

W. MONTGOMERY.

Improvement in Hackling-Machines.

No. 128,647.

Patented July 2, 1872.

Fig. 1.

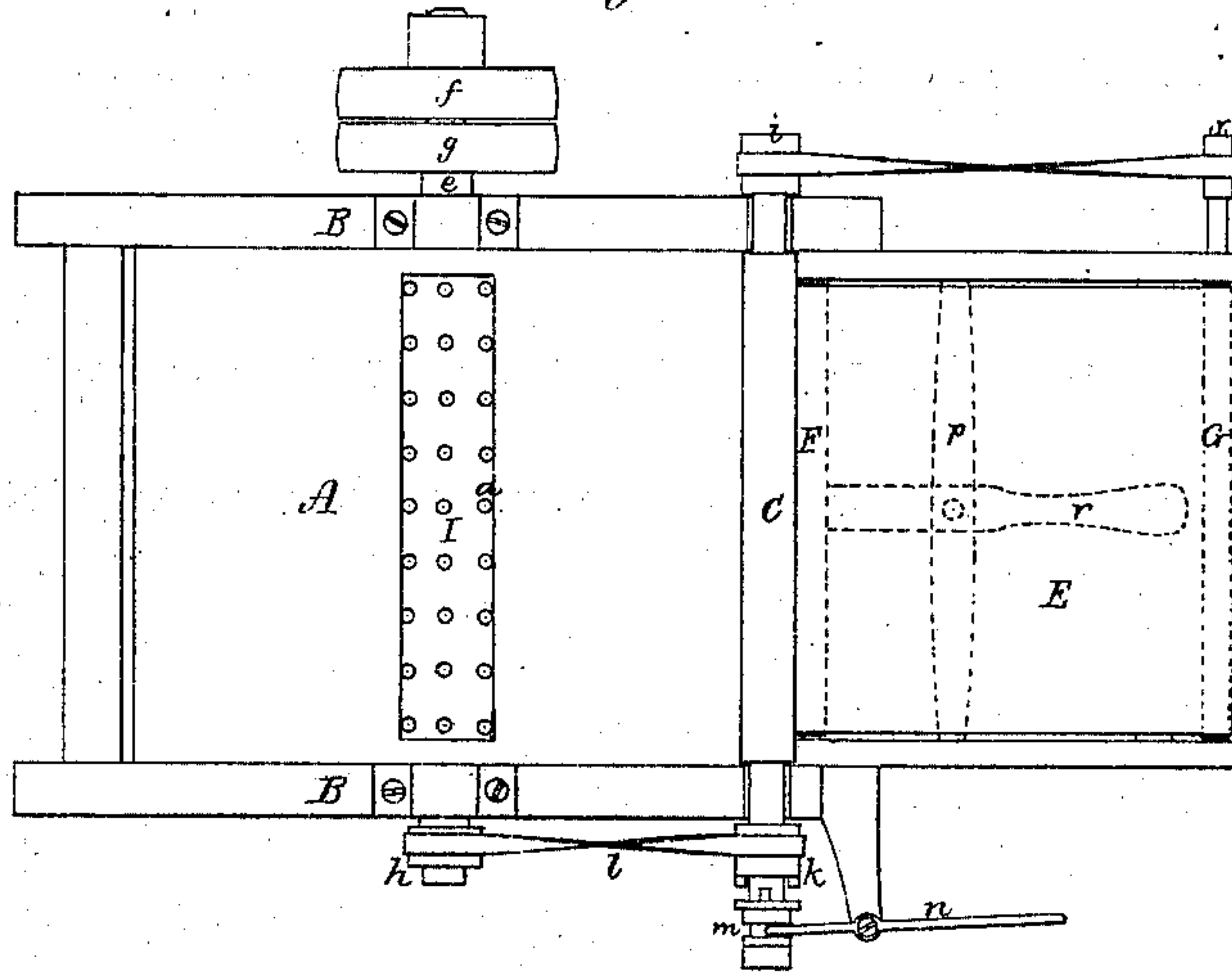


Fig. 2.

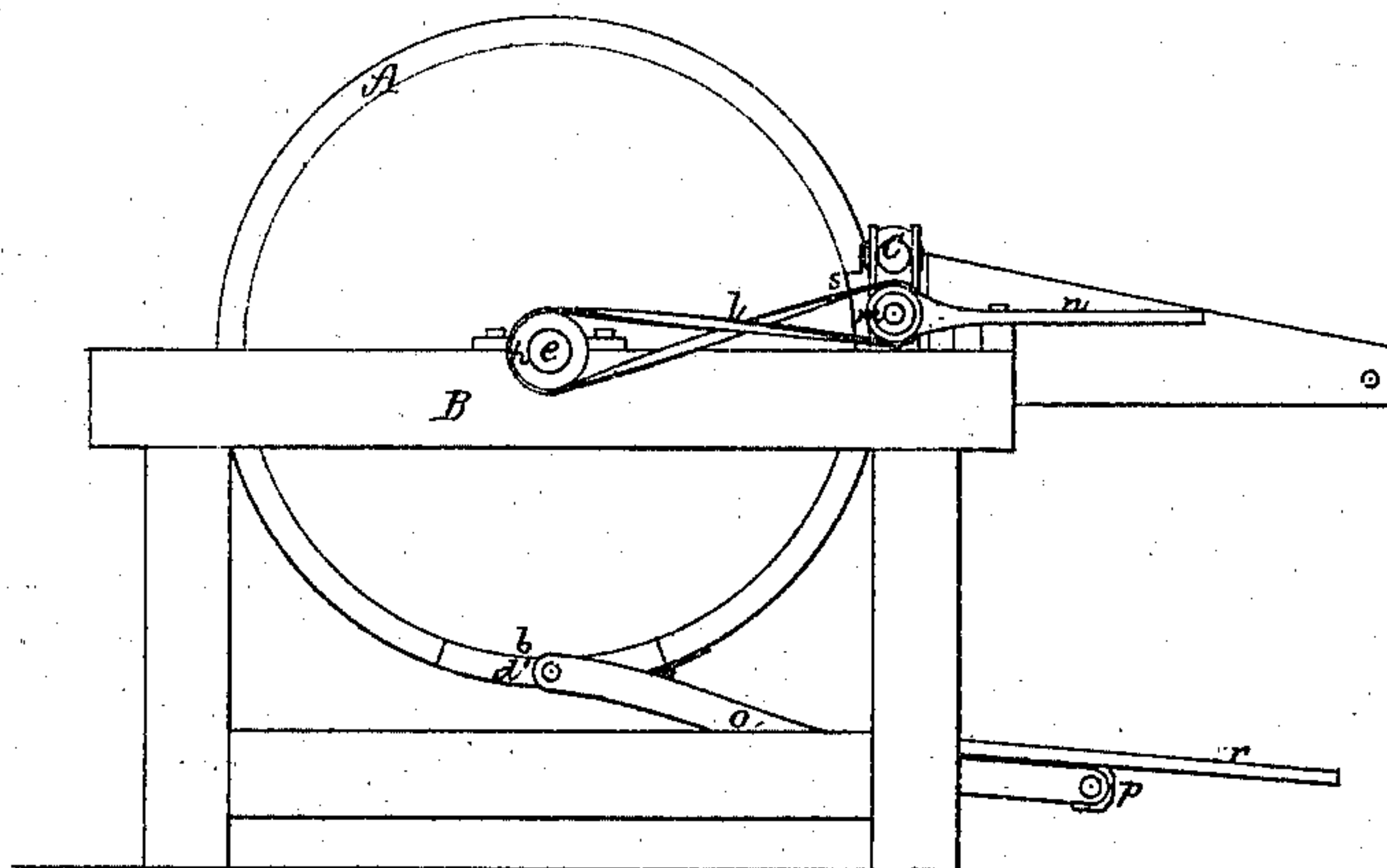
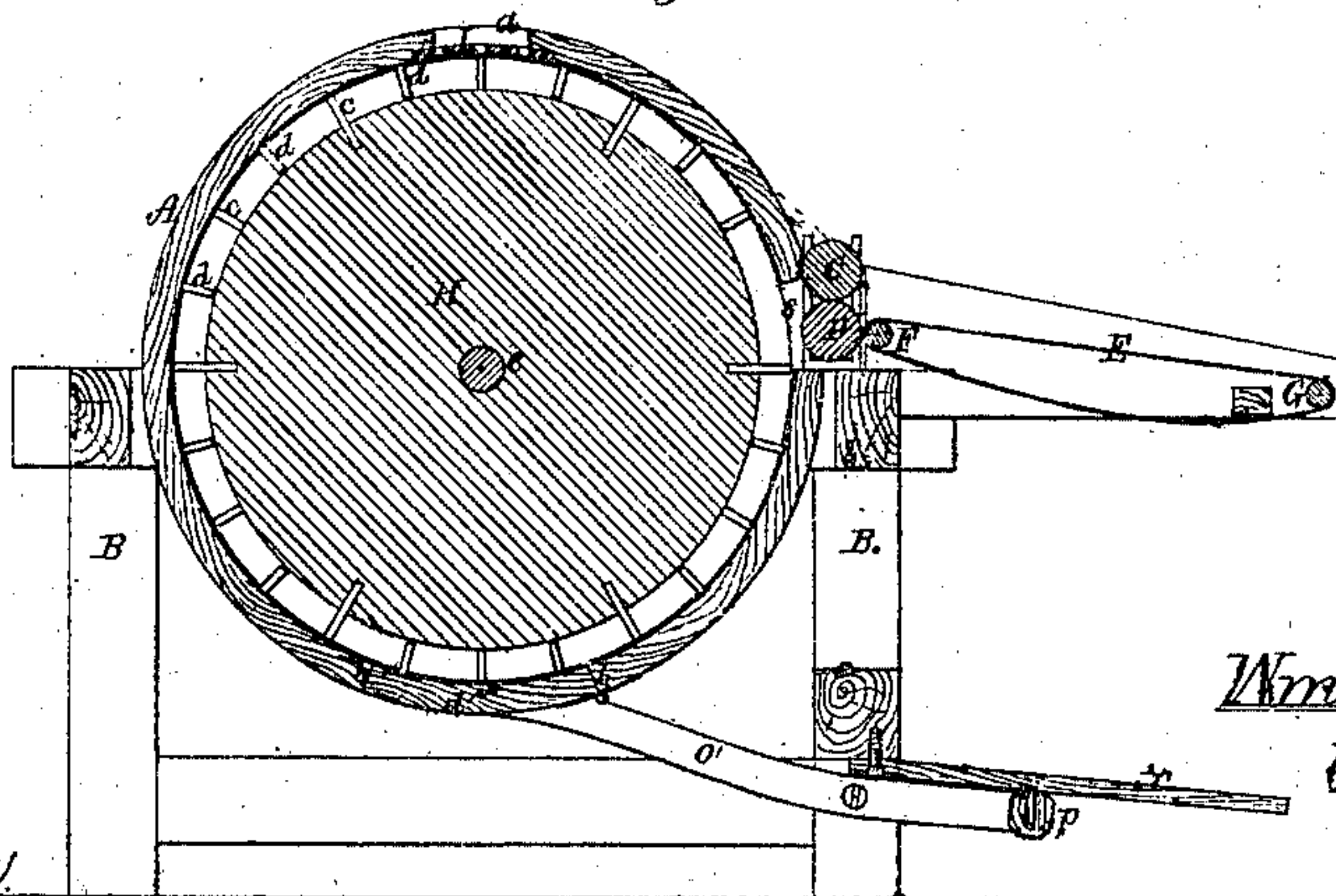


Fig. 3.



Witnesses.

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WILLIAM MONTGOMERY, OF WEST ROXBURY, MASSACHUSETTS.

IMPROVEMENT IN HACKLING-MACHINES.

Specification forming part of Letters Patent No. 128,647, dated July 2, 1872.

To all persons to whom these presents may come:

Be it known that I, WILLIAM MONTGOMERY, of West Roxbury, of the county of Norfolk and State of Massachusetts, have invented a new and useful Machine for Beating Jute-Butts or other like fibrous matters; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawing, of which—

Figure 1 is a top view, Fig. 2 a side elevation, and Fig. 3 a longitudinal section, of such machine.

In such drawing, A denotes a cylindrical case or drum, provided with rectangular openings *a b* at top and bottom, and another opening, *s*, between the two. An air-distributor, I, or metallic plate perforated with numerous holes, is fixed in the opening *a*; and to the opening *b* there is a curved door, *d'*, which is hinged to the side of the opening. The case so made is fixed within a frame, B, and opens against a pair of feed-rollers, C D, arranged, with respect to it, in manner as shown, and having in rear of them an endless apron, E, supported on two rolls, F G. Within the case, concentrically, is a beater-cylinder, H, it and the case being provided with ranges of teeth *c d* going around, each of the ranges of one being disposed between those of the other, so as to enable the cylinder to readily revolve within the case. On the arbor or shaft *e* of the cylinder are three pulleys, *f g h*, one of which, *f*, is a "loose pulley," and the others "fast pulleys." The pulley *g* serves to drive the cylinder by means of an endless belt from a suitable motor, drum, or pulley. On the shaft of the lower feed-roller are two pulleys, *i k*, one of which—viz., the pulley *i*—is "fast" and the other "loose" on the shaft, and is connected with the pulley *h* by an endless crossed belt, *l*. A clutch, *m*, provided with an operative lever, *n*, and arranged to slide on the shaft of the said lower feed-roller, serves to engage the shaft with the pulley *k*, as circumstances may require. Furthermore, an endless belt is to go about the pulley *i*, and another pulley, *x*, fixed on the shaft of the rear roller for supporting the endless apron. The door at the bottom of the case is pivoted to two levers, *o o'*, which are connected by a cross-bar, *p*, pivoted to a pedal or hand-lever, *r*, all being arranged in the frame as shown, and applied together in

a manner to enable a person, by means of the pedal *r*, to either open or close the door.

The purpose of the perforated plate at the upper part of the case is to allow air to enter the case in numerous currents, and to be distributed equally upon the cylinder, in order to prevent the jute from becoming drawn between the ends of the cylinder and those of the case, as it will without the air-distributor. It also serves to supply air to the case during discharge of the beaten material therefrom.

In using the machine an attendant, standing in rear of the endless apron, places and spreads upon it while it may be in motion a quantity of the jute-butts; and he is to continue to supply it with such as fast as may be necessary. At the proper time he is to seize the clutch-lever and move the clutch, so as to cause the feed-rollers to revolve and take up the butts and feed them into the case. The toothed cylinder being in rapid revolution, will catch the fibrous material and draw and beat it against the teeth of the case so as to separate from the fibers the bark and other extraneous matters. After the cylinder may have revolved a sufficient time to produce the desired result the door of the case is to be opened. The cylinder continuing to revolve rapidly, a strong current of air will be drawn through the air-distributor into the case, and will pass out of the door opening at the bottom of the case, carrying with it the dressed jute and the dirt and extraneous matters separated from it.

The machine has been found in practice to be highly effectual for the purpose for which it is intended.

I make no claim to a beater-cylinder arranged and combined with a case, each being provided with teeth, such being common to various machines.

What I claim as my invention is—

The machine, as described, composed of the feed-apron E and rolls C D, the toothed cylinder H and case A, the air-distributor I and the door *d'*, all arranged and constructed substantially in manner, and provided with mechanism for operating them, as explained.

W. MONTGOMERY.

Witnesses:

R. H. EDDY,
J. R. SNOW.