July 24, 1928. 1,677,922

J. KASZTLER

HAND OPERATED CUTTING IMPLEMENT

Filed April 8, 1927

Fig. 1.

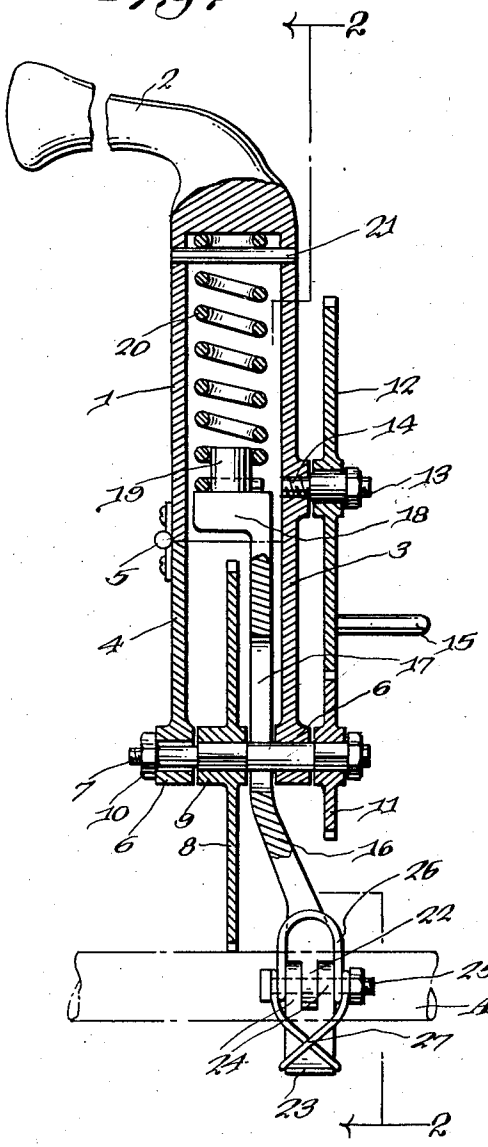
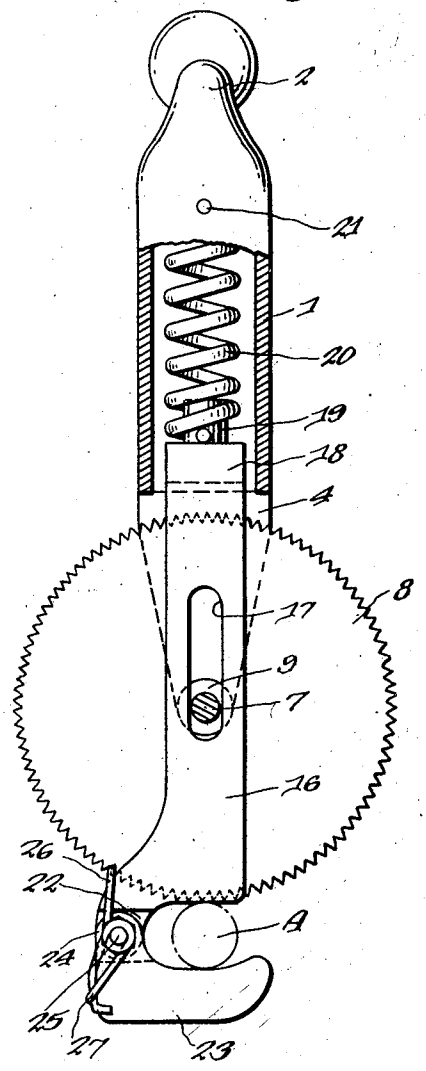


Fig. 2.



John Kasztler
INVENTOR
BY Arnold Ehrlich
ATTORNEY

Patented July 24, 1928. 1,677,922

UNITED STATES PATENT OFFICE.

JOHN KASZTLER, OF CHICAGO, ILLINOIS.

HAND-OPERATED CUTTING IMPLEMENT.

Application filed April 8, 1927. Serial No. 182,083.

This invention relates to new and useful improvements in cutting implements, and more particularly to a hand operated cutting implement which is especially adapted for use in the cutting of pipe and the like. One of the objects of my invention is the provision of a device of this character, which is comparatively easy to handle, whereby an operator may readily apply the same to the work to be operated upon and easily operate the same after being applied to the work.

Another object of my invention is the provision of a device of the above character, which is provided with means for gripping the work and holding the same steady while the same is being operated upon, and at the same time hold the work from displacement, so that the cutting implement will travel through the same.

With the above and other objects in view the invention consists in the novel features of construction, the combination and arrangement of parts hereinafter more fully set forth, pointed out in the claims and shown in the accompanying drawings, in which:

Figure 1 is a longitudinal sectional view of a cutting implement constructed in accordance with my invention, and

Figure 2 is a longitudinal sectional view on the line 2—2 of Figure 1.

In carrying out my invention I provide a hollow body member 1, which is substantially rectangular in cross section and closed at one end, with the closed end terminating into a handle portion 2. Extending from the other end of the body at one side thereof, is an integral arm 3, while a parallel arm 4 is hinged at the end of the body on the opposite side as shown at 5.

Formed at the outer ends of the arms 3 and 4 are the bearing sleeves 6 in which is rotatably mounted the shaft 7. The rotary cutting implement 8, shown in the drawings as a saw, is formed with a central sleeve 9 mounted on and secured to the shaft 7 between the bearing sleeves 6. One end of the shaft has a securing nut 10 thereon, while the other projects beyond one of the sleeves 6 and has a small gear 11 mounted thereon and secured thereto.

The gear 11 meshes with a larger gear 12 mounted on a stud shaft 13 detachably secured to one side wall of the body 1, as shown at 14. It will be apparent that by employing a relatively large gear 12 and a small gear 11 the cutting implement may be rotated at a comparatively high rate of speed. Attached to the outer face of the gear 12 is a handle member 15 adapted to be grasped for imparting movement to the gears 11 and 12.

In order to provide means for holding the work steady and at the same time draw the same toward the cutting implement, an arm 16 is provided which is formed intermediate its ends with a longitudinal slot 17 to receive the shaft as shown in Figure 1. The inner end of the arm 16 is formed with a transverse portion 18, which has a stud 19 on its inner face. Extending through the stud 19 is one end of a coil spring 20, the outer convolutions of which are mounted upon the stud. The spring 20 is housed within the body 1 and its inner end is secured to a cross pin 21, the ends of which are mounted in the side walls of the body.

The outer end of the arm 16 is extended laterally away from the saw and formed at its extremity with a centrally disposed perforated ear 22. A work clamping jaw 23 is provided, having spaced perforated ears 24 adapted to be arranged one on each side of the ear 22, and pivotally mounted by means of a pin 25. This jaw 23 is normally urged toward the work A by means of a spring 26, preferably U-shaped with its intermediate portion bearing against the outer end of the arm 16 while the side portions are coiled upon the ends of the pivot pin 25. The ends of the spring are crossed as shown at 27 and their extremities bent at right angles for engagement with the jaw for normally urging the jaw toward the work.

From the above it will be readily apparent that I have provided an improved cutting implement which can be readily operated by grasping the handle 2 by one hand and positioning the work between the outer end of the arm 16 and the jaw 23 with the other hand. After the work has been placed in position, the handle 15 is grasped for imparting rotary movement to the gears 11 and 12 and the saw or cutting implement 8. It will be apparent that as the saw cuts into the work, the tension of the spring 20 will have a tendency to draw the work inwardly toward the body and the work being positioned between the outer end of the arm 16 and the jaw 23, will be held against displacement. It will be apparent that the

tension of the spring 26 will be of sufficient strength to hold the work against the lower end of the arm 16 when the tension of the spring 20 is functioning to pull the work against the implement.

While I have particularly specified that the device is especially adapted for use in cutting pipe and the like, it will be apparent that it may be used for many other purposes.

While I have shown and described the preferred construction of my device, it will be apparent that various changes and alterations may be carried out without departing from the spirit of the invention or the scope of the appended claims.

I claim as my invention:

1. In a device of the class described and in combination, a body member having a handle at one end, a stationary arm projecting from the other end, a hinged arm normally parallel with the first arm, a cutting implement removably supported for rotation between the outer ends of said arms, means for imparting movement to said cutting implement, and means supported by the body for engaging the work being operated upon by the cutting implement.

2. In a device of the class described, a hollow body member having a handle at one end, supporting arms extending from the other end, a rotary cutting implement removably supported between said arms, means for imparting movement to said cutting implement, an arm movably mounted relative to said body and cutting implement, and supported thereby, and a spring actuated jaw member at the outer end of said last arm, for clamping the work to the outer end of said last arm.

3. In a device of the class described, a hollow body member, a movable cutting member supported at one end thereof, a work engaging element including an arm, a spring connecting one end of the arm to the inner end of the hollow portion of the body, and a spring actuated clamping jaw for clamping the work to the outer end of said arm.

4. In a device of the class described, a body member having a handle at one end, spaced supporting arms at the other end, a shaft removably mounted in the outer ends of said arms, a cutting implement carried by said arm, means for rotating said shaft, and means for engaging the work being operated upon, including an arm formed with a slot to receive the shaft, a spring connecting the inner end of the arm to the inner end of the hollow portion of the body, and a spring actuated clamping jaw for clamping the work to the outer end of said arm.

JOHN KASZTLER.