Sheet 1. 2 Sheets.

L. Monroe.

Carding Mach.

No. 75,290. Patented Mar. 10, 1868.

Witnesses.

J. H. Whitney

John E. Cradne

Inventor.

Lang. Monroe

Sheet 2-2 Sheets.

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Fig: 8.

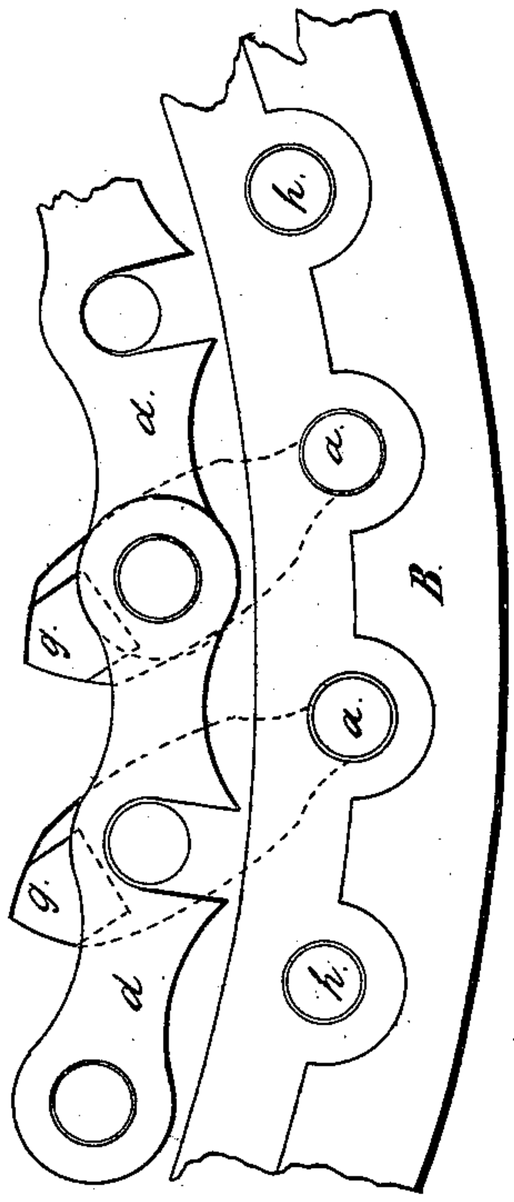


Fig: 9.

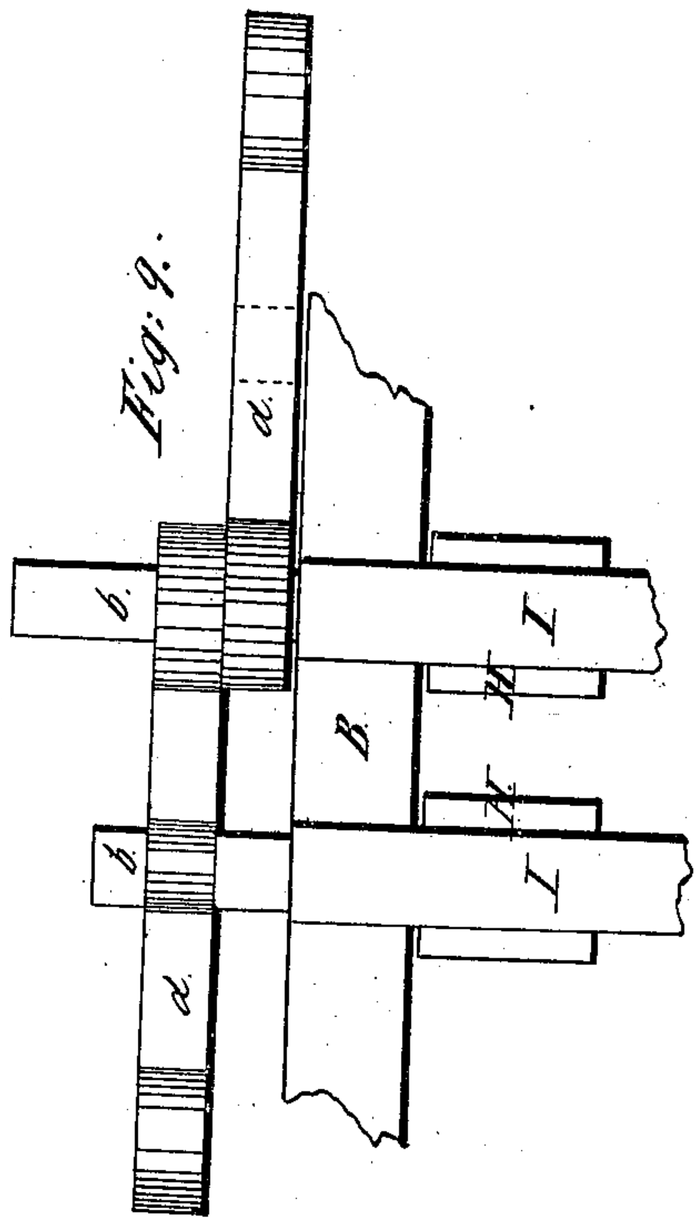


Fig: 6.

Fig: 5.

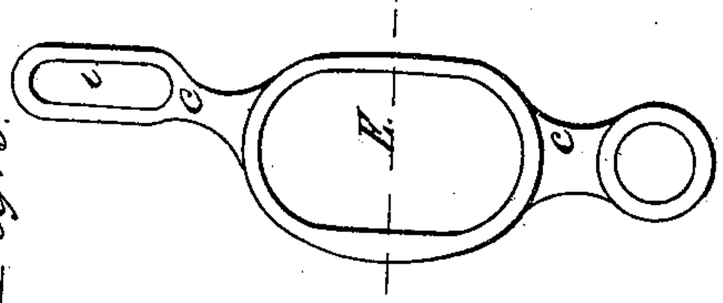
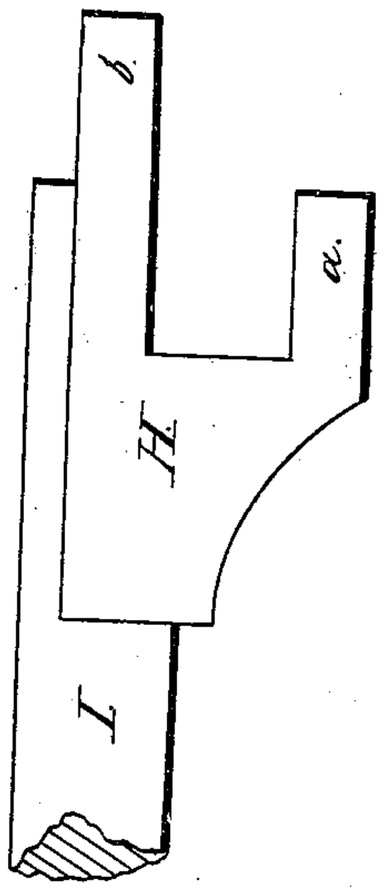


Fig: 7.



Witnesses.
J. S. Whitney
John E. Crane.

Inventor.
Lang. Monroe.

United States Patent Office.

LANG MONROE, OF LOWELL, ASSIGNOR TO HIMSELF AND CHARLES G. SARGENT, OF GRANITEVILLE, MASSACHUSETTS.

Letters Patent No. 75,290, *dated March* 10, 1868.

IMPROVEMENT IN RACKS FOR CARDING-ENGINES.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, LANG MONROE, of Lowell, in the county of Middlesex, and State of Massachusetts, have invented certain new and useful Improvements in Waste-Preventing Racks for Carding-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a longitudinal vertical section.

Figure 2, a side elevation, after a portion of the frame has been removed.

Figure 3 is an enlarged inner side view of a detached pulley, *k*, shown in red in fig. 2, with the cam *e*, which actuates the slotted arm *c* to oscillate the slats or bars *g*.

Figure 4 is a central section of fig. 3.

Figure 5 is a side, and

Figure 6 an edge view of a slotted arm, *c*, considerably enlarged.

Figure 7 shows a side view of a portion of a detached slat or bar, *g*, with the end connection H, one of the pivots *a*, on which each slat oscillates, and one of the studs *b*, by which all the slats are connected together.

Figure 8 shows a small portion of one of the semicircular supports, B, to which the oscillating-bars are pivoted, with two of said bars connected by links *d*, which connect the whole series of bars in the same or a similar manner.

Figure 9 is a plan or top view of fig. 8.

This invention consists in a series of oscillating-slats or bars, *g*, arranged beneath and around a considerable portion of the main cylinder A, or the tumbler, C, of a carding-machine, and parallel with the axis of each of such cylinders or tumblers, and so close to the working surface of the card-teeth on such cylinders, that all the wool or other fibrous substance under operation, which may be thrown off from such working or carding-cylinders, by centrifugal force or otherwise, may be caught up by said card-teeth and carried forward and through the various operations of the different working parts of the machine. Suspended or supported by suitable hangers or brackets, attached to the frame of the carding-machine, and at each end thereof, are semicircular supports, B, which have holes, *h*, to receive the pivots *a* of the oscillating-bars *g*, as clearly shown in fig. 8. These supports contain a full series of oscillating-bars, which form a movable rack or grate under the main cylinder A and the tumbler C. Each series of oscillating-bars is connected together at one or both ends by links *d*, which connect with studs, *b*, projecting from the ends of each oscillating-slat, or from the end connection, H, thereof. The series of oscillating-bars or slats, beneath the tumbler C, is connected with and operated by the action of the oscillating slats or bars beneath the main cylinder, by means of a connecting-rod or link, D, shown in fig. 2. The series of oscillating-slats or bars beneath the main cylinder is operated by or receives its oscillating motion from a slotted arm, *c*, actuated by an eccentric, *e*, secured to the inner side of a pulley, *k*, on the outer end of the eccentric-shaft or stud. This stud is adjustable vertically in a slotted ear, *m*, projecting downward from one of the supports, B, but is held firmly to the ear by a nut screwed into the end of the stud against the back of the ear. The slotted arm *c* is pivoted to the lower extremity of the ear *m*, and the top end of said arm has a slot, *i*, to receive one of the studs *b* projecting from an oscillating-slat. The pulley *k* is driven by a band, *o*, from a pulley on the shaft of the main cylinder, or from some other rotating pulley. When the pulley *k* is rotated, the eccentric, *e*, is also rotated within the slot E of the arm *c*, which moves or oscillates the arm, or the top end thereof, connected with the stud *b* of one slat or bar, and by means of the links *d* and the link or rod D, all the slats or bars are oscillated together.

Any other connecting and operating-device or apparatus may be employed to impart oscillating motion to the slats or bars, and connected with any other moving part of the carding-machine, either by a belt or band, or by gears arranged to operate the bars. The slats or bars may be of any desired thickness, and placed at any convenient or desired distance apart, to allow the dirt to pass between them to the floor beneath, but retain the wool on their top edges. These slats or bars may be made with Λ-shaped top edges, or rounded or flat on the top or inner edges, according to the length of the fibre or staple of the substance or material to be operated upon.

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

1. I claim a series of slats or bars, *g*, constructed and operating substantially as described, for the purpose set forth.

2. I claim the links *d*, in combination with the pivoted slats or bars *g*, as and for the purpose set forth.

3. In combination with the two series of oscillating-bars, the link or rod D, for connecting one series of such slats or bars with the other series of similar bars, and for operating the same, substantially as and for the purpose specified.

4. I claim the eccentric, *e*, and slotted arm *c*, or the equivalent thereof, combined with the series of pivoted slats or bars, and arranged to operate the same, in the manner and for the purpose substantially as specified.

5. I claim the end connection H, provided with a pivot, *a*, and stud *b*, for connecting and operating the slats or bars, as set forth.

LANG MONROE.

Witnesses:
J. S. WHITNEY,
JOHN E. CRANE.