No. 775,091. PATENTED NOV. 15, 1904.

C. H. QUIMBY, JR.

WRENCH.

APPLICATION FILED JUNE 13, 1904.

NO MODEL.

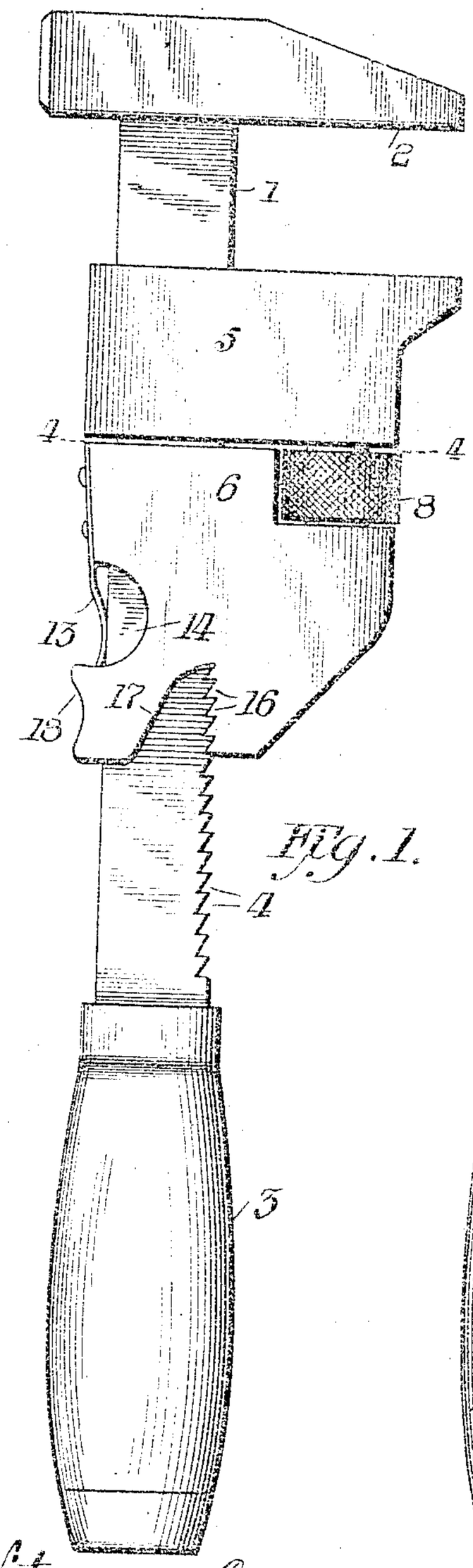

Fig. 1.

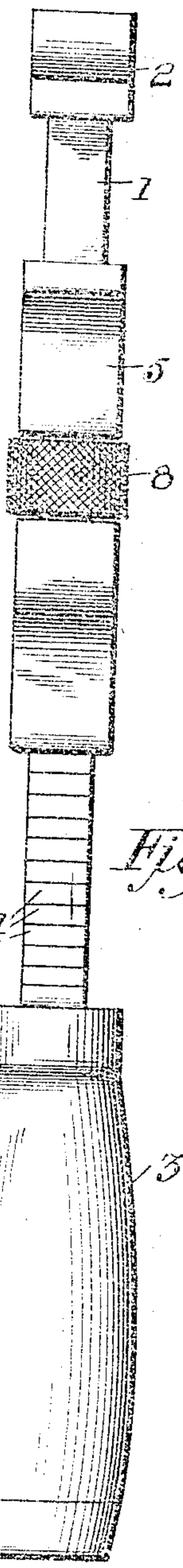

Fig. 2.

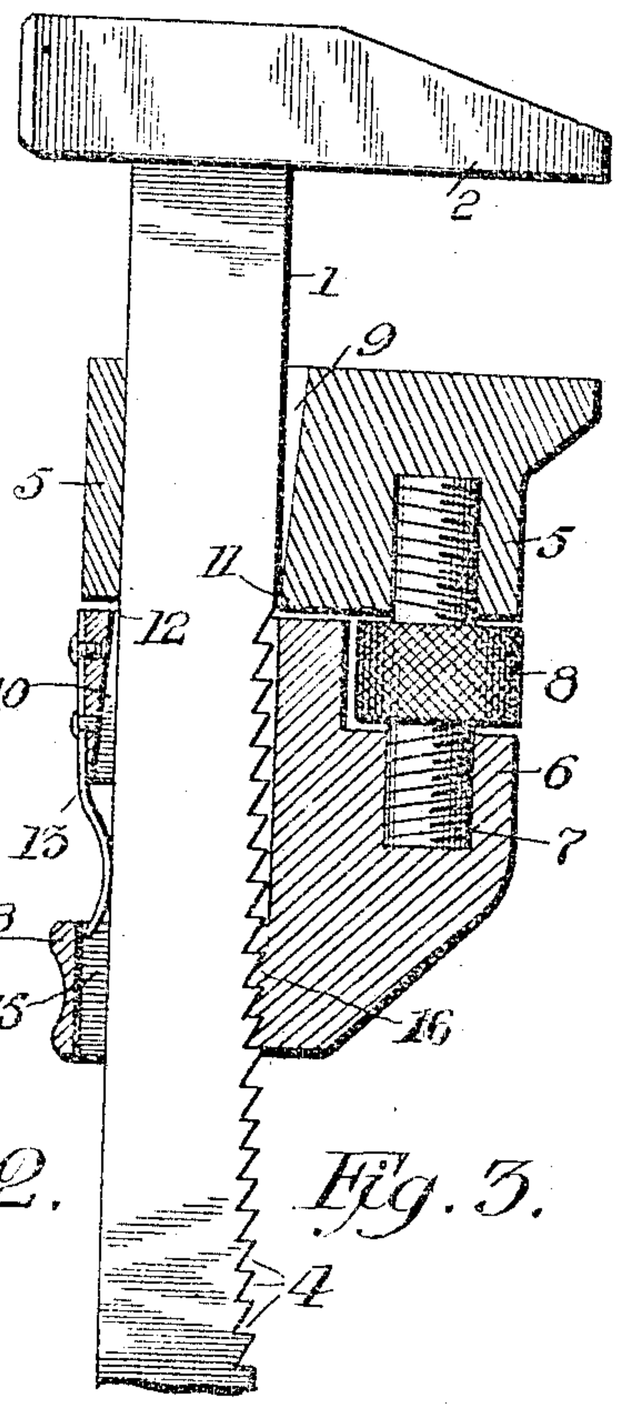

Fig. 3.

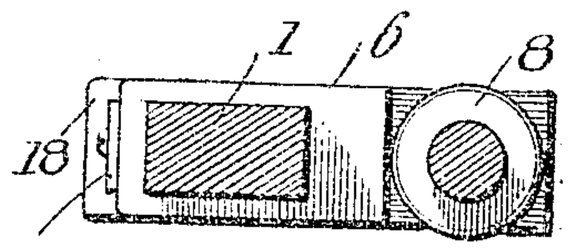

Fig. 4.

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No. 775,091. Patented November 15, 1904.

UNITED STATES PATENT OFFICE.

CHARLES H. QUIMBY, JR., OF PITTSBURG, PENNSYLVANIA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 775,091, dated November 15, 1904.

Application filed June 18, 1904. Serial No. 213,099. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. QUIMBY, Jr., a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to monkey-wrenches, and has for its object the provision of a monkey-wrench of novel form comprising a toothed shank having a fixed jaw and a sliding jaw mounted on the shank and means for moving the sliding jaw relatively to the fixed jaw and retaining the fixed jaw at any position to which it may be adjusted and for providing a minute adjustment of a portion of the fixed jaw in addition to the movement of the fixed jaw as a whole.

In carrying my invention into effect I form the movable jaw in two parts, one of which is provided with teeth engaging teeth on the shank, the jaw as a whole being constructed and arranged so as to be rocked on the shank to move the teeth on the jaw out of and into engagement with the teeth on the shank and the other part of the jaw being connected to that part which is provided with teeth by a thumb-screw, by means of which a minute adjustment of the bearing-face of the movable jaw relatively to the fixed jaw may be secured.

In the accompanying drawings, Figure 1 is a side elevation of a wrench constructed in accordance with my invention. Fig. 2 is an end elevation of the same. Fig. 3 is a view showing the fixed jaw and the shank in side elevation and the movable jaw in section, and Fig. 4 is a sectional view on the line 4 4 of Fig. 1.

The shank 1 of my improved wrench is provided with a fixed jaw 2 and the handle 3 and has on one edge teeth 4. The movable jaw is composed of an upper section 5 and a lower section 6, these parts both being provided with openings through which the shank 1 passes and being connected together by means of a double-ended screw 7, the ends whereof are formed with right and left handed threads, respectively, and the central part of which is formed with a thumb-nut 8, whereby the screw may be turned. The screw 7 screws into properly-threaded holes in the parts 5 and 6 of the movable jaw, and by turning the screw by means of the thumb-nut 8 the part 5 will be caused to approach or recede from the part 6. The opening through the part 5, through which the shank 1 passes, is outwardly beveled from the bottom to the top, as shown at 9, and the opposite side of the opening through the part 6 is beveled, as shown at 10, so that the part 5 has a bearing against the edge of the shank at 11, this point constituting a fulcrum upon which the movable jaw as a whole can be rocked to secure a rapid adjustment of the same in a manner to be presently described. A spring 13 is secured to the part 6 in the rear of the beveled opening 10 and bears against the back of the shank and serves to maintain the movable jaw normally in position shown in Figs. 1 and 3. The part 6 is cut away between the beveled portion 10 and the lower end of said part, as indicated at 14, and below the cut away part 14 the opening through the jaw is widened, as indicated at 15, and the lower end of the spring 13 rests on the wall of the opening through the part 6 below the space 14. Upon the opposite side of the shank to the widened part 15 of the opening through member 6 teeth 16 are formed on part 6, which in the normal position of the sliding jaw engage with the rack 4 on the edge of the shank. The part 6 is cut away on the sides of the opening through which the shank passes, as indicated at 17, for convenience in forming the teeth 16 and to afford access thereto for cleaning the teeth when necessary. In the rear of the widened portion 15 the part 6 is formed with a curved recess 18, which serves as a socket for the thumb of the person using the wrench.

The operation of the wrench as above described is as follows: The normal position of the parts is that shown in Figs. 1 and 3, the teeth 16 in this position being in engagement with the rack 4. When it is desired to adjust the wrench rapidly, the sliding member is tilted on the shank by pressing the thumb at a point 18 on the back of the part 6. This will tilt the sliding member on the fulcrum-point 11 and throw the teeth 16 out of en-

gagement with the rack 4, whereupon the sliding member can be moved up and down the shank to approximately the desired point of adjustment. When this point has been reached, the pressure on the back of the sliding member is released and the teeth 16 will be caused to engage with the rack 4 by the action of spring 13. Further, a more minute adjustment can then be secured by turning the thumb-nut 8 so as to cause part 5 of the movable jaw to approach toward or recede from the fixed jaw 2.

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

1. In a wrench, the combination with a toothed shank having a fixed jaw, of a movable jaw composed of two members, each having an opening for the passage of the shank, an adjusting-screw having oppositely-threaded ends, each end screwing into one of said members, one of said members having the opening therethrough beveled outwardly from a point adjacent the other member, said other member having the opening therethrough of sufficient width to permit of both members being rocked on the shank, said last-named member carrying teeth adapted to engage with the teeth on the shank and a spring carried by said last-named member and adapted to cause the teeth on the same to engage the teeth on the shank.

2. In a wrench, the combination with a shank having teeth on one edge and a fixed jaw, of a movable jaw composed of two sections, each section having an opening therethrough to receive the shank, the opening in both sections widening from the meeting-point of the sections to the ends thereof, and one of said sections being provided with teeth adapted to engage the teeth on the shank, a spring arranged to engage the teeth on the section with the teeth on the shank, said sections being connected by adjusting means.

3. In a wrench, the combination with a shank having teeth, of a two-part sliding member, both parts having orifices for the passage of the shank, said orifices being outwardly beveled from the central part of the sliding member, said sliding member being provided with teeth adapted to engage the teeth on the shank, the two parts of the sliding member being connected by an adjusting-screw and both sections of said sliding member adapted to be simultaneously rocked on the shank to disengage the teeth on the sliding member from the teeth on the shank.

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

CHARLES H. QUIMBY, JR.

Witnesses:
K. H. BUTLER,
E. E. POTTER.