(No Model.)

D. GESSNER.

STEAM BOX FOR DAMPENING CLOTH, &c.

No. 427,069. Patented May 6, 1890.

Fig. I.

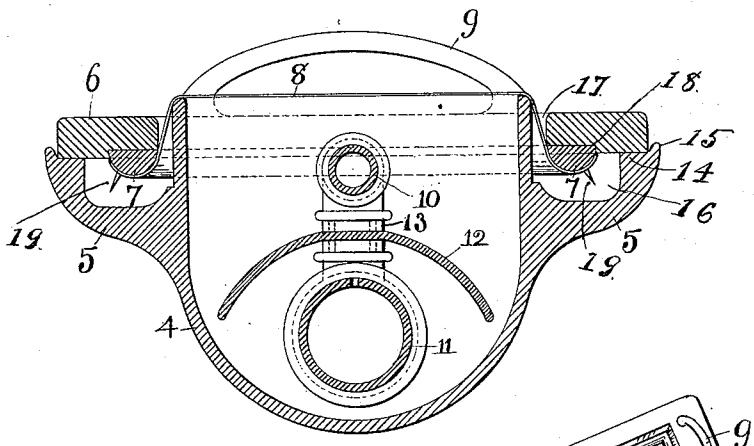


Fig. 2.

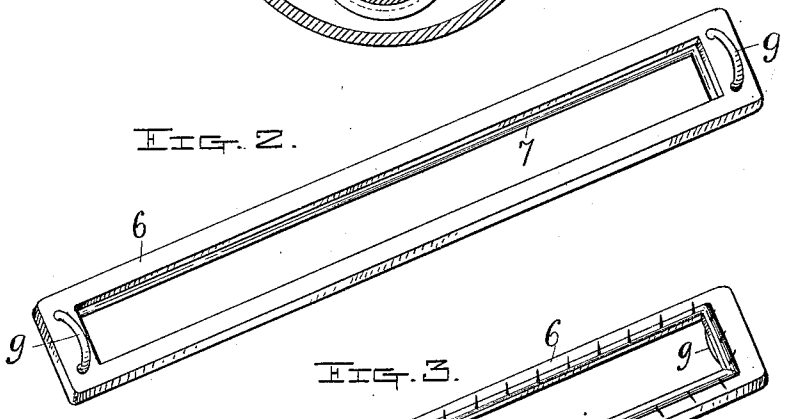
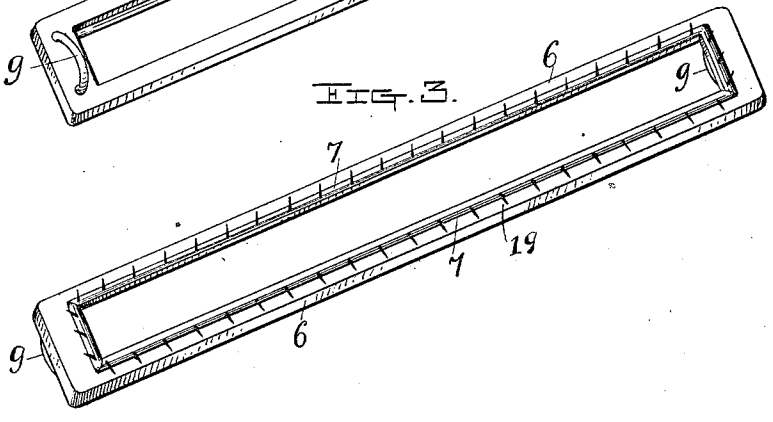


Fig. 3.



Witnesses;
J. E. Greer
Wm. M. Iliff.

Inventor;
David Gessner
By Gifford & Brown Att'y

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UNITED STATES PATENT OFFICE.

DAVID GESSNER, OF WORCESTER, MASSACHUSETTS.

STEAM-BOX FOR DAMPENING CLOTH, &c.

SPECIFICATION forming part of Letters Patent No. 427,069, dated May 6, 1890.

Application filed November 27, 1889. Serial No. 331,817. (No model.)

To all whom it may concern:

Be it known that I, DAVID GESSNER, of Worcester, in the State of Massachusetts, have invented a new and useful Improvement in Steam-Boxes for Dampening Cloth and other Textile Materials, of which the following is a specification.

Figure 1 is a cross-section of my improved steamer. Fig. 2 shows a top view of the frames 6 and 7 detached, by which the cover is held in place on the steamer. Fig. 3 shows the bottom view of the same.

4 is an oblong trough of usual construction which is traversed by the pipe 11, supplied with steam from the pipe 10 through the connecting-pipe 13. The pipe 11 has a series of holes in its upper side for the escape of steam which is freed from water by being dashed against the deflector 12 before it begins to fill the interior of the steamer, from which it can only escape through the cover 8, of felt or other fibrous material.

5 is a ledge which extends all around the outside of the trough 4, being provided with a seat 14 for the frame 6, which is encircled by the upturned lip 15.

Between the rest 14 and the body of the steamer 4 is a recess 16, extending all the way round the steamer.

6 is an iron frame adapted to extend all the way round the steamer and rest at its outer edges upon the rest 14. Its inner edge overhangs the recess 16, as shown in Fig. 1, and the frame is of sufficient size so as to leave a space 17 between its inner edge and the side of the steamer. A handle 9 is arranged at each end of this frame 6 to provide for lifting the same off of the steamer. A slight rabbet is formed on the under side of the frame 6, adjacent to its inner edge at 18, to receive the upper portion of the frame 7. The frame 7, I prefer to construct of wood, having its under side rounding, as shown, and its upper side adapted to fit in the rabbet 18 of the frame 6. The two frames will be preferably fastened together by any suitable means.

19 is a device for securing the edges of the fibrous material 8 to the frame 7. I prefer to construct this device in the form of a series of pins, as shown, inclining downward and outward; but I do not desire to limit myself to this form, since other forms of device will readily suggest themselves performing, practically, the same function. Thus the edges of the cover might be simply clamped between the frames 6 and 7.

In starting up the steamer the portions nearest the steam-pipes will be heated soonest, and for a considerable time water will condense on the comparatively cold frame 6 and ledge 5, which would injure cloth if allowed to drip thereon. The lip 15 will tend to turn this water into the recess 16, where it will be held until the parts become hot enough to evaporate it. If any water should form on the outside of the ledge, the curved contour of the same shown in the drawings will cause it to run down the outside surface of the steamer without dripping off until it reaches the lower hot portions of the steamer, where it will dry up without dripping off.

To apply the covering of fibrous material 8 to the steamer, its edges are impaled upon the pins 19 of the frame 7, as the frames are separate from the steamer. Then the frames carrying the fibrous material are placed upon the steamer in the position already described. The frame 6 is preferably heavy enough so that its weight will stretch the fibrous material 8 tightly across the top of the steamer.

The utility of this device is, that while it is efficient in causing the cover of fibrous material to fit snugly and tightly on the top of the steamer it is of such a character also that the cover may be removed and replaced without difficulty. By my construction it is only necessary in any case to remove the top frames for the purpose of applying or replacing the fibrous cover, no matter what may be the position of the steamer, and this may also be readily accomplished by one person and in much less time than was heretofore necessary.

I do not intend to limit myself to the details of construction shown, since I am aware that they may be varied to a considerable extent without departing from the principle of my invention. For example, I do not desire to limit myself to a plurality of frames, nor to the character of securing device, nor its location with respect to the frame.

I am aware that fibrous covering has been secured to a steamer by being clamped between the outside of the steamer and a tight-

fitting encircling frame, as shown in Patent No. 408,775, dated August 13, 1889; also, that it has been nailed to the top of a wooden frame laid on top of the steamer, as in Patent No. 196,511, dated October 23, 1871. I do not claim such constructions. In my construction the fibrous covering is drawn over the edges of the steamer, and, instead of being clamped to the outside of the steamer, is secured to a loosely-surrounding frame, which is weighted, so that the weight strains downward on all edges and draws the cover taut.

I claim—

1. In combination, the steamer, the fibrous covering, the encircling weighted frame, and devices adapted for attaching the edges of the fibrous covering to said frame, substantially as described.

2. In combination, the steamer, the fibrous covering resting on the upper edges of the steamer, the encircling frame, and devices whereby the edges of the covering are attached to said frame outside of the edges of the steamer, substantially as described.

3. In combination, the steamer, the encircling weighted frame, the fibrous covering extending over the upper edges of the steamer and down on the outside thereof and under the weighted frame, and devices whereby the edges of the cover are attached to the frame, substantially as described.

4. In combination, the steamer, the fibrous covering, the encircling weighted frame, devices adapted for attaching the edges of the fibrous covering to said frame, and a ledge outside the upper edge of the steamer and connected with said steamer, whereon the weighted frame rests, substantially as described.

5. In combination, the steamer, the fibrous covering, the wooden frame encircling the steamer, the attaching devices carried by said wooden frame, and the weighting-frame above said wooden frame, substantially as described.

6. In combination, the steamer, the fibrous covering, the encircling weighted frame, devices adapted for attaching the edges of the covering to said frame, and a trough adapted to catch the dripping water located beneath said weighted frame, substantially as described.

7. In combination, a steamer, the fibrous covering, a ledge surrounding the same, a rest provided on said ledge, a recess provided within said rest, a frame provided with attaching devices within said recess, and a weight adapted to rest upon said rest and hold said frame within said recess, substantially as described.

8. In combination with the steamer, the ledge surrounding the same, the upward projection between the interior of the steamer and the ledge, and the lip on the outer edge of the ledge, whereby a trough is created around the edge of the steamer to catch the water of condensation, substantially as described.

DAVID GESSNER.

Witnesses:
S. O. EDMONDS,
J. E. GREER.