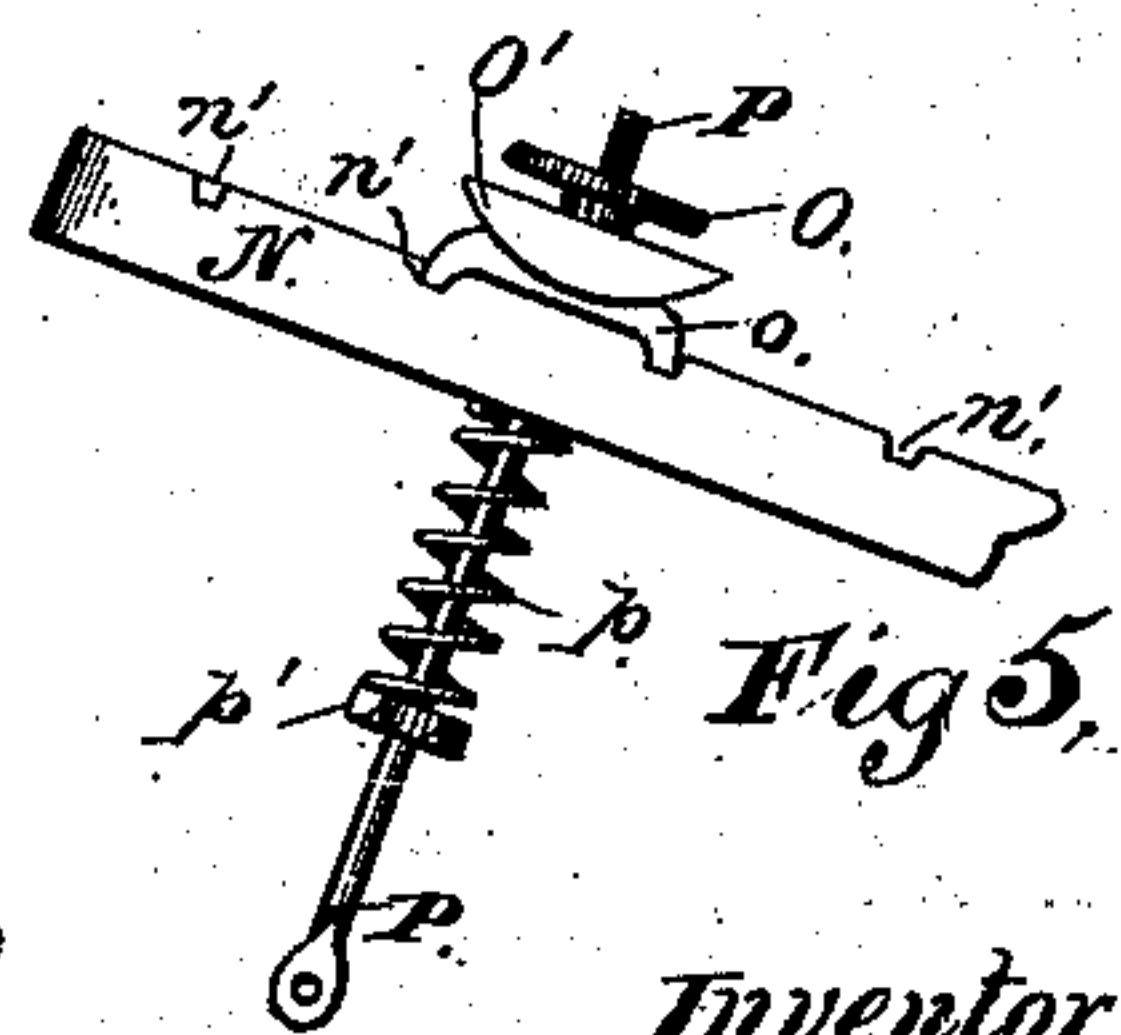
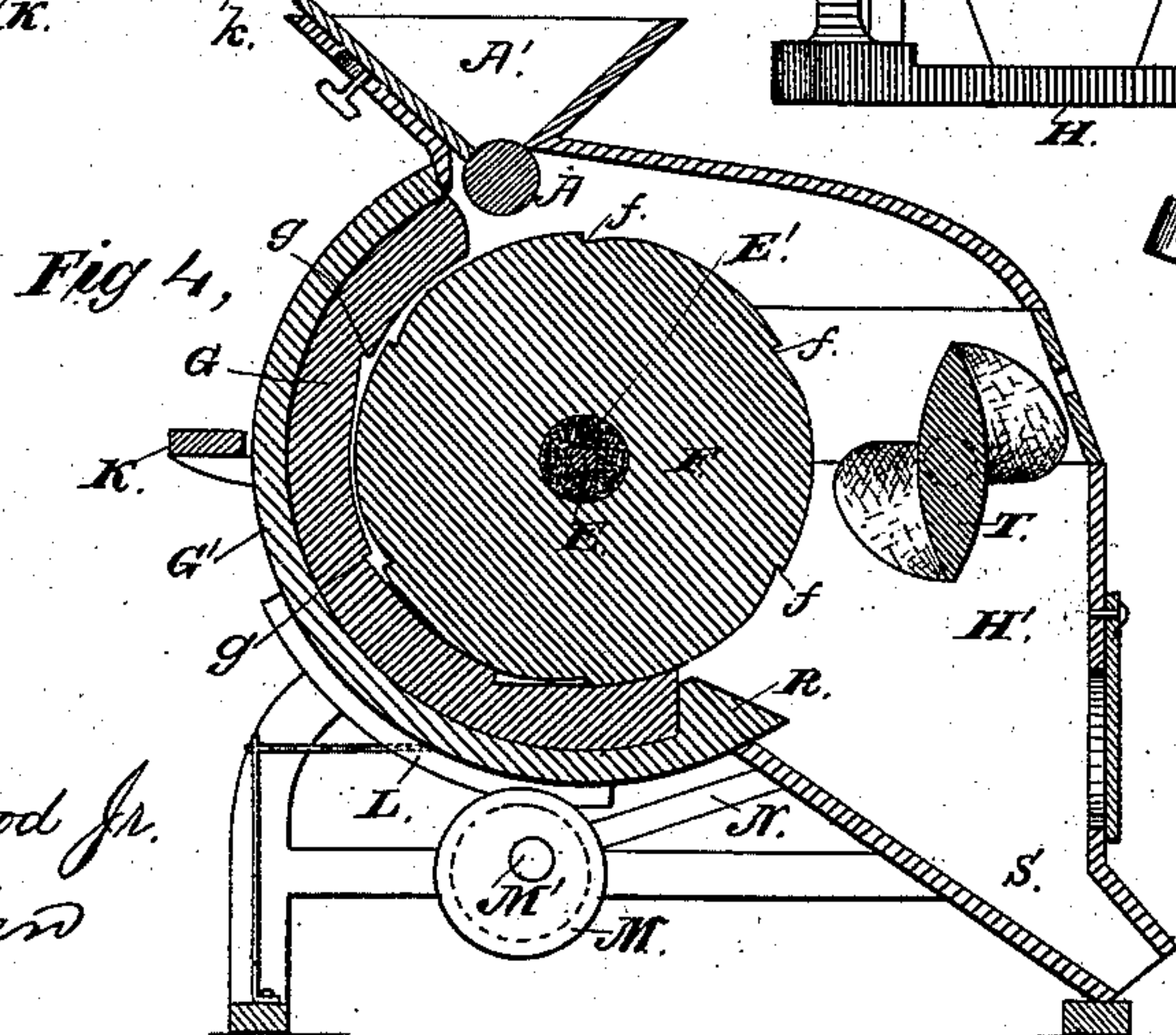
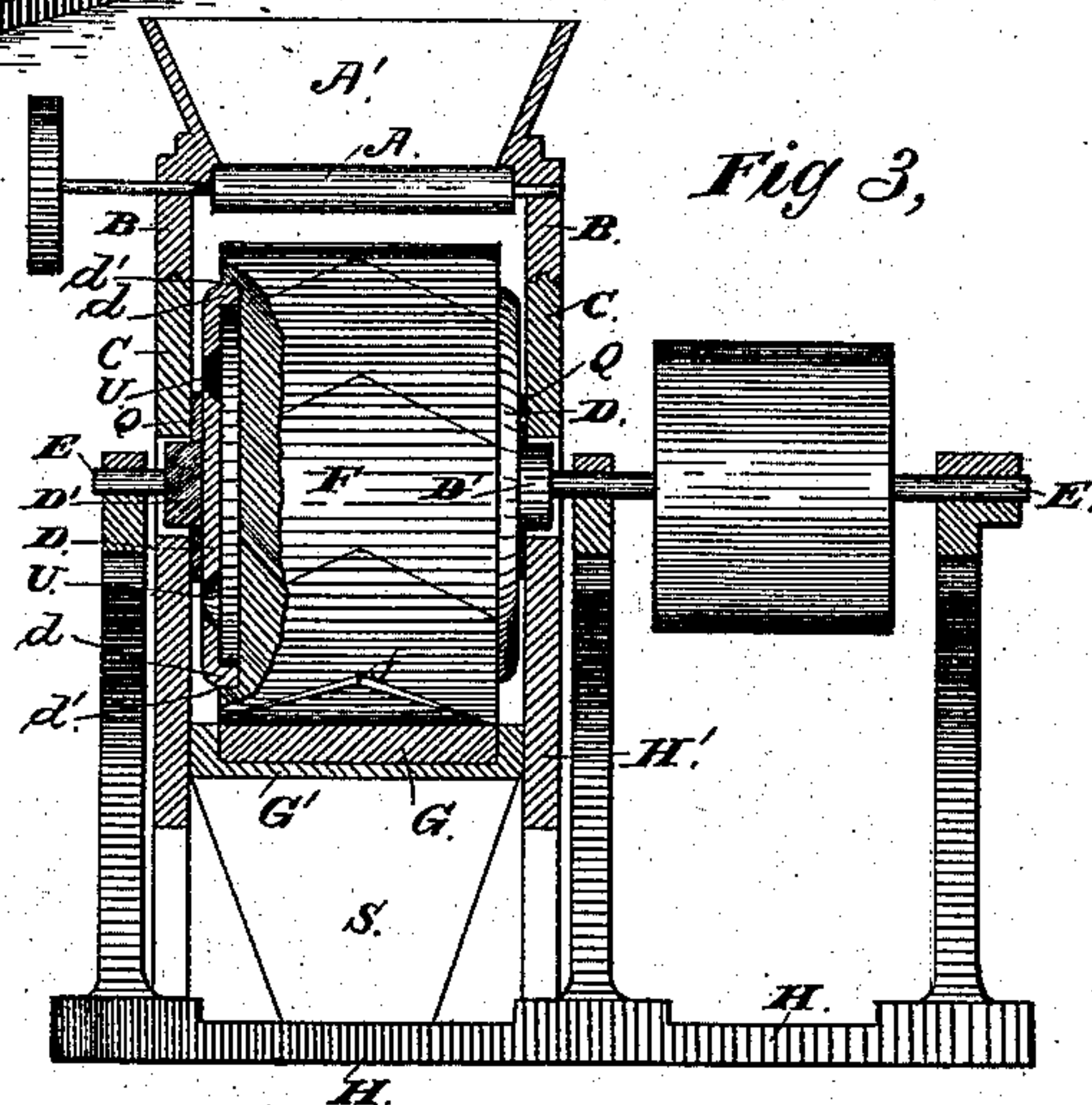
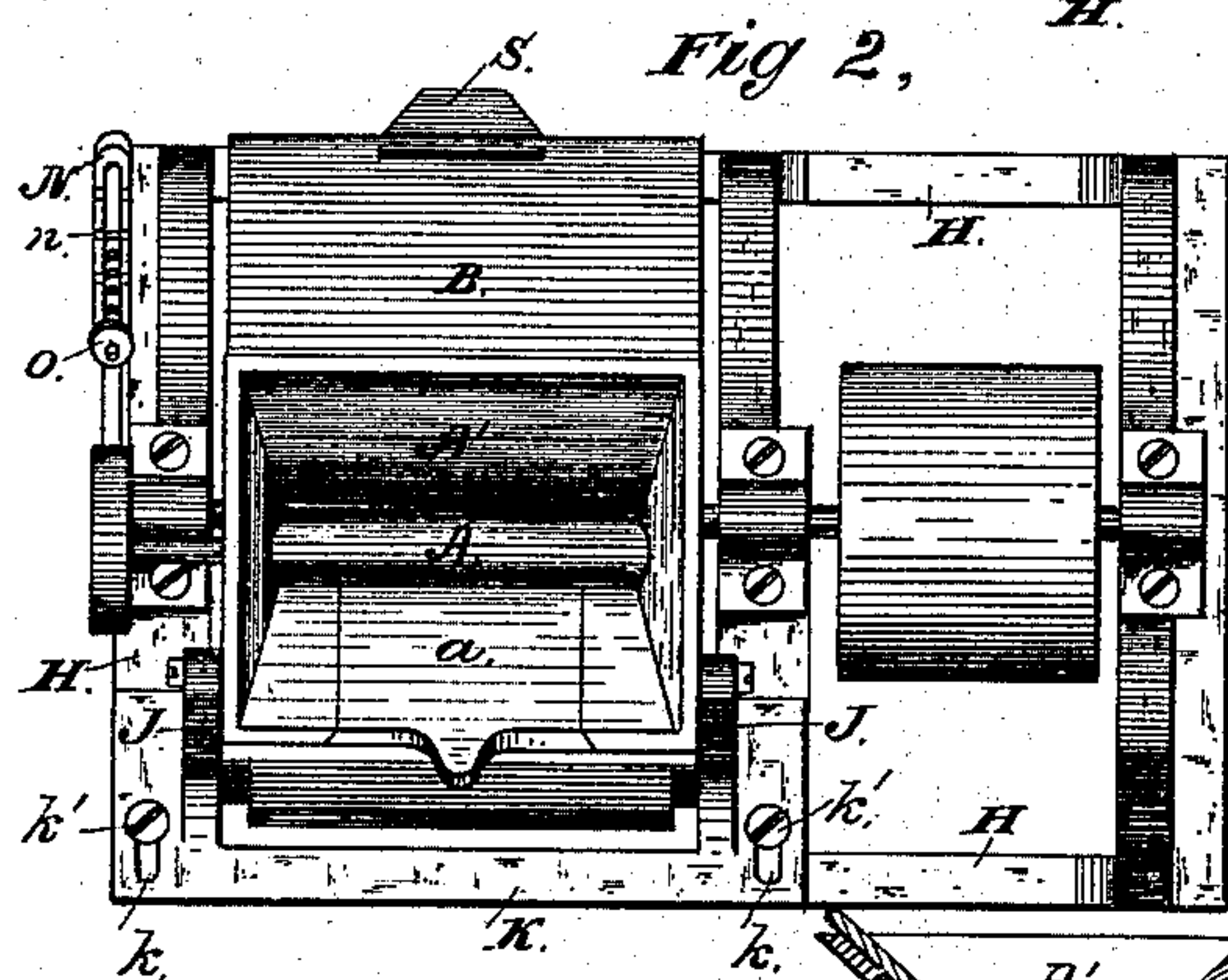
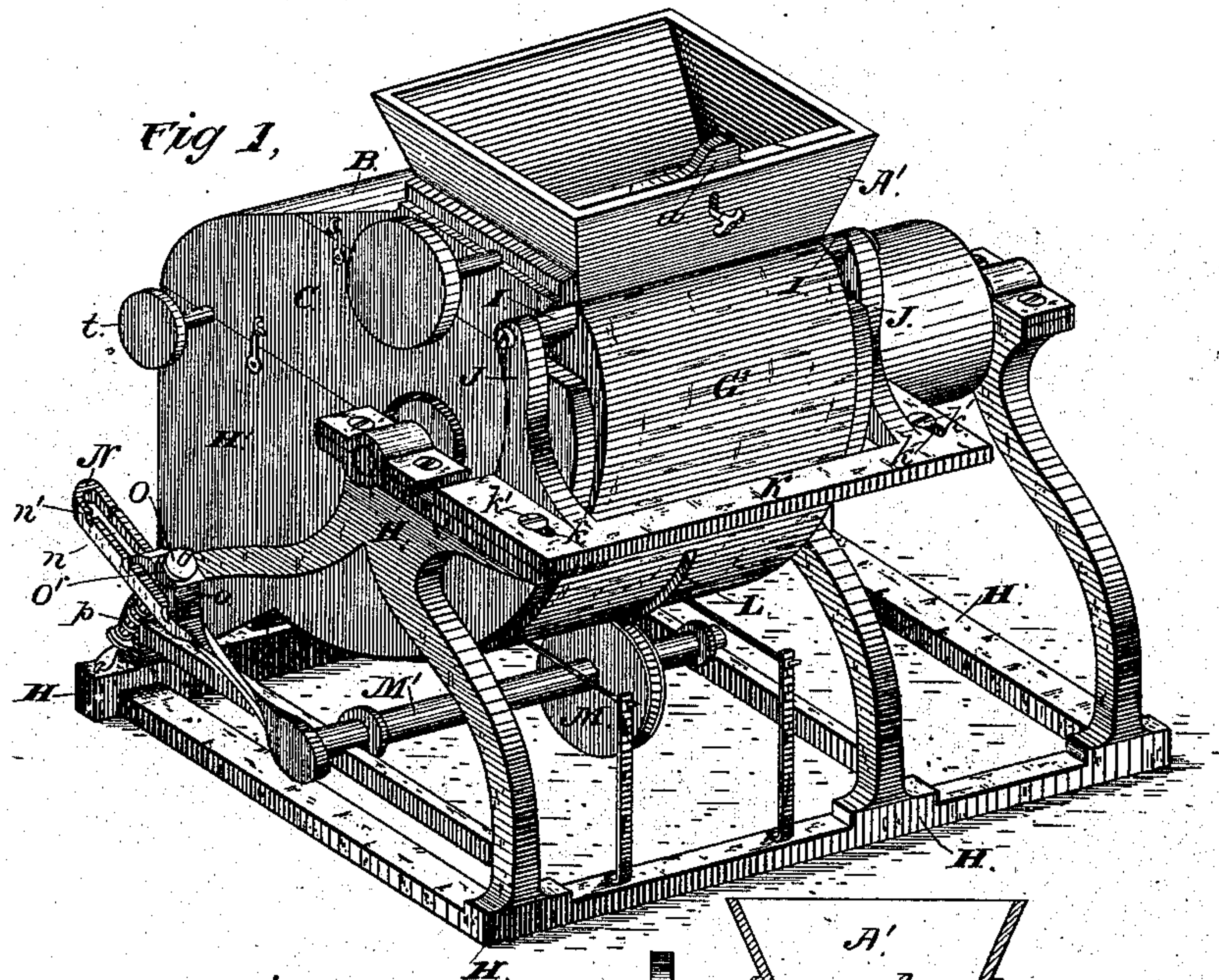


# J. J. FAULKNER. Grinding-Mill.

No. 225,118.

Patented Mar. 2, 1880.



Attest:  
Geo. T. Smallwood Jr.  
Walter Allen

Inventor:  
J. J. Faulkner;  
By *Knights*  
attys



# UNITED STATES PATENT OFFICE.

JAMES J. FAULKNER, OF LOUISVILLE, KENTUCKY, ASSIGNOR OF A PART OF HIS RIGHT TO JOHN LATSHAW AND JOHN AIKIN, OF SAME PLACE.

## GRINDING-MILL.

SPECIFICATION forming part of Letters Patent No. 225,118, dated March 2, 1880.

Application filed September 4, 1879.

*To all whom it may concern:*

Be it known that I, JAMES J. FAULKNER, of Louisville, in the county of Jefferson and State of Kentucky, have invented new and useful Improvements in Grinding-Mills, of which the following is a specification.

In my improved grinding-mill a stone concave is employed, mounted in a metallic frame pivoted at the upper part in a standard-frame adjustable to and from the stone by set-screws. The lower part of the concave-frame is formed on its back or under part with a V-shaped rib, bearing on the grooved periphery of an eccentric, which thereby retains it against lateral movement, while serving the purpose of adjusting the lower edge of the concave to and from the runner.

The eccentric-shaft has one or more rigid arms, slotted at their ends to receive regulating-screws, which are pivoted at bottom to the frame, and are surrounded by spiral springs, bearing upward on the arms of the eccentric-shaft, and have nuts at their upper ends for the accurate adjustment of the arms, to vary the distance of the concave from the stone, and thus regulate the grinding.

A seat of even bearing is afforded to the nut by means of a bearing-plate, convex at bottom to fit the concave top of a seat-plate, which is flanged or ribbed to seat itself in suitable notches in the lever-arm, so as to regulate the pressure and fix the adjusting devices where they may be set.

The concave is drawn downward and upward in contact with the regulating-eccentric by means of rods on each side of such eccentric, connected at their extremities to spring-standards.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved mill. Fig. 2 is a plan. Fig. 3 is a longitudinal section. Fig. 4 is a transverse section. Fig. 5 is a view of portions of the regulating device on a larger scale.

A represents a feed-roller working within a hopper, A', which is furnished with a sliding gate, a, to regulate the feed. The hopper is

mounted on a cap, B C, made in two parts, the upper part, B, being fitted to slide on a V on the lower part, C.

D D are plates secured by nuts D' on a shaft, E, and clamping between them the horizontal grinding-stone F, the surface of which is of cylindrical shape, and grooved, as represented, with furrows f, converging toward the center, so as to tend to carry the meal away from the ends of the stone in the action of grinding.

Within the eye of the stone F, around its shaft E, and between the ends of the stone and the plates D, is a packing, E', of paper or other fibrous material.

The plates D are formed with annular flanges d, which fit in corresponding circular grooves d' in the ends of the stone. The encircling flanges d serve to strengthen the stone and prevent the danger of bursting while in use.

The paper packing E' is very beneficial in affording firmness and elasticity, diminishing the effect of the expansion of the shaft in the event of heating, and thereby avoiding the danger of the bursting of the stone from this cause.

G represents a stone concave mounted in the metallic plate G', which is pivoted by journals I in standards J J, projecting upward from a plate, K. The plate K and standards J J are cast in one piece, and the former is provided with slots k, to receive set-screws k', by which the standard-plate K is secured to the main frame H, and rendered adjustable relatively to the cylindrical stone F, so as to regulate the distance between the stone F and the concave G, and thus regulate the grinding. The concave G is formed with converging or V-shaped furrows g, corresponding to the furrows f in the stone F. The lower part of the concave is supported by a rib, L, projecting from its back and occupying a V-shaped groove in an eccentric, M, which is mounted upon a shaft, M', provided with one or more rigid arms, N, by which it is turned, as required, by means of nuts O O, working on regulating-screws P, which are pivoted below to the main frame H, and have springs p bearing downward against collars p' on the regulating-screw and upward against the under sides of the arms N.



The screw P occupies a longitudinal slot, *n*, in the arm N, and is fixed at any point thereon by means of seat-plate *o*, resting in notches *n'* in the arm. The seat-plate *o* has a concave upper surface to receive the convex face of a locking-plate, O', on which the nut O bears.

Q represents a packing applied to the cheeks of the casing H', between it and the faces of the clamping-plates D, for the purpose of preventing the escape of meal or other matter through the apertures in the ends of the casing.

R represents an apron or projection on the lower side of the concave, extending over the spout S, so as to permit the adjustment of the lower end of the concave to regulate the grinding and still conduct the meal to the spout S.

T represents a fan mounted in the breast of the casing H', and driven by a pulley, *t*, or other suitable means, for the purpose of forcing a current of air into the casing and against the face of the stone. Lead is run into dovetailed apertures in the end plates, as shown at U, as may be necessary to balance the stone and cause it to run smoothly.

Having thus described my invention, the following is what I claim as new and desire to secure by Letters Patent:

1. The combination of the concave G, pivoted at I, and having on its under side the V-rib L, and the grooved eccentric M, mounted upon a horizontal shaft, M', provided with rigid arms N, as and for the purpose described.

2. The combination of the pivoted concave G, standard J J, slotted plate K, central rib, L, eccentric M, and the springs connected to the concave by rods on each side of the central rib, as explained.

3. The combination of the eccentric M, shaft M', arm N, spring *p*, screw-rod P, nut O, the bearing-plate O', and the seat-plate *o*, fitting in notches *n'* in the arm N, as and for the purposes set forth.

JAMES J. FAULKNER.

Witnesses:

AMAND KREIS,  
DANL. F. MURPHY.