

No. 897,640.

PATENTED SEPT. 1, 1908.

J. MINETT.  
WRENCH.

APPLICATION FILED DEC. 18, 1907.

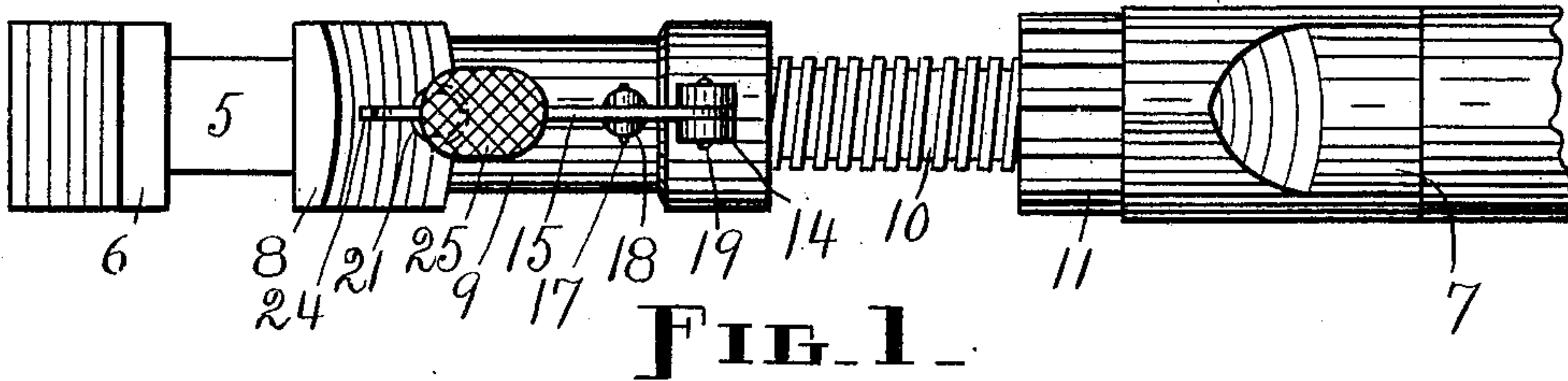


FIG. 1.

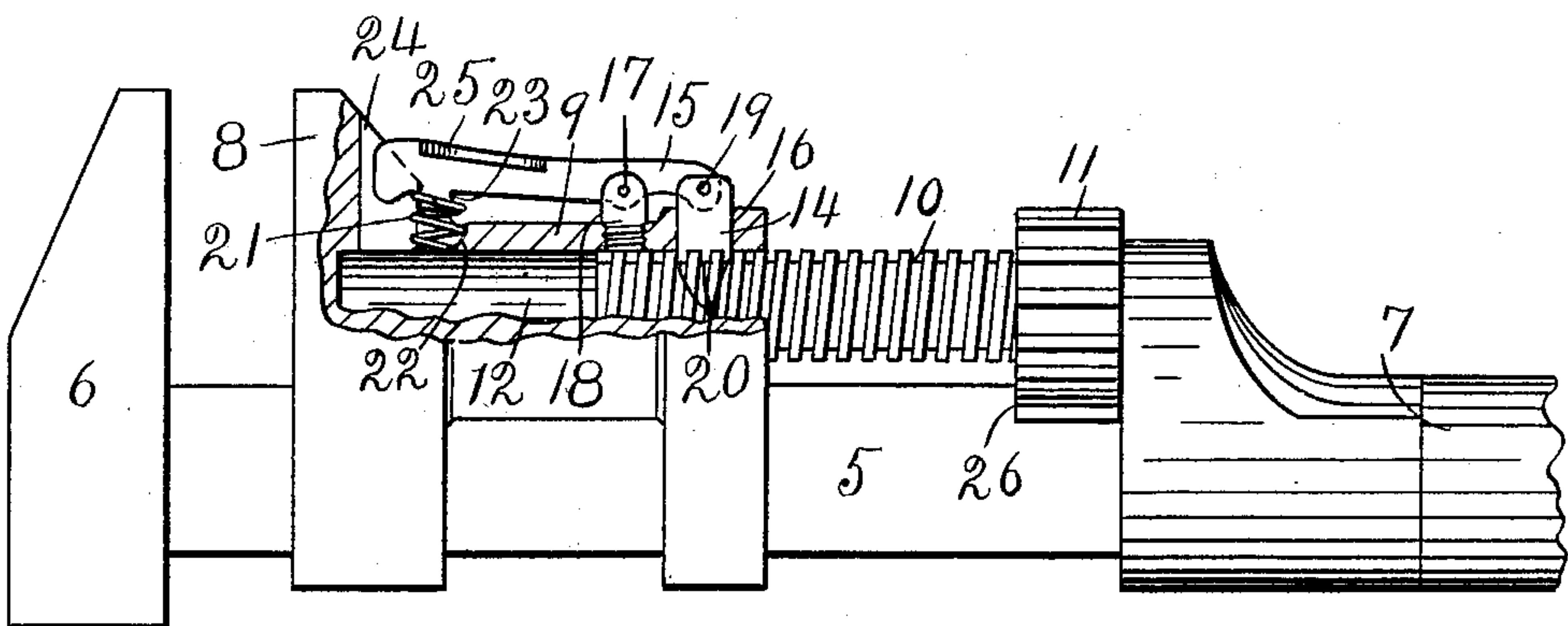


FIG. 2.

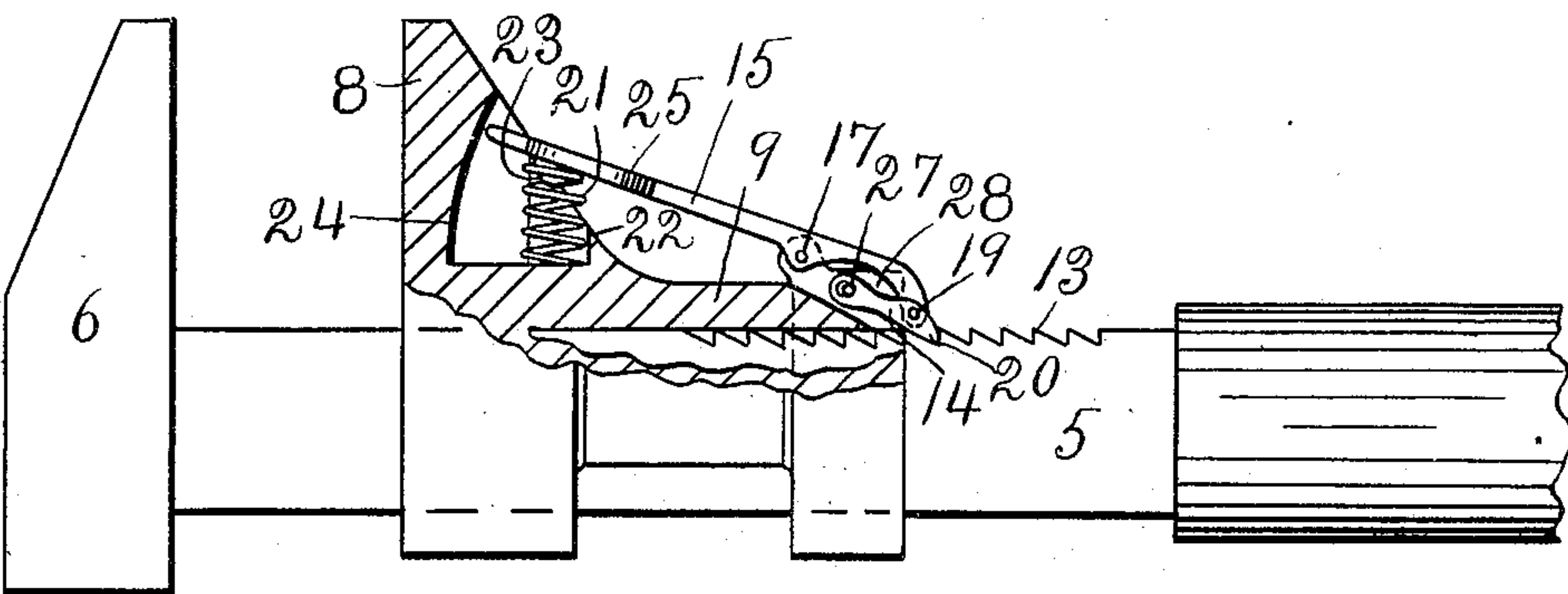


FIG. 3.

WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## WRENCH.

No. 897,640.

Specification of Letters Patent.

Patented Sept. 1, 1908.

Application filed December 18, 1907. Serial No. 407,023.

*To all whom it may concern:*

Be it known that I, JOHN MINETT, a citizen of the United States of America, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

My invention relates to improvements in that class of wrenches known as quick-acting, and consists of a spring-pressed lever pivotally mounted on the sliding sleeve of the wrench, and a locking and releasing dog mounted in such sleeve in pivotal connection with such lever, all as hereinafter set forth.

The object of my invention is to produce a strong, durable, simple and inexpensive monkey-wrench which can be easily and quickly adjusted to fit nuts, bolts and the like, of different sizes, in the manner peculiar to quick-acting wrenches. I attain this object by the means illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a screw wrench equipped with my improvement; Fig. 2, a side elevation of said wrench, portions of the sleeve being broken away the better to disclose the arrangement and construction of the locking and releasing means or mechanism, and, Fig. 3, a side elevation of a wrench having a serrated shank with which my improvement is incorporated, the sleeve being broken away in this as in the preceding view. The major part of the handle is broken off in each view. Similar figures refer to similar parts throughout the several views.

It will be observed that in the first two views I show a wrench which consists of a shank 5 having a fixed jaw 6 at one end and a handle 7 at the other end, a movable jaw 8 with an integral sleeve 9 mounted to slide on said shank, and a screw 10 provided with a serrated head 11 by means of which said screw is turned, the screw having its bearings at opposite ends respectively in said handle and sleeve in the usual manner, although the passage 12 in the sleeve for the screw is not screw-threaded; and that in the last view I show a wrench which consists of corresponding and similar parts to those in the other wrench with the exception of the screw which is omitted, one edge of the shank being serrated at 13 to take the place of the screw.

All of the parts, members or elements mentioned above are generally old and well-known. The new features, which are united with the aforesaid old elements to make up my improved wrench, reside in a movable dog adapted to engage and release the screw threads or the teeth 13 as the case may be, and a spring-pressed operating or actuating lever for such dog.

The dog is represented at 14 and the lever at 15, the former being mounted in a slot 16 in the sleeve 9 and the latter being pivoted at 17 to a post 18 which rises from said sleeve in Figs. 1 and 2. The slot 16 opens into the screw passage 12, to which it stands at right-angles, and said slot opens also through the outside of the sleeve, so that the outer end of the dog 14 is beyond said sleeve and it is to this end that the adjacent end of the lever 15 is pivoted at 19. On the inner end of the dog are three teeth 20, more or less, which are held normally in engagement with the threads or teeth on the screw 10 through the medium of the lever 15 and a spring 21 bearing against the inner edge of the terminal of the lever which is opposite the pivoted terminal thereof. This spring is received in a recess 22 at or near the junction of the jaw 8 with the sleeve 9 and is held in place by the walls of such recess and by a lug 23 on the inner edge of the lever 15. The jaw 8 is slotted at 24 to accommodate the adjacent end of the lever. Said lever has an expanded or extended thumb or finger piece 25 to facilitate the act of pressing the free end of the lever inward against the resiliency of its spring. The post 18 has its inner end set firmly in the sleeve, the same being tapped into the sleeve in the present instance.

When the parts stand as shown in Fig. 2 the sleeve 9 is locked to the screw 10 by means of the dog 14, and said sleeve can be actuated on the shank 5, so as to adjust its jaw to locate the same nearer to or farther from the jaw 7, by manipulating said screw in the usual manner; to bring about a readjustment of the parts more quickly, however, said dog 14 is disengaged from the screw by forcing inward the free end of the lever 15, the sleeve is actuated so as to locate the jaw 8 at the desired point, and said lever is then released to its spring with the result that the dog engages the screw and relocks the sleeve.



The head 11 rotates between the adjacent end of the handle 7 and a shoulder 26 on the shank 5, whereby endwise movement on the part of the screw is prevented.

5 In Fig. 3 the dog 14 is in the form of a pawl pivoted at 27 to the sleeve 9. The free end or tooth 20 of this dog is adapted to engage any one of the teeth 13. The lever 15 is pivoted at 17 directly to the sleeve and at 19 to the dog near its tooth, and said lever is provided with the lug 23 for the spring 21 and the thumb or finger piece 25 as in the other case. The slot 24 for the free end of the lever and the recess 22 for the spring are also present as 10 before. A slot 28 is made in the sleeve for the accommodation of the adjacent part of the lever as well as for the dog. In this last construction there is no provision, as in the first construction, for actuating the sleeve 20 without the manipulation either manually or automatically of the lever and dog. It is necessary to depress the free end of the lever and thus swing the dog outward until its tooth clears the teeth 13 in order to move the 25 sleeve toward the handle, but said sleeve can be moved in the other direction without manually operating said lever, since said dog will then pass over or click by the teeth 13 like any ordinary ratchet, although the dog can 30 be held out of engagement with said teeth in the same manner as before, during this operation, if desired. As soon as the sleeve and movable jaw have been properly adjusted the spring brings about the reengagement of 35 the tooth 20 with one of the teeth 13 and so locks the parts to the extent of preventing further separation of the jaws.

From the foregoing it is obvious that the only difference between the two forms of 40 construction herein shown and described, outside of shape, size and minor details which are unimportant and may be changed at will, and outside of the style of wrench, is in the dogs, one of which is a reciprocating member 45 and the other an oscillating member.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, in a wrench, with a shank provided with a fixed jaw, a movable 50 jaw and sleeve mounted on said shank and slotted and recessed respectively, such slot and recess opening into each other, and a serrated member, of a movable dog mounted in said sleeve and adapted to engage and release 55 said serrated member, a lever pivotally-mounted between its ends on the sleeve and having one end pivotally-connected with said dog and the other end extending into the slot in said movable jaw, and a spring in the 60 sleeve recess arranged to force normally the dog into locking engagement with the serrated member through the medium of said lever.

2. The combination, in a wrench, with a

shank provided with a fixed jaw, a sleeve 65 provided with a slotted jaw slidably-mounted on said shank, said sleeve having a recess therein adjacent to its jaw, and a suitably mounted non-reciprocating screw extending 70 into the sleeve, of a longitudinally reciprocating dog in said sleeve, said dog being serrated at its inner end to engage with said screw, an actuating lever for said dog pivoted at one end to the latter and pivotally-mounted 75 between its ends on the sleeve, the free terminal of such lever being in the slot in said movable jaw, and a spring arranged in the sleeve recess to bear against the free terminal of said lever to force such terminal outward.

3. The combination, in a wrench, with a 80 shank provided with a fixed jaw, a slotted sleeve provided with a jaw slidably mounted on said shank, and a suitably mounted non-reciprocating screw extending into the sleeve, 85 of a longitudinally reciprocating dog in the slot in the sleeve, such dog being serrated at its inner end to engage with said screw, a post on said sleeve, an actuating lever for said dog pivoted at one end to the latter and pivotally-mounted on said post, and a spring ar- 90 ranged to bear against the free terminal of said lever to force such terminal outward.

4. The combination, in a wrench, with a shank provided with a fixed jaw, a slotted 95 sleeve provided with a jaw slidably mounted on said shank, and a suitably mounted non-reciprocating screw extending into the sleeve, of a longitudinally reciprocating dog in the slot in said sleeve, such dog being serrated at 100 its inner end to engage with the screw, a post on the sleeve, an operating lever pivoted at one end to said dog and pivotally-mounted on said post, said lever being provided near its free terminal with a retaining lug for a 105 spring, and a spring between the sleeve and said free terminal of the lever, the outer end of said spring being held in place by said lug.

5. The combination, in a wrench, with a shank provided with a fixed jaw, a slotted 110 sleeve provided with a jaw slidably-mounted on said shank, and a suitably mounted non-reciprocating screw extending into said sleeve, of a longitudinally reciprocating dog in the slot in the sleeve, such dog being serrated at its inner end to engage with the 115 screw, a post on the sleeve, an operating lever pivoted at one end to said dog and pivotally-mounted on said post, said lever being provided between the free terminal thereof and the post on the outer edge with a thumb or 120 finger piece, and a spring between the sleeve and said free terminal of the lever to force such terminal outward.

6. The combination, in a wrench, with a shank provided with a fixed jaw, a slotted 125 and recessed sleeve provided with a slotted jaw slidably-mounted on said shank, and a suitably-mounted non-reciprocating screw



extending into the sleeve, of a longitudinally reciprocating dog in the slot in the sleeve, such dog being serrated at its inner end to engage with the screw, a post on the sleeve, 5 an operating lever pivoted at its inner end to said dog and pivotally mounted on said post, said lever being provided near its free terminal with a retaining lug for a spring and having such terminal projecting into the slot in the movable jaw, and a spring in the recess 10 in said sleeve arranged to bear against said free terminal of the lever, the outer end of said spring being held in place by said lug.

JOHN MINETT.

Witnesses:

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