

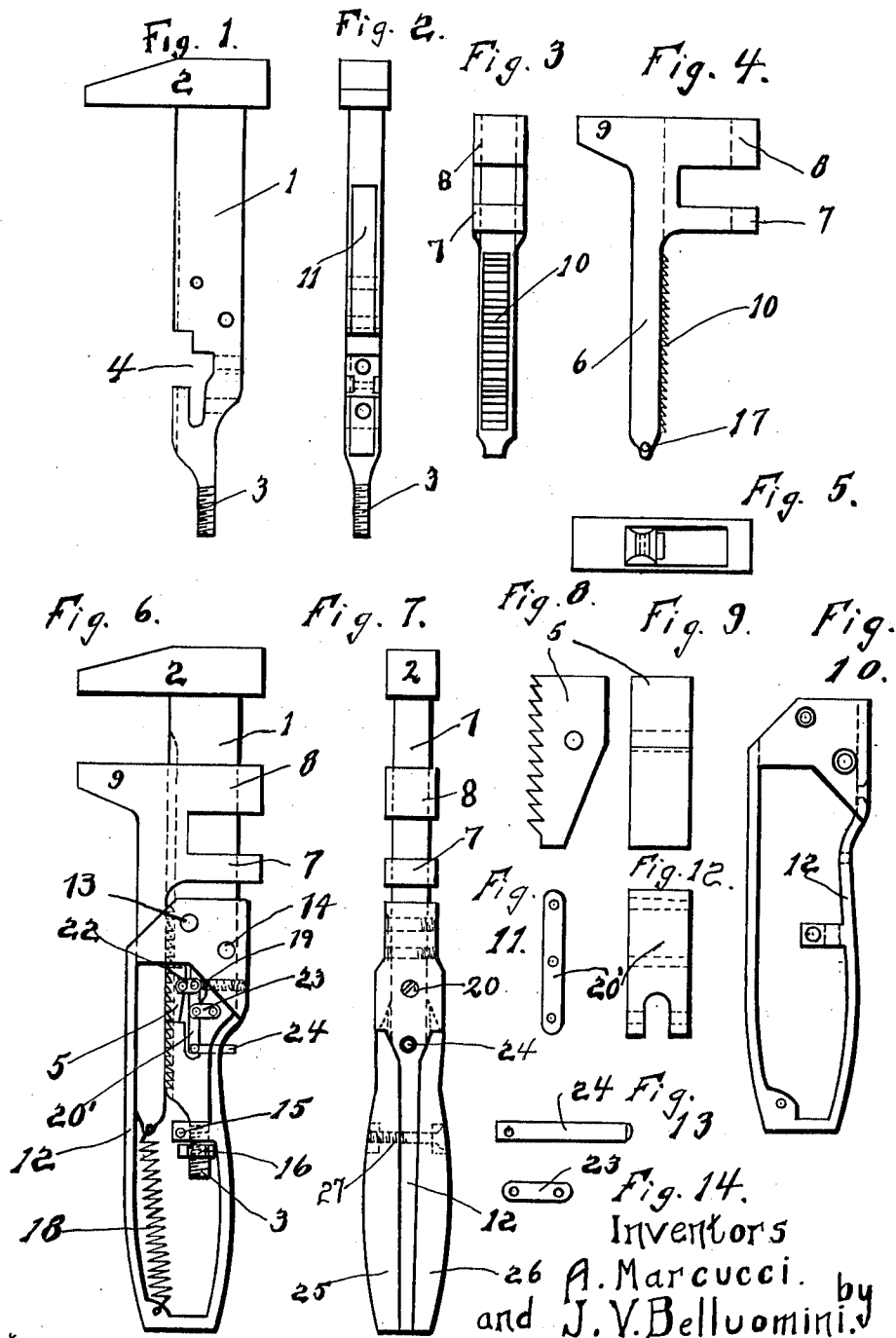
J. V. BELLUOMINI & A. MARCUCCI.

QUICK RELEASE WRENCH.

APPLICATION FILED DEC. 6, 1909. RENEWED SEPT. 2, 1911.

1,019,939.

Patented Mar. 12, 1912.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN V. BELLUOMINI, OF OAKLAND, AND ANGELO MARCUCCI, OF SAN FRANCISCO, CALIFORNIA, ASSIGNORS OF ONE-FOURTH TO OSCAR F. BREILING AND ONE-FOURTH TO EMIL J. BREILING, BOTH OF OAKLAND, CALIFORNIA.

QUICK-RELEASE WRENCH.

1,019,939.

Specification of Letters Patent.

Patented Mar. 12, 1912.

Application filed December 6, 1909, Serial No. 531,700. Renewed September 2, 1911. Serial No. 647,438.

To all whom it may concern:

Be it known that we, JOHN V. BELLUOMINI and ANGELO MARCUCCI, citizens of the United States, residing, respectively, at Oakland and San Francisco, in the counties of Alameda and San Francisco and State of California, have invented a new and useful Quick-Release Wrench, of which the following is a specification in such full and clear terms as will enable those skilled in the art to construct and use the same.

This invention relates to a quick release wrench and its object is to produce a wrench which may be quickly applied to and released from any object upon which it is intended to be operated.

In the drawings, in which the same numeral of reference is applied to the same portion throughout the several views, Figure 1 is a side elevation of the wrench shank; Fig. 2 is a front elevation of the same shank, all of the remaining parts being removed from both of said figures; Fig. 3 is a back view of the slidable jaw; Fig. 4 is a side view of the slidable jaw; Fig. 5 is a bottom plan view of the slidable jaw; Fig. 6 is a side elevation of the wrench, with the wooden hand piece removed therefrom; Fig. 7 is an edge view of the completely assembled wrench, looking at the same from the rear. Fig. 8 is a side elevation, and Fig. 9 a back elevation, of the pawl; Fig. 10 is a side elevation of the handle frame; Fig. 11 and Fig. 12 are side and front views respectively, of the pawl lever; Fig. 13 is a view of the releasing pin, and Fig. 14 is a side elevation of one of the pawl levers; Figs. 8 and 14 being on a larger scale than the previous figures.

The wrench comprises a shank 1, having the usual head 2, said shank having its opposite end threaded at 3, and having a recess therein at 4, in which the pawl 5 is movable. The slidable jaw 6 is equipped with the straps 7 and 8, which are adapted to pass around the shank 1, and it has a jaw 9 adapted to coöperate with the head 2. The side of the shank of the movable jaw 6 next to the standard 1 is provided with a series of ratchet teeth 10, which are slidable in a channel 11 in the shank 1. The handle of the wrench is formed about a frame 12, said frame being secured to the shank 1 by means of bolts 13 and 14, and having a lug 15 through

which the end 3 of the shank 1 passes, a nut 16 holding the handle securely to the shank. The slidable jaw 6 has an opening therein at 17, said opening being for the purpose of passing the end of a spring 18 therethrough, the opposite end of said spring being passed through a hole in the lower end of the handle iron 12. The pawl 5 is movable in the slot 4 of the shank 1, and is presented to the teeth 10 of the jaw 6 by means of a small coiled spring 19, said spring being located in an opening in the shank 1, and held in place therein by means of a small screw 20. This spring operates against the upper end of a small lever 20', said lever being pivoted to the pawl 5 by means of a pair of links 22, and in turn pivoted to the shank 1 by means of a similar pair of links 23. This lever is operated by the user of the wrench by means of the plug 24, said plug being pivoted to the lower end of the lever 20', and projecting from the handle of the wrench enough to permit the release of the pawl 5 from the teeth on the movable jaw 6. As soon as the pawl is released from the teeth, the spring 18 retracts the movable jaw, and the wrench is at once free to be removed from any nut or bar upon which it has been placed. The handle iron 12 is covered by means of wooden cheeks 25 and 26, which latter are held in place by means of a bolt 27, said bolt passing through an opening in the lug 15.

In operation the wrench is placed with the head 2 against the given nut, and the movable jaw is simply pushed up against the nut, the pawl holding it in any desired place, and as soon as the nut has been tightened, the movable jaw is released by pressing on the pin 24, which at once is pulled back so that the wrench may be readily removed from the nut being turned.

An advantage of this wrench over the old form, is that the spring retracts the movable jaw quite rapidly, and dislodges any dirt or grit which may tend to accumulate in the handle or on the shank 1, the spring being quite stiff to accomplish this object.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent of the United States is as follows:

1. A shank having a fixed jaw, a jaw slid-

able on said shank, and having a series of ratchet teeth thereon, a spring secured to said jaw, and to the handle of the wrench, a pawl seated in the shank, a spring adapted to press said pawl into contact with the teeth of the slidable jaw, a lever pivoted to said pawl, and a pin projecting from said handle and adapted to release the pawl, substantially as described.

10 2. In a wrench, a shank having a jaw, a jaw slidable on said shank and having a series of ratchet teeth, a pawl slidable in a notch in said shank, a spring adapted to press said pawl into contact with the teeth

15 on the slidable jaw, a lever having one end pivoted to the pawl, and to the fixed shank, a pin pivoted to the free end of said lever and projecting from said shank, whereby the pawl may be operated to release the slidable jaw, and a spring adapted to retract the

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slidable jaw after the release thereof, as set forth.

3. In a wrench, a shank having a jaw, a jaw slidable on said shank, a handle secured on said shank, a nut on the end of the shank and bearing on said lug in the handle frame, a pair of cheek pieces on opposite sides of the handle frame, a bolt passing through each of the cheek pieces, and the lug on the handle as set forth.

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In testimony whereof we have hereunto set our hands this 24th day of November A. D. 1909, in the presence of the two subscribed witnesses.

JOHN V. BELLUOMINI.
ANGELO MARCUCCI.

Witnesses:

J. J. ROSE, Jr.,
A. CAMINETTI.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."