

ROBERT MARSHALL.

Improvement in Punch and Dies for Finishing Umbrella-Staff Collars.

No. 126,470.

Patented May 7, 1872.

Fig: 1.

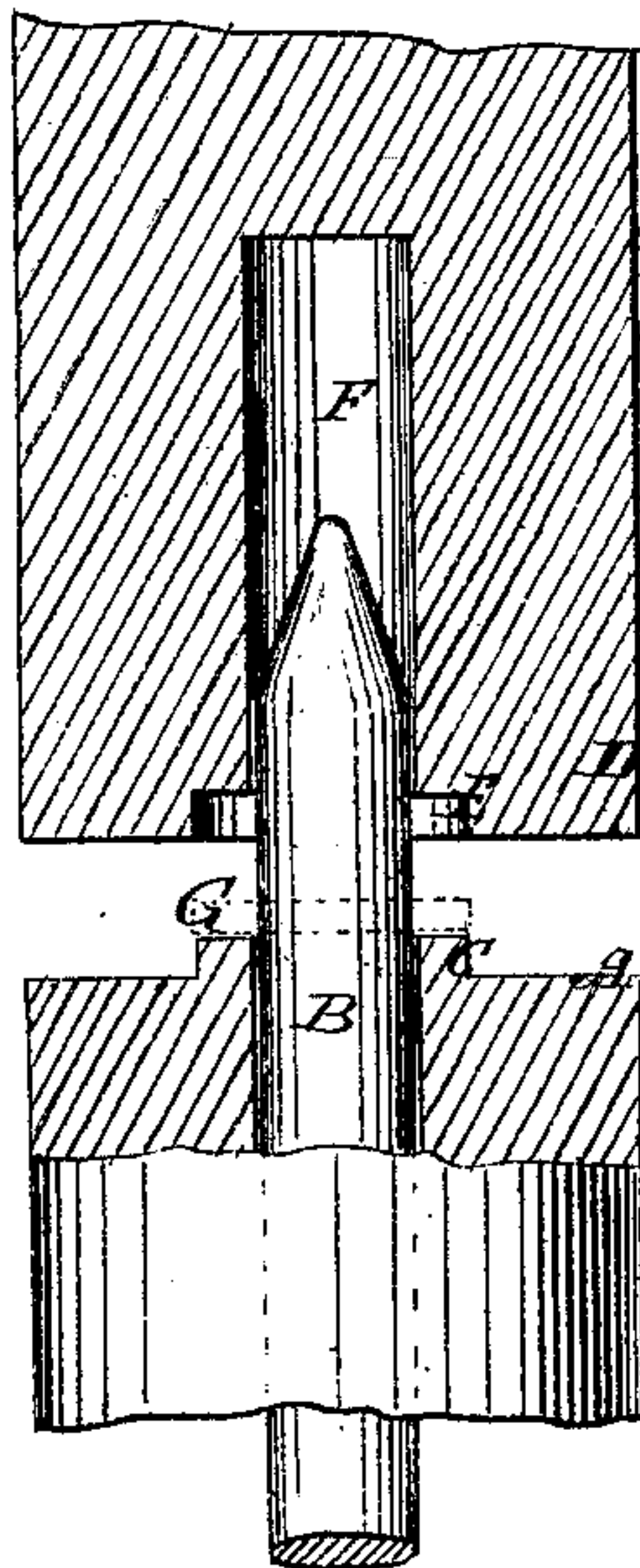
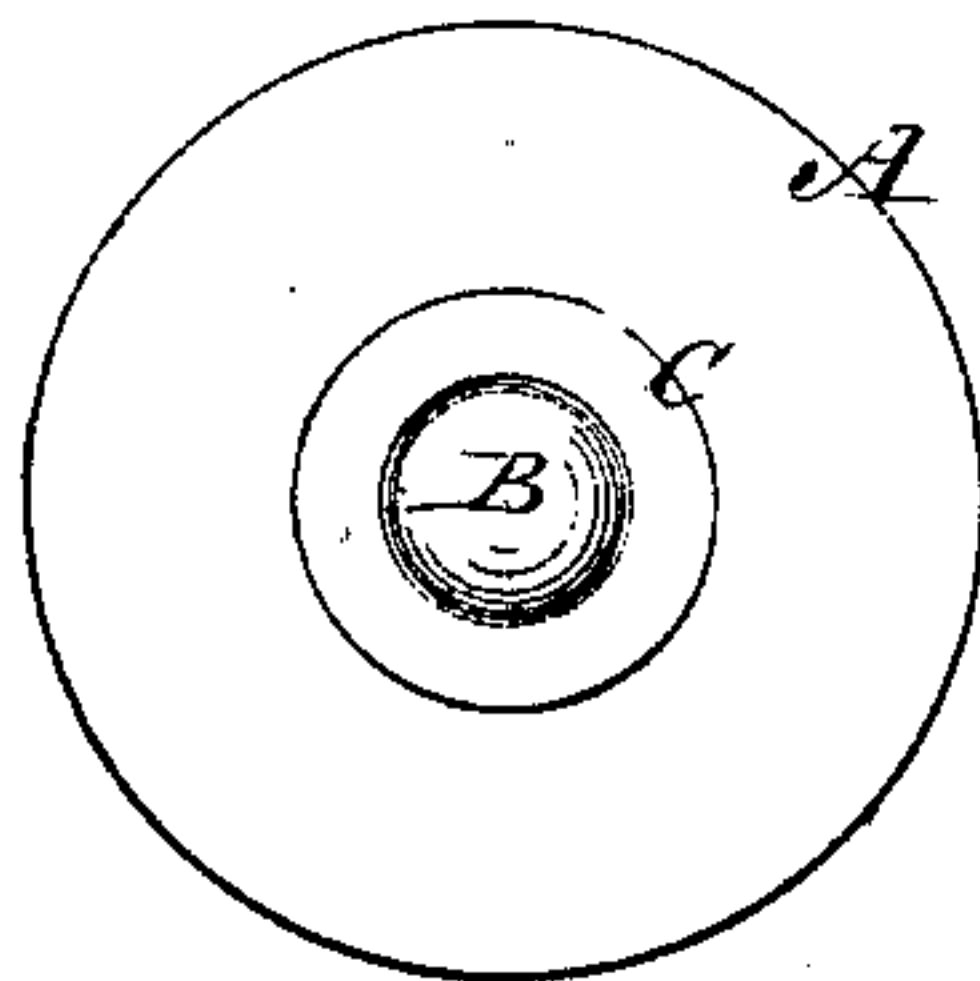


Fig: 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

ROBERT MARSHALL, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN PUNCHES AND DIES FOR FINISHING UMBRELLA-STAFF COLLARS.

Specification forming part of Letters Patent No. 126,470, dated May 7, 1872.

Specification describing a new and useful Improvement in Finishing Umbrella-Rib Collars, invented by ROBERT MARSHALL, of Philadelphia, in the county of Philadelphia and State of Pennsylvania.

The collars applied to the umbrella-stalks for the connection of the ribs at the upper ends have, up to this time, been made by casting and then finishing, so far as smoothing and truing the exteriors and finishing the hole for the staff is concerned, in a lathe, which involves considerable hand-labor, and, besides being objectionable on account of expense is also objectionable because of the difficulty of making them all of uniform size in that way. Now I propose, both for economy of labor and for having them all exactly to one standard size, to finish the said castings, as to the exterior, by dies, and to size the hole upon a mandrel, for which I use the dies represented in vertical section, and the mandrel in elevation in Figure 2, the lower die and mandrel being shown in plan in Fig. 2. The said lower or bed-die A has a hole through the center for the mandrel B, which is to finish the hole in the blank; and on its upper end is a raised portion, C, surrounding the hole, of the same size that the collar is to be when finished, and about as thick. D is a hollow punch, having a cavity, E, a little deeper than the thickness of the collar, and just large enough to close down over the part C. And it also has a long central hole, F, to allow it to drop down over the mandrel onto the blank, which is represented by dotted lines G, and is placed on the part C of die A, and centered by the point of

the mandrel coming up into its hole. The die D then comes down, and the mandrel continues to rise, so that the pointed part passes through the blank. Or it may rise before the die D comes down, and carry the blank up with it a short distance from the bed-die, to which it will be brought back again by the die D. The outer edge of the blank will be trimmed off by the dies D and C. The sides will be flattened and smoothed by compression between the bottom of cavity E and top of C, and the hole will be swelled out the right size by the mandrel B, all of which can be done at one blow, at a considerable saving of labor, and with certainty of having the collars of the same gauge. The bed-die A will, of course, be stationary, but the other and the mandrel will have suitable working-gear, such as common to such machines for working them, which need not be described.

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

The combination of the die D having cavity E and perforation F, the mandrel B, and stationary die A having raised portion G and central perforation, all constructed as described, for the purpose of trimming the edges and shaping the central hole of umbrella-staff collars, while the faces are at the same time flattened and smoothed in the manner set forth.

ROBERT MARSHALL.

Witnesses:

JOHN SHALLCROSS,
WM. H. SHALLCROSS.