

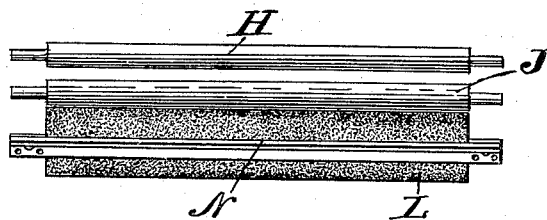
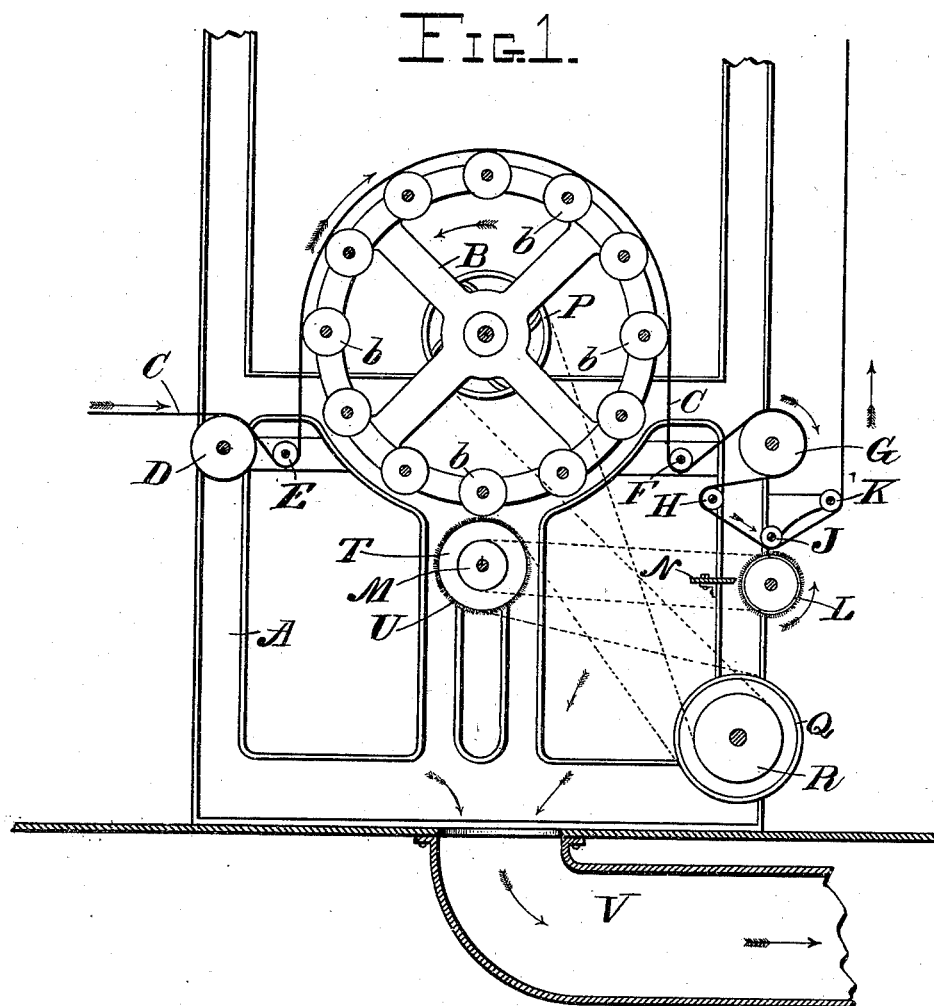
No. 647,323.

Patented Apr. 10, 1900.

W. H. O'BRIEN.
NAPPING MACHINE.

(Application filed Nov. 27, 1899.)

(No Model.)



Witnesses
John V. Holt.
J. Stephen Givens.

FIG. 2.

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UNITED STATES PATENT OFFICE.

WILLIAM H. O'BRIEN, OF COLUMBIAVILLE, NEW YORK.

NAPPING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 647,323, dated April 10, 1900.

Application filed November 27, 1899. Serial No. 738,412. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. O'BRIEN, a citizen of the United States, residing at Columbiaville, in the county of Columbia and State of New York, have invented certain new and useful Improvements in Napping-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 napping and similar machines, and more particularly to an improved attachment for such machines whereby the napped surface of the cloth is thoroughly divested of any and all adhering flocks of fiber or loose lint which the napping-machine fails to remove.

To this end my invention comprises the combination of parts hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which form a part of this specification, Figure 1 represents a napping-machine, partly in vertical section and partly in elevation, provided with my improved attachment; and Fig. 2 represents the rollers and knife-blade embodying my invention in front elevation and removed from the machine.

Similar letters refer to similar parts throughout both views.

A represents the frame of a napping-machine, and B its drum, carrying the napping-rolls *b*. The heavy line C represents the cloth operated upon, which enters the machine over the rollers D and E and then passes over the napping-rolls *b*. From these the cloth passes to the rollers F and G and from the roller G to a guide-roller H, and from the guide-roller H it passes to a small presenting-roller J, from which it passes to another guide-roller K and then out of the machine.

The location of the presenting-roller J relative to that of the rollers H and K is such that the cloth when passing over the roller J will form a decided angle. Just beneath the roller K is located the brushing-roller L, having its surface covered with bristles of wire, hair, or other suitable preparation. The bristles of the brush L make contact with the cloth as it passes over the small presenting-roller J, and in this way only a narrow line

of the full width of the cloth is presented to the brush at one time.

The brush L is driven in a direction opposite to that of the roller J at the point of contact in any convenient way, as from the pulley M. A steel blade N is located at approximately ninety degrees from the roller J and is so adjusted that its edge will be parallel to the brush L and barely engage its bristles.

A pulley P on the drum-shaft is connected by belt to the pulley Q, and the pulley R on the same shaft with the pulley Q is similarly connected to the pulley T, which drives the brush U, the function of which brush is to clean the rollers *b*.

An exhaust-flue V connects with a suction-fan (not shown) and conveys off the loose lint, a strong blast of air being created through the machine and toward the said pipe by the action of the fan.

Prior to my invention it has been the practice with regard to machines of this character to cause the cloth to pass in a direct line from the guide-roller H to the roller K and then out of the machine, in which case much loose lint is carried out together with the cloth. My invention therefore consists in providing machines of this general character with the presenting-roller J, brushing-roller L, and knife-blade N and arranging them substantially as shown and described. According to my invention, then, the cloth, instead of passing from the guide-rollers directly out of the machine, is diverted from its direct line and made to pass in an acute bend around the small presenting-roller, so as to expose a narrow line of the full width of the cloth to the action of the brushing-roller L. This brushing-roller will therefore strip the surplus lint from the cloth which had not been removed by the napping-rolls and will in turn be stripped by the blade N, the loose lint being caught in the draft and carried off by the tube V.

Having thus fully described my invention, it is obvious that the same is capable of many changes and modifications, which may be made without departing from the spirit thereof; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. In a napping-machine, the guide-rollers

H and K, the directing-roller J located between said guide-rollers and directing the course of the cloth into that of a sharp curve, the brushing-roller L making contact with the cloth at the point of the sharp curve, and the blade N adapted to strip the lint from the said brushing-roller, substantially as described.

2. In a napping-machine, a pair of guide-rollers over which the cloth is adapted to pass, a presenting-roller located between but out of alinement with said guide-rollers and directing the course of the cloth into that of a

sharp curve, a brushing-roller located near said presenting-roller and making contact with the cloth at the point of the said sharp curve, and a stationary blade extending longitudinally of and parallel to said brushing-roller and adapted to strip the lint therefrom, substantially as described.

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

WILLIAM H. O'BRIEN.

Witnesses:

CHARLES H. HATHEWAY,
ISAAC VAN DYCK.