

No. 824,558.

PATENTED JUNE 26, 1906.

L. MAIER.
WRENCH.

APPLICATION FILED OCT. 17, 1905.

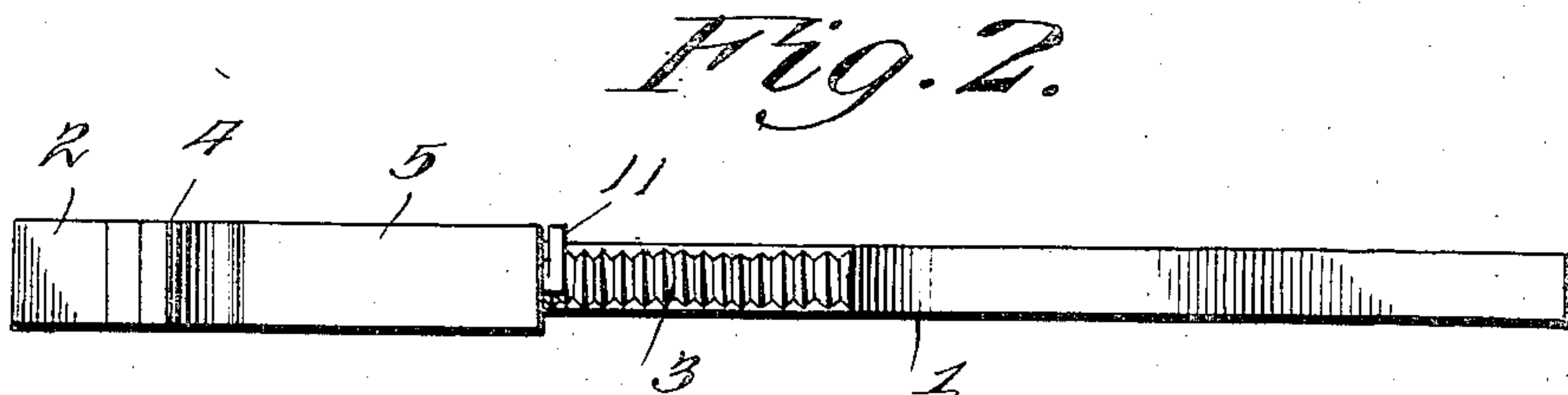
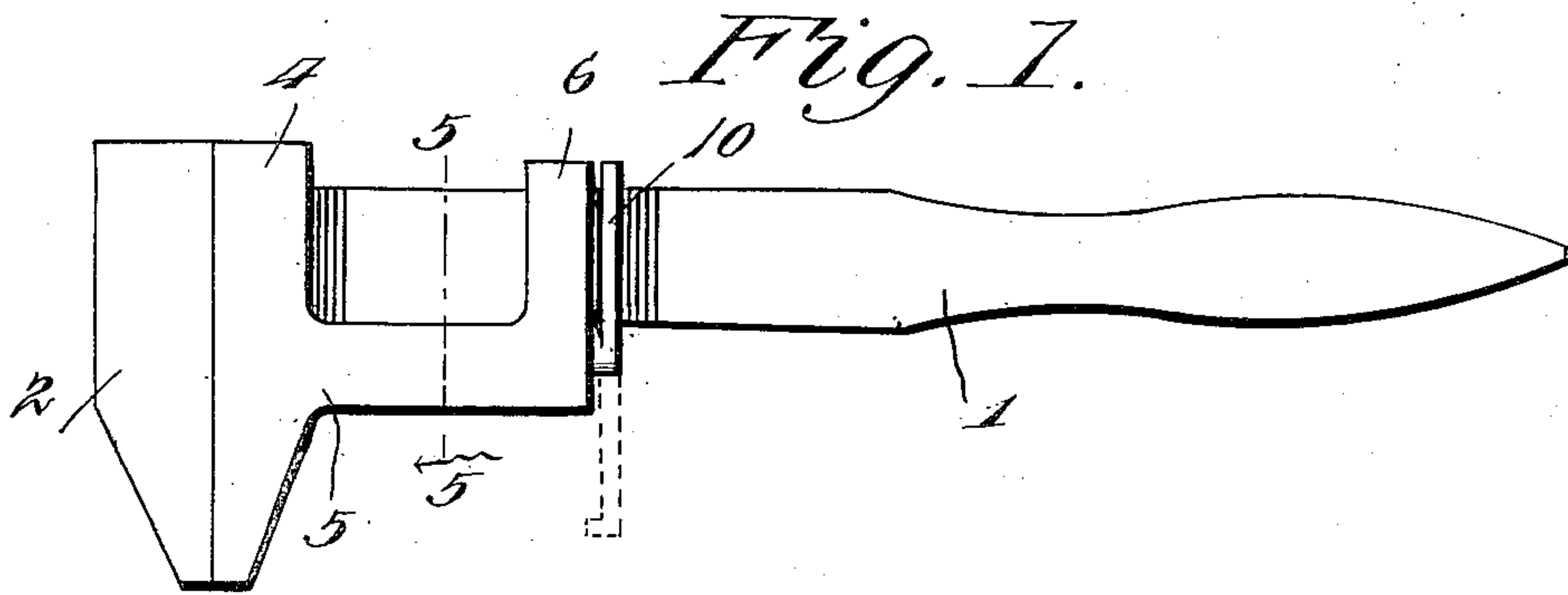


Fig. 3.

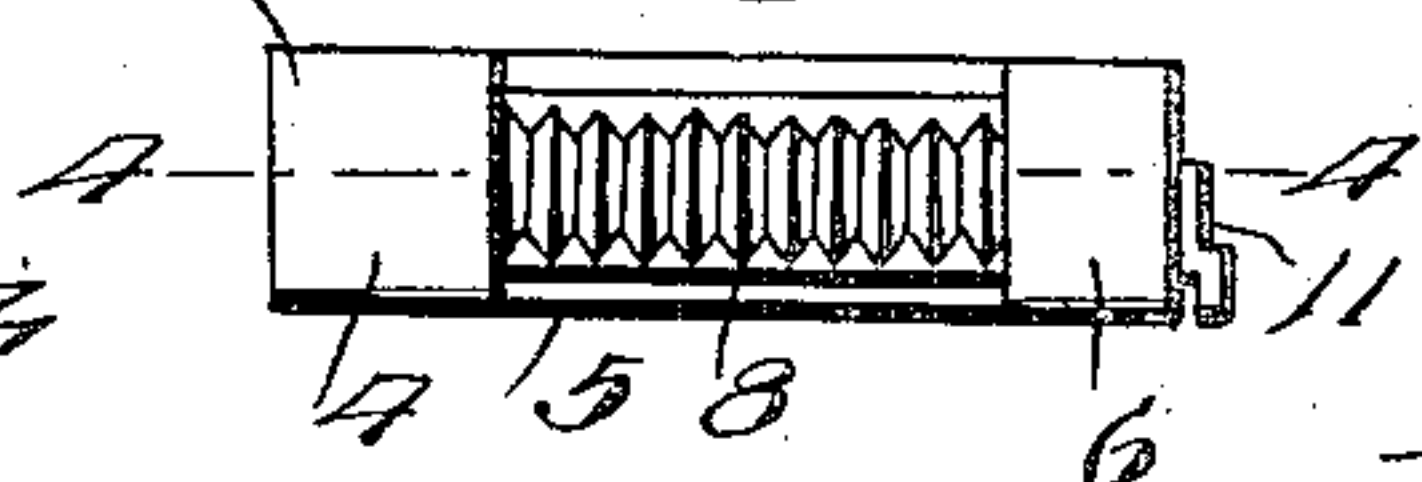


Fig. 4.

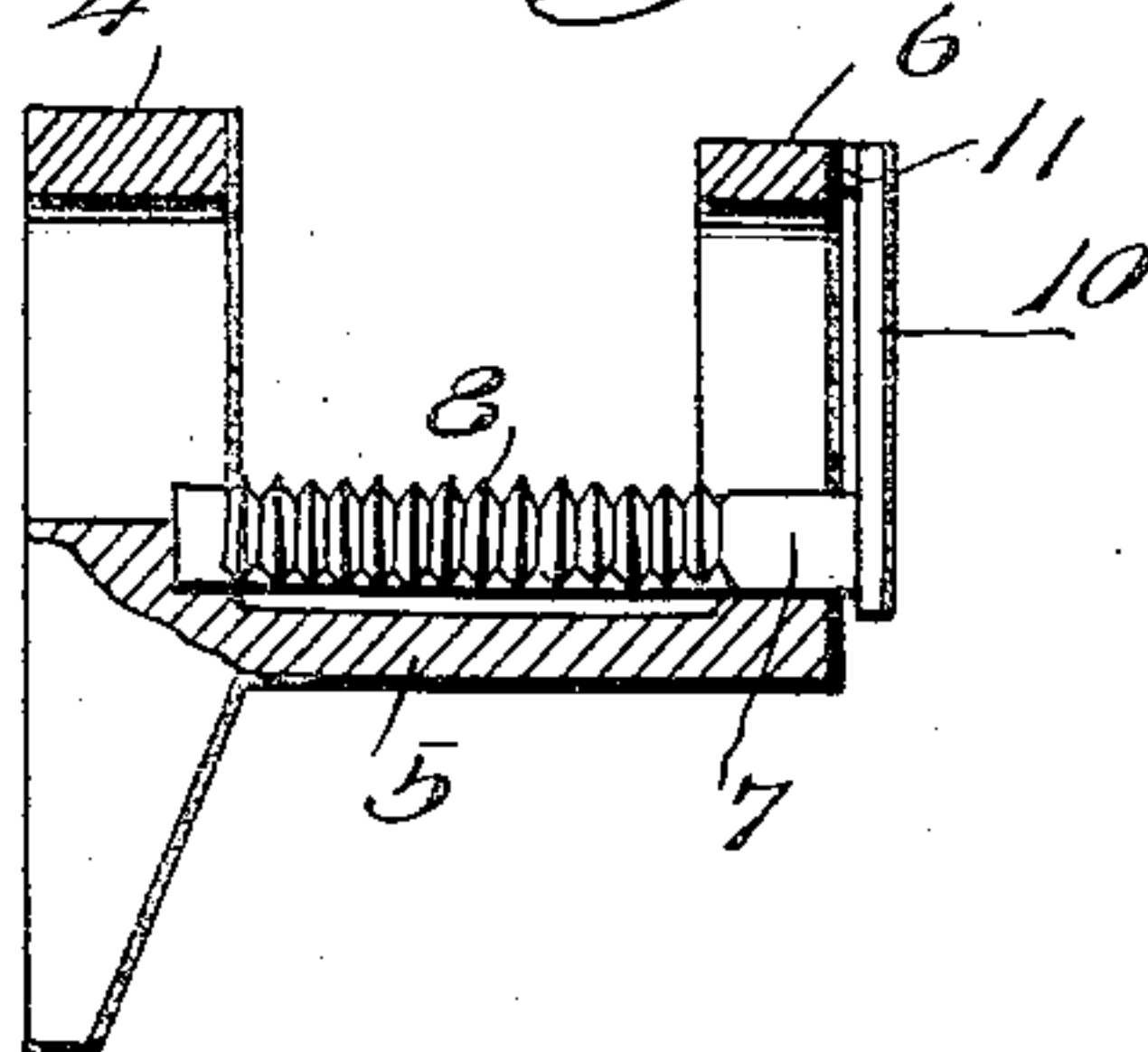


Fig. 5.

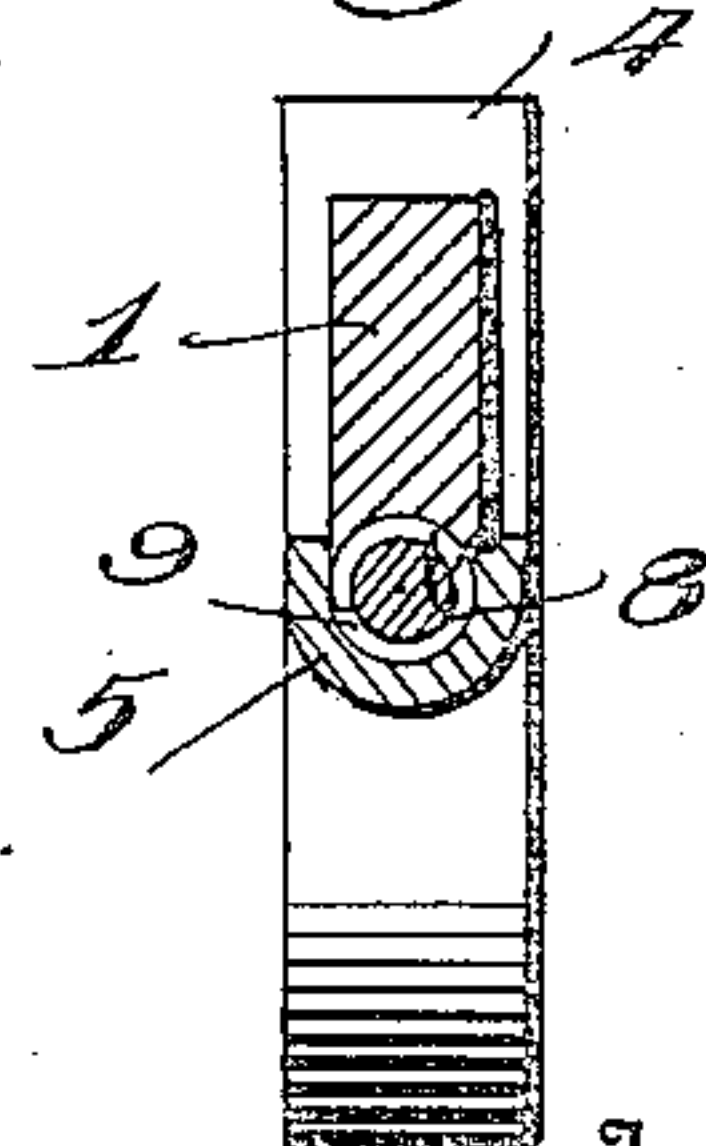
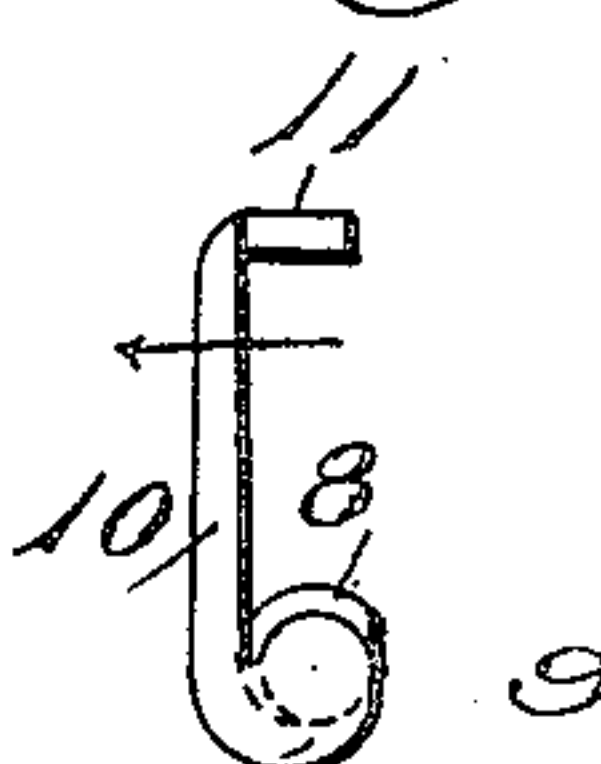


Fig. 6.



Witnesses
Frank Hough

A. J. Moore

By *Victor J. Evans*

Attorney

Inventor
Lewis Maier

UNITED STATES PATENT OFFICE.

LEWIS MAIER, OF GRAND LEDGE, MICHIGAN.

WRENCH.

No. 824,558.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed October 17, 1905. Serial No. 283,149.

To all whom it may concern:

Be it known that I, LEWIS MAIER, a citizen of the United States of America, residing at Grand Ledge, in the county of Eaton and State of Michigan, have invented new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches, and has for its objects to produce a comparatively simple inexpensive device of this character in which the movable jaw may be quickly and conveniently adjusted and one in which the jaw may be readily and securely locked in its adjusted positions.

With these and other objects in view the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation of a wrench embodying the invention. Fig. 2 is an edge view of the same. Fig. 3 is a top plan view of the movable jaw removed from the shank. Fig. 4 is a section taken on the line 4 4 of Fig. 3. Fig. 5 is a section taken on the line 5 5 of Fig. 1. Fig. 6 is an end elevation of the locking member.

Referring to the drawings, 1 designates a shank, provided at its forward end with a fixed head or jaw 2 and having on its lower edge teeth 3, preferably in the form of a threaded screw, as seen in Fig. 2, there being slidably disposed upon the shank a movable head or jaw 4, having a rearwardly-projecting portion or arm 5, provided at its rear terminal with a collar 6, formed to embrace the shank.

Carried by the movable jaw 4 and journaled at its ends in suitable bearings provided in the latter and in the collar 6 is a locking member 7, preferably in the form of a screw having teeth 8, extending partially therearound and presenting a smooth portion or face 9 at one side of the screw, there being fixed on the outer end of the screw 7 an operating member or arm 10, having at its outer terminal a right-angularly-projecting portion or finger 11, which normally engages over the upper edge of the shank 1.

In practice the locking member 7 normally stands in position with its threads or teeth 8 in engagement with the threads or teeth 3 on the shank 1 and the arm 10 lying against the

adjacent side face of the shank. Under these conditions if it be desired to adjust the jaw 4 the handle 10 is moved in the direction indicated by the arrow in Fig. 6, thereby rotating the locking member for moving its threads out of engagement with the threads 3 and bringing the smooth or non-threaded portion 9 of the locking member into register with the screw 3, whereupon the jaw may be readily moved to the desired position and thereafter locked by again turning the screw 7 to normal position. It is to be particularly observed that under this construction the jaw 4 may be conveniently released to permit rapid relative adjustment of the jaws and thereafter securely locked in its adjusted positions.

From the foregoing it is apparent that I produce a simple device admirably adapted for the attainment of the ends in view, it being understood that in attaining these ends minor changes in the details herein set forth may be resorted to without departing from the spirit of the invention.

Having thus fully described my invention, what I claim as new is—

In a wrench, a shank provided with teeth and carrying a fixed jaw, a relatively movable jaw mounted on the shank and having a rearwardly-projecting arm carrying a collar embracing the shank, a rotary locking-screw terminally journaled in the movable jaw and collar at a point between the arm and shank, said screw being provided with teeth adapted for engagement with those on the shank and having a smooth portion designed for non-engagement with the shank, an operating-arm fixed upon the rear end of the locking-screw for rotating the same to engaging or non-engaging positions, and a finger formed upon the operating-arm for frictional engagement with the upper edges of the shank to hold the screw in normal position with its threads engaged with those on the shank, said arm being disposed in a plane at one side of the shank and adapted to normally lie in contact with the adjacent side face of the latter.

In testimony whereof I affix my signature in presence of two witnesses.

LEWIS MAIER.

Witnesses:

RAYMOND A. LATTING,
FRED. VOGT.