

(No Model.)

W. L. SMITH.
TOOL HANDLE.

No. 471,031.

Patented Mar. 15, 1892.

Fig. 1.

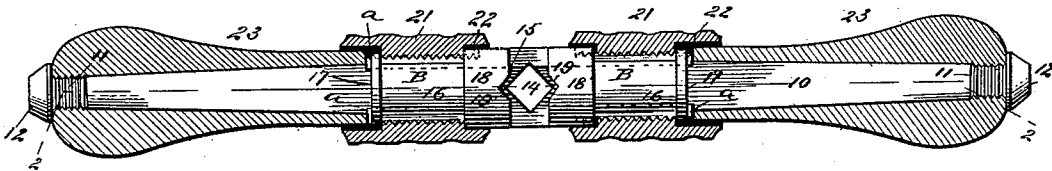


Fig. 2.

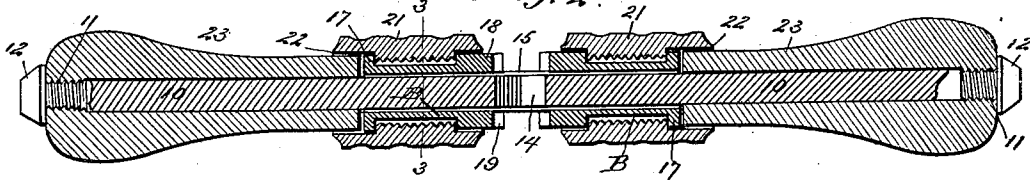


Fig. 3.

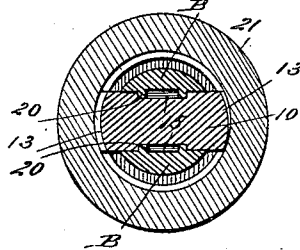


Fig. 4.

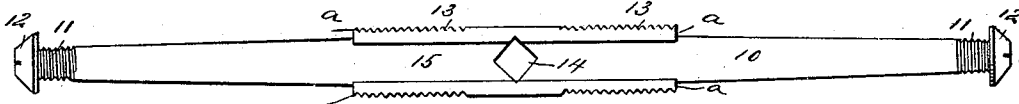
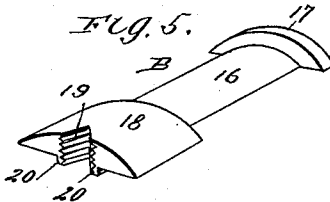


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WALLACE LEROYE SMITH, OF RICHBURG, NEW YORK.

TOOL-HANDLE.

SPECIFICATION forming part of Letters Patent No. 471,031, dated March 15, 1892.

Application filed March 2, 1891. Serial No. 383,367. (No model.)

To all whom it may concern:

Be it known that I, WALLACE LEROYE SMITH, of Richburg, in the county of Allegany and State of New York, have invented a new and Improved Tool-Handle, of which the following is a full, clear, and exact description.

My invention relates to an improved handle for such tools as augers, bits, reamers, &c., and has for its object to provide a handle of simple and durable construction, capable of being readily and conveniently applied to the shank of an auger or a similar tool and expeditiously disengaged therefrom when desired.

A further object of the invention is to provide the handle in addition to the usual socket with clamping-jaws adjustable to and from the socket and with a convenient means for manipulating the jaws.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the body-bar of the handle and the jaws sliding thereon, the feed devices and handles of the body-bar being in section. Fig. 2 is a longitudinal section taken on the line 2 2 of Fig. 1. Fig. 3 is a transverse section taken upon the line 3 3 of Fig. 2. Fig. 4 is a plan view of the body-bar of the handle, and Fig. 5 is a perspective view of one of the sliding jaws removed.

The body-bar 10 of the handle may be made of any desired metal, and is of greatest width at its central portion. At each side of the center the body-bar is reduced to form shoulders α at opposite sides, from which point the body-bar tapers to its extremities, as is best shown in Fig. 4. The extremities of the bar are provided with a threaded surface 11, upon which lock-nuts 12 are secured. As shown in cross-section in Figs. 3 and 4, the top and bottom faces of the body-bar are flat and the side faces are semi-cylindrical, while between the shoulders α the said side surfaces are provided with threads 13, the said threads commencing at the shoulders and terminating at a point each side of the center. In the cen-

tral portion of the body-bar a polygonal, preferably quadrangular, opening 14 is produced, which extends through from the top to the bottom face and constitutes a socket for the reception of the shank of a tool.

The upper and lower faces of the body-bar have produced therein longitudinal grooves 15, in which grooves clamping-jaws B are held to slide. One of the clamping-jaws is illustrated in detail in Fig. 5, and consists of a body-section 16, having a semi-cylindrical outer face, a transverse rib 17, produced at one end upon the outer face of the body-section, and a wider rib 18, produced at the opposite end of said section, the latter rib constituting a head, and in the outer end of the head an angular recess 19 is produced, the walls of which recess are threaded, serrated, or otherwise roughened.

The bottom of the jaw is flat and upon the bottom at each side of the center a longitudinal rib 20 is formed, extending from end to end, the distance between the outer faces of the ribs corresponding, essentially, to the width of the grooves or channels 15 in the body-bar. By means of the ribs 20, which are adapted to enter the said channels 15, the jaws are guided in their movement upon the body-bar.

Two jaws are preferably made to travel in each groove or channel 15 of the body-bar, one being located at each side of the socket 14; but if in practice it is found desirable only one set of jaws may be employed, located upon one face of the body-bar, in which event the channel in the opposite face of the said body-bar may be omitted.

Movement is imparted to the jaws through the medium of sleeves 21, the said sleeves being provided with an interior threaded surface corresponding to the length of the body-section of the jaws, and each sleeve is further provided at its ends with countersinks, forming sockets 22 for the reception of the heads 18 and ribs 17 of the jaws, as is best shown in Figs. 1 and 2. The outer sockets in the sleeves are also adapted for the reception of handles 23, located upon the tapering portions of the body-bar, the said handles being held in position upon the bar by the lock-nuts 12.

In the operation of the handle the shank

of the tool to be fitted is inserted in the socket 14, and the sleeves 21 are turned until the roughened recessed portion 19 of the clamping-jaws engages firmly with the faces of the shank extending above the body-bar and immediately below it.

It will be observed that the construction is exceedingly simple and that the handle may be economically manufactured; also, that the completed handle will be durable and is capable of convenient and expeditious attachment to or detachment from the shank of any tool adapted to enter the socket 14.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A tool-handle comprising a body-bar containing a socket, clamping-jaws held to slide upon the body-bar at each side of the socket, and sleeves surrounding the clamping-jaws and a portion of the body-bar and engaging the same for imparting movement to the jaws, as and for the purpose specified.

2. In a tool-handle, the combination, with a body-bar provided with a socket extending through from side to side and having opposite edges threaded, of clamping-jaws held to slide upon the body-bar, one at each side of the socket, and sleeves surrounding the jaws and loosely held in engagement therewith, the said sleeves being provided with an interior thread to engage with the threaded surfaces of the body-bar, as and for the purpose specified.

3. In a tool-handle, the combination, with a body-bar provided with a socket extending

through from side to side and threads produced in opposite edges, of clamping-jaws held to slide upon the body-bar, one at each side of the socket, the said jaws consisting of a body-section, a boss or head-section at one end of the body-section and a rib at the opposite end, and sleeves surrounding the body portions of the clamping-jaws, the said sleeves being provided with end sockets for the reception of the heads and ribs of the clamping-jaws and with interior threads to engage with the threaded surfaces of the body-bar, as and for the purpose specified.

4. In a tool-handle, the combination, with a body-bar provided with a central socket and a channel longitudinally produced in one face at the center, opposite edges of the said bar being provided with threads, of clamping-jaws held to slide in the channel of the body-bar, one at each side of the socket, said jaws comprising a body-section, a head at one end thereof of greater width and thickness than the body-section, a rib at the opposite end essentially corresponding in length and thickness to that of the head, sleeves surrounding portions of the body-bar and the body portions of the jaws, an interior thread engaging with the threaded surface of the body-bar, and handles located upon the body-bar, the inner ends of which handles enter the sockets in the outer ends of the sleeves, as and for the purpose set forth.

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Witnesses:

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