A. A. FORBES.

Cloth-Shearing Machine.

No. 199,970. Patented Feb. 5, 1878.

Fig. 1.

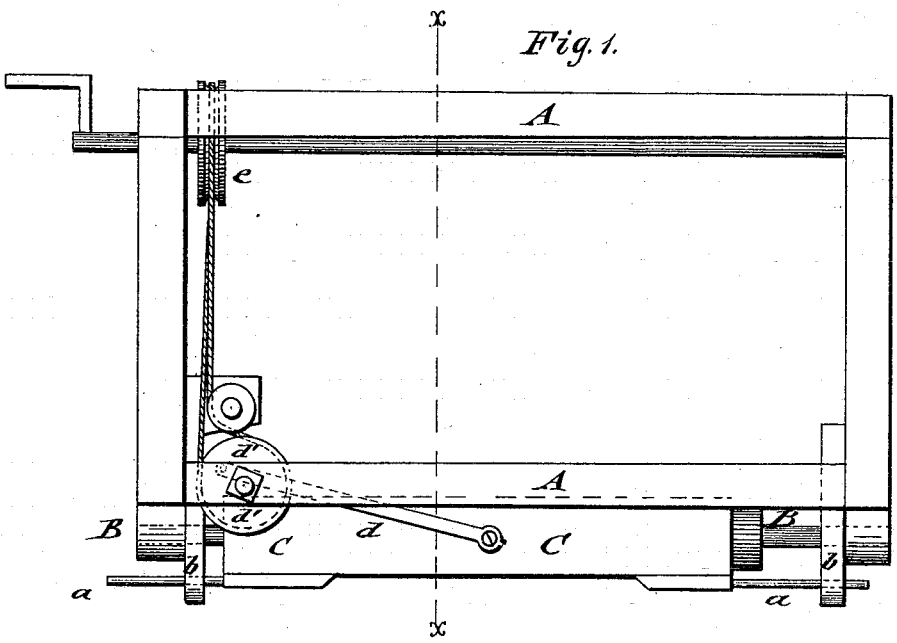
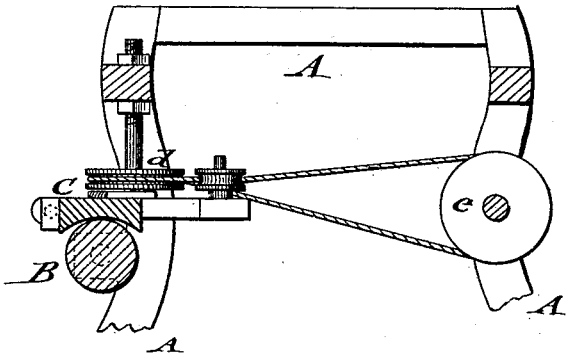


Fig. 2.



WITNESSES:

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ARTHUR A. FORBES, OF VALLEYFIELD, QUEBEC, CANADA.

IMPROVEMENT IN CLOTH-SHEARING MACHINES.

Specification forming part of Letters Patent No. **199,970**, dated February 5, 1878; application filed December 28, 1877.

To all whom it may concern:

Be it known that I, ARTHUR A. FORBES, of Valleyfield, in the Province of Quebec and Dominion of Canada, have invented a new and useful Improvement in Cloth-Shearing Machines, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view of a shearing-machine frame with my improved attachment; and Fig. 2, a vertical transverse section of the same on line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to an improved attachment for cloth-shearing machines, by which coarse and dead hairs that lie warpwise on the piece of cloth are broken up. Both ends of these hairs are generally fulled into the cloth, so that the brushes of the shearing-machines cannot get hold of either end, so as to set them up for being sheared off.

The invention consists of a laterally-reciprocating concaved or grooved board, that is covered partly with a whalebone brush and partly with emery, and arranged above the guide-roller over which the cloth runs before it passes to the setting-up brush.

Referring to the drawing, A represents the frame of a cloth-shearing machine of any approved construction, and B the guide-roller over which the cloth passes before coming in contact with the setting-up brush. On this guide-roller is arranged a board, C, preferably of hard maple, although other material may be used, and grooved out or concaved on the under side. The first half of the grooved-out surface is filled with a brush of whalebone, and the second half with emery or other cutting material.

The cutting-board C is supported by end pins *a* in perforated arms or supports *b* of frame A, and connected by a pivoted crank-rod, *d*, with a pulley, *d'*, revolved by a belt and tension-pulley from a pulley, *e*, on the shaft of the large brush of the shearing-machine, or by other transmitting mechanism, so as to impart to the board C a lateral reciprocating motion of from one and one-half to two inches across the cloth at varying speed.

The board is guided by the end pins in the perforated arms, whose guide-holes are of such size as to allow the lifting up of the board sufficiently for the passage of the ends sewed together.

The board does not dispense with the bell for telling when the end is coming; but it requires to be shortened a little for the same.

The cutting-up board vibrates quickly over the cloth as it passes over the guide-roller into the shearing-machine, and breaks up all coarse or dead hairs that lie warpwise on the piece.

The cutting action of the whalebone and emery surface of the board breaks these hairs somewhere between the two ends that are generally fulled into the cloth, so that the setting-up brush is able to get hold of them and set them up, so as to be sheared off by the knives.

In the finer classes of goods the effect of the cutting up of these dead hairs is not as readily apparent as in the common classes of goods, particularly in those that are not finished a great deal, in which the effect for the better is seen at once by the improved appearance of the goods.

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

1. As an improvement in cloth-shearing machines, the combination, with the guide-roller that conducts the cloth to the setting-up brush, of a laterally-reciprocating board having grooved or concaved under side covered with a whalebone brush and emery, or equivalent cutting material, substantially as and for the purpose set forth.

2. In cloth-shearing machines, the combination of the guide-roller that conducts the cloth to the setting-up brush with a laterally-reciprocating board having grooved or concaved under side covered with a suitable cutting material, the board being also capable of vibration in its supporting-arms, to allow the passage of the sewing at the ends of the cloth, substantially as and for the purpose set forth.

ARTHUR A. FORBES.

Witnesses:

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