

J. DOBSON.

Machinery for Finishing the Nap of Woollen Cloth.

No. 144,839.

Patented Nov. 25, 1873.

Fig. 1.

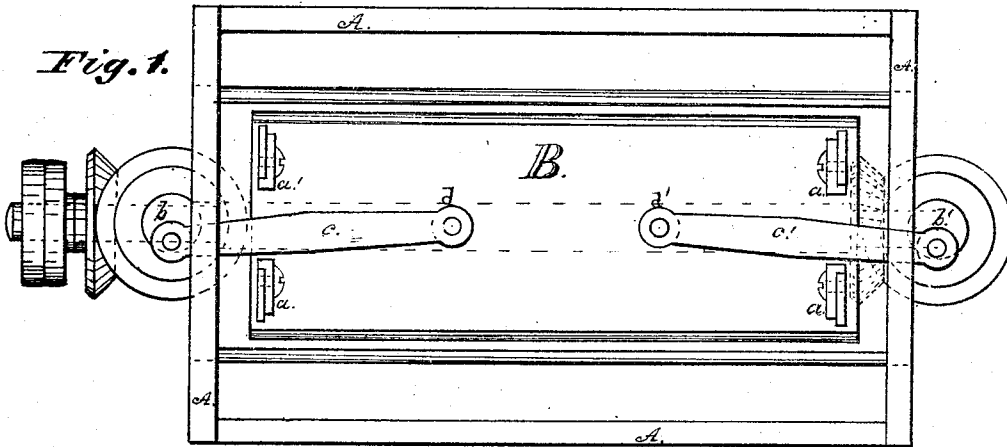


Fig. 2.

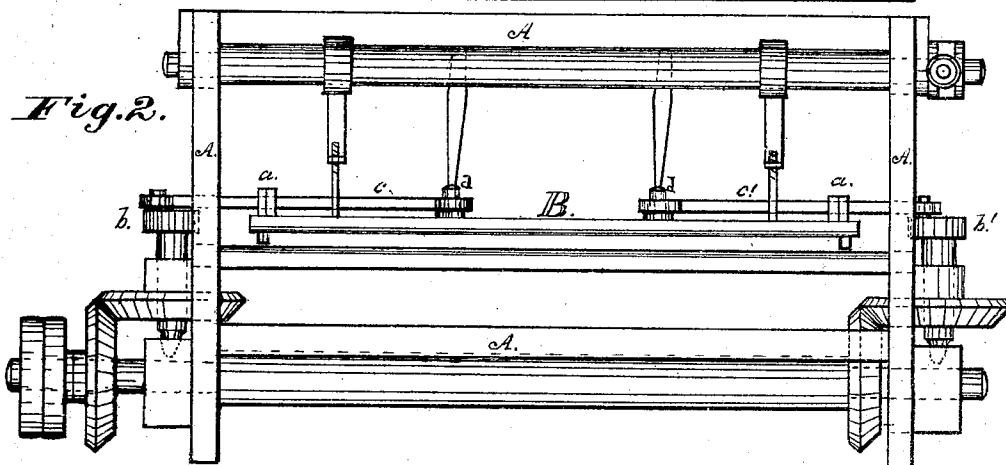


Fig. 3.

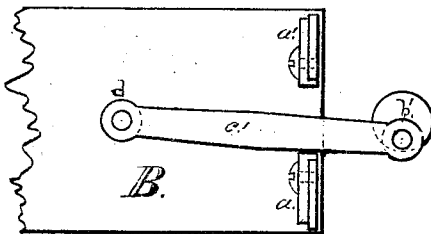


Fig. 4.

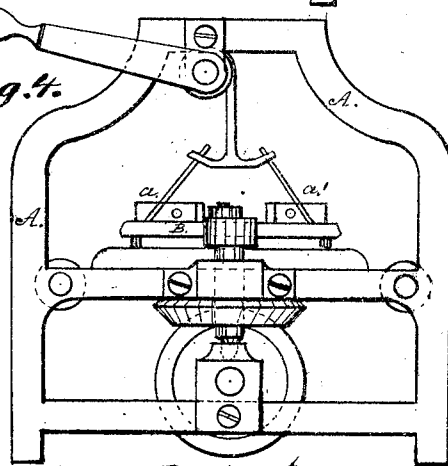


Fig. 5.

Witnesses.

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JOHN DOBSON, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN MACHINERY FOR FINISHING THE NAP OF WOOLEN CLOTH.

Specification forming part of Letters Patent No. **144,839**, dated November 25, 1873; application filed May 19, 1873.

To all whom it may concern:

Be it known that I, JOHN DOBSON, of Philadelphia, Pennsylvania, have invented certain Improvements in Machinery for Finishing the Nap on Woollen Cloth, of which the following is a specification:

My invention belongs to a class of machinery for finishing the nap of woollen cloth by the process of rubbing or curling, and is called the chinchilla or Witney beaver-finish. My invention relates to the combination of a lock or locks with the connecting-rods for locking the ends of the bed to the rods. This part of my invention enables me to produce different configurations in the finish by simply adjusting the locks.

Figure 1 is a plan of a machine embodying my improvement. The roller-shaft for raising the bed and top rail is not shown in this view, but is left out that the improvement may be clearly shown. Fig. 2 is a side elevation of the same. Fig. 3 is a section of the bed and improvements. Fig. 4 is an end elevation of a machine with my improvements. Fig. 5 is an enlarged view of the lock *a*.

Similar letters in the drawings refer to like parts.

A represents the frame, in the lower part of which is a horizontal shaft. At each end of the frame is a vertical shaft, and these shafts are geared to the horizontal shaft by the miter-gears, as shown in the drawings. At the top of each of the vertical shafts are adjustable eccentrics, each having a projecting stud. All this part of the machine is not new, and will be readily understood by the drawings without further explanation. B is the rubbing-bed. *d d'* are two studs, which are fastened in the bed, and to these studs are attached one end of the connecting-rods *c c'*, the opposite ends being connected to the studs in the

eccentrics *b b'*. At each end of the bed are adjustable locks or pieces *a a'*, each made with a slot, (see Fig. 5,) and fastened, by screws, to raised cleats, one at each corner of the bed B.

The operation is as follows: The cloth to be finished, having been properly prepared on the gig and shearing-machine, is passed under the bed B with the nap up. Motion is communicated to the machine by the pulley seen on the left end of the horizontal shaft, and from it to the vertical shafts by the gears, and from the eccentrics on the vertical shafts to the bed B, through the arms *c c'*, connecting the studs in the eccentrics to the studs *d d'* in the bed B. By moving the pieces or locks *a a'* toward each other, and locking the arms *c c'* tightly between them, the bed will receive a circular movement, and rub the nap into the form of prismoidals, or what is called a chinchilla-finish. By giving the arms play between the locks *a a'*, the bed will receive a rotating elliptical movement, and rub the nap in the form of elliptical circles, or broken diagonal curves or waves, all of which is controlled by simply adjusting the locks, the throw of the eccentrics, and the speed of the cloth passing through the machine.

If the nap is cut in a shearing-machine in the form of parallel grooves or cords, different configurations can be produced thereon by my improvement, and the finished cloth will have the appearance of having been woven.

I claim—

The bed B and its adjustable locking-pieces *a a'*, in combination with the rods *c c'*, connected directly with such bed and operating eccentrics, as and for the purpose described.

JOHN DOBSON.

Witnesses:

E. H. BAILEY,
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