(No Model.)

A. A. HAWLEY.

STEAM BOX USED IN MAKING FELT OR FELTED ARTICLES.

No. 381,012. Patented Apr. 10, 1888.

Fig. 1.

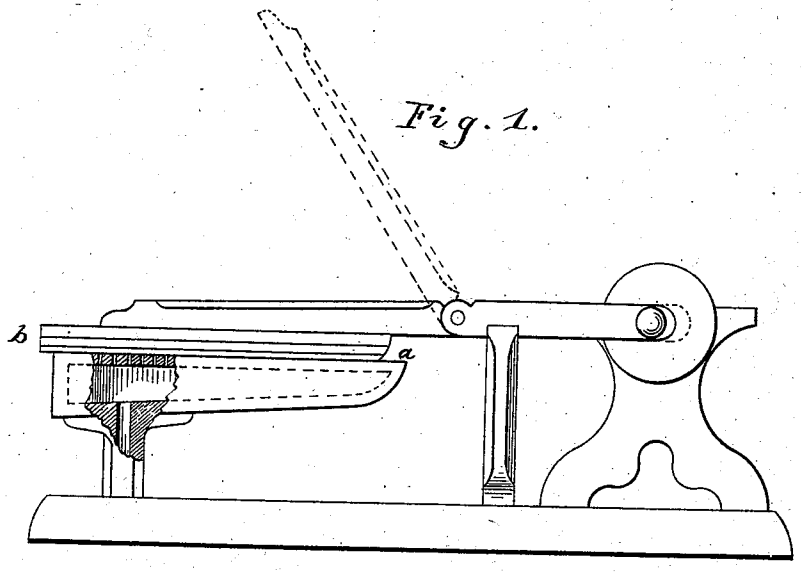


Fig. 2.

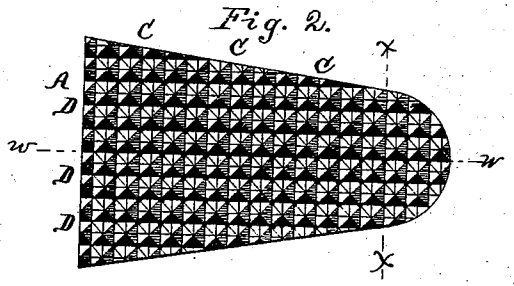


Fig. 3.

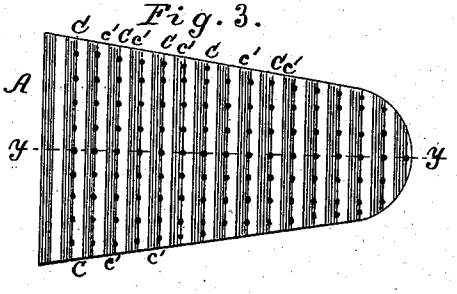


Fig. 4.

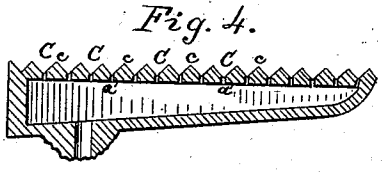


Fig. 5.

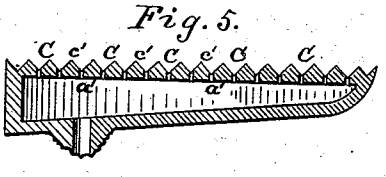


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

ALFRED A. HAWLEY, OF KENNEBUNK, MAINE.

STEAM-BOX USED IN MAKING FELT OR FELTED ARTICLES.

SPECIFICATION forming part of Letters Patent No. 381,012, dated April 10, 1888.

Application filed December 1, 1887. Serial No. 256,649. (No model.)

To all whom it may concern:

Be it known that I, ALFRED A. HAWLEY, a citizen of the United States, residing at Kennebunk, in the county of York and State of Maine, have invented certain new and useful Improvements in Steam Boxes and Tables Used in Hardening Felt or Felted Articles; and I do declare the following to be a full, clear, and exact description of the invention, such as 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 letters and figures of reference marked thereon, which form a part of this specification.

Figure 1 represents the old form of the device; Fig. 2, a plan view of one form of my improvement; Fig. 3, another form; Fig. 4, a section on line *w w*, Fig. 2; Fig. 5, a section on line *y y*, Fig. 3; Fig. 6, a section on line *x x*, Fig. 2.

This invention relates to an improvement in the steam boxes and tables used in hardening felt or felted articles; and it consists, essentially, in a steam-box having projections upon its surface.

This invention is herein illustrated as applied to the steam box or horn shown in United States Patent No. 203,147, and illustrated in Fig. 1 of the drawings; but the invention is applicable to any kind of a steam-box used in felting. It is simply shown in connection with this one for convenience of reference.

This box, as is well known, is constructed so that the fluffy bat of felting material, when laid upon it, is moistened by steam issuing from perforations in the top of the box, and in this moistened condition the "jigger" is put down on the bat, and the latter is pressed down and hardened for the fulling-box.

The steam-boxes, as at present constructed, and as shown in said Fig. 1, have a smooth top surface, *a*, on which the bat is to be placed and manipulated by the jigger *b*. The top of this box being smooth, of course the action of the jigger would tend to shove the bat from the box. To prevent this it is customary to place on top of the box some rough or coarse kind of cloth which will permit the steam to issue to the bat and yet prevent the latter from being moved away from the box by the jigger. Manifestly this plan has serious objections which my invention obviates. The bat is mashed down among the fibers of the cloth and has to be frequently separated to keep them from being made homogeneous. It is very difficult, especially in hollow articles, to get the bat on the cloth and takes time and trouble.

I dispense entirely with the cloth and place the bat right on top of the box.

In the annexed drawings, the letter A indicates the steam-box to which my invention is applied, and *a'* are the holes for the emission of steam to the bat.

In Fig. 2 is shown one form of my improvement. The top of the box is made with two sets, C D, of grooves crossing each other and forming the projections *c*.

In Fig. 3 is shown another form, there being only one set of grooves, C, which form ridges *c'*. Of course there are a variety of ways in which the top of this box may be provided with projections without departing from the spirit of my invention.

When the bat of felting material is placed upon my improved steam-box and the jigger turned down and operated, the felt is pushed down into the depressions in the face of the plate, and by friction is firmly held, so that the jigger cannot force the bat off of the box.

What I claim is—

1. In the manufacture of felt, a steam-box having its top surface provided with projections, as set forth.

2. In the manufacture of felt, a steam-box having its top surface provided with the ridges *c'*, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALFRED A. HAWLEY.

Witnesses:

WALTER L. DANE,

CARL COUSENS.