A. BROWN.

Cloth-Finishing Machine.

No. 206,767. Patented Aug. 6, 1878.

Fig: 1.

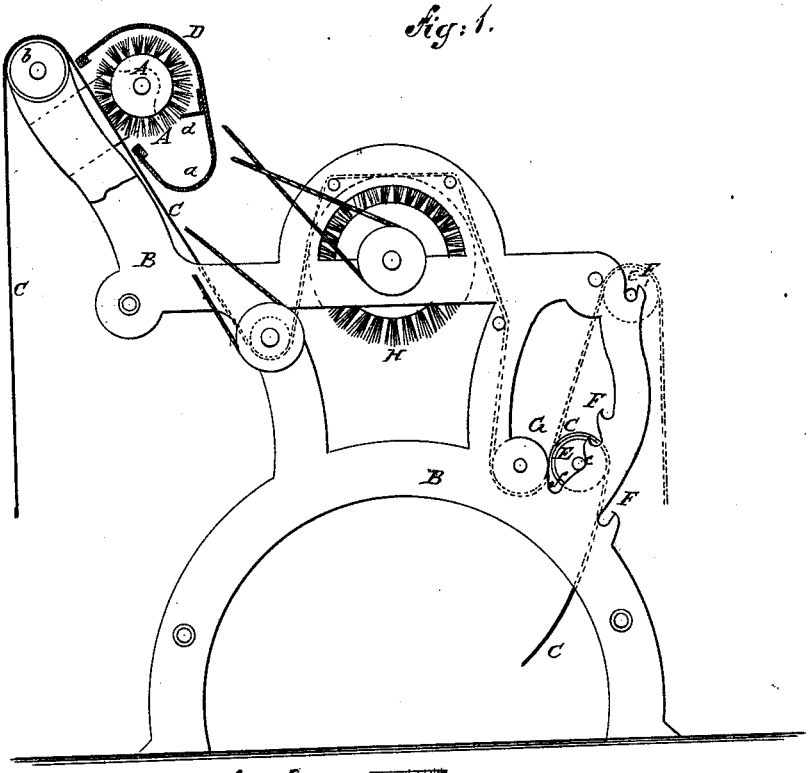
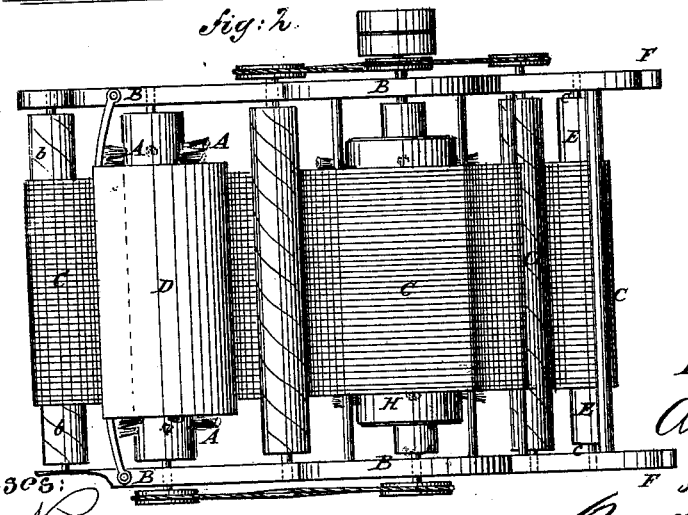


Fig: 2.



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UNITED STATES PATENT OFFICE.

ADNA BROWN, OF SPRINGFIELD, VERMONT.

IMPROVEMENT IN CLOTH-FINISHING MACHINES.

Specification forming part of Letters Patent No. **206,767**, dated August 6, 1878; application filed May 13, 1878.

To all whom it may concern:

Be it known that I, ADNA BROWN, of Springfield, in the county of Windsor and State of Vermont, have invented a new and Improved Cloth-Finishing Machine; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making part of this specification.

This invention is in the nature of an improvement in machines for finishing the surface of cloths, such as shearing and brushing machines, gigs, &c.; and the invention consists in a machine for finishing the surface of cloths, constructed with a flock-brush placed in contact with the under surface of the cloth and adjacent to the final roller of the machine, over which the cloth passes, combined with a flock-guard having projections on the inner surface thereof, and with a series of bearings in the front part of the frame of the machine, whereby the position of an adjustable roller in its relation to the cloth roll or beam may be varied, the machine being also provided with a revolving brush to brush the top surface of the cloth.

In the accompanying sheet of drawings, Figure 1 is a side elevation of my machine, and Fig. 2 a plan or top view of same.

Similar letters of reference indicate like parts in the two figures.

In machines for finishing the surface of cloths heretofore constructed, the brush for removing the flock has been placed to brush the cloths in front of the machine, so that as the cloth passed from this brush to the folder the flock would gather on the goods, which necessitated its removal by brushing the cloth by hand just before the goods were papered or done up for market. By placing a flock-brush in the rear of the machine, as hereinafter described, this hand-brushing is not required; and by providing the machine for dressing cloths, or rather providing the adjustable roller for such a machine, with different bearings, within which this roller may revolve, its relation to the cloth beam or roll may be varied at pleasure, so that it may be placed nearer to the cloth-beam, and thereby become a positive feed—that is, insuring its revolving and carrying with it, by so doing, the cloth in a straight line as it passes through the machine—or it may be placed at a distance from the cloth-beam, so that the operator can, by his hands, adjust the cloth from time to time as it passes through the machine.

To obviate the necessity of removing the flocks by hand, I provide a flock-brush, A, resting in suitable journals in the frame B of the machine. This brush is placed so as to brush the under surface of the cloth C, and it is covered by a shield or guard, D, of light metal, which guard not only covers the outer surface of the brush, but it extends downward to some extent, forming a receptacle, *a*, to retain the flocks after they have been removed from the cloth by the brush A, and so prevent them from being scattered again on the surface of the cloth.

The brush A, as will be seen from the drawings, is placed just in front of the roll *b*, which is the final roll over which the cloth passes before it is folded or removed from the machine, so that the last operation to the surface of the cloth is that of brushing and removing the flock, leaving it clean and ready for folding without further manipulation.

To the front of the machine, where is placed the adjustable roller E, a series of bearings, F, are formed, into which may be fitted, when desired, the journals *c* of the adjustable roller E, so that the operator can, when the necessities of the case require it, place the roller in the bearing *f*, which is, in fact, an inclined plane, in which position the roller is nearly in contact with the cloth-beam G, the cloth only intervening, which brings the turns of the cloth so tightly around the adjustable roller and the cloth-beam as to cause the adjustable roller to revolve and carry with it, in a straight line, the cloth while so doing, the inclined planes *f* constituting variable bearings that will permit the roller E, when in said bearings *f*, to always press the cloth against the cloth-beam G, whether the cloth passing through the machine be thin or thick, or even of variable thickness. The roller, acting by gravity, maintains its close relation with the cloth beam or roller G under all circumstances, and the inclined planes *f* at all times providing suitable bearings for the jour-

nals of the roller, acting therefore as variable bearings, to which the roller E automatically adjusts itself, causing the roller to act positively as a feed-roller; or the adjustable roller E may be placed in the bearings F, so as to take it more or less away from immediate contact with the cloth-beam, as shown by dotted lines in Fig. 1, in which position the operator can, by his hands, guide the cloth as it passes between the rolls, to keep it straight, and examine it, this position of the roller E rendering the turns of the cloth slack enough to admit of this, while the first-mentioned position of the roller E makes tighter the turns of the cloth, to insure its being fed in a straight line as the adjustable roller revolves. The position of the adjustable roller E, whether nearer to or farther from the cloth-beam G, depends to some extent on the character of the cloth that is being dressed.

The guard D is provided on its inner surface with one or more flanges, *d*, against which the brush A comes in contact as it revolves, and by which the loose flocks are shaken from the bristles of the brush and allowed to fall into the receptacle *a* at the lower part of the guard, thus preventing their being again deposited on the cloth.

The machine may be provided with the ordinary brush, H, to brush the top surface of the cloth.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a cloth-finishing machine, the combination of a series of bearings, F *f*, with a revolving brush, H, a flock-brush, A, a guard, D, having a projection, *d*, and with a final roller, *b*, substantially as and for the purpose described.

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Witnesses:

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