

M. SUSTER.  
 RATCHET TOOL HANDLE.  
 APPLICATION FILED JUNE 17, 1911.

1,004,496.

Patented Sept. 26, 1911.

FIG. 1

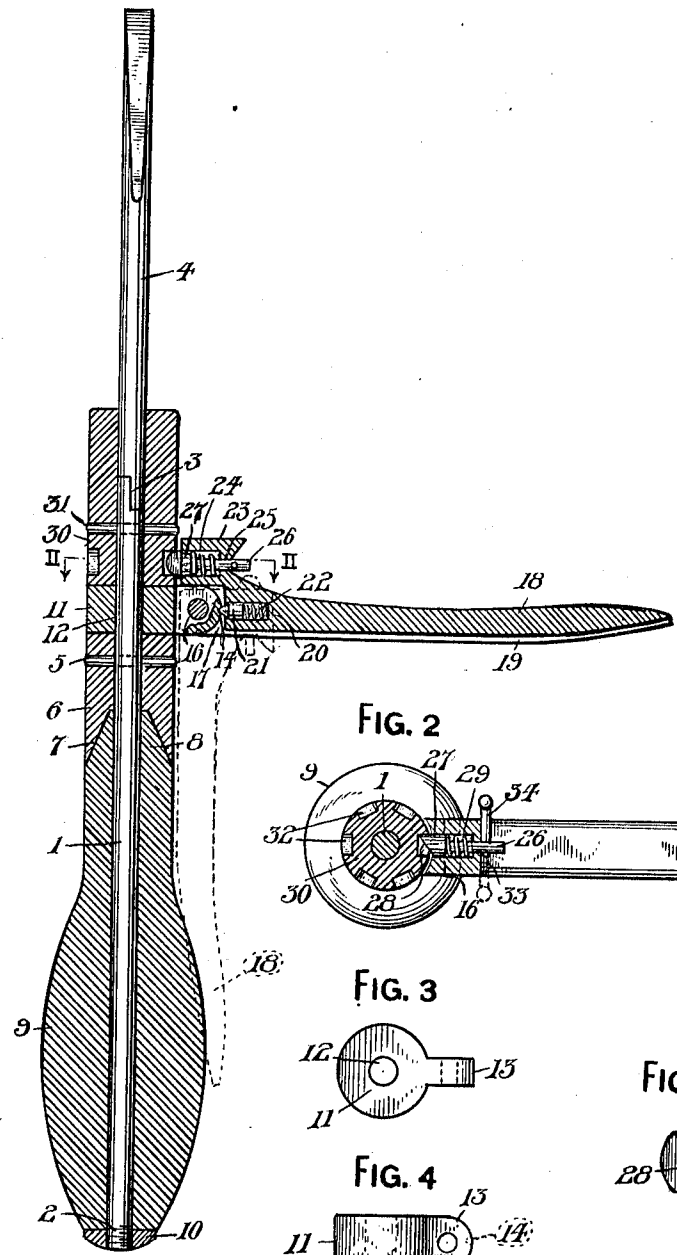


FIG. 2

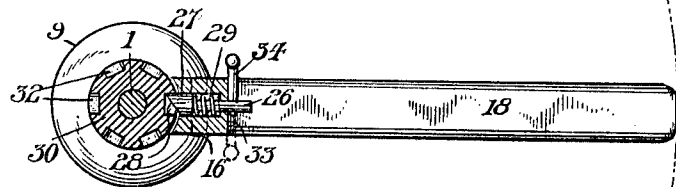


FIG. 3

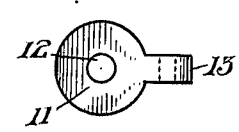


FIG. 4

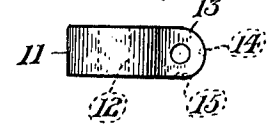
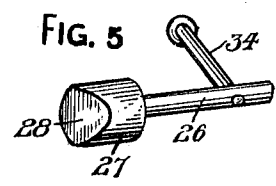


FIG. 5



WITNESSES:

*J. P. Appleman*  
*R. H. Sutter*

INVENTOR.  
*Martin Suster*  
 BY *M. C. Over* Co.  
 ATTORNEYS

# UNITED STATES PATENT OFFICE.

MARTIN SUSTER, OF EAST PITTSBURG, PENNSYLVANIA.

## RATCHET TOOL-HANDLE.

1,004,496.

Specification of Letters Patent. Patented Sept. 26, 1911.

Application filed June 17, 1911. Serial No. 633,718.

*To all whom it may concern:*

Be it known that I, MARTIN SUSTER, a subject of the Emperor of Austria-Hungary, residing at East Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Ratchet Tool-Handles, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a ratchet tool handle and more particularly to that type in which different kinds of bits can be placed and actuated by a ratchet mechanism.

The primary object of my invention is to furnish a tool holder with a reversible ratchet mechanism that can be swung into an operative and an inoperative position, the last named position facilitating the use of the tool in the ordinary manner.

A further object of this invention is to provide a tool holder consisting of comparatively few parts, inexpensive to manufacture and easily to assemble.

I attain the above objects by a mechanical construction that will be hereinafter specifically described and then claimed.

Reference will now be had to the drawing, wherein:—

Figure 1 is a longitudinal sectional view of a tool in accordance with this invention. Fig. 2 is a horizontal sectional view taken on the line 11—11 of Fig. 1. Fig. 3 is a plan of a detached revoluble ratchet support. Fig. 4 is a side elevation of the same, and Fig. 5 is a perspective view of a detached pawl.

The reference numeral 1 denotes a shank having the lower end thereof screw threaded, as at 2 and the upper end thereof cut away, as at 3 to provide an interlocking connection for the lower end of a bit or tool 4.

Mounted upon the shank 1 and retained thereon by a transversely arranged pin 5 is a socket 6 having the top thereof flat and the bottom thereof provided with a tapering seat 7 for the upper tapered end 8 of a handle 9. The handle 9 is retained upon the shank 1 by a nut or cap 10.

Revolubly mounted upon the shank 1 and bearing upon the upper flat end of the socket 6 is a ratchet support 11 having a central vertical opening 12 providing clearance for the shank 1. The support 11 has an outwardly extending apertured lug 13 and the outer and lower faces of said lug have

notches 14 and 15. Pivotaly connected to the lug 13 by a transverse pin 16 is the bifurcated inner end 17 of a ratchet lever 18, said lever having the underneath side thereof longitudinally recessed or grooved, as at 19 whereby it will snugly fit against the handle 9. The inner end of the ratchet lever 18 has a recess 20 for a pointed pin 21 adapted to engage in one of the notches 14 or 15, said pin being normally held in engagement with the notched lug 13 by a coiled compression spring 22 arranged within the recess 20 between the inner end of the pin 21 and the bottom of the recess.

The ratchet lever 18 has the inner end thereof at the top side of said lever provided with an enlargement 23 having a recess 24 formed therein. The recess 24 has the bottom thereof in communication with the outer end of the enlargement by an opening 25 and movably mounted in said opening is the stem 26 of a beveled pawl 27, said pawl having the outer end thereof beveled upon one side, as at 28. Surrounding the stem 26 between the inner end of the pawl 27 and the bottom of the recess 24 is a coiled compression spring 29 adapted to normally retain the beveled end of the pawl in engagement with a collar 30 mounted upon the shank 1 and secured thereto by a transverse pin 31. The upper end of the collar 30 forms a socket for the bit or tool 4 and the lower end of said collar is provided with a plurality of circumferentially arranged sockets or notches 32 adapted to receive the beveled end 28 of the pawl 27. The outer end of the enlargement 23 is provided with a double cam surface 33 and normally retained in engagement with this surface is a crank pin 34, carried by the outer end of the stem 26.

The enlargement 23 constitutes a housing for the pawl and this pawl coöperates with the collar 30 in providing a ratchet mechanism for the tool holder. The pawl 27 is reversed by shifting the crank 34 from one side of the housing to the other, the crank riding over the cam surface 33 causing the pawl to revolve while it is withdrawn from one of the sockets or notches 32 of the collar 30. With the crank 34 in a vertical position the pawl is completely out of engagement with the collar 30.

It is through the medium of the reversible pawl that the ratchet mechanism can be used for rotating the tool holder in either direction, and it is through the medium of the

spring pressed pin 21 that the ratchet mechanism can be locked in or out of an operative position relatively to the collar 30.

5 With the lever 18 in a lowered position the tool holder can be rotated by hand, and assuming that the holder contains a screw-driver, the screw can be screwed into a piece of material as far as possible in the ordinary  
10 manner. Then the ratchet lever can be swung outwardly to operate upon the collar 30. By holding the handle 9 in one hand and operating the lever with the other, the screw can be further driven or screwed into the piece of material.

15 It is to be understood that various kinds of bits or tools can be substituted for the screw-driver shown in Fig. 1, and that the tool holder can be made of light and durable metal and of various sizes.

20 What I claim is:—

A tool holder comprising a shank, a handle mounted thereon, a collar mounted upon

said shank and providing a socket for a tool and having notches formed therein, a holder rotatably mounted upon said shank, a 25 ratchet lever pivotally connected to said holder, a spring pressed pin arranged in said lever and adapted to engage said holder to retain said lever in an operative or an in-operative position, a housing carried by said 30 lever, a spring pressed pawl arranged in said housing and adapted to engage in the notches of said collar, and a crank carried by said pawl and engaging the outer end of said housing and adapted to shift said pawl 35 whereby the pawl can be reversed and withdrawn from the notches of said collar.

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

MARTIN SUSTER.

Witnesses:

MAX H. SROLOVITZ,  
CHRISTINA T. HOOD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."