

No. 639,773.

Patented Dec. 26, 1899.

W. ROBERTSON.
TOOL HANDLE.

(Application filed Oct. 27, 1898.)

(No Model.)

Fig. 1.

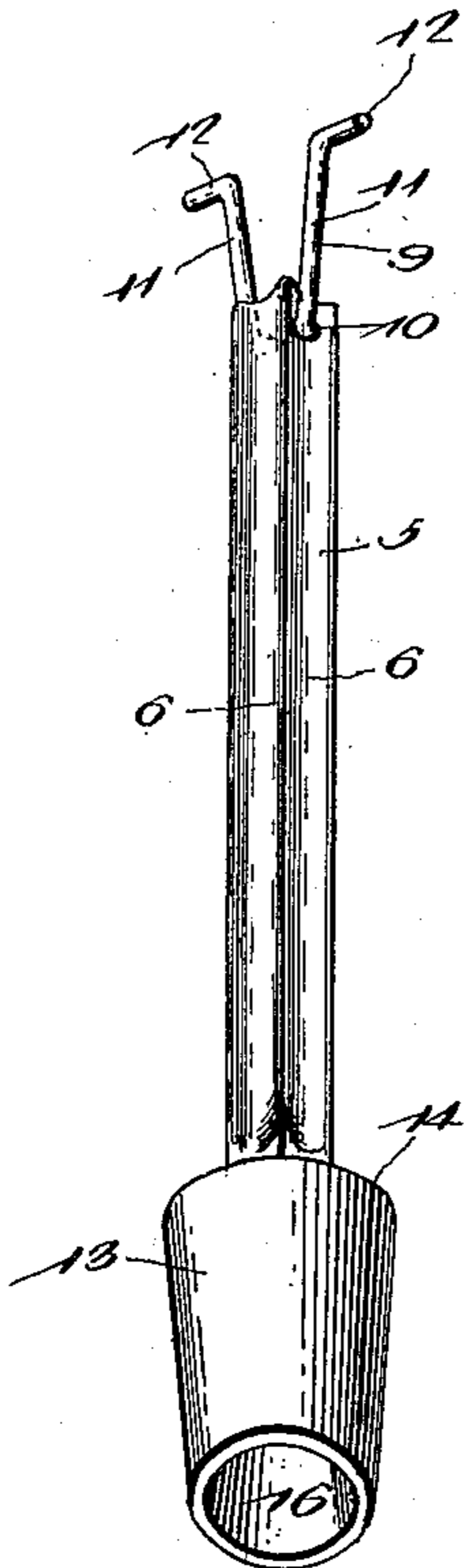
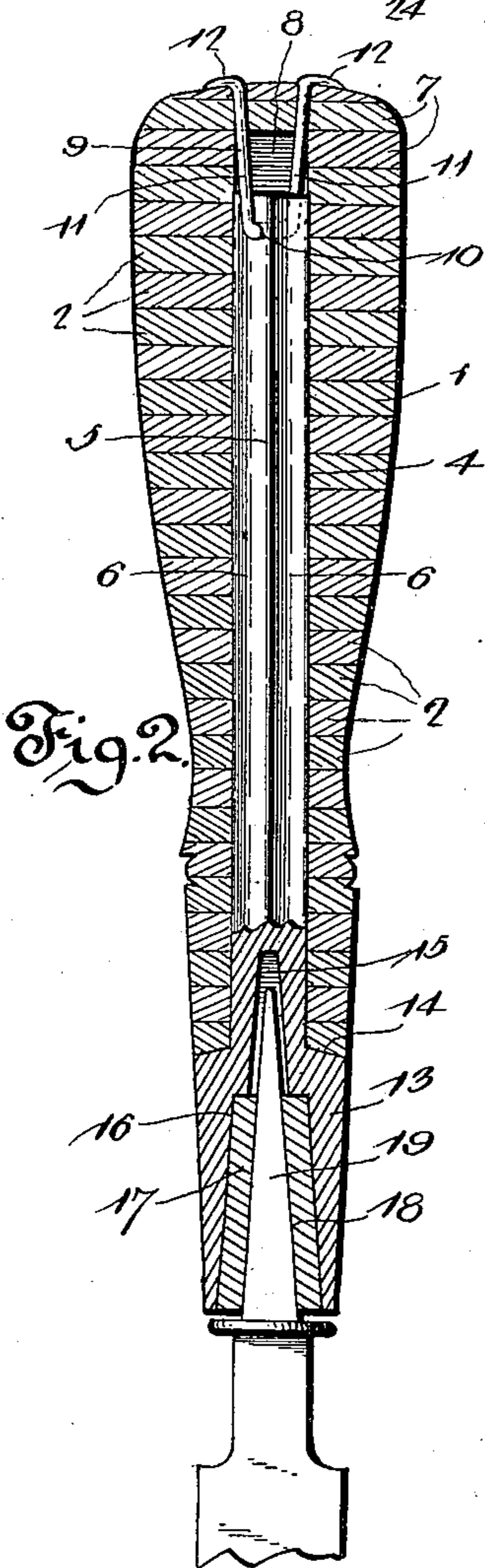
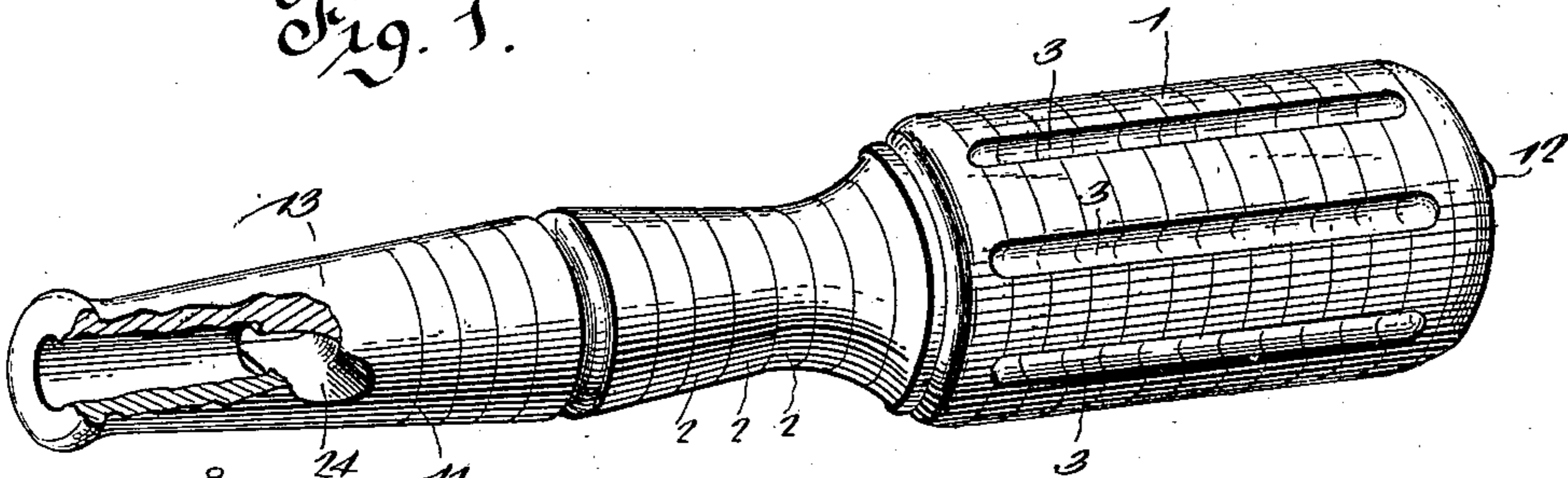


Fig. 3.

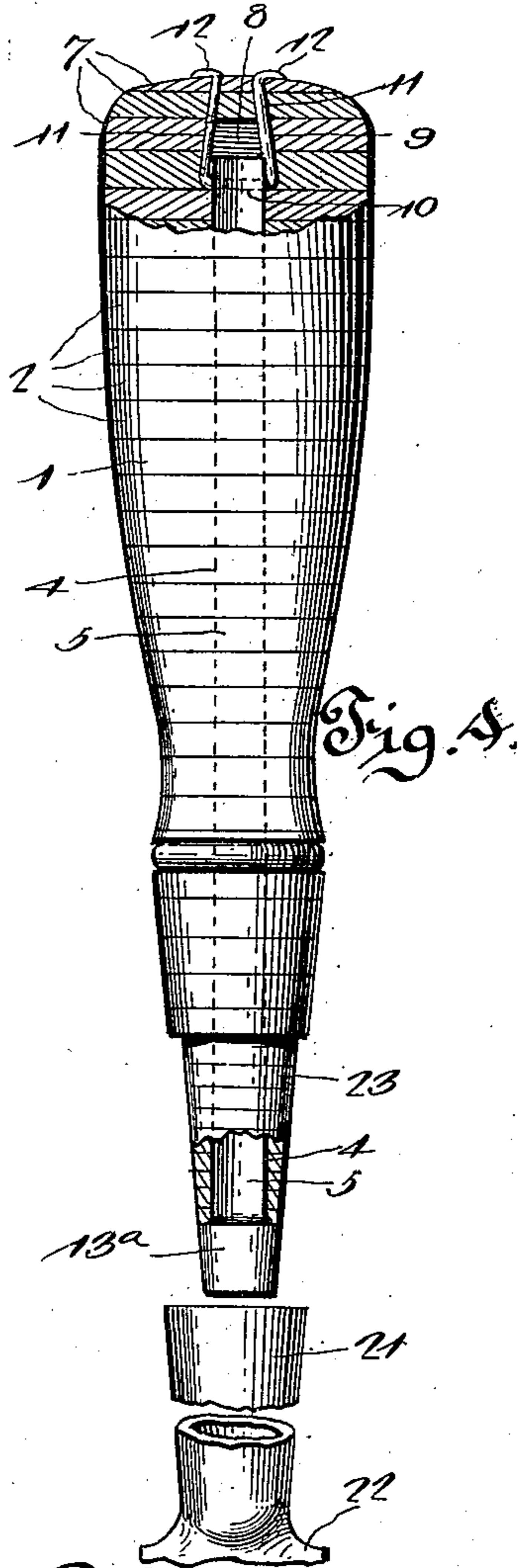


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM ROBERTSON, OF BUFFALO, NEW YORK.

TOOL-HANDLE.

SPECIFICATION forming part of Letters Patent No. 639,773, dated December 26, 1899.

Application filed October 27, 1898. Serial No. 694,708. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ROBERTSON, a subject of the Queen of Great Britain, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Tool-Handle, of which the following is a specification.

This invention relates to tool-handles, and more particularly to that type of handles designed for holding chisels, screw-drivers, files, and like devices; and it has for its object to provide an improved tool-handle having exceptional strength and durability.

To this end the invention contemplates a tool-handle having a laminated leather body constructed in a novel manner, so as to entirely obviate relative movement or displacement of the separate parts of the handle, while at the same time providing a construction of handle capable of withstanding the severe pounding to which chisel-handles are usually subjected.

In carrying out the invention the handle is constructed so as to be capable of general application for use in connection with different kinds of tools; but a special object of the invention is to provide a handle having an improved construction of chuck or ferrule head for securely chucking or holding the tapering tangs of chisels, files, and the like.

With these ends in view the invention consists in the novel combination of elements and in the construction and arrangement of parts, which will be hereinafter fully described and claimed.

While the essential or characteristic features of the invention are necessarily susceptible to modification, still the preferred embodiment thereof is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a tool-handle constructed in accordance with the present invention and showing the body of the handle longitudinally corrugated or fluted to especially adapt the handle for use as a screw-driver, and also showing the chuck or ferrule end of the handle constructed for receiving a screw-driver bit. Fig. 2 is a longitudinal sectional view of the handle, exposing the manner of constructing the body and securing the same to the core-bar and also show-

ing the preferred construction of the chuck or ferrule head adapted for receiving the tapering tangs of chisels, files, and the like. Fig. 3 is a detail in perspective of the core-bar shown in Fig. 2 of the drawings. Fig. 4 is a side elevation, partly in section, of a modified form of the handle in which the chuck-head is in the form of a solid tapered tenon for fitting in the handle-socket of a socket-chisel or the like.

Like numerals of reference denote like and corresponding parts in each of the several figures of the drawings.

Referring to the accompanying drawings, the numeral 1 designates the cylindrical body of the handle, formed of built-up layers of leather disks 2, closely cemented together to form a substantially homogeneous or solid leather body, and the exterior of this leather body may be turned in any suitable design or configuration at the option of the manufacturer; but in all designs of the laminated leather body 1 of the handle such body preserves the usual cylindrical outline, so as to readily fit the hand of the user. In most uses of the tool-handle the laminated leather body 1 is formed with a smooth exterior or rounded surface; but when the handle is especially designed for use in connection with a screw-driver bit to form a screw-driver the leather body is preferably formed with a plurality of longitudinal flutes or corrugations 3, which give a better grip to the hand and prevent the hand from slipping on the handle while using the same.

In the present invention the built-up disks 2, forming the leather body 1 of the handle, are provided with central openings 4, so that the same may be forced onto the straight longitudinal core-bar 5, running longitudinally of the body 1 substantially the entire length thereof. The straight longitudinal core-bar or shank 5 of the handle may be made in any suitable shape, but is preferably of an angular or square shape in cross-section, so as to entirely obviate a turning of the leather disks thereon, and in this preferred construction of the core bar or shank, which is shown in Figs. 2 and 3 of the drawings, the flat sides thereof are longitudinally fluted or grooved, as indicated by the numeral 6, so as to lighten the

construction and also provide for more securely locking the laminated leather body against turning.

While the longitudinal core-bar 5 extends nearly the entire length of the leather body 1, one end of said core-bar terminates a distance short of what may be properly termed the "top" end of the body, formed by the top layers of disks 7, arranged beyond the contiguous end of the bar 4. It will therefore be observed that the leather disks are continued a few layers beyond the contiguous end of the core-bar 5 and leave beyond such end a compression-space 8, which compensates for and overcomes any compression that may occur when the handle is pounded on the top end thereof.

The top layers 7 of the laminated leather body may be reinforced by supplemental fastening means of a suitable character; but for this purpose I preferably employ a fastening-wire 9, which is strung through an opening 10, formed in one end of the core-bar 5 and has its opposite portions 11 extended through the top layers or disks 7 and having their terminals 12 clenched therein, thereby serving to securely reinforce the top layers or disks and at the same time securely fasten the entire leather body directly to the core-bar, so as to positively prevent relative longitudinal displacement.

At its end opposite the fastening connection with the leather body the longitudinal core-bar 5 is provided with an integral chuck or ferrule head 13, provided at its inner side with a shoulder 14, abutting against the contiguous end of the leather body 1, so that the exterior surface of said head 13 will lie flush with the corresponding surface of the leather body and therefore form a ferrule for one end thereof. The chuck or ferrule head is necessarily susceptible to modification to suit the different kinds of tools to be held thereby; but in the preferred construction of said head the same is provided with an interior longitudinal bit-receiving opening 15, counter-bored to form a socket-seat 16, in which is fitted a wooden or similar bushing 17, having a tapering opening 18, which is designed to have wedged therein the tapering tang 19 of a chisel, file, or like tool. By reason of the employment of the wooden or equivalent bushing 17 it will be obvious that the bore of the preferred form of the chuck-head 13 is made adaptable for the adjustment of different sized and shaped tangs of the different kinds of tools, although it will be understood that most of the tool-tangs are of the tapering form described and illustrated.

The exterior shape of the preferred form of chuck-head 13 may be changed to any desired form; but by having the exterior of the head 13 of a tapering form the same may be used as a tenon to fit in the tapering socket 21 of a socket-chisel 22 or like tool. How-

ever, to adapt the tool-handle for a socket-chisel or like tool, such as shown in Fig. 4 of the drawings, the chuck-head may be made solid to form a solid tapered tenon 13^a, which will have a wedging fit in the socket 21 of the tool and which aligns with a contiguous reduced portion 23 of the leather body, which also partly passes into the tool-socket 21.

In the construction of chuck or ferrule-head 13 shown in Fig. 1 of the drawings such head is constructed with special reference to use as a screw-driver bit, and it is provided with a plain tapered bore communicating with and intersecting a transverse drift-slot 24, which performs its well-known function of receiving a drift key or pin to displace the bit from the socket or chuck-head when it is desired to remove the same.

While the preferred and modified forms of the invention have been described and illustrated, it will be understood that other changes in the form and proportion of parts and in the details of construction may be made by a skilled mechanic without departing from the spirit or sacrificing the advantages of the invention, and I therefore reserve the right to make such modifications as clearly fall within the scope of the invention.

What I claim is—

1. A tool-handle comprising a core-bar provided at one end with an enlarged tool-head and at its opposite end with a transverse opening, a laminated leather body fitted to said core-bar, the cap-layer applied to said body and closing the core-passage therein, and a fastening-strand strung through the perforation in the core-bar and having its ends clenched and embedded in the cap-layer, said fastening-strand extending partly through the core-passage of said body and uniting the cap-layers directly to the core-bar, substantially as described.

2. A tool-handle comprising a core-bar of angular form in cross-section and provided in its several faces with longitudinal cavities, a laminated leather body fitted to said core-bar for its laminae to engage individually with the grooved faces of said core-bar throughout the length thereof and thereby unite said body and the core-bar by interlocking joints, cap-layers fitted to one end of the laminated body, and a fastening-wire strung through the core-bar and passing through the cap-layers, said fastening-wire uniting the cap-layers directly to the core-bar by a plurality of strands and the ends of said strands embedded or clenched against a cap-layer, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM ROBERTSON.

Witnesses:

E. EARLE AXTELL,

EDWARD D. WHEELER.