

G. CUSSON.
CENTRIFUGAL BOLTING MACHINE.
APPLICATION FILED DEC. 19, 1903.

932,847.

Patented Aug. 31, 1909.

Fig. 1.

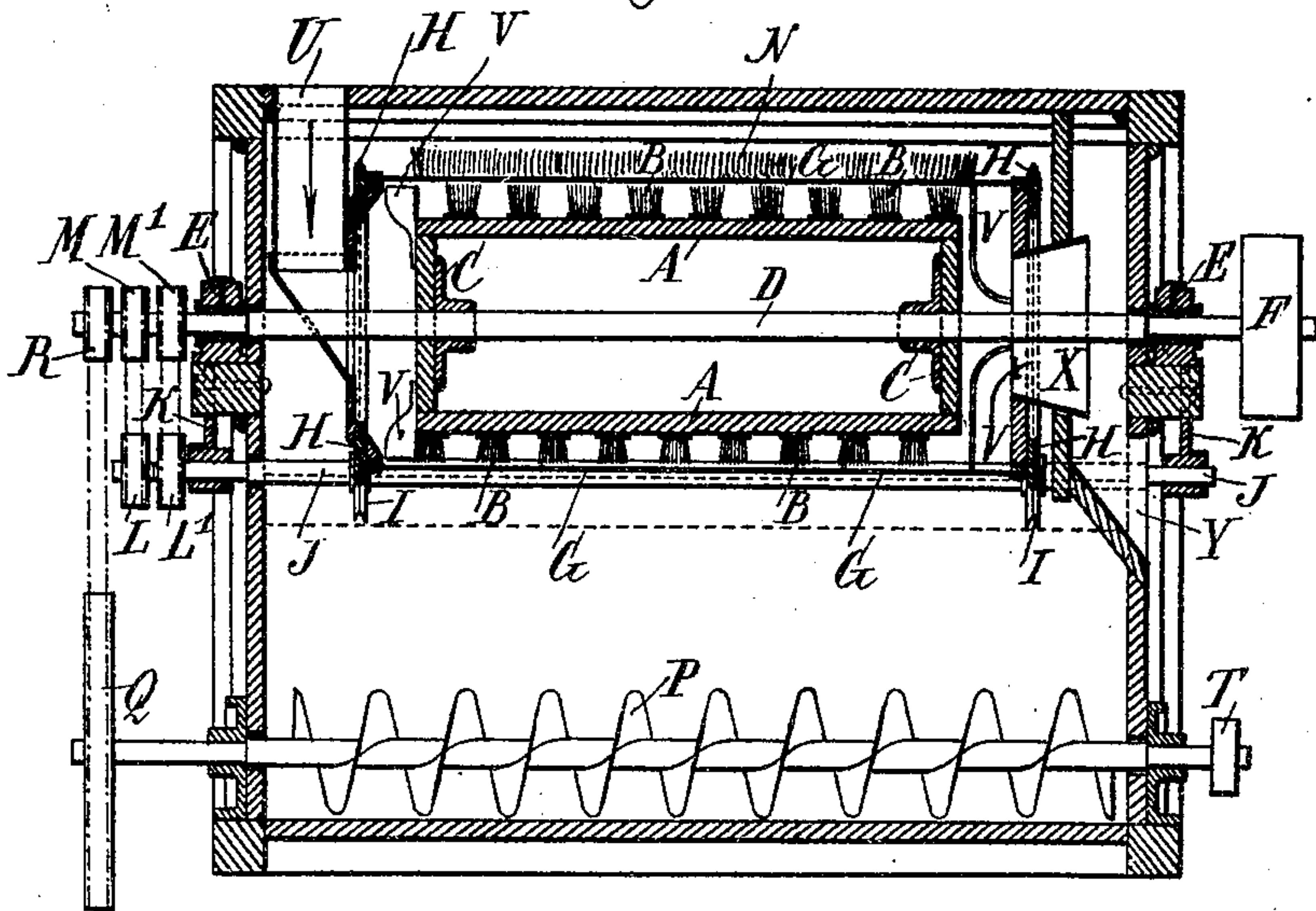


Fig. 2.

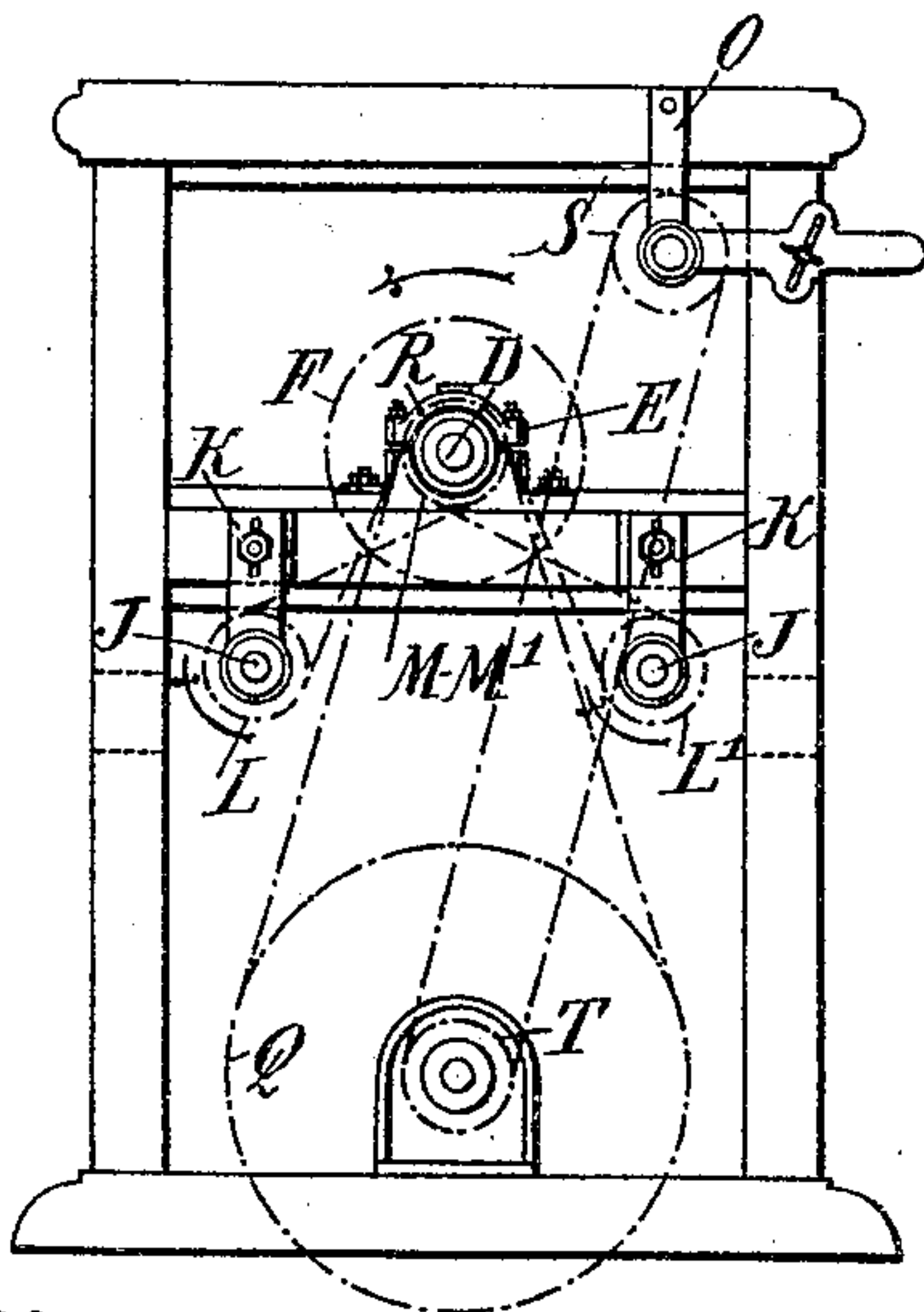
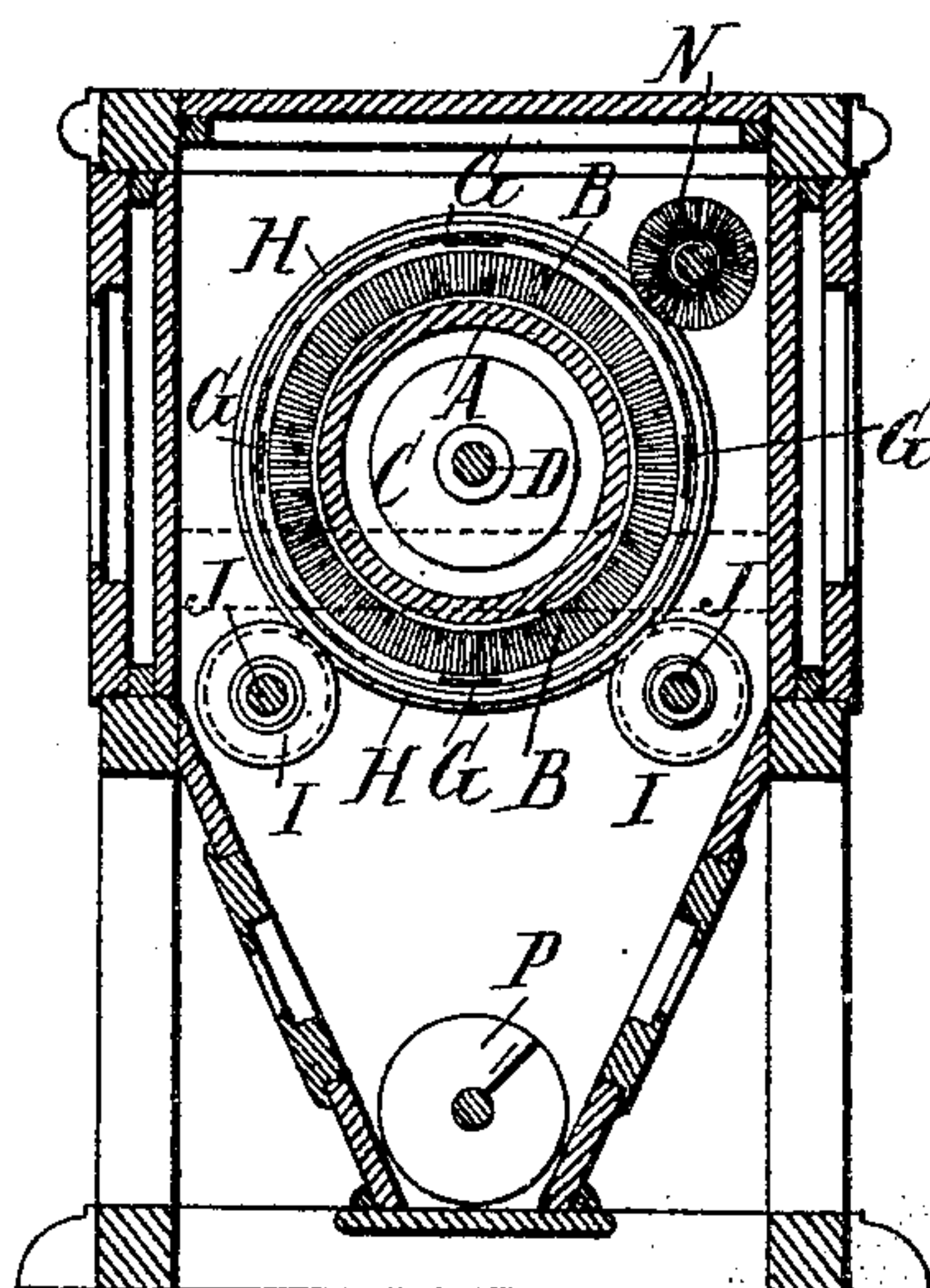


Fig. 3.



WITNESSES:

W. M. Avery

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INVENTOR

Georges Cusson

BY

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGES CUSSON, OF CHATEAUROUX, FRANCE, ASSIGNOR TO THE FIRM OF G. ET A. CUSSON
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CENTRIFUGAL BOLTING-MACHINE.

932,847.

Specification of Letters Patent.

Patented Aug. 31, 1909.

Application filed December 19, 1903. Serial No. 185,830.

To all whom it may concern:

Be it known that I, GEORGES CUSSON, a citizen of the French Republic, and residing at Chateauroux, Indre, France, have invented a certain new and useful Centrifugal Bolting-Machine, of which the following is a full, clear, and exact description.

This invention relates to an apparatus suitable for use in a flour mill as a flour extractor for the different grindings of wheat, as an extractor of semolina, oatmeal or groats, as a meal-sifter and capable also of being used in various industries.

A description of the apparatus is given hereafter with reference to the accompanying drawing in which:—

Figure 1 shows in longitudinal section the improved apparatus. Fig. 2 is an end view. Fig. 3 is a cross section.

This machine comprises a cylinder A, on the surface of which is fixed along a helicoidal line, a brush ribbon B, of any suitable nature; this cylinder is mounted by means of disks C, on a shaft D, journaled in bearings E, and driven by means of a pulley F, keyed to one of its ends. A circular framework G, formed of longitudinal strips connected by hoops, surrounds this cylinder; this framework forms the support for a cylindrical sieve of metallic or silken gauze or mesh, according to the nature of the substance to be treated.

The cylindrical sieve is revoluble, and for this purpose it is fitted at its ends with two crowns H, by which it rests on rollers I, which at the same time serve as frictional drivers; these rollers are rotated from the shaft D by means of belts and pulleys L L' and M M'; the axles of these rollers and of their pulleys are mounted on adjustable supports K. With the construction and arrangement shown, the cylindrical sieve G rotates at much less speed than the brush cylinder A. To the surface of the cylindrical sieve G is applied a flexible brush N, mounted on a shaft supported in adjustable bearings O; this brush insures the continuous cleaning of the sieve G. The substance which has passed through the meshes of the cylindrical sieve and falls into the bottom of the drum, is drawn away by a screw conveyor P, the shaft of which is fitted with a pulley Q, rotated by a belt driven by a pulley R, fixed on the shaft D.

The brush N is driven by a pulley S, fixed

on its shaft and rotated by a belt driven by a pulley T, fixed on the shaft of the screw P. The substance to be treated is introduced at one end of the apparatus through an opening U; it is then thrown, while traveling between the coils of the helical brush B, onto the gauze forming the revoluble sieve G, until it reaches the end of the screw and is ejected.

At the entrance and at the exit, palettes or floats V, arranged inside the cylinder G, assist the admission and rejection of the substance. A bell-mouth X, fixed to the disk of the cylinder G, facilitates the removal of the substance that has not passed through the meshes of the cylindrical sieve, and ejects it into the passage Y, whence it is delivered into a receptacle of any kind. The rotary movements in opposite directions of the cylinder A with its helicoidal brush on the one hand and of the cylindrical sieve G on the other hand, give a result favorable to the effecting of a proper separation.

Having thus described my invention, what I claim as such and desire to secure by Letters Patent, is:—

1. A bolting machine, comprising an inclosing screen cylinder, a cylinder arranged in the screen cylinder and having fixed on its periphery a helicoidally arranged brush ribbon, the bristles of which are of flexible material and extend in close proximity to the inner surface of the screen cylinder, the said brush cylinder having solid walls to prevent the entrance of the material carried by the brush over the cylinder, the brush forming with the solid wall of the brush cylinder, and the inner surface of the screen cylinder a narrow helicoidal channel inclosing the material and in which the material travels, the said screen cylinder and the brush cylinder being mounted to turn, and means for turning the cylinders in opposite directions, the screen cylinder rotating at less speed than the brush cylinder.

2. A bolting machine, comprising a casing, a screen cylinder arranged in the upper part of said casing, a cylinder arranged in the screen cylinder and having a solid wall, a narrow brush ribbon secured to the periphery of the inner cylinder in a helicoidal line and provided with flexible brushes extending in close proximity to the inner surface of the screen cylinder, the spirals formed by the brush ribbon and bristles, be-

ing arranged close together, and forming
with the solid wall of the brush cylinder and
the inner surface of the screen cylinder, a
narrow continuous helicoidal channel un-
5 obstructed from end to end, the said channel
inclosing the material and in which the ma-
terial travels, the said screen cylinder having
an inlet at one end leading to said channel
and an outlet at the other end leading from
10 said channel to the outside of the casing,
means at the entrance and exit to assist the
admission and rejection of the material, a
drive shaft for the inner or brush cylinder,
means driven from said shaft for turning
15 the screen cylinder in an opposite direction
and at less speed than the inner or brush
cylinder, the revolution of the inner cylinder

causing the material to be thrown onto the
bolting surface of the screen cylinder, the
material that passes through the meshes of 20
the screen cylinder falling to the lower part
of said casing, a conveyer for the material
that passes through the meshes of the screen
cylinder, and means engaging the outer sur-
face of the screen cylinder for cleaning the 25
same.

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

GEORGES CUSSON.

Witnesses:

I. I. GRAVES,
G. GOUTERON.