

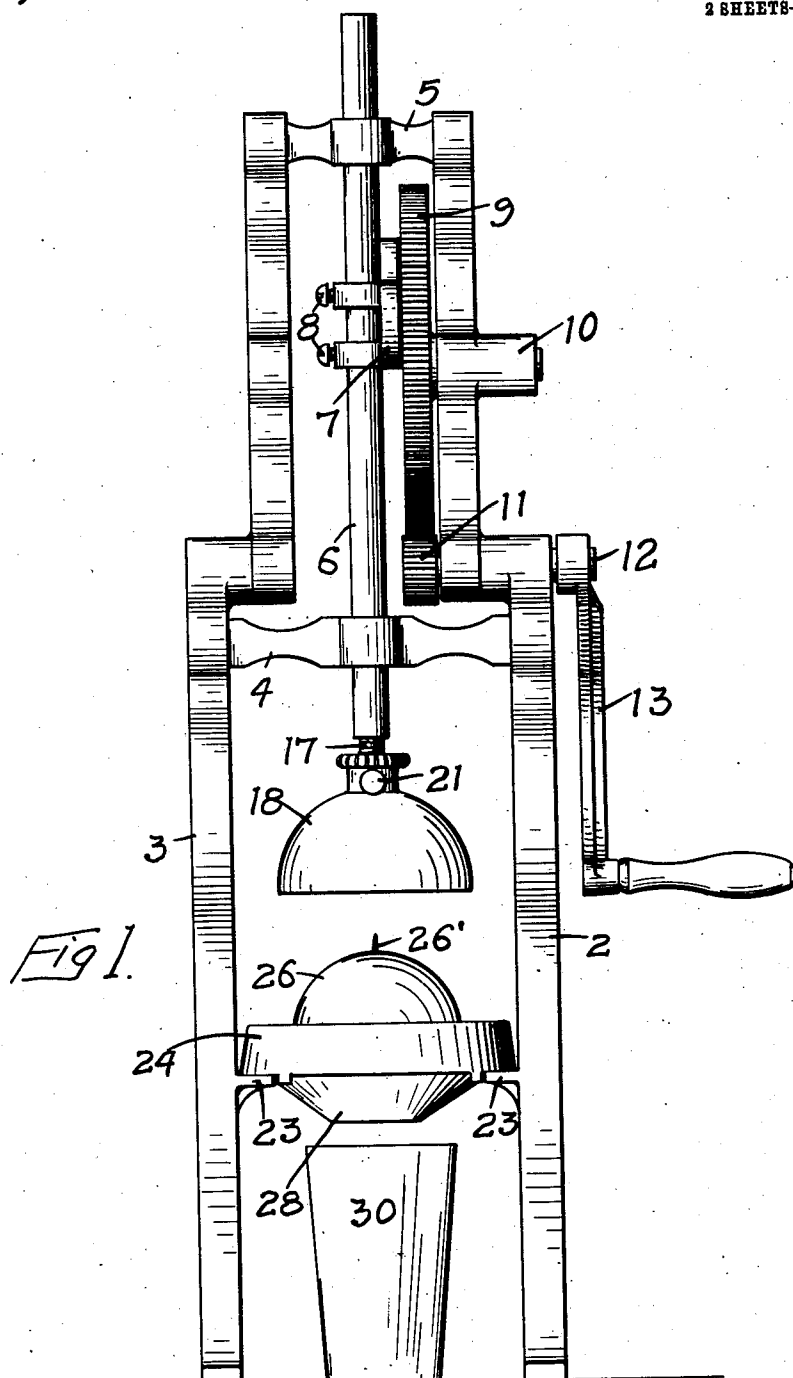
L. S. HACKNEY.
LEMON SQUEEZER.

APPLICATION FILED JULY 19, 1909.

Patented Aug. 23, 1910.

2 SHEETS—SHEET 1.

968,345.



WITNESSES

M. M. Johnson
J. A. Byington

INVENTOR

LESLIE S. HACKNEY

BY

Paul O. Paul
ATTORNEYS

L. S. HACKNEY.

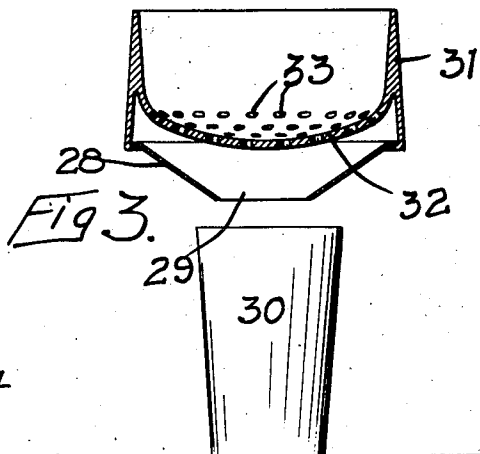
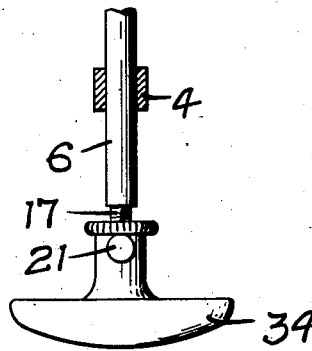
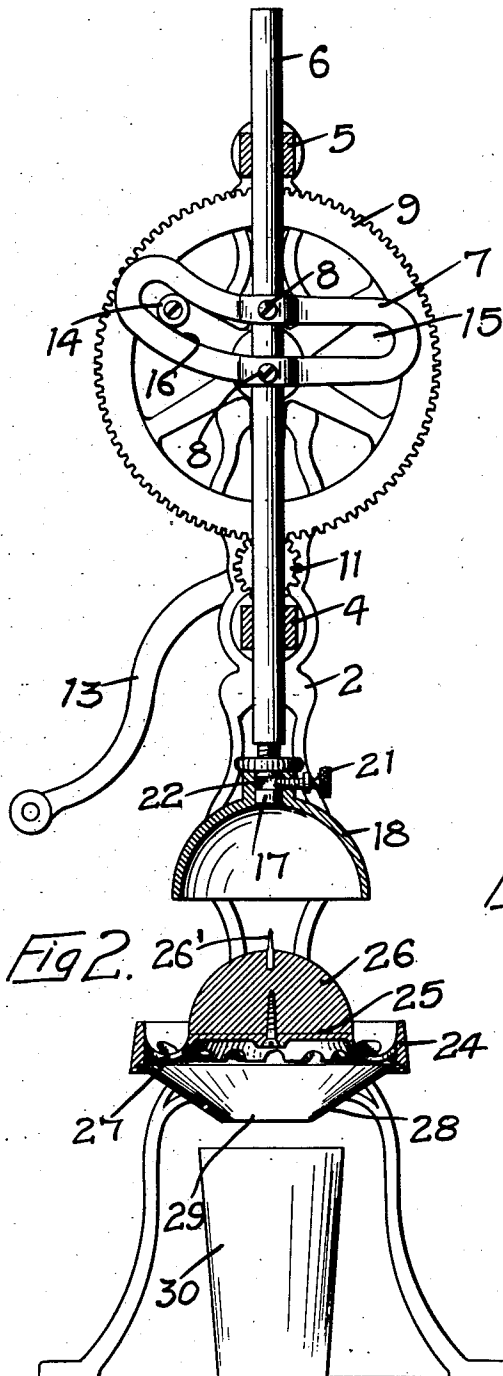
LEMON SQUEEZER.

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2 SHEETS—SHEET 2.



WITNESSES
M. Walstrom
J. B. Bingham

INVENTOR
 LESLIE S. HACKNEY
 BY *Paul & Paul*
 ATTORNEYS

UNITED STATES PATENT OFFICE.

LESLIE S. HACKNEY, OF ST. PAUL, MINNESOTA.

LEMON-SQUEEZER.

968,345.

Specification of Letters Patent.

Patented Aug. 23, 1910.

Application filed July 19, 1909. Serial No. 508,491.

To all whom it may concern:

Be it known that I, LESLIE S. HACKNEY, of St. Paul, Ramsey county, Minnesota, have invented certain new and useful Improvements in Lemon-Squeezers, of which the following is a specification.

The object of my invention is to provide a machine, by means of which the juice can be easily and quickly extracted from lemons, oranges and the like.

A further object is to provide a quick acting machine and one which will exert an increasing pressure on the article to be squeezed and operate quickly to release the article when the squeezing operation is completed.

The invention consists generally in various constructions and combinations all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a front elevation of a lemon squeezing machine, embodying my invention, Fig. 2 is a vertical, sectional view, illustrating the manner of supporting the squeezing plunger or cap, Fig. 3 is a detail view, illustrating a modified construction.

In the drawing, 2 and 3 represent standards, connected by cross bars 4 and 5, which form guides for a vertically reciprocating rod 6, on which a yoke 7 is adjustably secured by means of set screws 8. A gear wheel 9 is journaled at 10 on one of the standards and meshes with a pinion 11 that is mounted on a shaft 12, which is provided with an operating crank 13. An anti-friction roller 14 is mounted on the gear 9 intermediate to its axis and periphery and said anti-friction roller is adapted to travel in a slot 15 provided in the yoke 7. This yoke is upwardly turned at one end, forming an upwardly-inclined edge 16, with which said roller engages when the gear wheel is revolved. When this plunger contacts with the lower edge of the slot 15, the plunger will be forced down and on account of the upward curve of the yoke after the roller passes the center of the slot, instead of moving out of contact with the lower edge of the slot, it exerts for a time a gradually increasing pressure on the yoke, which is transmitted to the reciprocating rod so that an increasing pressure will be obtained during the latter part of the squeezing operation. When the roller engages the upper

portion of the yoke, the upward movement thereof and of the plunger rod will be rapid, so that no time will be lost on the idle stroke of the plunger. The lower end of the rod is internally threaded to receive a stud 17 provided on a hemispherical cup or cap 18, and by the adjustment of the stud, the cap can be raised or lowered. A thumb screw 21 fits within an annular groove 22 provided in the stud, so that rotary movement of the cap is permitted without turning the stud. Beneath the cup and supported on suitable lugs 23 is a basin or bowl 24, having a flat upper surface 25, whereon a hemispherical block 26 is secured, said block fitting within the cup 18 and compressing the section of fruit placed thereon when the cap is lowered. A pin 26' is provided in the block for securing a section of fruit thereon and the bowl has a series of perforations 27 in its bottom, leading to a hopper-shaped spout 28, which has a discharge opening 29 above a glass 30 or other receptacle placed beneath.

In Fig. 3 a modified construction is shown, in which 31 represents the bowl having a concave bottom 32, provided with perforations 33, and a plunger 34 provided with a convex under face, which fits into the bowl and engages the fruit therein and squeezes the juice therefrom, as the plunger is lowered.

The operation of the device is as follows:—A section of lemon or other fruit having been placed on the support 26, the operator moves the crank 13, revolving the gear 9 and causing the roller 14 to travel in the slot 15 of the yoke 7. After the roller passes the transverse center of the yoke it will bear with an increasing pressure thereon, because of the upwardly turned end and when the roller reaches the upper edge of the slot the upward movement of the yoke will be correspondingly rapid, and the cap 18 will be raised rapidly out of contact with the fruit.

I claim as my invention:—

1. The combination, with a frame, of a plunger, a yoke transversely mounted on said plunger and provided with a groove also extending transversely with respect to said plunger and having an end turned out of line with the main portion of said groove, and an operating means having a part to enter said groove and bear on the edges thereof, for the purpose specified.

2. In a machine of the class described, the

combination, with a bowl, a plunger and its supporting rod, a yoke carried by said plunger and having a slot therein and upwardly inclined at one end, means for reciprocating
5 said yoke and plunger, said means including an anti-friction roller adapted to enter said slot and engage the upwardly inclined edge thereof during the latter part of the down movement of said plunger, for the purpose
10 specified.

3. The combination, with a frame, of a bowl and plunger arranged to reciprocate toward and from said bowl, a yoke transversely mounted on said plunger and having
15 a longitudinal slot, said slot being turned upwardly at one end, means for reciprocating said yoke and plunger, said means including a gear wheel and an anti-friction

roller mounted thereon and arranged to project into said slot and engage the edges
20 thereof, for the purpose specified.

4. The combination, with a frame, of a bowl and plunger and a yoke transversely mounted on said plunger and provided with a groove also extending transversely with
25 respect to said plunger and having an upwardly turned end, and an operating means having a part to enter said groove and bear on the edges thereof, for the purpose specified.
30

In witness whereof, I have hereunto set my hand this first day of July 1909.

LESLIE S. HACKNEY.

Witnesses:

ANNA C. PETERSON,
FLORENCE CAMPBELL.