No. 862,721. PATENTED AUG. 6, 1907.

W. F. DINSMORE.

WRENCH.

APPLICATION FILED OCT. 6, 1906.

Fig. 1.

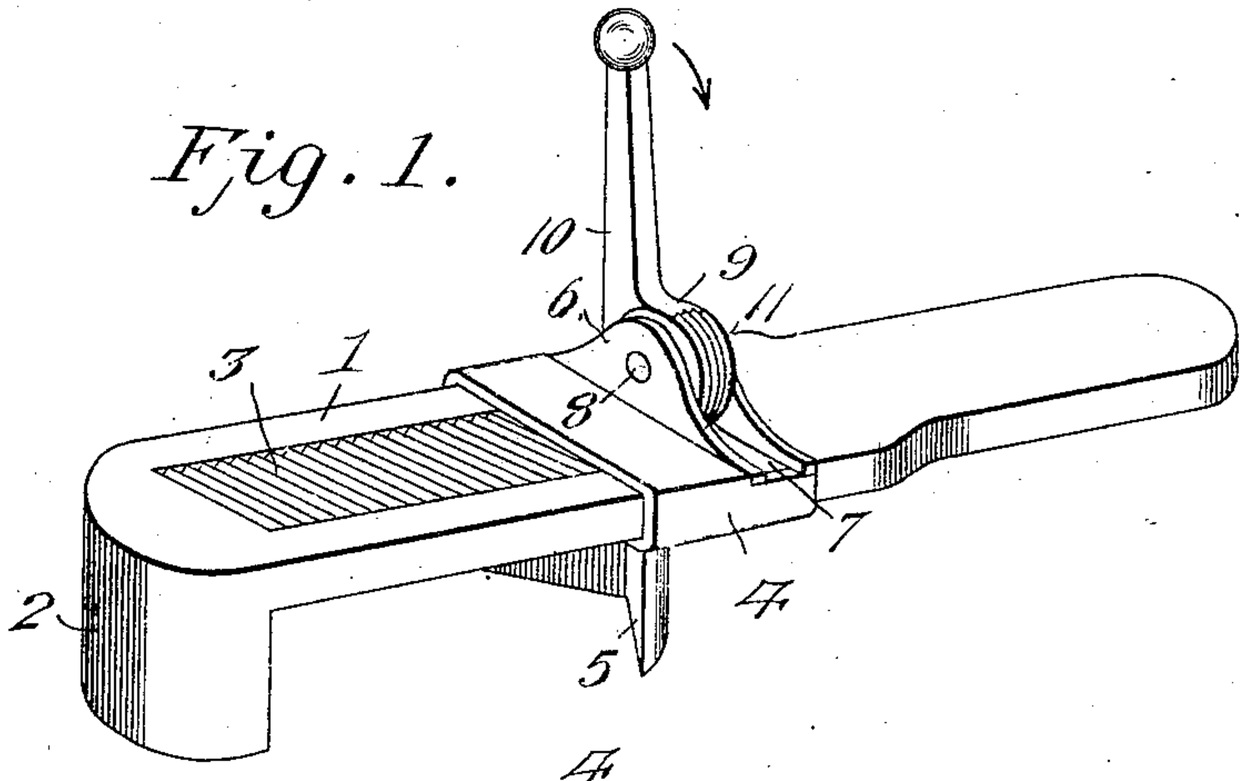


Fig. 2.

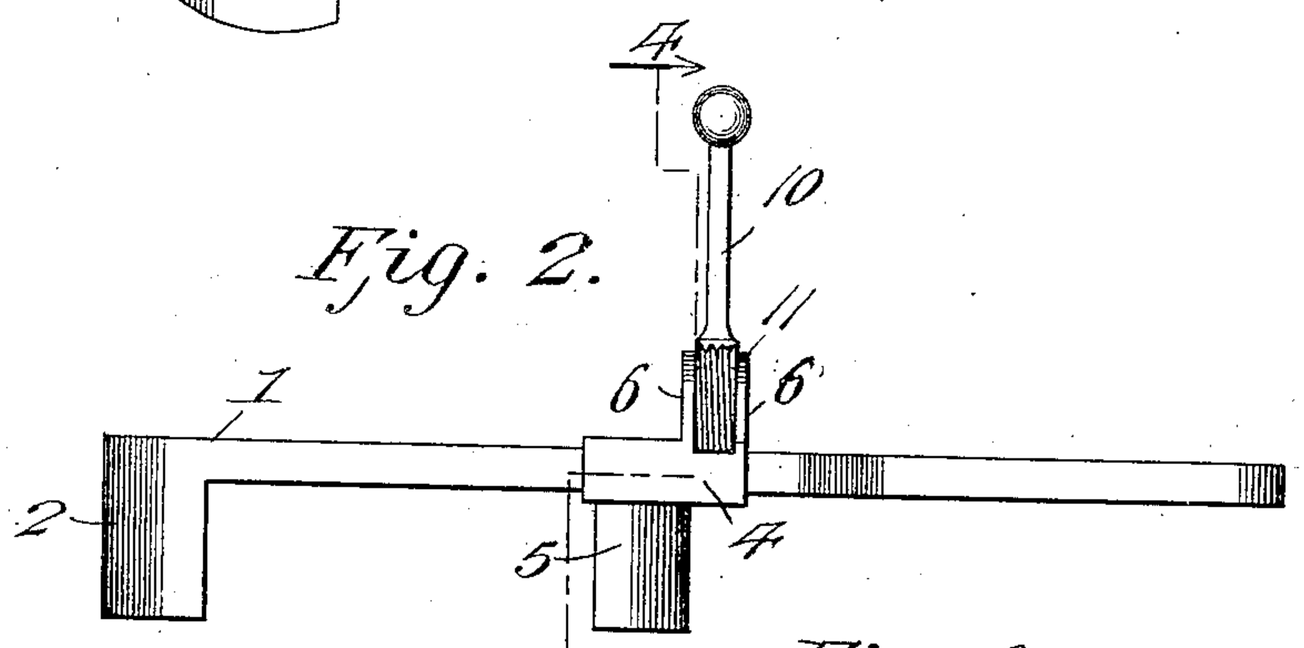


Fig. 3.

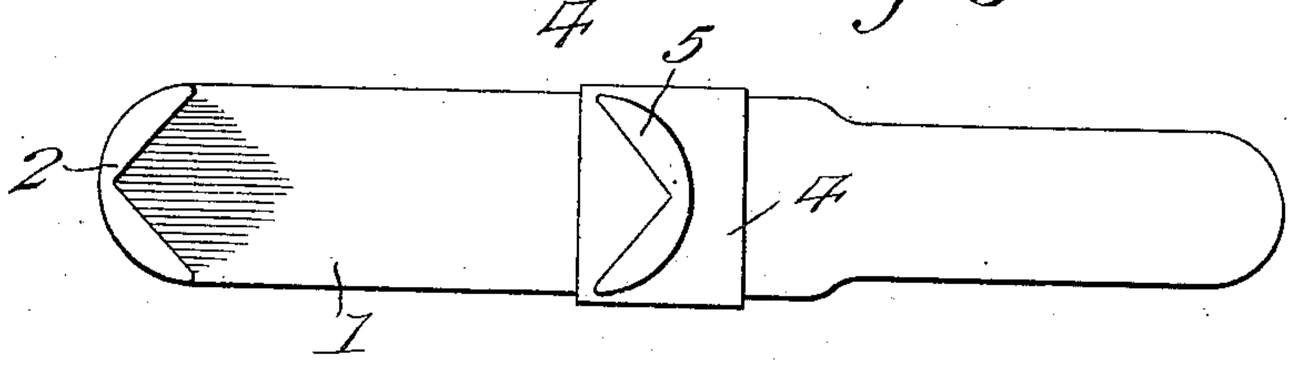
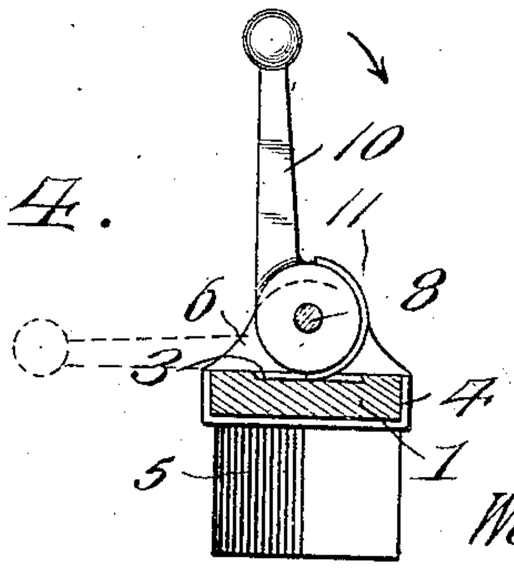


Fig. 4.



Witnesses

Frank B. Hoffman.

Aimee L. Brown.

Inventor

Walter F. Dinsmore

By Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

WALTER F. DINSMORE, OF QUINCY, MASSACHUSETTS.

WRENCH.

No. 862,721. Specification of Letters Patent. Patented Aug. 6, 1907.

Application filed October 6, 1906. Serial No. 337,747.

To all whom it may concern:

Be it known that I, WALTER F. DINSMORE, a citizen of the United States, residing at Quincy, in the county of Norfolk and State of Massachusetts, 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 provide a comparatively simple, inexpensive device of this character wherein the movable gripping jaw may be conveniently operated for obtaining an initial adjustment transversely relative to the fixed jaw, and one whereby the movable jaw may be readily locked in secure gripping position.

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 perspective view of a wrench embodying the invention. Fig. 2 is a side elevation of the same. Fig. 3 is a reverse plan view of the wrench. Fig. 4 is a cross section taken on the line 4—4 of Fig. 2.

Referring to the drawings, it will be seen that the wrench comprises a body portion or shank 1 having at its forward end a fixed gripping jaw 2 and provided on its upper face with a toothed rack 3, the teeth of which are pitched at an inclination relative to the transverse axis of the shank.

Slidably disposed on the shank 1 is a sleeve 4 carrying a movable gripping jaw 5 adapted for coöperation with the jaw 2 and having in its upper wall, from which rises a pair of spaced bearing ears 6, an opening 7 through which the teeth 3 of the rack are exposed, there being journaled between the ears 6 on a pintle or axle 8 a one piece rotary locking head 9 of cylindrical form, as shown, having an operating handle 10 and provided throughout a portion of its circumference with a series of worm teeth 11 adapted for engagement with, and pitched at an inclination reversely to that of, the teeth 3.

In practice, supposing the locking member 9 to be in normal position, as illustrated by dotted lines in Fig. 4, the teeth 11 stand in non-engagement with the teeth 3, thus permitting free movement of the sleeve 4 upon the shank 1 to effect an initial adjustment of the jaw 5 relative to the jaw 2. After the jaw 5 has been moved to proper position for coöperation with the jaw 2 to grip a nut, the handle 10 is grasped and swung forwardly in the direction indicated by the arrow in Fig. 4, thereby moving the teeth 11 into engagement with the teeth 3 and causing a final adjustment or setting up of the jaw 5 into secure clamping engagement with the nut, it being apparent that through engagement of the teeth 11 and 3 the jaw 5 will be locked against movement, and further, that the parts may be disengaged to permit movement of the jaw 5 to releasing position by a reverse movement of the locking member 9.

Having thus described my invention, what I claim is:

A wrench composed of three separate parts, one comprising a flat shank reduced at one end into a handle and formed with an integral jaw at the opposite end extending from one of the flat surfaces, said jaw being semi-cylindrical on its outside and provided with a reëntrant V-shaped gripping surface on its inside, and transversely extending teeth formed in the back surface of the shank; the second part comprising a slide in the form of a rectangular sleeve movable longitudinally of the shank and having an integral jaw extending from one of the flat sides, said jaw being semi-cylindrical on its outside and provided with a reëntrant V-shaped gripping surface coöperating with that of the fixed jaw, a pair of spaced parallel lugs extending from the side of the sleeve opposite from the jaw, there being a slot in the sleeve between the lugs; and a third part or locking member comprising a rotary head journaled between the lugs, semi-circular teeth on the periphery of the head arranged to extend through the slot of the slide to engage the teeth on the back of the shank, and an integral handle extending outwardly from the head and movable between the lugs of the slide.

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

WALTER F. DINSMORE.

Witnesses:
ERNEST E. GAMBLES,
J. FRANKLIN HILLIKER.