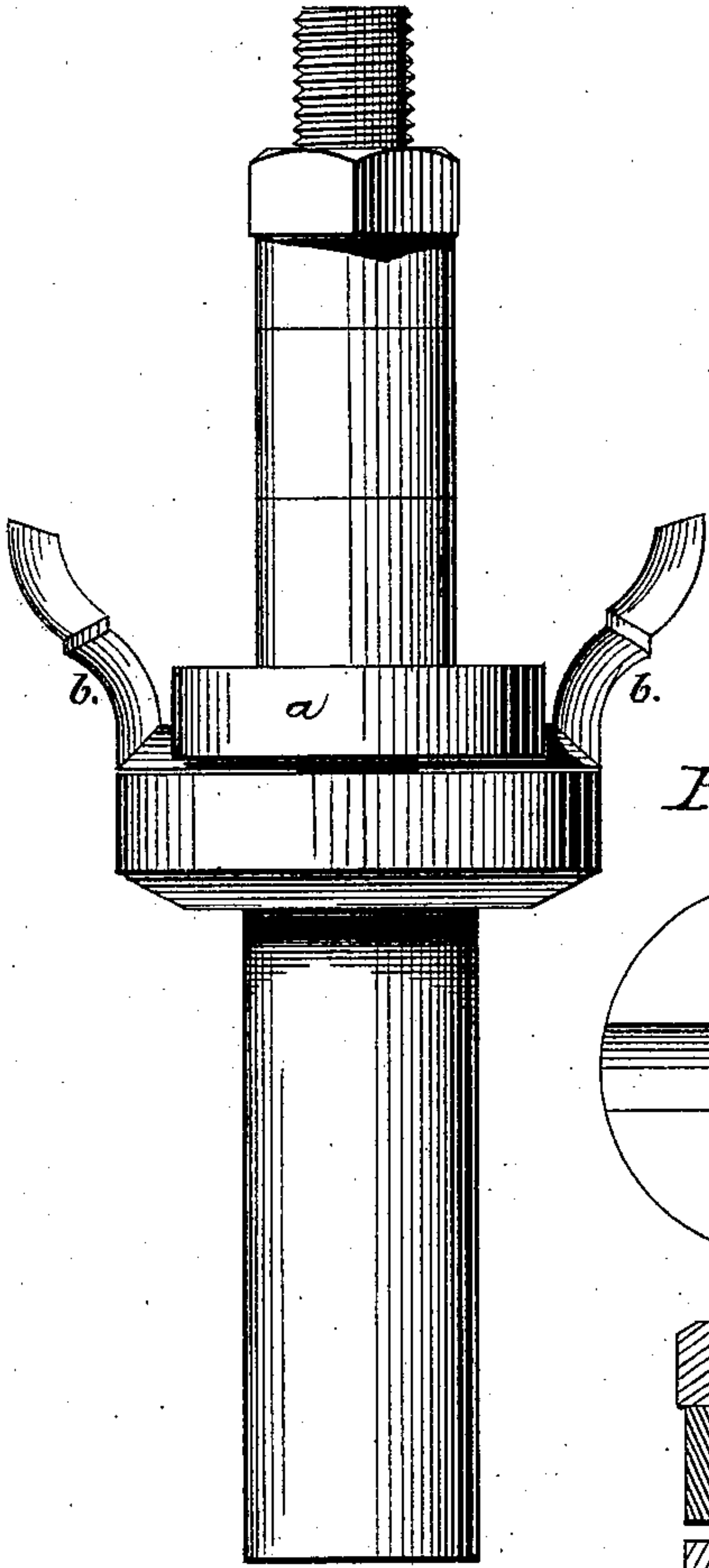


A. LINDBLAD.  
Cutter-Heads.

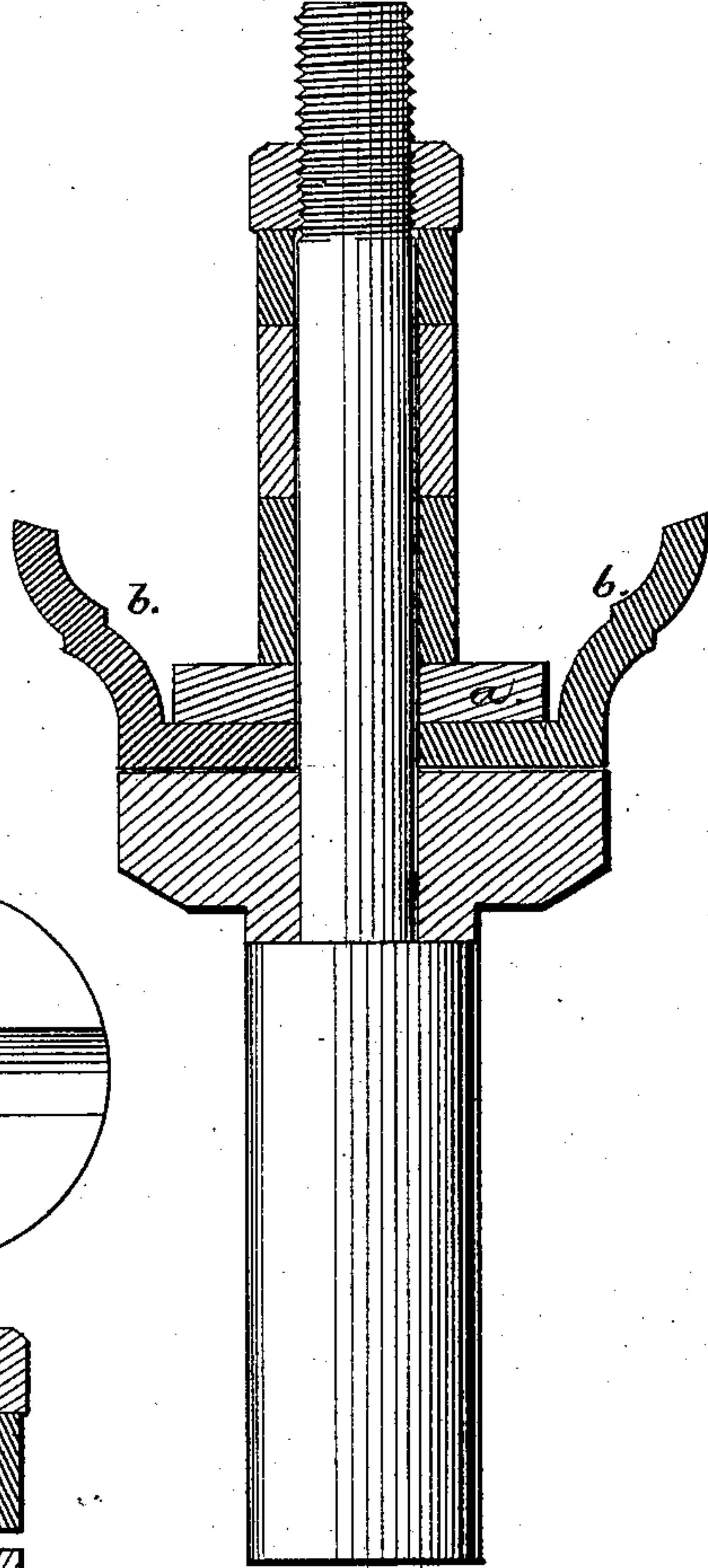
No. 200,316.

Patented Feb. 12, 1878.

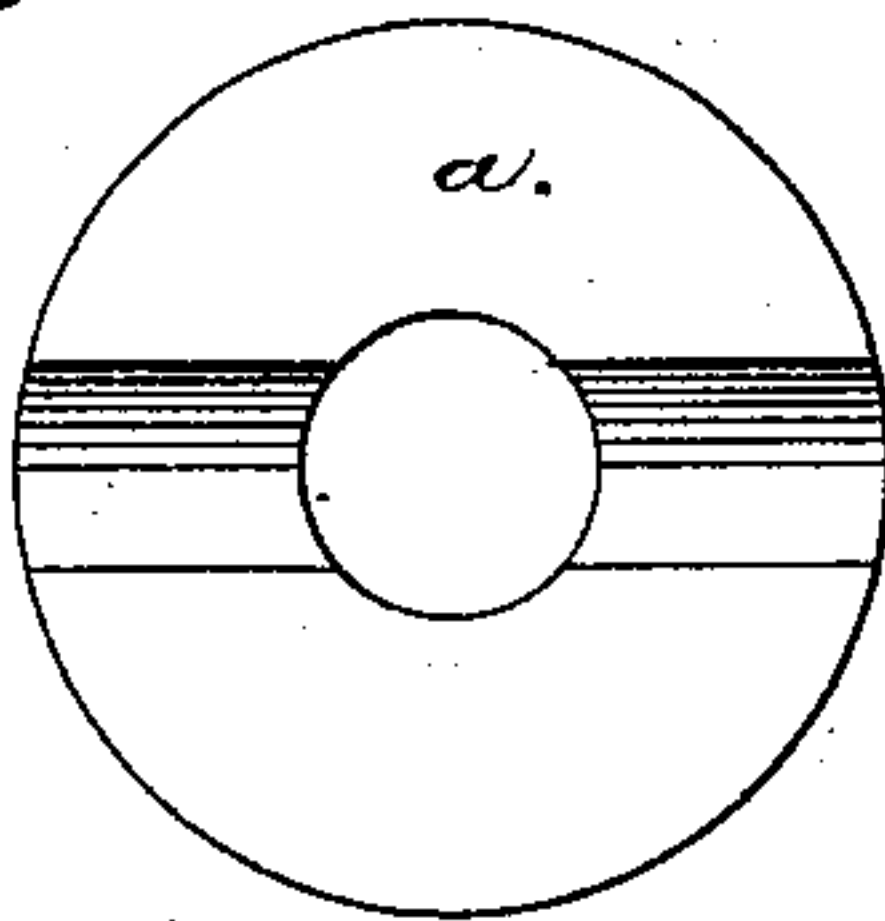
*Fig. 1.*



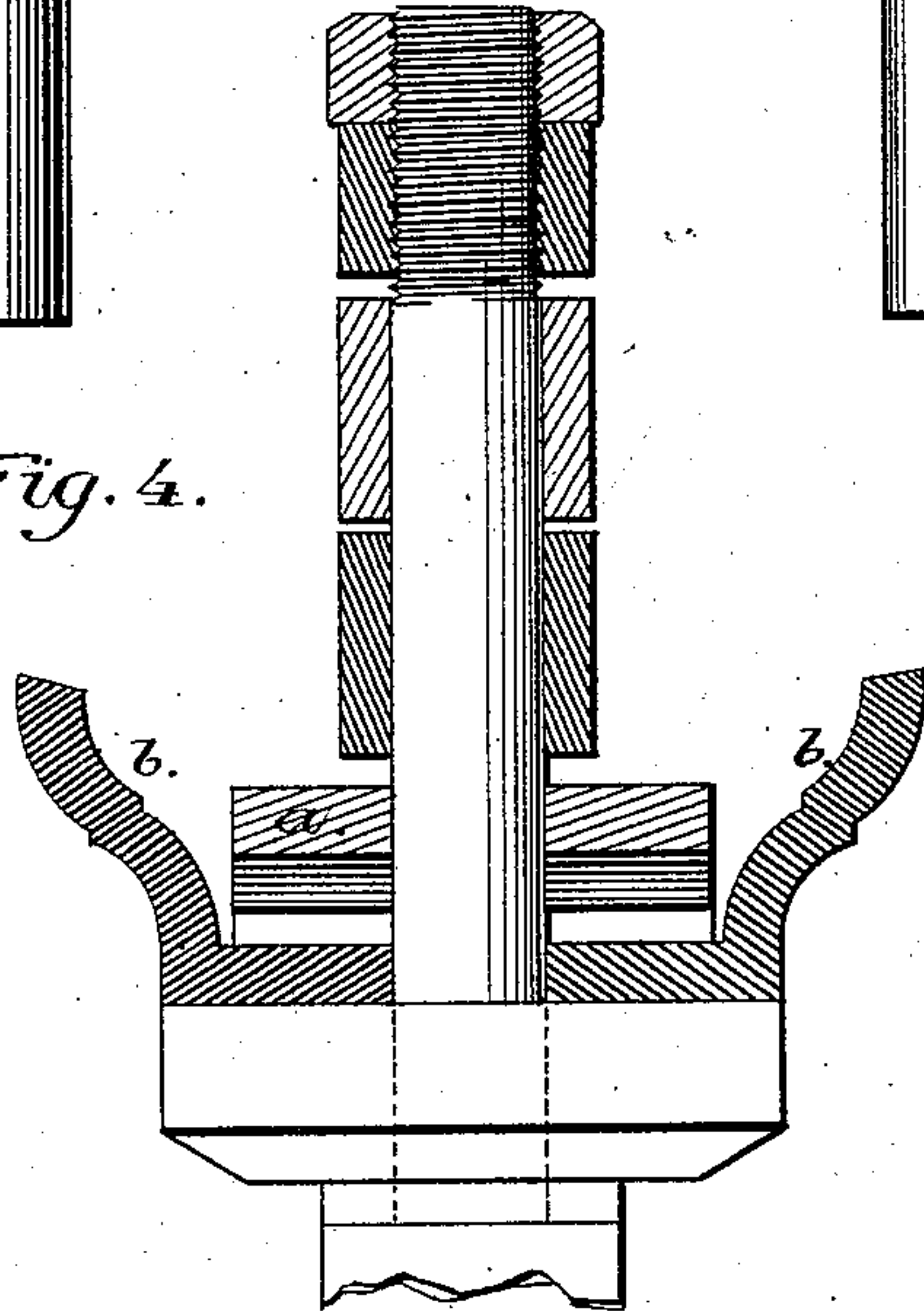
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses:

J. B. Meredith  
J. P. Moon

Inventor:

Alex Lindblad

# UNITED STATES PATENT OFFICE.

OLOF LINDBLAD, OF JAMESTOWN, NEW YORK.

## IMPROVEMENT IN CUTTER-HEADS.

Specification forming part of Letters Patent No. **200,316**, dated February 12, 1878; application filed August 11, 1877.

*To all whom it may concern:*

Be it known that I, OLOF LINDBLAD, of Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Cutter-Heads; 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 which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of my invention is to overcome the difficulty experienced in holding reversible (sectional) molding-cutters, so that they shall under all circumstances cut equally free both ways when the revolving cutter-head is reversed. To accomplish this I (instead of making the groove square or rectangular, as heretofore used, which will not hold the cutter true when, by use and wear, it becomes loose) make the groove running across the center of one of the collars, between which the cutters are held, V-shaped, and also by making the shanks of the cutters of the same shape

to fit in the groove. It also has the advantage that large cutters having a wide shank can be held in the same groove as smaller ones, thereby saving the expense of additional collars.

In the accompanying drawings, Figure 1 shows the cutter-head complete. *a* is the grooved collar, and *b b* are the cutters. Fig. 2 is a sectional view of the same, showing the shanks of the cutters *b b*. Fig. 3 shows the under side of the collar *a*, with the V-shaped groove running across it. Fig. 4 also is a sectional view, showing the cutters *b b* in position, and the grooved collar *a* as lifted up.

I claim—

The collar *a*, having a V-shaped groove running centrally across its side, in combination with reversible (sectional) cutters, as set forth in the above specification.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

OLOF LINDBLAD.

Witnesses:

J. T. MOON,

J. C. MEREDITH.