R. GEOFFROY.

WRENCH.

APPLICATION FILED SEPT. 22, 1910.

988,565. Patented Apr. 4, 1911.

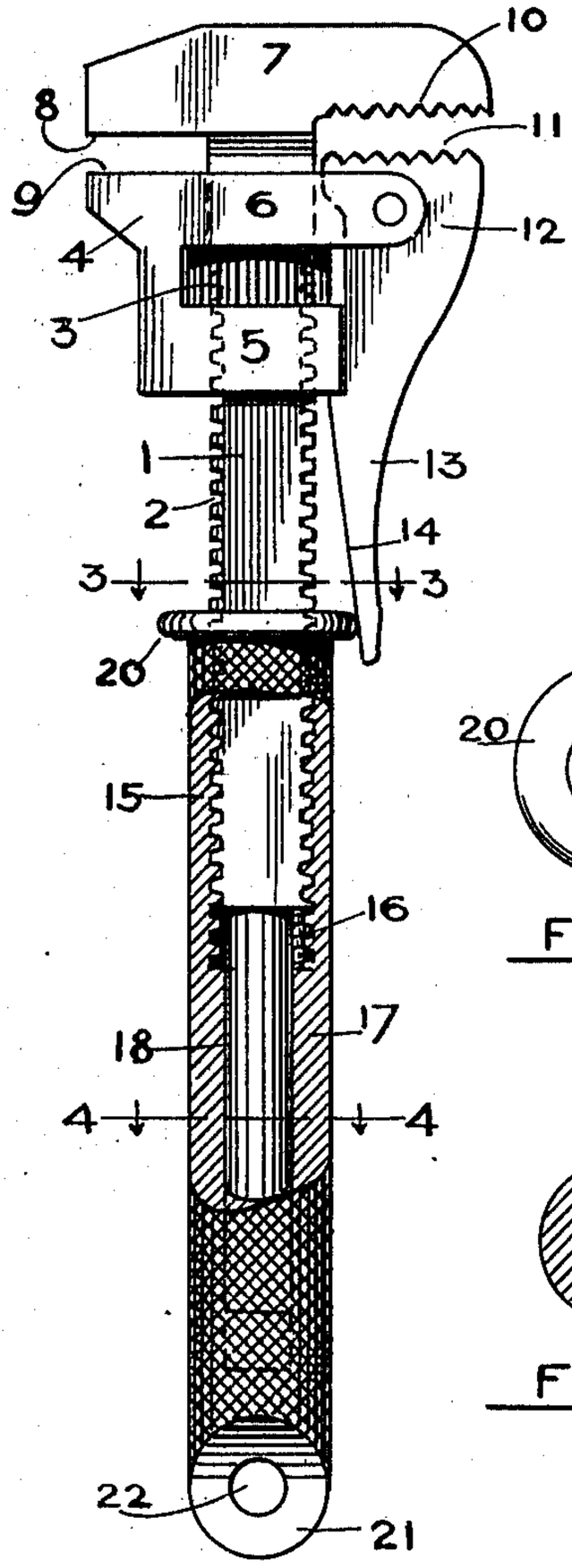

FIG. 1.

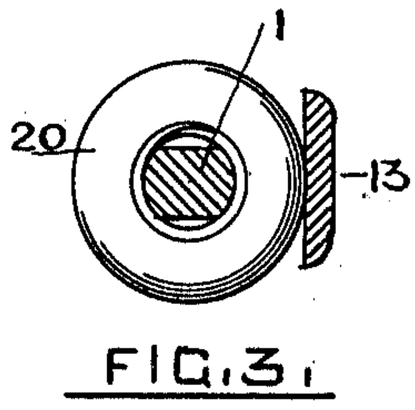

FIG. 3.

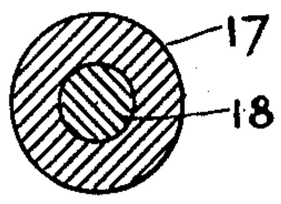

FIG. 4.

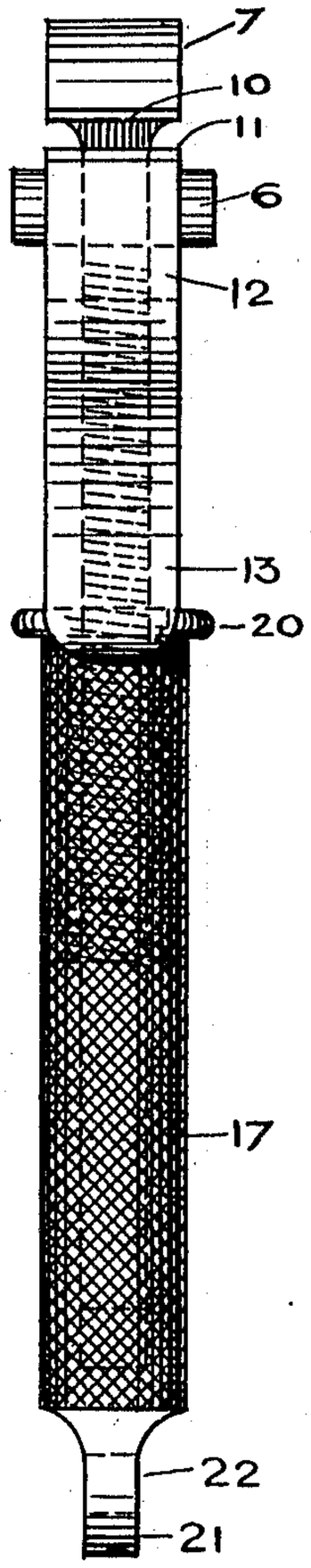

FIG. 2.

WITNESSES.

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UNITED STATES PATENT OFFICE.

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WRENCH.

988,565. Specification of Letters Patent. Patented Apr. 4, 1911.

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To all whom it may concern:

Be it known that I, RAYMOND GEOFFROY, a citizen of the United States, residing at Arctic, in the county of Kent and State of Rhode Island, have invented a new and useful Improvement in Wrenches, of which the following is a specification.

This invention relates to certain new and useful improvements in wrenches, and relates more particularly to that type of wrench adapted for use for both square and round work.

The object of the invention is to provide a wrench of this type of simple, and inexpensive construction, one which will be efficient in use, and of neat and compact appearance.

A further object of the invention is to provide novel means for actuating the pivoted jaw forming one of the members of that portion of the wrench used for round work.

In the drawings: Figure 1 is a side elevation showing a portion of the handle broken away and in section, Fig. 2 is a rear side elevation, and Figs. 3 and 4 are sections on the lines 3—3 and 4—4, respectively, of Fig. 1.

The wrench is composed of a shank 1 formed on its opposite sides with the rack teeth 2 for engagement with the knurled nut 3 carried by the sliding jaw 4, the latter being formed with an arm 5, and a pair of spaced arms 6 which are in spaced relation, the nut 3 being received in such space between arm 5 and arms 6. A rigid jaw 7 is carried by the shank 1 being formed on one side with a flat jaw face 8 which cooperates with the flat jaw face 9 of the sliding jaw 4, and on its opposite side being formed with a serrated face 10 which cooperates with the serrated face 11 of the pivoted jaw 12. It will be understood that the jaw faces 8 and 9 are used for square work such as nuts either of polygonal or other form, while the jaw faces 10 and 11 are used for round work such as pipes. The arms 6 of jaw 4 are extended beyond shank 1 and receive therebetween the pivoted jaw 12, as shown in Fig. 1. Pivoted jaw 12 is provided with a tail 13 which extends downwardly opposite the shank 1 in spaced relation to the latter, the tail being formed with an inclined face 14 which in connection with the adjacent face of shank 1 defines a wedge-shaped space. The shank is screw-threaded into the sleeve or handle 17, as indicated at 15 in Fig. 1 and is provided with the rearwardly extending cylindrical portion 16 which is received in the socket 18 provided therefor in the sleeve 17. The inner end of sleeve 17 is formed with an annular outwardly extending projection 20 which engages the inclined face 14 of the pivoted jaw 12 as shown in the drawings. The outer end of the handle 17 is formed with a reduced portion 21 which has a central opening 22, this hole being for the purpose of inserting a screw driver or other metal piece to revolve the handle inwardly, thereby moving the tail 13 of jaw 12 outwardly away from the shank, causing the outer end portion of the serrated jaw face 11 of jaw 12 to exert additional pressure on the round work held between jaw faces 10 and 11. The sleeve or handle 17 is externally knurled to provide a firm hold for the hand in revolving the same.

In operation it will be understood that the pivoted jaw is operated by a simple turning movement of the handle sleeve which causes the projection 20 to ride inwardly in the wedge-shaped space defined by inclined face 14 of tail 13, and the adjacent toothed face of the shank 1, thereby causing the outer end portion of the jaw face to move inwardly toward the companion jaw face.

It will be understood that the cylindrical part 16 provides a bearing for the sleeve in its rotation, and at the same time affords a substantial and strong connection with the sleeve.

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

1. In a wrench in combination with a shank having a rigid jaw and a movable jaw, a jaw pivoted to the movable jaw and coöperating with one end of the rigid jaw, a tail carried by the pivoted jaw and formed with an inclined face, and a sleeve threaded on the shank and having an annular outwardly extending projection which engages said inclined face to thereby move the opposite end of the pivoted jaw toward said end of the rigid jaw.

2. In a wrench, in combination with a shank having a rigid jaw and a movable jaw, a jaw pivoted to the movable jaw and coöperating with one end of the rigid jaw,

a cylindrical part carried by the shank, a threaded part carried by the shank, a sleeve threaded on the threaded part and having a bored portion to receive the cylindrical part, and an annular projection carried by the sleeve to move the lower end of the movable jaw outwardly away from the shank.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

RAYMOND GEOFFROY.

Witnesses:

ADA E. HAGERTY,

J. A. MILLER.