

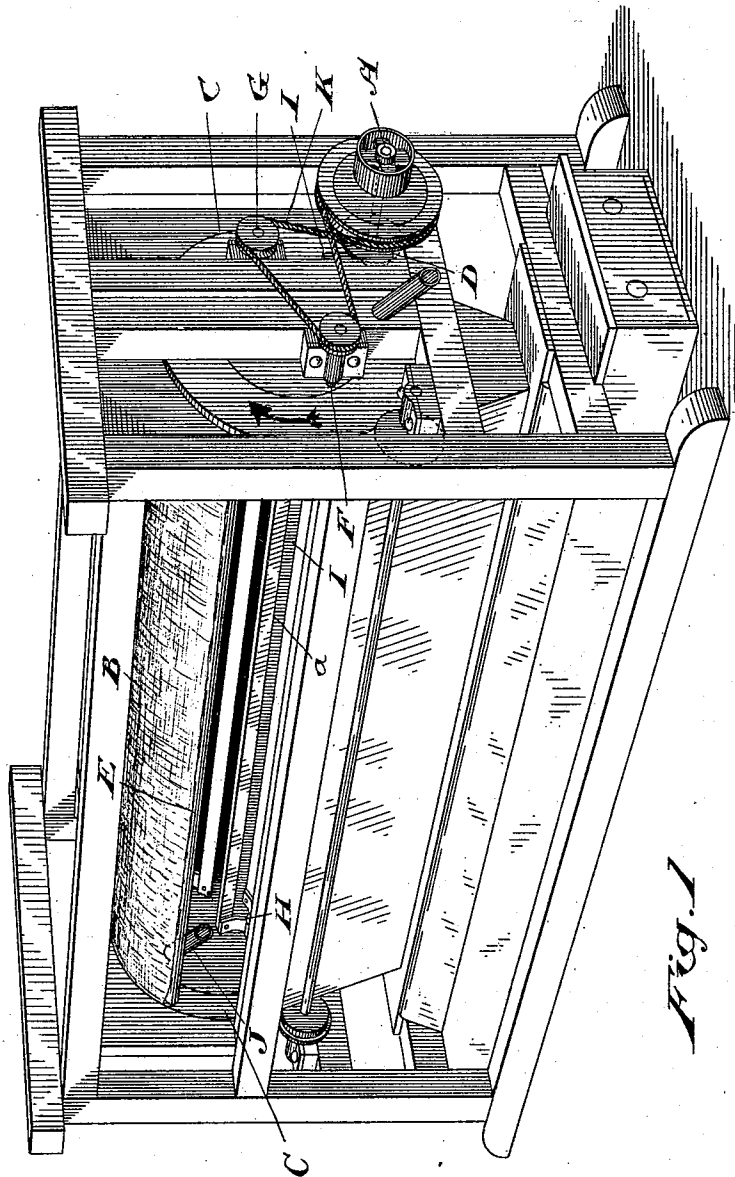
(No Model.)

2 Sheets—Sheet 1.

A. DOBSON.
REEL.

No. 483,907.

Patented Oct. 4, 1892.



Witnesses

J. Edw. Maybee
H. Symmillan

Inventor

Alexander Dobson
by Donald G. Ridout & Co.
Atty.

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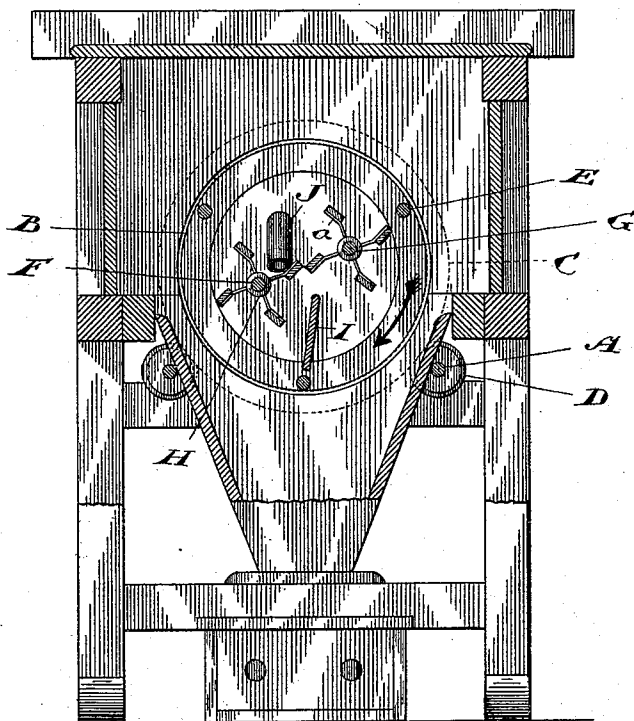


Fig. 2

Witnesses

L. Edw. Maybee

W. G. Mcmillan

Inventor

Alexander Dobson
by Donald G. Ridout & Co.
Attys.

UNITED STATES PATENT OFFICE.

ALEXANDER DOBSON, OF BEAVERTON, CANADA.

REEL.

SPECIFICATION forming part of Letters Patent No. 483,907, dated October 4, 1892.

Application filed April 25, 1892. Serial No. 430,622. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER DOBSON, of the village of Beaverton, in the county of Ontario, in the Province of Ontario, Canada, have invented a certain new and useful Improvement in Reels, of which the following is a specification.

The object of the invention is to design a reel in which the stock shall be distributed over its surface so that all parts of the silk shall be constantly in use; and it consists in the peculiar construction, arrangement, and combinations of parts hereinafter more particularly described and then definitely claimed.

In the accompanying drawings, Figure 1 is a perspective view of a reel partially broken away to expose the interior construction involved in the invention. Fig. 2 is an end sectional view of the reel.

Like letters of reference indicate corresponding parts in each figure.

A represents the main driving-shaft, which is supported in suitable bearing-boxes and extends the full length of the reel. On each end of the reel B is fixed a gear or friction wheel C, and each wheel C meshes with a pinion D, fixed to the shaft A. The reel B is covered with silk in the usual manner and is provided with longitudinal strips or buckets E, by which the stock is elevated in the usual manner.

F and G represent two shafts suitably journaled in the frame of the machine and extending through the reel B, as shown. Around each shaft is constructed what I term a "distributor," consisting of a series of slats *a*, arranged around the shaft F or G and securely fastened at each end to a head H, fixed to its respective shaft. Each slat *a* is shaped substantially as shown in Fig. 2, so that its broad face shall be opposite to the circumference of the reel.

I is a board extending the full length of the reel and acting as a partition in front of the spout J, through which the stock enters the reel. This partition breaks the current produced by the revolving distributors and directs the air through the silk at that point. In this way the silk is kept clean without requiring any brushing, as the board or partition is stationary and the reel revolves around

it, thereby bringing the entire surface of the reel within the action of the drafts directed against it by the said partition. The two distributors formed around the shafts F and G, respectively, are connected to the driving-shaft A, as shown in Fig. 1, by the strap K, so that they both revolve, as indicated by arrow, in the same direction as the reel B, which direction is also indicated by arrow, but at a far greater speed than the said reel—that is to say, a reel of about eighteen inches in diameter would have about thirty-five to forty revolutions, while the two distributors would each be about seven inches in diameter and would have from four hundred to five hundred revolutions. It will be observed that the distributor formed around the shaft F is located at the upgoing side of the reel B, at a point where the stock accumulates as the reel revolves, so that the slats *a* around the shaft F assist the buckets E in elevating the stock, and as they revolve the slats *a* by their rapid revolution throw the stock against the surface of the reel. The stock not forced through the silk by the action of the slats *a* around the shaft F falls upon the revolving slats *a* around the shaft G, which latter slats pick up the stock and throw it against the other side of the reel, and thus by employment of the two distributors described the entire surface of the silk is in constant use, and thus a much smaller reel is capable of doing a great deal more work than could be accomplished without the employment of the distributors described. I am of the opinion that in practice the two distributors will be found sufficient; but in larger reels more distributors may be used, if required.

What I claim as my invention is—

1. Two or more distributors placed within a reel, one on the upgoing side of the said reel and another substantially opposite to it, the said distributors revolving in the same direction as but at a far greater speed than the said reel, substantially as and for the purpose specified.

2. Two or more distributors placed within a reel, one on the upgoing side of the said reel and another substantially opposite to it, in combination with a stationary partition located near the periphery of the reel between

the two revolving distributors, substantially as and for the purpose specified.

3. In a reel, a distributor situated outside the center of said reel and consisting of a series of slats fixed to and arranged around a
5 shaft, each slat set at such an angle that its face shall be opposite to the circumference of

the reel within which it is placed, substantially as and for the purpose specified.

Toronto, March 30, 1892.

ALEXANDER DOBSON.

In presence of—

J. EDW. MAYBEE,
JOHN E. CAMERON.