(No Model.)

L. BUME.

APPARATUS FOR TREATING FABRICS.

No. 375,474. Patented Dec. 27, 1887.

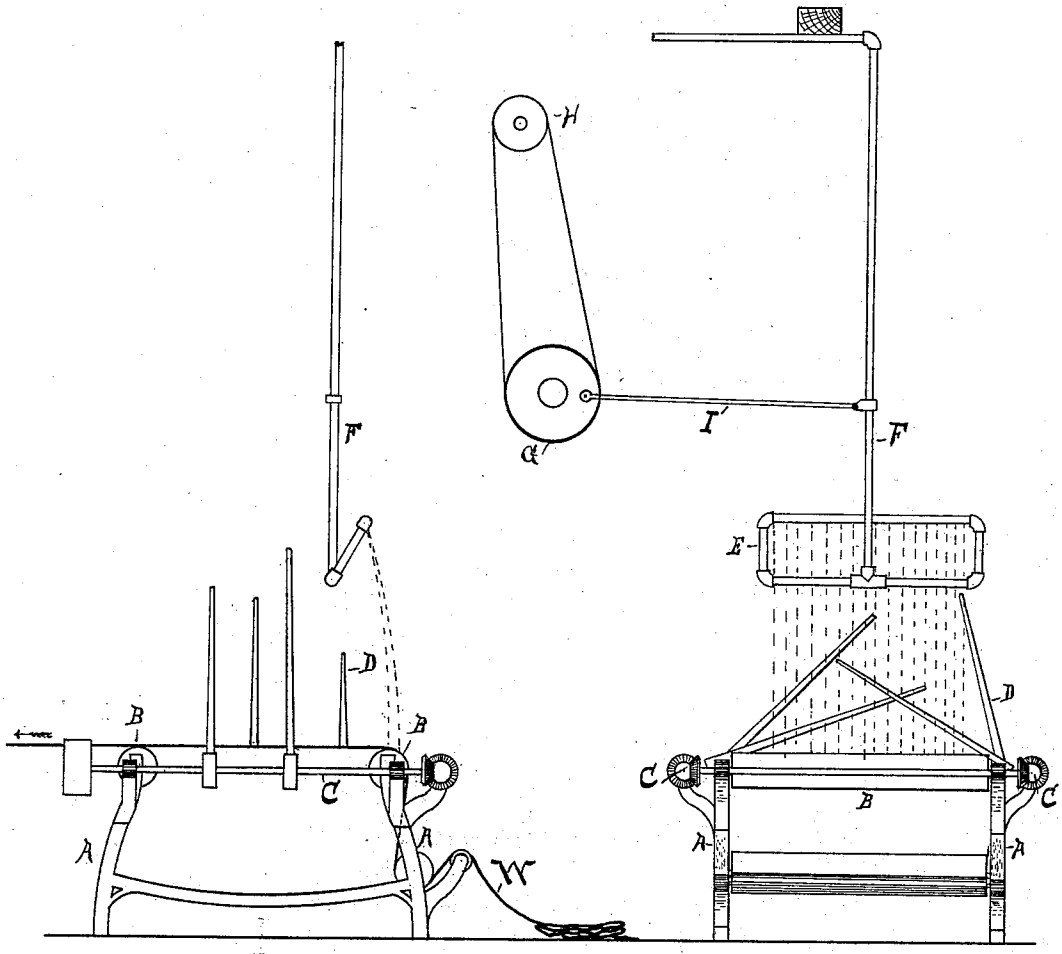


FIG. 1. FIG. 2.

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APPARATUS FOR TREATING FABRICS.

SPECIFICATION forming part of Letters Patent No. 375,474, dated December 27, 1887.

Application filed March 31, 1887. Serial No. 233,240. (No model.)

To all whom it may concern:

Be it known that I, LOUIS BUME, of Holyoke, in the county of Hampden and Commonwealth of Massachusetts, have invented a new and useful Apparatus for Treating Fabrics, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof, in which—

Figure 1 is a side elevation of a well-known machine employed in the manufacture of fabrics, known as a "beating-machine," said figure also showing the novel apparatus devised by me to be used in connection with such machine. Fig. 2 is an end view of said parts.

The letter A designates the frame, B B the fabric supporting and guiding rolls, C C the tappet-shafts for operating the beaters, and D D the beating-sticks, of the ordinary beating-machine used in the manufacture of woolen fabrics.

The construction and operation of these machines are fully described in numerous United States patents, (see, for example, No. 87,330, granted March 2, 1869,) and are familiar to all persons skilled in the art to which my invention relates, and therefore need not be herein described.

It will be sufficient to say that as the fabric W passes through the machine it is thoroughly beaten by the sticks D, which operation raises the nap from the surface of the fabric and removes loose fibers and other extraneous matter therefrom.

In the manufacture of cashmere fabrics, the nap of which is left of sufficient length to secure the wool-like finish peculiar to those fabrics, this beating operation is usually performed two or three times, and is followed by the shearing process, which latter secures evenness to the ends of the fibers composing the nap. I have found that after the fabric has been thus beaten and shorn, and after it has become thoroughly dried, a novel and very ornamental appearance can be imparted to its surface by dampening the nap side or face thereof with water or other suitable liquid, then subjecting it to a thorough beating, and immediately and quickly drying it. This treatment causes the fibers composing the nap to curl and twist together in such manner that the fabric when finished presents a novel and beautiful surface, which, so far as I am aware, can be produced in no other way. In order to facilitate such treatment of the fabric and to secure a uniform and uninterrupted dampening thereof, I have devised a simple and inexpensive apparatus to be used in connection with an ordinary beating-machine and drying apparatus. This mechanism, as shown in the drawings, consists of a pipe, F, leading from any suitable reservoir, or connected to the street-main, and so located that its lower end will overhang the front end of the beating-machine, as shown. At its lower end said pipe is connected with or formed into the sprinkling-frame E, which is in the form of a parallelogram, and extends outwardly and upwardly from the pipe, its upper side pipe being perforated throughout its length with a series of small holes, through which the liquid escapes in a series of fine jets. The length of the frame E corresponds substantially with that of the rolls B; but in order to insure the thorough dampening of the surface of the fabric as it passes over the front roll, B, to the sticks D, I impart a slight oscillating movement to the frame transversely to the length of the strip of fabric passing beneath it. This oscillating movement can be produced in a variety of ways, the means shown being a crank-pulley, G, operated from a shaft-pulley, H, by a belt, and having its crank-pin connected to pipe F, near the lower end thereof, by the link I. By this construction the revolution of shaft-pulley H will, through crank-pulley G and link I, impart an oscillating movement to the sprinkling-frame and insure the dampening of every portion of the surface of the fabric. This dampening apparatus, as hereinbefore stated, is simple and inexpensive, and yet is effective in operation.

The drying apparatus is not shown, as the usual form of such apparatus can be employed without change, it being essential merely that the degree of heat imparted thereby shall be such as to quickly dry the fabric. The beater and sprinkling-frame will be so located with respect to the drying apparatus that the fabric will pass directly from the former to the latter.

It is obvious that various modifications in the sprinkling device and the means for oscillating the same can be made without departing from the spirit of my invention.

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

1. The combination, with a fabric-beating machine of the kind herein specified, of a sprinkling device located above said machine, and means, substantially as described, for imparting movement thereto, substantially as and for the purpose set forth.

2. The combination, with the fabric-beating machine having the fabric-rolls B and beating-sticks D, of the pipe F, sprinkling-frame E, crank-pulley G, and link I, arranged and operating substantially as set forth.

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