No. 789,623. PATENTED MAY 9, 1905.

P. McGRATH.

LEMON SQUEEZER.

APPLICATION FILED JAN. 6, 1905.

2 SHEETS—SHEET 1.

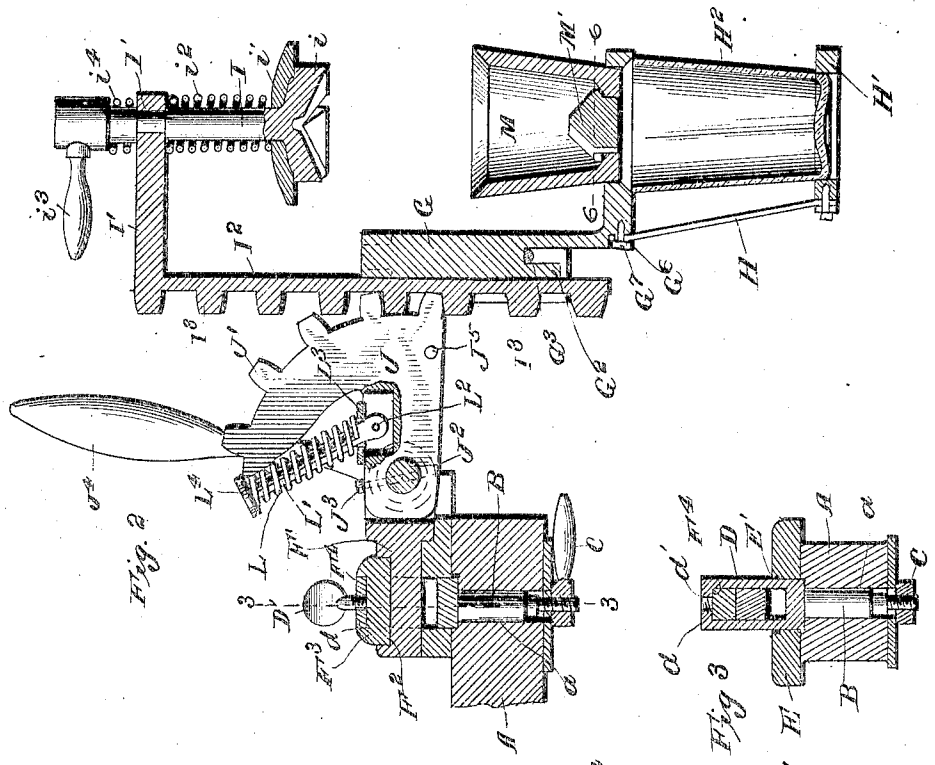


Fig. 2



Fig. 3

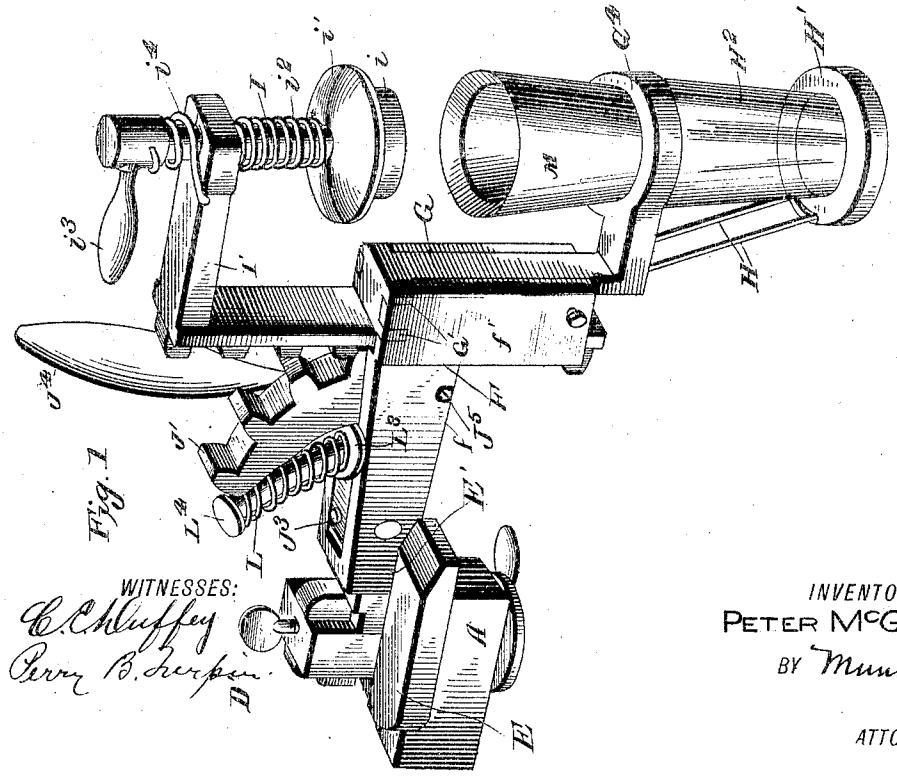


Fig. 1

WITNESSES:

C. Chuffey

Perry B. Turpin

INVENTOR

PETER McGRATH

BY Munn & Co.

ATTORNEYS

PHOTO LITHOGRAPHED BY SACHETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

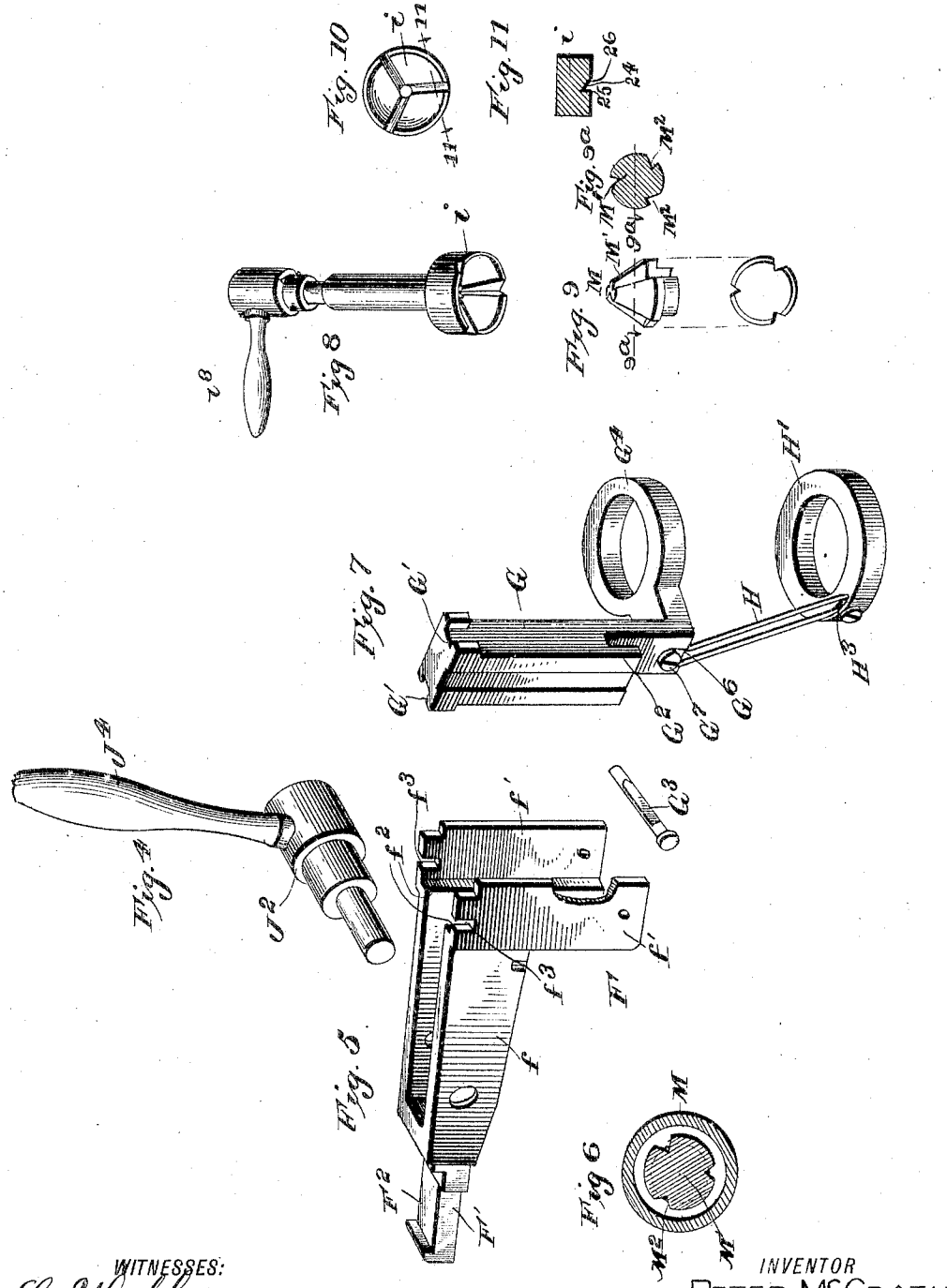
No. 789,623. PATENTED MAY 9, 1905.

P. McGRATH.

LEMON SQUEEZER.

APPLICATION FILED JAN. 6, 1905.

2 SHEETS—SHEET 2.




WITNESSES:

C. C. Duffey

Percy B. Durfee

INVENTOR

PETER McGRATH

BY Munn & Co.

ATTORNEYS

PHOTO-LITHOGRAPHED BY SACHETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 789,623. Patented May 9, 1905.

# UNITED STATES PATENT OFFICE.

PETER McGRATH, OF HIBBING, MINNESOTA.

## LEMON-SQUEEZER.

SPECIFICATION forming part of Letters Patent No. 789,623, dated May 9, 1905.

Application filed January 6, 1905. Serial No. 239,845.

*To all whom it may concern:*

Be it known that I, PETER McGRATH, a citizen of the United States, and a resident of Hibbing, in the county of St. Louis and State of Minnesota, have made certain new and useful Improvements in Lemon-Squeezers, of which the following is a specification.

My invention is an improvement in lemon-squeezers; and it consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a lemon-squeezer embodying my invention. Fig. 2 is a sectional elevation thereof. Fig. 3 is a detail cross-section on about line 3 3 of Fig. 2. Fig. 4 is a detail perspective view of the handle. Fig. 5 is a detail perspective view of a portion of the main frame. Fig. 6 is a cross-section on about line 6 6 of Fig. 2. Fig. 7 is a detail perspective view of the cup-carrier. Fig. 8 is a detail perspective view of the plunger-head. Fig. 9 is a detail perspective view of the base-piece for the cup. Fig. $9^a$ is a cross-section on about line $9^a$ $9^a$ of Fig. 9. Fig. 10 is a bottom plan view of the plunger-head, and Fig. 11 is a detail cross-section thereof on about line 11 11 of Fig. 10.

The lemon-squeezer is adapted for application to a bench or table, of which a part is shown at A in Figs. 1 and 2 and is provided with an upright shaft B, threaded at its lower end to receive the hand-nut C, the shaft extending down through an opening *a* in the table A and the upper end of the shaft being provided with the box-loop D, which projects through and above the base-plate E, which latter rests upon the top of the table A, as shown, and is grooved in its upper face at E′ to receive the shank of the main frame, as shown.

The main frame F is provided at its rear end with the projecting shank F′, adapted to fit within the box-loop D and recessed in its upper side at $F^2$ to receive the gib $F^3$, which is recessed in its upper side at $F^4$ to properly engage with the top bar *d* of the loop D, an opening *d′* being provided in said top bar for a clamping-screw D′, as shown in Figs. 1 and 2. The shank F′ fits within the groove E′ in the upper face of the base-plate E. By the construction described the main frame can be readily secured in place and released whenever desired. The main frame is provided with the side plates *f*, spaced apart to receive between them the segment-gear presently described, and these side plates *f* connect at their front edges with the upright side plates *f′*, the main frame being thus bifurcated at its front end and adapted to receive both the segmental gear, the rack of the plunger, and the cup-carrier, presently described. The main frame is provided on its inner side at the inner edges of the upright plates with the forwardly-facing shoulders $f^2$, against which abuts the rear side of the block of the carrier, and I also provide in the upper ends of the side plates *f′* slots $f^3$, which are entered by lugs on the block G of the carrier, as presently described. The cup-carrier has the block G, adapted to fit between the side plates of the main frame, provided at its upper end with the lugs G′ to enter the slots $f^3$ in the upper ends of the upright plates *f′* of the main frame. The block G is also provided near its lower end with the hook-like portion $G^2$ on its inner face to engage with the cross-pin $G^3$, which extends between the side plates *f′* of the main frame. By this means the cup-carrier may be readily fitted to and removed from the main frame. When the carrier G is applied to the main frame, as shown in Figs. 1 and 2, it operates as a guide and keeper for holding the rack $J^2$ in place. The carrier is provided at the lower end of the block G with a ring $G^4$ to receive the cup M and also has a recess $G^6$, in which may be clamped by a screw $G^7$ the upper bent end of the wire hanger H, to the lower end of which is secured the base-ring H′, which may form a rest for the glass $H^2$. The base H′ is secured adjustably at $H^3$ to the lower end of the hanger H so it may be set up to cause the glass $H^2$ to fit between the base H′ and the cup-ring $G^4$, as shown in Figs. 1 and 2 of the drawings.

The plunger I turns within the upper forwardly-projecting arm I′ of the rack $I^2$, the latter sliding vertically within the main frame and close to the rear side of the block G and is provided on its rear face with the teeth $I^3$,

which are meshed by the teeth J′ of the segment J, the latter being pivoted, preferably, by means of the shaft $J^2$, on which the segment may be secured by a pin $J^3$, as shown in Figs. 1 and 2. By turning this segment, which may be easily accomplished by the handle $J^4$, the segment J may be operated to force the rack-bar and the plunger carried thereby downwardly. To return or readjust the segment to its normal position, such as shown in Figs. 1 and 2, I employ a spring L, encircling a bolt L′, the latter being connected at its lower end at $L^2$ to the segment J and extending thence up through a bearing-plate $L^3$ and provided at its upper end with a head $L^4$, the spring L bearing between the head $L^4$ and the bearing-plate $L^3$ and operating to return the segment to its normal condition, as shown in Figs. 1 and 2. The upward movement of the segment is limited by a laterally-projecting pin $J^5$, as shown in Figs. 1 and 2.

The plunger I is shown in the form of a shaft journaled in the arm I′ of the sliding rack and provided at its lower end with a toothed presser-plate $i$ and above the same with a cover-plate $i'$, the spring $i^2$ being provided to press said cover-plate tightly against the upper edge of the cup M in the use of the invention. When the plunger has been forced downward to its lowermost position, it may be turned to cause its toothed foot-plate $i$ to press all the juice and pulp out of the lemon, and this turning of the plunger may be effected by means of the handle $i^3$ and spring $i^4$, being arranged to readjust the plunger-shaft after it has been turned by means of the handle $i^3$, as will be understood from Figs. 1 and 2 of the drawings.

The foot-plate is toothed or grooved on its under side, the grooves 24 being of a special form, as shown in Figs. 10 and 11—that is to say, with the grooves 24 cut square or straight at one wall, 25, at the rear of the groove and beveled or sloped as to its other wall, 26—the purpose of this construction being that when the head is pressed down in use the sharp straight walls 25 will hold the lemon absolutely tight at the top and coöperate with the straight walls on the opposite sides of the grooves in the plug M′ in such manner as to squeeze all the juice and pulp out of the lemon when the head is turned by the handle $i^3$, as before described.

The cup M is fitted on the ring $G^4$ and is provided in its bottom with an opening to receive the plug M′, which is removable from the cup and is preferably toothed and grooved in its upper face at $M^2$, as best shown in Figs. 2 and 9 of the drawings.

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

1. The lemon-squeezer herein described comprising the main frame having side plates and upright plates at the ends of said side plates, the side plates and end plates being spaced apart and forwardly-facing shoulders being provided on the inner sides of the upright side plates, and said side plates being provided in their upper edges with slots for the lugs of the carrier-block, the rearwardly-projecting shank on the main frame and provided in its upper side with a groove or recess for the gib, the gib fitted in said recess and recessed in its upper side for the top plate of the box-loop, the box-loop embracing said shank and gib, the clamping devices below the box-loop, the base-plate through and above which the box-loop projects, said base-plate being grooved in its upper side to receive the shank of the main frame, the toothed segment operating between the side plates of the main frame, the slide having a rack-bar meshed by the said segment, the forwardly-projecting arm on said rack-bar, the plunger journaled in said arm and having the toothed foot-plate, the spring for readjusting said plunger when the latter is turned from normal position, the cup-carrier hooked at its lower end and provided at its upper end with lugs to engage in the slots of the main frame, said block being adapted to fit between the upright plates of said main frame, the cross-pin between said upright plates for engagement by the hook on the said block, the cup-ring carried by said block, and the glass-holder having a hanger connected with the said ring all substantially as and for the purpose set forth.

2. The combination of the main frame having the side plates spaced apart and the upright plates at the front ends of the side plates spaced apart and provided between the spaced-apart members of said side plates with the forwardly-facing shoulders for abutment by the block of the carrier, the carrier-block fitting and held between said side plates, the plunger having a rack-bar moving close to the rear side of said block and the toothed segment operating between the side plates and meshing with the rack of the plunger, substantially as set forth.

3. The combination with the main frame having the side plates and the upright plates and provided in the upper ends of the upright plates with slots for the lugs on the carrier-block, the carrier having a block provided with lugs engaging in the slots of said upright plates, the cup-support carried by said block, the plunger having a rack-bar sliding in the main frame, and the segment operating in the main frame and meshing with the rack of the plunger-slide, substantially as set forth.

4. The combination with the main frame, the plunger having a rack-slide, a gear meshing with said slide, the carrier detachably connected with the main frame, the glass-support, a hanger connecting said support with the carrier and means for connecting the glass-support adjustably with said hanger, substantially as set forth.

5. The combination of the plunger-slide, the plunger journaled whereby it may be turned and provided at its lower end with a foot-plate grooved in its under side with the rear walls of said grooves straight whereby to engage with the lemon when the plunger is turned and the devices below and coöperating with said foot-plate substantially as set forth.

6. The combination with the main frame, the plunger-slide having rack-teeth, the segment operating in the main frame and meshing with the rack-teeth of the plunger-slide, the bolt connected with the segment and projecting upwardly therefrom, a bearing-plate through which said bolt projects, a head on the bolt and a spring-bearing between such head and the bearing-plate and adapted to readjust the segment, substantially as set forth.

7. The combination in a lemon-squeezer with the plunger-slide, of the plunger journaled whereby it may be turned and provided at its lower end with a foot-plate, means whereby the plunger may be turned and a spring for readjusting the plunger when the latter has been turned from its normal position, substantially as set forth.

8. The combination of the main frame, the carrier having a block detachably interlocked with the main frame, the plunger, the rack-slide connected with the plunger and gearing supported by the main frame and meshing with the rack-slide, substantially as set forth.

9. The combination of the main frame, the rack-slide, means for operating the rack-slide and the carrier having a block detachably interlocked with the main frame and forming a keeper and guide for the rack-slide, the latter operating alongside the block on the carrier, substantially as set forth.

PETER McGRATH.

Witnesses:
CHARLES H. ZUTTERMEISTER,
HENRY W. MEYER.