

No. 772,365.

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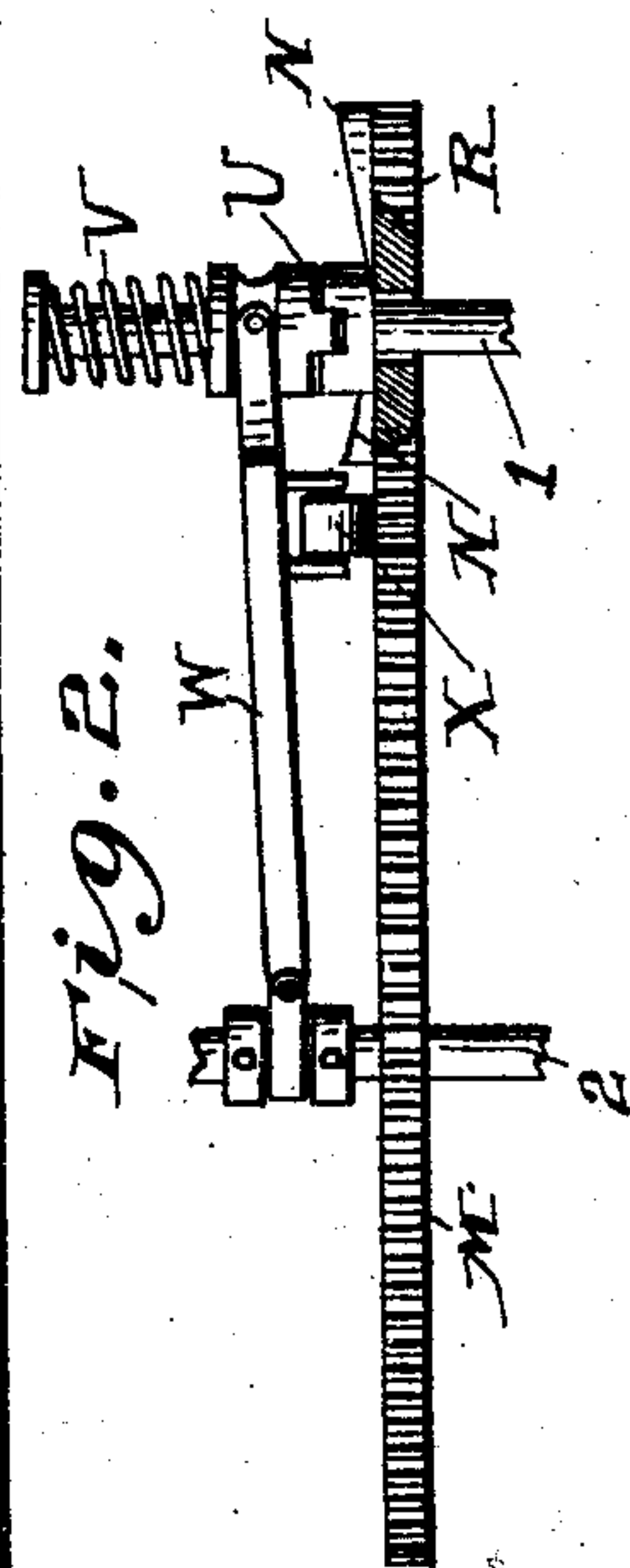
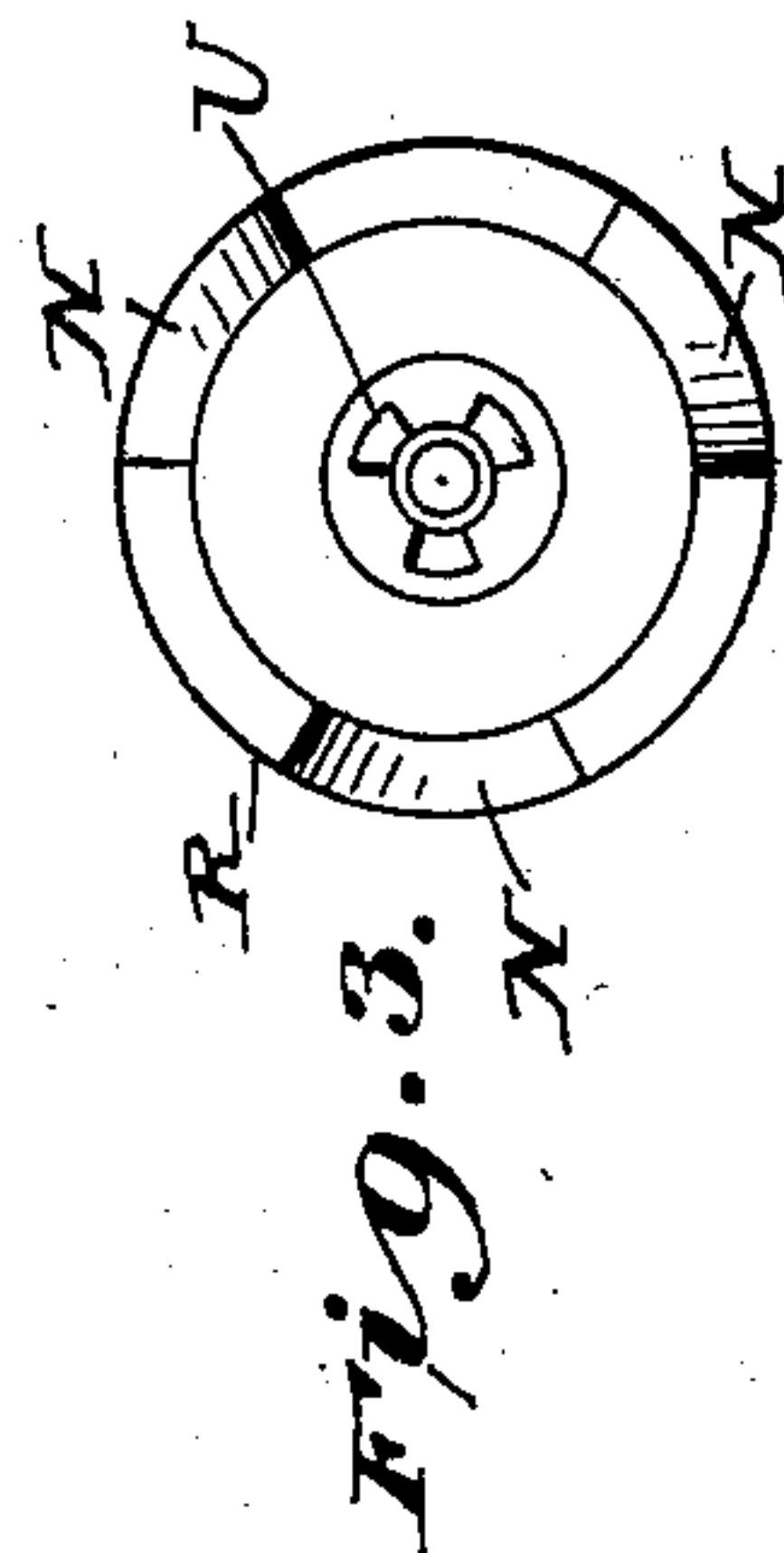
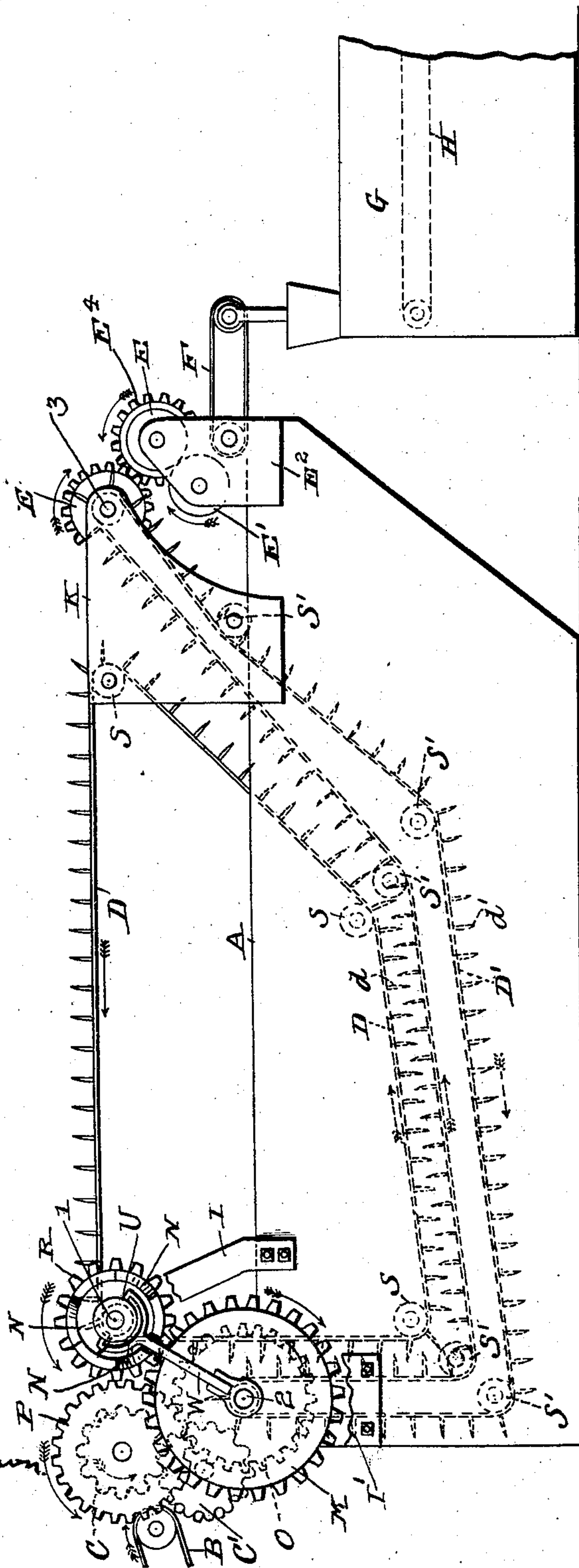
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WET MOSS CARDING AND CLEANING MACHINE.

APPLICATION FILED APR. 23, 1903.

NO MODEL.

Fig. 1.



Witnesses

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WET-MOSS CARDING AND CLEANING MACHINE.

SPECIFICATION forming part of Letters Patent No. 772,365, dated October 18, 1904.

Application filed April 23, 1903. Serial No. 153,987. (No model.)

To all whom it may concern:

Be it known that I, MEDERIC C. MOLLERE, a citizen of the United States, residing at Belle-rose, in the parish of Assumption and State of Louisiana, have invented certain new and useful Improvements in Wet-Moss Carding and Cleaning Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in wet-moss carding and cleaning machines, and has for its object to provide a machine which is very durable, simple, and inexpensive in construction, easy to operate, and which will treat the moss and render it clean and glossy with very small loss and without breaking the fiber, and thus producing a higher grade of moss than machines now in existence, especially the dry-moss carding and cleaning machines which cut up the moss and then pass it through blowers to rid it of dust and dirt, and thereby lose about fifty (50) per cent. of the moss. Moreover, the old dry-moss-carding machines require the constant services of five or six attendants, while my invention requires the services of only three or four.

My invention consists in the construction, combination, and arrangement of the several features, as more fully hereinafter described and claimed.

In the accompanying drawings, which illustrate my invention, Figure 1 represents a side elevation of the wet-moss carding and cleaning machine embodying my invention; Fig. 2, a detail view of the clutch; Fig. 3, a detail view in elevation of the gear having the lugs for operating the clutch.

The same characters of reference indicate the same parts in all the figures.

Referring to the drawings, A represents a tank designed to be filled with water or other liquid and made, preferably, about fifteen feet long by four feet wide and five feet high.

B is an endless carrier or feed apron for feeding the moss to the machine.

C and C' are two crushing-rollers provided with teeth.

D and D' are upper and lower endless open-spaced carriers provided with a series of sets of teeth d and d' , respectively, designed to cooperate with each other and card the moss as it passes between them. The carrier D is operated by means of a shaft 1, journaled in a bracket I on each side of the tank A, and runs over idlers S, and carrier D' is operated by means of shaft 2, journaled in bracket I', and runs over idlers S' and also over shaft 3, journaled in a bracket K on each side of the tank. The carriers D and D' travel at different rates of speed. The carrier D travels faster than the carrier D' and stops at intervals—that is, it has an intermittent movement—for the purpose of giving an additional carding to the moss and opening the fiber thereof so as to allow any broken pieces of wood or other material to be expelled therefrom and float through said carriers between the series of teeth to the surface of the water and also allow any dirt to pass downward through said carriers and settle at the bottom of the tank.

E E' are rollers between which the moss is pressed after it has been acted on by the carriers. Said rollers are journaled in a bracket E², secured on each side of the tank A.

E³ is a gear-wheel mounted on a shaft 3, which meshes with a gear-wheel E⁴ on the shaft of the roller E and operates said roller E, which in turn operates roller E'.

F is an endless carrier or apron, supported and operated by any suitable means, which receives the moss from the rollers E E' and delivers it to the drying or heating chamber G.

H is an endless carrier or apron which passes through and carries the moss out of the drying or heating chamber.

M is a gear-wheel mounted on the shaft 2, which meshes with the gear-wheel R on shaft 1. Said gear-wheel R is mounted loosely on the shaft 1 and is provided on its face with a plurality of inclined lugs N.

U is a two-part clutch, one of said parts being secured to the gear-wheel R and the other part slidably keyed on the shaft 1, and V is a spring on the shaft 1 behind the slidable part of the clutch.

W is an arm, one end pivoted loosely on

the shaft 2 and the opposite end forked and pivoted to the slidable part of the clutch.

X is a roller secured to the arm W, which is designed to travel around the face of the gear-wheel R and stop the revolution of said gear-wheel when said roller engages with the lugs N by causing the slidable part of the clutch to be drawn away and disengaged from the other part of the clutch on the gear-wheel R.

The operation of the machine is as follows: The shaft 2 is driven by a belt or in any other suitable manner and operates the lower carrier D', and the gear-wheel M drives the gear-wheel R, which in turn operates the upper carrier D. The gear-wheel O, also mounted on shaft 2, drives the gear-wheel P, which operates the crushing-rollers C C'. The gear-wheel E³ operates the gear-wheel E⁴ and operates roller E, which operates roller E'. The moss is placed on the endless carrier or apron B, which feeds it to the crushing-rollers C C', the teeth of which break the brushes or pieces of wood (always found in raw moss) into small pieces and separate and open the fiber of the moss. From the crushing-rollers C C' the moss passes between the two endless carriers D D' and is engaged by the teeth thereon, which coöperate with each other and card the moss as it travels along, and at specified intervals the upper carrier D stops to allow an additional carding of the moss and to expel any broken pieces of wood or other material. The broken pieces of wood will pass up through the open spaces of the carriers and float on the surface of the water in the tank, while the dirt or other material will settle to the bottom of the tank, the lower carrier in meantime traveling continuously. After the moss has been acted on by the carriers it passes between the rollers E E', by which it is pressed, and from thence to the endless carrier or apron F, which delivers it to the endless carrier H of the drying or heating chamber G, and after being sufficiently dried said carrier H carries it out of said chamber. I prefer to make the spaces

per carrier about four inches and the spaces between the series of sets of teeth of the lower carrier about two inches; but the size of said spaces may be changed.

I do not desire to be understood as limiting myself to the specific details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement on the adaptation of the apparatus to various conditions of use without departing from the spirit and scope of my invention and improvements. I therefore reserve the right to all such variations and modifications as properly fall within the scope of my invention and the terms of the following claims.

What I claim is—

1. In a machine for carding and cleaning wet moss, oppositely-toothed coöperating carriers, means for driving one of said carriers intermittently and the other continually, substantially as described.
2. In a machine for carding and cleaning wet moss, oppositely-toothed, coöperating, open-spaced carriers, means for driving one of said carriers intermittently, substantially as described.
3. In a machine for carding and cleaning wet moss, opposite-toothed open coöperating carriers, means for driving one of said carriers at a greater speed than the other, and an automatic clutch for stopping one of said carriers at intervals, substantially as described.
4. In a machine for carding and cleaning wet moss a tank adapted to contain liquid in combination with opposite-toothed coöperating and open carriers, and also means for feeding said moss to said carriers and means for driving said carriers at different rates of speed, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

MEDERIC C. MOLLERE.

Witnesses:

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RODOLPH MOLLERE.