No. 785,716. PATENTED MAR. 28, 1905.

O. B. CRAFT.

WRENCH.

APPLICATION FILED JULY 1, 1904.

Fig. 1.

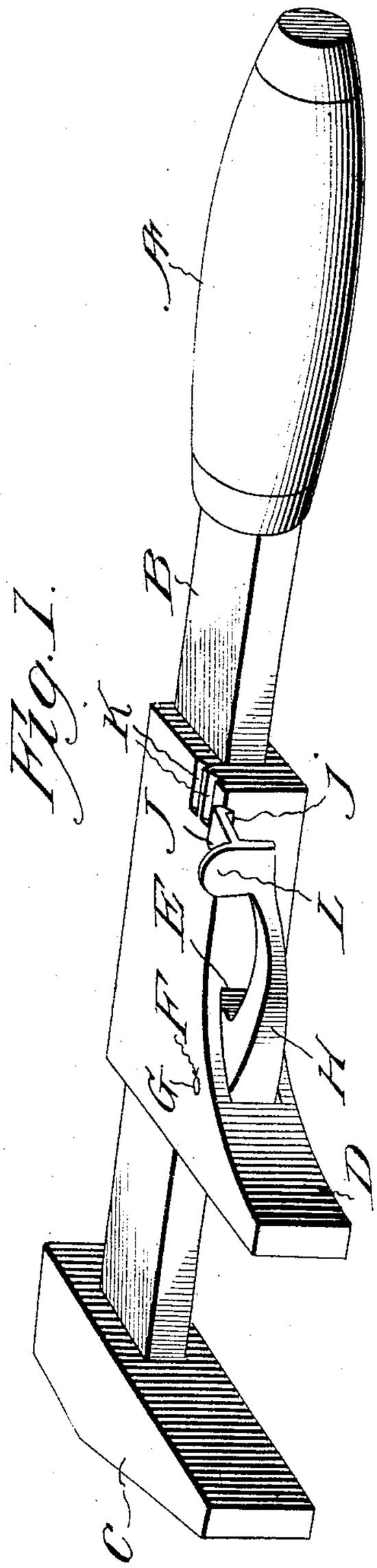


Fig. 3.

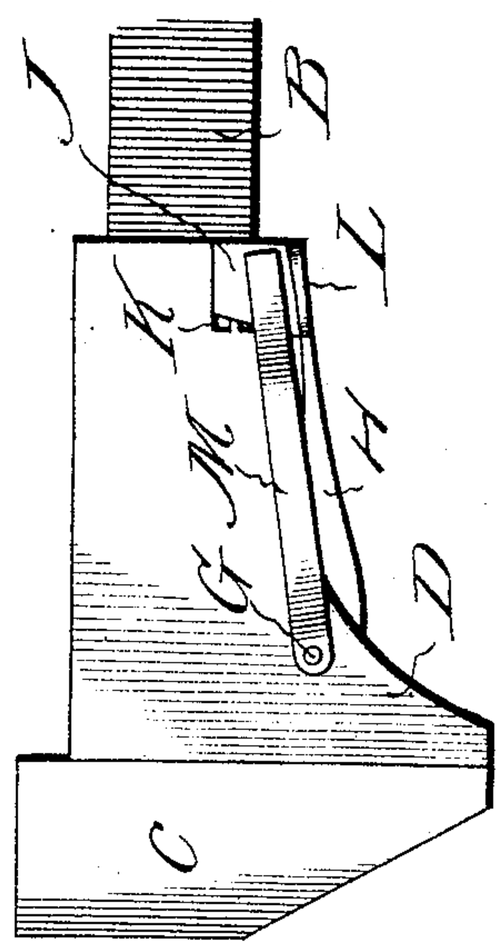
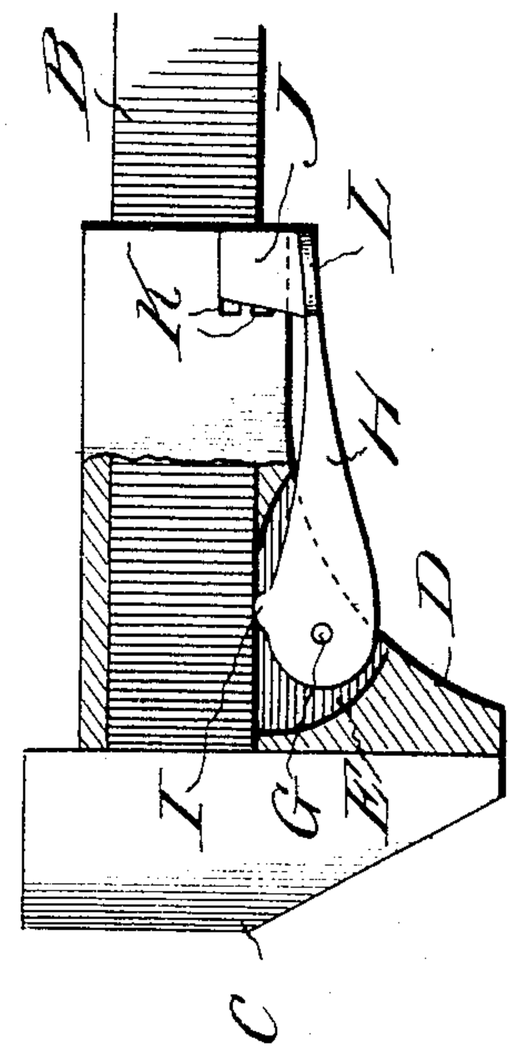


Fig. 2.



Witnesses

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By Frank S. Ashburn

Attorney

No. 785,716. Patented March 28, 1905.

UNITED STATES PATENT OFFICE.

OWEN B. CRAFT, OF HAWTHORN, PENNSYLVANIA, ASSIGNOR OF THREE-EIGHTHS TO J. A. F. HOY, OF CLARION, PENNSYLVANIA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 785,716, dated March 28, 1905.

Application filed July 1, 1904. Serial No. 214,942.

To all whom it may concern:

Be it known that I, OWEN B. CRAFT, a citizen of the United States of America, residing at Hawthorn, in the county of Clarion and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches, and particularly to a class known as "sliding-jaw-lever-locked."

An object of this invention is to provide novel means for effecting the speedy adjustment of the sliding jaw of a wrench with relation to the fixed jaw thereof; and the invention further resides in the novel means for securing the movable jaw temporarily against movement when pressure is exerted on a nut for the purpose of rotating the said nut.

Furthermore, an object of the invention is to provide a sliding jaw and in combination therewith a lever having a cam-surface and a tooth which coacts with the shank of the wrench for retaining the said sliding jaw in its adjusted position.

Furthermore, an object of this invention is to provide novel means for retaining the lever set in operative position and for retaining the said jaw against movement during the operation of the wrench, the said means proving readily detachable for the purpose of releasing the said jaw.

A still further object of this invention is to provide a wrench having a sliding jaw, with the means for securing and releasing the said jaw, the said means comprising comparatively few inexpensive parts, which will prove efficient and satisfactory in use and comparatively inexpensive to manufacture.

With the foregoing and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and specifically claimed.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters denote corresponding parts throughout the several views, in which—

Figure 1 is a view in perspective of a wrench embodying the invention. Fig. 2 is a side elevation thereof, partly in section and with the lever in a different position. Fig. 3 is a similar view showing a slightly-modified construction.

In the drawings, A indicates the handle of the wrench; B, the shank thereof, having its end embedded in the handle. C is the stationary jaw, and these parts just described may be of almost any ordinary construction, except that the shank need not be provided with teeth or serrations; but the said shank may be plain on its four sides.

The sliding jaw D has an opening E in its outer surface, which extends from its outer surface to its inner surface, and when said jaw is applied to the shank the shank is exposed through the said opening. The jaw is provided with holes F, which receive the pivotal pin G, and the pin is designed for the purpose of acting as a pivot for the lever H. The inner end of the lever has its surface eccentric to the pivot, and a tooth or rib I is formed with or attached to the said lever and is designed to be pressed into contact with the surface of the shank of the wrench when a predetermined adjustment of the sliding jaw has been reached. The tooth is preferably of such quality as to bite or cut the shank to a sufficient extent to insure a firm hold to prevent movement with the increased strain incident to the use of the wrench.

The lever is preferably disposed diagonally with relation to the sliding jaw and terminates at one corner of the said jaw. A lug J is carried by the lever and extends parallel with the side of the sliding jaw, the said lug having a rib *j* on its inner edge, which rib is designed to enter one of the longitudinal grooves or seats K, which are formed in the side of the sliding jaw, these seats being formed by grooving the said jaw longitudinally, and thereby forming shoulders which are engaged by the rib for the purpose of holding the outer end of the lever depressed when the tooth of the lever is in engagement with the shank.

It is my purpose to have the lever sufficiently resilient to permit the rib to be strung into and out of engagement with the shoulders, and for

the purpose of aiding in the manipulation of the said lever I provide a thumb-piece L, which extends to one side of the lever.

If desired, I may employ a spring for holding the lever in operative position with relation to the shoulders, and to accomplish that result the arm would be slightly loose on its pivot and the spring M would bear against the side thereof, as shown in Fig. 3. In this construction the end of the spring is secured on the same pivot as the lever and moves therewith. This latter construction may be found advantageous under certain conditions, though I do not wish to be limited with respect to the proportions and details of construction of the device.

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

1. In a wrench, a shank and rigid jaw, a sliding jaw on the shank having an opening in an edge thereof, said jaw also having a plurality of longitudinal grooves formed in one of its faces, a lever having a cam projection pivoted within the opening in the movable shank, the cam projection being adapted to bind against the shank, a lug depending from an end of the lever and a rib on the inner face of the lug adapted to engage one of the plurality of grooves.

2. In a wrench, a shank and rigid jaw, a sliding jaw on the shank having an opening in an edge thereof, a lever having a cam projection loosely pivoted within the opening whereby a lateral movement is permitted, said projection being adapted to engage the shank, a depending lug on an end of the lever adapted to engage one of the grooves in the movable jaw, and a spring secured at one end to the movable jaw and having its free end bearing against the depending lug on the lever.

3. In a wrench, a shank and rigid jaw, a sliding jaw on the shank having an opening in an edge thereof, said jaw also having a plurality of grooves formed in one of its faces, a lever having a cam projection loosely pivoted within the opening whereby a lateral movement is permitted, said projection being adapted to engage the shank, a depending lug on an end of the lever adapted to engage one of the grooves in the movable jaw, and a spring secured at one end to the movable jaw and having its free end bearing against the depending lug on the lever.

In testimony whereof I affix my signature, in the presence of two witnesses, this 30th day of May, 1904.

OWEN B. CRAFT.

Witnesses:
S. S. LAUGHLIN,
LEWIS COLLNER.