No. 896,458. PATENTED AUG. 18, 1908.

M. M. MORGAN.

POCKET WRENCH.

APPLICATION FILED DEC. 3, 1907.

Fig. 1.

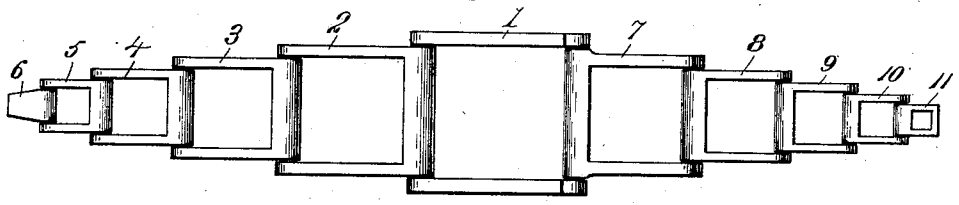


Fig. 2.

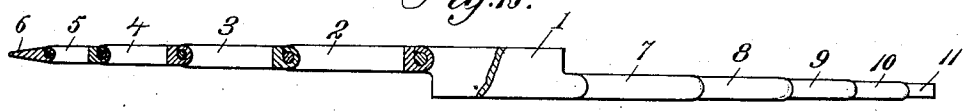
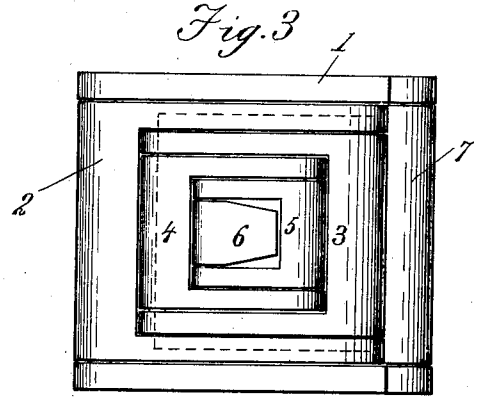


Fig. 3



WITNESSES:

Alex Currie.

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UNITED STATES PATENT OFFICE.

MARVIN MILTON MORGAN, OF OAKBAR, CALIFORNIA.

POCKET-WRENCH.

No. 896,458. Specification of Letters Patent. Patented Aug. 18, 1908.

Application filed December 3, 1907. Serial No. 404,922.

To all whom it may concern:

Be it known that I, MARVIN MILTON MORGAN, a citizen of the United States, residing at Oakbar, in the county of Siskiyou and State of California, have invented a new and useful Pocket-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 pocket wrenches and its object is to make a wrench that will fold into a compact form and which will always be ready for service with but very little trouble.

Another object of the invention is to make a wrench that will be of such a nature as to be able to turn a nut in an almost inaccessible place, as for example where a nut is in the bottom of a hole much larger than the nut.

In the drawings in which the same numerals are applied to the same parts throughout, Figure 1 is a plan of the wrench as it appears unfolded, Fig. 2 is a side view of the wrench with a part of the link cut away, and Fig. 3 shows the wrench folded up and ready to put in the pocket.

The wrench is formed of a series of links, the center link 1 being the largest and also the deepest. Extending off to one side are the links 2, 3, 4, 5, and the screw driver 6 all this series of links being pivoted from the upper left hand pivot of the center link 1 looking at the drawing. Extending in the opposite direction are the links 7, 8, 9, 10 and 11, the latter set being of a size intermediate the size of the other set of links in order that other sizes of nuts may be turned readily. This second set of links is pivoted to the lower right hand pin of the large link 1 looking at the drawing. It will be noted that each link of the two sets folds into each other link and that the two sets of links fold over into a compact nest with the large link, the two sets of links folding over on each other. It will be understood that the links are pivoted together rather stiffly and that in turning a nut that there is little side strain so that the nut may be easily turned by a wrench that may fold up in other planes. It will also be clear that it will be possible to turn a nut in a rather deep hole by bending the set of links and giving the wrench a twisting motion in the other plane in which it is rigid, but this gives quite a heavy side bending moment to the links that may be substantially at right angles with the plane of the nut.

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

1. In a folding wrench, a large link, and a series of decreasing smaller links one of which is pivoted to the large link and each of the others to its adjacent link.

2. In a folding wrench, a large link, and a series of links decreasing in size and adapted to fold into each other, each of the links being pivoted to its adjacent link.

3. In a folding wrench, a large link, and two series of links decreasing in size as they recede from the large link, the sizes of the links on one side of the large link being different from those of the other set.

4. In a folding wrench, a large link, and two series of links attached thereto and adapted to fold over on each other and within the large link, the sizes of the links being different on each side of the large link and the sizes of the links decreasing as they recede from the large link.

In testimony whereof I have set my hand this 19th day of November A. D. 1907, in the presence of the two subscribed witnesses.

MARVIN MILTON MORGAN.

Witnesses:

JEROME BEEBE,

GEORGE MAGOFFEY.