Feb. 2, 1926. 1,571,328

J. H. FLANIGAN

WRENCH

Filed Jan. 24, 1925

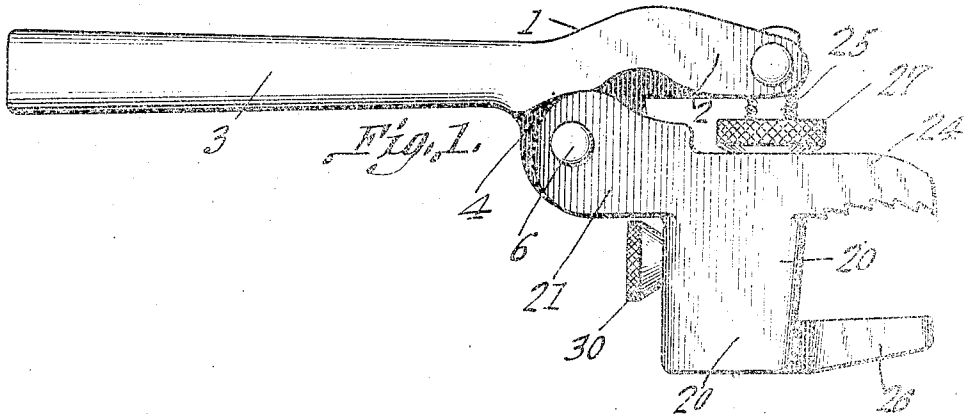


Fig. 1.

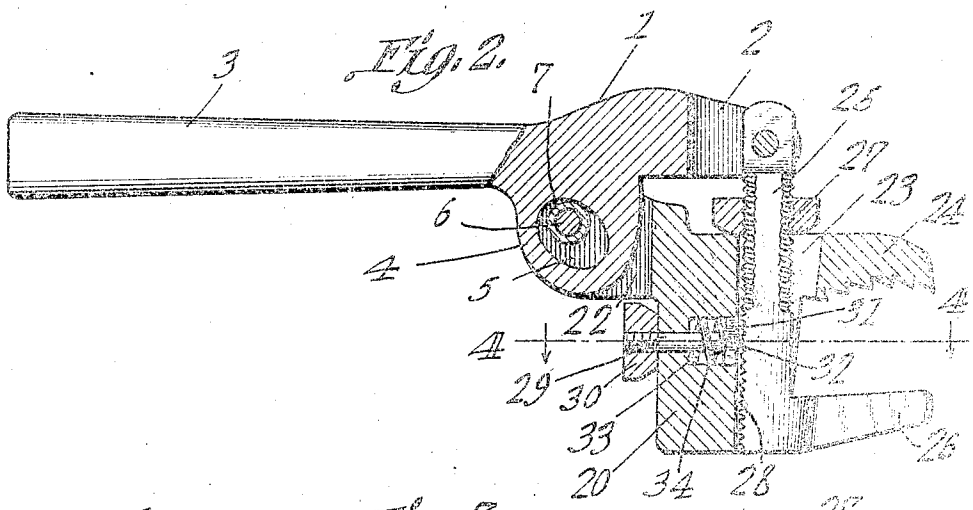


Fig. 2.

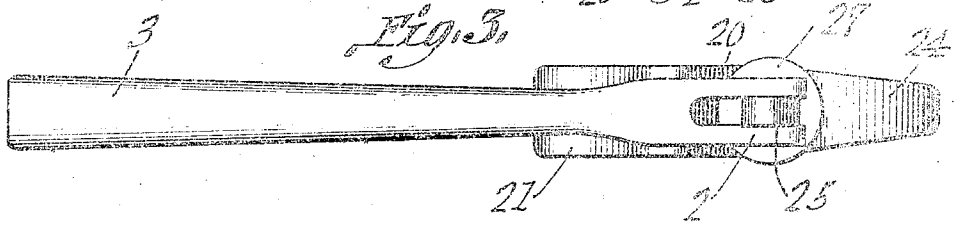


Fig. 3.

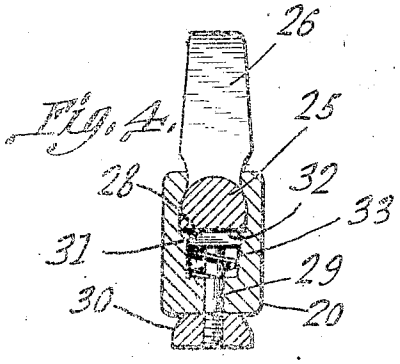


Fig. 4.

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Patented Feb. 2, 1926.

1,571,328

UNITED STATES PATENT OFFICE.

JOSEPH H. FLANIGAN, OF SHEFFIELD, ALABAMA, ASSIGNOR OF ONE-HALF TO C. R. SHARP, OF SHEFFIELD, ALABAMA.

WRENCH.

Application filed January 24, 1925. Serial No. 4,553.

To all whom it may concern:

Be it known that I, JOSEPH H. FLANIGAN, a citizen of the United States, residing at Sheffield, in the county of Colbert and State of Alabama, have invented a new and useful Wrench, of which the following is a specification.

This invention relates to wrenches and more particularly to wrenches having a sliding jaw.

The object of the invention is to provide a wrench of this character so constructed that it will pull either forward or backward and which has no springs to break.

Another object is to so construct a wrench of this character that the adjustment of the jaws is automatic.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 represents a side elevation of a wrench constructed in accordance with this invention;

Fig. 2 is a longitudinal vertical section thereof, with the handle shown in elevation;

Fig. 3 is a top plan view; and

Fig. 4 is a horizontal section taken on the line 4—4 of Fig. 2;

In the embodiment illustrated a casting or head 1 is shown having a forwardly extending finger or arm 2 and a rearwardly extending handle 3. An ear 4 depends from the casting 1 at the base of the arm 2 and has its opposed faces mortised out to receive the furcations 21 and 22 of a casting 20. The ear or lug 4 has an obliquely disposed oval aperture 5 therein, in which operates a journal 6 having a sleeve 7 surrounding it as is shown clearly in Fig. 2 and which pivotally connects the furcations 21 with the lug 4 and permits said members 21 and 22 to move relatively to the casting.

The casting 20 has a bore 23 extending longitudinally therethrough which is made wider at its upper end as shown in Fig. 2 for a purpose presently to be described. Projecting laterally and forwardly from this casting 20 is a jaw 24.

Mounted to move in the bore 23 is a shank 25 pivoted at its upper end to the front end of arm 2, said arm being here shown bifurcated to receive said shank end. At the lower end of the shank and projecting laterally outward therefrom is a jaw 26 which cooperates with the jaw 24 for gripping an object to be held. This jaw 26 with the shank 25 forms an L-shaped member which is flattened on its sides and threaded at its front and rear edges to receive an adjusting nut 27. The lower portion of the rear edge of the shank 25 is toothed as shown at 28 to receive a spring pressed pawl or locking pin 29 equipped at its outer end with a finger grip 30 for manipulating it and at its inner end with a head 31 equipped with a tooth 32 to engage the teeth 28. A coiled spring 33 encircles the pin 29 and bears at one end against the head 31 and at the other end against the inner wall of a recess 34 in which the spring and head are housed. This spring projected pin or pawl locks the jaw-carrying shank 25 in operative relation to jaw 24.

From the above description it will be obvious that the jaw 24 is pivotally connected with the casting 21 while jaw 26 is also pivotally connected with the casting at a point in advance of the pivotal connection of jaw 24.

It will thus be seen that this wrench will pull either backward or forward owing to the pivotal mounting of the jaws and the enlarged space in the bore 23 in which the shank 25 operates.

The shank 25 which carries the jaw 26 is removable to provide for the substitution of other jaws to adapt the device to be used as a pipe-wrench, a pipe-cutter, a monkey-wrench, an S-wrench or an end-wrench according to the formation of the jaws used. The only spring employed being that which holds the pawl engaged with the shank 25 avoids all danger of breakage such as often times occurs with wrenches using springs.

I claim:—

In a wrench, a handle portion having a forwardly extended arm and having a depending lug, a casting having a longitudinal bore and having an extension forming a jaw, a jaw having a threaded shank movable

through the bore and having pivotal connection with the extension of the handle, said shank having teeth formed along its rear edge, means carried by the casting and adapted to engage the teeth to hold the jaw and its shank against movement, said shank having threads, a nut on the threads and engaging the casting to lock the shank against movement in one direction, and means for pivotally connecting the casting to the depending lug of the handle.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature

JOSEPH H. FLANIGAN.