T. GOODALL.

Machine for Drying Cloth.

No. 205,377. Patented June 25, 1878.

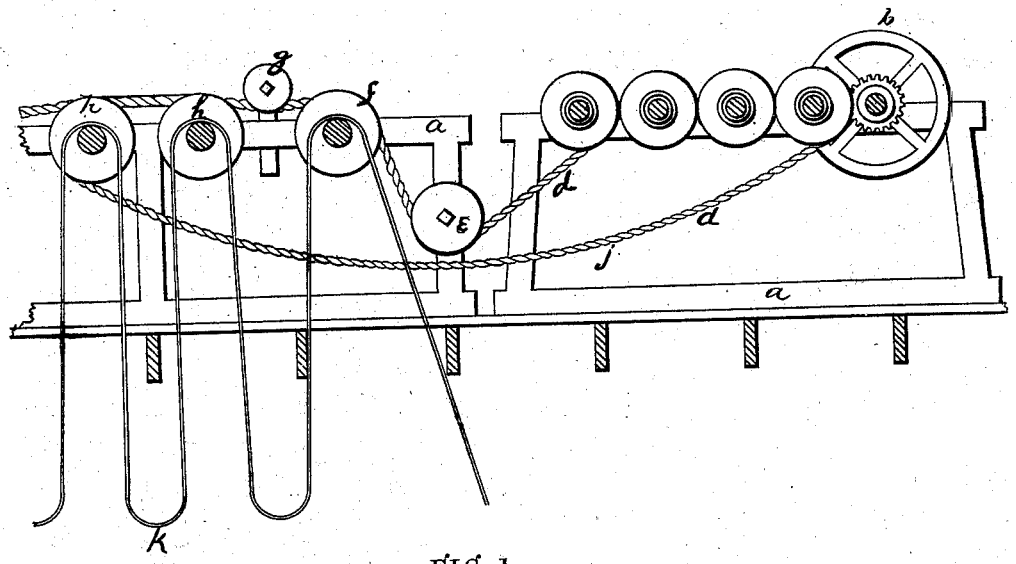

FIG. 1.

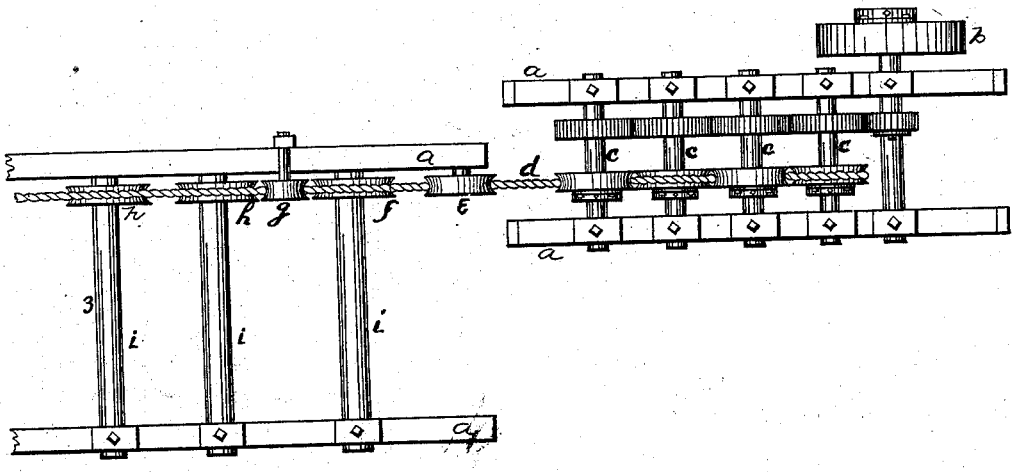

FIG. 2.

WITNESSES:

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THOMAS GOODALL, OF SANFORD, MAINE.

IMPROVEMENT IN MACHINES FOR DRYING CLOTH.

Specification forming part of Letters Patent No. **205,377**, dated June 25, 1878; application filed March 11, 1878.

To all whom it may concern:

Be it known that I, THOMAS GOODALL, of Sanford, in the county of York and State of Maine, have invented certain new and useful Improvements in Machines for Drying Cloth; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a side elevation. Fig. 2 is a top plan.

Same letters show like parts.

The purpose of my invention is to provide a machine upon which certain kinds of woven goods, hereinafter to be described, are rolled out and suspended for drying.

The class of goods particularly referred to are what are known as "plush" or "nap" goods. More especially, they are such as have on them a heavy or long nap, such as carriage-robes.

Figures, coloring, and decoration are applied before the plush is fully worked upon the fabric.

From the nature of the article, it will be apparent that while the drying process is going on it is requisite that the goods be handled and treated in such way as not to break or flatten down the plush, because if this is done the beauty and softness of the goods are destroyed.

By the old method the goods were hooked onto bars by hooks at top and bottom. The goods were then beaten with a stick until the nap was raised. The goods were then allowed to remain on the bars until dry.

The following-described machine is to automatically carry away the goods from a machine where the nap is produced, and there—that is, in the machine now claimed—allowed to dry, after rolling, as hereinafter described.

The combination of devices for carrying away the goods, and so suspending them that they will dry without injury, make up the machine which is the subject of this application.

In the drawings, *a* is the frame. *b* is the shaft where power is applied. *c c c c* are shafts with pulleys. Alternately over and under these passes the band or chain *d*. It then passes under the roll or pulley *e*, then over *f*, then under the adjustable friction-pulley *g*, then over the pulley *h*, and then alternately under and over as many friction pulleys and rollers as may be desired. The friction-pulleys *g* are to press the band or chain onto the rollers, and are placed immediately after them in the machine. The pulleys or rollers *h* are rigidly set on shafts *i*, over which the fabric passes as it is arranged and disposed for drying. The band or chain *d* is an endless one, passing over and under the different pulleys, as described, and back underneath the rolls to *c c c c*, as indicated by *j*.

The rollers or shafts *i* are set in motion by the band or chain *d*, as herein indicated. The end of the fabric is then passed over the rollers or shafts *i* until it reaches the last one in the machine—for example, the one marked 3 in Fig. 2. The revolution of this shaft or roller carries the fabric over it, and causes it to hang down on the farther side. When thus allowed to be carried over this roll until it nearly reaches the floor, the revolution of that roll is stopped by pushing up the friction-pulley next to it, similar to *g*; then the revolution of the next roll will pass the fabric along until it forms a loop between the two rolls, as seen at *k*. When this loop is as long as can be permitted without the fabric touching the floor, the roll which made the loop *k* is stopped in the same manner, and so on until the whole machine or series of rolls is filled or all the loops are completed. Then the article is allowed to remain until dried, when it can be safely removed without injury to the plush thereof.

k is intended to represent the fabric suspended in the machine.

The importance of the machine to this manufacture will be understood from the following observations: If this fabric or kind of fabric, when in the state herein described and in that stage of the process of manufacture, were folded so as to make an angle, when it became dry a crease would appear across the cloth

where such fold or angle occurred. If it were spread upon a flat surface or table, large parts of the plush would be pressed down flat.

Experience shows that my invention, with its rolls *i* and the natural folds of the cloth *k*, as it hangs suspended, avoids these injuries to the article.

What I claim as my invention, and desire to secure by Letters Patent, is—

The machine herein described for drying plush and other similar goods, consisting, essentially, of the shafts *c c c c*, with their pulleys—the pulley *e*, pulley *f*, friction-pulleys *g*, and pulleys *h*—attached to feeding-shafts *i*, as herein set forth, and operating in the manner specified, with the band *d*.

In testimony that I claim the foregoing as my own I hereto affix my signature in presence of two witnesses.

THOMAS GOODALL.

Witnesses:
JOHN G. ADAMS,
ERNEST M. GOODALL.