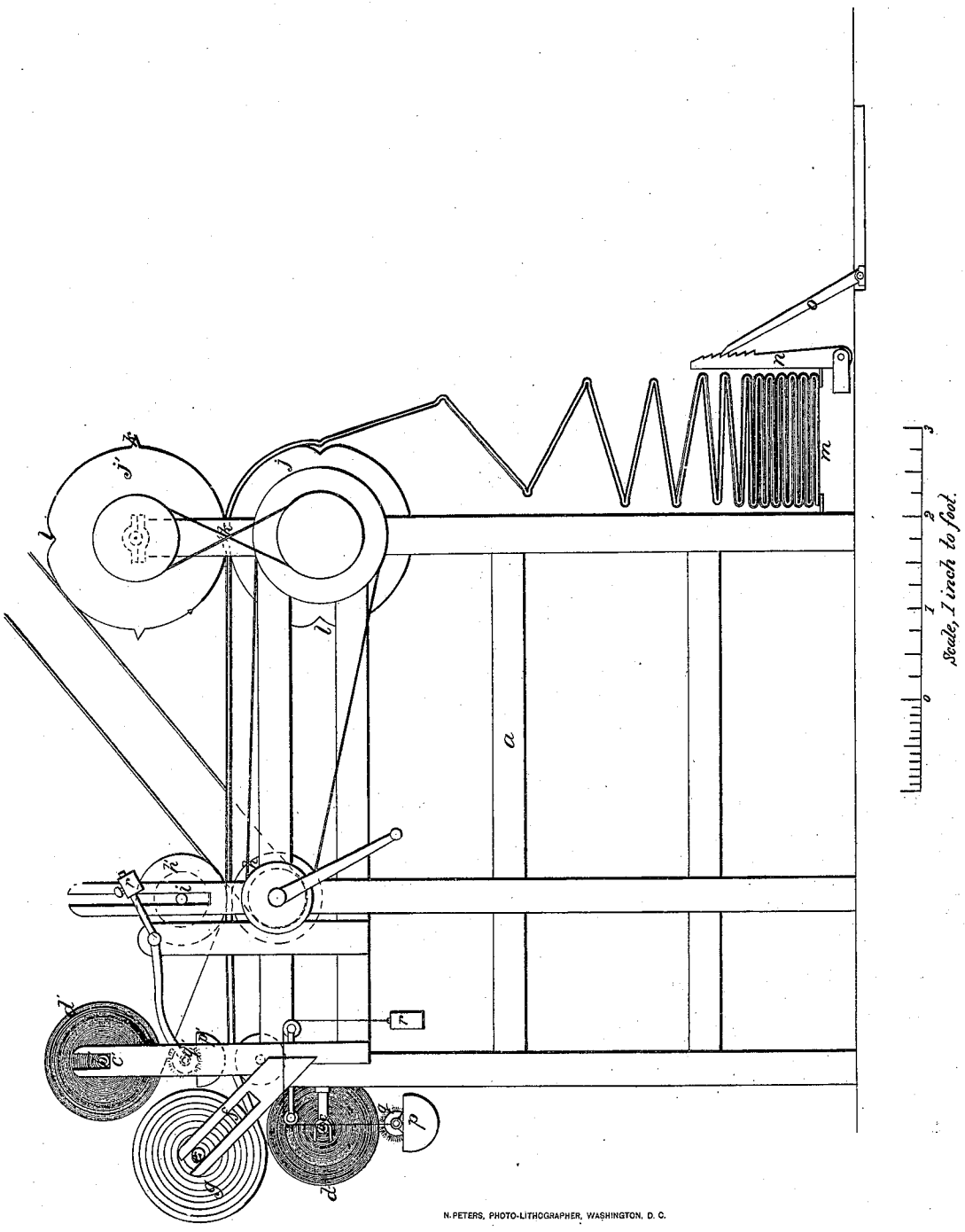
J. R. Harrington.

Carpet Lining.

No. 14,585. Patented Apr. 1, 1856.



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UNITED STATES PATENT OFFICE.

JOHN R. HARRINGTON, OF DAYTON, OHIO.

MACHINE FOR MAKING CARPET-LINING.

Specification forming part of Letters Patent No. 14,585, dated April 1, 1856; Reissued December 11, 1866, Nos. 2,415, 2,416.

To all whom it may concern:

Be it known that I, JOHN R. HARRINGTON, of Dayton, Montgomery county, Ohio, have invented a new and useful Machine for Making Carpet-Lining; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the annexed drawing, making part of this specification.

The object of my machine is to manufacture with economy and despatch a kind of carpet lining lately devised and introduced by me, and consisting of a lap or layer of cotton batting wadding or flock interposed between two long strips of stout paper. This lining is found to possess in a remarkable degree the advantages of uniform and even substance and surface, permanent elasticity, nonconduction of air cold heat and sound, easy appliance and removal, and preservation of the carpet beneath which it is spread.

In the accompanying drawing in which my machine is represented by a side elevation (*a*) is the frame.

(*b*) (*b'*) are spindles hung at different elevations horizontally athwart the frame. These spindles (*b*) (*b'*) rotate in stationary bearings (*c*) (*c'*) attached to the frame. Around each spindle (*b*) (*b'*) is wound a roll of stout paper (*d*) (*d'*).

(*e*) is a spindle resting (also horizontally) in oblique slots (*f*) so as to revolve at an elevation intermediate between the spindles *b b'*. Around this spindle is wound a cotton bat or lap (*g*).

The obliquely slotted bearing of the spindle (*e*) enables its advance as the lap in the course of operation of this manufacture, becomes unwound. These parts are so arranged as represented relatively to each other as to enable the roll of wadding to rest at all times upon the lower roll of paper and to be supported and drawn onward as on an apron.

(*h*) (*h'*) are two rollers of which one (*h'*) occupies vertical slotted bearings (*i*) in the frame and acts as a pressure roller. To the shaft of the roller (*h*) is applied the winch or driving pulley by which the machine is set in motion.

(*j*) (*j'*) are two rollers placed somewhat in advance of and on a level with the rollers (*h*) (*h'*). These rollers are identical in form having each of them two opposite ridges (*k*) and grooves (*l*) as represented, the ridges of one roller gearing into the grooves of the other and vice versa. The circumference of each roller including the indentations and projections is exactly two yards, so as to measure precisely half a yard from each projection to the next indentation on the same roller. These rollers—called by me the "creasing rollers," in connection with a platform or box placed as described some distance immediately under the delivery of the said rollers, serve a useful twofold purpose namely depositing the material in uniform folds each of which represents exactly one yard length of the stuff; in other words, the stuff is thus without any further manipulation, both accurately measured off and conveniently folded for baling. This peculiar mode of folding becomes necessary from the nature of the material, for the paper inclosures not being of a nature susceptible of stretching a continuous folding of the material in one direction—besides preventing the possibility of the above described method of measurement by folds—would result in an injurious wrinkling of one of the paper layers that would interfere with the smooth disposal of the lining upon a floor.

(*m*) is a platform which receives the lining from the creasing rollers.

(*n*) is a temporary front, which being held up by a pawl (*o*) during the folding of the stuff, can be let down to permit the removal of the piece for baling.

The two creasing rollers are geared together in such way as to insure their equal action and rotation.

(*p*) (*p'*) are troughs containing vegetable mucilage; in these troughs are hung cylindrical brushes (*q*) (*q'*) and are capable of rotation. These brushes are, by means of counterbalances (*r*) made to press and revolve against the intended inner surfaces of the paper. The thin viscid cuticle thus imparted affords a bond of union between the outer surfaces of the filling and the inner surfaces of the paper. But when the machine is intended to manufacture a lining or wadding, without causing the intermediate layer of cotton or other filling to adhere to the outside sheets of paper or cloth by means of the size or mucilage, but merely by causing the fiber of the cotton to adhere to the rough or nappy surface of the paper

or cloth by pressure as they are passed through the rolls h and h'; then the troughs p and p' that contain the adhesive solution, and the brushes q and q' that administer it, together with their necessary appendages may be dispensed with.

The process of manufacture is as follows: Rolls of paper and wadding, being placed in their respective bearings, as before described, and the troughs being properly supplied with gum solution, the ends of the paper inclosures and of the wadding are introduced between the pressure rollers, whence passing onward they are inserted between the creasing rollers, and thence descend in proper folds as before explained onto the platform. When the proper number of folds—say thirty—have accumulated upon the platform the piece is separated at the proper crease by means of shears and may then be removed and baled to make room for the next.

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

1. The arrangement of the horizontal spindles or rollers (b and b') on which the outer sheets or rolls of paper or cloth are wound, in combination with the intermediate spindle (c) on which the inner layer of cotton or other filling is wound, the whole being supported and operated in the manner, and for the purposes substantially as described.

2. I claim the arrangement of the rolls h and h' in combination with the spindles b, b', and e for the purposes substantially as herein set forth.

3. I claim the troughs p and p' that contain the size or mucilage, and the brushes q and q' that administer it when used in combination with the spindles b, b', and e, the whole being arranged and operating in the manner and for the purposes substantially as specified.

4. I claim the creasing rolls j, j, when used in this connection, each having alternate grooves and ridges at the requisite distance for the folds, for the purposes of folding and measuring substantially as described.

5. I claim in this connection the box or platform (m) placed below the delivery of the rolls and having a falling front (n) as explained.

In testimony whereof, I hereunto set my hand before two subscribing witnesses.

JOHN R. his × mark HARRINGTON.

Witnesses:
GEO. H. KNIGHT,
THOS. W. SCOTT.

[FIRST PRINTED 1912.]