(No Model.)

J. S. TARR.
Grinding Mill.

No. 238,260. **Patented March 1, 1881.**

Fig. 1.

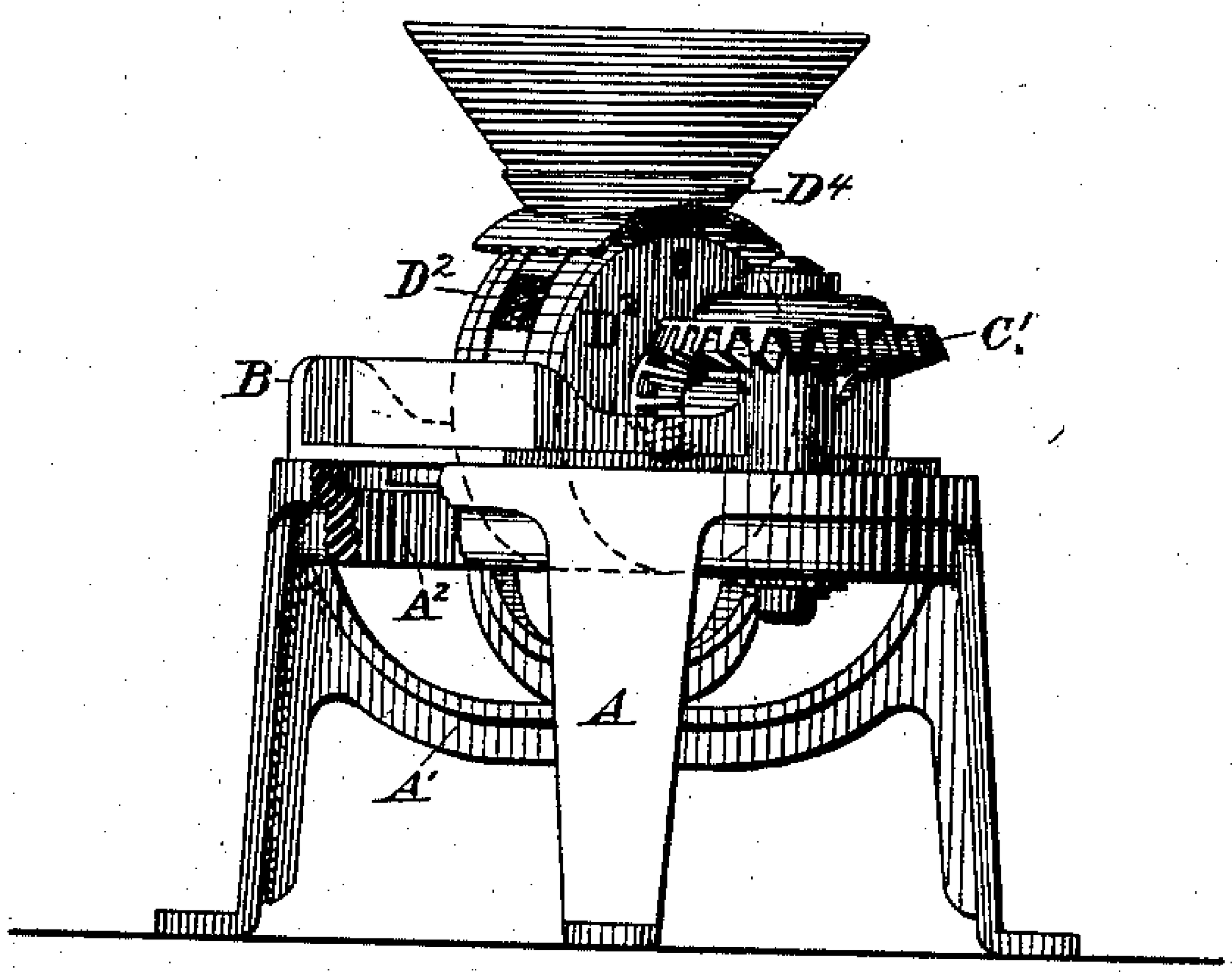


Fig. 3.

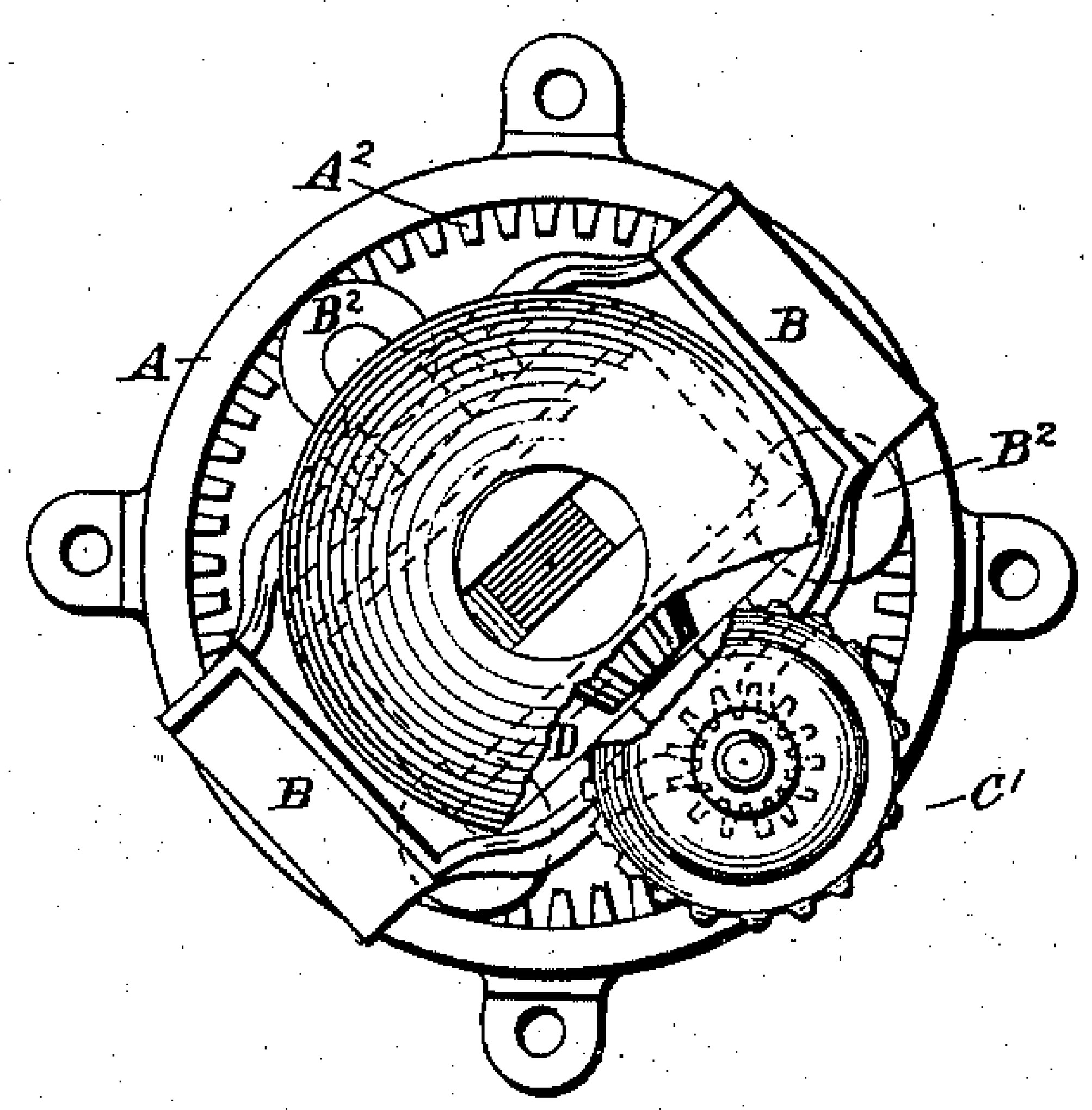
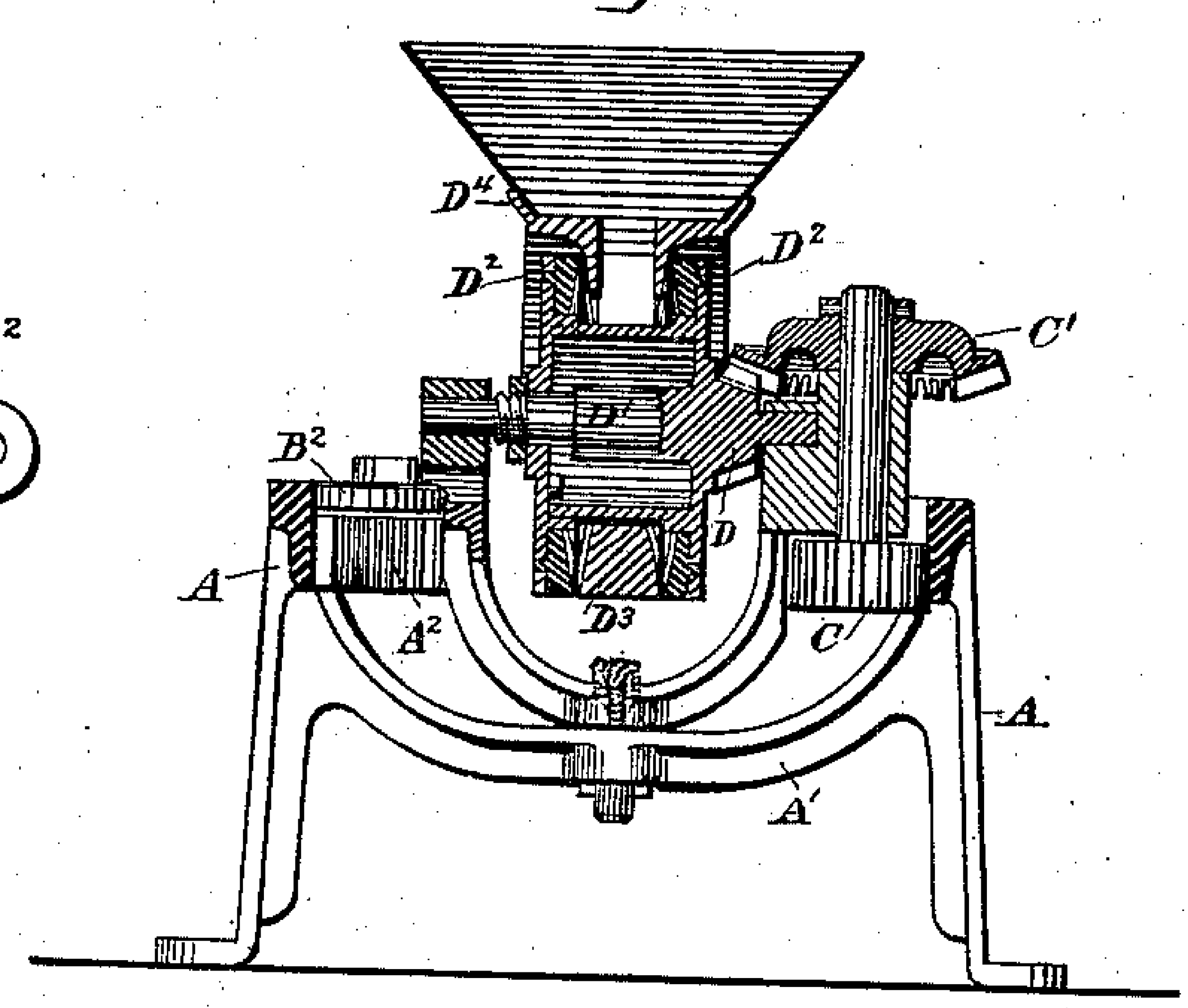


Fig. 2.



WITNESSES
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UNITED STATES PATENT OFFICE.

JOSEPH S. TARR, OF CLEVELAND, OHIO, ASSIGNOR TO HIMSELF AND HUBERT J. KRONKEY, OF SAME PLACE.

GRINDING-MILL.

SPECIFICATION forming part of Letters Patent No. 238,260, dated March 1, 1881.

Application filed October 21, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH S. TARR, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Grinding-Mills; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to a grinding-machine, and particularly to that type of grinding-machines adapted to be operated by horse or equivalent powers; and it consists in certain details of construction and combinations of parts, as will hereinafter be described, and pointed out in the claims.

In the drawings, Figure 1 is a view of my grinding-mill with portions removed to show the relation and operation of parts. Fig. 2 is a view, in vertical cross-section, of said mill. Fig. 3 is a plan view of my machine.

A is the frame or standard, which is made stationary by being screwed or anchored by its legs to any suitable floor or foundation. It is constructed, essentially, to provide a depressed central pivotal rest, A′, and internal gear, A^2, with which meshes the driving-pinion of the mill mechanism.

B is the revolving burr-frame, constructed to revolve within the frame or standard A, and to carry and accommodate the grinding-burrs and their actuating mechanism. Said actuating mechanism may be described as follows:

Journaled within the frame B is a driving-pinion, C, to the upper end of the shaft of which pinion is keyed a bevel-gear wheel, C′, which meshes with and drives a cog-wheel, D. This cog-wheel D is fixed on the shaft D′ of the revolving burrs D^2 D^2.

It will be seen that the grinding mechanism proper of my machine consists of a central stationary burr, D^3, provided with a grinding-surface on each of its sides, and the two lateral revolving burrs D^2 D^2, operating respectively in connection with the grinding-surfaces of the stationary burr D^3.

Formed upon the upper portion of the stationary burr D^3 is the hopper-seat D^4. An opening is made through the top of the stationary burr D^3, through which the grain is fed to be ground.

The frame B is constructed in any suitable manner to afford an attachment for a pole or equivalent, to which a horse may be hitched for driving the mill.

The operation of my device is as follows: As the frame B revolves horizontally within the stationary frame or standard A, the connection between the internal gear, A^2, and the driving-pinion C will revolve said driving-pinion and its horizontal bevel-gear wheel C′, and by the connection between the wheel C′ and the cog-wheel D motion will be imparted to the shaft carrying the revolving burrs D^2 D^2, and these burrs, moving over the lateral grinding-faces of the stationary burr D^3, will grind the corn or other grain that is fed into the hopper.

As a matter of course this invention is not limited to any specific construction of burrs or grinding-surfaces thereof. These burrs may be of any suitable description for grinding corn, or grain, or paint, or any other substance.

It will be observed that the frame B is provided with anti-frictional rests B^2, which may be in the shape of wheels or casters, that move within and against or upon the frame A in such a manner as to prevent the binding of the frame B within the frame A, and support its weight in such a manner as to diminish the friction between these parts to the minimum.

As above described, and as illustrated in the drawings, the gear A^2 is shown as an internal gear. This construction, however, is not essential, as this gear might be placed upon the outside of the frame A and the driving-pinion be made to mesh with it, in effect identical with that already specified. Therefore the gear A^2 might be placed either within or without the stationary frame A.

What I claim is—

1. In a grinding-mill, the combination, with a stationary frame provided with the gear A^2 and depressed central pivot-rest, A′, of the revolving frame B, provided with upright arms supporting horizontal shaft D′, revolving burrs D^2, secured to shaft D′, and stationary burr D^3, located between the revolving burrs D^2, and hopper D^4, substantially as set forth.

2. In a grinding-mill, the combination, with a stationary frame provided with a gear, A^2, of a revolving frame, B, furnished with a shaft having two burrs secured thereto, and a stationary burr located between the revolving burrs, and a hopper mounted over the stationary burr, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH S. TARR.

Witnesses:
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