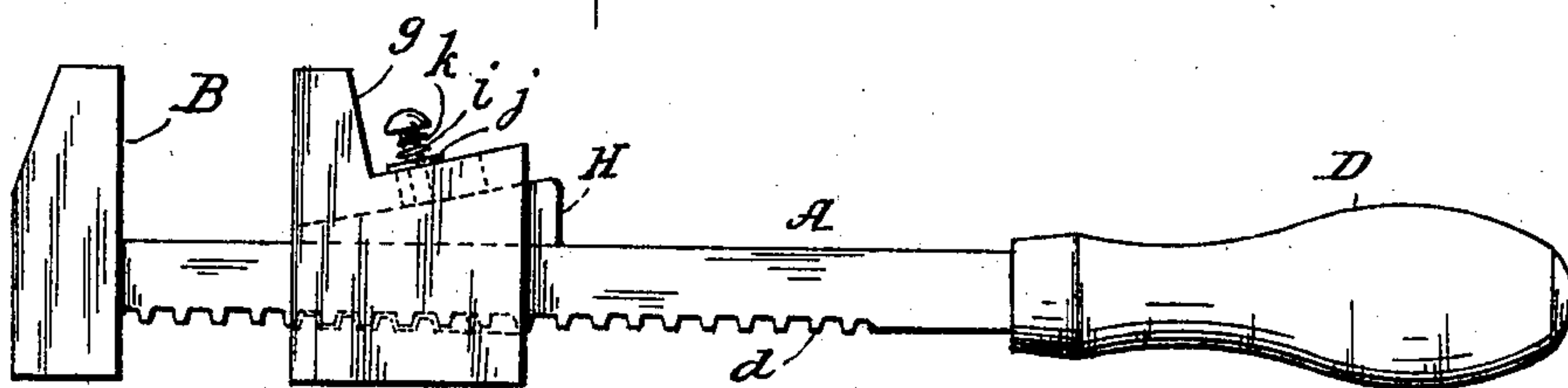


FIG. 2.

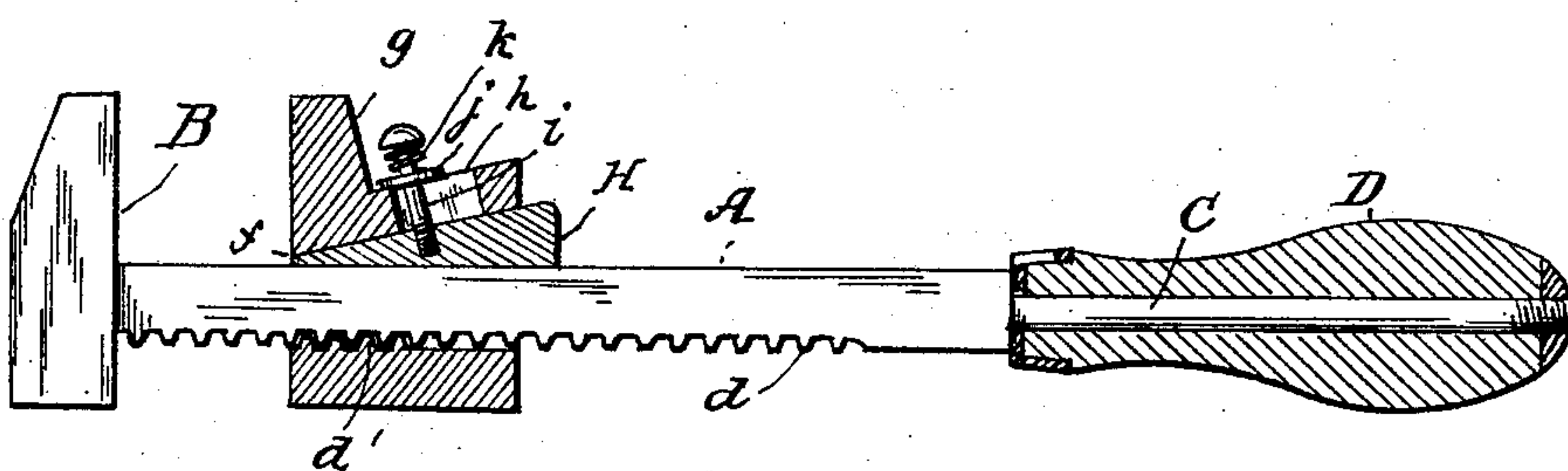


FIG. 3.

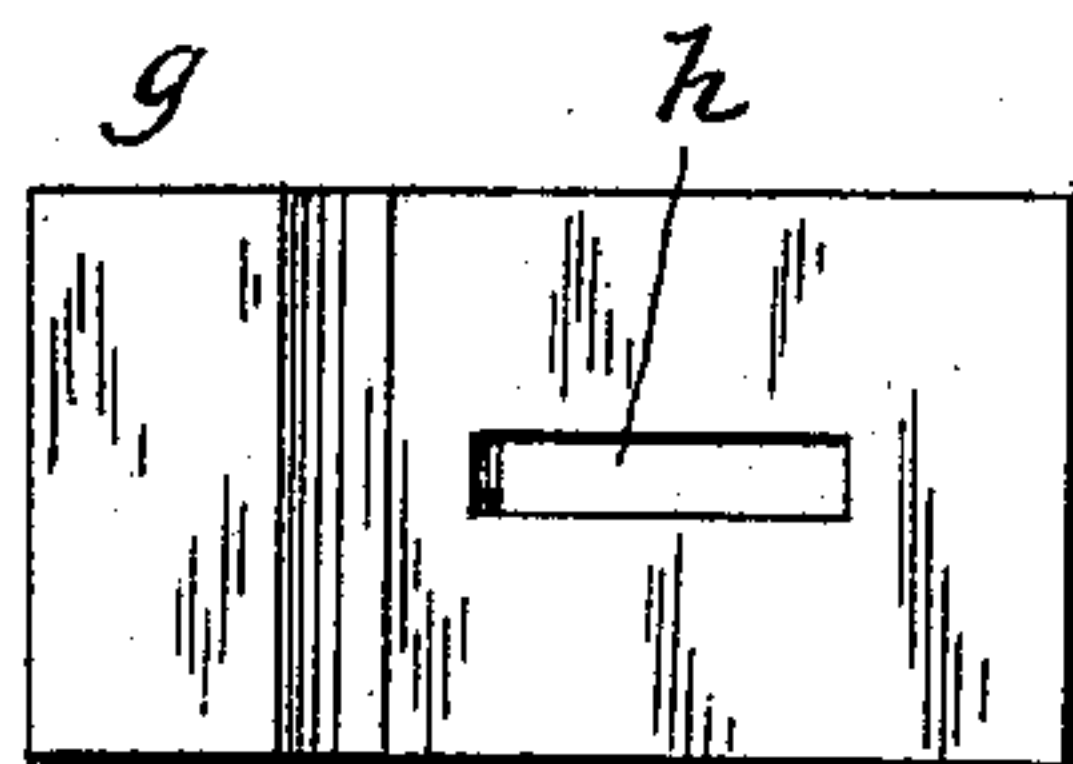
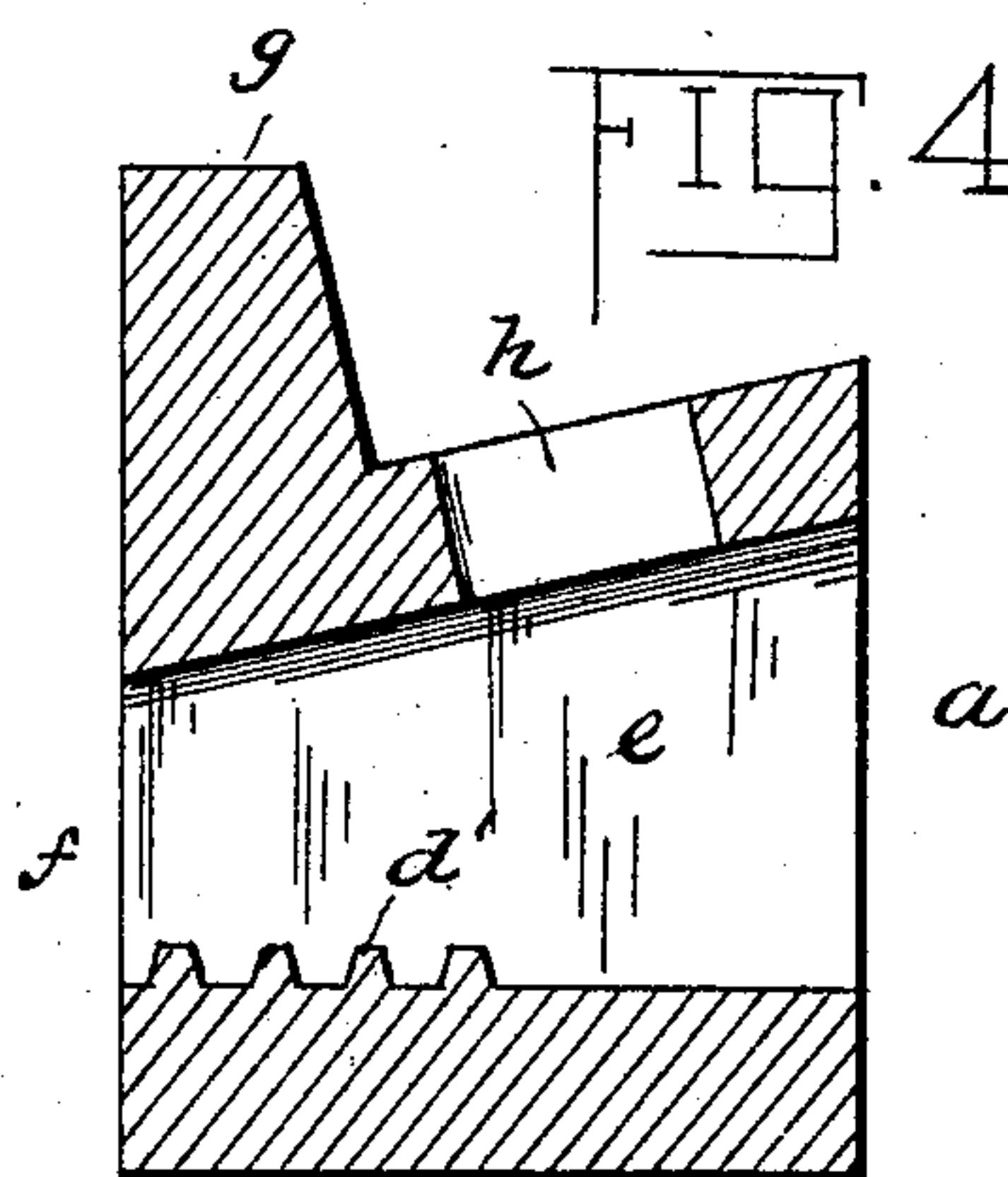


FIG. 4.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

JOHANNES H. JOHNSON, OF NORTH CAPE, WISCONSIN, ASSIGNOR OF ONE-HALF TO OSCAR A. SPILLUM, OF SAME PLACE.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 591,553, dated October 12, 1897.

Application filed January 21, 1897. Serial No. 620,026. (No model.)

*To all whom it may concern:*

Be it known that I, JOHANNES H. JOHNSON, a citizen of the United States, residing at North Cape, in the county of Racine and State of Wisconsin, 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.

My invention relates to certain new and useful improvements in wrenches, the object being to provide an improved form of sliding jaw therefor.

My invention consists of a wrench having its bar provided with rack-teeth and a sliding jaw having teeth to engage therewith, a wedge-shaped clamp-bar, and a spring-actuated locking device for engaging and disengaging said clamp-bar.

My invention also consists in certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a side elevation of the wrench. Fig. 2 is a longitudinal section thereof. Fig. 3 is a plan view of the sliding-jaw member on an enlarged scale. Fig. 4 is a vertical sectional view of the same.

Referring to the drawings, the letter A designates the bar of the wrench, which is provided at one end with a fixed jaw B and at the other end with a shank C, on which a wooden handle D is fitted. The under edge of the bar is formed with rack-teeth *d*.

The sliding-jaw member has a central passage *a*, through which the bar A extends, and the wall *e* at one side of this passage is inclined, so that said passage is wider at the rear than at the front end thereof. The wall of the head or inner end *f* at the opposite side of the passage has teeth *d'* to engage those on the bar. The outer end of the jaw member is provided with the projecting jaw-piece *g* and in rear thereof with a slot *h* in communication with the central passage *a*. A wedge-block H occupies the central passage between

the smooth edge of the bar A and the inclined wall and beneath the said slot *h*. A stud or screw *i* has its extremity threaded and screwed in a threaded opening in said wedge-block. A washer *j* is on the stud and extends across the said slot, and a spiral spring *k* surrounds the stud between the head thereof and the washer. It will be seen that by forcing the stud backward the wedge-block will be drawn out sufficiently to disengage the sliding bar from the rack-teeth on the bar, the spiral spring serving to hold the loose wedge elevated in order that the jaw may be conveniently moved. By forcing the wedge-block forward again the sliding jaw will be firmly clamped. The location of the rack-teeth on the edge of the bar opposite the jaws is advantageous, as the teeth are not brought into contact with the hard-metal objects clamped.

My invention provides a simple and cheap wrench whose sliding jaw may be adjusted and set quickly and easily.

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

In a wrench, a bar provided with a handle at one end thereof, a fixed jaw at the other end and rack-teeth on its under side, a sliding-jaw member provided with a passage through which the said bar extends, a clamping jaw-piece and an extension in rear thereof having a longitudinal slot and teeth in the passage opposite said slot to engage those on the bar, a wedge-block inserted in said passage between the bar and jaw and having its enlarged exterior disposed at the rear thereof, a stud provided with a head and projecting through said slot and a threaded shank engaging the said wedge-block, a washer bridging said slot, and a spring between said washer and stud-head, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHANNES H. JOHNSON.

Witnesses:

CARRIE E. ADLAND,  
THOMAS ADLAND.