E. CHRISTIANSON.

Hemp Brake.

No. 67,268. Patented July 30, 1867.

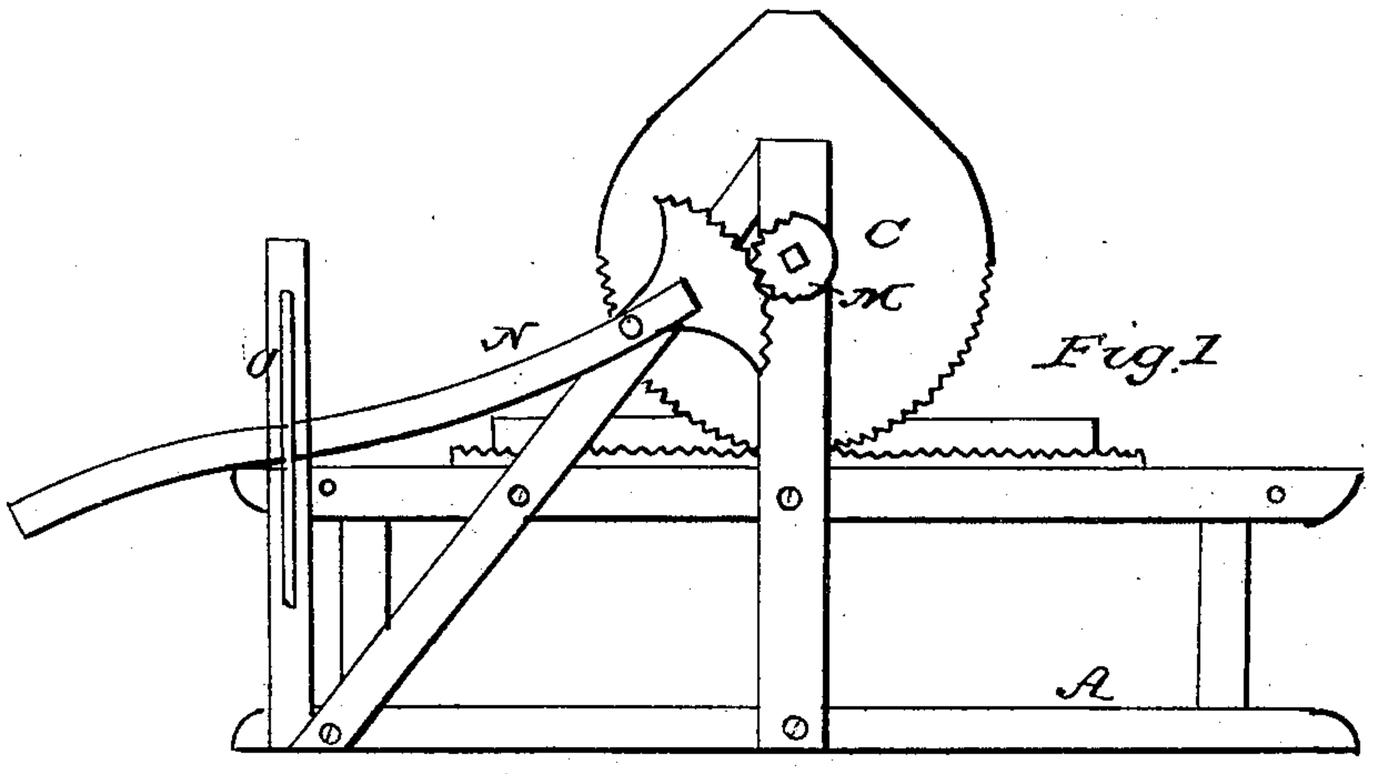
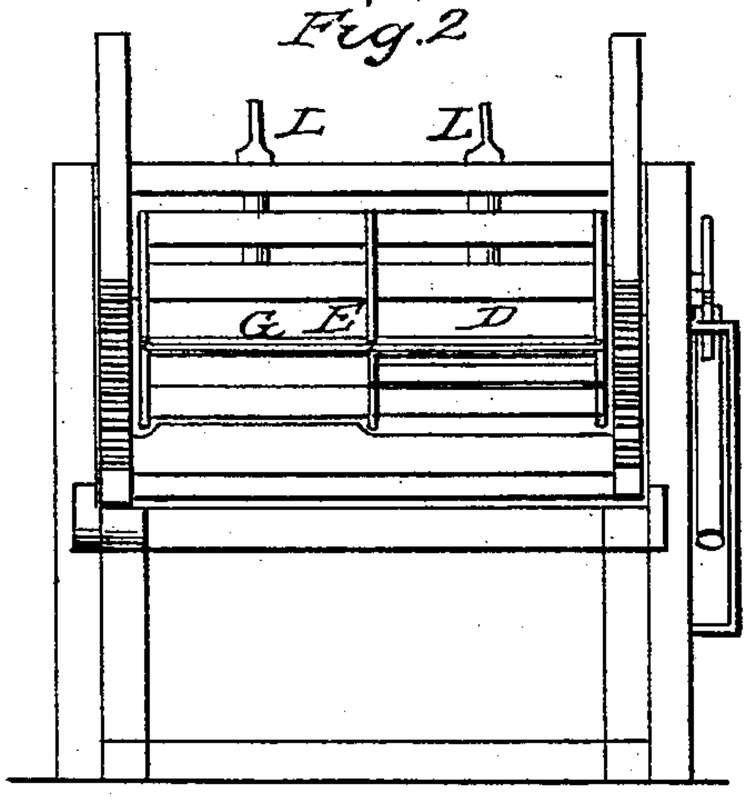
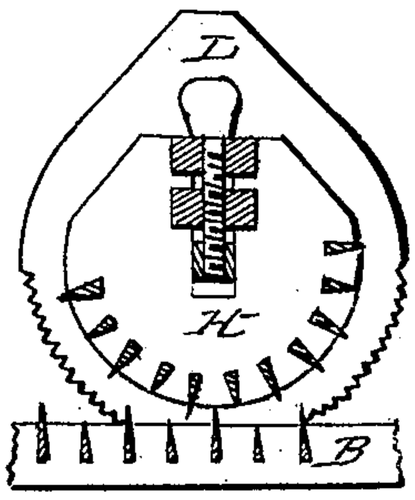


Fig. 1

Fig. 2





Witnesses
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ERASMUS CHRISTIANSON, OF ST. JOSEPH, MISSOURI.

Letters Patent No. 67,268, *dated July* 30, 1867.

IMPROVEMENT IN HEMP-BRAKES.

The Schedule referred to in these Letters Patent and making part of the same.

TO WHOM IT MAY CONCERN:

Be it known that I, ERASMUS CHRISTIANSON, of St. Joseph, in the county of Buchanan, in the State of Missouri, have invented a new and valuable Improvement in Hemp-Brakes; and I hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view.

Figure 2 is a cross-section; and

Figure 3 represents one of the main cog-wheels by which the sliding platform is moved, and one of the set-screws by which the machine is gauged.

The object of my invention is to construct a machine for breaking hemp that shall be more efficient than any similar device heretofore known.

To this end I construct a machine, the main frame of which is represented by the letter A on fig. 1. The two upper beams of this frame are planed out so as to form a convenient bed for the sliding platform hereinafter mentioned. Letter B is a sliding platform. It is constructed with cogs, as represented, on the upper side of its side pieces, by means of which it is moved back and forth by the cog-wheel C, hereinafter described. This platform has also a double set of knives, marked D. These are placed at right angles with the cogged beams B. They are also divided at their centres by a cross-beam, E, and are adjusted in such manner that they are twice as numerous, and consequently approach each other twice as nearly, on one side of the said beam E as on the other. The mode of this adjustment, and the relative distances of these knives from each other, are shown in fig. 3. Letter C is a cog-wheel, two of which are used on my brake. They are adjusted in two upright side posts, attached to the centre of the main frame A by means of a strong iron bar that passes through the centres thereof, and serves as a shaft. This shaft is marked G. Inside of these main cog-wheels I adjust a movable circle, marked H. It is constructed with two end and one middle disk of iron, in which I place knives, as shown on fig. 3. These knives correspond in all respects, as to number, length, and size, with the knives on the sliding platform B, with which they work, meshing, like cog-wheels, one within the other. I make suitable slots in the said inner disks, and place a firm iron or timber beam on the top thereof, to enable me to adjust the action of my brake by the set-screws next mentioned. L L are set-screws, adjusted and arranged as shown on figs. 2 and 3. They serve to adjust the circle H at any required distance from or proximity to the platform B, and thereby enable me to work the brake with either coarse or fine material. M is a small cog-wheel attached to the end of the main shaft G, outside the side posts above mentioned. N is a lever, having a cog attachment, as shown on fig. 1, which cog attachment works with the cogs of the small cog-wheel M. This lever is held to the side of an upright post of the main frame, as shown on fig. 1, by means of the long staple O.

My device is operated as follows: I first adjust the circle H in the position required, by means of the set-screws L L. If the hemp be very coarse, or poorly rotted, the distance of the circle from the sliding platform must be greater than when the hemp is fine and well rotted. If also the hemp be coarse, or poorly rotted, I first place it on the side of the platform and circle having the least number of knives. I then move the lever N up and down in the staple O, and the platform is moved back and forth. At each movement of the lever, also, the knives in the circle mesh with the knives in the platform, and the work is accomplished.

A very little observation and experience on the part of the operator will instruct him on which side of the platform to place the hemp, and also when it is proper to move it from one side to the other, the general rule being that coarse or poorly rotted hemp should first be broken on the side that has the least number of knives.

What I claim as my invention, and desire to secure by Letters Patent, is—

A hemp-brake, having frame A, platform B, cog-wheels C, circle H, set-screws L L, cog-wheel M, and lever N, constructed, combined, and operating substantially as specified.

ERASMUS CHRISTIANSON.

Witnesses:

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