No. 808,861. PATENTED JAN. 2, 1906.

D. H. MOSTELLER.

FRUIT SQUEEZER.

APPLICATION FILED JULY 25, 1905.

Fig. 1.

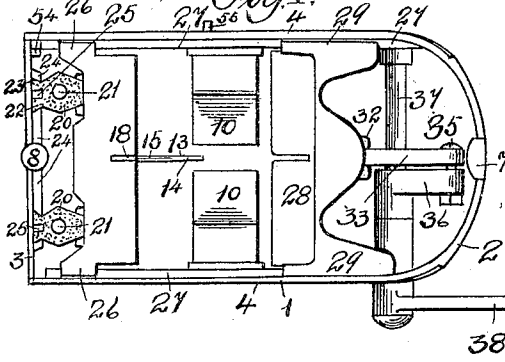
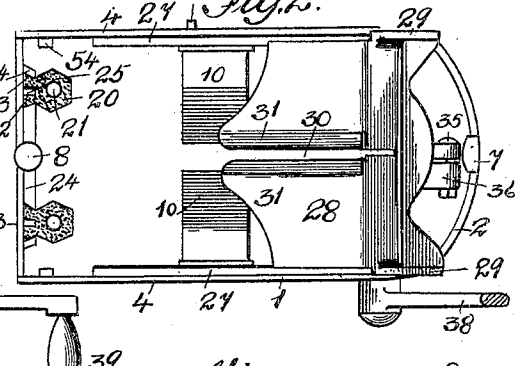


Fig. 2.



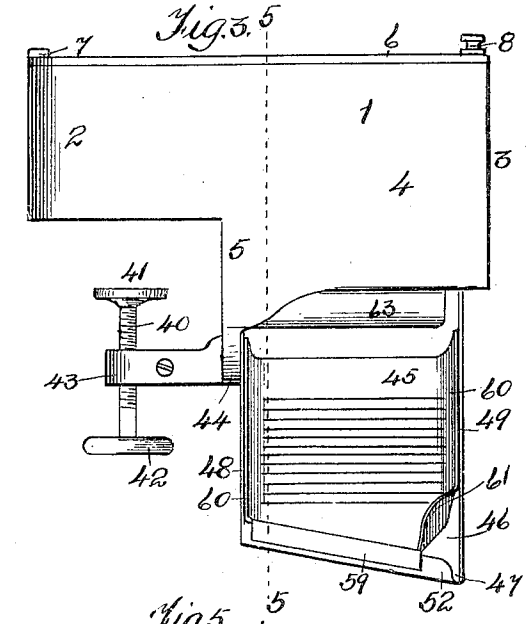


Fig. 3.

Fig. 4.

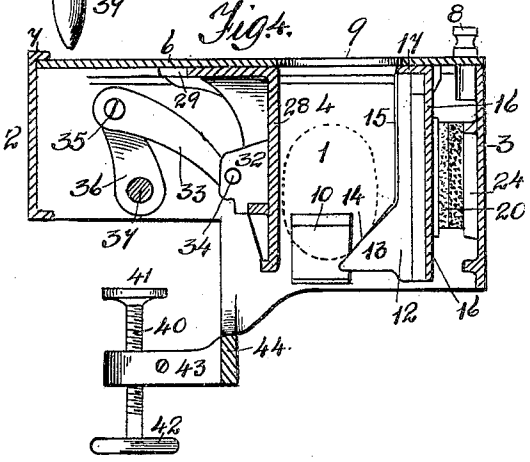


Fig. 5.

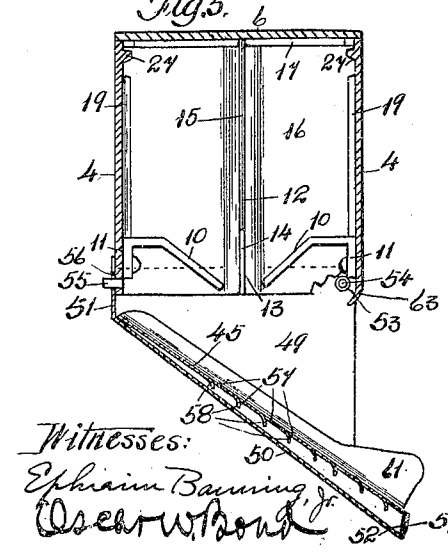
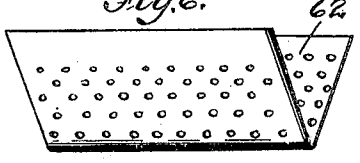


Fig. 6.



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UNITED STATES PATENT OFFICE.

DOSIER H. MOSTELLER, OF CHICAGO, ILLINOIS, ASSIGNOR TO MOSTELLER MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

FRUIT-SQUEEZER.

No. 808,861. Specification of Letters Patent. Patented Jan. 2, 1906.

Application filed July 25, 1905. Serial No. 271,171.

To all whom it may concern:

Be it known that I, DOSIER H. MOSTELLER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fruit-Squeezers, of which the following is a specification.

This invention is intended more especially as a lemon-squeezer, and contains certain improvements upon the device shown in Patent No. 749,573, of January 12, 1904, to myself.

Although the invention is primarily intended as a lemon-squeezer, it is adapted for use in squeezing or mashing berries or other fruits for the purpose of obtaining the juice therefrom.

The object of the present invention is to improve the structural features of the device in order that the parts may be more readily removed and cleaned, thereby preventing the accumulation of pulp, dirt, or other objectionable matter.

Another object of the invention is to improve the formation of the knife or cutter so that the fruit will be properly positioned to receive the full force of the presser-plate.

Another object of the invention is to improve the method of mounting one of the plates to adapt the device for use with fruits of different sizes—such as, for instance, lemons and limes. This object is accomplished by providing a resilient mounting for the plate so that the full squeezing force of the plates will be utilized.

Another feature of the invention is the provision of a sieve or screen adapted to be inserted into the squeezer for the purpose of enabling the squeezer to act upon berries or other small fruits.

The invention consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings illustrating the invention, Figure 1 is a top or plan view of the casing with the cover removed; Fig. 2, a similar view showing the parts adjusted for the purpose of cleaning; Fig. 3, a side elevation of the device; Fig. 4, a longitudinal sectional view of the same; Fig. 5, a transverse section taken on line 5 5 of Fig. 3, and Fig. 6 a perspective view of the berry-strainer.

The squeezer as a whole consists of a casing 1, which is preferably rounded at its forward end 2 and square at its rear end 3 and provided with straight side walls 4, which are cut away at the forward end to leave a shoulder 5. The casing is closed by means of a flat cover 6, which is held in place at the forward end by means of an overhanging lug 7 and at the rear end by means of a thumb-screw 8, which enables the cover to be easily removed by merely unscrewing the thumb-screw. The cover is provided at a suitable point with an opening 9 for the insertion of the fruit which falls down into the interior of the casing and rests between a pair of downwardly-converging plates or ledges 10, each provided with a flange 11, which is bolted or otherwise secured to the inner face of the side wall 4. The lemon or other fruit is held against lateral movement by means of the converging plates and is held against longitudinal movement by contact with a cutter 12, which is provided with a forwardly-projecting toe 13, having a dull edge 14 at its lower end, and the cutter-plate above the toe is provided with a knife-edge 15, adapted to slice a lemon or lime as the same is forced up on the dull toe of the cutter and against the knife-edge, as hereinafter described. The cutter is secured at right angles to the face of a squeezer-plate 16, which is provided with a forwardly-extending flange 17, which furnishes a rigid mounting for the upper end 18 of the cutter-blade, and the squeezer-plate is slidably mounted and held in position at its forward side by means of vertically-extending flanges 19, which hold the plate into close contact with a pair of resilient blocks 20 of rubber or other similar substance. Each of the blocks 20 is of substantially hexagonal shape on its forward side and is provided with a longitudinally-extending perforation 21, which increases its resiliency, and the blocks are provided on their rear face with dovetail flanges 22, which are entered into corresponding recesses 23, formed between flanges 24 on the rear wall of the casing. The dovetail flange of each of the resilient blocks is provided with a longitudinally-extending groove or channel 25, which further serves to increase the resiliency of the block, so that a high degree of compression may be secured.

This arrangement allows the squeezer-plate to be forced back under compression, thereby adapting the device for use with fruits of different sizes. The squeezer-plate is provided at its upper end with laterally-extending ears 26, which rest upon flanges 27, formed on the inner face of the side walls of the casing, and said flanges, in conjunction with the top or cover of the casing, form longitudinally-extending channels into which the ears 26 are entered, so that the withdrawal or displacement of the squeezer-plate is prevented while the cover is in place. The removal of the cover, however, allows the squeezer-plate to be easily drawn out of the casing for the purpose of cleaning or otherwise.

The squeezer-plate and cutter are adapted to coöperate with a movable presser-plate 28, provided with side flanges 29, which enter the groove or channel formed by the guide-flanges 27, and said presser-plate is provided in its face with a vertically-extending slot 38, adapted to register with the knife, and the cutting-face of the presser-plate adjacent to the slot on either side is formed to have an inward recess or bevel 31, which registers in a general way with the curvature of the fruit to be acted upon, so that as the presser-plate is moved forward the fruit will be firmly clamped in position and shoved along the dull toe of the cutter, which raises the fruit toward the center of the relatively stationary squeezer-plate, so that the full force of the presser-plate will be expended in squeezing the juice out of the fruit. As shown in Fig. 2, the presser-plate is raised out of normal position for the purpose of cleaning, and the plate is so constructed that it may be thus lifted out of normal position by merely removing the cover and raising the side flanges 29 away from the guide-flanges 27.

The presser-plate is provided on its rear face with a pair of ears 32, between which is mounted a link 33, secured to the ears by means of a pivot-pin 34. The opposite end of the link is pivoted, by means of a pivot 35, to an arm 36 on a shaft 37, which extends transversely of the casing and is provided on one end with an arm 38 and a handle 39 for turning the shaft 37 and actuating the presser-plate.

The presser as a whole is clamped to a table or other suitable support by means of a screw-clamp 40, having a head 41 and a handle 42, and said clamp is mounted within a forwardly-projecting arm 43, which is secured to and projects from the center of a bridge 44, which spans the space between the side walls adjacent to the shoulder 5.

The juice after being squeezed out of the lemon or fruit falls onto a screener-plate 45, which lies within a trough 46, having a spout 47 at its outer corner for the purpose of delivering the pure juice for consumption. The trough is provided with a forward side wall 48, a rear side wall 49, and a sloping bottom 50, which terminates in an upper cross-flange 51, connecting the side walls. The bottom of the trough terminates at its lower end in an upwardly-turned flange 52, which slopes toward the discharge-spout 47 for directing the juice to that point. The through as a whole is removably secured to the casing, so that it can be readily detached for the purpose of cleaning, storage, or otherwise. The rear side wall 49 has therein an opening 53, which enables the wall to be secured by means of a stud 54, inwardly projecting from the rear end of the casing. The trough is further secured by means of a stud 55, which projects outwardly from the rear side wall of the casing and is adapted to enter a slot 56 in the cross-flange 51 on the upper end of the sloping bottom of the trough. The trough as a whole is composed of sheet metal of sufficient resiliency to allow the walls of the trough to be sprung into place and secured by means of the studs above referred to. The screener-plate is of a size to lie within the trough and is provided with a series of transversely-extending slots 57, each formed by cutting the metal of the plate and bending down the upper edge to form a transversely-extending flange 58. The lower edge of the screener-plate is provided with a downwardly-turned flange 59, which forms a rest or support for raising the screener-plate above the bottom of the trough for allowing the juice to pass through the screener-plate and into the trough prior to its discharge. The screener-plate is provided with side flanges 60, one of which terminates in an enlarged end portion 61, which serves as a handle for removing the screener-plate.

Where it is desirable to use the squeezer for the purpose of extracting juice from berries or similar small fruit, a trough-shaped screen 62 is inserted into the casing and rests upon the converging plates or rests 10, and this arrangement enables the berries or other small fruit to be dropped into the squeezer and held in position to be acted upon by the presser and squeezer plate in the manner hitherto described with reference to the squeezing of lemons.

In the operation of squeezing lemons the fruit is introduced through the opening in the top or cover and falls into position upon the converging plates or rests 10 and the sloping toe 13 of the cutter-blade, after which the presser-plate is moved forward by the operation of the handle, forcing the fruit along the dull toe of the knife until the fruit is raised and slid along into contact with the cutting-surface, by which it is sliced, and the two halves of the lemon are carried into contact with the squeezer-plate, between which and

the presser-plate the lemon is squeezed and the juice extracted. As the pressure is increased the squeezer-plate will be forced back against the tension of the rubber blocks, which maintain a constant pressure and allow the presser-plate to be carried forward to its farthest position. The provision of the elastic blocks enables fruit of different kinds to be acted upon, since some fruit will require a much higher degree of pressure to extract the juice than others. As the juice is squeezed out it falls down onto the screener-plate 45, and in order that all of the juice may be directed onto the screener-plate the forward side plate 4 has its lower edge 63 inwardly curved to throw the juice toward the center of the screener-plate. The screener-plate is so constructed that the juice will pass through the transverse slots or openings in the plate, but all pulp and seeds will be carried down over the surface of the plate and discharged at the bottom. The passage of the juice through the plate is largely dependent upon the provision of the downwardly-turned flanges 58, which serve to direct the course of the juice through the plate and prevent it from running over.

It will be seen from the foregoing description that the device as a whole is simple in its construction and operation and that ample provision is made for the purpose of keeping the parts clean and in suitable condition for use. The presser-plate can be easily cleaned by lifting it and turning it back into the position shown in Fig. 2, in which the cutting-face of the plate is raised into substantially horizontal position, and ready access may be obtained not only to the plate itself, but to the interior of the casing.

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

1. In a fruit-squeezer, the combination of a casing, a squeezer-plate within the casing, a resilient mounting for the squeezer-plate, a presser-plate in parallel relation to the squeezer-plate and relatively movable with respect thereto, and means for moving the presser-plate, substantially as described.

2. In a fruit-squeezer, the combination of a casing, a squeezer-plate, a knife secured to the squeezer-plate and terminating in a forwardly-projecting sloping toe having a dull edge, a presser-plate provided in its front face with a slot adapted to register with the knife, and means for moving the presser-plate with respect to the squeezer-plate, substantially as described.

3. In a fruit-squeezer, the combination of a casing, two plates within the casing, one of the plates being movable with respect to the other, a knife secured to the face of one of the plates and provided at its lower end with an inwardly-projecting beveled toe having a dull edge, said knife being adapted to register with a slot in the face of the other plate, and means for moving one of the plates relatively with respect to the other, substantially as described.

4. In a fruit-squeezer, the combination of a casing, a squeezer-plate slidably mounted within the casing, vertically-extending flanges adapted to bear against the acting face of the squeezer-plate, blocks of resilient material bearing against the rear face of the squeezer-plate, a presser-plate slidably mounted with respect to the squeezer-plate, a link pivoted to the presser-plate, an arm to which the link is pivoted, a shaft to which the arm is secured, and a handle for moving the shaft, substantially as described.

5. In a fruit-squeezer, the combination of a casing, a squeezer-plate slidably mounted within the casing, vertically-extending flanges adapted to bear against the acting face of the squeezer-plate, blocks of resilient material bearing against the rear face of the squeezer-plate, a presser-plate slidably mounted with respect to the squeezer-plate, a link pivoted to the presser-plate, an arm to which the link is pivoted, a shaft to which the arm is secured, a handle for moving the shaft, and a knife on the squeezer-plate terminating in a forwardly-projecting beveled toe provided with a dull edge and adapted to register with a slot in the face of the presser-plate, substantially as described.

6. In a fruit-squeezer, the combination of a casing provided along its side walls with longitudinally-extending flanges, a cover for the casing adapted in combination with the flanges to form channels or guideways, a presser-plate provided with side flanges adapted to enter the channels or guideways, said presser-plate being provided in its front face with a slot having the adjacent walls of the plate inwardly beveled to the slot, means for reciprocating the presser-plate, a squeezer-plate, a knife secured to the squeezer-plate and provided with a forwardly-extending beveled toe having a dull edge and adapted to register with the slot in the presser-plate, substantially as described.

7. In a fruit-squeezer, the combination of a casing provided along its side walls with longitudinally-extending flanges, a cover for the casing adapted in combination with the flanges to form channels or guideways, a presser-plate provided with side flanges adapted to enter the channels or guideways, said presser-plate being provided in its front face with a slot having the adjacent walls of the plate inwardly beveled to the slot, means for reciprocating the presser-plate, a squeezer-plate, a knife secured to the squeezer-plate and provided with a forwardly-extending beveled toe having a dull edge and adapted to register with the slot in the presser-plate, and downwardly-converging plates or rests

secured to the side walls of the casing and adapted in combination with the toe of the knife to form a support for the fruit prior to the cutting operation, substantially as described.

8. In a fruit-squeezer, the combination of a casing, a squeezer-plate within the casing, a cutter-plate relatively movable with respect thereto, a sloping trough below the plates, and a screener-plate within the trough provided with a series of transversely-extending slots, each slot having at its upper edge a downwardly-turned flange for directing the juice through the slots, substantially as described.

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