R. J. WALKER.

DRIVING MECHANISM FOR DRYING-MACHINES.

No. 192,397. Patented June 26, 1877.

Fig. 1.

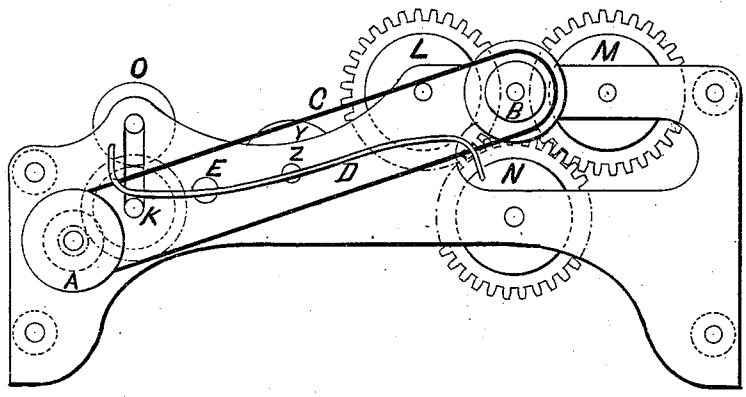
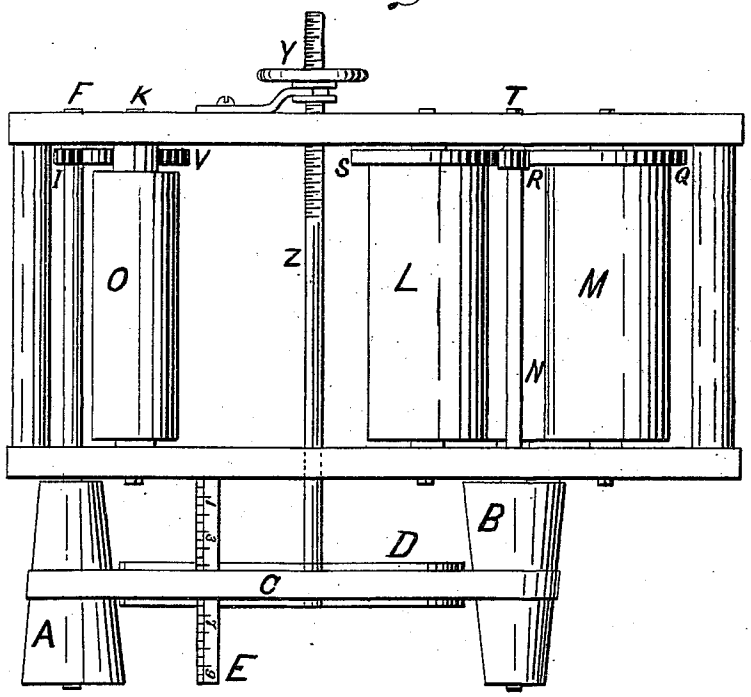


Fig. 2.



Witnesses,
S. A. Bickham
W. T. Daley.

Inventor,
R. J. Walker
per Chas. C. Klein
Atty.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ROBERT J. WALKER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN DRIVING MECHANISMS FOR DRYING-MACHINES.

Specification forming part of Letters Patent No. **192,397**, dated June 26, 1877; application filed November 29, 1876.

To all whom it may concern:

Be it known that I, R. J. WALKER, of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Driving Mechanism for Drying-Machines, which improvements are fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is to regulate the relative speed between the sizing-rollers and the drying-cylinders of drying-machines by transmitting the motion from the sizing-rollers to the drying-cylinders by means of a belt running over the cones A and B.

It is desirable to have textile fabrics not only of a perfectly uniform width from end to end in each piece, but also to have all the pieces of the same class of goods alike in width. As the goods come from the loom they possess neither of the above qualifications, and it is necessary to correct the width during the finishing process, and in practice the object is usually accomplished while the goods pass from the sizing-rollers O K.

In the drawings, F represents the driving-shaft, giving motion to the sizing-rollers K O by means of the pinion I and spur-wheel V.

The pulleys usually employed for driving the drying-cylinders L M N are displaced in my invention by cones A and B, over which the belt C runs. This belt is guided by the double fork D, which is attached to the rod Z, passing through and being supported by the frame of the machine.

The rod Z is provided with a screw-thread, upon which the nut in the hand-wheel Y works, so that by turning the hand-wheel Y the rod Z is moved longitudinally, and, of course, carries with it the double fork D and belt C, so that by simply turning the hand-wheel Y the belt C may be caused to travel upon the largest part of the cone A and the smallest part of the cone B, which would result in the acceleration of the motion of the drying-cylinders, and by turning the hand-wheel in the other direction the opposite and intermediate results may be produced, and all of these operations can be performed while the machine is in motion.

Thus a large amount of material and time is saved, which, previous to my invention, was consumed in the removal or attachment of suitable change-pulleys, and in the removal and in the application of lapping to the pulleys to increase or diminish their diameters.

As it is desirable to weave certain classes of goods of a certain width, and afterward to stretch them during the finishing process, it is necessary to know the position which the belt C should occupy before the goods are put upon the machine. For this purpose I provide an index, E, by which the fork D may be set, after its proper position for a certain class of goods has been determined experimentally.

I do not claim as my invention the cones A and B, broadly; nor do I claim anything not mentioned in the following clauses.

What I claim as my invention is—

1. The combination of the cones A and B, fork D, threaded rod Z, and screwed hand-wheel Y with the sizing-rollers O K and drying cylinders L M N, substantially as and for the purpose specified.

2. In combination with the cones A and B, fork D, threaded rod Z, screwed hand-wheel Y, sizing-rollers O K, and drying-cylinders L M N, the index E, substantially as and for the purpose set forth.

ROBERT J. WALKER.

Witnesses:

ISRAEL HICKEY,

W. W. DOUGHERTY.