

(No Model.)

H. W. PATTERSON & W. H. RYAN.
APPARATUS FOR POLISHING SHEARS, &c.

No. 464,584.

Patented Dec. 8, 1891.

Fig. 1

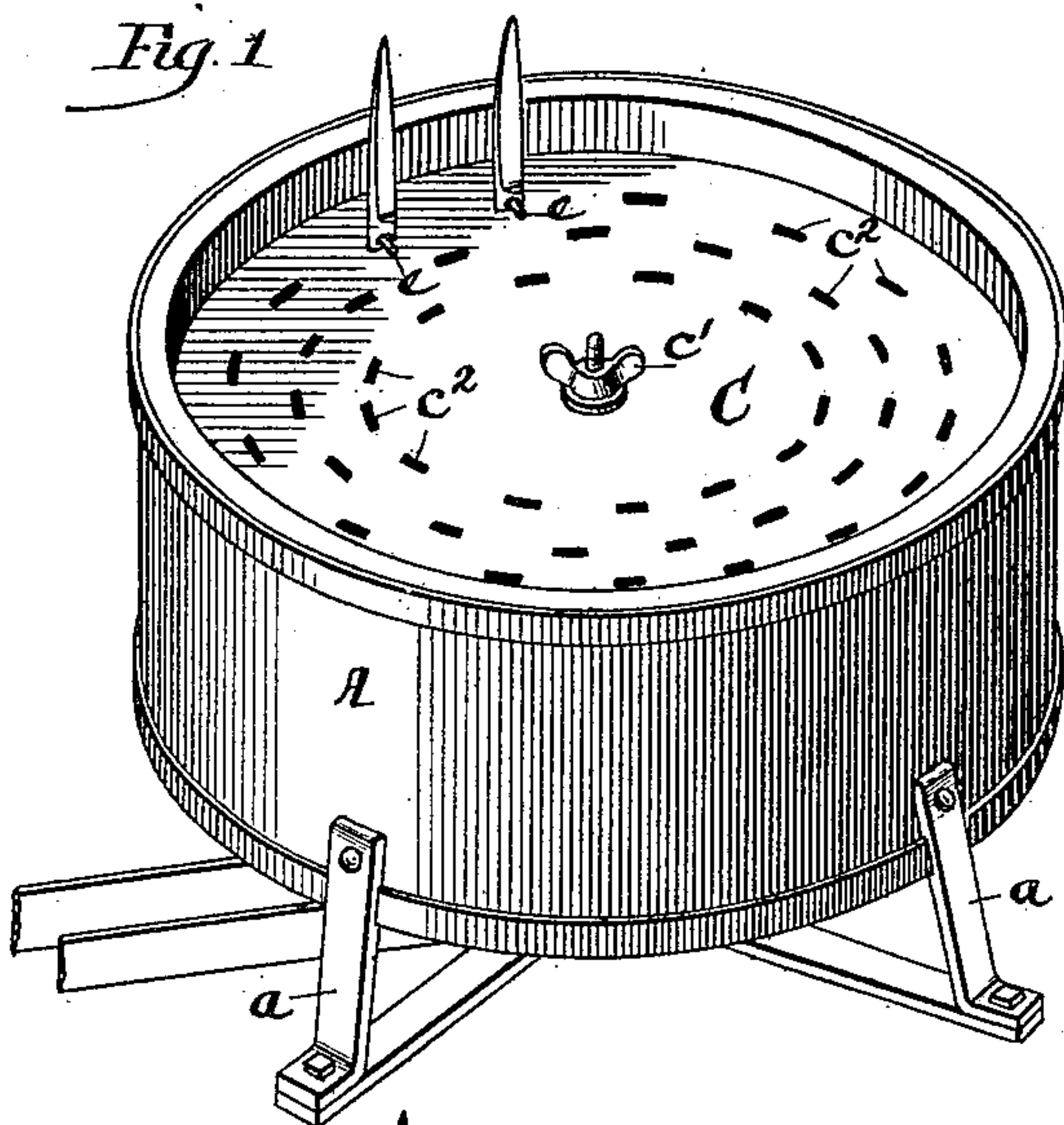
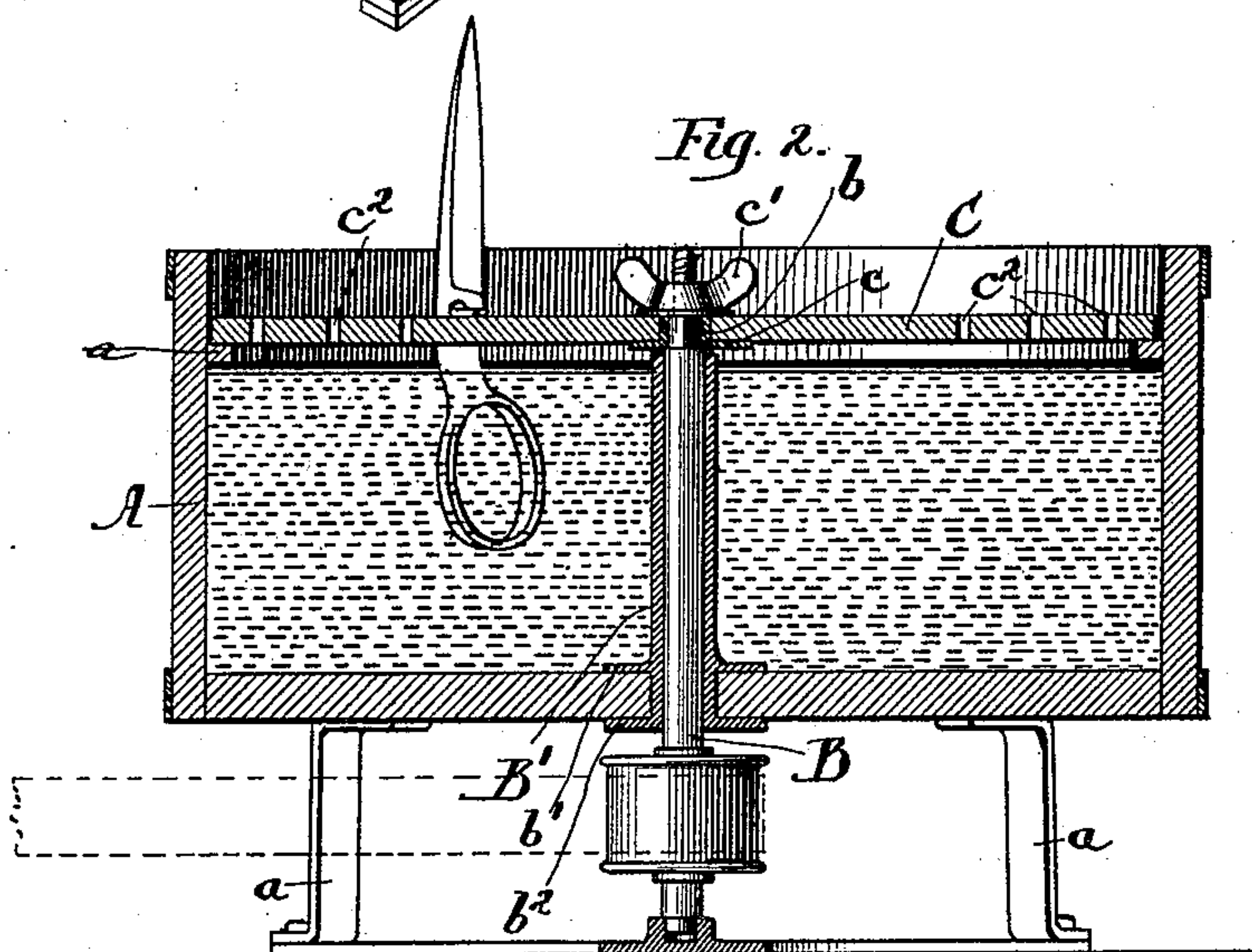


Fig. 2.



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HENRY W. PATTERSON AND WILLIAM H. RYAN, OF CHICAGO, ILLINOIS, ASSIGNORS OF ONE-THIRD TO WALTER P. HATCH, OF SAME PLACE.

APPARATUS FOR POLISHING SHEARS, &c.

SPECIFICATION forming part of Letters Patent No. 464,584, dated December 8, 1891.

Application filed July 25, 1891. Serial No. 400,737. (No model.)

To all whom it may concern:

Be it known that we, HENRY W. PATTERSON and WILLIAM H. RYAN, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Apparatus for Polishing Shears and other Articles, of which we do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

It has heretofore been the practice to polish the handles of shears by means of emery-tapes or the like; but this operation is a slow one and is attended with considerable expense.

The object of our present invention is, primarily, to provide an apparatus whereby the handles of shear-blades may be polished, although it will be readily understood that our invention is applicable to a variety of other purposes.

Our invention consists in the novel features of construction hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the claims at the end of this specification.

Figure 1 is a perspective view, and Fig. 2 is a view in central vertical section, through an apparatus embodying our invention.

A designates a tank or receptacle of suitable shape and size to receive the abrading or polishing material. This material may consist of an emery composition, either in powder or liquid form, or any other material adapted for the specific use for which the apparatus is employed. The tank or receptacle A is supported upon legs or standards *a*, and through this tank extends a drive-shaft B, that serves to impart movement to a holder C, whereby the shear-blades or other articles to be polished will be carried. The upper end of the shaft B is squared, as at *b*, to fit into a sleeve *c* of the holder C, this sleeve having a squared opening to engage the upper end of the shaft, and the extreme end of the shaft B is screw-threaded to receive a hand-nut *c'*. In order to protect the shaft B in case this shaft is extended through the tank A, we prefer to provide the shaft with a sleeve B', within which the shaft can revolve, this sleeve serving to protect the shaft against

wear incident to contact with the abrading material. The sleeve B' may extend through the bottom of the tank A and may be provided with a flange *b'* and with an outer flange *b²* to retain the sleeve B' securely in position upon the bottom of the tank. The holder C is provided with the series of openings of any convenient shape or size to permit the shear-blades to be passed through the same, and these blades will be conveniently held in place by pins *e* or by any suitable form of clamps. Preferably the tank A is provided near its top with a rib *a'*, which will serve to prevent the material within the tank from being forced above the edges of the holder as the holder is revolved.

From the foregoing description the operation of our improved apparatus will be seen to be as follows: When the handles of the shear-blades are to be polished, the blades will be passed through the openings *c²* of the holder C, after which the holder will be set upon the squared end of the shaft B, and will be securely held thereon by means of the hand-nut *c'*. Rotation will then be imparted to the holder C through the shaft B and its pulley, causing the handles of the shear-blades to be run through the abrading material within the tank.

In polishing the shear-blades we have found in practice that it is desirable to reverse the direction of travel of the holder C in order to reach and uniformly polish all the surfaces of the handles of the blades. After the shear-blades have been subjected to the action of the abrading material for a length of time sufficient to impart to them the desired polish the holder C will be removed and the shear-blades will be withdrawn therefrom.

It is manifest that the precise shape of holder and means for retaining the shear-blades or like articles in place thereon may be varied within wide limits without departing from the spirit of our invention.

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

1. In apparatus for polishing shear-blades and other articles, the combination of a tank or receptacle for the abrading material, a holder for sustaining the shear-blades or like

articles to be polished, and means for imparting movement to said holder, substantially as described.

2. In apparatus for polishing shear-blades
5 and other articles, the combination of a tank or receptacle for the abrading material, a holder for sustaining the shear-blades or like articles to be polished, and a shaft connected to said holder for imparting rotation thereto,
10 substantially as described.

3. In apparatus for polishing shear-blades and other articles, the combination of a tank or receptacle for the abrading material, a holder for sustaining the shear-blades or like
15 articles to be polished, a shaft connected to said holder for imparting rotation thereto, and a sleeve incasing said shaft to protect the

same from the action of the abrading material, substantially as described.

4. In apparatus for polishing shear-blades 20 and other articles, the combination of a tank A for the abrading material, a holder C, having perforations therein to receive the shear-blades, a shaft B, to which said holder is detachably connected, said shaft extend- 25 ing upwardly through said tank, and a sleeve B', inclosing said shaft, substantially as described.

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