

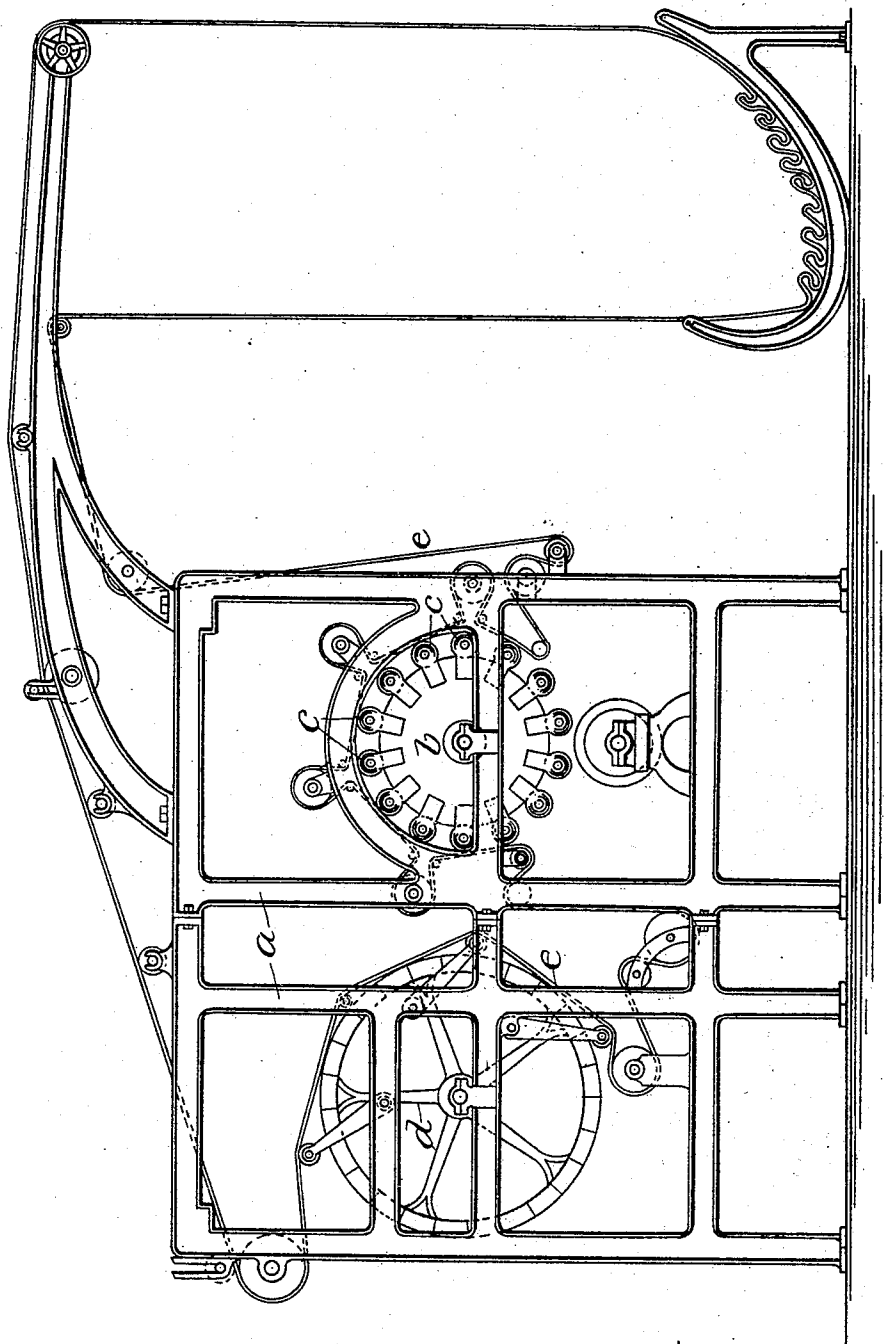
(No Model.)

A. BROWN.

MACHINE FOR DRESSING OR FINISHING CLOTH.

No. 496,720.

Patented May 2, 1893.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ADNA BROWN, OF SPRINGFIELD, VERMONT.

MACHINE FOR DRESSING OR FINISHING CLOTH.

SPECIFICATION forming part of Letters Patent No. 496,720, dated May 2, 1893.

Application filed December 2, 1892. Serial No. 453,893. (No model.)

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 certain new and useful Improvements in Machines for Dressing or Finishing Cloth, of which the following is a specification.

This invention has relation to machines for napping and finishing the nap on cloth; and it has for its object the provision of means whereby the raising of the nap and the giving of a fine finish thereto may be expeditiously, economically, and most effectively performed.

Heretofore, in effecting a fine dressing or finish of the face of cloth, it has been usual to employ teasels arranged upon a cylinder which acted upon the passing cloth. By reason of slowness and expensiveness of this process it has been proposed to employ card-clothed rolls arranged around a cylinder or drum-heads, so as to revolve with the said drum-heads about the axis of the latter and at the same time rotate upon their own axes in a direction opposite to that of their revolution or the rotation of the drum-heads, and to be brought into contact with the passing cloth at intervals to raise the nap on the latter. The last-mentioned process has been found very effective in speedily raising the nap, but it does not provide the fine finish desired, particularly on many high-grade cloths.

I have ascertained that if, in the dressing or finishing of cloth it is first passed through a gigging or napping machine, and subjected to the action of card-clothed rolls having a planetary action about a cylinder or drum-head in order to raise the nap, and then passed to a rotating cylinder and subjected to the action of teasels thereon, a better and finer finish can be obtained than by the operation of but one of the two kinds of napping devices mentioned.

To these ends my invention consists of a cloth dressing or finishing machine comprising in its construction a series of card-clothed rolls arranged upon a cylinder or upon drum-heads and having a planetary motion imparted thereto, combined with a teasel-bearing cylinder and drawing and guide rolls for passing and guiding the cloth through the

machine, first in contact with the card-clothed rolls, and then in contact with the teasels.

Reference is to be had to the annexed drawing and to the letters marked thereon, forming a part of this specification, the said drawing representing, in side elevation, my improved cloth dressing or finishing machine, and the steps employed in carrying out my improved process.

In the drawing, *a* designates the frame of the machine.

b designates a cylinder or one of a pair of drum-heads, arranged in bearings around which is a series of card-clothed rolls *c*. The said drum-heads or cylinder may be rotated in any suitable way or by any known means, and the rolls *c* may likewise be rotated upon their own axes so as to be given a planetary movement with respect to the cylinder *b*, as is done in napping machines or gig-mills employing card-clothed napping rolls. The rolls *c* may be rotated in the same direction as that in which the cylinder rotates, or they may be rotated in the opposite direction.

d designates a cylinder provided with teasels arranged in any known or desired way. Said cylinder *d* may, like cylinder *b* be rotated by any suitable means, the actuating means being no part of the present invention.

Drawing and guide rolls for the cloth are arranged in front of and above the cylinders, about and between the same, to pass the cloth through the machine, and guide it into contact with the dressing or napping devices carried by the two cylinders.

In the operation of the invention the cloth will first be passed about or partially about the cylinder *b*, and its face subjected to the action of the card-clothed rolls which will effect a thorough raising of the nap, and accomplish this result more completely than can well be done by teasels, after which the cloth will, without interruption, be passed to the cylinder *d* and subjected to the action of the teasels thereon, with the effect of dressing and finishing the napped face much more finely than could be done by the card-clothed rolls.

As shown in the drawing, the guide rolls are so arranged as to give the cloth three applications to the devices carried by each cyl-

inder, though it might be given a greater or less number of applications; and the ends of the cloth may be connected so that a piece or string may be passed through the machine as
5 many times as may be desired.

By the means described a material saving in time and expense may be effected in dressing cloth, in addition to finishing the latter in a better manner, than can be accomplished
10 by the card-clothed rolls or teasels alone.

Having thus described my invention, I declare that what I claim is—

A cloth dressing or finishing machine com-

prising in its construction a series of planetarily moved card-clothed rolls, a cylinder
15 equipped with teasels, and drawing and guide rolls for the cloth, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 7th day of No-
20 vember, A. D. 1892.

ADNA BROWN.

Witnesses:

A. M. ALLBE,
G. L. CLOSSON.