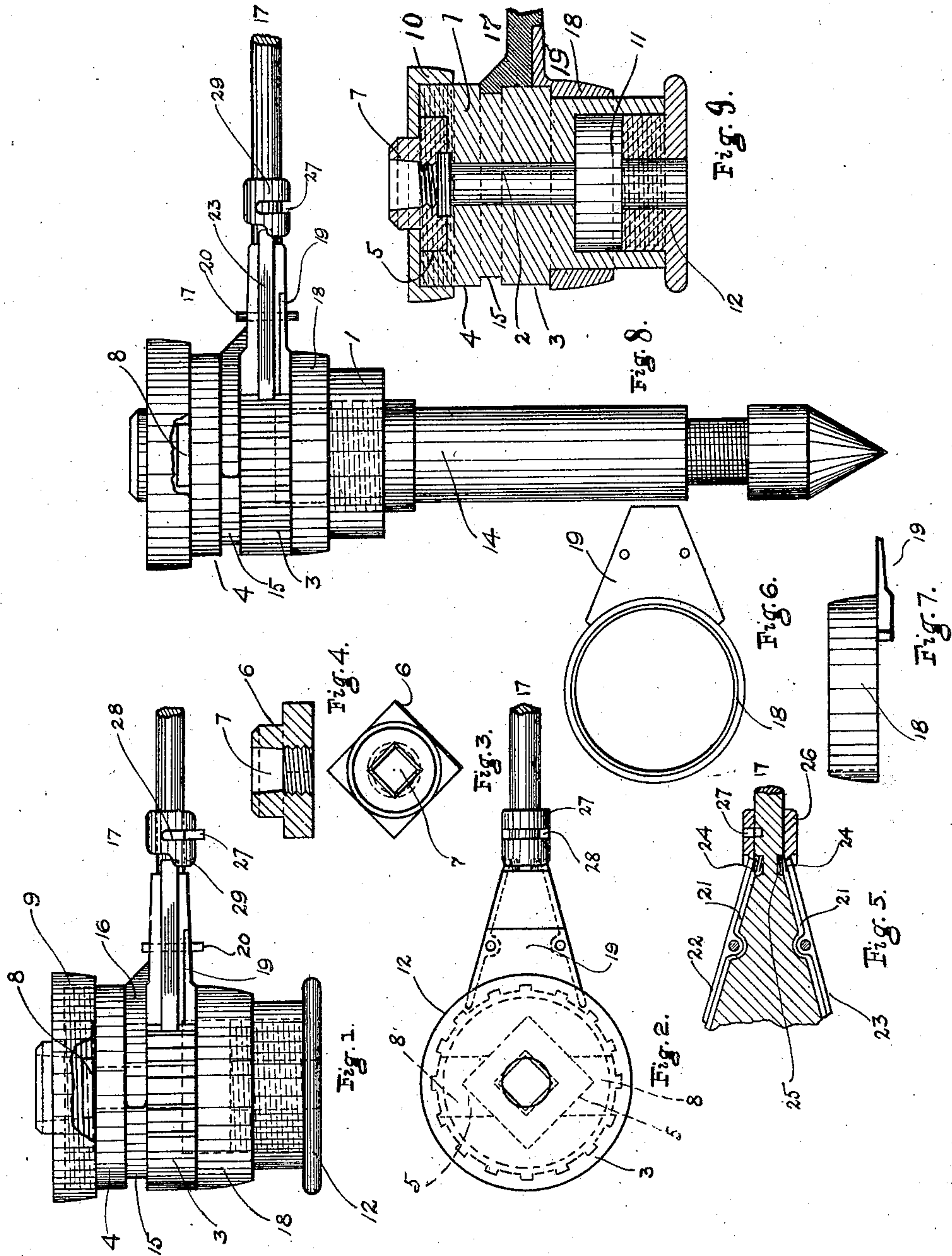


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P. F. GALLAGHER.
RATCHET TOOL HOLDER.
APPLICATION FILED DEC. 21, 1905.



WITNESSES.

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UNITED STATES PATENT OFFICE.

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RATCHET TOOL-HOLDER.

No. 847,059.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed December 21, 1905. Serial No. 292,828.

To all whom it may concern:

Be it known that I, PATRICK F. GALLAGHER, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Ratchet Tool-Holders, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in ratchet tool-holders, and the invention relates more particularly to a die or drill holder equipped with a novel form of ratchet.

The primary object of my invention is to provide a tool-holder having a ratchet-lever which can be easily and quickly revolved, and in this connection the holder may be adapted to support a thread-cutter or a drill or bit or other tool according to the manner in which the device is used.

The device may be readily used as a wrench, and the ratchet mechanism which I use in connection with the device permits of its being used in difficult places where it would be impossible to rotate a thread-cutter or wrench. For instance, my improved device when used as a thread-cutter is particularly adapted for cutting threads upon the ends of a bursted gas or water pipe, especially where the pipe traverses a wall or floor and where it is impossible to elevate the pipe sufficiently to permit of the rotation of an ordinary thread-cutter.

I have constructed my improved device upon simple and inexpensive lines, and the comparatively few parts employed permit of the device being easily and quickly assembled or adjusted according to its various usages. The device is also provided with an attachment whereby it can be used as a drill and bit holder, and the many other advantages of the device will be apparent from the following description, taken in connection with the claim.

Referring to the drawing accompanying this application, like numerals of reference designate corresponding parts throughout the several views, in which—

Figure 1 is a side elevation of my improved implement. Fig. 2 is a bottom plan of the same. Fig. 3 is a plan of a tool or drill holder used in connection with my improved ratchet tool-holder. Fig. 4 is a sectional view of the same. Fig. 5 is a fragmentary

horizontal sectional view of a portion of my improved implement. Fig. 6 is a plan of the detachable sleeve. Fig. 7 is a side elevation of the same. Fig. 8 is a side elevation of my improved implement equipped with a feed extension. Fig. 9 is a vertical sectional view of my improved implement.

To put my invention into practice, I construct the improved implement of a cylindrical body portion 1, having a central bore 2. The periphery of the body portion 1 centrally of its ends is provided with circumferentially-arranged ratchet-teeth 3, while one end is provided with a die-holding collar 4. The collar is formed with a rectangular recess 5 to receive a drill or bit holder 6, which is substantially rectangular in plan and is provided with a bore 7 to receive the shank of a bit or drill. (Not shown.) In lieu of the drill or bit holder 6 the rectangular recess 5 may be provided with threaded cutting-dies, which can extend into said recess through diametrically-opposed openings 8 8, formed in the collar 4. The periphery of the collar is threaded, as at 9, to receive a cap 10, employed for retaining the drill or bit holder 6 within the recess when the same is being used. The opposite end of the cylindrical body portion 1 is provided with a screw-threaded recess 11 to receive a threaded collar 12 or a threaded extension-screw 14, said extension-screw being similar to extension-screws heretofore used in connection with drills.

The formation of the collar 4 and the peripheral teeth 3 provides an annular groove 15, and engaging in said groove is a semi-circular strap or yoke 16, carried by a handle or operating-lever 17. To secure the strap or yoke upon the body portion of the ratchet, I employ a sleeve 18, which fits over the cylindrical body portion 1 and engages the edges of the teeth 3. The sleeve 18 is provided with a pierced extension 19, by which it is fastened to the handle or operating-lever by pins or screws 20.

The end of the handle or lever 17 adjacent to the body of the ratchet has its edges recessed, as at 21 21, and pivotally mounted in said recesses are pawls 22 and 23, said pawls lying in close proximity to the edges of the handle or operating-lever 17 and extending forwardly to engage the teeth 3 of the body portion 1. The rear ends of the pawls 22 and 23 are normally held outwardly by springs 24 24, mounted in recesses 25 25 of

the handle or lever 17. These springs normally retain the forward ends of the pawls in engagement with the teeth 3, and in order that the improved implement may either be
5 rotated to the left or to the right I provide the handle or lever 17 with a movable locking-band 26. The band is retained in engagement with the handle or lever 17 by a
10 pin 27, which extends through a circumferentially-arranged slot 28, formed in said sleeve. The edge of the sleeve adjacent to the rear ends of the pawls 22 and 23 is cut
away, forming a flange 29, which is moved into engagement with either one of the pawls
15 22 or 23 by rotating the locking-band 26.

From the foregoing description it will be observed that the handle or operating-lever 17 of the implement is locked in engagement with the body portion 1 thereof by the strap
20 or yoke 16 and the detachable sleeve 18, which is mounted upon the body portion 1 and connected to the handle or lever 17 in the course of assembling the various parts of my improved implement.

25 In operation when it is desired to rotate the implement to the right one of the pawls 22 or 23 is locked out of engagement with the ratchet-teeth of the body portion 1 by rotating the locking-band 26. In rotating the
30 band the rear end of one of the pawls is depressed, consequently elevating the forward end and only permitting its associate pawl to engage the teeth of the body portion 1.

Such changes in the construction and operation of my improved implement as are
35 permissible by the appended claim may be resorted to without departing from the spirit and scope of the invention.

What I claim, and desire to secure by Letters Patent, is—

40 In an implement of the class described, a stock having annularly-disposed ratchet-teeth and an annular channel intermediate the ends, and with means at one end for supporting an operating-tool and with means at
45 the other end for supporting a holding means, a handle having a concaved head at one end with longitudinal recesses on the side edges and partly embracing the ratchet portion of said stock and carrying a yoke-
50 bearing in said annular channel, a sleeve bearing around said stock and against said annular ratchet portion at the side opposite from said yoke and provided with a lateral extension engaging said head, means for fast-
55 ening said extension to said head, pawls swinging in said recesses and engaging said ratchet-teeth, and means for alternately operating said pawls.

In testimony whereof I affix my signature
60 in the presence of two witnesses.

PATRICK F. GALLAGHER.

Witnesses:

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