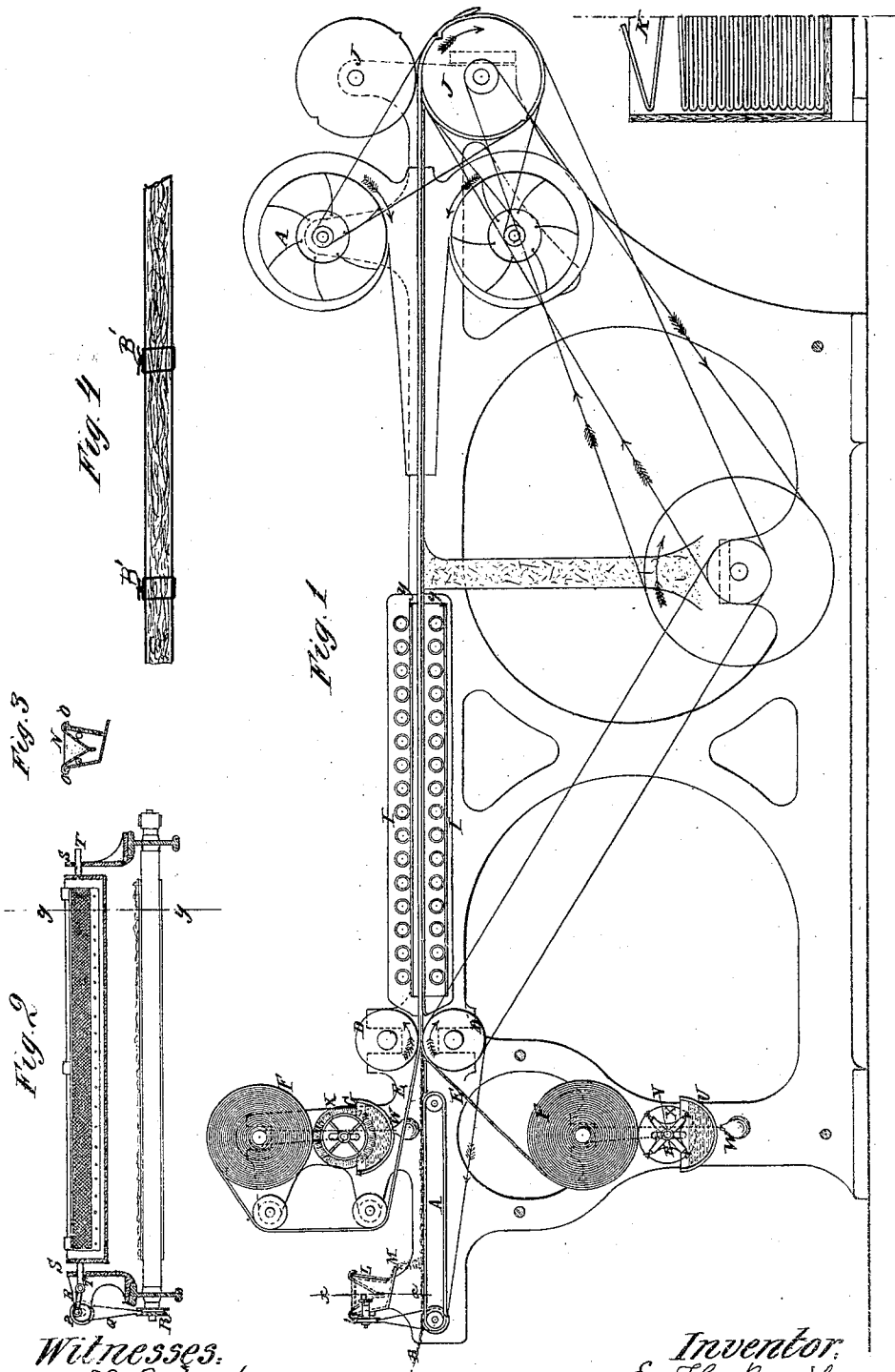


E. H. BAILEY.

Machines for Manufacturing Carpet Linings.

No. 143,053.

Patented September 23, 1873.



Witnesses:
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UNITED STATES PATENT OFFICE.

EDWARD H. BAILEY, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN MACHINES FOR MANUFACTURING CARPET-LININGS.

Specification forming part of Letters Patent No. **143,053**, dated September 23, 1873; application filed August 9, 1873.

To all whom it may concern:

Be it known that I, EDWARD H. BAILEY, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in the Manufacture of Carpet-Linings, of which the following is a specification:

My invention consists of apparatus combined with the machinery used for arranging the bat and the paper sheets together, by which odoriferous substances are sprinkled upon and mixed with the bat in regular and uniform quantity while the lining is being made and before the bat is inclosed between the papers. My invention also consists of apparatus for pasting the paper to cause it to unite with the bat, gaged to the paper-rolls by rollers, and caused to rise up to the paper-rolls as they decrease in size by cords and weights.

Figure 1 is a side elevation of a carpet-lining machine, such as I propose to make, with one side of the frame removed and a portion of the pack and its receptacle removed. Fig. 2 is a sectional elevation of the apparatus for applying the odoriferous substances taken on the line *xx* of Fig. 1. Fig. 3 is a transverse section of Fig. 2 on the line *yy*, and Fig. 4 is a longitudinal sectional elevation of a piece of carpet-lining such as I propose to make.

Similar letters of reference indicate corresponding parts.

A represents the endless carrier, onto which the bat of fibrous material B is received from the picking and condensing apparatus, by which it is formed and conveyed to the rollers D, between which it is combined with the paper sheets E, which pass to said rollers from rolls F, and the paper then passes, together with the bat, between said rolls and is pressed together, the paste which is delivered upon the paper by the brushes G and H serving to unite the layers. I represents the steam-heating coils, between which the lining passes to be dried, and J represents the crimping-rollers, between which the lining is passed and crimped, folded, and delivered to the receiver K.

As above described the machine is similar to the carpet-lining machines now in use, and I make no claim to it; but will now proceed to describe the improvements which I do claim.

Directly over and a little above the receiver

end of the endless carrier A is a reciprocating box, L, extending across the carrier, and having a shelving bottom extending beyond one side, in which a long opening is made above the bottom, as shown at M, in which box is a V-shaped pan, N, with a narrow slit along the bottom to discharge the odorating substance upon the bottom below, the said pan being supported by the curved upper edges of the sides upon the upper edges of the sides of the box, as at O, so as to slide and strike against the ends of the box to feed the powder, the movements being caused by quick reciprocating movements of the box itself, which is kept in motion by a crank-shaft, P, to which it is connected by a rod, R. The crank-shaft is operated by a belt, Q, driven by a roller, R, of the apron A. The box L is supported in the standards S, so as to be reciprocated, as above described.

The odorating powder of whatever kind, being supplied to the pan N in any suitable way, is thus sprinkled regularly and in any required quantity upon the bat before it is united to the paper, and is thus incorporated in the lining so as to be permanently retained by the fibers. The quantity delivered from the pan may be varied at will by having the lower edges of the pan N arranged for adjusting, and provided with devices for adjusting them to make the opening between them more or less wide.

The pasting-brushes are, by preference, arranged to put the paste on the paper in stripes, and so that the stripes of one sheet of paper will be crosswise to those of the other sheet. To accomplish this the upper brush is made of narrow circular sections at certain distances apart, and the lower brush is made of sections running lengthwise separated by blank spaces, as clearly shown in the drawing.

In order to have the paste applied as nearly alike as possible, whether the paper-rolls be large or small, the paste-troughs U, together with the brushes, are arranged under the paper-carrying rolls to rise and fall on any suitable guides in the frame, and provided with weighted cords W to hold them up to the paper-rolls, and to raise them as the paper-rolls decrease in size. The brushes have rollers X, which bear against the paper roll to gage the brushes

to them, so as to keep them always at the same distance and bearing with the same pressure.

This arrangement not only simplifies the machine in construction as compared with other machines of this kind, but it insures more uniform application of the parts, for in the other arrangements the paper being drawn from the paper-rolls over or against the brushes, more guide-rolls are required and the pressure on the brushes varies as the angle of the paper varies, or as the size of the paper-roll varies.

Heretofore the lining has been drawn along the steam-drying coils, either in direct contact with them or so near as to be overheated and sometimes ignited. This I propose to avoid by the use of protecting-plates Y arranged between the heating-coils and the passage for the lining both above and below.

A' represents a fan-blower, which I now propose to arrange between the drier and the folding-rolls, so as to blow a blast of cool air upon the hot lining and cool it before it comes into the pack, so as to prevent steaming, which results from the accumulation of a large mass in a pack and which damages the paper. Besides pasting the paper and bat together I also propose to secure it by the tufting process, as indicated at B', Fig. 4, and thus make a

lining of greater strength for handling as well as for wear under the carpet. This is particularly advantageous for taking the lining up for cleaning and putting it down again, for the linings pasted only are very difficult to handle after much wear for want of capacity to hold together.

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

1. The combination, with a carpet-lining machine, of apparatus, substantially as described, for sprinkling odoriferous powder with the fibrous material before it is inclosed by the paper, but during the process of making the lining, substantially as specified.

2. The combination of the reciprocating box L, pan N, and the contrivance for actuating the box, substantially as specified.

3. The paste troughs and rollers arranged to rise and fall under the paper-rolls, and provided with cords and weights, and the brush-rollers provided with the gage-rollers to act upon the paper-rolls, substantially as specified.

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