

H. James,

Adjustable Reamer.

No. 88,389.

Patented Mar. 30. 1869.

Fig. 1.

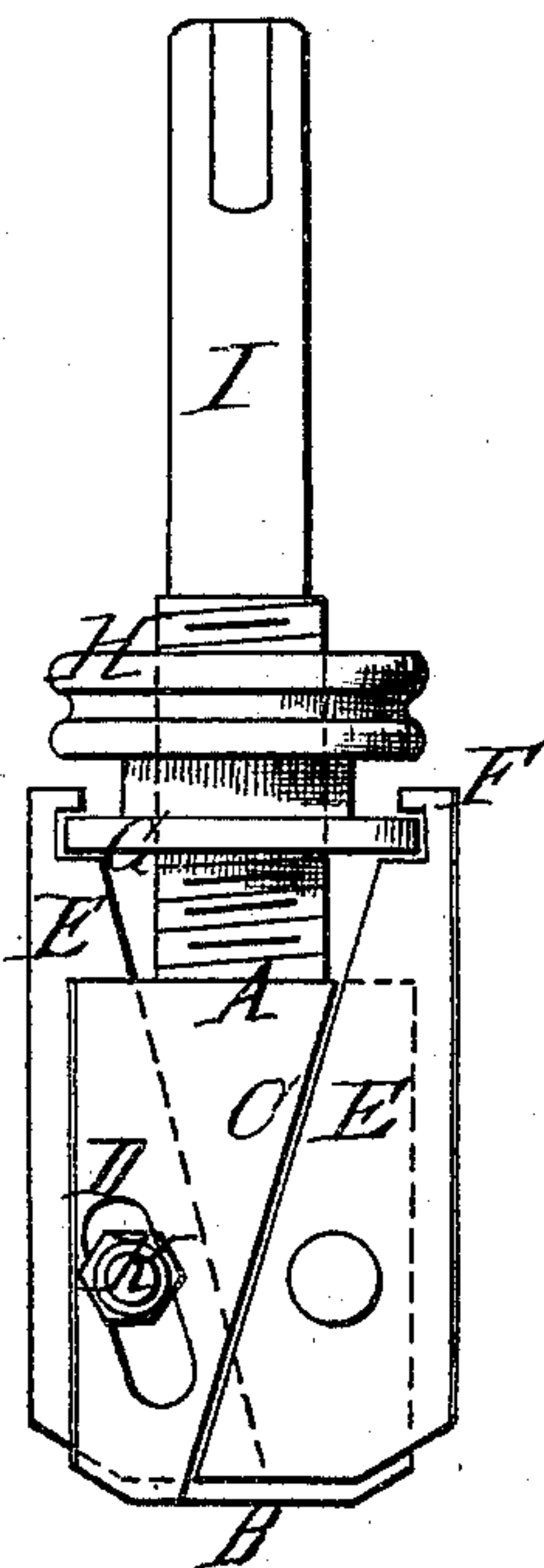


Fig. 2.

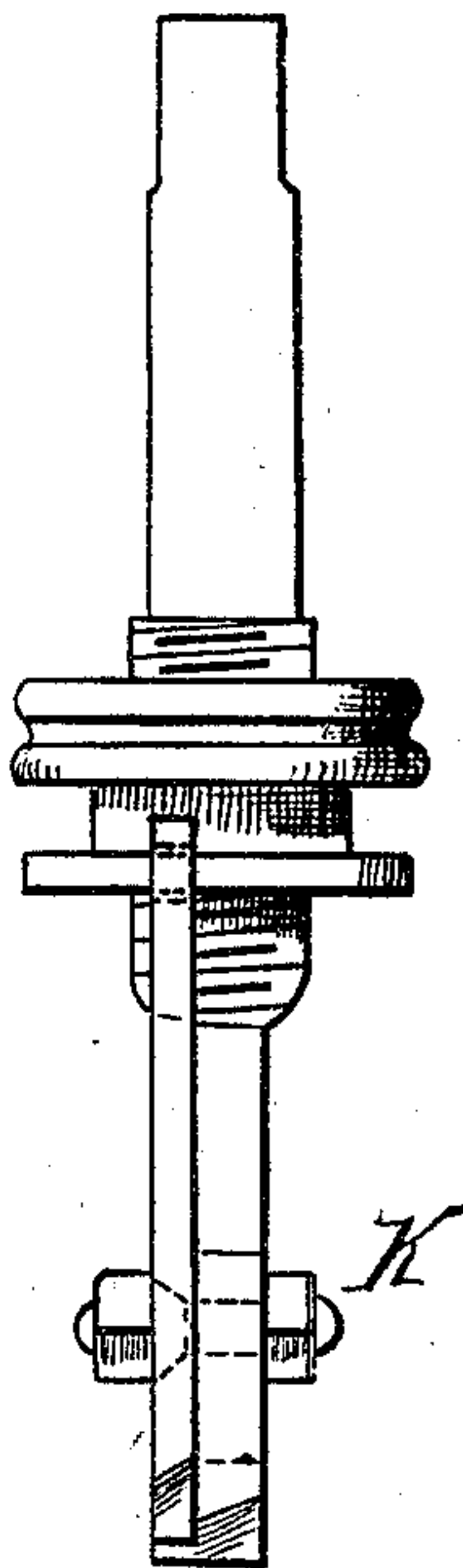
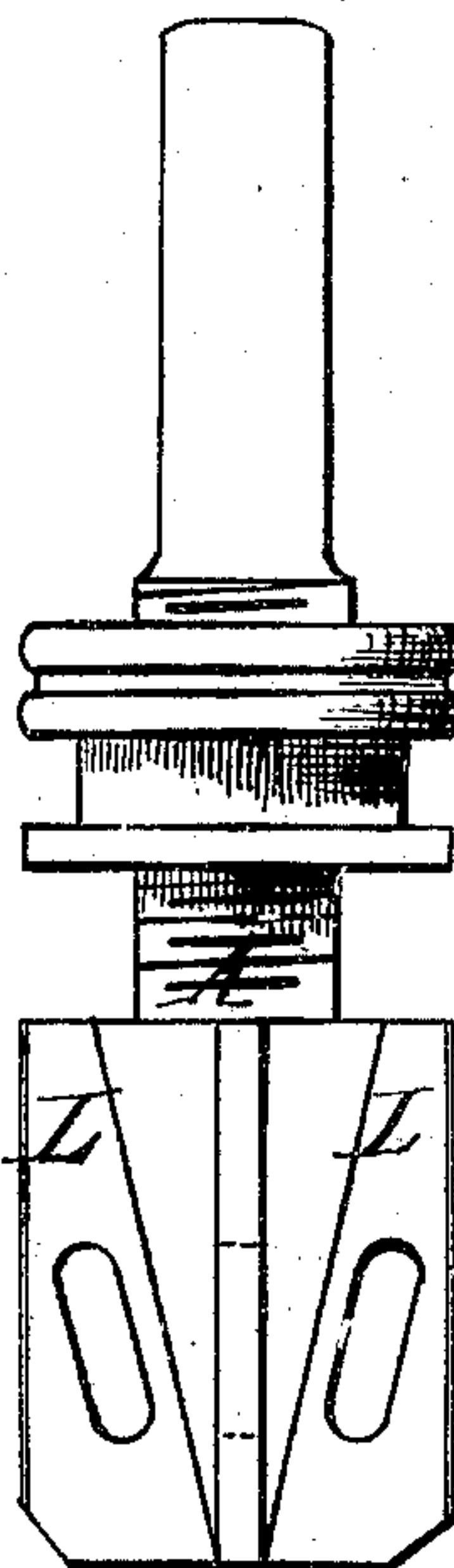


Fig. 3.



Witnesses
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HENRY JAMES, OF HUDSON, NEW YORK, ASSIGNOR TO HIMSELF
AND WILLIAM H. GIFFORD, OF THE SAME PLACE.

Letters Patent No. 88,389, dated March 30, 1869.

IMPROVED ADJUSTABLE REAMER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, HENRY JAMES, of Hudson, in the county of Columbia, and State of New York, have invented a new and useful Improvement in Adjustable Reamers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in adjustable reamers; and

It consists in providing the stock, or shank of a reamer, with a flat head, having recesses adapted to receive the cutters, adjusted by a screw-nut, and attached to the slotted wings, or recessed portions of said head, by means of bolts, as will be hereinafter more fully described.

Figure 1 represents a side elevation of my improved reamer, when arranged to carry two cutters;

Figure 2 is also a side elevation, taken at right angles to fig. 1; and

Figure 3 represents an elevation of a stock, as arranged for three or more cutters.

Similar letters of reference indicate corresponding parts.

A represents the stock, having a flat end arranged for two cutters, each face of the flat end being rebated, or recessed at one side, to form the seats for the cutters, as represented at B, the walls of the said recesses, against which the inner edges of the cutter bear, being inclined, as represented at C; and slots, D, are made through the recessed portions of the part A, also inclined, to agree with the walls D.

E represents the cutters, the inner edges of which

have inclinations, also, corresponding to the walls D, and bear against them.

They have also notches, F, at their upper ends, taking over the annular ring G, of the nut H, screwing back and forth on the shank I of the stock.

The said cutters are attached to the stock, and held in the said recesses by bolts, K, passing through holes therein and the slots in the stock.

The movement of the nut H, in either direction, will cause a corresponding movement of the cutters, as will be readily understood.

The bolts may, if found necessary, be tightened up, after the cutters have been adjusted to the right position, to prevent chattering.

The modification of my invention shown in fig. 3, represents a reamer having a conical head, with wings, or flanges, L, the slots in the latter being parallel to the sides of the cone, and the cutters correspondingly curved on their inner inclined edges. This construction is necessary only when it is desired to use more than two cutters.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The stock A, having the flat head C recessed, to receive the cutters E E, attached thereto by the bolts K, working in the inclined slots D, formed in the wings, or recessed portions of said head, and adjusted by the nut H, on the shank I, all constructed as herein set forth, for the purpose specified.

HENRY JAMES.

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