

No. 699,017.

Patented Apr. 29, 1902.

W. RUNDQUIST.
WRENCH.

(Application filed Nov. 16, 1901.)

(No Model.)

Fig. 1.

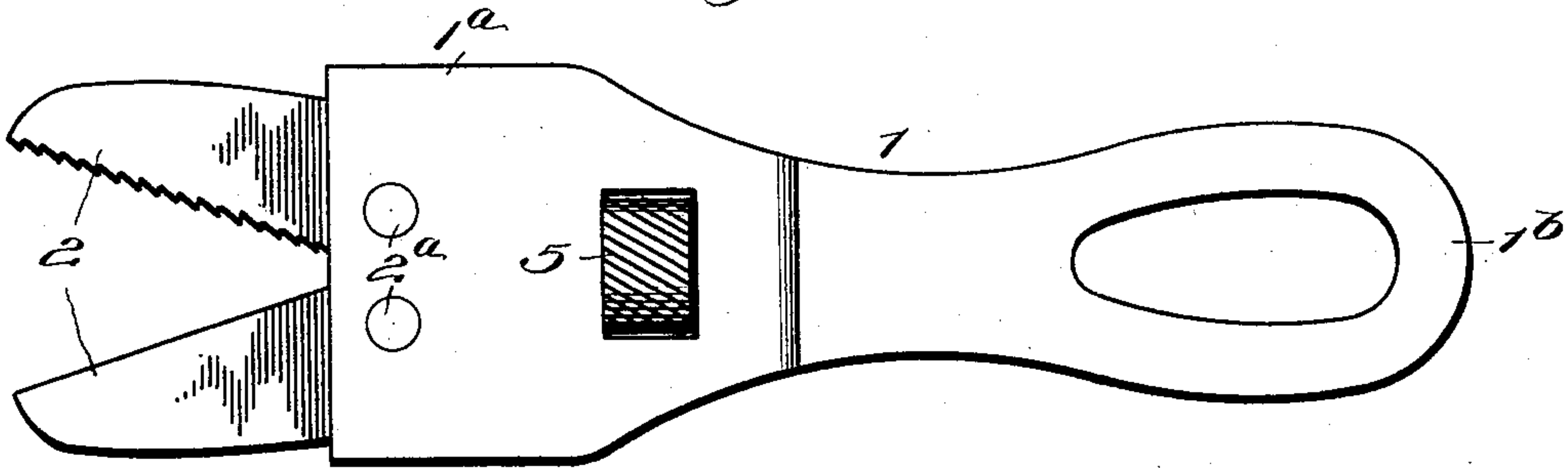


Fig. 2.

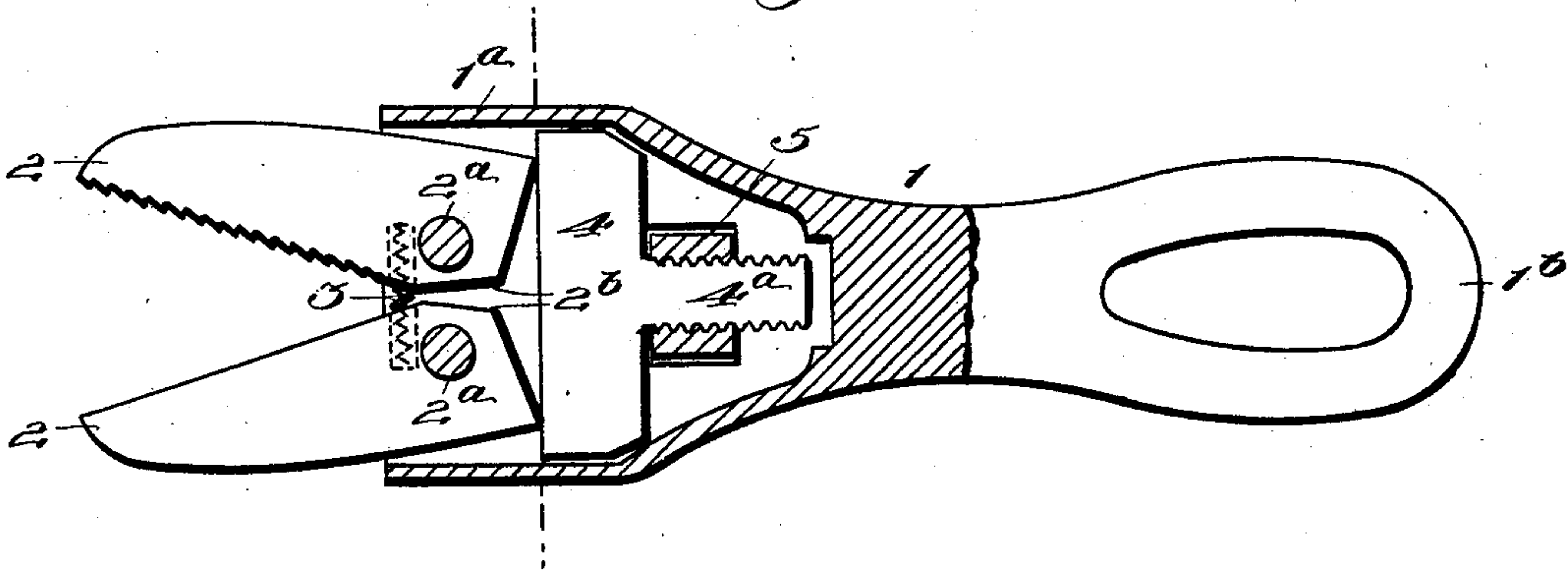
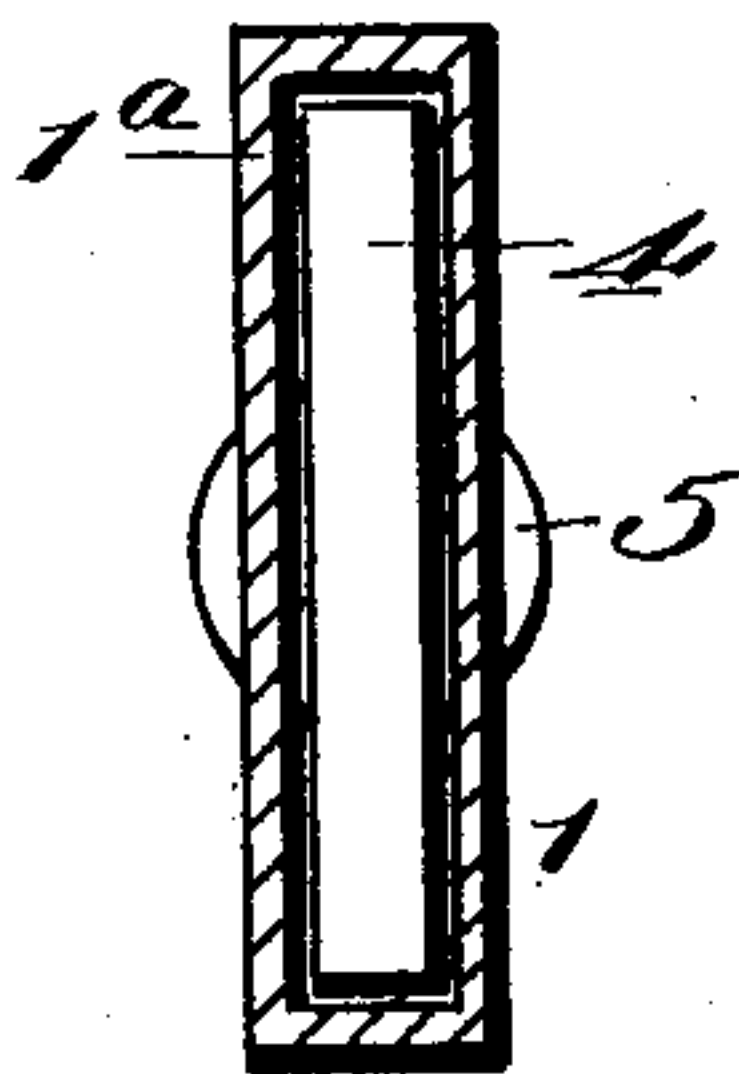


Fig. 3.



Witnesses

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SPECIFICATION forming part of Letters Patent No. 699,017, dated April 29, 1902.

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To all whom it may concern:

Be it known that I, WILLIAM RUNDQUIST, a citizen of the United States, residing at Elgin, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same.

My invention relates to certain improvements in wrenches.

It has for its object to simplify construction, add to the durability and strength of the
15 wrench, lessen cost of manufacture, and to otherwise improve the utility of the same. It is also applicable as a pipe or nut wrench and is readily actuated or manipulated.

It consists of automatically separable jaws, combined with a sliding member or follower adapted to initially engage or actuate said jaws at their inner ends from the outer lateral edges or angles, and of such a follower or sliding member adapted to guard the screw carrying the actuating-nut from lateral resistance, all substantially as hereinafter more
20 fully disclosed, and specifically pointed out by the claims.

In the accompanying drawings, forming a
30 part of this application, Figure 1 is a side elevation. Fig. 2 is a sectional elevation at one side of the jaws. Fig. 3 is a cross-section thereof.

It will be understood that I do not restrict
35 myself to details, as they may be changed without departing from the spirit of my invention and the same yet remain intact and be protected.

In carrying out my invention I provide a
40 suitable handle or member 1, preferably comprising a socket-like closure or casing 1^a, and a handle 1^b, all produced, preferably, in a single malleable-iron casting. Two jaws 2 2, let into or arranged within said closure or
45 casing at their inner ends, are pivoted near said ends, as at 2^a 2^a, near the outer or forward end of said closure or casing, one jaw having preferably a serrated or roughened face, as more especially desired for pipe-
50 wrenches, and the same yet adapted for an

ordinary nut-wrench. Said jaws are automatically spread apart as pressure is removed therefrom by the action of a spring 3, interposed therebetween and suitably held in place, preferably as shown or otherwise. Said jaws are reduced or cut away, as at 2^b, at the inner corners or angles of their inner end portions to permit the spreading apart of said jaws, as in receiving or applying them to a pipe or nut to be acted upon.

A sliding member or follower 4, preferably of the construction shown, having a straight or rectilinear actuating surface or edge and corresponding lateral or end portions, is arranged within the closure or casing 1, with its actuating edge presented toward the inner ends of the jaws 2 and adapted to initially engage or contact with the outer corners or angles of said ends of said jaws. Said follower or member 4 has extending centrally from its inner longitudinal edge or surface a screw-threaded stem or rod 4^a, and receiving said rod or stem is preferably an annular nut 5, with its inner screw-threaded surface engaging the corresponding screw-threads of said stem or rod to effect the actuation of said follower or member. Said nut has an external milled or roughened surface for convenience or facility in manipulating it, and it protrudes through lateral openings in the closure or casing 1 for the application of the hand or fingers thereto.

It will be observed that by applying the jaws to the nut or pipe, said jaws having been spread apart, and then by applying the hand or fingers to the nut, so as to operate said nut, the follower or member 4 will be forced against the outer corners or angles of the inner ends of said jaws, and thus throw or force said jaws together, gripping therebetween the nut or pipe, after which of course the hand or fingers are removed from said nut. By this construction and arrangement of parts the lateral thrust of the jaws is received upon the follower braced against the interior walls of the handle instead of being transferred to the screw-stem, as heretofore. Also the screw-threaded stem or rod of the follower is held true or in the longitudinal plane of the wrench, and no special means separate from

the follower or its equivalent is required to effect this, thus preventing any binding tendency of said stem upon the handle or other means receiving it.

5 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a wrench, the combination with a casing open at its forward end and having rearwardly-extending parallel walls, of jaws
10 adapted to be automatically spread apart, a follower extending from wall to wall of the casing and having a rearwardly-extending central, threaded portion, and means for actuating said follower.
15

2. In a wrench, the combination of a casing having its upper and lower walls parallel

in its forward portion, and converging in its rearward portion, of jaws adapted to be automatically spread apart, a follower to engage the outer angles of the inner ends of said jaws, and adapted to have its edges in bearing contact with the inner face of the walls of the casing and to seat itself, valve-like, in the converging portion of the casing
25 when the jaws are fully spread apart, and means for actuating said follower.

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

WILLIAM RUNDQUIST.

Witnesses:

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E. C. MORGAN.