

D.C. & L.S. Riggs,

Sugar Press,

No 47,984.

Patented May 30, 1865.

Fig 1.

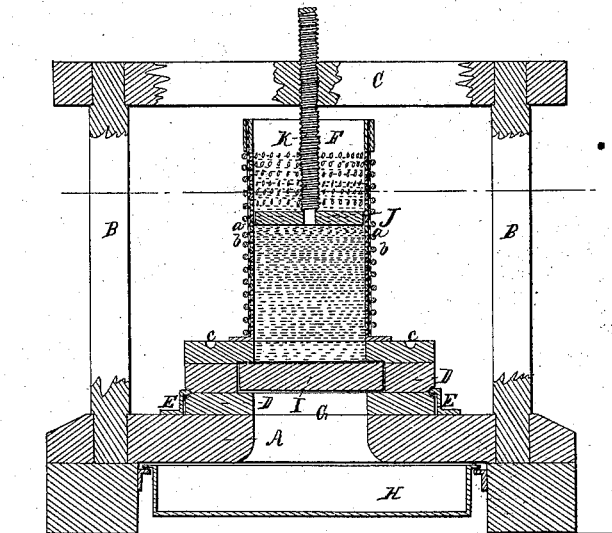


Fig 2.

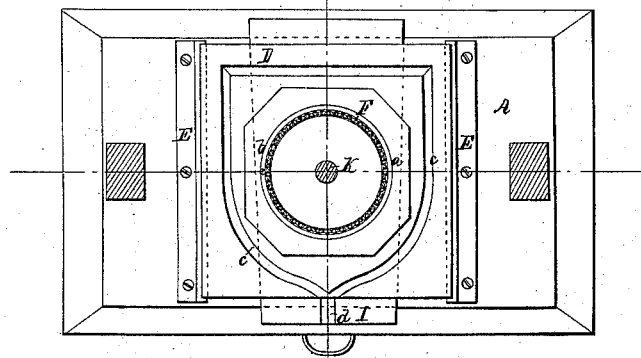
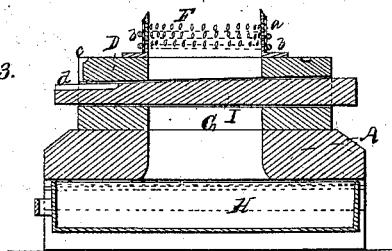


Fig 3.



Witnesses

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Inventors

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By *Thum*

UNITED STATES PATENT OFFICE.

D. C. RIGGS AND L. S. RIGGS, OF OMAHA CITY, NEBRASKA TERRITORY.

IMPROVED SUGAR-PRESS.

Specification forming part of Letters Patent No. 47,984, dated May 30, 1865.

To all whom it may concern:

Be it known that we, D. C. RIGGS and L. S. RIGGS, both of Omaha City, in the county of Douglas and Territory of Nebraska, have invented a new and useful Improvement in Sugar-Presses; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side sectional elevation; Fig. 2, a plan sectional view; Fig. 3, a cross-sectional elevation of the lower portion of the machine.

Similar letters of reference indicate like parts.

Upon a rectangular platform A, made of wood or other material, we erect a frame consisting of two uprights, B B, and a top cross-bar, C, all firmly framed together.

D is a sliding base-block resting upon platform A, and arranged to slide thereon laterally between two guide-bars, E E, that are secured, in the manner shown, upon the surface of the platform. The press-box F, which receives the sugar, rests upon the base-block D, so that the press-box F moves laterally with the base-block. The object of this lateral movement of the box F is to facilitate the filling of the box by removing it from its position directly under the cross-bar C. The base-block D and platform A have a central opening, G, equal in diameter to the base of the box F. Under the platform there is arranged a sliding drawer, H, to receive the contents of the box F when discharged. In the base-block D there is a lateral opening of wedge form, which receives a wedge, I. The width of this wedge is more than equal to the diameter of the box F, and when the wedge is inserted it forms a bottom to the box F; but when the wedge is withdrawn the contents of the box F will fall through the opening G into the drawer H below. Within the box F there is a piston, J, to which a rod, K, is attached, which is intended to have a screw-thread cut upon it, said screw being intended to pass through the cross-bar C, and also pass through a nut placed in said cross-bar, so that by turning said rod K the piston will be removed and

the contents of the box F will be pressed. The construction and arrangement of this screw-rod and piston are similar to the ordinary pressing-screws and require no special description.

The box F is made of metal or other suitable material, and its sides are perforated, as shown, to permit the escape of liquid matter while retaining the solid. The exterior of the box F is also covered or surrounded by cloth *a*, or other porous material, to assist further the above-named purpose; and upon the exterior of the cloth there is arranged a binding composed of a coiled iron rod or wire, *b*, as shown, the object of which is to prevent the bursting or breaking of the box F under the pressure of the piston, and also to hold the covering-cloth *a*.

In operating the machine the base-block D and box F are moved a little on one side of the cross-bar C. The wedge is inserted and the box F filled with the crude sugar and molasses. The box F is then returned to its place and the rod K moved down so as to press the mass. The molasses escapes through the perforations in the box F and through the cloth *a* and trickles down upon the top of block D, flowing along the groove *c* thereon, and a groove, *d*, cut in the top and front end of the wedge I, when the liquid falls into a vessel to be there placed for its reception. When all the liquid has been expelled, the wedge is withdrawn and the sugar falls into the drawer H below.

The machine may be employed not only for the pressing of sugar, but for all kinds of material from which liquid matter is to be separated from solid.

We do not claim, broadly, the invention of perforated pressing-boxes and screw-presses; but,

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

The combination of the pressing-box F, base-block D, and bottom wedge, I, constructed and arranged to operate substantially as described.

D. C. RIGGS.

L. S. RIGGS.

Witnesses:

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N. P. ISAACS.