

E. C. WILSON.

Improvement in Machine for Drying Paper, Wadding, &c.

No. 128,085.

Patented June 18, 1872.

Fig. 1.

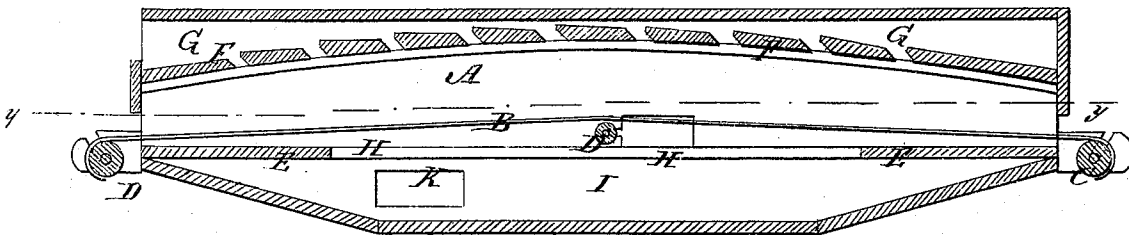
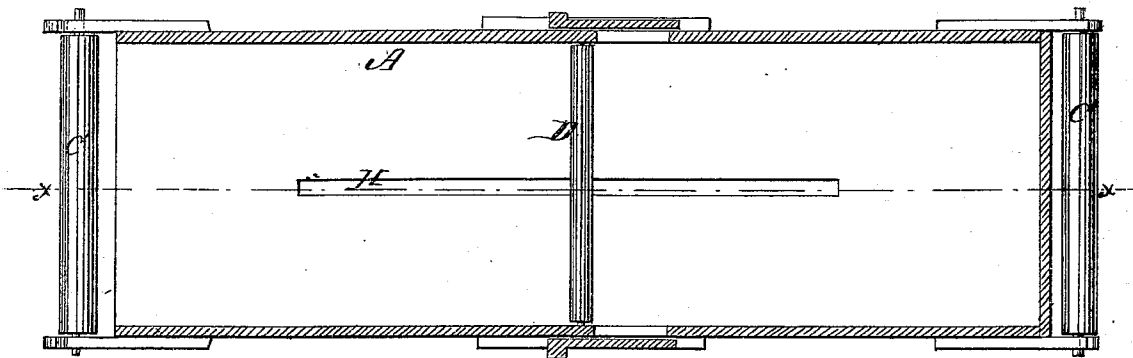


Fig. 2.



Witnesses:

Chas. Nida.
N. A. Graham

Inventor:

E. C. Wilson.

PER

Munn & Co.

Attorneys.

UNITED STATES PATENT OFFICE.

ELIHU C. WILSON, OF MEDWAY, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR DRYING PAPER, WADDING, &c.

Specification forming part of Letters Patent No. 128,085, dated June 18, 1872.

Specification describing a new and Improved Machine for Drying Wadding, Paper, &c., invented by ELIHU C. WILSON, of Medway, in the county of Norfolk and State of Massachusetts.

My invention consists of a long case, through which the web of bat, paper, or cloth to be dried is carried on an endless apron or belt, which said case is arranged to cause the air which is forced through it for drying the bat to impinge upon the upper surface, and then escape around the edges and along the under side of the center, and thence through the bottom of the case into a chamber or draught-box, from which it is exhausted by a fan-blower or other suitable means, which said arrangement is better than the plan of causing the air to act on the bat lengthwise, because, in that case, the moisture is carried along over a considerable portion of the bat in such manner that a large area of it is subjected to the escaping moisture, whereas in my present arrangement moisture escapes from the center each way by the shortest direction, and the action on the bat, beginning with the entry of it into the case, gradually dissipates the moisture equally as the bat moves along to the place where it escapes from the case in such manner that nothing is lost by the moisture being forced over a part already partially dried, as when the air is blown upon the bat at one end of the case and off at the other, thus economizing considerably in the cost of the work.

In the accompanying drawing, Figure 1 is a longitudinal sectional elevation of my improved drying apparatus taken on the line *x x* of Fig. 2, and Fig. 2 is a horizontal section on the line *y y* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the chamber through which the bat is to be carried on an endless belt or carrier, B,

working over rollers C D just above the bottom E. F is a plate in the upper part of the case with numerous openings to equalize the application of the air, which passes down from chamber G upon the upper surface of the bat. H is a long narrow escape-passage through the bottom piece E to the exhaust-chamber I below, to which the section-pipe of a fan-blower will be attached, say, at the opening K through the side for forcing the air through the machine.

The air may be allowed to pass down through the bottom E at the sides of the case with good results, but I prefer to have it first pass under the bat to the central passage H, as here shown.

The bats, for the drying of which this machine is specially devised, are only moistened on the surface, and it is therefore desirable to have the air pass over the surface in the manner here shown, and not through the bat, as that would convey the moisture to the interior portion and destroy its crispness, which it is desirable to maintain.

The machine may, however, be used with success for drying sheets of wadding, paper, or other substance moistened throughout, and is intended for drying all such fabrics that can be conducted through it upon the apron.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The chamber G, air-distributers F, chamber A, endless carrier B, bottom E, and exhaust-chamber I, combined and arranged in such manner that the air for drying the bat escapes laterally over the edges of said bat to the said exhaust-chamber below, all substantially as specified.

ELIHU C. WILSON.

Witnesses:

M. M. FISHER,
E. S. HARDING.