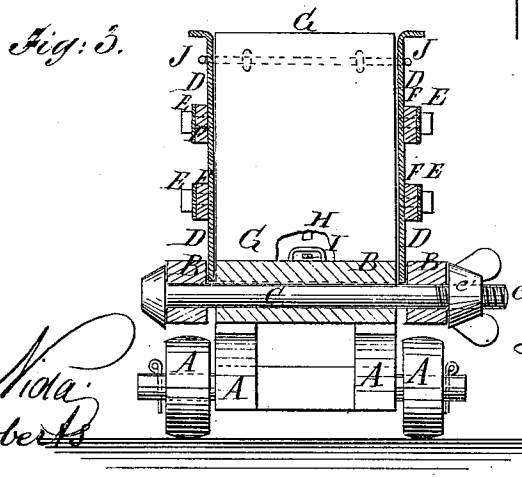
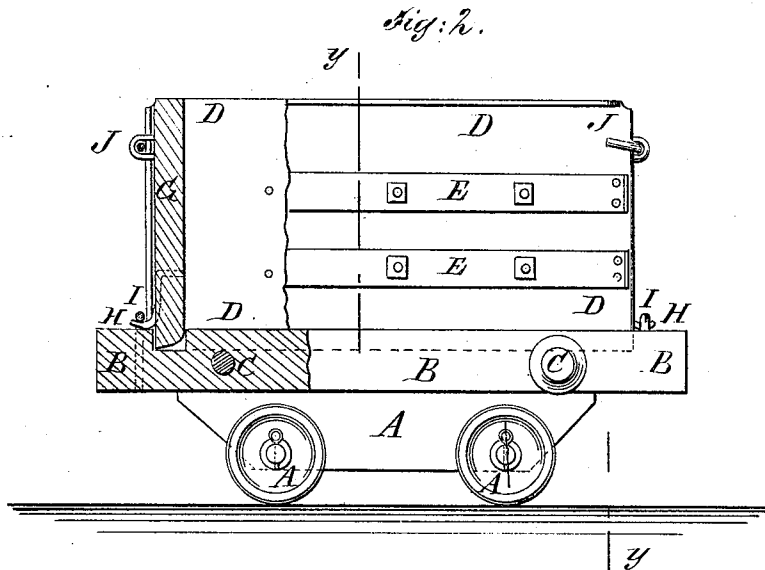
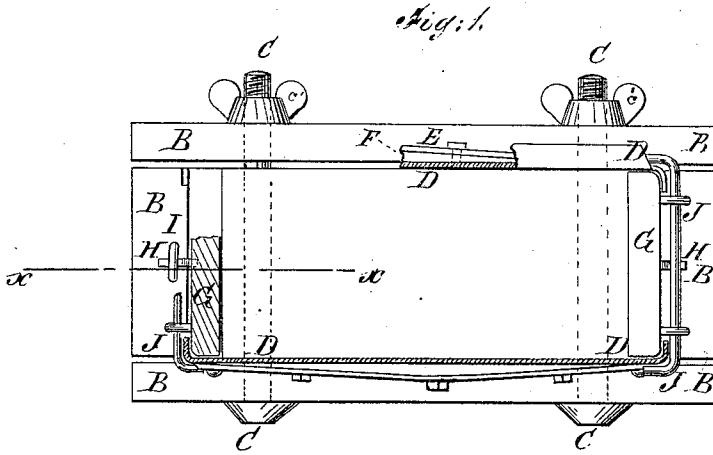


D. WHITAKER.
SOAP-FRAME.

No. 178,394.

Patented June 6, 1876.



WITNESSES:

Chas. Nida
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UNITED STATES PATENT OFFICE.

DANIEL WHITAKER, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN SOAP-FRAMES.

Specification forming part of Letters Patent No. **178,394**, dated June 6, 1876; application filed October 16, 1875.

To all whom it may concern:

Be it known that I, DANIEL WHITAKER, of Boston Highlands, Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Soap-Frame, of which the following is a specification:

Figure 1 is a top view of my improved soap-frame, partly in section, and part being broken away to show the construction. Fig. 2 is a side view of the same, partly in section, through the line *x x*, Fig. 1. Fig. 3 is a cross-section of the same, taken through the line *y y*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish to manufacturers a soap-frame which, although simple in construction, shall be adapted to be more conveniently set up and taken down, and its side and end plates or pieces more firmly connected or locked together, than others of its class.

To these ends the base of the frame is made in three parts, secured to each other by transverse screw bolts or rods, whereby they are adapted to clamp the bottom edges of the sides of the frame; secondly, the bottom edges of the end portions of the frame are adapted to enter grooves in the base of the frame, and are attached thereto by hooks and staples in such a manner as to permit their convenient detachment; thirdly, the end portions of the frame have clamping-bars attached, whereby they may be locked to the sides, in such a manner as to hold the ends vertical, and form a tight joint between them and the sides; and, lastly, the side portions of the frame are provided with truss-like braces, whereby they are prevented from buckling, warping, &c.

The frame is mounted upon a small truck, A, for convenience in moving it from place to place. B is the base of the frame, which is made in three parts or pieces—a wide center piece and two narrow side pieces—which are held together by two or more bolts, C, which are passed through them transversely, and have hand-nuts C' screwed upon their ends. D are the side plates, which are made of plate-iron, and the lower edges of which are inserted between the parts of the base B, where they are clamped by the bolts C. The upper edges

of the side plates D are bent over outward at right angles, to strengthen them and give a finish to the top of the frame. The side plates D are strengthened against buckling or twisting by bars E, secured to their outer sides by bolts or rivets, and which are raised from the sides of the said plates D by blocks or a filling of wood or metal, F, making them trusses. The blocks are, however, preferable, and I employ them in practice, principally for the reason that they cover less of the surface of the side plates D, and the radiation of heat is hence facilitated, which is a matter of considerable practical importance in respect to the cooling and solidifying of the plastic mass contained in the frame. These truss-braces D are a material improvement upon the wooden and metal bars heretofore employed, since the former of these are liable to become warped or bent, besides being cumbersome and otherwise objectionable, while cast-metal bars—such, for example, as shown in Patent No. 63,898—have proved too heavy and expensive to meet with other than local adoption and use. My improved braces combine strength, lightness, and cheapness in a high degree, and have hence proved superior in practice.

The end edges of the side plates E are bent inward at right angles to overlap the end boards G, the lower ends of which are inserted in cross-grooves formed in the middle part of the base B. The inner edges of the lower ends of the end boards G are rounded off, as shown in Fig. 2, so that their upper ends may be swung outward and the boards removed without marring the block of soap. The end boards G are held down by hooks H, attached to their lower parts, and which hook into eyes or staples I, attached to the middle parts of the base B. The end boards G and the side plates D are drawn and clamped together by the bars J, which turn in keepers attached to the end boards G, and the ends of which are bent nearly at right angles, to overlap the end parts of the side plates D, to draw them snugly against the side edges of the end boards G, and hold them securely in place. The said bars likewise draw the end boards G firmly against the flanges of the side plates D, by reason of being secured by keepers, as above stated. The said end boards are thereby held vertical, and

a tight joint formed between them and the side plates. Besides this, the clamp-bars, being permanently attached to the end boards by means of the keepers, tend to prevent warping of the boards, and are always in place and ready for instant application or use.

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

1. The base B, made in three parts, secured to each other by bolts and nuts C c', to adapt them to serve as clamps for securing the lower edges of the side plates D, substantially as herein shown and described.

2. The end boards G, having their lower ends rounded off upon the inner edge, and secured in cross-grooves in the middle part of

the base B by hooks H and eyes or staples I, substantially as herein shown and described.

3. The combination, with the end boards G and side plates D, having inward flanges formed on their ends, of the clamp-bars J, the same being attached to said end boards by means of keepers, as shown and described.

4. The combination, with side plates D, of metal braces or trusses E, riveted thereto at their ends, the blocks or filling F, and screw-bolts, having their heads countersunk on the inner side of said plates, all as shown and described.

DANIEL WHITAKER.

Witnesses:

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