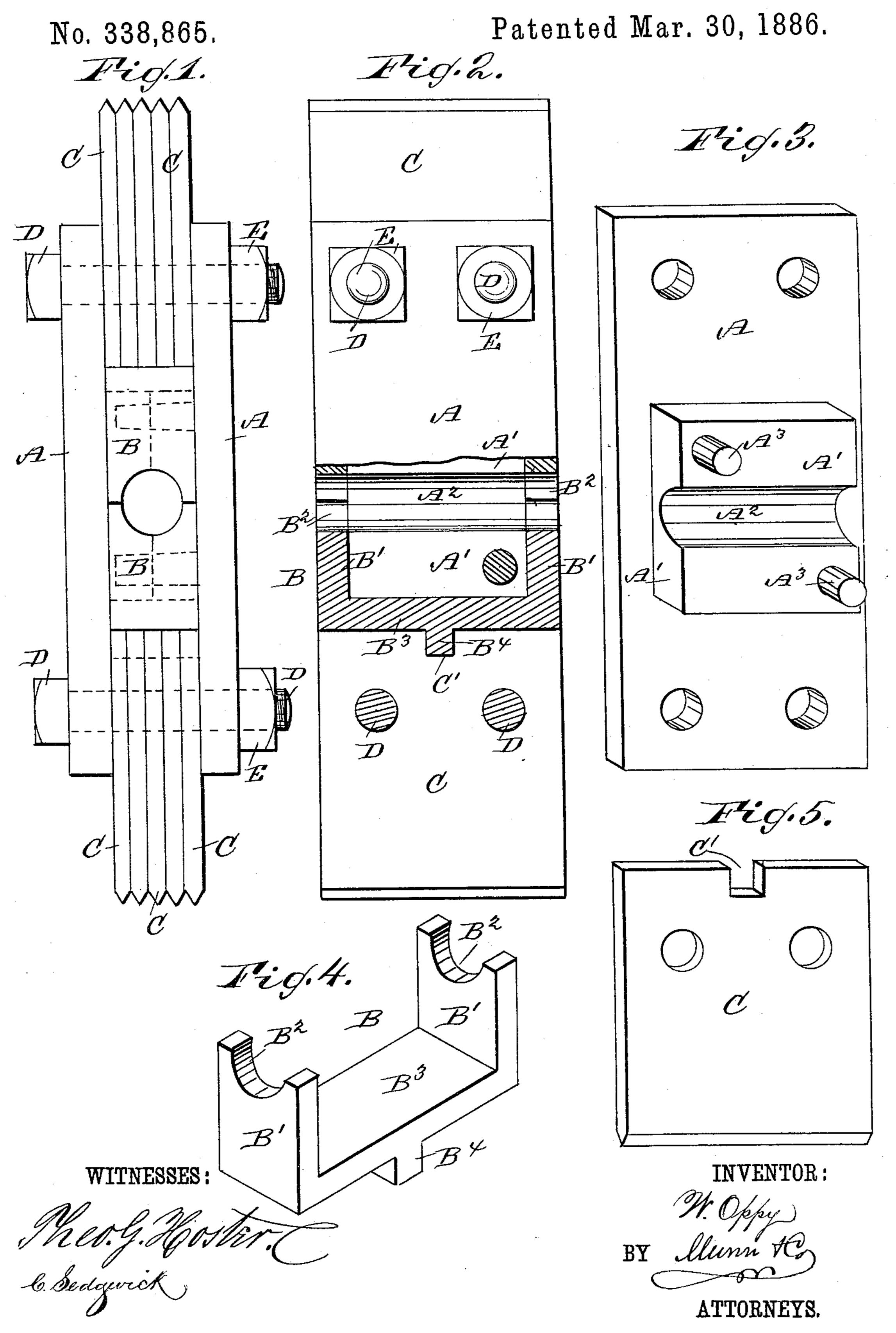
W. OPPY.

BUSH HAMMER.



## United States Patent Office.

WILLIAM OPPY, OF WESTERLY, RHODE ISLAND.

## BUSH-HAMMER.

SPECIFICATION forming part of Letters Patent No. 338,865, dated March 30, 1886.

Application filed September 8, 1885. Serial No. 176,484. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM OPPY, of Westerly, in the county of Washington and State of Rhode Island, have invented a new 5 and Improved Bush-Hammer, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved bush-hammer, in which to the cutting-tools are securely held, and also can be easily taken out for sharpening or other purposes.

The invention consists of two gibs placed between the side plates and provided with a 15 tongue which fits into corresponding recesses

in the cutting-tools.

The invention also consists of various parts and details, hereinafter more fully set forth and described.

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

Figure 1 is an end elevation of my improve-25 ment. Fig. 2 is a side elevation of the same, partly in section. Fig. 3 is a perspective view of one of the side plates. Fig. 4 is a perspective view of the gib, and Fig. 5 is a perspective view of one of the cutting-tools.

The side plates, A.A., are of like construction, and are each provided on their inner faces, in the center, with the offset A', having a semicircular groove, A2, in which the handle of the hammer is secured. The offsets A' 35 are provided with mortise and tenon A<sup>3</sup>, re-

spectively, so that when the side plates, A, are placed upon each other they are locked together by said mortise and tenon.

The gib B consists of the side pieces, B' B', 40 having semicircular grooves B<sup>2</sup> and the crosspiece B<sup>3</sup>, which is provided with the tongue B4. The grooves B2 correspond with the grooves A<sup>2</sup>, and are for the same purpose.

The cutting-tools C are of usual construc-45 tion, and are provided with a recess, C', which corresponds in shape with the tongue B4 of

the gib B.

The hammer is put together as follows: The gibs B are fitted with their inner faces over 50 the sides of the offset A' of one of the side I

plates, A, as seen in Fig. 2. Then the cutting tools or blades C are placed against the outer face of the cross-piece B<sup>3</sup> of the gib B, so that the tongue B4 fits into the recess C' of the tool C. The other side plate, A, is then 55 fitted with its offset A' over the offset of the first plate A, and the bolts D are then passed through the corresponding holes in the side plates, A, and the cutting-tools C and the nut E screwed to the outer end of the bolt D, 60 thereby securely fastening the side plates, A A, the gibs B, and the cutting tools C together.

The width of the side pieces, B', of the gib B is equal to the heights of the two offsets A' 65 of the side plates, A, and also corresponds with the thickness of the several cutting tools or blades C, so that when the several pieces are fitted together, as before described, a very compact hammer is provided.

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

1. In a bush-hammer, the side plates, A, each provided with the offset A', and the gibs B, each provided with the tongue B4, in combi- 75 nation with the cutting tools C, each having a recess, C', the bolts D, and the nuts E, substantially as shown and described.

2. In a bush-hammer, the combination, with the cutting-tools C and the gibs B, of the side 80 plates, A, each provided with the offset A', having a semicircular groove, A2, substan-

tially as shown and described.

3. In a bush-hammer, the combination, with the cutting-tools C and the side plates, A, of 85 the gibs B, each constructed with the side pieces, B', having semicircular grooves B2, and the cross-piece B3, provided with the tongue B4, substantially as shown and described.

4. In a bush-hammer, the combination, with the side plates, A, and the gibs B, of the cutting-tools C, each having a recess, C', which fits over a corresponding tongue in the gib, substantially as shown and described.

WILLIAM. OPPY.

Witnesses: JESSE WILKES, JAMES CAMERON.