

No. 706,645.

Patented Aug. 12, 1902.

C. B. ENGLISH & J. W. THOMPSON.

GRIT MILL.

(Application filed Jan. 7, 1902.)

(No Model.)

FIG. 1

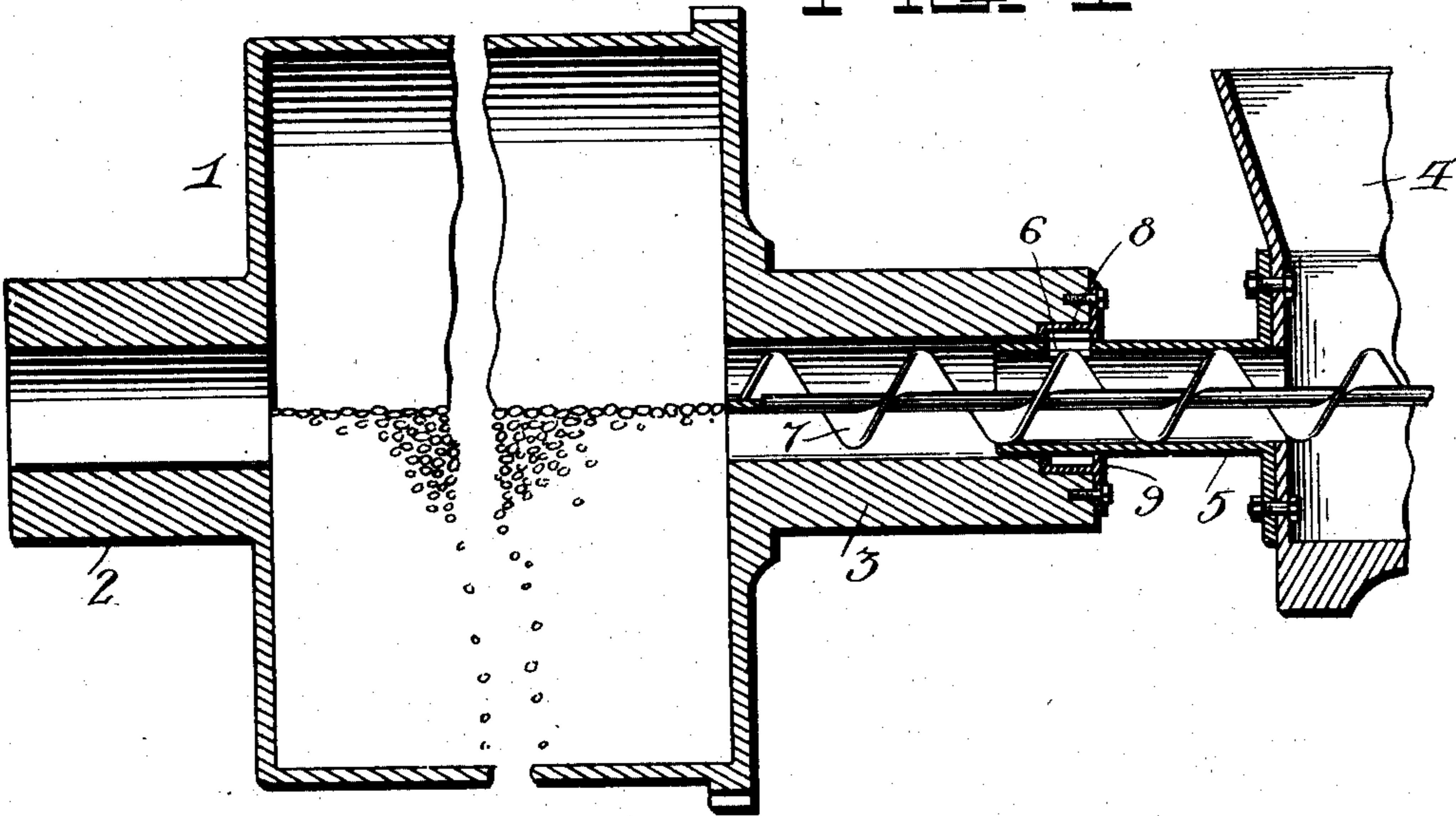


FIG. 2

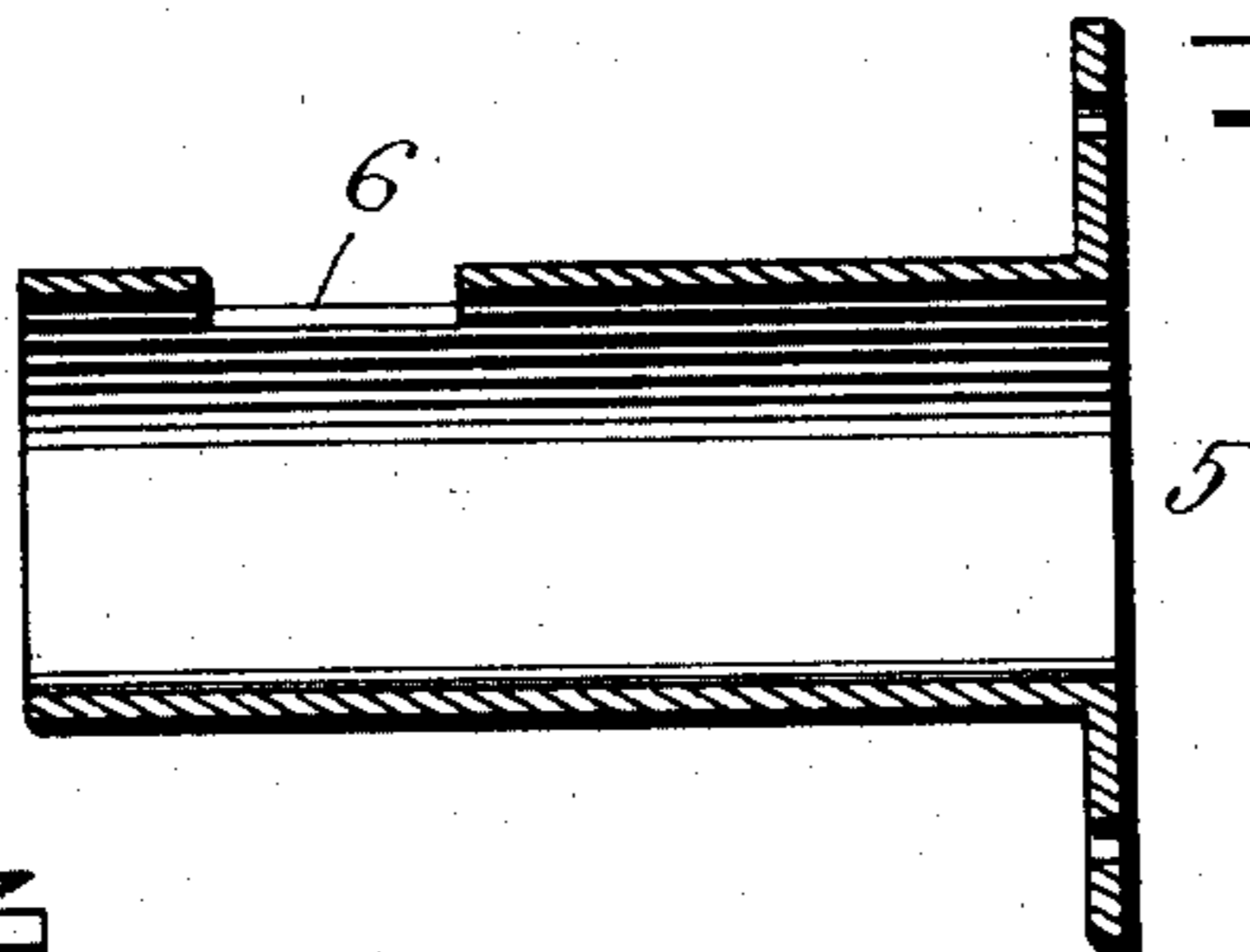


FIG. 3

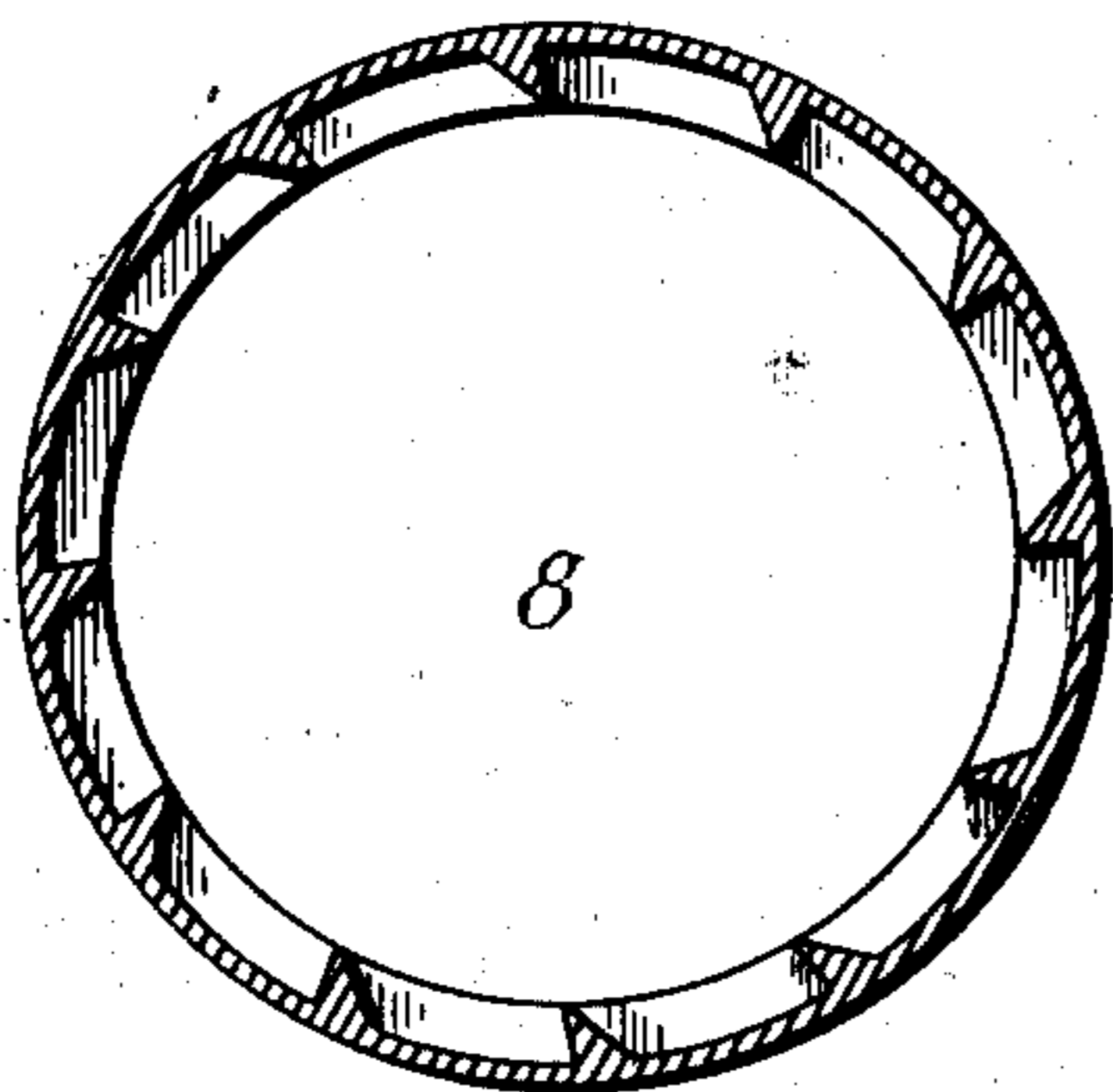
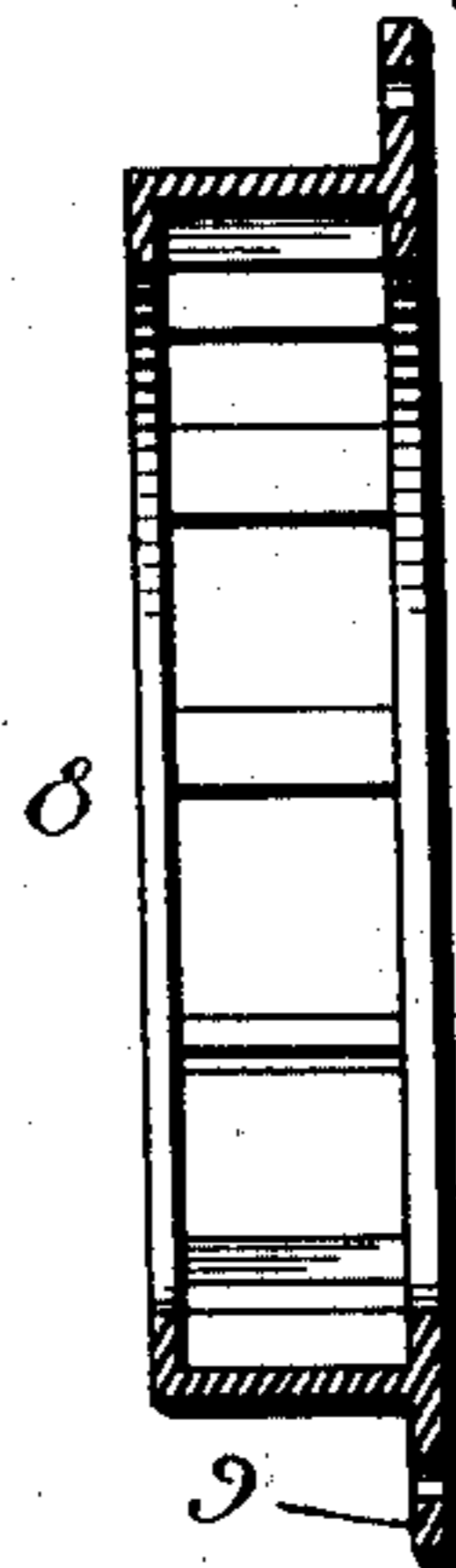


FIG. 4



Witnesses

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UNITED STATES PATENT OFFICE.

CLIFTON BENSON ENGLISH, OF EASTON, PENNSYLVANIA, AND JAMES WALLACE THOMPSON, OF BLOOMSBURY, NEW JERSEY.

GRIT-MILL.

SPECIFICATION forming part of Letters Patent No. 706,645, dated August 12, 1902.

Application filed January 7, 1902. Serial No. 88,811. (No model.)

To all whom it may concern:

Be it known that we, CLIFTON BENSON ENGLISH, residing at Easton, in the county of Northampton and State of Pennsylvania, and JAMES WALLACE THOMPSON, residing at Bloomsbury, in the county of Hunterdon and State of New Jersey, citizens of the United States, have invented a new and useful Machine, of which the following is a specification.

The invention relates to grit-mills.

The object of the invention is to provide means for collecting the waste or leakage from the mill at that point where the sleeve from the feed-hopper joins the trunnion of the mill, whereby such waste or leakage is reconducted to the screw conveyer and fed into the mill, and thus prevent it from falling upon the floor.

A further object of the invention is to provide simple, durable, and inexpensive means which may be readily attached to mills now in general use and which will be effective in action.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a longitudinal vertical sectional view of only that portion of a mill necessary to illustrate the application of the invention. Fig. 2 is an enlarged detail sectional view of the sleeve. Fig. 3 is a vertical sectional view of the ring of buckets, and Fig. 4 is a similar view at right angles to Fig. 3.

Referring to the drawings, 1 denotes the body of the mill, having hollow trunnions 2 and 3. This mill may be of any well-known or approved type, and as it forms no part of the invention a further description thereof is not deemed necessary, unless it be stated that the mill is filled half full of pebbles and is adapted to be rotated in any suitable manner.

4 denotes the feed-hopper, and 5 denotes the sleeve, bolted to the feed-hopper and extending into and communicating with the trunnion 3 and at a point on its upper side surrounded by said trunnion provided with an opening 6.

7 denotes a screw conveyer, which is located in the feed-hopper and extends through said sleeve into the trunnion. This conveyer is operated from any suitable source of power. As shown, it is connected to the trunnion 3, and as said trunnion rotates the conveyer is also rotated.

8 denotes an annular row or ring of buckets provided with a lateral annular flange 9, which is bolted or otherwise secured to the end of the trunnion 3. The buckets surround the inner end of the sleeve 5 and in the rotation of the mill successively move over the opening 6 and gather up the material which would otherwise escape between the inner end of the sleeve and outer end of the trunnion and carry it up and discharge it through the opening 6, where it may be acted upon by the screw conveyer to be carried into the mill. Thus is leakage at this point prevented.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily understood without requiring an extended explanation.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

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

The combination with a grit-mill and its hollow trunnion, of a feed-sleeve communicating with said trunnion and having an opening surrounded by said trunnion, and a ring of buckets rotating in unison with the trunnion and positioned to have their buckets successively register with the opening in the sleeve, and a feed-conveyer extending through said sleeve and designed to carry the material discharged by said buckets through said opening, into the mill, substantially as set forth.

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Witnesses:

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