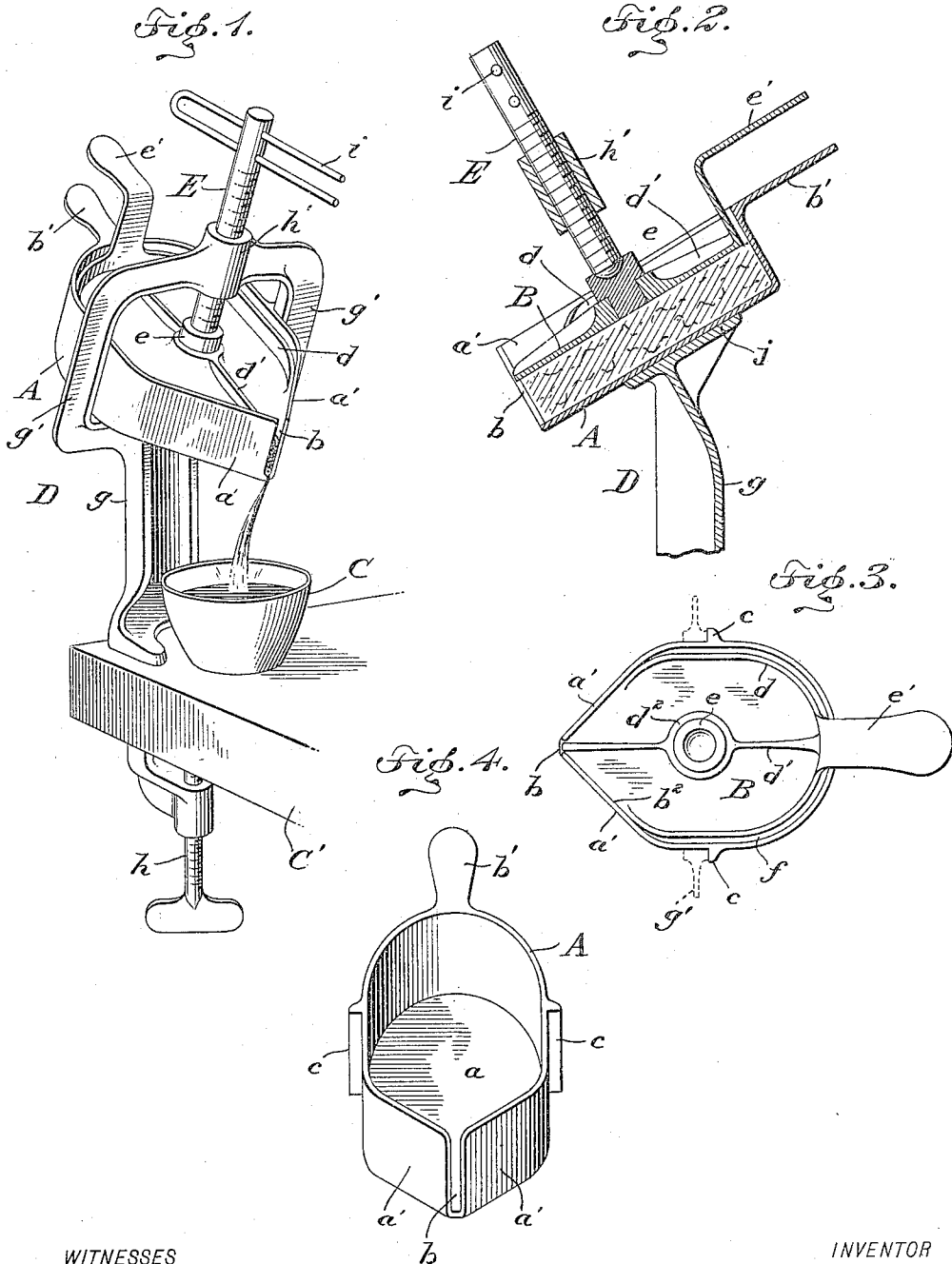


E. WALKER.
MEAT AND FRUIT PRESS.
APPLICATION FILED MAY 25, 1906.

962,603.

Patented June 28, 1910.



WITNESSES
V. E. Nichols
R. A. Mooney

INVENTOR
Edwin Walker
BY *Griffith Bernhard*
ATTORNEYS

UNITED STATES PATENT OFFICE.

EDWIN WALKER, OF ERIE, PENNSYLVANIA.

MEAT AND FRUIT PRESS.

962,603.

Specification of Letters Patent. Patented June 28, 1910.

Application filed May 25, 1906. Serial No. 318,672.

To all whom it may concern:

Be it known that I, EDWIN WALKER, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented a certain new and useful Meat and Fruit Press, of which the following is a specification.

My invention is a device for expressing liquid from any material containing the same, but is designed, more particularly, for household and domestic purposes, such as pressing meats, fruit, etc., to make edible extracts therefrom.

The object of the invention is, primarily, to provide a new construction wherein the liquid is free to flow by gravity, and discharge automatically, from the press during the application of pressure to the material under treatment.

Structurally, in its broad aspect, the invention comprises a receptacle for holding the material to be pressed, a platen or follower, preferably imperforate, adapted to compress said material, and an opening in said receptacle, preferably a slit or narrow opening in the side walls of the receptacle, to permit the escape of the expressed liquid therefrom during the pressing operation.

My new press confines the material so that it does not obstruct or clog the liquid-discharge opening or slot, thus preventing any interference with the gravity flow of the expressed juice. Furthermore, the parts are adapted to allow the free escape of the liquid around an imperforate platen or follower.

The compression devices of the new press are removable easily and quickly for cleaning purposes, and the parts can be readily assembled for use.

A platen or follower coöperates with said vessel or receptacle, and on this follower operates a power member, the latter being, preferably a screw which is mounted in a bearing provided in a frame.

In the preferred embodiment of the invention, the vessel or receptacle is arranged in an inclined position in a frame, and said vessel is provided with walls which converge so as to produce a liquid-exit slot at the lower end of said inclined vessel, whereby the juice is adapted to flow toward and through said slot. A solid or imperforate follower or platen is arranged in said vessel to allow the liquid to escape from the material under compression, and said follower

has such relation to the liquid exit as to prevent the lodgment of any solid material therein, thus keeping the slot open and unobstructed for the free exit of the liquid.

It is preferred to use a frame with an inclined surface adapted to form a seat for the receptacle. Stops are provided on the receptacle for engagement with said frame, thus permitting the vessel to assume its proper position in the frame when the parts are assembled.

The device completely expresses the liquid from the material under treatment, leaving the residue or pulpy mass in a practically dry condition.

I have illustrated one embodiment of the invention in the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is a perspective view of the device illustrating the manner of discharging liquid from the compression receptacle into a suitable vessel; Fig. 2 is a vertical sectional elevation, a part of the frame or support being broken away; Fig. 3 is a plan view of the compression receptacle and the follower or platen therein, the dotted lines illustrating the sides of the frame or support, said view showing stops on said compression receptacle which are adapted for engagement with the sides of said frame or support; and Fig. 4 is a detail perspective view of the compression vessel looking at the front end thereof.

A designates the compression receptacle, the same being shown as an open cup-shaped vessel having a flat bottom *a*. It is preferred to construct the vessel A with inclined walls *a'*, which converge, substantially as shown by Figs. 3 and 4. The converging walls do not meet each other, and they are shown as separated slightly to produce a liquid-exit opening or slot *b*, the latter extending upwardly from the bottom *a* of the vessel. A handle *b'* is provided at the end of the vessel opposite to the exit slot or opening *b*, and the vessel is provided on its respective sides with external flanges *c*, the latter being adapted to serve as stops for arresting the movement of the vessel A, when it is introduced within the frame or support.

B designates a follower of platen which is of less area than the interior of the vessel A. Said follower is provided at one end with inclined edges *b²*, which converge,

as shown by Fig. 3, and the follower is, also, provided with a marginal flange d , the latter extending from one inclined edge b^2 , around the edge portion of the follower to the other inclined edge b^2 thereof. On the upper side of the follower is a reinforcing web d' , and the middle part of this web is enlarged at d for the reception of a bearing e . The follower B is provided with a suitable handle e' , which is adapted to lie above the handle b' of the vessel when the parts are assembled, as shown by Figs. 1 and 2.

By reference to Fig. 3 of the drawings, it will be noted that the converging edges b^2 of the follower fit snugly to the converging walls a' of the vessel A, but this follower does not engage with the remaining portion of the vessel, so that a free or unobstructed space indicated at f , is left between the wall of the vessel, and the edge and the flange d of the follower. The vessel A, and the follower B, are pointed at one end, and the pointed end of the follower is adapted to fit into the exit slot of the vessel. The pointed end of the follower is thus adapted to travel lengthwise of the slot b , for the purpose of keeping said slot free and unobstructed by any solid material undergoing compression in the press. The liquid which is expressed from the material is free to flow upwardly through the space f , and to overflow the flange d , of the follower B, whereby the liquid is caused to flow by gravity toward the narrow end of the vessel A, and to discharge itself automatically through the slot b , thus permitting the liquid to flow into a suitable cup or receptacle, indicated at C.

As one means for supporting the receptacle A, I have shown a suitable stand or frame D. The stand has a post or column g , adapted to be clamped by a screw h , to a table, or other surface C'. The post or column is shown as having a yoke g' , which is provided with a collar h' , the latter being internally threaded to afford a bearing for a pressure screw E, the latter having a suitable operating piece i . The post or column g is provided at its upper portion with a base j , which affords a seat for the receptacle A. The seat j , and the yoke g' , are inclined to the plane of the vertical column or post g , whereby the vessel A is adapted to be inclined when it is fitted on the seat j , of said frame or support, substantially as shown by Figs. 1 and 2. The pressure screw E works in the bearing h' , and it is adapted to engage at its lower end with the step bearing e , which is provided on the follower or platen B.

The operation is as follows: The screw E is turned in a direction which withdraws it from engagement with the bearing e of the follower, and the vessel A, with the follower B therein, may be removed from the support or frame. The follower B may be

lifted out of the vessel A by its handle e' and the material to be treated, such as meat or fruits, is placed within the vessel A, after which the follower B is replaced for its pointed end to fit into the exit slot or opening b . The vessel A, containing the material and the follower, is now slipped into the yoke of the frame, said vessel resting on the seat j , and the flanges c of the vessel engaging with the sides of the yoke, substantially as shown by Figs. 2 and 3. The flanges c limit the movement of the vessel A, when it is placed within the frame, and said vessel assumes the inclined position shown by Figs. 1 and 2. The screw E is now turned until it engages with the bearing e , the continued rotation of said screw forcing the platen B downwardly, and exerting pressure on the material under treatment. The juice or liquid is thus expressed from the material, and it is free to flow through the space f , and toward the slot b , whereby the liquid is discharged by gravity from the receptacle A, as the material is compressed by the operation of the device. In fact, the liquid is free to discharge itself by gravity immediately after it is expressed from the material, and there is, practically, a continuous or uninterrupted flow of liquid, because all parts of the meat press are constructed to secure the discharge of the liquid on its expression from the material. The residue is left in, practically, a dry condition, because the press operates to force, substantially, all of the liquid out of said material. To remove the solid material, it is only necessary to turn the screw E backwardly, and remove the receptacle A from the frame, after which the follower is lifted out of the receptacle, and the residue may easily be removed.

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

1. In a device of the class described, a vessel having an exit opening, an imperforate platen within said vessel to act upon the material therein and positioned for liquid or semi liquid matter to pass upwardly and lodge upon the platen, said platen being provided with means whereby the liquid or semi liquid matter is guided toward the exit opening, and means whereby movement may be given to one of said parts relative to the other.

2. In a device of the class described, a vessel having an exit opening, a platen operatively positioned within said vessel and inclined toward the exit opening therein, said platen being spaced at its edges relative to the vessel to permit the upward flow of liquid or semi liquid matter which is expressed from the material operated upon, means on the platen for directing the liquid or semi liquid matter toward the exit

opening, and means whereby relative movement may be imparted to said vessel and platen.

3. In a device of the class described, a vessel having an exit opening, means for supporting said vessel in an inclined position, an imperforate platen operatively positioned within said vessel to act upon the material therein, said platen being spaced relative to the vessel for liquid or semi liquid matter to flow upwardly and lodge upon the platen, means whereby the liquid or semi liquid matter is directed to flow over the platen and toward the exit opening, and means for moving one of said parts relative to the other.

4. In a device of the class described, a vessel having one end narrower than the other and provided in said narrow end with a liquid exit slot which extends upwardly from the bottom of the vessel, means for supporting the vessel in an inclined position, whereby liquid may flow by gravity toward said slot, and a platen cooperating with said vessel.

5. In a device of the class described, a vessel having a liquid exit slot extending upwardly from the bottom thereof, and a platen adapted to work in the slot of said vessel, for keeping said slot free from obstruction by solid material.

6. In a device of the class described, a vessel having walls converging to a liquid exit slot, and a platen provided with a member adapted to travel lengthwise of said slot.

7. In a device of the class described, a stand provided with a seat and with a fixed yoke extending upwardly from said seat, said seat and the yoke being inclined relative to the stand, a vessel fitted within said yoke and resting upon the seat, means cooperating with the vessel and the frame or stand for limiting the introductory movement of the vessel into the yoke, a platen operatively positioned within the vessel, and a screw supported in the yoke and engaging with the platen.

8. In a device of the class described, a vessel provided with an exit opening, an imperforate platen operatively positioned within said vessel, whereby a part of the expressed matter may lodge thereupon, said platen having means for directing the expressed matter thereon toward said exit opening, and means for imparting movement to one of said parts relative to the other.

9. In a device of the class described, a frame provided with an inclined seat, a vessel having stops adapted to engage the frame when the bottom of the vessel is fitted to said seat, a follower, and pressure mechanism for operating the follower.

10. In a device of the class described, a receptacle provided with side walls and an imperforate bottom, a follower operating in said vessel, a portion of said follower being spaced from said side walls and another portion of it fitting closely to said walls whereby liquid is free to escape around one portion of said follower.

11. In a device of the class described, a vessel open at its top and having an imperforate bottom and side walls, a vertical slit in said walls, and means, exterior of the vessel adapted to cooperate with a frame to determine its position therein.

12. In a device of the class described, a vessel wider at one end than at the other and having an exit slot in the narrower end thereof, a handle extending from the vessel, a platen operatively positioned within the vessel, a handle extending from the platen and so positioned relatively to the handle of the vessel that both the said handles may be conveniently grasped, and means whereby movement of the platen relative to the vessel may be effected.

13. In a device of the class described, a vessel having an exit opening, a handle extending from said vessel, an imperforate platen operatively positioned within the vessel and adapted for the flow thereover of expressed matter, said platen having means for directing the expressed matter toward the exit opening, a handle extending from the platen and positioned relatively to the handle of the vessel for both of said handles to be conveniently grasped, and means for imparting movement to the platen relative to the vessel.

14. In a device of the class described, a vessel having an exit opening, a platen fitted in said vessel to leave a space between its edges and the walls of the vessel, whereby expressed matter may flow upwardly and lodge upon the platen, means on the platen for directing the flow of the expressed matter toward the exit opening, and means for imparting movement to one of said parts relative to the other.

15. In a device of the class described, a vessel having an exit opening, a platen fitted in said vessel, said platen having an upstanding flange adapted to direct the flow of expressed matter lodging upon the platen toward said exit opening, and means for imparting movement to one of said parts relative to the other part.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWIN WALKER.

Witnesses:

JAS. H. GRIFFIN,
H. I. BERNHARD.