

H. A. STEARNS.  
Cotton Batting or Wadding and Machine for Folding  
the Same.

No. 206,841.

Patented Aug. 6, 1878.

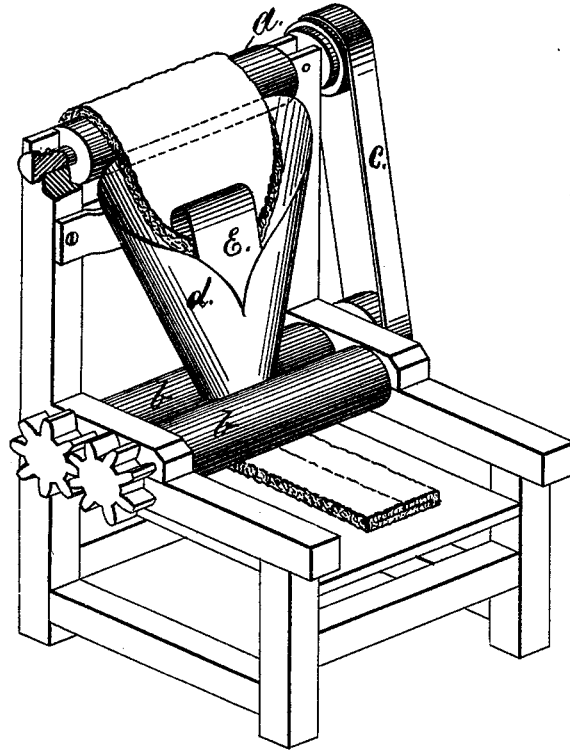


FIG. 1.



FIG. 3.

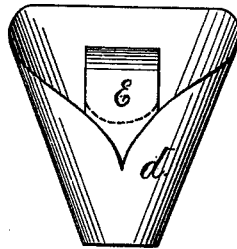


FIG. 2.

WITNESSES.

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# UNITED STATES PATENT OFFICE.

HENRY A. STEARNS, OF PAWTUCKET, RHODE ISLAND.

IMPROVEMENT IN COTTON BATTING OR WADDING AND MACHINES FOR FOLDING THE SAME.

Specification forming part of Letters Patent No. 206,841, dated August 6, 1878; application filed May 20, 1876.

*To all whom it may concern:*

Be it known that I, HENRY A. STEARNS, of Pawtucket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Cotton Batting or Wadding and Machines for Folding the same; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a perspective view of my improved batting-folding machine. Fig. 2 is a view of the sheet-metal folding-chute. Fig. 3 is a sectional view of the folded batting or wadding, the edges being folded into the center.

The object of my invention is first to fold the cotton batting or wadding, as the same comes from the carding-engines, longitudinally, so as to form an article of manufacture more convenient in use, presenting a better appearance, and being more salable.

Cotton batting or wadding has always before my invention, when of the ordinary width, been folded so as to bring the two outer edges on one side, and has usually been so rolled. The bundle or package so formed presented on one side a ragged and unsightly appearance, and when the batting was to be used and opened these loose and ragged edges were liable to be so intermixed that it was difficult to flatten out and separate the same without splitting the batting.

By my improved process the batting, as illustrated in the drawings, is folded longitudinally and automatically with the rough outer edges in the center, and when rolled smooth, even and well-finished edges are presented, making the same more salable and more convenient in handling, as no loose fibers are liable to injure the clothing.

When the batting folded by my process is to be opened, the inturned edges separate freely, and the batting is not liable to split; it is better preserved, and can be used more evenly than batting folded in the old manner.

Another part of my invention consists in the arrangement of a machine by which the batting or wadding as it leaves the carding-engines will be automatically folded with the edges in the center, as above described. For

this purpose I use a funnel-shaped chute composed of sheet metal or other suitable material having a smooth surface, and constructed so as to receive at its upper end a sheet of cotton batting or wadding of the width as it comes from the cards, and in the passage of the batting through the chute gradually turn over the edges until they meet in the center, thus doubling the thickness. The chute is mounted in a suitable frame, provided with delivery and compression rollers, connected by belts, the whole arranged to receive the batting and endless aprons from the cards, and fold and compress the same into a narrower width for convenience in packing.

In the drawings, *a* is the delivery-roll, which forms one end of the endless apron by which the batting or wadding is delivered to the folding-machine. *b b* are the compressing-rollers by which the folded batting is compressed. *d* is the folding-chute, made preferably of sheet metal and of funnel shape, the upper part being as wide or wider than the sheet of wadding or batting to be folded, and the lower end half, or slightly more than half, the width.

The sides being concave, as shown, and also tapering, the batting, in passing downward, is folded toward the center, as the narrowing of the chute *d* compels the sheet of batting to conform to the shape of the chute. The doubled batting or wadding, the edges in the center, now passes between the pressing-rollers *b b*, and is delivered by any of the usual devices to the cutting, rolling, or packing devices.

*E* is a guide used in very light batting to prevent the center of the sheet from leaving the rear portion of the chute, and thus secure uniform and regular folding.

By this means the cotton batting or wadding is put in a convenient form for packing and transportation. When it is desirable to have the cotton batting or wadding for use thinner than in its folded condition, the edges may very readily be turned back so as to assume its original width and thickness.

In operation the cotton batting, as it comes from the cards, is delivered by an endless apron over the roller *a* to the chute *d*. Descending the chute the edges are turned over until they meet at the center, thus doubling the

thickness of the batting and reducing its width by half. The folded batting or wadding is then passed between the rollers *bb*, by which it is rendered sufficiently compact for packing, transportation, or use. The edges of the batting or wadding are prevented from becoming interlaced or felted together, as the edges are folded in such a manner that the extreme edges will not overlap each other.

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

1. As a new article of manufacture, rolls or packages of cotton batting or wadding, the

outer edges of which are folded toward the center of the sheet, the sheet being folded in such a manner that the extreme edges thereof will not overlap each other, substantially as and for the purpose set forth.

2. A machine for folding cotton batting or wadding, consisting essentially in the combination, with delivery and pressure rolls, of the chute *d* and guide *E*, substantially as and for the purpose set forth.

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Witnesses:

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