

No. 680,497.

Patented Aug. 13, 1901.

C. F. MUELLER.
TOOL HANDLE.

(Application filed Mar. 16, 1901.)

(No Model.)

Fig. 2.



Fig. 3.

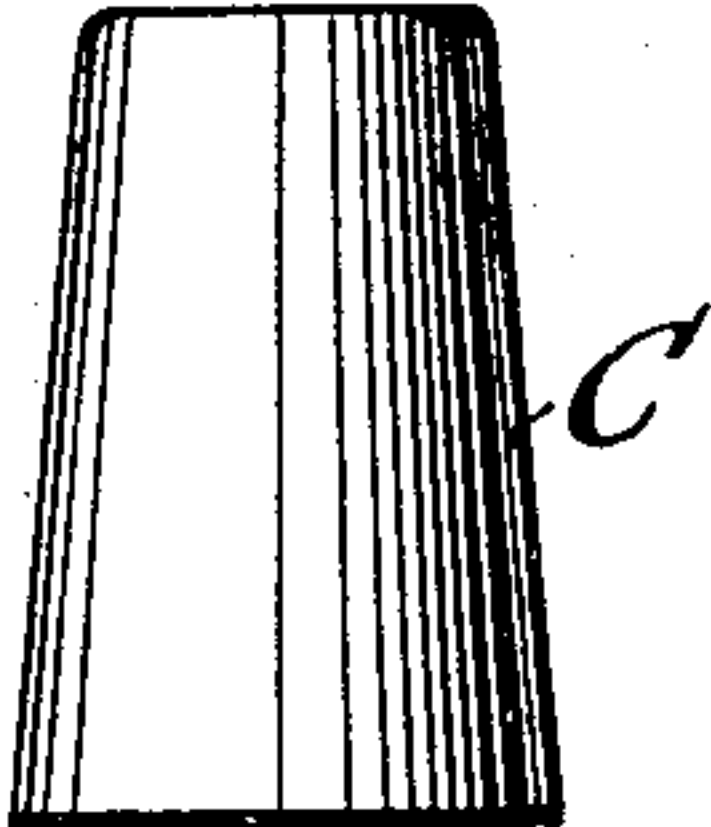


Fig. 4.

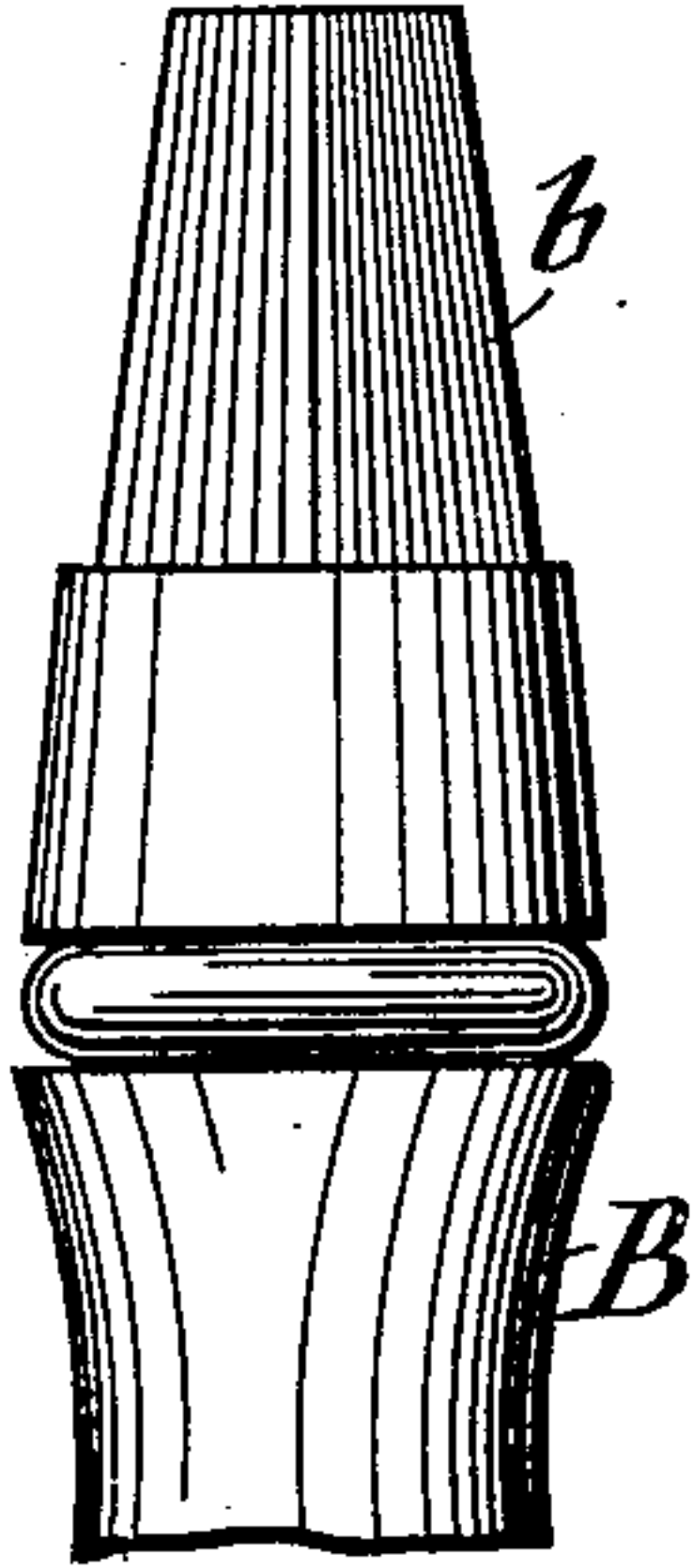
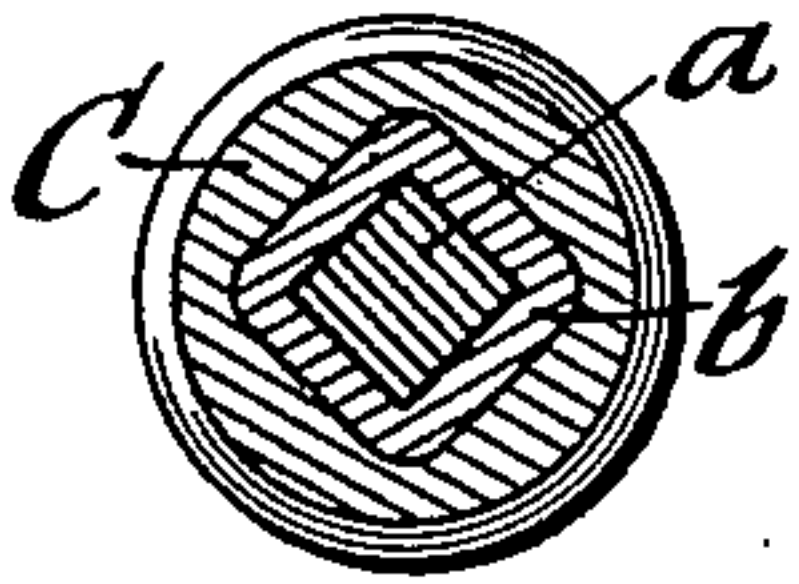


Fig. 8.



WITNESSES:

Joseph H. Niles.
Harry S. Port.

Fig. 1.

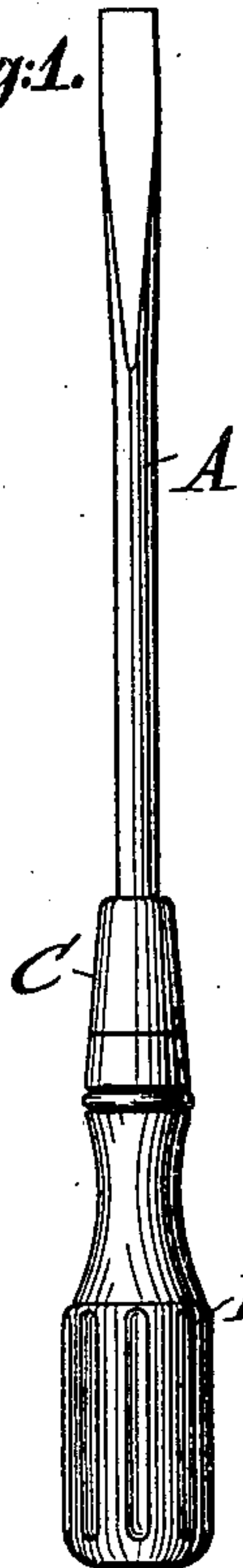


Fig. 7.

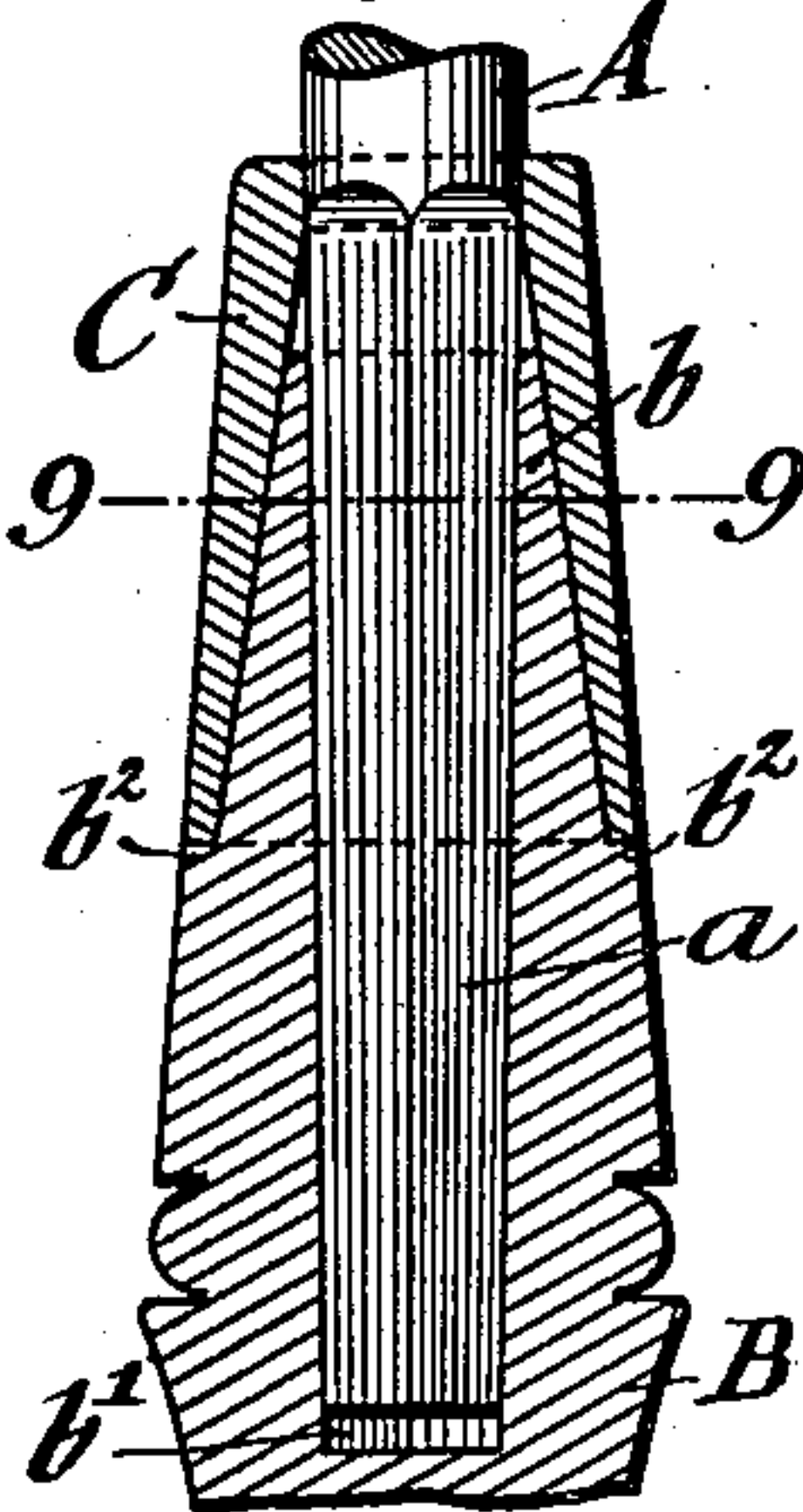


Fig. 9.

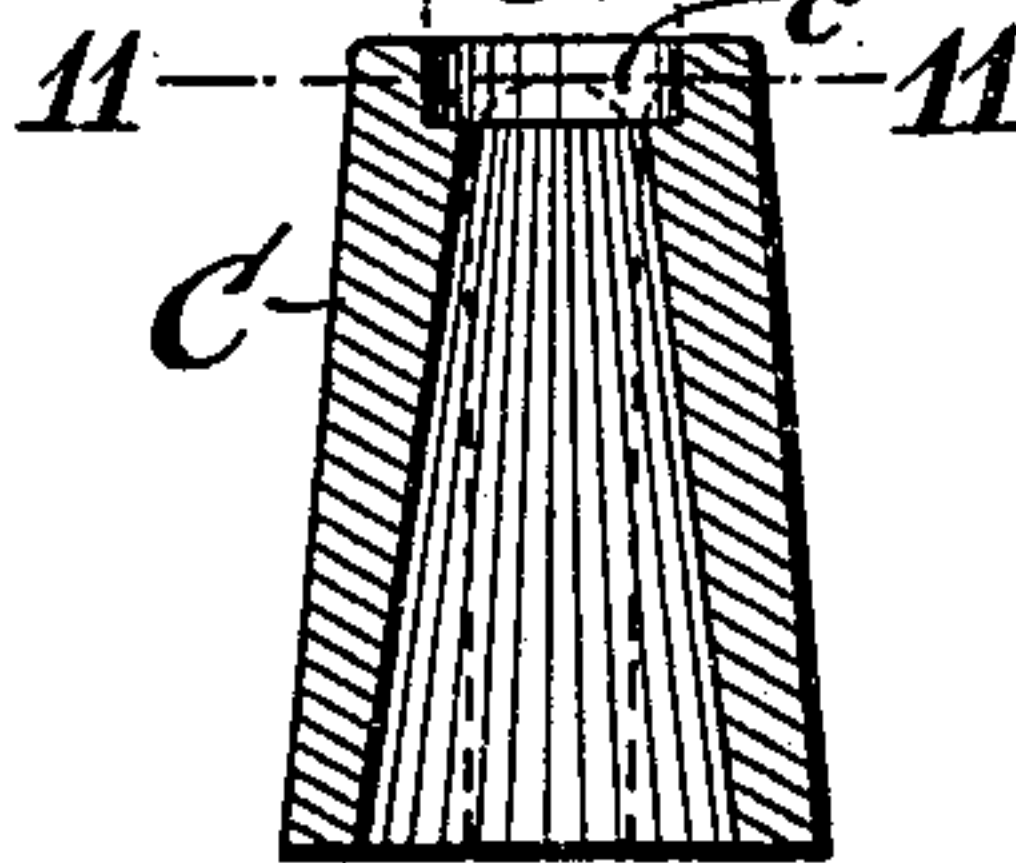


Fig. 5.

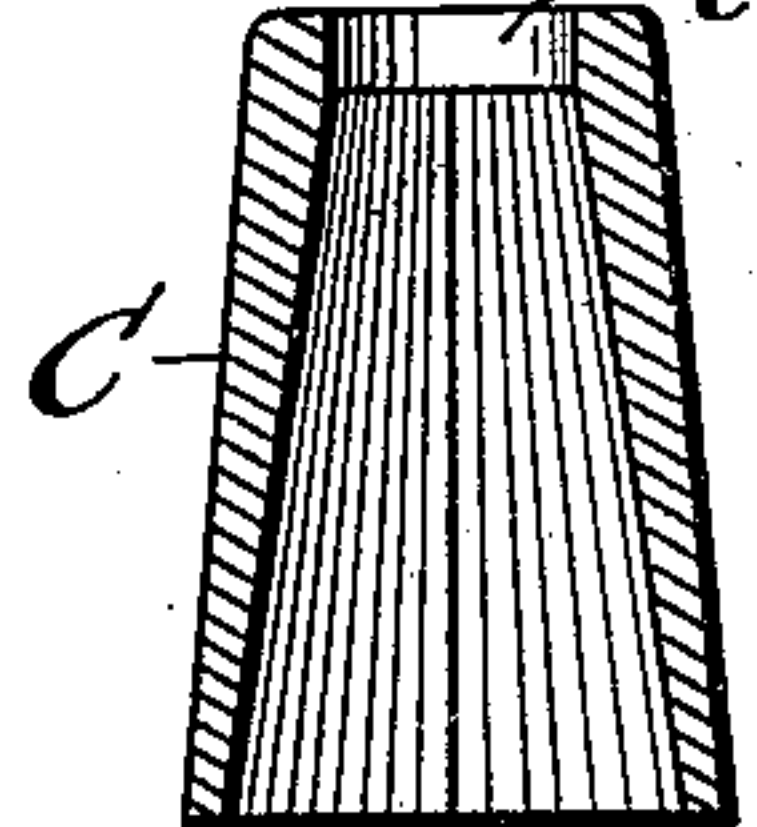


Fig. 6.

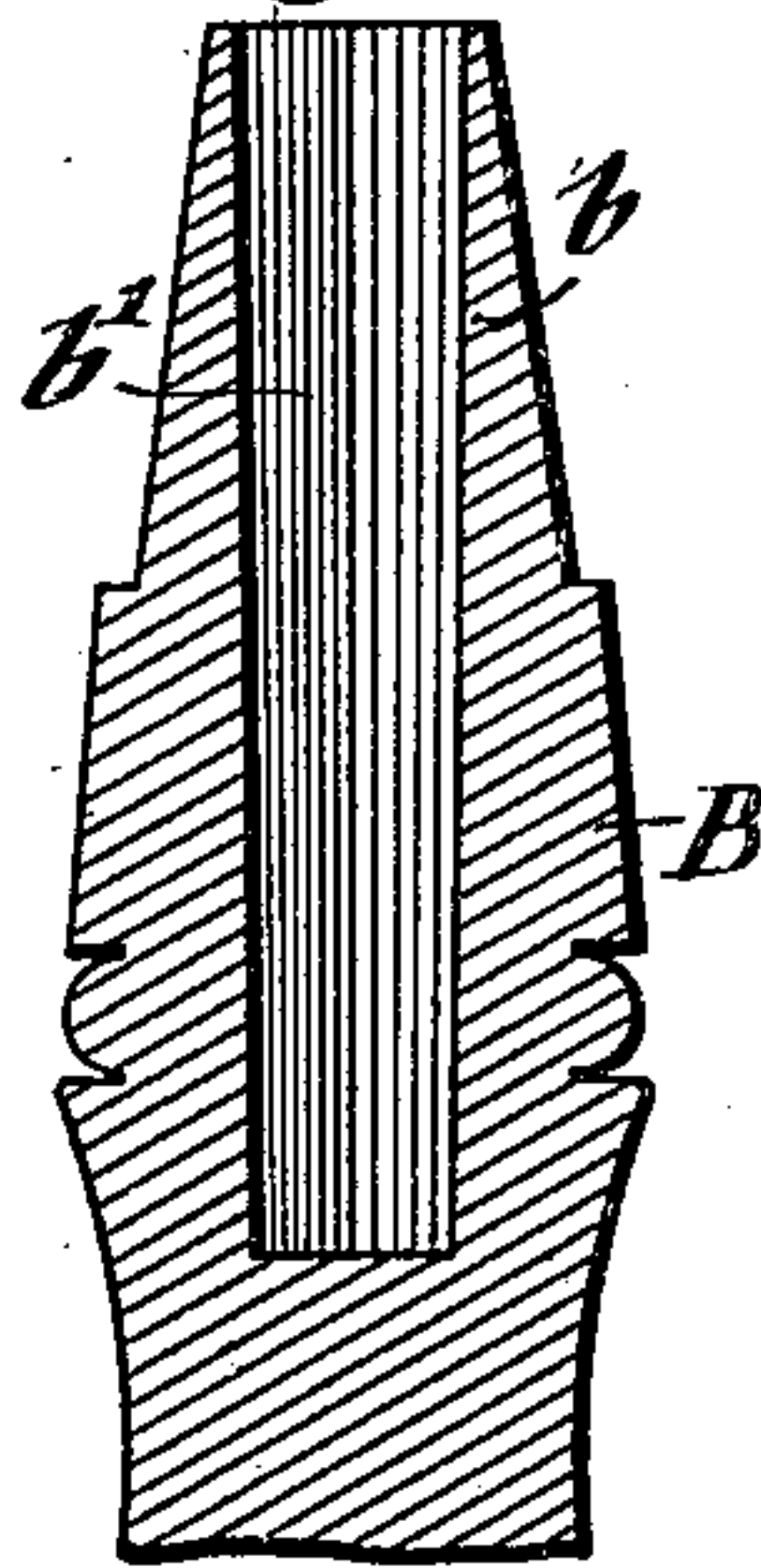
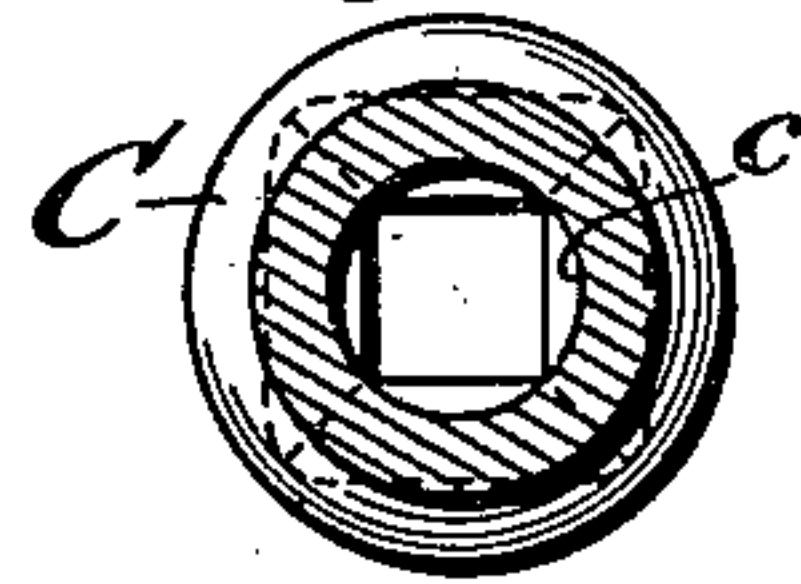


Fig. 10.



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UNITED STATES PATENT OFFICE.

CHARLES F. MUELLER, OF ELIZABETH, NEW JERSEY.

TOOL-HANDLE.

SPECIFICATION forming part of Letters Patent No. 680,497, dated August 13, 1901.

Application filed March 16, 1901. Serial No. 51,460. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. MUELLER, a citizen of the United States, residing in Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Tool-Handles, of which the following is a specification.

This invention relates to an improvement in tool-handles; and the object of the invention is to provide means for connecting the tool with the handle in such a manner that all danger of splitting the handle is overcome and a firm and reliable connection obtained.

The invention consists in the combination, with a tool-handle provided with a tapering end portion of polygonal cross-section and having a polygonal socket, of a tool having a tang of corresponding polygonal cross-section seated in said socket and projecting out of the same, the shank of said tool being of larger diameter than said tang, and a ferrule of tapering polygonal shape at its interior seated on said end portion of the handle, the tapering sides of said ferrule extending beyond the end of said handle into engagement with the projecting portion of the tang.

In the accompanying drawings, Figure 1 is a side elevation of my improved tool-handle with a screw-driver therein. Figs. 2, 3, and 4 are side elevations, respectively, of the tang of the tool, the ferrule, and the handle. Figs. 5 and 6 are respectively vertical central sections of the ferrule and tool-handle. Fig. 7 is a vertical transverse section showing the tool-handle, ferrule, and tool connected. Fig. 8 is a horizontal section on line 8 8, Fig. 7. Fig. 9 is a vertical section at an angle of forty-five degrees to the plane of Fig. 5, and Fig. 10 is a section on line 10 10, Fig. 9.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A indicates the shank of a tool—for example, a screw-driver—and B is a handle of wood or other suitable material.

C is a metallic coupling or ferrule, preferably tapering at its exterior and provided in its forward end with the usual round hole *c* for the entrance of the tool-tang *a*. The interior of the ferrule is made tapering and of square or other polygonal cross-section, narrow at its forward end to engage the polygonal tang of the tool and gradually widening out toward its rear end, so as to engage

the polygonal portion *b* of the handle. A socket *b'* of square or other polygonal cross-section is formed in the handle, said socket *b'* corresponding in shape to the tang of the tool.

When the ferrule is placed in position on the polygonal tapering end of the tool-handle, it fits firmly thereto and is prevented from turning thereon by its polygonal tapering shape. When the polygonal tang of the tool is driven home into the ferrule and into the tapering end of the handle, the parts are firmly locked together, so that the tool cannot turn in the handle, and a strong and reliable connection between the tool and handle without any tendency of splitting the latter when in use is obtained.

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

1. The combination, with a tool-handle provided with a tapering end portion of polygonal cross-section and having a polygonal socket, of a tool having a tang of corresponding cross-section seated in said socket and projecting out of the same, the shank of said tool being of larger diameter than said tang, and a ferrule of tapering polygonal shape at its interior seated on said end portion of the handle, the tapering sides of said ferrule extending beyond the end of said handle into engagement with the tang of the tool, substantially as set forth.

2. The combination with a tool-handle provided with a tapering end portion of polygonal cross-section and having a polygonal socket, of a tool having a tang of corresponding cross-section seated in said socket and projecting out of the same, the shank of said tool being of larger diameter than said tang, and a ferrule of tapering polygonal shape at its interior seated on said end portion of the handle, and tapering sides of said ferrule extending beyond the end of said handle into engagement with the tang of the tool, and said ferrule embracing at its outer end the shank of the tool, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CHARLES F. MUELLER.

Witnesses:

WILLIAM NEILSON,
FRANK PROBST.