

(No Model.)

M. E. HASTINGS.
BOX FOR STEAMING COPS.

No. 459,004.

Patented Sept. 8, 1891.

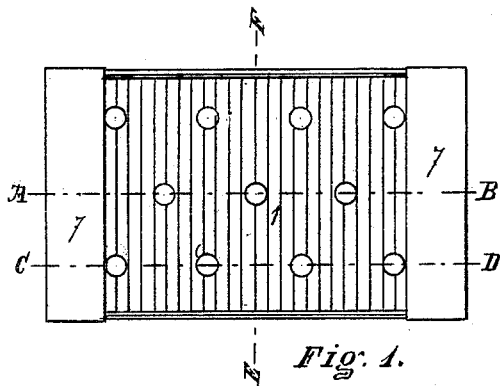


Fig. 1.

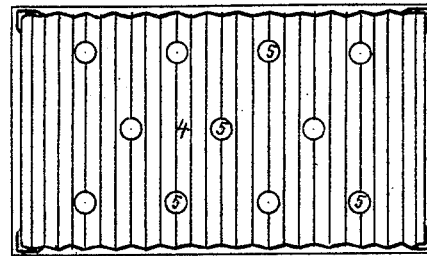


Fig. 2.

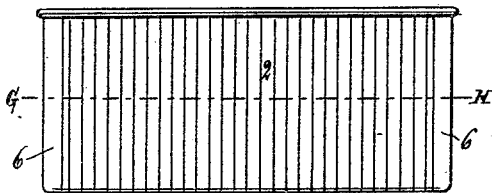


Fig. 3.

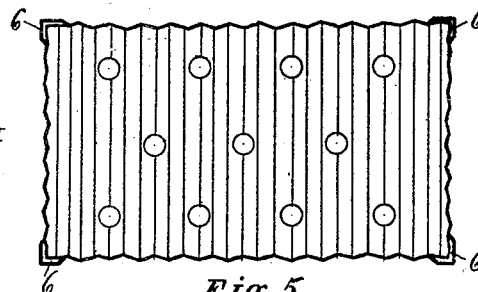


Fig. 5.

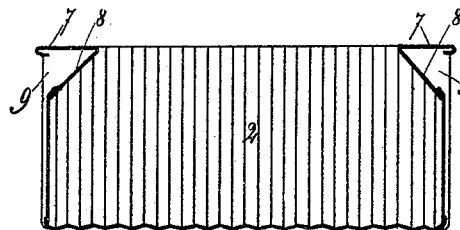


Fig. 6.

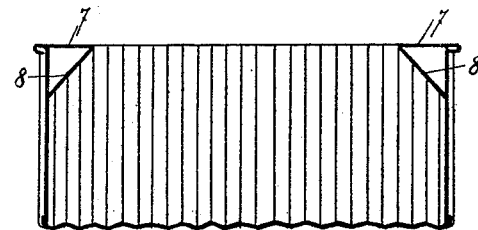


Fig. 7.

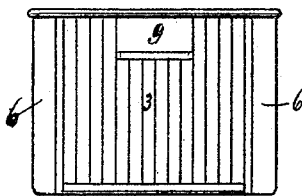


Fig. 4.

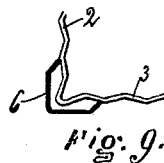


Fig. 9.

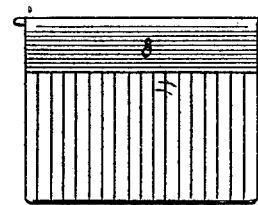


Fig. 8.

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UNITED STATES PATENT OFFICE.

MATTHEW EMERY HASTINGS, OF NEW YORK MILLS, NEW YORK.

BOX FOR STEAMING COPS.

SPECIFICATION forming part of Letters Patent No. 459,004, dated September 8, 1891.

Application filed April 20, 1891. Serial No. 389,602. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW EMERY HASTINGS, of New York Mills, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Boxes for Steaming Cops; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

My invention relates to an improvement in cop or filling boxes. These boxes are used to steam spool-cotton on the spools preparatory to weaving, the spools being piled in tiers in the boxes and the boxes piled in the steam box or chest. This improved box is formed or constructed so as to readily permit the circulation of the steam in and around the spool, the draining of the box, and also permit the boxes to be piled upon each other and placed together, so as to economize space in the steam-chest and allow the circulation of the steam, besides providing other features and advantages hereinafter set forth.

In the drawings which accompany and form part of this specification, and in which similar figures of reference refer to like parts in the several figures, Figure 1 shows a top view of the box. Fig. 2 shows a bottom view of the same. Fig. 3 is a side elevation. Fig. 4 is an end elevation. Fig. 5 is a section on line G H of Fig. 3. Fig. 6 is a section on line A B, Fig. 1. Fig. 7 is a section on line C D of Fig. 1. Fig. 8 is a section on line E F of Fig. 1. Fig. 9 is an enlarged detail cross-section of a corner of the box, being the same as one of the corners shown in Fig. 5.

Referring more specifically to the reference-numerals marked on the drawings, 1 indicates the cop-box, constructed with sheet-metal corrugated sides 2 2, corrugated ends 3, corrugated bottom 4, having perforations 5 5, &c. The box is substantially rectangular in form and the sides and ends vertical or at right angles to the bottom, and on each of the corners is provided a V-shaped strengthening-piece 6, soldered on the outside of the corner. Extending across each end of the box is provided shelf-piece 7, which is doubled at its inner edge, forming an inclined wall 8, spanning or extending across the up-

per part of each end of the box. The shelf 7 and inclined wall 8 inclose a space in the end of the box, to which access is had through the opening 9, which opening 9 allows the workman to insert his fingers, and thus the middle portion of the shelf-top 7 becomes a handle for the box.

The use of the box and some of its advantages may be described, briefly, as follows: The spools or cops are preferably placed in the box in two tiers, the tiers running lengthwise. The corrugations add strength to the material of the box, and also furnish conductors or troughs in which the condensed moisture may be carried off without coming into contact with the material on the spools and the steam allowed to circulate around the spools. The shelf-top 7 provides a ready support for a similar box piled on top, and the boxes cannot be made to "nest" together. The openings 5 allow the condensed moisture to escape from the box, and the corner-pieces 6, extending from the bottom of the box to the shelf-top 7, furnish a strong support, so that many of the boxes can be piled on top of one another without danger of crushing or warping the under boxes. The manner of forming the handle by cutting the upper end wall of the boxes allows the box to be readily handled, and the handle does not thus interfere with many of the boxes being packed together. The inclined wall 8 across the upper corner of the box facilitates the spools being turned out of the box, and also prevents the spools from becoming wedged in what would otherwise be a corner of the box if they are slightly swelled by the steam process when the box is full of spools piled in tiers, as before described.

What I claim as new, and desire to secure by Letters Patent, is—

The herein-described cop-box having sheet-metal corrugated sides and ends and corrugated and perforated bottom, with the shelf-tops 7 and inclined wall 8 across the upper part of each end of the box, substantially as set forth.

In witness whereof I have affixed my signature in presence of two witnesses.

MATTHEW EMERY HASTINGS.

Witnesses:

J. H. BROWN,
M. E. ROBINSON.