

(No Model.)

F. COHNEN.

MACHINE FOR PICKING HUSKS, &c.

No. 377,095.

Patented Jan. 31, 1888.

Fig. 1

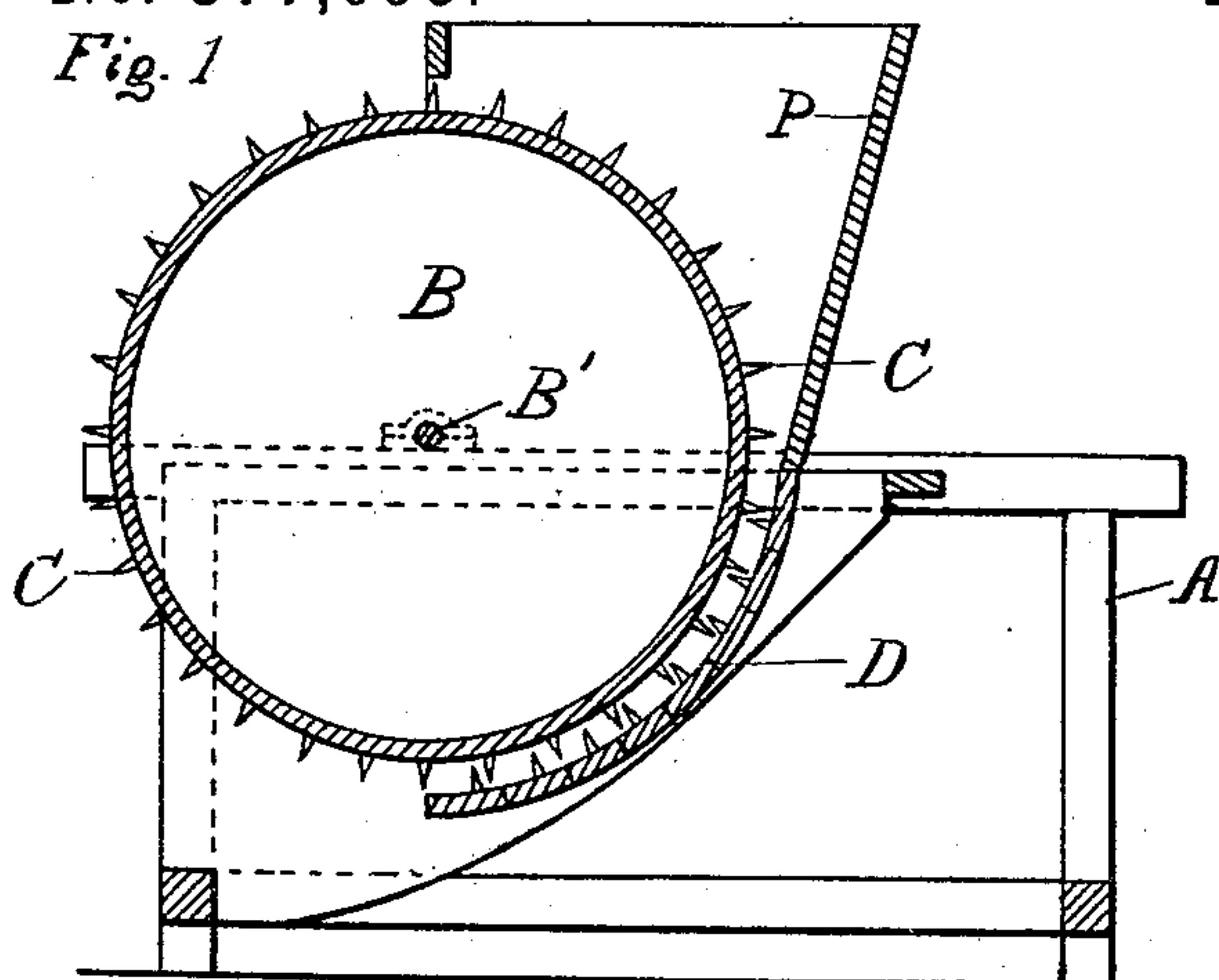


Fig. 4

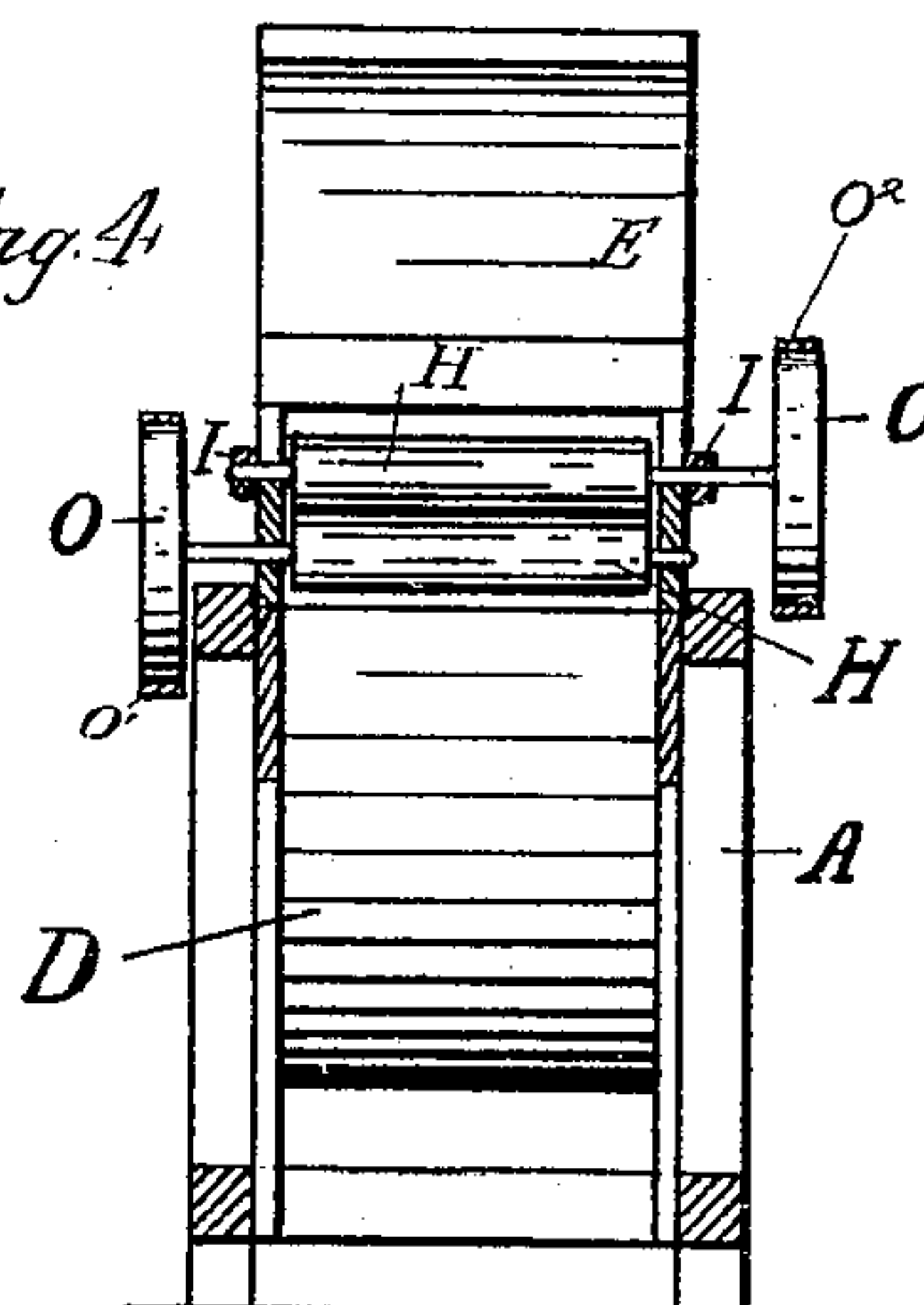


Fig. 2

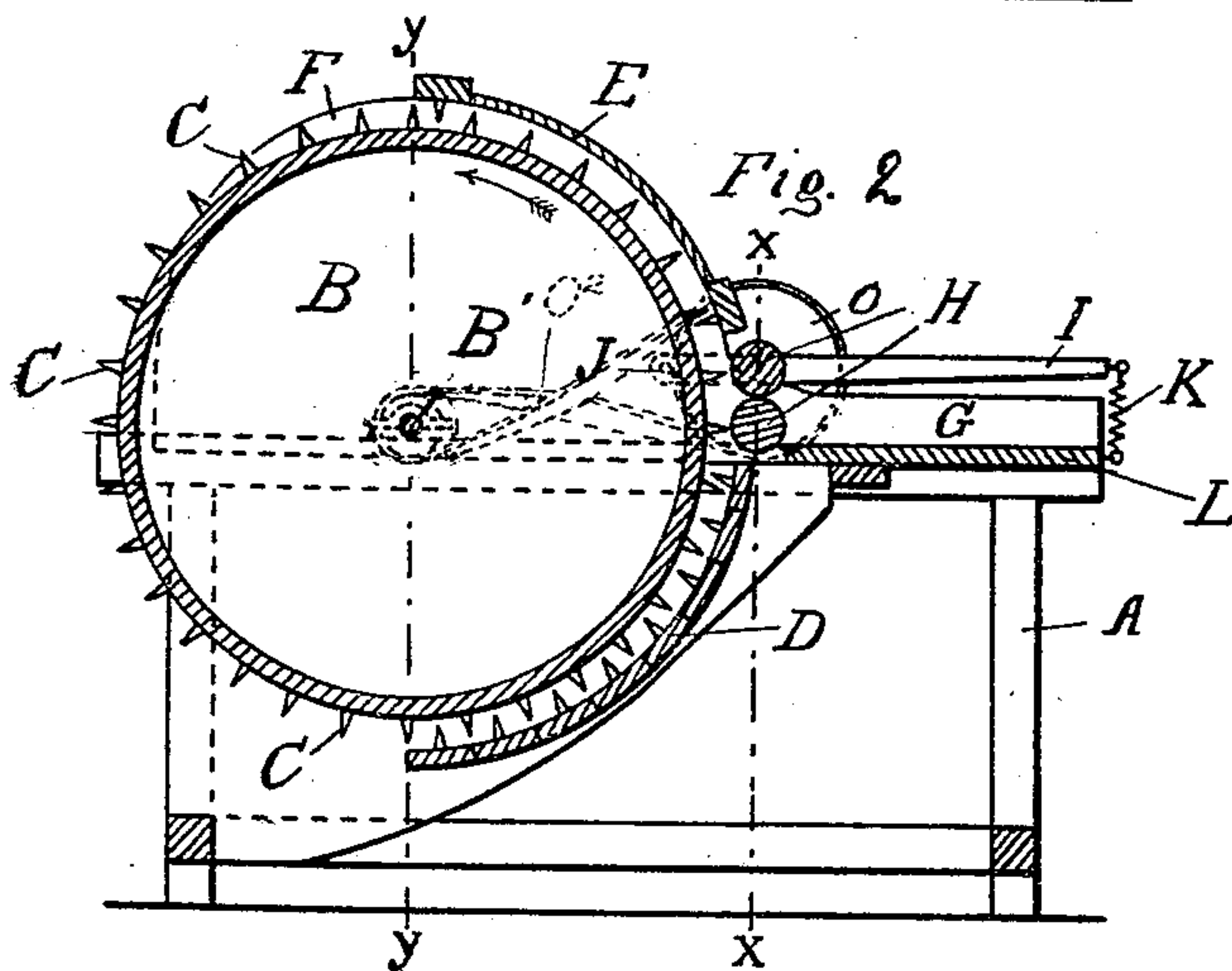


Fig. 5

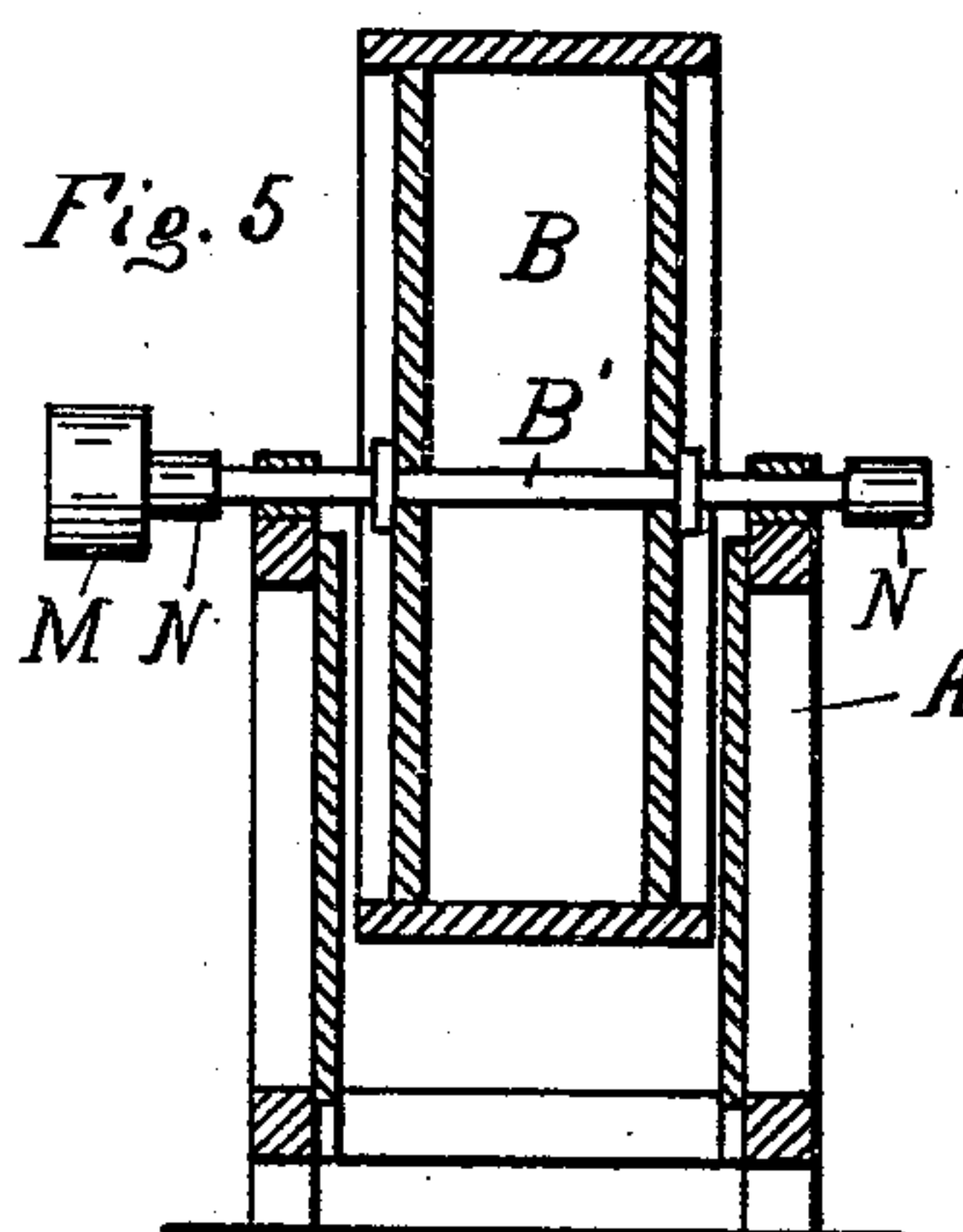
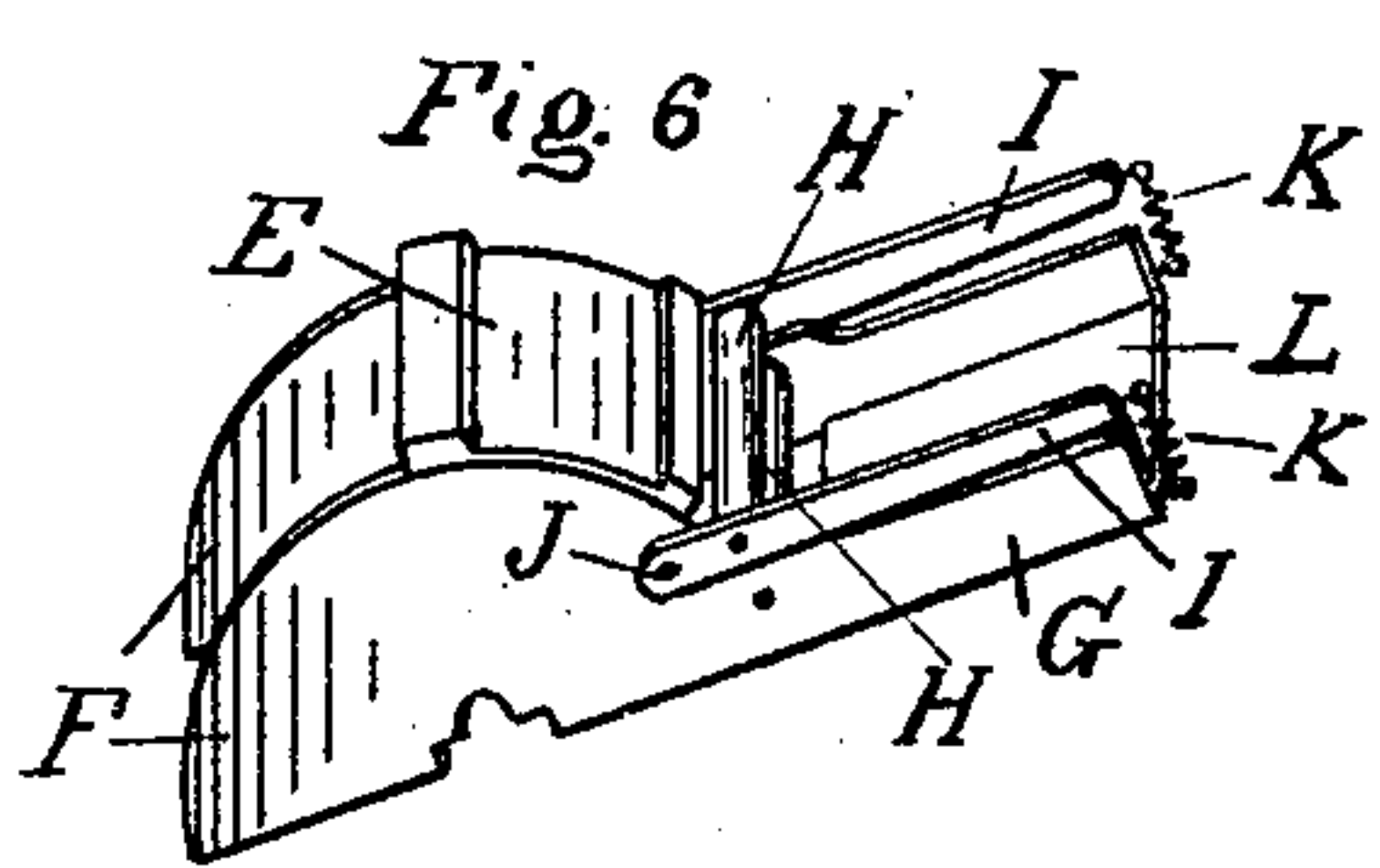
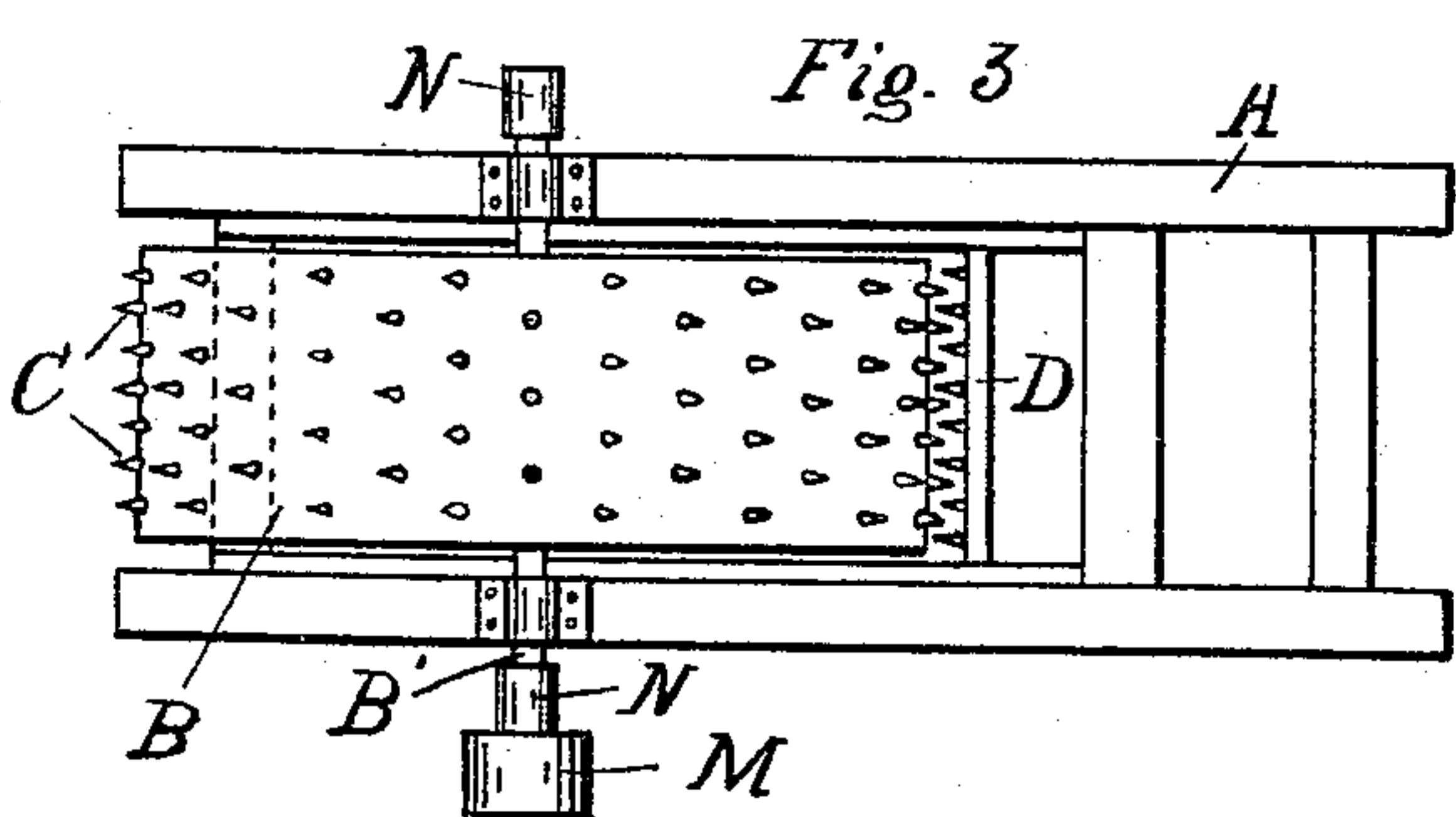


Fig. 3



Witnesses:

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# UNITED STATES PATENT OFFICE.

FRANK COHNEN, OF DETROIT, MICHIGAN.

## MACHINE FOR PICKING HUSKS, &c.

SPECIFICATION forming part of Letters Patent No. 377,095, dated January 31, 1888.

Application filed July 25, 1887. Serial No. 245,253. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK COHNEN, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Machine for Picking Husks, &c., of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in pickers for picking materials intended for the manufacture of mattresses and articles of a like kind; and the invention consists, first, in the provisions made for adapting the machine for all kinds of materials, such as husks, hair, wool, &c., and, second, in the provisions made for preventing the liability of injury to the attendant.

In the drawings which accompanies the specification, Figure 1 is a vertical central longitudinal section showing a picker arranged for picking husks or other materials of the same coarse nature. Fig. 2 shows the same machine as arranged for picking hair or materials of the same nature, the view being similar to that of Fig. 1. Fig. 3 is a plan view of the lower portion of the machine. Fig. 4 is a cross-section on line *x x* in Fig. 2, parts being in elevation. Fig. 5 is a similar view on line *y y* in Fig. 2. Fig. 6 is a perspective of the removable hood detached.

A is a frame which supports the operating parts of the machine, and which is of suitable strength and construction for support.

B is a picker-drum, preferably in the form of a wooden drum, secured upon the shaft B', which is journaled in suitable bearings upon the frame A. This picker-drum is provided with the usual picker-teeth, C, which preferably consist of steel pins secured upon the cylindrical periphery of the picker-drum.

D is a concave secured below and in front of the picker-drum and concentrically thereto. It embraces about one-quarter of the circumference of the picker-drum, and is provided with picker-teeth like the drum, which project within the interstices formed by the teeth on the picker-drum.

E, Fig. 2, is a concave arranged on the upper front side of the picker-drum. This concave is provided with a reduced number of picker-teeth, preferably only with two rows, one

at the beginning and one at the end of the concave; and this concave, instead of being fixedly secured to the frame like the other concave, is made removable. To this end the concave E forms a portion of a removable hood, which consists of two side pieces, F, of half-circular shape, or nearly so, provided with the rearward extensions G and table L, and which loosely rests upon the top of the frame A and embraces the upper part of the bearings of shaft B', thereby holding the concave in fixed relation with the picker-drum.

H H are two feed-rollers journaled between the sides G G below the upper concave, E, and the upper one of these feed-rollers is journaled in bearings, which are preferably carried by levers I, pivotally secured at J to the sides of the hood, and, extending forwardly, have secured to them the springs K, opposing their tension to the tendency of the upper feed-roll to rise.

Motion is communicated to the picker-drum by means of the pulley M, secured on the shaft B', from any suitable source of power, preferably from a large crank-wheel, driven by hand-power, placed at a suitable distance in rear, and from the shaft B' it is transmitted to the feed-rolls by means of small pulleys N, secured upon the shaft B', and pulleys O, secured upon the shafts of the feed-rolls H, there being a straight belt, O', on one side of the machine and a crossed belt, O'', on the opposite side, to cause the two feed-rolls to run in opposite directions.

In practice, the machine being constructed as described, the material is placed on the table L and evenly and gradually fed in by the feed-rolls. The picker-drum, running in the direction shown by the arrow in Fig. 2, carries the material through the upper concave, where it is subjected to the action of the picker-teeth, and is then delivered in a picked condition at the rear end of the machine, where it is discharged by centrifugal force.

It will be noticed that in this construction of the machine the lower concave is inactive, as the upper concave only does the work in connection with the picker-teeth.

A second arrangement of the machine is obtained by removing the hood which carries the upper concave, then placing a simple hopper, P, in position, as shown, and reversing the di-



rection of revolution of the picker-drum. This arrangement is for the purpose of picking coarser materials, such as husks, &c., which require an increased action of the picker-teeth, the material being simply thrown into the hopper P in small quantities.

In the present state of the art there is no provision made for adapting the same machine for all kinds of material, and in constructing picker-drums of this kind motion is generally transmitted by means of a crank or cranks for hand-power, and is then, by intermediate cog-gearing, conveyed to one feed-roll and to the shaft of the picker-drum, and by intermeshing cog-wheels from one feed-roll to the other feed-roll. Such pickers place the operator who turns the crank so near to the discharge end of the machine that he is seriously inconvenienced by the dust, and, also, the cog-gearing makes the machine extremely dangerous to life and limb, as the picker-drum, to do its work properly, must be run at a very high rate of speed, and a short stoppage in case of danger or accident is impossible.

I have done away in my machine with the employment of cog-gearing altogether, and drive the rolls by belt-connection, which will easily slip.

What I claim as my invention is—

1. The combination, with the revolving picker-drum and its stationary concave, of a removable hood carrying a second concave, a pair of feed-rolls, and a feed-table, substantially as described.

2. The combination, with the revolving picker-drum and its stationary concave, of the removable hood provided with the feed-table L and carrying a second concave with a lesser number of picker-teeth than the stationary concave, and a pair of feed-rolls journaled in said hood and operating in connection with said picker-drum.

3. In a picker, the combination of the frame A, revolving picker-drum B, shaft B', drive-pulley M, pulleys N, hood having concave E, feed-rolls H, and pulleys O, and belt-connections between said pulleys O and pulleys N, all arranged to operate substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 9th day of July, 1887.

FRANK COHNEN.

Witnesses:

JAS. WHITTEMORE,  
H. S. SPRAGUE.