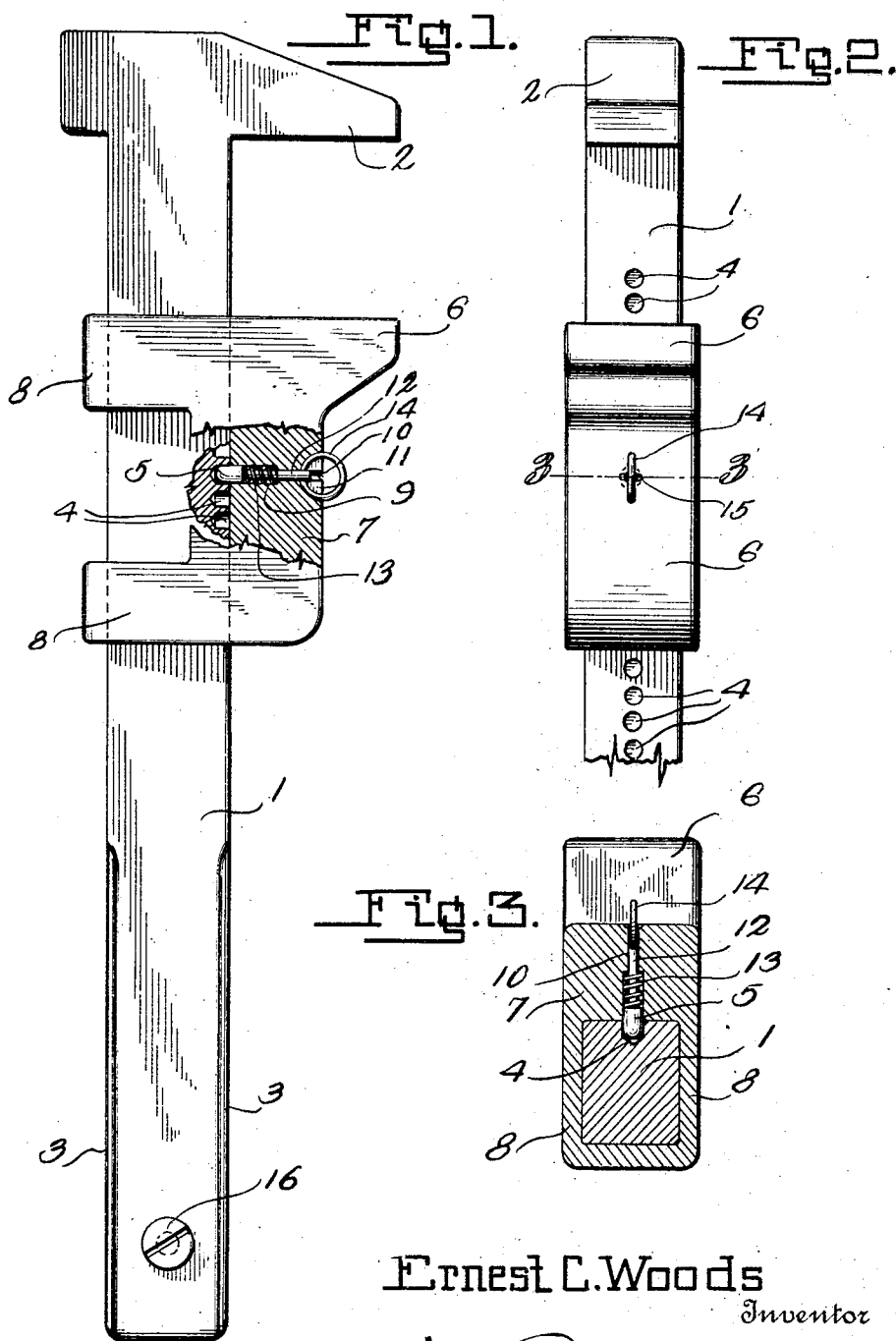


1,364,600.

Patented Jan. 4, 1921.



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Inventor

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UNITED STATES PATENT OFFICE.

ERNEST CHARLSE WOODS, OF GALESBURG, ILLINOIS.

WRENCH.

1,364,600.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ERNEST C. WOODS, a citizen of the United States, residing at Galesburg, in the county of Knox and State of Illinois, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches, of the movable jaw type and an object of the invention is to provide a wrench which is simple in construction, may be manufactured at a relatively low cost and one on which adjustment of the movable jaw may be quickly and readily made.

More specifically, the invention comprehends the provision of a wrench as specified, the handle of which is provided with a plurality of longitudinally spaced recesses adapted to receive a spring pressed plunger which is carried by the movable jaw to hold the said movable jaw in adjusted position with respect to the rigid jaw.

Other objects of the invention will appear in the following detailed description taken in connection with the accompanying drawings, and in which drawings:

Figure 1 is a side elevation of the improved wrench having parts thereof broken away.

Fig. 2 is a fragmentary end elevation of the wrench, and

Fig. 3 is a section on the line 3—3 of Fig. 2.

Referring more particularly to the drawing, wherein like characters indicate like and corresponding parts throughout the several views, 1 indicates the handle of the wrench which is formed of suitable metal and has the rigid jaw 2 formed integrally upon one end thereof. The hand grip end of the handle may have the corners thereof rounded as indicated at 3 if desired.

The handle 1 of the wrench is provided with a plurality of recesses 4 in the inner face thereof, which recesses may be longitudinally spaced any desired predetermined distance apart. These recesses 4 are adapted to receive the inner end of the plunger 5 which holds the movable jaw 6 in adjusted position with respect to the rigid jaw 2.

The movable jaw 6 has a lower portion 7 formed thereon as shown and this lower portion and the jaw have handle engaging straps 8 formed integrally therewith for extension about the handle 1 to slidably support the movable jaw fixed upon the handle.

The shank is provided with a recess 9 extending thereinto from its inner face, which recess has a bore or opening 10 communicating axially therewith and opening out through the outer edge of the shank in a relatively deep slot 11 and a relatively shallow slot 15 formed at an angle to the deeper slot 11. The plunger 5, the inner end of which is preferably rounded, rides in the recess 9 and has a shank 12 which extends into the bore 10. A spring 13 is coiled about the shank 12 and is positioned within the recess 9. One end of the spring 13 engages the inner end of the plunger 5, while the other end engages the shoulder formed at the inner end of the recess 9, thereby tending to force the plunger 5 outwardly out of the recess 9 at all times. A ring or suitable handle 14 is carried by the outer end of the shank 12 and it is partially seated in the relatively deep slot 11 when the plunger 5 is seated in one of the recesses 4 in the wrench handle. However by pulling outwardly upon the ring 14, against the tension of the spring 9, it will be unseated from the relatively deep slot 11, and then by a slight turn it can be seated in the shallow slot 15. The plunger 5 will then be out of engagement with the recesses 4 of the handle 1 and the movable jaw 6 can be moved longitudinally along the handle 1 of the wrench to permit of its adjustment with respect to the rigid jaw 2, and after the movable jaw has been properly positioned, the ring 14 may be turned back to be seated in the deep slot 11 when the spring 13 will move the plunger 5 into one of the recesses 4, locking the movable jaw against movement. By particular reference to Figs. 1 and 3 of the drawings, it will be noted that the plunger 5 is seated partially within one of the recesses 4 and partially within the recess 9 for forming a secure brace to prevent accidental movement of the jaw 6 during operation of the wrench.

A thumb or set screw 16 is carried by the handle 1 near the free end thereof to prevent the movable jaw 6 from sliding off the end of the handle in case it is moved below or outwardly of the outermost of the recesses 4.

Changes in details may be made without departing from the spirit of this invention, but;

I claim:

In a wrench, the combination of a handle having a rigid jaw, said handle provided

with longitudinally spaced recesses, open at one of its faces, a movable jaw having a transverse bore extending from its side confronting the said recesses to its outer side
5 and opening into a relatively deep slot and a relatively shallow slot angularly arranged with relation to each other; a plunger in said bore; and a ring upon the outer end of the plunger, with its plane in the axis there-
10 of adapted to have its arcuate portions at each side of the plunger seated in the deeper slot when the plunger is in engagement with any one of the said recesses of the handle, and to have said arcuate portions seated in the shallow slot when the plunger is in an
15 inoperative position, the ring projecting beyond the face of the movable jaw to be grasped for manipulation.

ERNEST CHARLSE WOODS.