D. H. MOSTELLER.

SQUEEZER.

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Fig. 1.

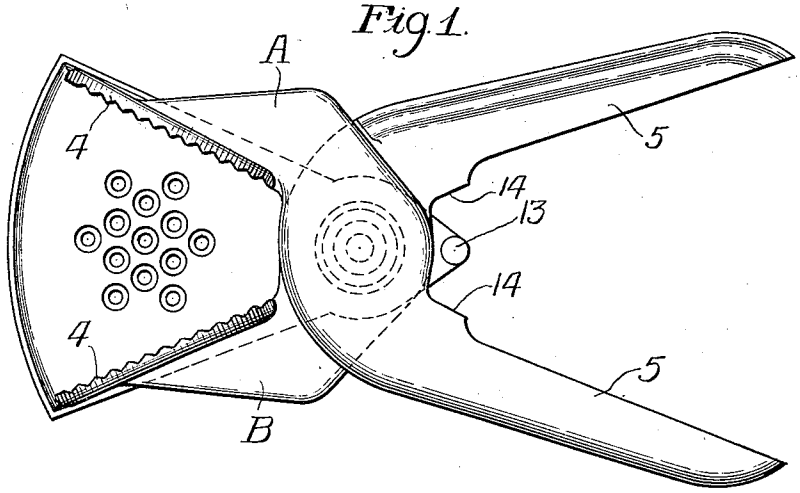


Fig. 2.

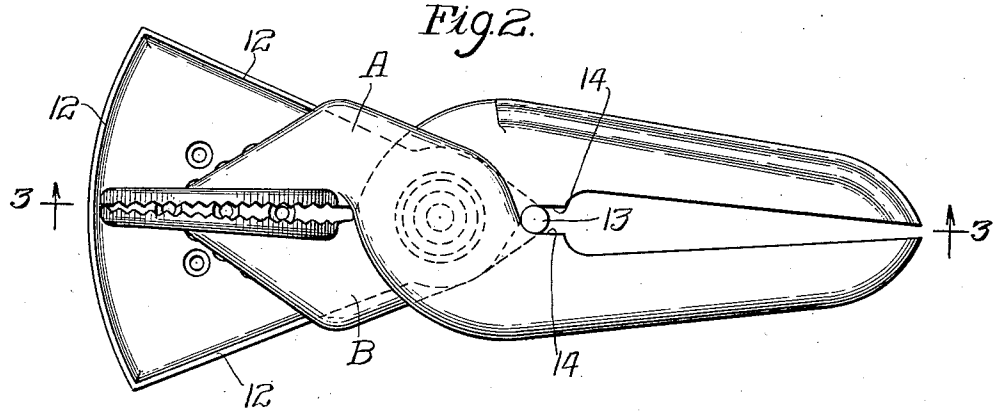
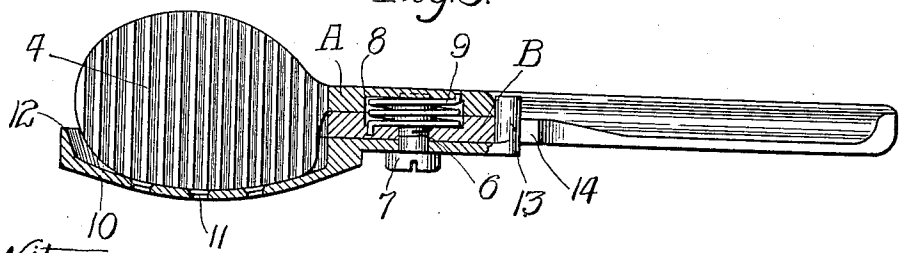


Fig. 3.



Witnesses:

Ephraim Banning

Thomas A. Banning Jr.

Inventor

Dosier H. Mosteller

by Banning & Banning

Attys.

UNITED STATES PATENT OFFICE.

DOSIER H. MOSTELLER, OF CHICAGO, ILLINOIS.

SQUEEZER.

1,098,288. Specification of Letters Patent. Patented May 26, 1914.

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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 Squeezers, of which the following is a specification.

This invention relates to devices commonly known as squeezers, and more particularly to such as are used for extracting juice from small fruit, such as lemons and limes.

In the present invention I have sought to provide a simple form of squeezer capable of being readily assembled or disassembled, should such an operation be desirable, and capable of having any of its elements replaced, in case damage or deterioration should ensue to any part of the device.

It is further sought to provide a strainer so arranged with respect to acting jaws that it may, during the squeezing operation, constantly maintain a central position with respect thereto, so that the juice and pulp extracted can flow directly from the strainer through suitable perforations therein.

The invention further consists in numerous other features of construction and combinations of parts as hereinafter described and claimed.

In the drawings: Figure 1 is a plan view of the squeezer, showing the jaws in open position; Fig. 2 is a similar view showing the jaws in the position occupied when the squeezer is operated; and Fig. 3 is a longitudinal section taken on line 3—3 of Fig. 2.

The device comprises two principal members A and B, each resembling the other in form and construction, and each comprising a jaw 4 and handle portion 5 integrally formed therewith. It is preferred that the jaws should each be flattened and ribbed, as best shown in Fig. 3, to better engage with an article which it is desired should be squeezed therebetween. The member B is provided with a perforation through which a threaded screw 6 may be inserted, while the member A is provided with a threaded socket corresponding to the perforation in the member B within which the threaded end of the screw 6 may seat. A head 7, preferably of enlarged diameter, is formed on the screw 6 in order to prevent disassembling of the parts when the same are pivotally connected. On the facing sides of each of the members A and B adjacent the screw 6 a recess 8 is formed, within which a coil spring 9 is disposed having the ends thereof secured in any suitable manner one to each of the members A and B. The action of the spring is such as normally to swing away the jaws from each other, thus maintaining the device at all times in open position ready for use.

A strainer 10, preferably bowl-shaped and conforming in shape to the adjacent edge of each of the jaws 4, is arranged operatively upon the device being secured thereto as through the medium of the screw 6, the headed end 7 of which may be caused to engage therewith. A plurality of perforations 11 of suitable size for the purpose are arranged within the bowl of the strainer, through which juice, pulp, etc., may pass, while retaining the coarser materials in the strainer. A marginal rim 12 is further arranged about the sides of the strainer to prevent an overflow of juice which may be expressed from the article being squeezed. As will be observed from Fig. 3, this rim prevents in an effective way the passage of juice into contact with the screw 6 or the spring 9 within the recess 8, thus guarding against deleterious action due to the acid properties common to fruit juices. As will be observed also from Figs. 1 and 2, the marginal rim on two of the sides of the strainer are arranged to engage with the outer faces of the jaws when in open position, thereby limiting further open swinging movement thereof. The strainer which has been described is extended beyond the screw 6 a sufficient distance to carry an abutment 13 which is arranged to lie parallel with the screw 6 but between the handles 5 of the members A and B. When the jaws are in open position, as indicated in Fig. 1, this abutment 13 occupies an intermediate position between the handle 5, but is not engaged thereby. When, however, as shown in Fig. 2, the handles have been swung inwardly to cause the jaws to squeeze an article placed therebetween, suitable engaging faces 14 on each of said handles come into contact with the said abutment to cause the strainer to be centered with respect to the squeezer. It will thus be noted that, whether the jaws are in open or closed position, the strainer is automatically centered with respect to the members A and B,

this being accomplished either by engagement of the jaws with the adjacent portions of the marginal rim 12, or by engagement of the faces 14 with the abutment 13. Except as the strainer is centered in the manner described, it is totally free to swing about the pivot 6 and has no other connection whatsoever with the members A and B. It follows that, because of the centering action exerted upon the strainer, the perforations 11 which are preferably centrally disposed through the bowl thereof are brought directly in proximity with the juice being expressed. The strainer, therefore, occupies a symmetrical relation with respect to the jaws adjacent thereto.

In the construction of a device embodying the herein described invention, I prefer to use a metal which is non-corrosive, such as aluminum. It is obvious from the foregoing description that the device is exceedingly light and simple, and may be disassembled by merely withdrawing the screw 6 so as to permit a ready cleansing or replacement of any parts thereof. It is to be understood that the screw 6 forms a pivotal connection between the members A and B, and, if desired, may be prevented in any suitable manner from locking too tight together the members A and B and strainer 10 adjacent thereto.

The configuration of the strainer bowl requires special mention. An inspection of Fig. 3 discloses the fact that the lowest level within the bowl is substantially at the center thereof at which point the perforations for the escape of juice are located. This dip within the bowl occurs always and only in a direction radial to the threaded screw 6, so that each of the jaws maintains its lower edge at all times and at all points equidistant from the bowl surface. It is intended, moreover, that the lower edges of the jaws should each preferably be disposed in close proximity to the bowl of the strainer to prevent pulp and other solid matter from escaping from beneath the jaws as they are closed together. In a device constructed as above described, it is apparent that the juice will be expressed into the strainer substantially at the center thereof and directly above the openings through which it may drain, and not at some other point where possibly compressed pulp will have accumulated to prevent discharge of the juice through the proper channels.

I claim:

1. In a squeezer, the combination of two members, each comprising a jaw at one end and a handle at the other, a pivotal connection between said members intermediate the ends thereof, a strainer arranged operatively with respect to said jaws having a portion thereof extended to lie between said handles, and a member carried by said extended portion adapted to engage with one or both of said handles whereby the strainer is brought to a definite centered position with respect to said jaws when the same are brought together.

2. In a squeezer, a floating strainer formed with a marginal rim and a bowl-like body portion, and having a member extending laterally thereof with an opening therethrough, the end of said member being formed to constitute an abutment, in combination with a pair of pivotally connected lever members of the first class arranged operatively with respect to said strainer and adapted when brought together to engage with said abutment to center said strainer with respect to said lever members.

3. In a squeezer, a floating strainer formed with a marginal rim and a bowl-like body portion, and having a member extending laterally thereof with an opening therethrough, the end of said member being formed to constitute an abutment, in combination with a pair of lever members of the first class pivotally connected together and to said strainer, and adapted when brought together to engage with said abutment to center said strainer with respect to said lever members.

4. A squeezer embodying a floating strainer provided with a marginal rim, and with a member extending laterally thereof, in combination with a pair of pivotally connected lever members of the first class arranged operatively with respect to said strainer, the weight and power ends of said lever members coöperating respectively with said marginal rim and the laterally extending member of said strainer according as said lever members are swung apart or together to maintain said floating strainer in centered position with respect to said lever members.

5. A squeezer embodying a floating strainer having a member extending laterally thereof formed with an opening therethrough and with an abutable extremity, in combination with a pair of lever members of the first class pivotally connected together and to said strainer member and adapted when brought together to engage with said abutable extremity to center said strainer with respect to said lever members.

6. In combination with a pair of pivotally connected lever members of the first class, a floating strainer arranged to lie intermediate the weight ends of said members, and means for maintaining said strainer in said intermediate position operated from the power ends of said members.

7. A pair of levers of the first class arranged to swing about a common fulcrum, in combination with a floating strainer arranged to engage with said levers at their weight ends to limit the outward swinging movement thereof, and to engage with said

levers at their power ends to center the same with respect to said strainer when said levers are swung together.

8. In a squeezer, the combination of two members, each comprising a jaw and a handle, a pivotal connection between said members intermediate the ends thereof, and a strainer arranged pivotally with respect to said members provided with means on one side of said pivotal connection to limit the outward swinging movement of said jaws, and with means on an opposite side of said pivotal connection to center said strainer with respect to said jaws when the same are in closed position.

9. In a squeezer, the combination of two members, each comprising a jaw and a handle, a pivotal connection between said members intermediate the ends thereof, a strainer operatively arranged with respect to said members having a major portion thereof lying inside or outside of said jaws according as the same are opened and closed, means on one side of said pivotal connection for limiting the outward swinging movement of said jaws, and means on an opposite side of said pivotal connection for maintaining said strainer and jaws in centered relation when said jaws are in closed position.

DOSIER H. MOSTELLER.

Witnesses:
EPHRAIM BANNING,
CHAS. E. KENNEDY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."