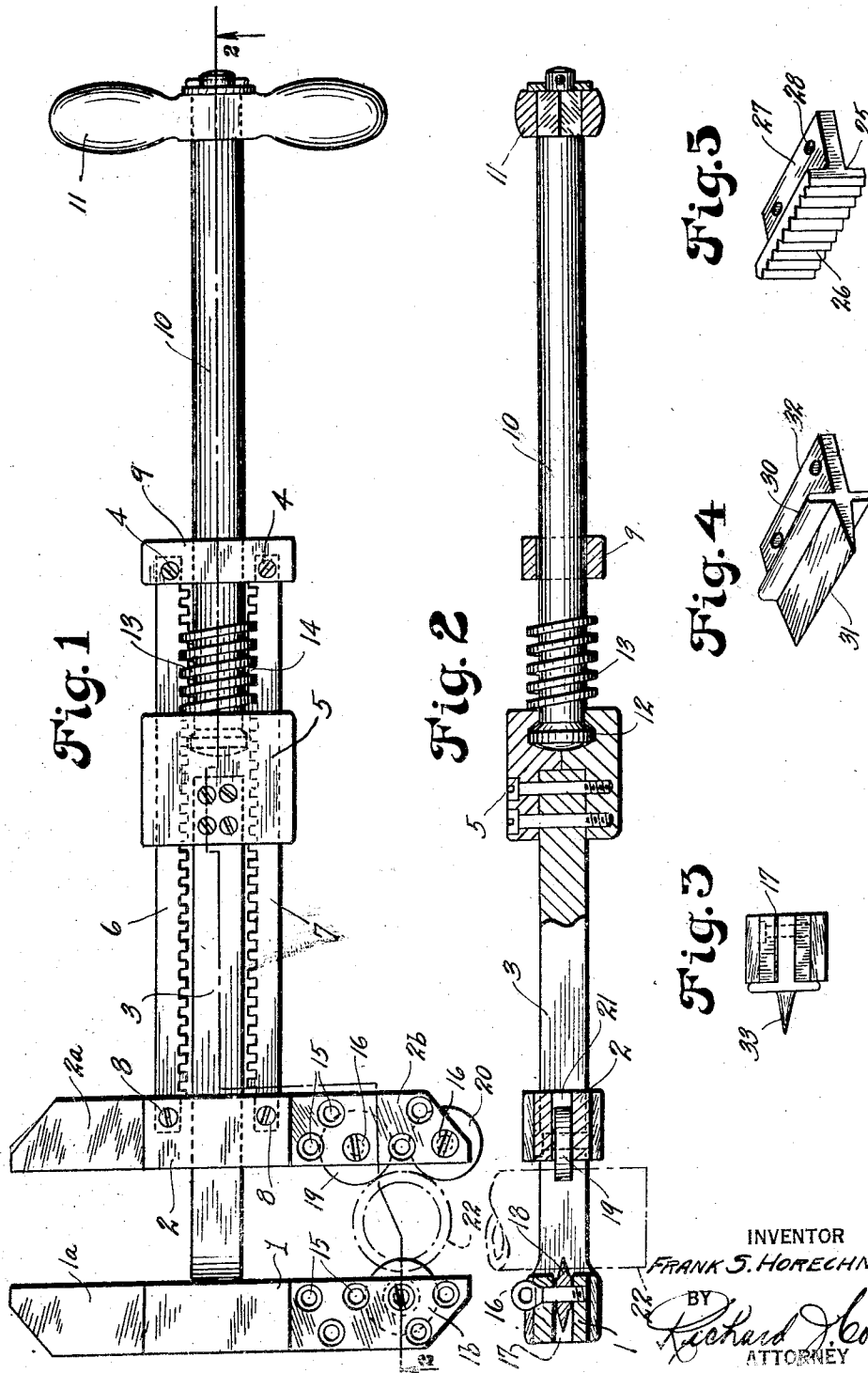


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COMBINATION MONKEY WRENCH
Filed April 7, 1923



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COMBINATION MONKEY WRENCH.

Application filed April 7, 1923. Serial No. 630,677.

To all whom it may concern:

Be it known that I, FRANK S. HORECHNEY, a citizen of the United States, and a resident of Fort Kamehameha, Hawaiian Territory, have invented certain new and useful Improvements in Combination Monkey Wrenches, of which the following is a specification.

This invention relates to improvements in wrenches and has for its principal object to provide a wrench of the adjustable jaw type, and having interchangeable parts of a novel construction that adapts it to be used for a number of different purposes, other than those for which a monkey wrench may ordinarily be put.

More particularly it is the object of the invention to provide a wrench to which interchangeable parts may be applied to adapt it for use as a pipe cutting tool, a pipe wrench, a punch and a wire or tin cutter.

Other objects of the invention reside in the various details of construction and combination of parts embodied by the invention, and in the manner of assembling and their mode of operation.

In accomplishing these and other objects of the invention, I have provided the improved details of construction, the preferred forms of which are illustrated in the accompanying drawings, wherein—

Figure 1 is a side view of a wrench constructed in accordance with the present invention.

Figure 2 is a sectional view of the same taken on the line 2—2 in Figure 1, illustrating the pipe cutter and assembly of the parts.

Figure 3 is a view of a punching tool applied to the jaws of the wrench.

Figure 4 is a perspective view of the wire and metal cutting attachment.

Figure 5 is a perspective view of the attachment to be used to adapt the device for use as a pipe wrench.

Referring more in detail to the drawings—

1 designates what will be designated as the fixed jaw of the wrench, and 2 the adjustable, or movable jaw; the former being fixed substantially at its center to a shank bar 3, while the latter is provided centrally with an opening through which the shank extends. The jaws are retained in parallel relation and extend at right angles to the shank.

Fixed to the outer end of the shank 3 by means of screws 4 is a cross-head 5 and slidable therethrough are bars 6 and 7 located at opposite sides of the shank and having ends fixed by screws 8 in the adjustable jaw and their outer ends connected by a cross-head 9. Extending slidably and rotatably through the cross-head 9 is an adjusting rod 10 provided at its outer end with a handle 11 whereby it may be turned, and equipped at its inner end with a flanged head 12 that is revolvably seated within a correspondingly shaped socket in the cross-head 5. Formed on the rod adjacent its connection with the cross-head 5 are threads 13 that mesh with threads 14 formed on the inner surfaces of the bars 6 and 7 so that on turning the rod 10 in opposite directions, the bars will be moved so as to adjust the jaw 2 toward and from the jaw 1.

The ends 1^a and 2^a of the jaws are of the ordinary form and may be used for tightening bolts or nuts, while their opposite ends are each provided with a series of holes 15 for receiving screws 16 whereby the attachments for the other purposes may be secured in place.

In Figure 1, I have illustrated the use of the device as a pipe cutter, and for this purpose I have provided the jaw 1 with a central longitudinally extending slot 17 wherein a sharpened cutting roller 18 is rotatably supported by screw 16. This cutter is located on a line that passes centrally between rollers 19 and 20 rotatably mounted on screws 16 in a slot 21 in jaw 2. In use the pipe is located, as shown in dotted lines at 22, in Figures 1 and 2, and the rollers are clamped against it, then by revolving the wrench and tightening it, as it is revolved the roller 18 will cut through the pipe.

To use the device as a pipe wrench the rollers 18, 19 and 20 are removed and the jaw 25, shown in Figure 5, is mounted on one of the wrench jaws. The jaw 25 has transverse teeth 26 formed on a base portion provided with a rib 27 that will fit in the slots of the wrench jaws and which is provided with holes 28 for receiving the holding screws 16.

To adapt the device for use as a metal or wire cutter the cutter head 30, as illustrated, in Figure 6, is applied to one of the wrench jaws. This cutter has a sharpened blade 31 adapted to extend in the direction of the

wrench jaw and has a rib 32 for mounting in a jaw slot.

The punch, of Figure 3, is of a similar nature except that it is provided with a sharpened piercing point 33 that may be used to form a hole through an object by being tightened thereagainst.

It is readily apparent that a device of this character would be very useful for plumbers, pipe fitters, and machinists and would make it unnecessary for them to equip themselves with separate tools for each of the uses for which the present device could be put.

Wrenches of this type can be made at a relatively small cost, are practical and would well serve the purposes for which they are intended.

Having thus described my invention, what I claim as new therein and desire to secure by Letters-Patent, is:

1. A wrench of the character described, comprising a shank having a fixed jaw at one end, a jaw adjustable on the shank toward and from the fixed jaw, a pair of bars extending along opposite sides of the shank having ends fixed to the movable jaw, a handle bar having an end rotatably connected to the outer end of the shank and having a threaded connection with the bars at opposite sides of the shank, whereby rotation of the handle bar will effect adjustment of the movable jaw.

2. A wrench of the class described, comprising a shank having a jaw fixed at one end, a jaw adjustable along the shank to-

ward and from the fixed jaw, a cross-head fixed on the outer end of the shank, a pair of threaded adjusting bars extending along opposite sides of the shank and slidable through the cross-head, fixed at their inner ends to the movable jaw and having a connecting cross-head at their outer ends, a handle bar extending slidably and rotatably through the last named cross-head and having a rotatable connection at its inner end with the first named cross-head, and having threads thereon meshing with the threads of the adjusting bars for the purpose set forth.

3. A wrench of the character described, comprising a shank with a jaw fixed at one end thereof, a jaw adjustable on the shank toward and from the fixed jaw, a cross-head at the outer end of the shank, a pair of threaded adjusting bars extending along opposite sides of the shank with their inner ends connected to the movable jaw and having a connecting head at their outer ends, a handle bar extended rotatably and slidably through the connecting head and rotatably connected at its inner end to the cross-head, and having threads thereon meshing with the threads of the adjusting bars; said jaws having solid end portions at one side of the shank and having slotted portions at the opposite side with screw holes extending through the slotted portions, and operating devices mounted within the slotted portions of the jaw.

Signed at Fort Kamehameha, Hawaiian Territory, this 4th day of February, 1923.

FRANK S. HORECHNEY.