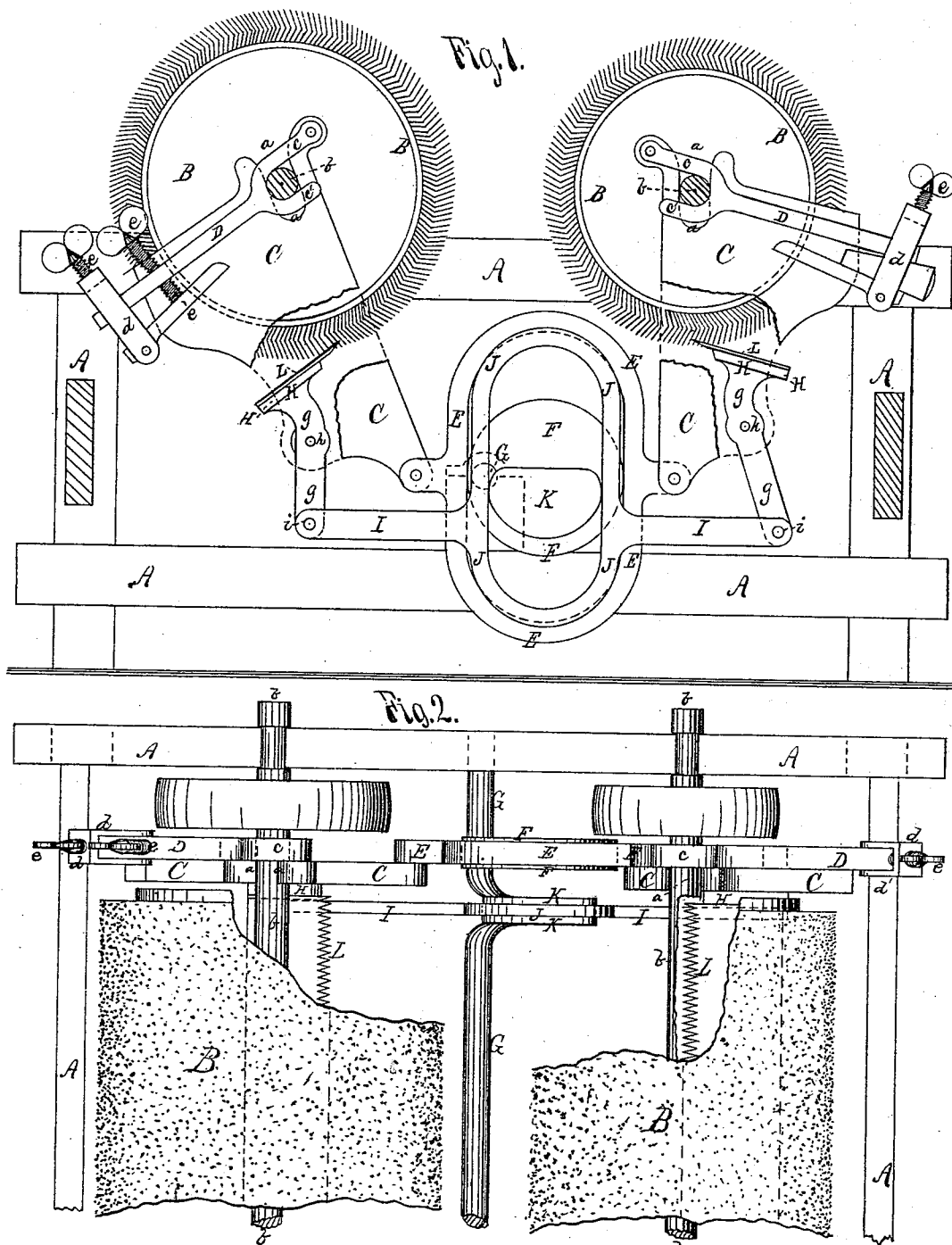


H. SPAULDING.
Machine for Cleaning Card-Cylinders.

No. 166,565.

Patented Aug. 10, 1875.



Witnesses.
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UNITED STATES PATENT OFFICE.

HERVEY SPAULDING, OF SPRINGVILLE, NEW YORK.

IMPROVEMENT IN MACHINES FOR CLEANING CARD-CYLINDERS.

Specification forming part of Letters Patent No. **166,565**, dated August 10, 1875; application filed June 22, 1874.

To all whom it may concern:

Be it known that I, HERVEY SPAULDING, of Springville, in the county of Erie and State of New York, have invented certain Improvements in Machines for Cleaning Card-Cylinders, of which the following is a specification:

This invention is an improvement on my patent of May 12, 1874, No. 150,725, for cleaning cards of woolen or cotton carding machines; and the invention consists in an oscillating frame, a comb, or cleaner, which is moved back and forth by cams and eccentrics on a line with the outer periphery of the "strippers," main cylinders, or workers, and whereby the short wool, &c., with which they become clogged is removed. The invention further consists in the means for adjusting the combs to clean to any depth or to fit different-sized cylinders, as hereinafter described.

In the drawings, Figure 1 is a sectional side elevation. Fig. 2 is a plan view.

A is the frame, and B B the strippers or workers, of a carding-machine, one being right-handed and the other left-handed, as shown. These are set in suitable boxes on the side of the frame A, and are revolved slowly, by a belt or its equivalent, from the machinery of the mill. C C are oscillating frames placed at the ends of the cylinders, and provided with slots *a a* in their upper sides, which fit around the shafts *b b* of the cylinders B B, (see Fig. 1,) and are held thereto by adjustable forked levers or arms D D, one point, *c*, being pivoted to the frame C, while the other, *c'*, rests under the shaft, the main shank D running back, and being clamped and held in any position by straps *d d* and screws *e e*, as shown, or their equivalents. By this means the frames C C can be adjusted to any desired height, and held firmly there, to enable the comb to clean deeper or lighter, as may be desired. The lower parts of the frames C C are connected by a slotted plate or eccentric frame, E, in which an eccentric, F, on a shaft, G, works, and by which means the frames C C are moved back and forth alternately. H H are two frames running across beneath the cylinders, and having arms *g g* running downward from them, and which are pivoted to the inside of the frames C C at *h h*, and at *i i* to arms I I of another eccentric strap or frame,

J, in which a peculiar-shaped cam, K, revolves, secured to the shaft G, as shown in Fig. 2. On top of these frames H H are secured two combs or cleaners, L L, which are formed precisely like the hand-cleaners now in use.

The operation is as follows: The levers D D being loosened by letting off the set-screws, the straps *d d* may be thrown off, the levers raised, and the cylinders removed. When another pair are to be cleaned they are placed in the frames in the same manner, and adjusted by the set-screws, &c., so that the combs will work to the required depth. The power being then applied to the shaft G, the frames C C will be moved back and forth by means of the eccentrics, &c., and, carrying with them the combs L L, they will act upon the cards on the cylinders, working in a circle with them, and clean them in precisely the same manner as when operated by hand, but without danger of damaging the carding-teeth. When they have reached the end of the stroke the cam K will, by its peculiar shape, have so changed its position as to move the arms *g* slightly backward, and thus throw the points of the combs downward and hold them in that position until they have reached the limit of the backward stroke, to prevent them striking the cards, when they will be thrown back to their former position, and be ready to clean another stretch. In the meantime the card-cylinders will have been revolved slowly backward sufficiently to bring an uncleaned portion above the combs, and so on. The cam K has a part of its periphery parallel with the eccentric F, which serves to keep the combs in one position during the back stroke.

By arranging the frames C C with the shafts *b b* as centers, the combs L L will always move in a line with the outer periphery of the cards, and thus prevent them from working too deep.

This machine will clean both right-handed and left-handed strippers and workers at once.

If only the right-hand one is to be cleaned, the other is taken out and a mere shaft set in the boxes, to keep the machine working properly. Both cylinders can be run, working and cleaning alternately.

I claim—

1. The steel comb or cleaner L, in combination with the frames C C H *g g*, eccentric F,

cam K on shaft G, and eccentric frames J E, whereby the comb is adapted to be moved in a circle concentric with the periphery of the cylinder to be cleaned, substantially as and for the purpose specified.

2. The combination, with the frames C C, slotted at *a a*, whereby they are adapted to hang on shaft *b*, of the slotted lever-arms or boxes D *c c*, the set-screws *e e*, and straps *d d*,

for adjusting the cleaner toward or away from the cylinder, substantially as specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HERVEY SPAULDING.

Witnesses:

J. R. DRAKE,

T. H. PARSONS.