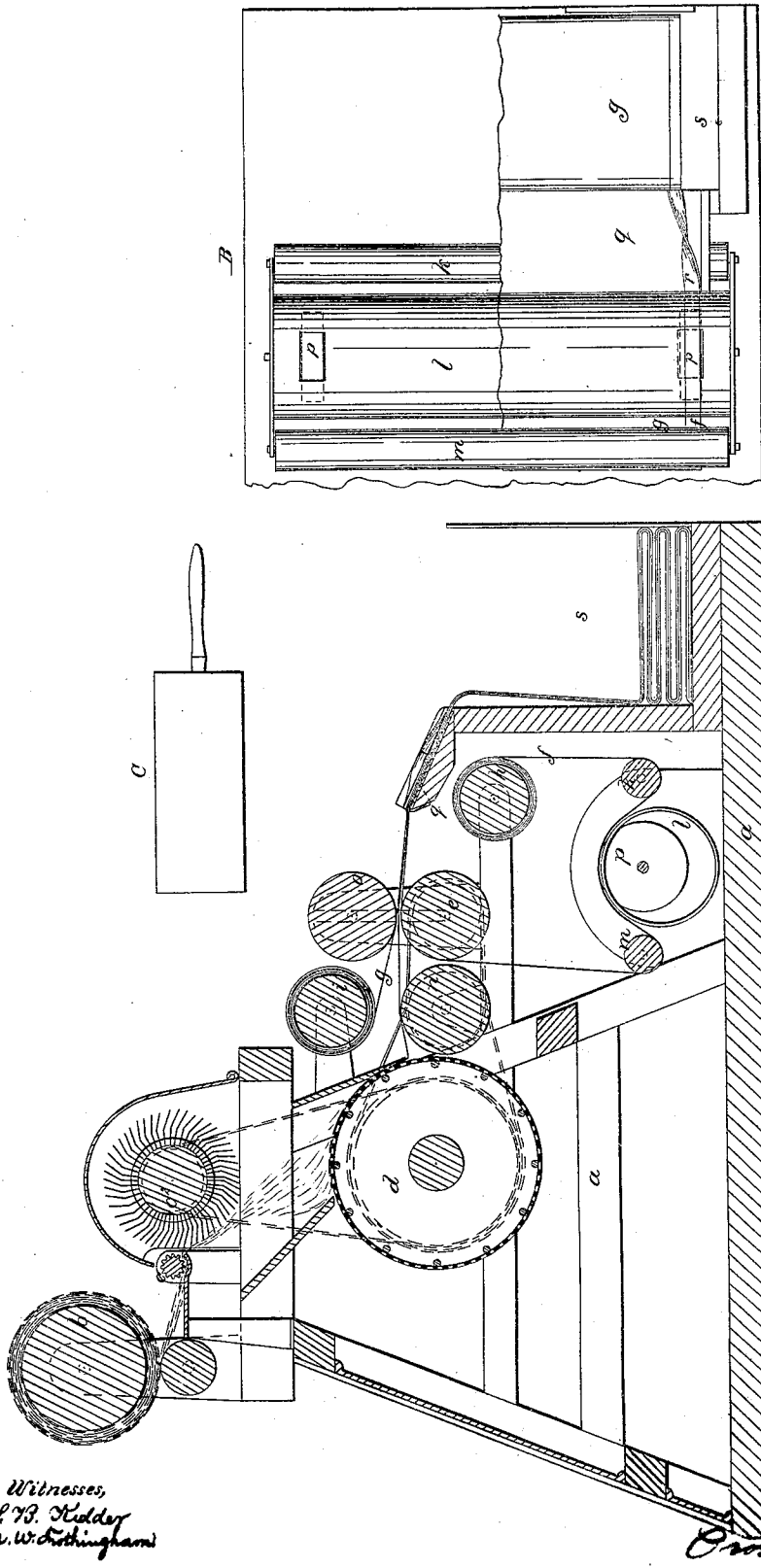


J. R. Harrington.
Carnet Lining.

N^o 67,048.

Patented Jul. 23, 1867.



Witnesses,
S. B. Kilday
M. W. Nottingham

Inventor,
J. R. Harrington
by his Atty.

Only & Co.

United States Patent Office.

JOHN R. HARRINGTON, OF BROOKLYN, NEW YORK, ASSIGNOR TO GEORGE W. CHIPMAN, OF SAME PLACE.

Letters Patent No. 67,048, dated July 23, 1867.

IMPROVEMENT IN THE MANUFACTURE OF CARPET-LINING.

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, JOHN R. HARRINGTON, of Brooklyn, in Kings county, State of New York, have invented an Improvement in the Manufacture of Carpet-Linings; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practise it.

Letters Patent No. 14,585 were granted to me April 1, 1856, for certain improvements in the manufacture of carpet-lining, in which patent I describe and illustrate a mechanism by which a continuous bat or sheet of soft fibrous material is laid and confined between or attached to continuous sheets of paper, the material being delivered from the machine in folds ready for baling, or to bring it into merchantable condition.

My present invention has reference to the same manufacture, and to improvements upon the mechanism and process shown in such patent. The present invention consists in the arrangement of mechanism through which the fibrous material is formed into a bat, by being fed up to the surface of a card cylinder, the teeth of which carry the filaments to the surface of a lap-forming cylinder, upon the rotating gauze surface of which it is drawn and formed into a sheet, leaving the cylinder in this form, and passing from thence between presser-rolls, and between the sheets of paper passing between such rolls. It also consists in forming the lining of two strips of paper, receiving the batting between them, one of which strips is wider than the other, so that when they come together the opposite edges of the wide strip overlap the adjacent edges of the other strip, and are folded over and cemented to said overlapped edges. It also consists in the means for applying the cement to the edges of the wide strip, and in the mechanism for effecting the folding over the cement-applied edges.

The drawing represents at A a vertical longitudinal section of my machine.

a denotes the frame for supporting the journals of the various rolls. The material from which the batting is formed, wound upon a roll, b, or fed from some other source into the machine, and to a fluted feed-roll, c, is caught by this roll c and carried against the teeth of a card cylinder, c², which has a rapid rotation imparted to it, stripping off the filaments of the fibrous material, which, as the card cylinder rotates, are drawn against the surface of a rotary screen or drum, d, by rarefaction or exhaust of the air within the drum, by any suitable means, in such manner as to suck down the fibres from the card teeth, and cause them to lie upon the surface of the screen, forming a fleecy sheet, the fibres of which cling together sufficiently to allow the sheet or lap to be fed from the drum over a feed-roll, e, and between the surfaces of the two strips of paper, which, with the lap or sheet of fibrous material, form the lining. As here shown, the sheets or strips of paper are composed of a wide strip, f, and a narrow strip, g, the former coming from a paper roll, h, and the latter from a similar roll, i. The wide strip, as it is unwound from its roll h, passes under a guide-roll, k, thence over a cement-cylinder or fountain, l, thence under a guide-roll, m, and thence between feed-rolls e n, over the former of which it receives upon it the lap or sheet of fibrous material. The narrow strip g passes directly from its roll i over the lap-sheet, being compressed against the same and the wide paper by a weighted or metal presser-roll, o, over the roll e. In passing over the cement-cylinder l, the edges of the strip f, on its under surface, have cement applied to them as follows: The cement-cylinder is filled or partially filled with mucilage or cement, and upon a shaft extending through the same are placed two wallowing rolls p, which project up through the upper surface of the cylinder, at such distance apart as shall cause them to roll in contact with the under surface of the paper at the opposite edges thereof, as the paper is fed along, thereby applying to the said surface a border of cement; and as the paper in passing on joins on the narrow strip, the cement-applied surfaces project beyond the edges of the narrow strip, and in this condition the paper and enclosed fibrous lap pass to an incline or plate, q, at each end of which is a guide or groove, r, which receives the projecting edge, and as the lining is fed along, turns this edge over, by the formation or twist of the guide-groove, so that as the lining reaches a pit or receptacle, s, these edges will have been turned over upon and cemented to the upper surface of the narrow sheet.

At B, in the drawing, is shown a plan of the baling or folding-box, showing on one side the paper strips, entering the box from the edge-folding guides, and on the opposite side the cement-cylinder and one of the cement-applying rolls. After being cemented, the lining may be again passed through presser-rolls to compress

the cemented edges together, or may, as shown, pass directly into the box or baling-pit s. The projecting edges may, however, if preferable, be turned or folded over against the narrow strip by hand.

In my 1856 patent, above referred to, I employ two creasing-drums for making creases in the lining, as it passes between them, as by reference to said patent will more fully appear; and a similar arrangement may be employed with this machine. To dispense with these drums, however, the operation of which is more or less imperfect, and to simplify the folding process I now employ two sorts of spatulas or folders, as seen at C, and have an attendant who slips one over the end of the lining as it comes into the pit, and lays it upon the bottom of the box, with the folder on top. With the other folder he then folds down the next part of the lining across the box, with the folder on top. He then withdraws the first folder by slipping it out endwise, and folds the next part, and so on, until the whole length is folded, as will be readily understood.

I claim combining with paper rolls, from which the strips to enclose the lap or fibrous material are fed, card cylinder, and cylinder screen, for forming the lap, the whole being arranged and operating together substantially as described.

I also claim forming or constructing a carpet-lining, by enclosing the lap between a wide and a narrow strip of paper, and bending the projecting edges of the wide strip over upon and cementing or securing them to the surface of the narrow strip, substantially as set forth.

I also claim the arrangement of the cement-cylinder and its rolls, in connection with the feed, guide, and paper rolls, substantially as described.

I also claim the method of folding the lining, substantially as set forth.

his
JOHN R. X HARRINGTON.
mark.

Witnesses:

F. GOULD,
S. B. KIDDER.