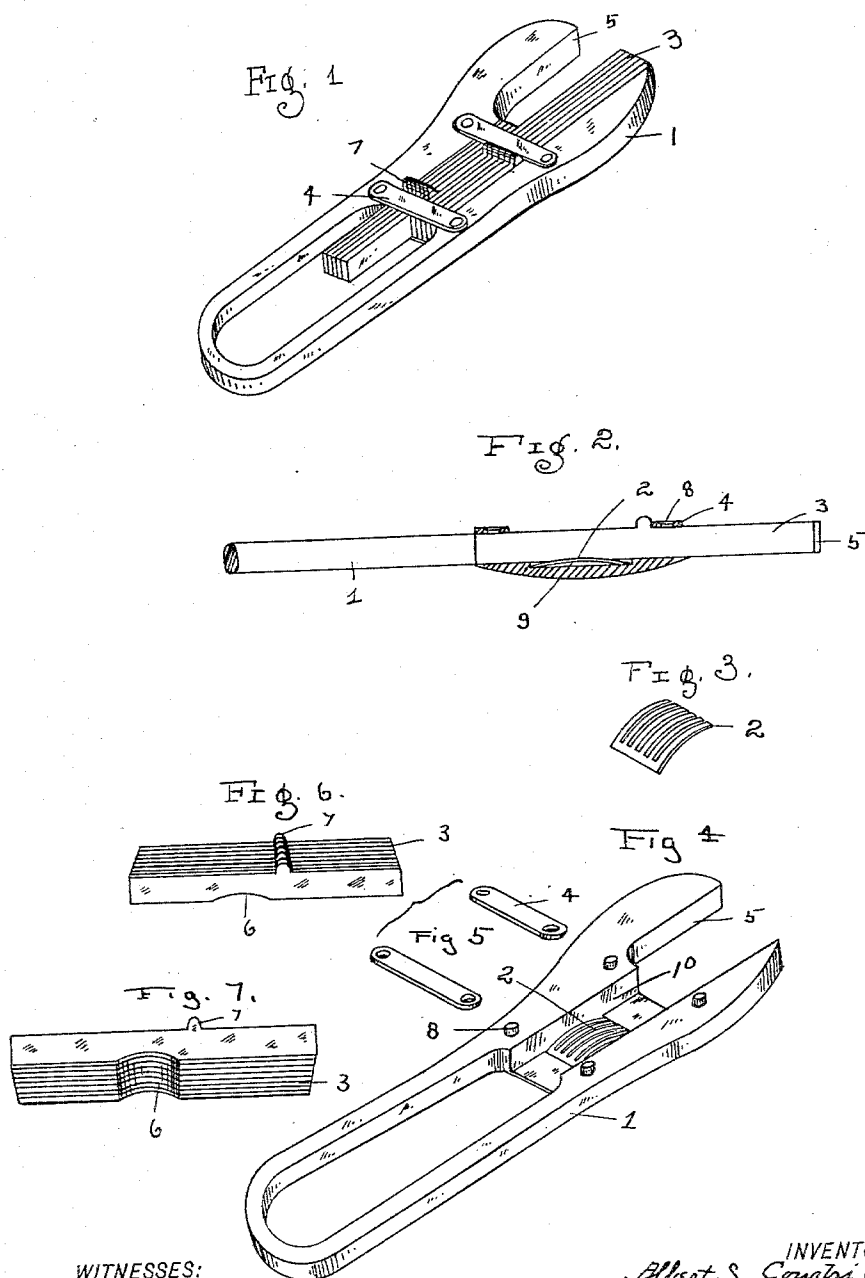


(No Model.)

A. S. COURTRIGHT & C. W. MEGGENHOFEN.
WRENCH.

No. 562,709.

Patented June 23, 1896.



WITNESSES:

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ALBERT S. COURTRIGHT AND CHARLES W. MEGGENHOFEN, OF INDIANAPOLIS, INDIANA, ASSIGNORS TO THE INDIANAPOLIS WRENCH AND STAMPING COMPANY, OF SAME PLACE.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 562,709, dated June 23, 1896.

Application filed December 16, 1895. Serial No. 572,361. (No model.)

To all whom it may concern:

Be it known that we, ALBERT S. COURTRIGHT and CHARLES W. MEGGENHOFEN, of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Wrench; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like figures refer to like parts.

Our improvement is intended to make a wrench that is automatically adjustable to nuts of different sizes and which is very readily placed in normal condition for successive use on nuts of different sizes.

The nature of our invention will appear from the description following and the accompanying drawings.

Figure 1 is a perspective of the wrench with a portion of the tumblers pushed back. Fig. 2 is a central longitudinal section thereof. Fig. 3 is a detailed view of a spring. Fig. 4 is a perspective of the frame with the spring located therein. Fig. 5 is a detail of the straps that hold the tumblers in the framework. Fig. 6 is a perspective of a series of tumblers, showing the upper side; and Fig. 7 is the same, showing the lower side.

In making our wrench we first make a framework, substantially as shown, consisting of the side bars 1, connected at one end to form a handle and at the other having jaws 5. One of these jaws is considerably heavier than the other. Integral with the side pieces is a bottom or bracket 9. This bottom is centrally recessed to form a seat for a spring or series of springs 2. The springs consist, preferably, of a series integral at one end and free at the other, all curved, as shown, with the ends resting on the bottom of the framework and the central portion of the spring swelling upward, substantially as shown. On the framework and preferably integral therewith are two pairs of rivets 8.

Between the side portions of the framework are placed a series of tumblers 3, that rest and slide longitudinally upon the bottom piece 9 of the framework and the spring 2. After being put in place the tumblers are held in the wrench by a pair of straps 4, that

are secured to the side portions of the wrench by the rivets 8. To prevent removing the tumblers from the wrench, they are provided with the lugs 7, located between said straps 4. These lugs also serve as thumb-pieces whereby the tumblers are moved to and fro when in the wrench. The tumblers are preferably provided on the under side with a slightly-curved indentation or seat 6, which is adapted to rest upon the curved spring 2 when the tumbler is in its upward position. Such indentation or recess, however, is not necessary where the spring 2 is strong, as it alone would be sufficient to hold the tumblers stationary. In the wrench shown the tumblers reinforce the weaker jaw of the wrench, there being a space between the heavier jaw and the tumblers when the tumblers are all in an outward position.

In using the wrench, presuming the tumblers to be in an outward position, as they should be, when one approaches the nut with the wrench he places the wrench so that the heavy jaw thereof will be on one side of the nut and then pushes the wrench against the nut, whereupon the nut will push back enough of the tumblers to allow the wrench to envelop the nut. The operator does not have to withdraw the tumblers, therefore, as the same is done automatically by applying the wrench to the nut, as above specified. The spring 2 prevents the tumblers from being moved by gravity or slight accidental contact with anything, so that they are held in place so well that none will be moved backward unless pushed backward with the thumb or by the nut, and the tumblers that are not pushed backward by the nut will be retained in an outward position, so as to furnish a jaw to cooperate with the heavy jaw of the framework of the wrench.

After the wrench is used the thumb of the hand that holds the wrench will in a second push the tumblers outward ready for use on a different-sized nut. Thus it is seen that by multiplying the number of tumblers the wrench will be adapted to nuts of several sizes. For example, in the wrench shown there are eight tumblers, so that it can be used with nuts of eight different sizes, and

one will always be assured that the wrench will fit the nut snugly, as the misfit of a nut can never be greater than the width of a tumbler.

5 What we claim as our invention, and desire to secure by Letters Patent, is—

1. A wrench comprising a frame with a suitable jaw, a series of tumblers slidably mounted in such frame to form an adjustable companion jaw to suit nuts of different sizes, and a series of springs for holding the tumblers securely in place excepting when the same are being actuated, each of said springs bearing against only one of the tumblers.

15 2. A wrench comprising a frame with suitable jaw, a series of tumblers slidably mounted in such frame to form an adjustable companion jaw to suit nuts of different sizes, finger-lugs on the tumblers for actuating the same, and a series of springs for holding the tumblers securely in place excepting when the same are being actuated, such springs being connected together at one point, but independent of each other at the points of contact with the tumblers.

25 3. A wrench comprising a frame having a jaw thereon, a series of tumblers mounted therein to form a companion jaw adjustable to nuts of different sizes, such tumblers being provided on their under side with a recess or seat, a curved spring so located in the frame beneath the tumblers that it will be seated in the recess in the tumblers when they are in an outward position, and finger-lugs on the tumblers for actuating the same.

35 4. A wrench comprising a frame, composed

of two side parts and a bottom, slidable tumblers mounted between the two sides of the frame and on the bottom, such tumblers having lugs on their upper sides, and a pair of straps extending over the tumblers and secured to the two side parts of the frame, whereby the lugs on the tumblers will be between the straps, and will prevent the removal of the tumblers and serve as stops to limit the outward and inward movement of the same.

5. A wrench comprising a frame consisting of two side parts connected at one end to form a handle and at the other end having a heavy jaw on one side and a lighter one on the other, with a bottom integral with the two side parts and centrally provided with a recess or seat, an upwardly-curved spring seated in the recess in the bottom of the frame, a series of sliding tumblers mounted in the frame between the side parts and in contact with such spring, such tumblers having recesses on their under sides to receive the spring when they are in an outward position and lugs on their upper sides, and straps extending over such tumblers and riveted to the side parts of the frame to prevent the removal of the tumblers and to coöperate with the spring holding them in place.

In witness whereof we have hereunto set our hands this 27th day of September, 1895.

ALBERT S. COURTRIGHT.
CHAS. W. MEGGENHOFEN.

Witnesses:

V. H. LOCKWOOD,
ZULA GREEN.