

Machine for Making Pearl Barley.

Patented May 3, 1859.

Fig: 1.

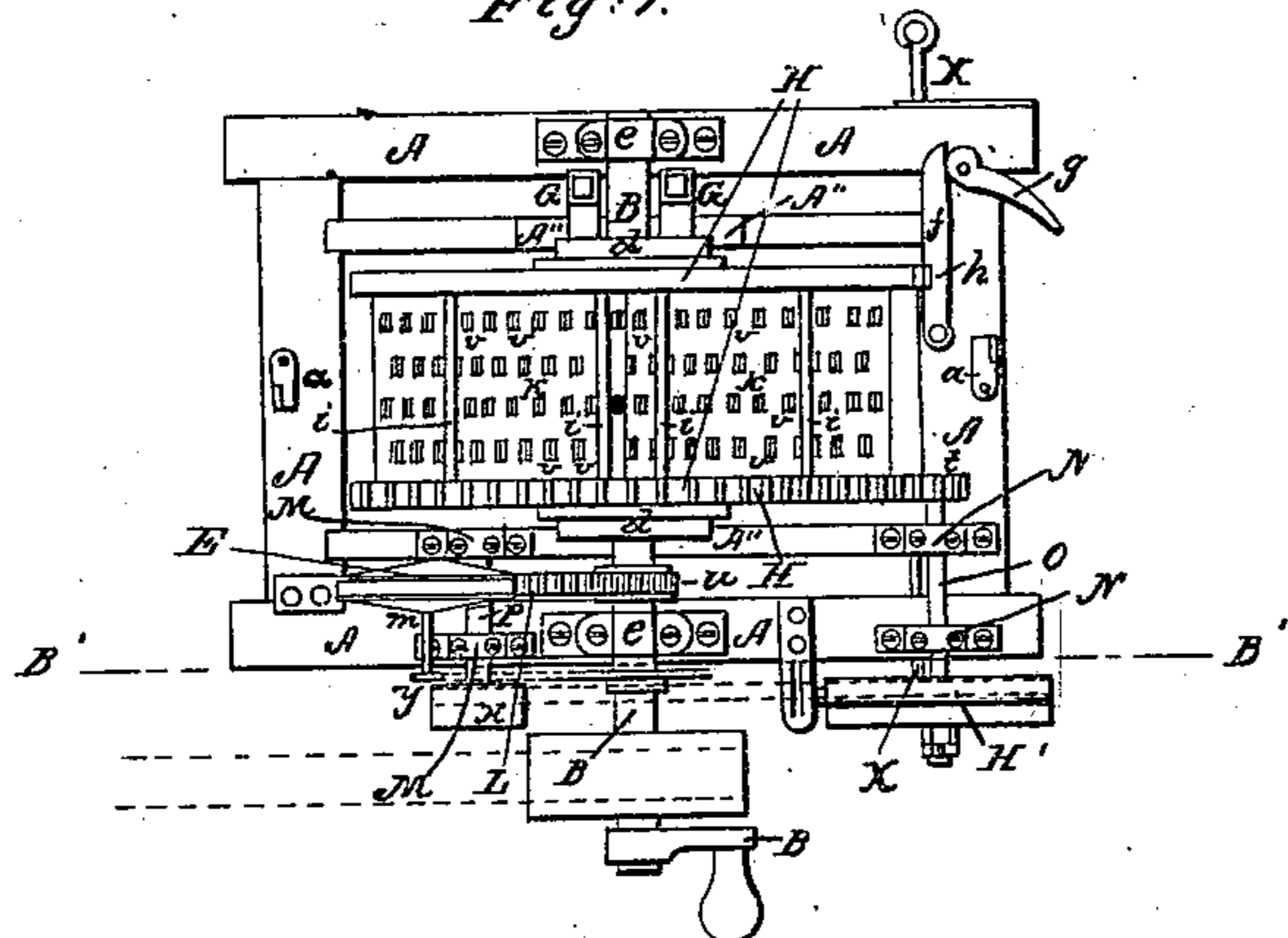


Fig: 2. A'

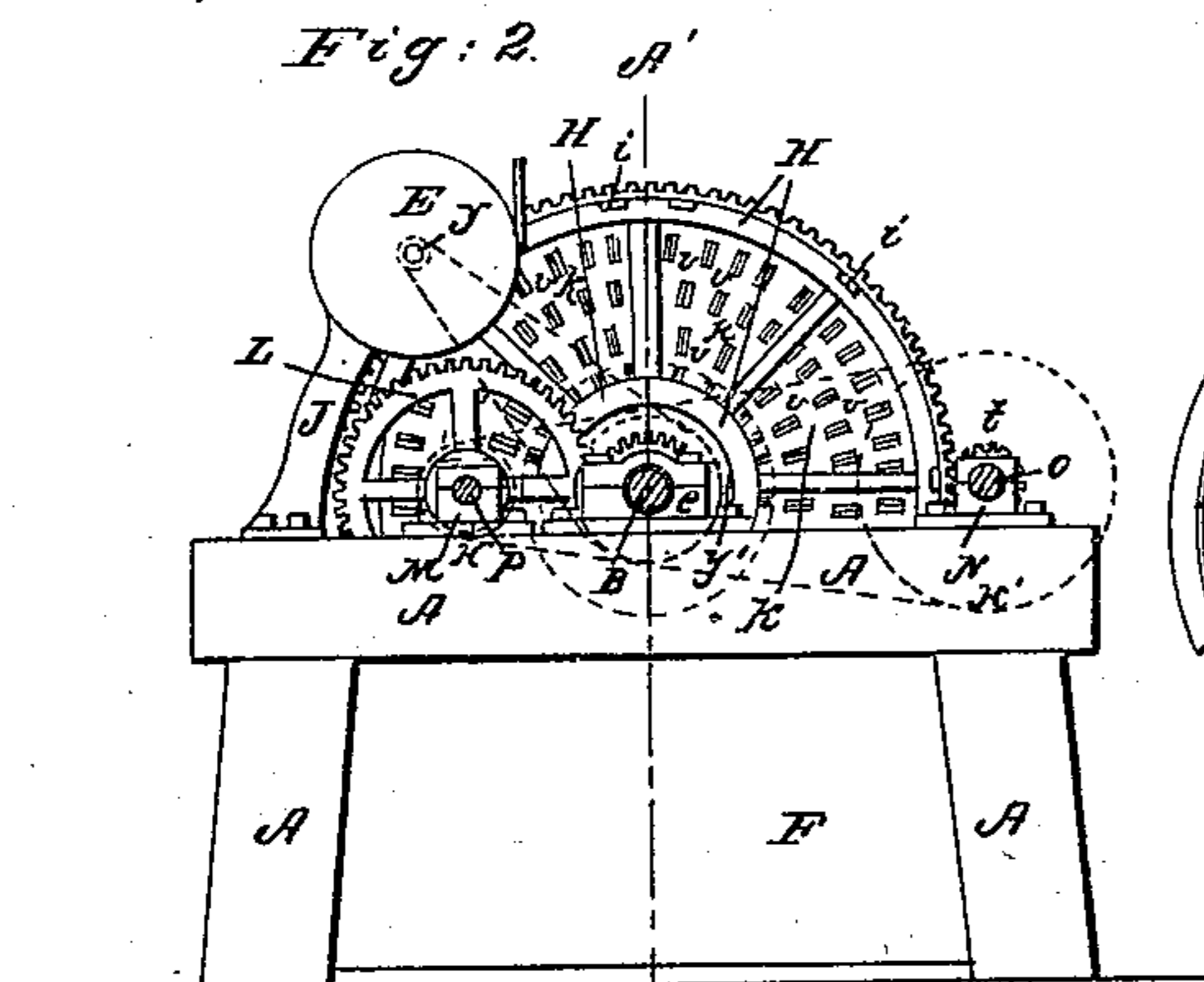


Fig: 4.

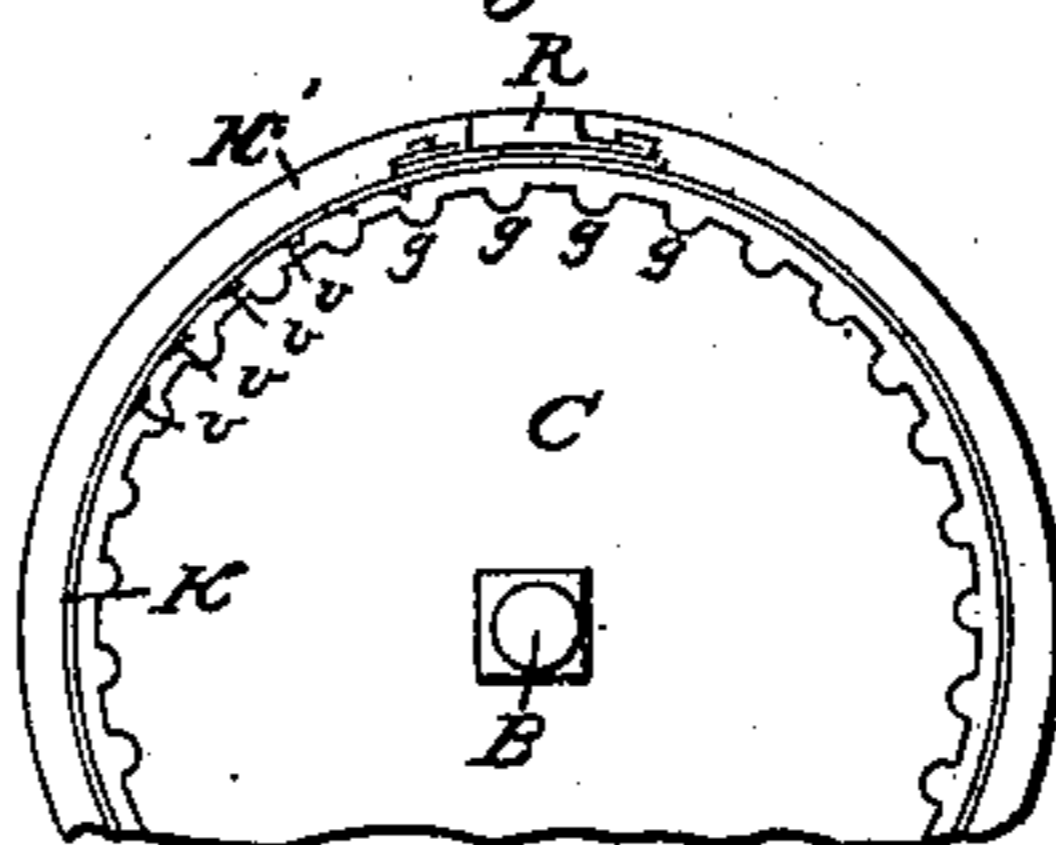
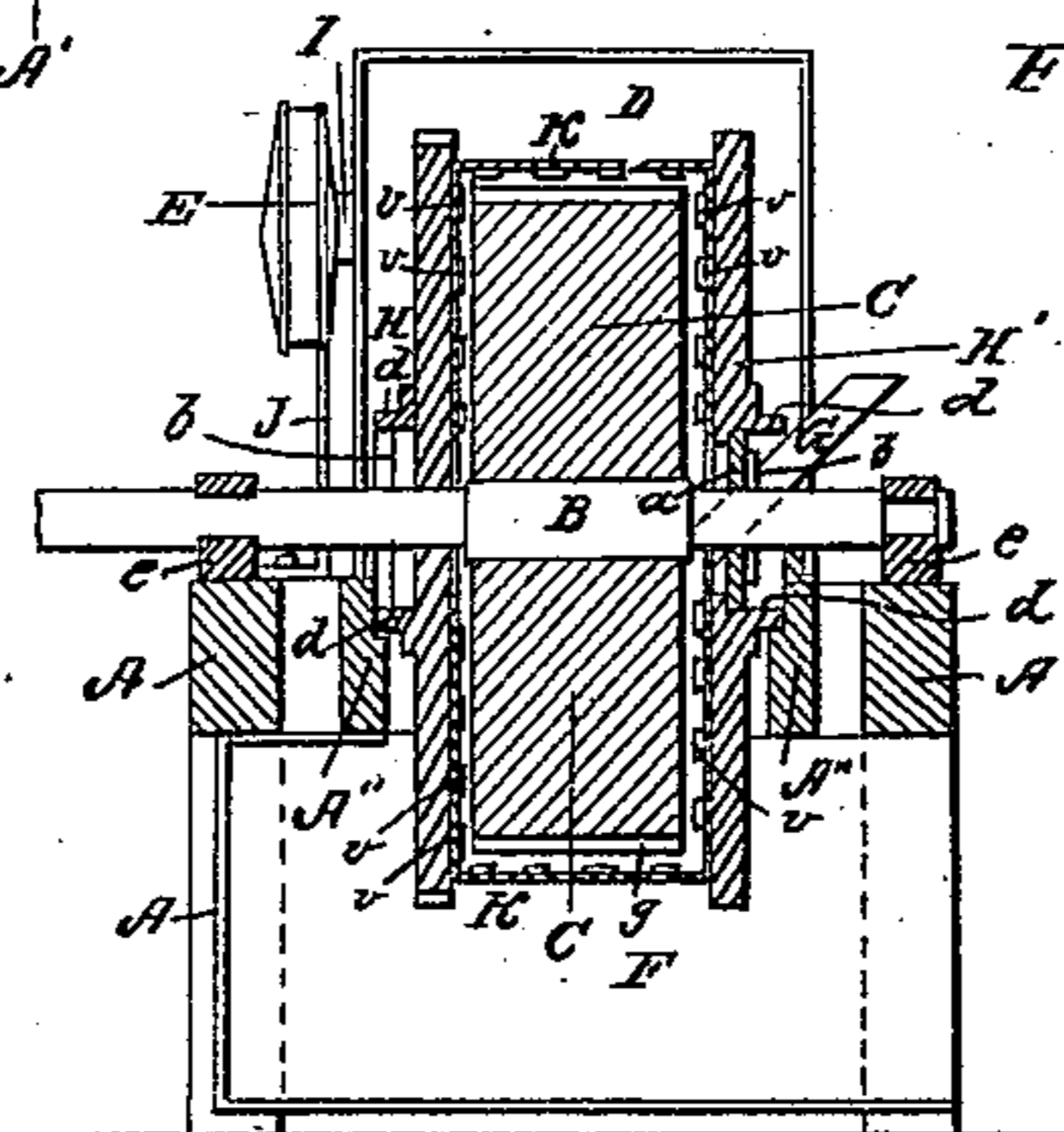


Fig: 3.



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UNITED STATES PATENT OFFICE.

AUGUST WULZE, OF ST. LOUIS, MISSOURI.

MACHINE FOR MAKING PEARL-BARLEY.

Specification of Letters Patent No. 23,879, dated May 3, 1859.

To all whom it may concern:

Be it known that I, AUGUST WULZE, of the city of St. Louis and State of Missouri, have invented a new and useful Improvement in Machines for Making Pearl-Barley; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making part of this specification, in which—

Figure 1 is a plan or top view. Fig. 2 is a vertical section through B' B', and Fig. 3 is a transverse vertical section through A' A'. Fig. 4 is a part of the machine to be hereinafter explained.

The nature of my invention consists in a new arrangement and combination of mechanical devices for the purpose of operating a machine for hulling and scouring barley.

To enable others skilled in the arts to make and use my said invention, I will proceed to describe the construction and operation thereof.

Similar letters of reference represent corresponding parts of the accompanying drawing.

A, A, A, represents the frame of the machine, which may be made of the most suitable form to suit the conditions of strength and convenience.

C is a circular stone and B is the shaft thereof, which has its bearing at e e, the said bearing being bolted to the frame in the manner shown on the drawing.

K is a sheet iron box which is so made as to cover the stone on all sides, and which is perforated with a sharp tool, (made for the purpose,) which is driven through the iron from the outside, so as to leave a bur upon the inside surface, as shown at v v v v. This box after having been made in manner and form as described, is secured between two circular frames H' H by means of ties i i i which reach from frame H' to frame H, on the outside of the said box, the ends being secured by means of screws or otherwise. The frame H' has its bearing upon the shaft B through the medium of the center piece a, which is stationary, and through which the two receiving nozzles G G pass. Besides the bearings which these two frames H H' have upon the shaft B, they have also another journal d d d which rest in the frame at A'' A'', which is formed to receive them. These frames H' H are made in halves and

are bolted together as shown at j j. The frame H has cogs cut in its periphery, which makes it serve the double purpose of a frame to support the hulling box K and a wheel to turn it, as the cogs which are thus cut in its periphery, are acted upon by the pinion t which is driven by a belt leading from the pulley x' to the drum pulley x, the said drum pulley being driven by the spur wheel l which in its turn is driven by a pinion fixed upon the main shaft B, and the main shaft receives its motion through the medium of a belt leading over the drum A, the crank B being merely attached to turn the machine by hand. By the arrangement of cog wheels and pulleys shown upon the drawing and described above the hulling box K is made to revolve in the same direction that the stone C does, but not so fast, the wheels being so proportioned as to cause the stone to make about seventy five revolutions while the box makes one.

f is a lever in the nature of a brake, a rubber being fixed upon it at n, so as to rub against the periphery of the frame H'. The lever f is acted upon by the cam lever g, whereby the brake is made to act with more force and effect. The object of this brake is to regulate the motion of the machine; that is to say, suppose too great a charge was put in the machine, the friction of the stone and hulling box upon the material would be so great as to cause the stone to force the hulling box around with it, which would not only defeat the object of the difference in the velocities of the stone and box, but would break the machinery. This brake may also be used to stop the machine after the belt has been thrown off.

An opening is made in the box K at R, Fig. 4, for the purpose of discharging the barley after the hulling is complete. The said opening is closed by means of a slide, which works in grooves made on the outside of the box to receive it.

The shaft o has its bearing in the plumber blocks N N and the shaft P has its bearing in the plumber blocks M M all of which are bolted to the frame.

The periphery of the stone is fluted transversely as shown at g g g, Fig. 4, the object of which is to make it more effective in hulling and polishing the grain.

E is a blower box in which a fan is made to revolve by means of a belt leading from the pulley y' to the pulley y upon the shaft

m upon which the fan is fixed. Around the axis of this fan and in the inside of its box a number of holes are made, (or a large open place may be made there, as the case may require,) which are incased into the pipe I upon the box or cover D, which catches all the flour or dust which may be driven through the hulling box K and which covers the entire upper part of the said box K.
 10 Now the object of this fan above described is to abstract the dust out of the box D and to blow it up into some open chamber to receive it. This however is an old device as is also the arrangement of it. I have de-
 15 scribed it only to show the application of it to my machine.

The box D is held in its position by means of the two clamps *d d*.

E is an open box fixed under the machine, to receive the barley after the hulling is complete.

The machine is put in motion by means of the belt shifter X whereby the belt is thrown from the fast to the loose pulley.

25 The machine may be made to revolve in

either direction, for which reason it is necessary to have two hoppers or receiving nozzles G G one on each side of the shaft B. Otherwise the grain could not be got into the machine when in motion, unless the ma-
 30 chine happened to be revolving toward the hopper into which the grain was received, for if it was revolving the other way the grain would choke and break the machine or stop it.

35 Having thus described the construction and operation of my machine what I claim as new and desire to secure by Letters Patent, is—

The construction and arrangement of the before described machinery, that is to say the arrangement and combination of the frame or wheel H, pinions *t* and *u*, and wheel L with each other in the manner de-
 40 scribed and with the pulleys *x' x* and *y y'* and A as set forth.

AUGUST WULZE.

Witnesses:

AMOS BROADNAX,
 MICHAEL O'KEEFE.