

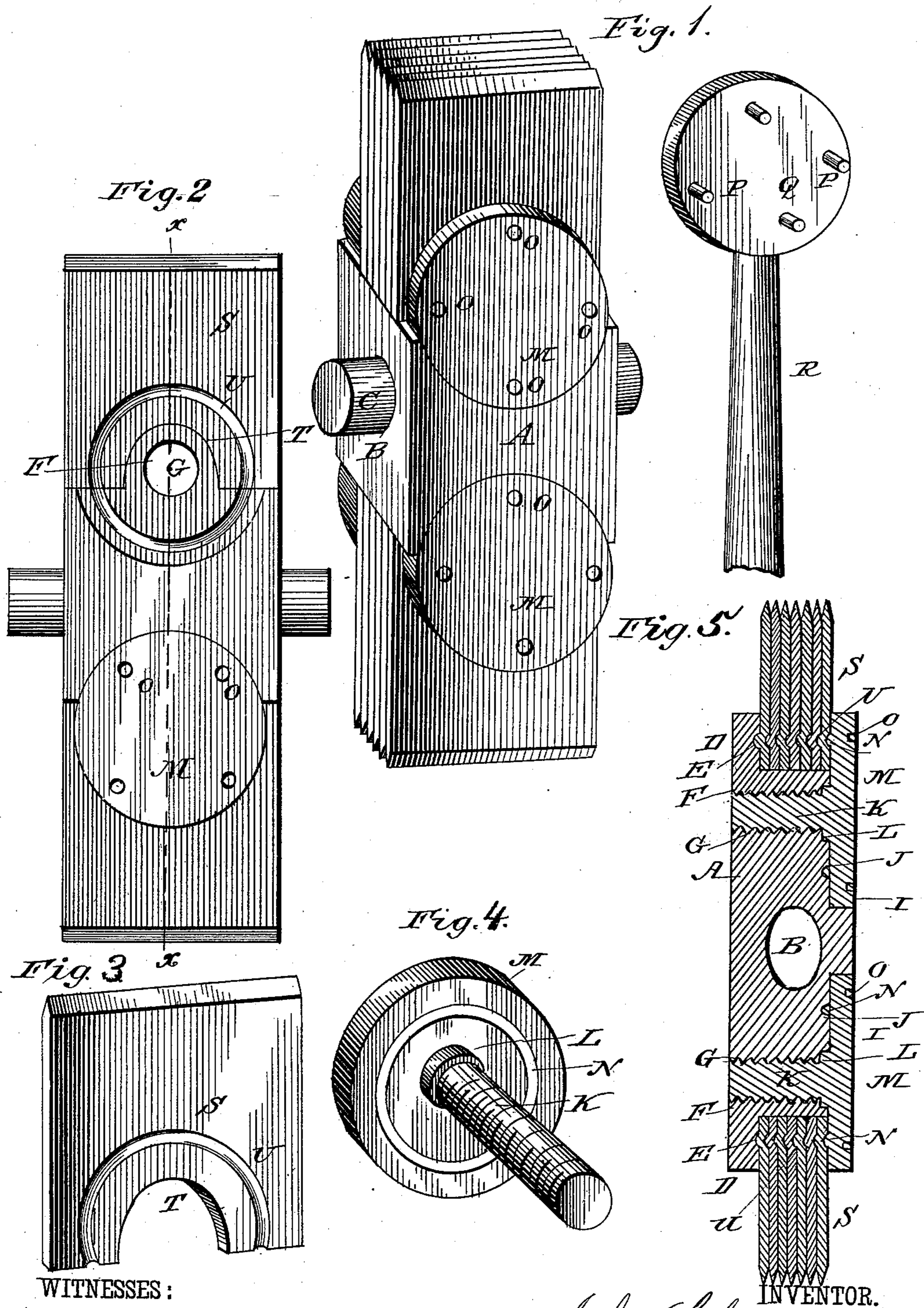
(No Model.)

J. SCHWARZMANN.

BUSH HAMMER.

No. 303,594.

Patented Aug. 12, 1884.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN SCHWARZMANN, OF WASHINGTON, DISTRICT OF COLUMBIA.

BUSH-HAMMER.

SPECIFICATION forming part of Letters Patent No. 303,594, dated August 12, 1884.

Application filed December 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN SCHWARZMANN, a citizen of the United States, and a resident of Washington, in the District of Columbia, have invented certain new and useful Improvements in Bush-Hammers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved bush-hammer and its wrench. Fig. 2 is a side view of the same, with one of the securing-bolts removed. Fig. 3 is a view of one of the bits. Fig. 4 is a view of the securing-bolt, and Fig. 5 is a longitudinal section on line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to that class of bush-hammers in which the bits having corrugations or indentations corresponding to each other are clamped between a rigid and a removable jaw at each end of the poll; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the head or poll of the hammer having the usual eye, B, for the insertion of the handle C, and the ends of the poll are provided at one side with projecting semicircular lips D, having semicircular grooves E near their edges. The ends of the poll form inside the lips semi-cylindrical projections F concentric with the lips and having axial perforations G, and the sides of the poll, opposite to the side having the lips, form semicircular recesses I concentric with the lips and the projections, and having semicircular grooves J of the same radius as the grooves in the lips. Two threaded bolts, K, forming shoulders L at their upper ends, and circular heads M, having circular ribs N of the same radius as the grooves upon the lips and in the recess upon their inner faces, fit and turn in the perforations G in the semi-cylindrical projections,

which are screw-threaded, while the outer faces of the bolt-heads are flush with the side of the hammer-head. The outer faces of the bolt-heads have a number of recesses, O, into which a corresponding number of lugs, P, upon the face of a disk, Q, having a handle, R, may fit, serving as a wrench to screw or unscrew the bolt.

S are the bits, the inner ends of which have a recess or notch, T, corresponding to the semi-cylindrical projections at the ends of the hammer-head, and the bits have each a semicircular corrugation, U, of the same radius as the grooves and circular ribs, and it will be seen that, as the bits are inserted, the raised sides of the corrugations upon the bits placed against the rigid lips will fit into the grooves, whereupon the corrugations will fit into each other, and the ribs upon the bolt-heads will fit into the sunk sides of the corrugations in the bits immediately under the said heads, the grooves, corrugations, and ribs thus preventing the bits from becoming dislocated during use of the hammer, while one or more bits may easily be removed by loosening the screw-bolt, and another inserted and secured by tightening the bolt.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of the poll in a bush-hammer having a lip upon one side of each end, a projection at each end having an axial female-threaded perforation, and a semicircular recess at each end in the other side, the recess and lip having corrugations, a number of bits having recesses or notches corresponding to the shape of the projections at the ends of the poll, and having corrugations corresponding to the corrugations upon the lips and in the recess, and a threaded bolt having a circular head fitting into the semicircular recess, and provided upon its inner side with a corrugation corresponding to the corrugations in the recess and in the bits, as and for the purpose shown and set forth.

2. The combination, in a bush-hammer, of the poll having the semicircular grooved projecting lips, the semi-cylindrical projections

having axial female-threaded perforations, and
the semicircular grooved recesses, the bits hav-
ing semicircular notches in their inner ends
and having semicircular corrugations, and the
5 threaded bolts forming circular heads having
the circular ribs upon their inner sides, as and
for the purpose shown and set forth.

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

JOHN SCHWARZMANN.

Witnesses:

WM. LECHER,

BENNETT S. JONES.