

No. 711,408.

Patented Oct. 14, 1902.

C. J. MAGGARD.
COMBINED HAMMER AND WRENCH.

(Application filed Dec. 30, 1901.)

(No Model.)

Fig. 1.

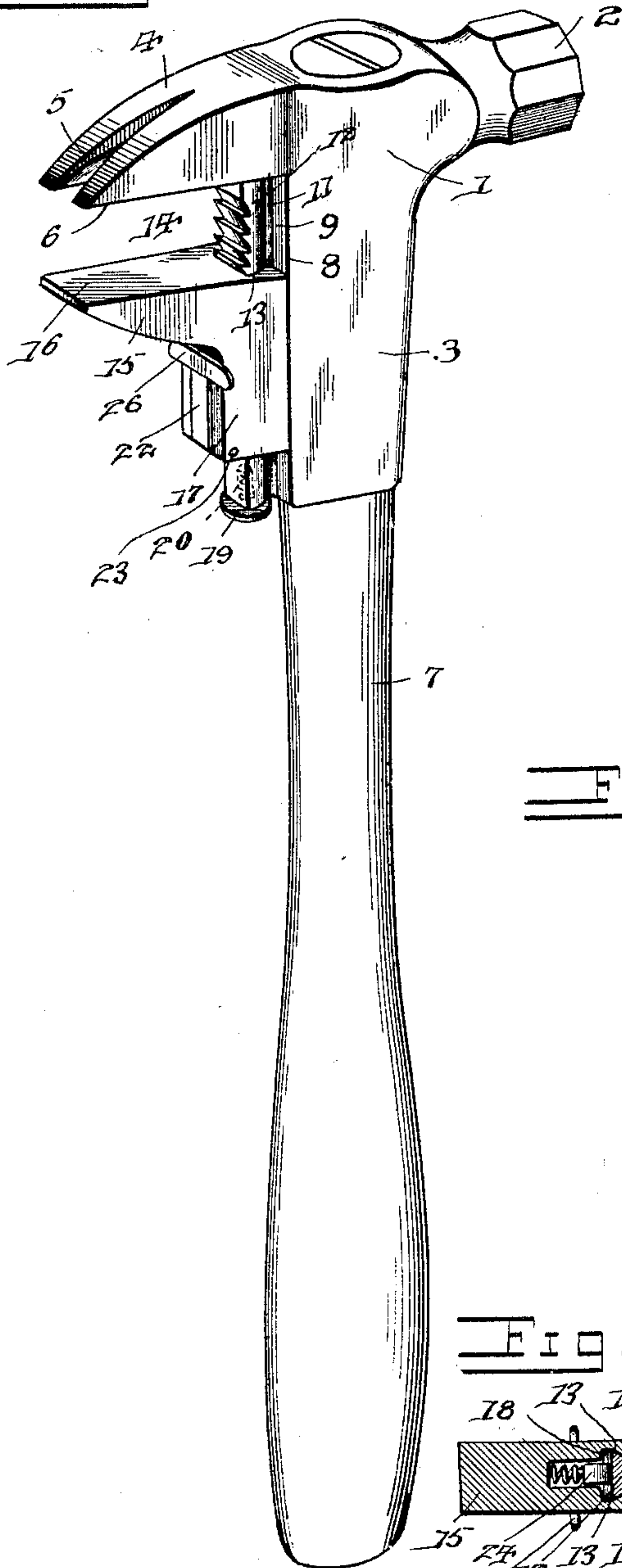


Fig. 2.

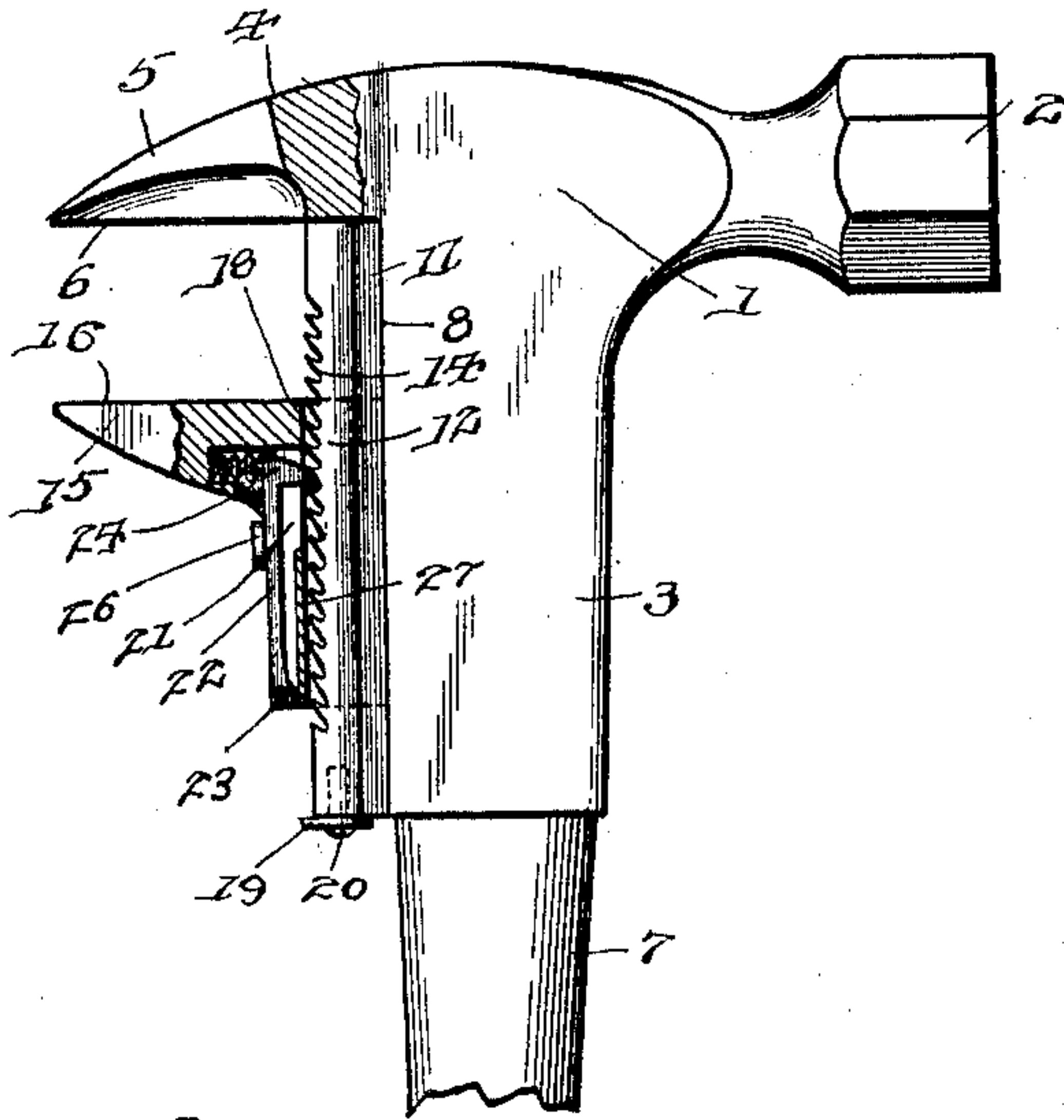


Fig. 4.

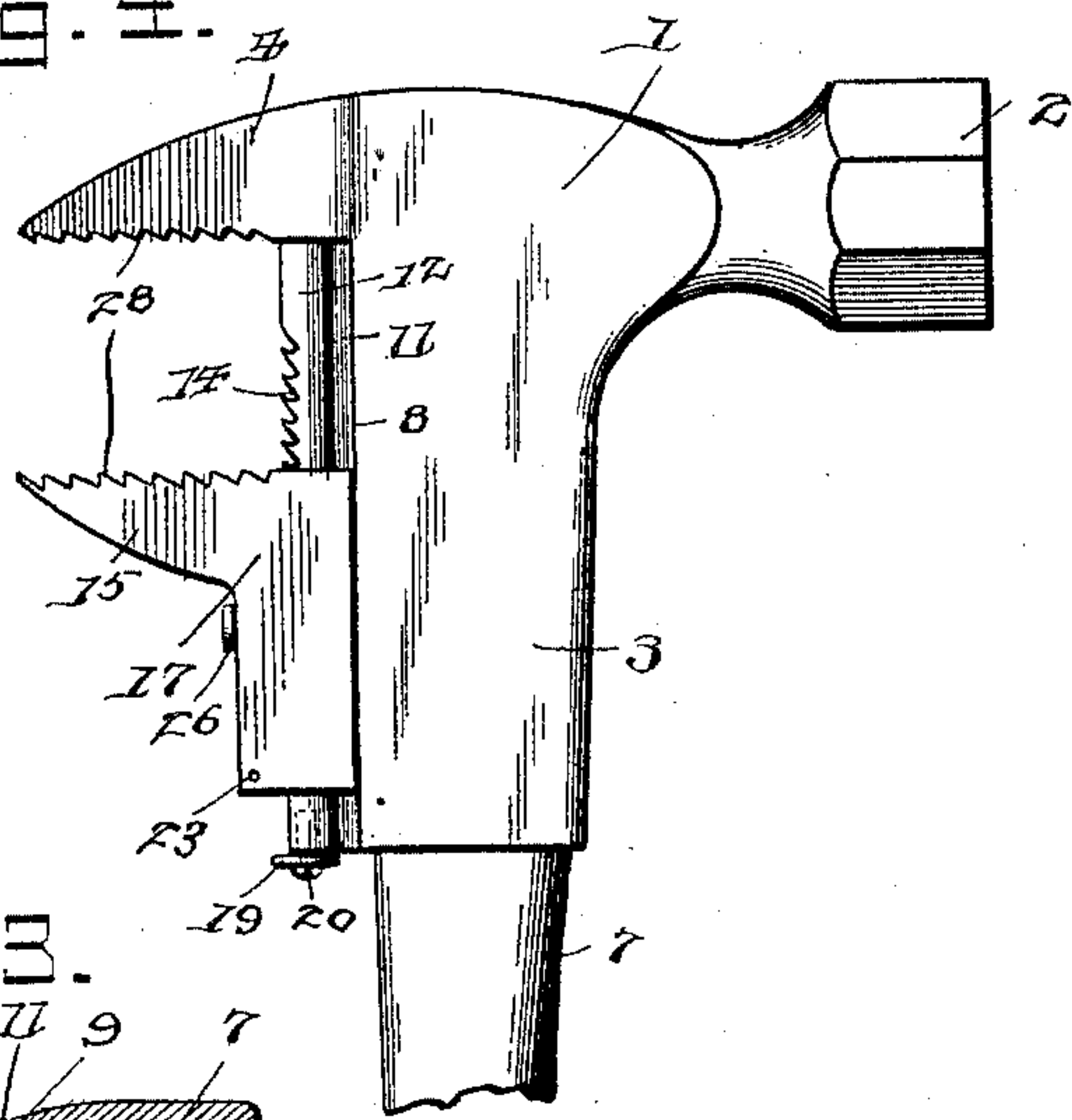
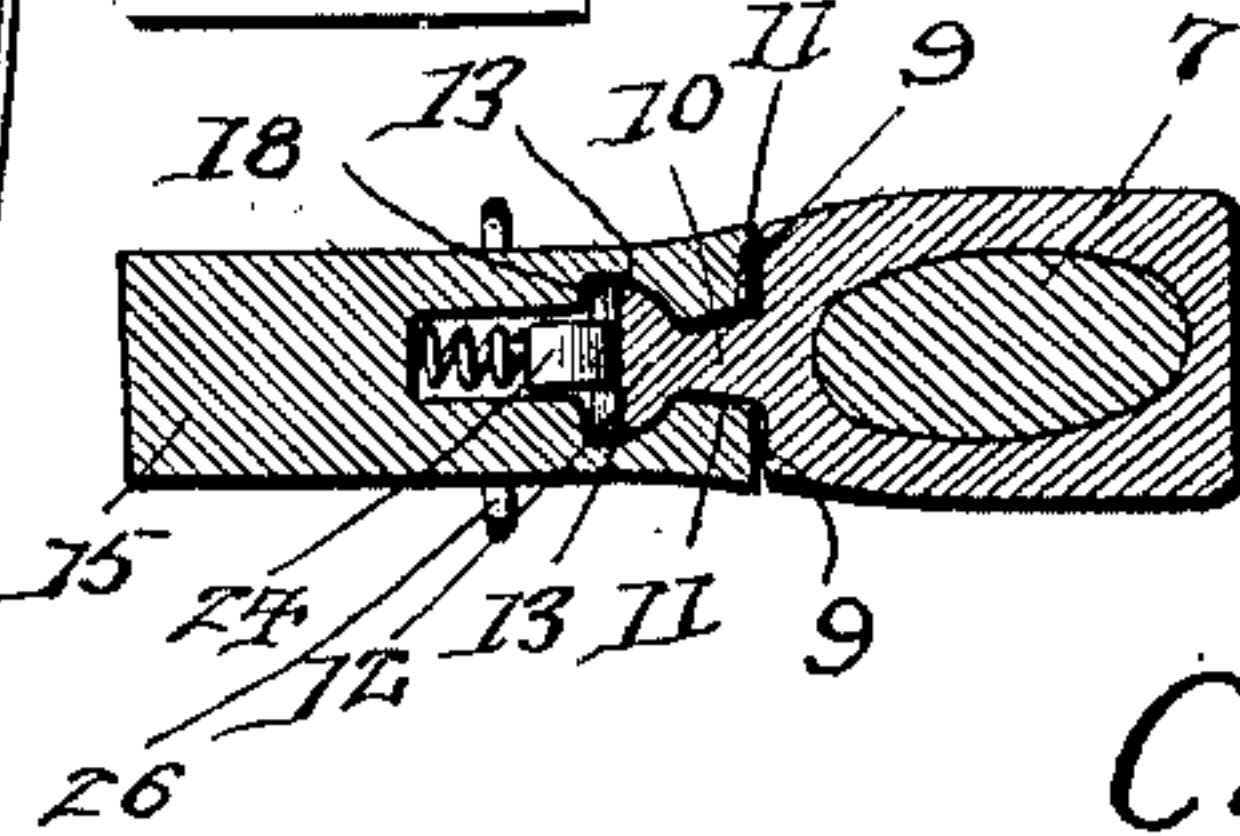


Fig. 3.



Witnesses
F. E. Alden.

Chas. S. Hoyer.

By HRS Attorneys,

C. J. Maggard, Inventor.

CA Snow & Co.

UNITED STATES PATENT OFFICE.

CHARLES J. MAGGARD, OF CANTON, MISSOURI, ASSIGNOR OF ONE-HALF TO
CLARK A. GRIFFETH, OF CANTON, MISSOURI.

COMBINED HAMMER AND WRENCH.

SPECIFICATION forming part of Letters Patent No. 711,408, dated October 14, 1902.

Application filed December 30, 1901. Serial No. 87,794. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. MAGGARD, a citizen of the United States, residing at Canton, in the county of Lewis and State of Missouri, have invented a new and useful Combined Hammer and Wrench, of which the following is a specification.

This invention relates to a combined hammer and wrench; and the object of the same is to provide a simple and effective device of this character wherein the claw of the hammer is arranged to serve as the fixed jaw of the wrench and in juxtaposition to a movable jaw having a particular arrangement and securing device, the combined device being adapted for use as a hammer alone without requiring a disassociation of the wrench attachment or the wrench feature applicable for service as such without impairing the hammer characteristics of the implement.

The invention consists in the construction and arrangement of parts more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a combined hammer and wrench embodying the features of the invention. Fig. 2 is a side elevation of a portion of the improved device shown broken away at different points. Fig. 3 is a horizontal section through the slidable jaw of the wrench attachment and the socket of the hammer. Fig. 4 is a side elevation of the hammer-head and wrench attachment, showing a slight variation in the construction and the wrench attachment as adapted for use in connection with pipes.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a hammer-head provided with the usual nail-contacting projection 2 and also having an elongated socket 3 and a claw 4, with the nail-slot 5, the said claw having its inner face straight, as at 6, and in a plane at right angles to the socket 3 to serve in the capacity of a fixed wrench-jaw as well as a nail-claw. The socket 3 receives the usual handle 7, and the end 8 thereof adjacent the claw 4 has oppositely-disposed vertically-straight faces 9, separated by an intermediate outstanding web or neck 10, pro-

vided with oppositely-beveled sides 11, as clearly shown in Fig. 3, converging toward a vertical guide-rib 12, supported by the said neck or web, the said guide-rib having inner curved bearing-surfaces 13 and outer upwardly-directed teeth 14 extending over a portion of its length. Movably mounted on the said guide-rib 12 is an adjustable jaw 15, having a straight bearing-face 16 in a plane at right angles to the inner straight face 6 of the claw 4 and also provided with a shank 17, having a groove 18 therein opening out through the inner end and corresponding in contour to the shape of the opposite beveled sides 11 of the neck or web 10 and the curved bearing-surfaces 13 of the said rib 12, the portion of the said groove in which the rib itself is located being larger than the rib, so as to provide for the free adjustment of the jaw 15 and the operation of a locking device, which will be presently set forth. The jaw 15 is adapted to be freely adjusted lengthwise of the rib 12 and neck 10, and the separated members at the inner end thereof produced by the formation of the groove 18 have a movable yet snug bracing engagement with the faces 9 of the socket 3, and this arrangement, in conjunction with the substantial dovetail association between the jaw 15 and the neck or web and rib, obviates any tendency toward a too-loose engagement of the jaw with the socket 3 and also produces a strong mode of supporting the said jaw. The jaw 15 is prevented from sliding off the lower extremity of the rib 12 by a stop washer or disk 19, which is applied against the lower end of the said rib and held in place by a screw 20, and by this means also the said jaw 15 can be disconnected from the hammer at any time desired and said hammer used alone to serve its usual function.

The shank 17 of the jaw 15 has an opening or slot 21 formed therein to receive a catch-dog 22, which has its lower end pivoted at the lower extremity of the said shank, as at 23, the upper end of said catch-dog being formed with an inwardly-extending reduced nose 24 to take into the teeth 14 on the adjacent face of the rib 12. The said dog 22 fits snugly in the opening or slot 21 and is held in normal locking position by a spring 25,

bearing upon the outer part thereof in line with the nose 24, said dog also having an operating cross-strip 26 secured to the outer side thereof and extending transversely across the shank 17 of the jaw 15, said strip 26 being longer than the shank is wide for convenience in engaging the same. In operating the catch-dog 22 it is drawn outwardly against the resistance of the spring 25, and when the nose 24 is cleared from the teeth 14 the jaw 15 can be easily moved toward or away from the face 6 of the claw 4, and when the dog 22 is relieved from outward pull the spring 25 automatically forces it inwardly to engage the tooth in line therewith, and thus hold the said jaw 15 in firm adjusted position. The nose 24 of the dog 22 extends through an opening in the jaw over the teeth 14; but the lower portion of the jaw is separated from the said teeth by a thin partition-wall 27, as clearly shown in Fig. 2, so that there can be no possible interference with the action of the dog at this point, and, moreover, this close inclosure of the several parts materially prevents the collection of dirt within the jaw, and clogging of the teeth 14 is obviated. The partition 27 also facilitates the easy adjustment of the jaw 15 by preventing the teeth 14 from catching against corners or projections which would otherwise exist.

In Fig. 4 a slight variation in the construction of the wrench feature of the combined device is shown and consists in providing the claw or fixed jaw and the slidable jaw with oppositely-directed teeth 28 to adapt the device for use in connection with pipes; but in other respects the construction shown by Fig. 4 is similar to that illustrated in the remaining figures of the drawings. By the provision of the wrench attachment set forth the function of the hammer is not in the least impaired, and a very slight departure from the usual construction of the latter device exists, with the additional advantage of having the two devices combined in one, and thereby materially reducing the cost compared relatively to that of the separate implements. The readiness with which the movable jaw can be

detached from the hammer construction is an essential feature, as the hammer can thus be used alone without the encumbrance of the said movable jaw.

Changes in the form, proportions, and minor details may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

Having thus described my invention, what is claimed as new is—

1. A hammer-head formed with a socket-piece, the latter having a claw and a rib on one side thereof, said rib being longitudinal of the socket-piece and having a widened head provided on its outer side with ratchet-teeth, in combination with a sliding jaw, having an extended guide-piece bearing on the ribbed side of the socket-piece, and channeled to fit the headed rib, whereby the sliding jaw is connected to the socket-piece, and is movable toward and from the claw, and a spring-pressed dog carried by the sliding jaw to engage the ratchet-teeth, and thereby secure the sliding jaw when adjusted with relation to the claw, the latter forming a coacting wrench-jaw, substantially as described.

2. A hammer-head formed with a socket-piece, the latter having a claw and a rib on one side thereof, said rib being longitudinal of the socket-piece and having a widened head provided on its outer side with ratchet-teeth, in combination with a sliding jaw, having an extended guide-piece bearing on the ribbed side of the socket-piece, and channeled to fit the headed rib, whereby the sliding jaw is connected to the socket-piece, and is movable toward and from the claw, and a dog carried by the sliding jaw to engage the ratchet-teeth and thereby secure the sliding jaw when adjusted with relation to the claw, the latter forming a coacting wrench-jaw, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES J. MAGGARD.

Witnesses:

ARTHUR HILBERT,
THOMAS A. RALEIGH.