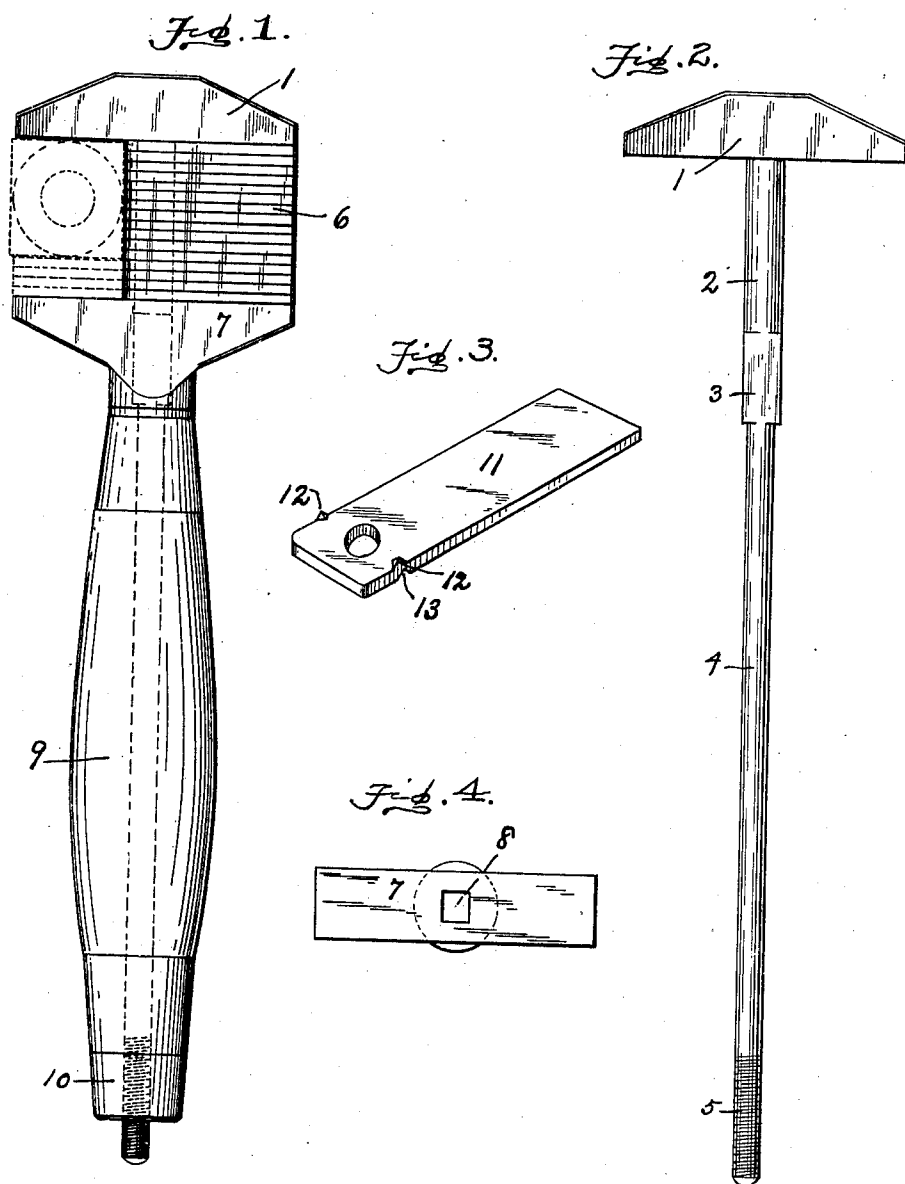


No. 829,672.

PATENTED AUG. 28, 1906.

G. W. ROWELL.
WRENCH.

APPLICATION FILED FEB. 26, 1906.



WITNESSES.

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GEORGE W. ROWELL, OF PORTALES, TERRITORY OF NEW MEXICO.

WRENCH.

No. 829,672.

Specification of Letters Patent.

Patented Aug. 28, 1906.

Application filed February 26, 1906. Serial No. 302,942.

To all whom it may concern:

Be it known that I, GEORGE W. ROWELL, a citizen of the United States, and a resident of Portales, in the county of Roosevelt and Territory of New Mexico, have invented a new and Improved Wrench, of which the following is a specification.

My invention relates to that type of wrench commonly known as a "monkey-wrench," in which the distance between the jaws is controlled by a screw, but differs from the usual monkey-wrench in that the distance between the jaws is constant when the wrench is in operative form; and my invention consists in forming this type of wrench with jaws in pairs; and it consists, further, in mounting filling-pieces or liners on the shank of the wrench, which by their position will determine the size of the object to which the wrench is adapted.

In the drawings, which form a part of this application, Figure 1 is a view of the wrench. Fig. 2 is a view of the stem or shank and the rigid jaws. Fig. 3 is a view of a modified form of liner. Fig. 4 is an end view of the movable jaw, taken from the top in Fig. 1.

Similar reference characters refer to like parts throughout the several views.

The double jaw 1 of the wrench is rigidly attached to the stem or shank 2. On this shank is slidable the movable jaw 7. The shank has a squared portion which is adapted to pass into the hole 8 in the movable jaw 7 and prevent its turning on the shank. The shank below this squared portion is reduced in size, as at 4, and the lower end is threaded, as at 5. The handle 9 is adapted to turn on the part 4, and the nut 10 at its lower end screws onto the thread 5. Thus turning the handle will cause the movable jaws 7 to approach or recede from the fixed jaws 1.

Mounted on the part 2 of the shank between the jaws 1 and 7 are the filling-pieces or liners 6, which are adapted to be swung to extend in either direction parallel with the jaws. Those that are swung away from the main body of liners leave openings, and the opening between the jaws and liners or between different groups of liners determines the size of the nut or other object the wrench

is adapted to engage. To swing these liners as desired, the handle 9 is first screwed back enough to release the liners and they are then positioned; the handle being then screwed up to lock the liners in position. The dotted lines in Fig. 1 show several of the liners next to the movable jaw swung to the left to adapt the wrench for the nut shown in dotted position.

To cause the liners to lie parallel and to move together, they may be provided with projections 12 and notches 13, which will serve to lock them together. The handle must be unscrewed slightly farther to permit them to be moved when this construction is employed.

It will readily be seen that by swinging a number of the liners from the middle of the group over to the opposite side a wrench with three openings is produced and that any desired combination of openings can be produced.

Having now explained my invention, what I desire to secure by Letters Patent is—

1. In a wrench, the combination of a shank, a rigid double jaw at one end of the same, a movable jaw slidably mounted on the shank intermediate its ends, a handle revoluble on said shank and adapted to position the movable jaw, and a plurality of liners revolubly mounted between the jaws and adapted to be secured in position by the handle.

2. In a wrench, the combination of a shank, a rigid double jaw at one end of the same, the opposite end being screw-threaded, a handle revoluble on said shank and having a nut at one end adapted to engage the threads on the shank, a movable jaw slidably mounted on the shank intermediate the handle and rigid jaw, and thin flat plates having a hole at one end and adapted to swing and slide on the shank, the plates being adapted to be positioned to form spaces for the reception of the article to be operated upon by the wrench, and the handle being adapted to lock the thin plates in position.

3. In a wrench, the combination of a shank, a rigid jaw at one end of the same, a movable jaw slidably mounted on the shank

intermediate the ends, a handle revoluble on
said shank and adapted to position the mov-
able jaw, and a plurality of liners mounted
on the shank between the rigid and movable
5 jaws and adapted to be secured in position by
the handle, said liners being provided with
means to hold each other in parallel position.

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

GEORGE W. ROWELL.

Witnesses:

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S. S. STONE.