(No Model.)

G. L. CUDNER.

FRUIT PRESS.

No. 385,697. Patented July 10, 1888.

Fig. 1.

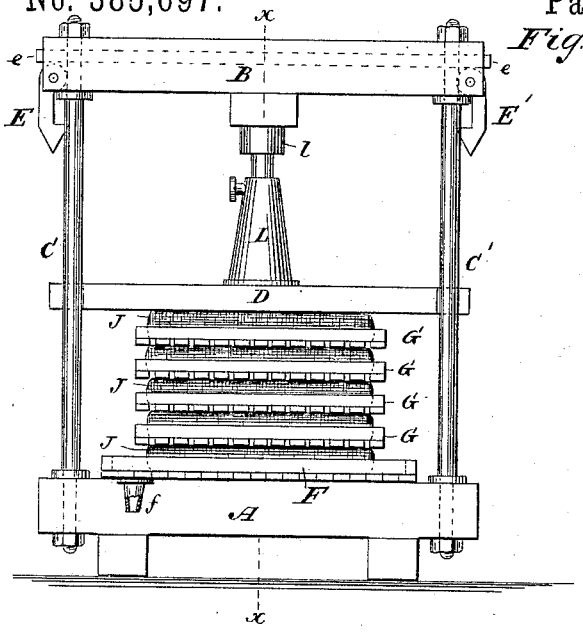


Fig. 2.

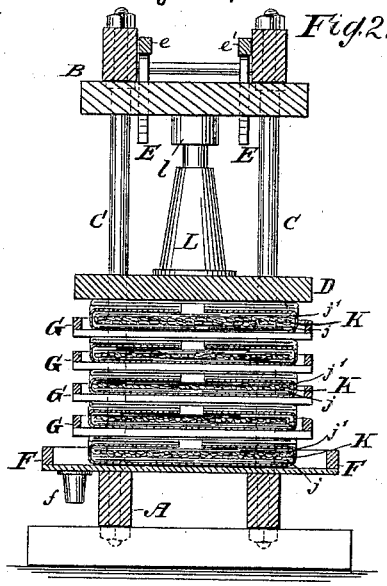


Fig. 3.

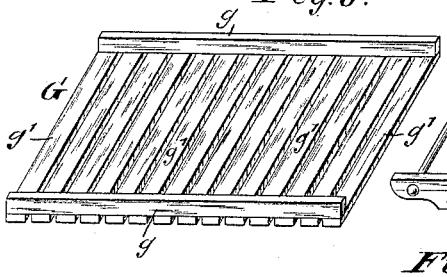


Fig. 4.

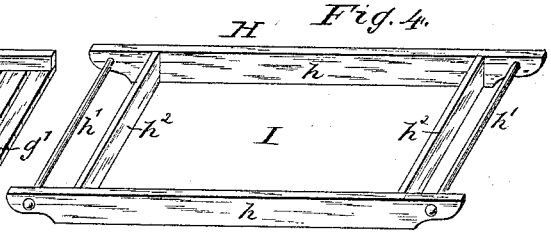


Fig. 5.

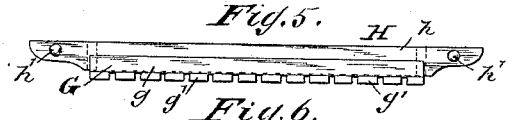
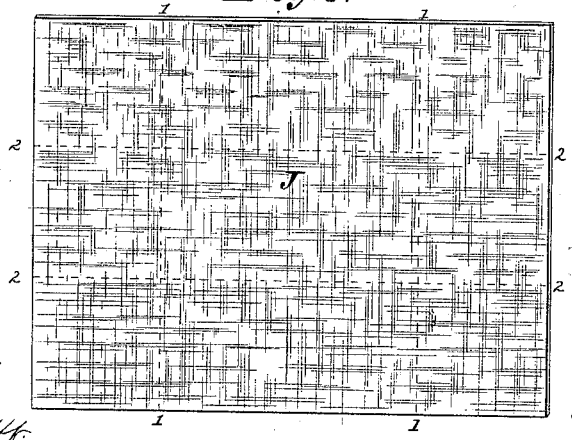


Fig. 6.



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FRUIT-PRESS.

SPECIFICATION forming part of Letters Patent No. 385,697, dated July 10, 1888.

Application filed July 21, 1887. Serial No. 244,903. (No model.)

To all whom it may concern:

Be it known that I, GUSTAVIS L. CUDNER, a citizen of the United States, residing at Bronxville, in the county of Westchester and State of New York, have invented new and useful Improvements in Fruit-Presses, of which the following is a specification.

My invention relates to improvements in presses for fruit, and has for its object to accomplish a thorough and rapid extraction of juice from the pomace, and also to provide for an equal pressure on all parts of the same, and thus obviate the loss of juice which is usually retained in the marginal portion of the pomace.

The novel features of my invention are fully pointed out in the following specification and claims, and illustrated in the accompanying drawings, in which—

Figure 1 represents a side elevation of a fruit-press embodying my invention. Fig. 2 is a vertical section in the plane *x x*, Fig. 1. Fig. 3 is a perspective of a rack. Fig. 4 is a perspective of the forming-frame. Fig. 5 is a side elevation of the forming-frame as applied to a rack. Fig. 6 is a view of the cloth.

Similar letters indicate corresponding parts.

In the drawings, Figs. 1 and 2, the letter A represents the bed of the press, and B is the top frame, which is supported on two sets of pillars, C C′, secured in said bed.

D is the press-beam, which is guided at each end between the pillars C C′ and can be moved vertically. When not in use, it is suspended on hooks located on opposite sides of the top frame, B. (See dotted lines, Fig. 1.) Said hooks are suitably pivoted to the top frame, and beams *e e′*, resting on the same above their pivots, hold them in a vertical position. When the press-beam D is forced between the hooks E E′, they are swung outwardly, and subsequently return to their normal position with their barbs beneath the press-beam, owing to the action of the beams *e e′*.

On the press-bed A is supported the receiving-trough F, which receives the juice pressed from the "pomace." Said trough is in the form of a shallow rectangular box, and is provided with an outlet, *f*, through which the juice can escape from the trough, to be received in any suitable receptacle. (Not shown.)

G, Figs. 1, 2, and 3, is a rack consisting of two stringers, *g g*, Fig. 3, to which is secured a series of bars or slats, *g′*, properly spaced to form a grating.

H is a forming-frame, which consists of side bars, *h h*, having suitable handles, *h′ h′*, and cross-bars h^2 h^2, secured to the side bars to form a rectangular mold, I, open at top and bottom. This forming-frame H can be set on the rack G, as shown in Fig. 5, with the side bars, *h h*, thereof extending parallel to and in contact with the stringers *g g* of the said rack, which latter act as guides.

In forming the tiers or layers in the press the forming-frame H is set centrally in the receiving-trough F, and a cloth, J, Fig. 6, of coarse meshed material—such, for instance, as "burlap"—is spread over the same. A layer of straw, *j*, Fig. 2, is uniformly spread upon that portion of cloth lying above or within the forming-frame H, and then a layer of the pomace or crushed fruit, K, is distributed over the layer of straw, after which a second layer of straw, *j′*, is added to cover the pomace. The cloth J is now folded inwardly about the lines 1 1, Fig. 6, and down upon the straw. Then it is tucked or pushed downward and well into the forming-frame along the sides *h h* of the forming-frame H, as indicated by the lines 2 2, Fig. 6, and finally the flaps beyond the lines 2 2 are folded over and down upon the straw, whereby a yielding envelope is formed equal or nearly equal in size to the mold I of the forming-frame. The overlapping flap of the cloth J, after it has been folded as described, may be secured by suitable pins, if so desired, or it may be left unfastened.

By pushing the cloth well down into the forming-frame, as described, it forms a loose envelope for the pomace, and consequently the mass can yield laterally as it is pressed out and the full force of pressure is utilized in extracting the juice.

After the forming-frame H is removed from about the envelope and its contents, one of the racks G is placed on the latter, with the stringer *g* upward, and the forming-frame is placed in position on the rack, and the straw, fruit, and cloth are arranged as previously described. In this manner any desired number of tiers can be formed. The press-beam D, which is equal in length and width to the racks G, is

placed on the uppermost tier and pressure is applied to the same by a hydraulic jack, L, or by other suitable well-known means, whereby the juice is forced from the pomace. As the mass descends, suitable packing-blocks, *l*, Figs. 1 and 2, are inserted between the hydraulic jack and the beams of the top frame.

The press-beam bearing on all parts of the upper tier, an equal pressure is exerted throughout the mass, and all the juice must necessarily be extracted during the action of the press-beam.

The interposed layers of straw thoroughly strain the juice and prevent the pores or openings of the cloth J from becoming clogged by the pomace, whereby the rapidity with which the juice can be extracted is greatly increased and the juice extracted is exceedingly clear and free from particles of the pomace.

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

1. The method of preparing fruit for the press, which consists in crushing the same and then mixing it with straw and enveloping the mixture in a cloth, substantially as shown and described.

2. The method of preparing the fruit for the press, which consists in first crushing the same, then mixing the same with straw and enveloping it in a cloth with the use of a suitable mold, and arranging the envelopes and contents in tiers, substantially as set forth.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

GUSTAVIS L. CUDNER. [L. S]

Witnesses:
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