M. L. COCHRAN.

TOOL.

APPLICATION FILED NOV. 23, 1909.

975,210.

Patented Nov. 8, 1910.

Fig. 2.

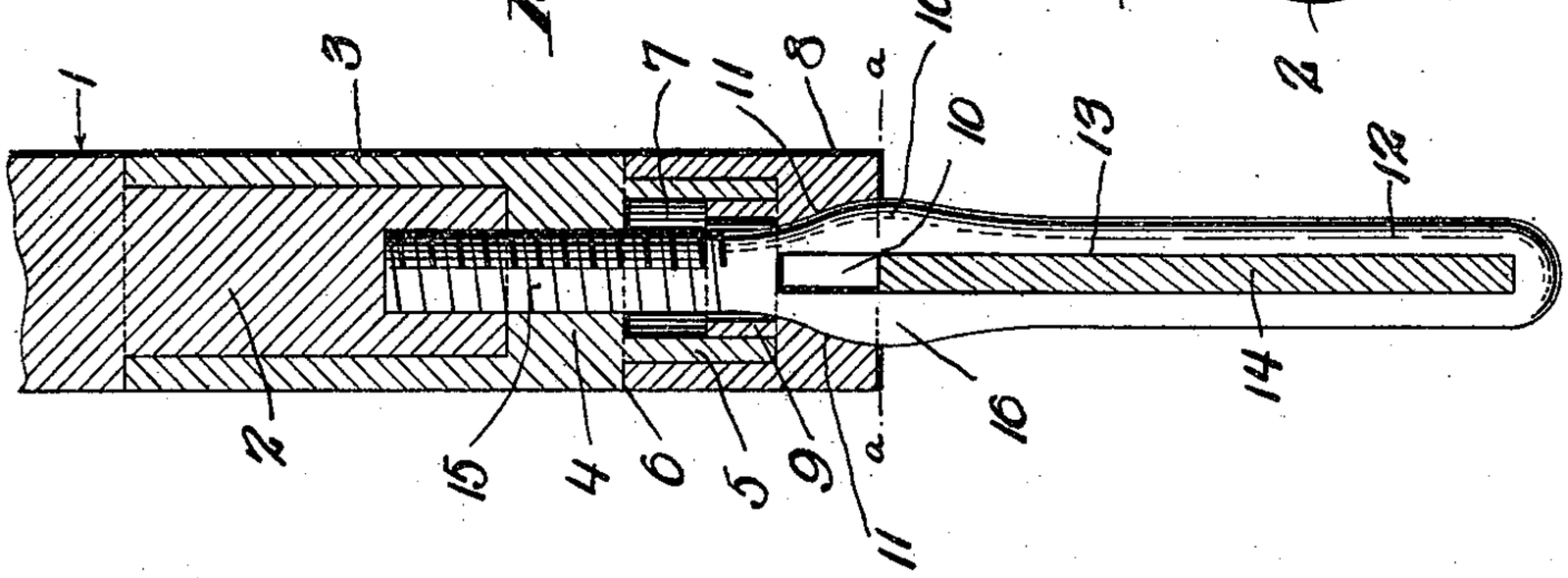

Fig. 4.

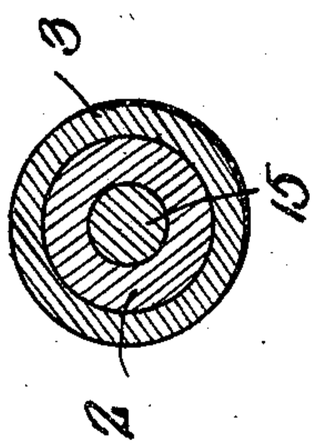

Fig. 3.

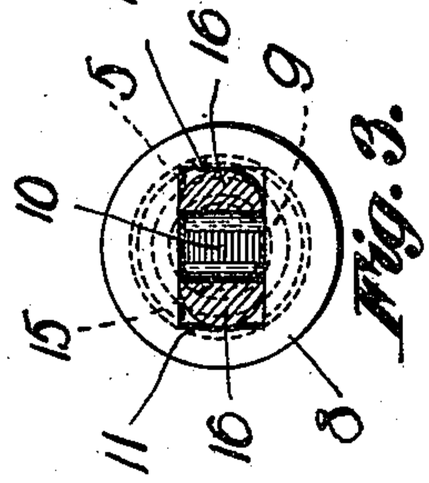

Fig. 1.

Witnesses

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UNITED STATES PATENT OFFICE.

MICHAEL L. COCHRAN, OF DURBIN, WEST VIRGINIA.

TOOL.

975,210. Specification of Letters Patent. Patented Nov. 8, 1910.

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To all whom it may concern:

Be it known that I, MICHAEL L. COCHRAN, a citizen of the United States, residing at Durbin, in the county of Pocahontas and State of West Virginia, have invented new and useful Improvements in Tools, of which the following is a specification.

This invention is an improved saw handle for use on the end of a cross-cut saw and consists in the construction combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a handle constructed in accordance with my invention, showing the same attached to one end of a cross-cut saw. Fig. 2 is a sectional view of the same, the saw blade being shown in cross section. Fig. 3 is a detail sectional view of the same on the plane indicated by the line *a*—*a* of Fig. 2. Fig. 4 is a sectional view taken on the plane indicated by the line 4—4 of Fig. 2.

The handle 1 may be made of wood or any other suitable material and is here shown as provided at one end with a tenon 2 which fits in a ferrule 3. The ferrule has an intermediate portion 4, against which the tenon of the handle abuts, which intermediate portion is provided with a threaded opening. Extending from said intermediate portion of the ferrule is an annulus 5 which provides a shoulder 6 and also provides a chamber 7.

A cap 8 which is here shown as cylindrical in form is chambered at one end to receive the annulus 5 and to enable the said cap to abut against the shoulder 6 of the ferrule and permit the annulus of the ferrule to rotate in the chamber of the said cap. The said cap is further provided with a tubular flange 9 on its inner side, located in the bottom of the chamber of said cap which tubular flange bears against the inner side of the annulus of the ferrule. The said cap is provided with a central opening 10 which enlarges outwardly and the end walls of which converge inwardly, as shown.

The clamping bolt 12 is provided in its outer portion with a slot 13 for the reception of one end of the saw-blade 14 and the inner portion of the said clamping bolt is screw-threaded as at 15. The intermediate portion of the clamping bolt, which forms the inner end of the slot 13 has its sides thickened as at 16, the said thickened sides constituting cams which are adapted to enter the opening 10 in the cap and to bear against the converging walls 11 of the cap, the threaded portion of the clamping bolt being adapted to engage and extend through the threaded opening in the intermediate portion of the ferrule.

The end of the saw-blade having been placed in the slot of the clamping bolt and the handle, together with the ferrule being turned in the required direction to cause the threaded portion of the ferrule to draw the clamping bolt inwardly, the cams of the bolt by engagement with the converging walls of the cap will cause the sides of the bolt, constituting the side walls of the slot, to be drawn toward each other and to clamp the saw-blade firmly between, thereby effectually securing the saw-blade and the handle together as will be understood. In order to release the handle from the saw-blade it is only necessary to turn the handle in the reverse direction, to cause its ferrule to become partly unscrewed from the bolt and hence the sides of the bolt by reason of the resilient qualities thereof will move apart slightly. The tension is relaxed between the cams 11 and 16 and hence the bolt will be relaxed from its grasp of the saw-blade.

I claim:—

1. In combination with a handle having a ferrule provided with a threaded opening, a cap connected to the ferrule for rotation thereon independently thereof and provided with an opening presenting converging side walls, and a clamping bolt having a slot for the reception of the blade, a threaded portion for engagement with the threaded opening of the ferrule, and cams on opposite sides of the slot for engagement with said converging walls of the cap for clamping the walls of the slot against the blade.

2. In combination with a handle having a ferrule provided with a threaded opening and an annulus, said ferrule presenting an outstanding shoulder at the base of the annulus, a cap chambered for the reception of the annulus and bearing against said shoulder, said cap being provided with an annular flange projecting into the annulus and with an opening communicating with said flange and the annulus, said opening presenting converging side walls, and a clamping bolt having a slot for the reception of the saw blade, a screw threaded portion projecting through the flange and annulus and engaging the threaded opening in the ferrule, and cams on opposite sides of

the slot for engagement with said converging walls of the cap to clamp the walls of the slot against the saw blade.

3. In combination with a handle having a threaded opening, and a cap mounted upon the handle for rotation independently thereof and provided with an opening, and a clamping bolt having a slot for the reception of the blade, a threaded portion for engagement with the threaded opening of the handle, and cam surfaces on opposite sides of the upper ends of the walls of the slot for coöperation with the walls of the opening in the cap, to clamp said portions of the walls of the slot against the blade.

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

MICHAEL L. COCHRAN.

Witnesses:
CHARLES P. KERR,
GEORGE W. BUTLER.