

A. CHAMBERS.

Wadding and Machines for its Manufacture.

No. 140,184.

Patented June 24, 1873.

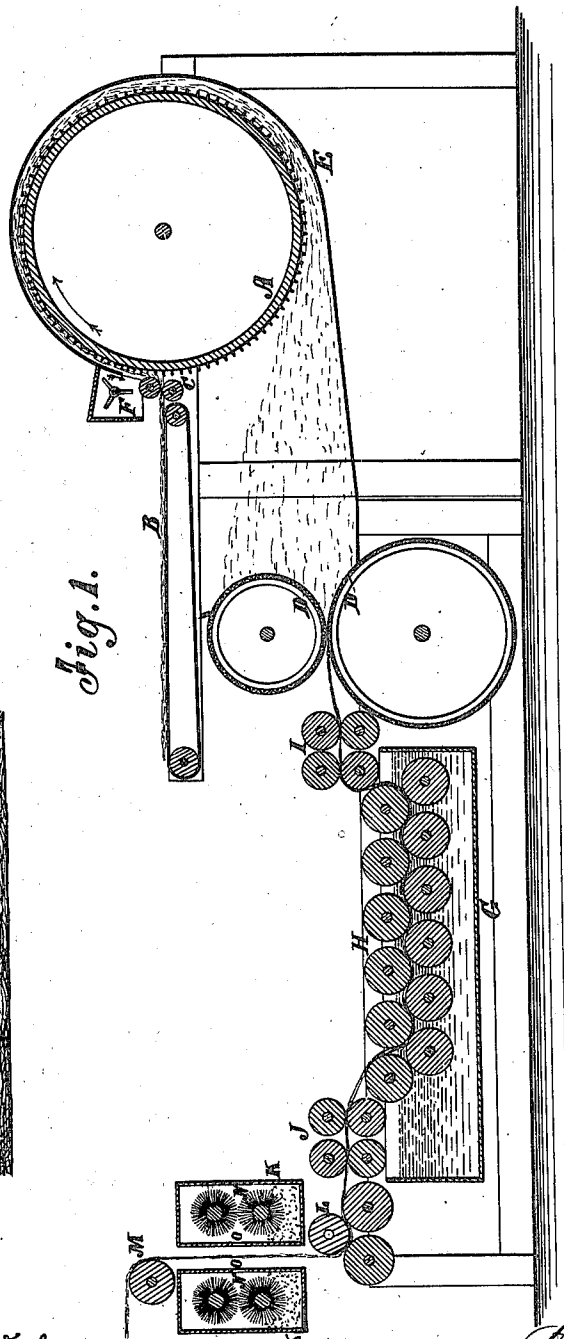


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

ANDREW CHAMBERS, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN WADDING, AND MACHINES FOR ITS MANUFACTURE.

Specification forming part of Letters Patent No. 140,184, dated June 24, 1873; application filed March 29, 1873.

To all whom it may concern:

Be it known that I, ANDREW CHAMBERS, of Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in the Manufacture of Waddings, of which the following is a specification:

I propose to manufacture waddings of old delaines, and other part cotton and part wool goods, by picking the stock into sufficiently fine and soft particles to form a soft fine lap, which I make up in the ordinary way, and then pass it directly from the machine in which it is made through a bath composed of a solution of resin and caustic soda; also coloring matter, if I wish to color it, with which I saturate the lap throughout and secure the fiber so as to make as good and strong an article as the ordinary long fiber will, and yet do not injure the fiber in respect to the light, crispy nature which it is necessary for all good waddings to possess. The caustic soda lessens the viscosity of the resin, so that while it does not prevent it from sticking the fiber together with sufficient tenacity, it prevents any apparent gumminess. The wool fibers will also unite together, and with the cotton fiber to some extent, by the felting process. The fabric may be made more or less fine and dense according to the fineness of the picking and the compression of the rolls. I also propose to apply a dressing of plaster of Paris, or any other suitable substance to the surfaces of the wadding as it passes out of the bath, to glaze it and prevent it from sticking, by passing it between a couple of boxes containing the plaster, and brushes for throwing it on the wadding as it passes along.

Figure 1 is a longitudinal sectional elevation of a machine such as I use for making my new article of wadding; and Fig. 2 is a section of a piece of the wadding.

Similar letters of reference indicate corresponding parts.

A represents a picker, with a feeding-apron, B, feed-rollers C, screen wire-rollers D, and

a conducting case, E, such as are ordinarily used for picking, refining, and condensing the stock to form the lap, with which picker and feed-rollers I combine a fan, F, or beater to throw back any large pieces not sufficiently picked to be worked over. G represents a vat, and H carrying-rollers, which I combine with the above-described mechanism for holding the solution for sticking the fibers together, and carrying the fabric through it as it comes from the delivery-rollers I, to complete the construction; and J represents carrying-rollers for conducting the fabric from the vat.

When I wish to color the fabric I will mix the coloring matters with the sticking solution. I do not limit myself to any particular sticking solution for any other which will answer the purpose may be used.

K represents the plaster-boxes, between which I cause the wadding to pass by rollers L and M after passing out of the vat to receive the dressing of plaster of Paris or any other suitable substance which is thrown upon it by revolving brushes N, through openings O in the boxes, the brushes being operated in any suitable or approved way.

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

1. As a new article of manufacture, waddings made of short fiber stock, such as herein described, and saturated with a gummy solution, and also coated or glazed on the surfaces, substantially as specified.

2. The combination of a vat G, and carrying-rollers H, with mechanism for forming waddings, substantially as specified.

3. The combination of boxes K, and brushes N, with the bath G, carrying-rollers H, and the lap mechanism, substantially as specified.

ANDREW CHAMBERS.

Witnesses:

JAMES SUTCLIFFE,
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