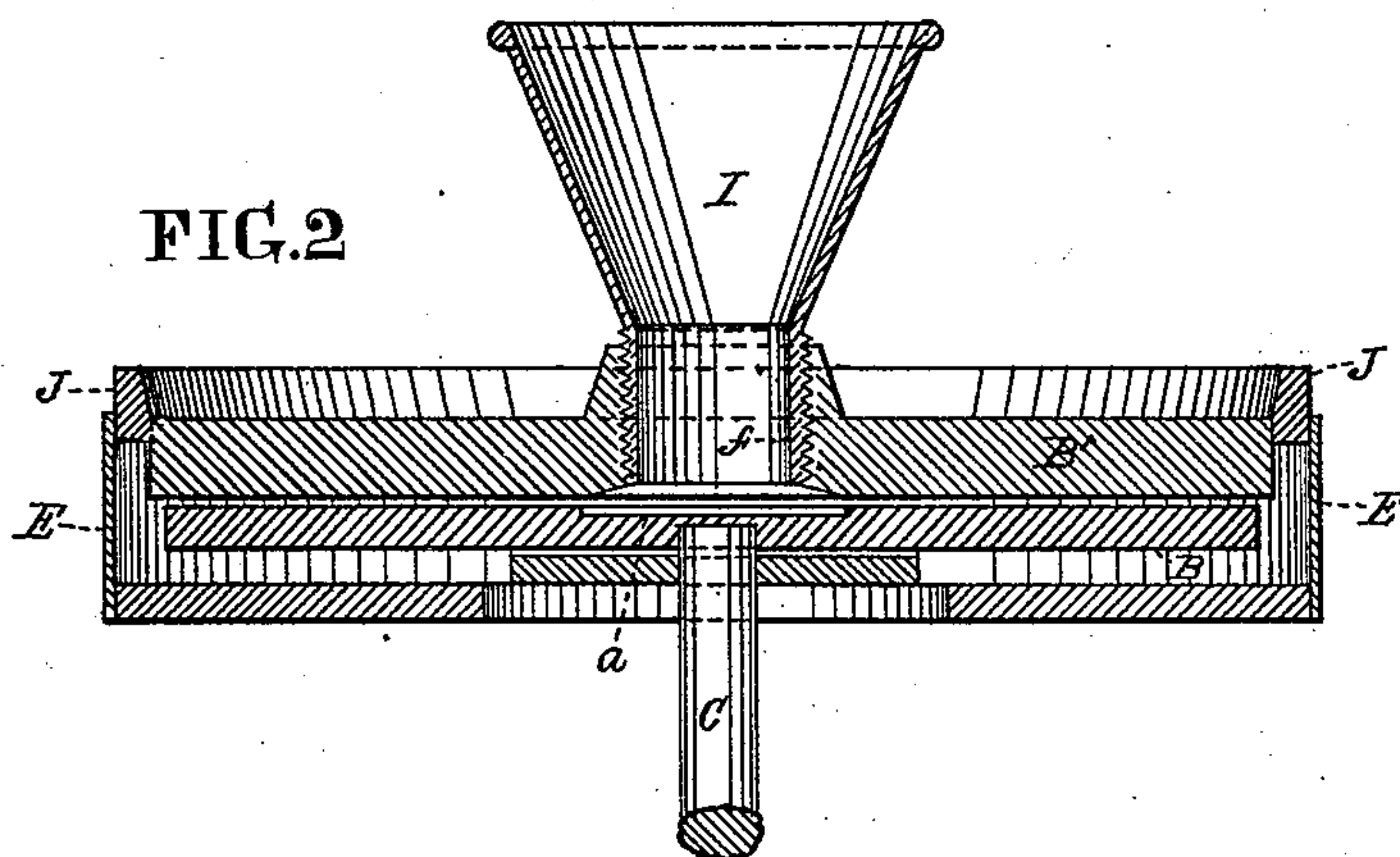
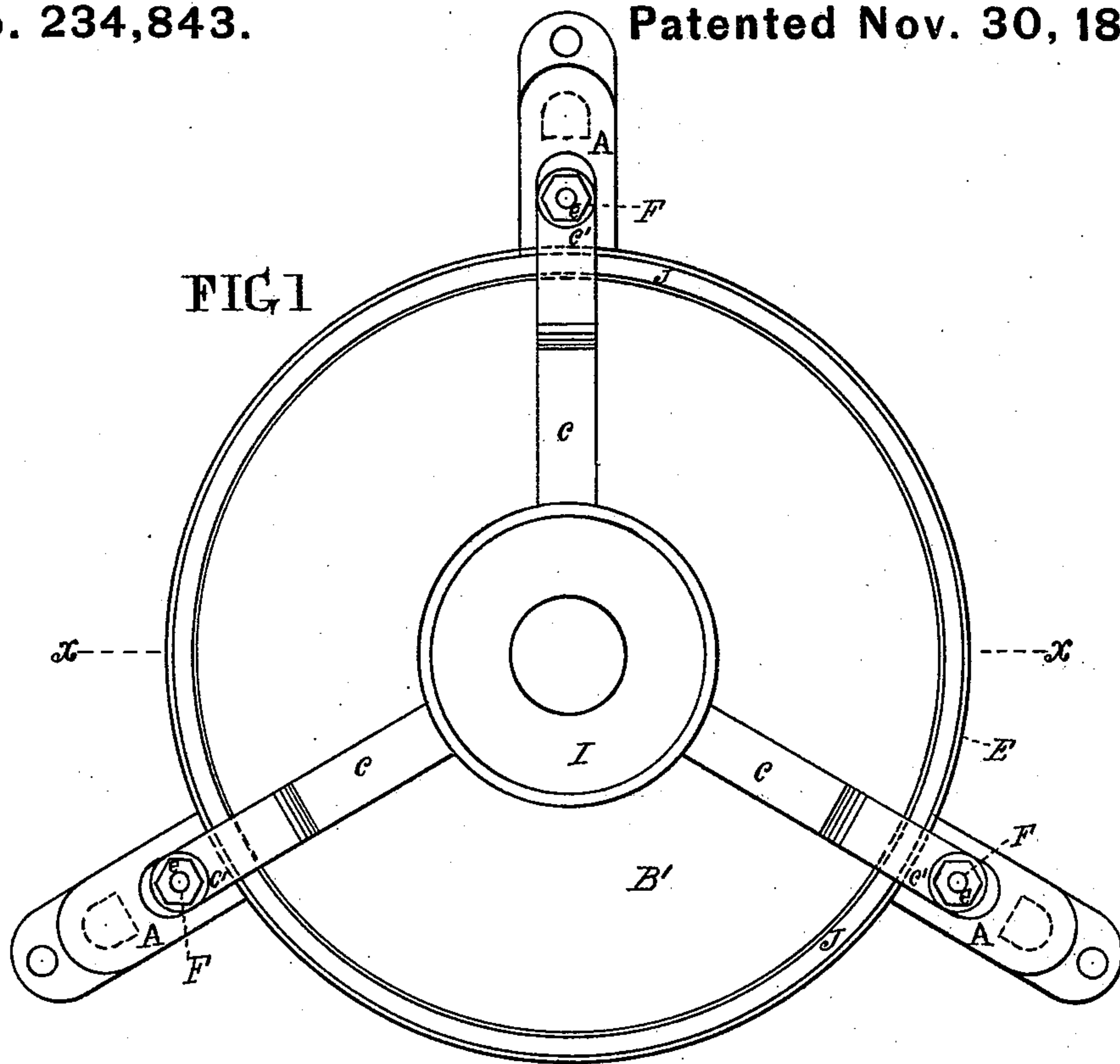


J. ANSHUTZ.

Machine for Cleaning and Treating Bran.  
No. 234,843.

Patented Nov. 30, 1880.



Witnesses

Thomas J. Bewley

William S. Morris

Inventor

Jacob Anshutz

per Stephen Ustick, attorney

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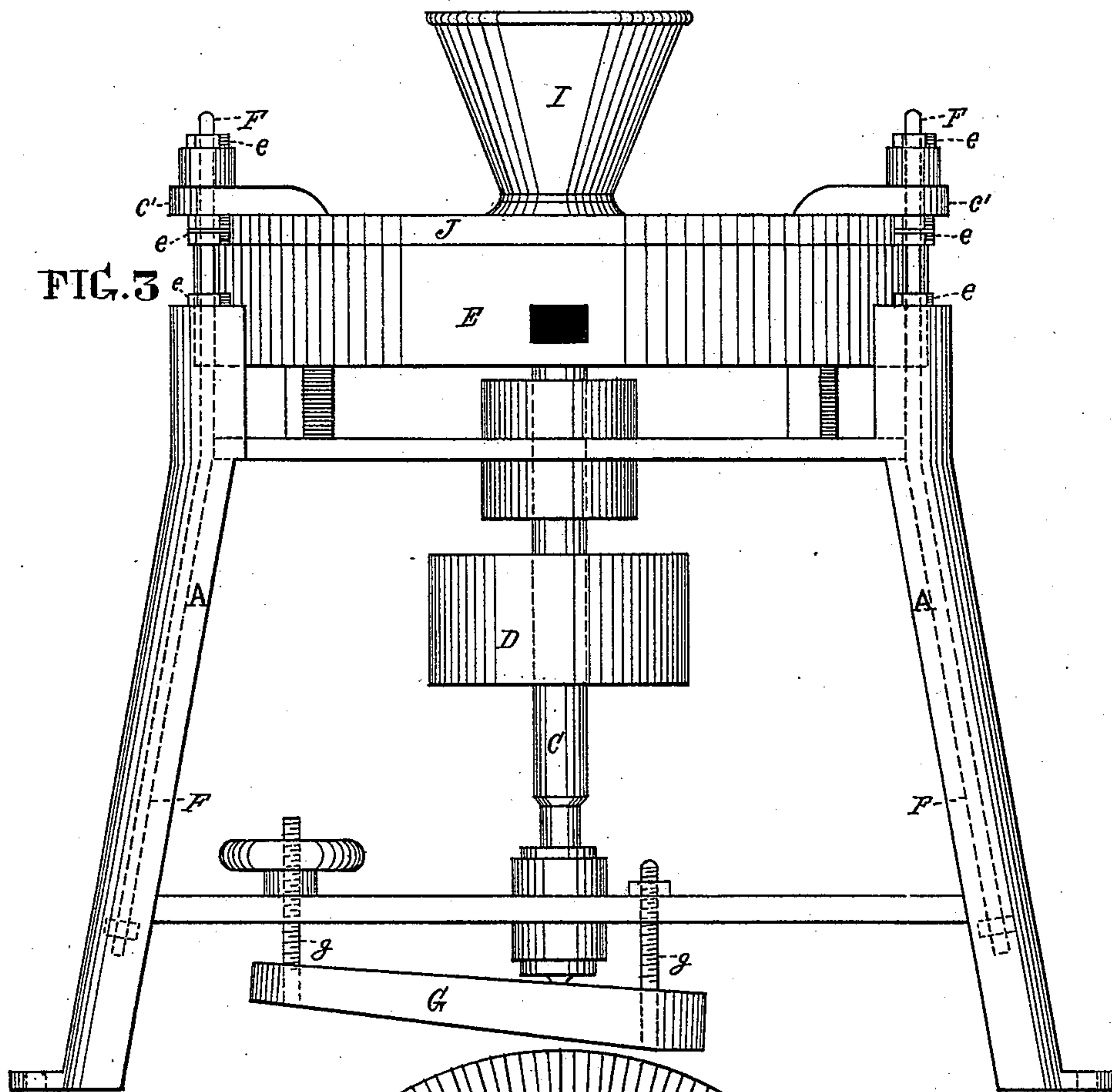


FIG. 4

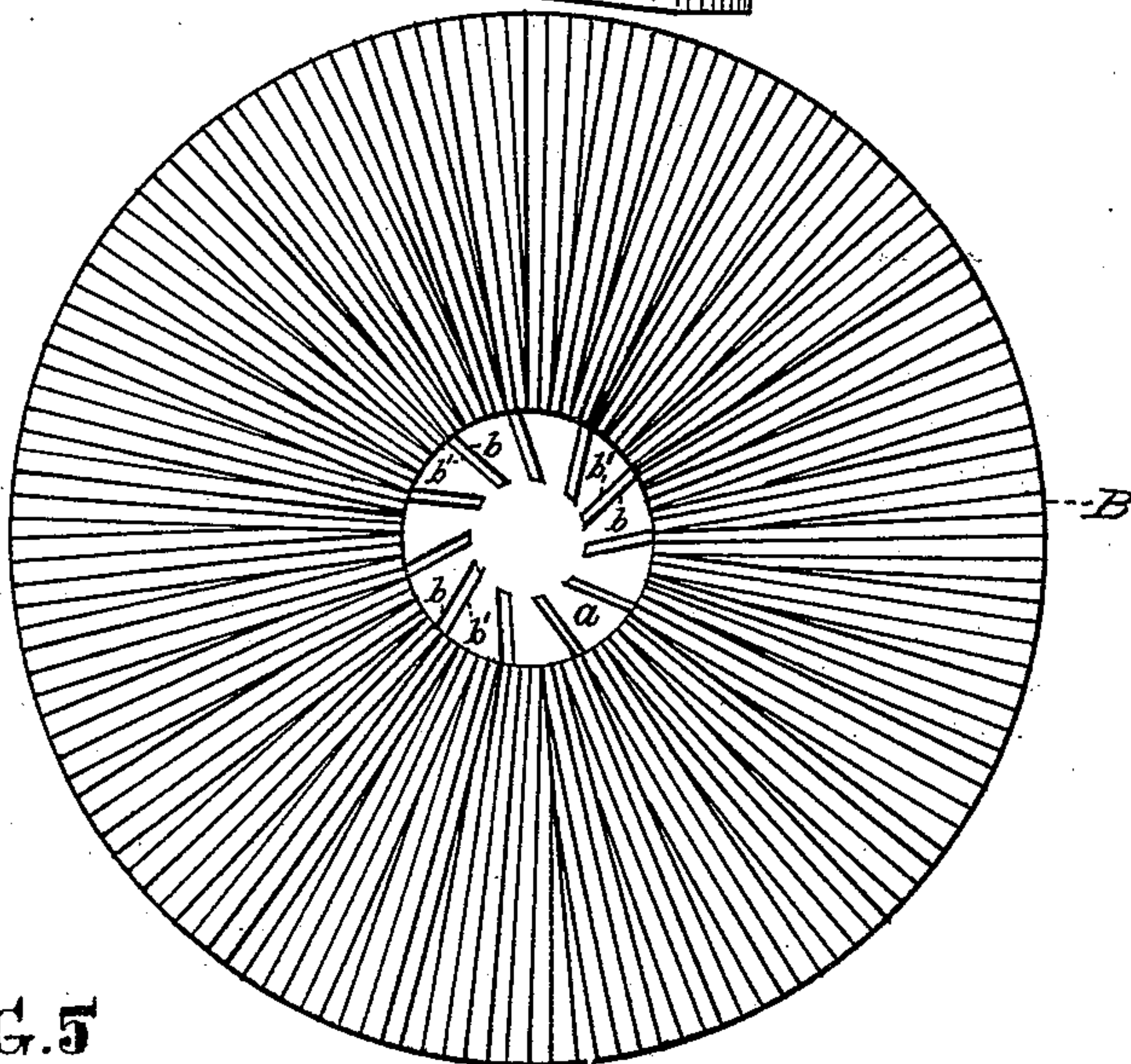
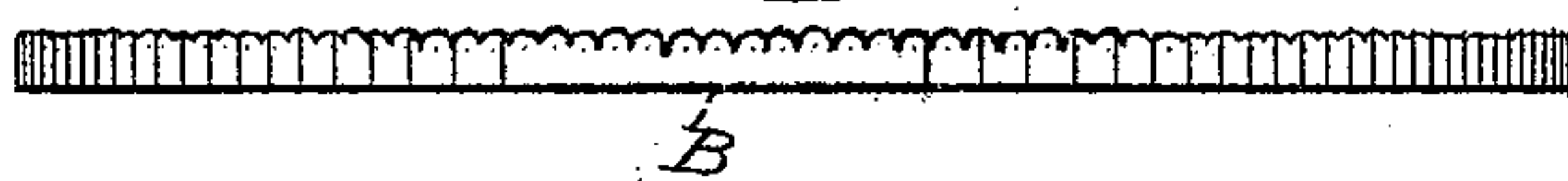


FIG. 5



Witnesses

Thomas J. Dewley.

William S. Morris

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# UNITED STATES PATENT OFFICE.

JACOB ANSHUTZ, OF PHILADELPHIA, PENNSYLVANIA.

## MACHINE FOR CLEANING AND TREATING BRAN.

SPECIFICATION forming part of Letters Patent No. 234,843, dated November 30, 1880.

Application filed January 19, 1880.

*To all whom it may concern:*

Be it known that I, JACOB ANSHUTZ, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Machines for Cleaning and Treating Bran, of which the following is a specification.

My invention relates to a pair of disks made of iron or other suitable material, the upper disk having a flat grooved face extending from its eye to its periphery, the grooves running radially, or nearly so, and the lower disk having a like grooved face parallel, or nearly so, with the face of the upper disk, there being a central depression in the lower disk, provided with radial inclines for forcing the bran as it falls thereon from the hopper onto the main grooved face of this disk, to be rubbed between the two disks for cleaning it, as hereinafter described.

In the accompanying drawings, which make a part of this specification, Figure 1 is a plan or top view of my improved machine. Fig. 2 is a vertical section of the disk B and B' and hopper I through the broken line *x x* of Fig. 1. Fig. 3, Sheet No. 2, is a front elevation of the machine. Fig. 4 is a top view of the lower disk or runner, B. Fig. 5 is an edge view of the runner B.

Like letters of reference in all the figures indicate the same parts.

A represents the standing frame of my improved machine. B is the lower disk or runner, and B' the upper disk. The lower disk, B, has a central part of about the same diameter as the eye of the upper disk, B', which is slightly depressed, and has grooves arranged almost radially, having vertical edges *b* and inclined sides *b'*. The remaining and main surface of the disk is composed of small grooves arranged radially, or nearly so. The face of the disk is represented in Fig. 4, in which the main grooved surface and the central depression having radial inclines are illustrated. The face of the upper disk is provided with radial grooves in the same manner as the outer and main surface of the lower disk.

C is the shaft of the lower disk, B, which is provided with the driving-pulley D.

E is the retaining-hoop around the disks B B'. The latter disk, B', has strengthening-ribs *c c c*, which are radially arranged and confined to the upper side of the disk by means of screws *d*.

The projecting ends *c' c' c'* are connected with the vertical screw-rods F F F, the lower ends of which have a permanent connection with the frame A, as seen in Fig. 3. The disk has a vertical adjustment by means of the nuts *e* on said rods.

There are india-rubber or other springs G between the projections *c'* and the upper nuts, *e*, to admit of the upper disk, B', yielding upward when any hard or foreign substance accidentally gets between the faces of the two disks, or when too great a feed of the bran may be given; or, in case of expansion of the metal by overheating, the disks may be drawn too close together, whereby the breaking or overstraining of the machine is prevented.

I is the hopper through which the bran is fed to the disks. It is provided at its lower side with a tubular extension, *f*, which has a screw-thread on its periphery that connects with a screw-thread in the eye of the disk B', whereby the hopper has a vertical adjustment for varying the distance between the end of said extension and the face of the lower disk, B, for regulating the feed of the bran.

The vertical adjustment of the lower disk, B, is made by means of the lever G, as seen in Fig. 3, and the adjusting-screws *g g*. As this is an ordinary mode of adjustment, a further description is deemed unnecessary.

J is a ring in the annular space between the periphery of the disk B' and the retaining-ring E.

The operation of the mill is as follows: As the bran is fed through the hopper I onto the central surface of the disk B, and the latter revolves in the direction of the arrows, the inclines *b'*, in connection with the centrifugal force of the disk, impel it outward upon the main surface of the disk, where it is thor-

oughly rubbed between the surfaces of the two disks as it passes outward to their peripheries.

I claim as my invention—

5 The improved bran - cleaner herein described, having the disks radially lined with the semi-cylindrical flutes or ripples extending nearly to the eye, as shown, and the

lower disk or runner having a small central depression provided with the inclines  $b'$ , all 10 substantially as shown and described.

JACOB ANSHUTZ.

Witnesses:

THOMAS J. BEWLEY,  
STEPHEN USTICK.