F. BECK.

MACHINE FOR DRYING PAPER AND OTHER ARTICLES.

No. 110,540. Patented Dec. 27, 1870.

Fig: 1.

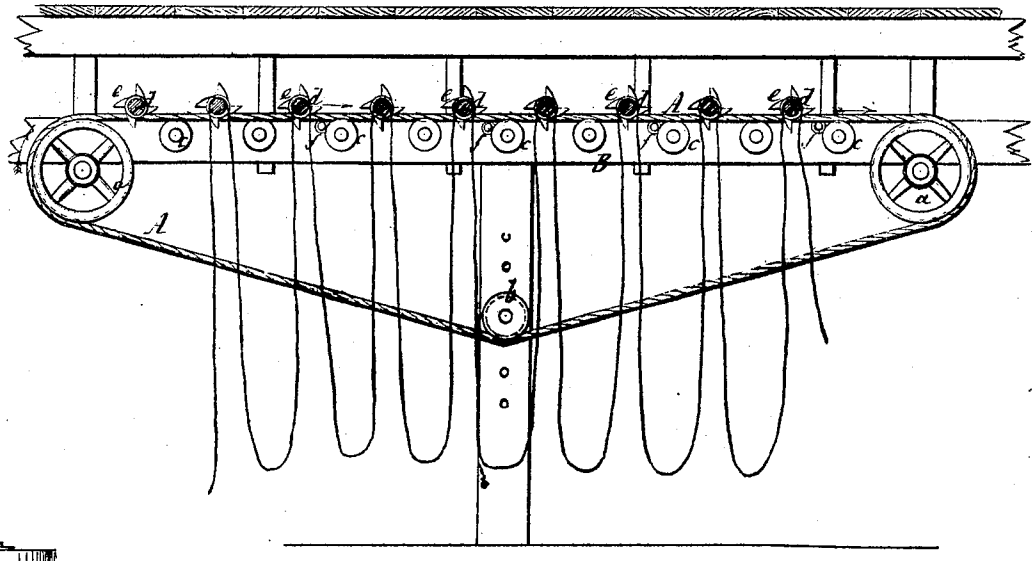


Fig: 2

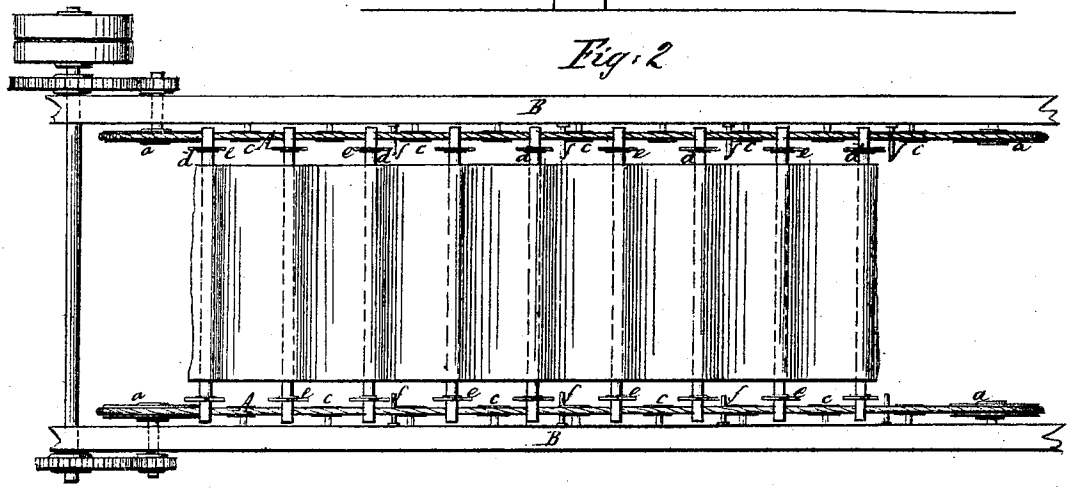
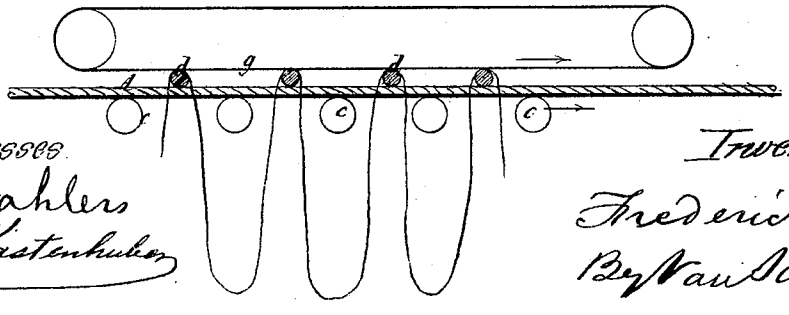


Fig: 3



Witnesses.

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FREDERICK BECK, OF NEW YORK, N. Y.

Letters Patent No. 110,540, dated December 27, 1870.

IMPROVEMENT IN MACHINES FOR DRYING PAPER AND OTHER FABRICS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, FREDERICK BECK, of the city, county, and State of New York, have invented a new and useful Improvement in Machines for Drying Paper and Other Fabrics; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a longitudinal vertical section of this invention.

Figure 2 is a plan or top view of the same.

Figure 3 is a section of a modification of the same.

Similar letters indicate corresponding parts.

This invention relates to an improvement in that class of machines for drying paper and other fabrics which are principally composed of endless ropes running parallel to each other and supporting a series of transverse rods or traverses on which the paper or other fabric to be dried is suspended in a serpentine course, and, as the endless ropes advance slowly, the paper or other fabric, being exposed to a draught of heated air, becomes rapidly dried.

That portion of the paper or other fabric, however, which bears upon the traverses being exposed to the strongest heat of air in the upper part of the room, and that portion nearest to the bottom being exposed to the heat emanating from the steam-pipes dries quicker than the intervening parts, and if the paper or other fabric is stained or tinted, it is liable to show spots or streaks at such parts which dry quickest

This disadvantage I have obviated by my present invention, which consists in imparting to the traverses of the drying-machine a revolving motion in such a manner that the parts of the paper or other fabric bearing on the traverses are changed, and the the entire piece is dried uniformly throughout its whole extent.

In the drawing—

The letters A A designate two endless ropes, which run parallel to each other, (see fig. 2,) and are stretched over drums, *a*, situated at a considerable distance apart, and near to the ceiling of a room or apartment.

Tightening-rollers, *b*, serve to impart to said ropes the required tension, and to prevent the upper sections of the ropes from sagging down they are supported by a series of rollers, *c*.

The ropes A A form the supports for a series of traverses, *d*, which rest loosely thereon, and the ends of which may be square, as shown in fig. 2, or their ends may be round, as shown in fig. 3.

When the ends of the traverses are square I mount on each of said traverses one or two wheels, *e*, each with four teeth, and, as the ends of the traverses are carried along by the motion of the endless ropes, the teeth of said wheels come in contact with stops, *f*, secured in the timbers B, which run parallel to the ropes and close to the same, and which form the supports for the axles of the drums *a* and of the supporting-rollers *c*.

The stops *f* may also be arranged in a vertical position by securing them in the ceiling, and they are placed at suitable distances apart, and whenever the teeth of the wheels *e* on one of the traverses come in contact with said stops, the traverse is turned a quarter revolution, and the portion of the paper or other fabric resting thereon is changed.

By these means every portion of the paper or other fabric suspended from the traverses *d* is uniformly dried, all the parts thereof being continually changed so that the action of the heat, which is greatest above and below next to the steam-pipes, is equally distributed, and the color of the fabric remains unchanged.

Instead of imparting to the traverses an intermittent revolving motion, however, they may receive a continuous revolving motion either in the same direction in which the endless ropes travel, or in the opposite direction.

In this case, the ends of the traverses are made round, and they are exposed to the friction of a belt, *g*, (see fig. 3,) which moves with a speed greater or lesser than that of the ropes.

By the friction of this belt the traverses are revolved, and the parts of the paper or other fabric bearing thereon are continually changed.

The revolving motion of the traverses may also be produced by the friction of one or more elastic rollers or drums arranged in such positions that the ends of the traverses will come in contact therewith at the proper intervals.

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

1. The traverses *d*, which support the paper or other fabric to be dried, and which rest upon the endless ropes A A, having a revolving motion by means substantially such as herein described.

2. The arrangement of wheels *e*, at or near one or both ends of the traverses *d*, supported by ropes A A, in combination with stationary stops *f*, substantially in the manner and for the purpose herein set forth.

FRED. BECK.

Witnesses:
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