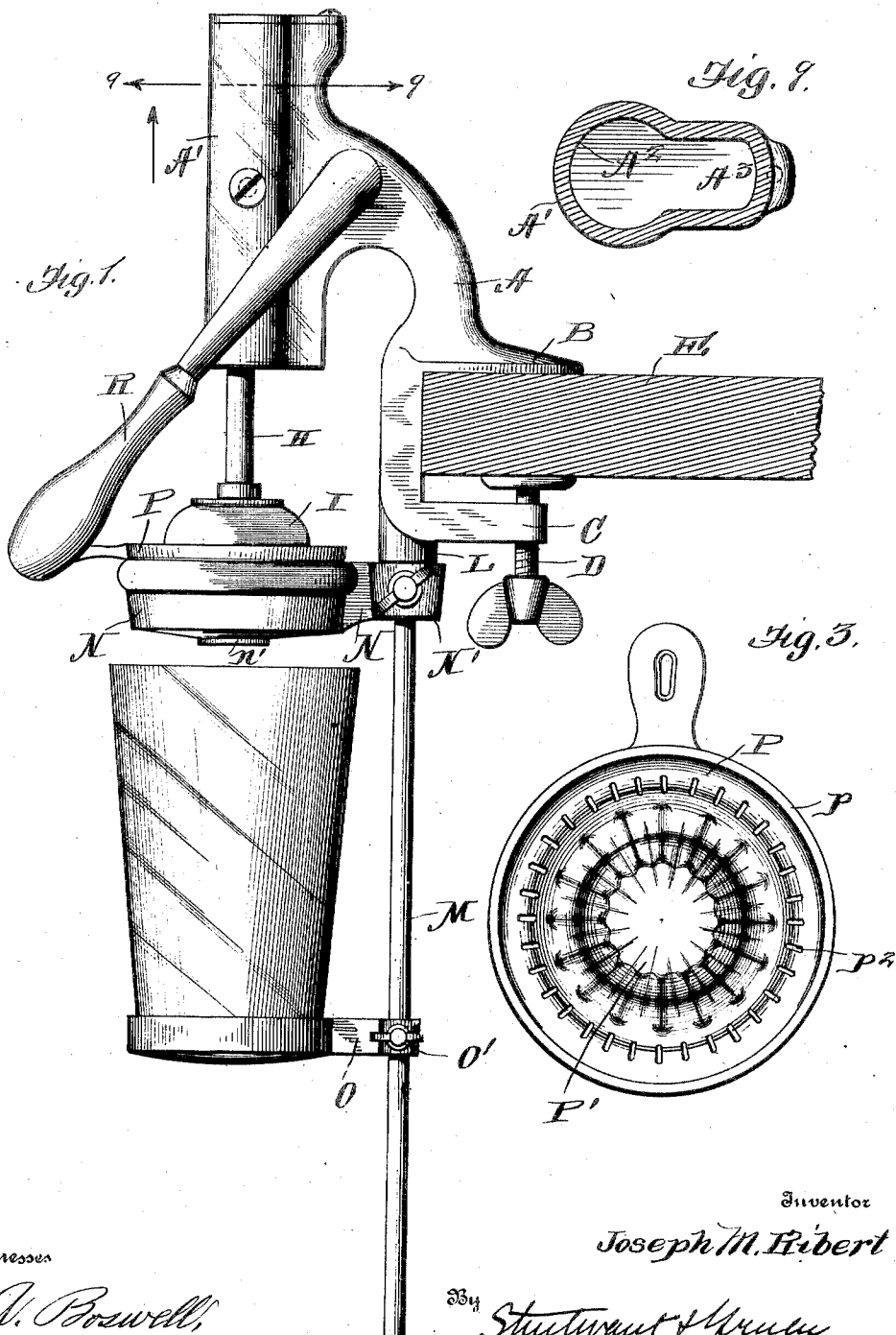


No. 783,893.

PATENTED FEB. 28, 1905.

J. M. RIBERT.
LEMON SQUEEZER.
APPLICATION FILED OCT. 5, 1904.

2 SHEETS—SHEET 1.



Witnesses

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Inventor

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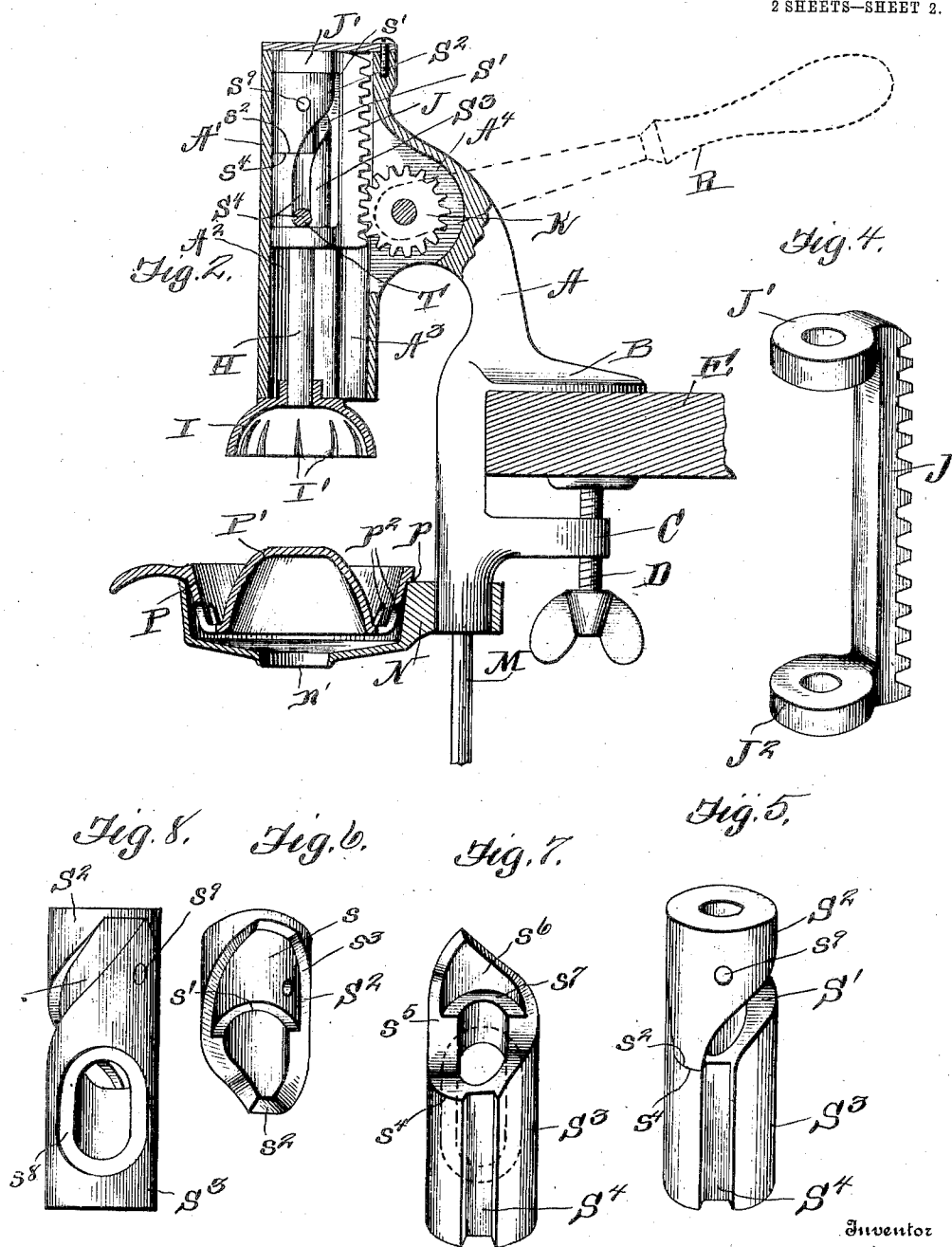
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UNITED STATES PATENT OFFICE.

JOSEPH M. RIBERT, OF NEW YORK, N. Y., ASSIGNOR TO NATIONAL NOVELTY CORPORATION, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

LEMON-SQUEEZER.

SPECIFICATION forming part of Letters Patent No. 783,893, dated February 28, 1905.

Application filed October 5, 1904. Serial No. 227,261.

To all whom it may concern:

Be it known that I, JOSEPH M. RIBERT, a citizen of the United States, residing at New York city, in the county of New York, State of New York, have invented certain new and useful Improvements in Lemon-Squeezers, of which the following is a description, reference being had to the accompanying drawings and to the letters of reference marked thereon.

My invention relates to lemon-squeezers—that is, devices for expressing the juice from lemons, limes, or other fruit for use in beverages or for other purposes—and relates particularly to the class of such devices adapted to be secured to a bar-top or table-top and to be operated by a handle.

My invention has for its object to provide a construction of such device which shall be simple and inexpensive to construct and shall be durable and efficient in operation, and particularly to so form the parts of the device that they may be made, so far as possible, by casting without the necessity for machining.

With these objects in view my invention consists in the construction and combination of elements hereinafter described, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation of a lemon-squeezer embodying my invention. Fig. 2 is a vertical sectional view showing the working parts of the device. Fig. 3 is a plan view of the removable cup carrying the lower member of the squeezing device. Fig. 4 is a detail perspective view of the rack. Figs. 5, 6, 7, and 8 are detail views showing the construction of the operating-screw, Figs. 5 and 8 showing the parts assembled, and Figs. 6 and 7 showing, respectively, the upper and lower castings. Fig. 9 is a horizontal sectional view on line 9-9 of Fig. 1.

In the drawings, A is the main bracket, formed of a single casting, having rearwardly-extending arms B and C, the arm B being adapted to rest on the top of a bar top or table-top and the arm C being adapted to receive a clamping-screw D, between which and the arm B the bar-top or table-top may be firmly gripped. From the arm B the bracket A ex-

tends upward and forward and at its end is provided with a vertical portion A¹, through which are formed ways A², communicating with which is a longitudinal recess A³. A recess A⁴ communicates with the rear of the recess A³.

In the recess A³ is arranged a vertically-sliding rack J, having at its upper and lower ends lugs J¹ J², adapted to fit and slide in the ways A². A gear-wheel K, journaled in the walls of the recess A⁴, is arranged to rotate in the recess A⁴, in mesh with the rack J. An operating-handle R is connected with the gear K for operating it. In the lugs J¹ J² is journaled the plunger-rod H, carrying at its lower end the plunger I. On the rod H between the lugs J¹ J² is secured the cam S, having formed therein a cam-groove S', the lower portion of which is straight and in line with the axis of the rod H and the upper portion of which is in the form of a screw-thread. A pin T, inserted through the wall of the recess A², is adapted to enter the cam-groove S'. As the handle R is operated to rotate the gear K the rack J will be moved downward, carrying down with it the rod H and the plunger I. As the rack moves downward the cam-groove S' of the cam S is engaged by the pin T, and as the lower portion of the groove is straight the plunger will be carried directly downward for the first part of its movement. As the downward movement continues the upper part of the cam-groove is brought into engagement with the pin T, with the result that the cam S, and with it the rod H and plunger I, is given a movement of rotation as well as a further downward movement.

Below the arm C there is formed on the bracket A a socket L, in which is secured the upper end of a vertical rod M, on which is adjustably mounted a bracket O, held in position by a screw O', which is adapted to support the serving-glass or other receptacle to receive the juice of the fruit. On the socket L is removably secured a bracket N, which carries the projection P', with which the plunger I coöperates to press out the juice of the lemon or other fruit. The bracket N is secured in position by set-screw N' and is cup-

shaped, the walls of the cup being preferably tapered and the bottom of the cup being inclined toward a central opening n' , through which the juice may be discharged into the receptacle carried by the bracket O.

In the cup of the bracket N is received a cup P, provided with the central projection P', having radial grooves formed in its sides. The walls of the cup P are tapered downward, as shown, leaving between them and the walls of the cup of the bracket N free space for the passage of the juice expressed from the lemon or other fruit. At its upper edge the cup P is provided with an external flange p , which rests on the upper edge of the cup of the bracket N. The depth of the cup P is such that a space is left between it and the bottom of the cup of the bracket N to give free passage to the juice expressed from the fruit. About the projection P' and extending upward into the sides of the cup are slits or openings p'' of such width as to permit of the free passage of the juice without permitting the seeds to pass. The cup P being removable from the bracket N, the seeds and other waste material may be readily disposed of by simply removing it and dumping its contents into an appropriate receptacle. By this arrangement all the parts coming in contact with the lemon or the juice may be readily cleaned.

The plunger I is provided on its interior with radial ribs I', which as the plunger is pressed downward engage the exterior of the lemon or other fruit to be squeezed, and as the plunger receives its final movement of rotation these ribs cooperate with the ribs p' of the projection P' to effect a complete expression of the juice and by bruising the exterior of the lemon breaks the oil-cells and sets free the essential oil.

The cam S is made up of two castings S^2 and S^3 , both of which are so formed that their patterns may be readily drawn from a sand mold. The upper casting S^2 has a central hub s , having a central bore in which the upper end of the rod H is secured, the hub s terminating in a shoulder s' on a plane at right angles to the axis of the rod H. The outer portion of the casting S^2 terminates at its lower end in a shoulder s^2 . From this shoulder s^2 on one side extends upward a curved edge forming the upper edge of the cam-groove S' and on the other side the edge extends upward to form a shoulder s^3 . The lower portion of the lower casting S^3 is cylindrical and has an axial opening formed therein to receive the rod H and also has a straight groove S^4 formed in it. From one side of the upper end of this groove S^4 the edge of the casting extends upward in a curve which forms the lower edge of the cam-groove S'. On the opposite side of the upper end of the groove S^4 is formed a shoulder s^4 , preferably adapted to receive the shoulder s^2 , and from the edge of this shoulder the casting extends upward

to form a curved shoulder S^5 , adapted to fit the shoulder s^3 . At its upper end the lower casting has formed therein a recess s^6 , adapted to receive the hub s , and having a shoulder s^7 at its base against which the shoulder s' fits. The lower portion of the lower casting S^3 is preferably cut away, as shown at s^8 . When the two castings are placed together, the hub of the casting S^2 fits within the recess s^6 , the shoulder s' resting on the shoulder s^7 and the shoulder s^3 fits against the shoulder s^5 . A single pin or rivet s^9 , passing through the upper part of the casting S^3 through the hub s and the rod H, serves to hold the castings rigidly in position and to secure them to the rod H. Each can have a pin or rivet, if necessary.

When the plunger is in elevated position, the handle R rests in the position indicated in Fig. 2, holding the plunger elevated and leaving between the plunger and the projection P' ample space to place the half lemon or other article to be squeezed in position. As the handle is swung over its first movement, which is forward, brings the plunger downward into contact with the article to be squeezed. The remainder of the movement of the handle is downward, which permits of the full strength of the operator being exerted to press the plunger downward and to give it its final movement of rotation.

By constructing the cam S, as above described, of two castings it can be made at very little expense.

The upper end of the ways A² and recess A³ is preferably closed by a plate.

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

1. In a lemon-squeezer, the combination of a bracket, an arm secured to the bracket provided with means for supporting the article to be squeezed, an upper arm on the bracket having vertical ways formed therein, and a vertical recess communicating with said ways, a rack provided with lugs movable in said ways, a plunger-rod journaled in said lugs and provided with a plunger, a cam-block secured to the plunger-rod between the lugs having a cam-groove therein, a pin carried by the upper arm extending into the cam-groove, and means for reciprocating the rack; substantially as described.

2. In a lemon-squeezer, the combination of a bracket, an arm secured to the bracket provided with means for supporting the article to be squeezed, an upper arm on the bracket having vertical ways formed therein and a vertical recess communicating with said ways, a rack provided with lugs movable in said ways, a plunger-rod journaled in said lugs and provided with a plunger, a cam-block secured to the plunger-rod between the lugs having a cam-groove therein, said cam-block consisting of an upper casting and a lower casting firmly secured to the plunger-rod, a pin carried by

the upper arm extending into the cam-groove, and means for reciprocating the rack; substantially as described.

3. In a lemon-squeezer, a reciprocating plunger, a plunger-rod carrying the plunger, a rack provided with lugs in which the plunger-rod is journaled, means for reciprocating the rack, a cam-block carried by the plunger-rod between the lugs, having a cam-groove having a straight portion and a helical portion formed therein and a stationary pin extending into the cam-groove, the cam-block consisting of an upper casting having the upper edge of the helical portion of the cam-groove formed therein and the lower casting having the straight portion of the cam-groove and the lower edge of the helical portion formed therein; substantially as described.

4. In a lemon-squeezer, a reciprocating plunger, a plunger-rod carrying the plunger, a rack provided with lugs in which the plun-

ger-rod is journaled, means for reciprocating the rack, a cam-block carried by the plunger-rod between the lugs having a cam-groove having a straight portion and a helical portion formed therein, and a stationary pin extending into the cam-groove, the cam-block consisting of an upper casting having an inner hub, and having the upper edge of the helical portion of the cam-groove formed thereon, and the lower casting having the straight portion of the cam-groove and the lower edge of the helical portion formed therein, and means for securing the castings to the plunger-rod; substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH M. RIBERT.

Witnesses:

FRANK G. BRERETON,
GRACE P. BRERETON.