No. 765,005. PATENTED JULY 12, 1904.

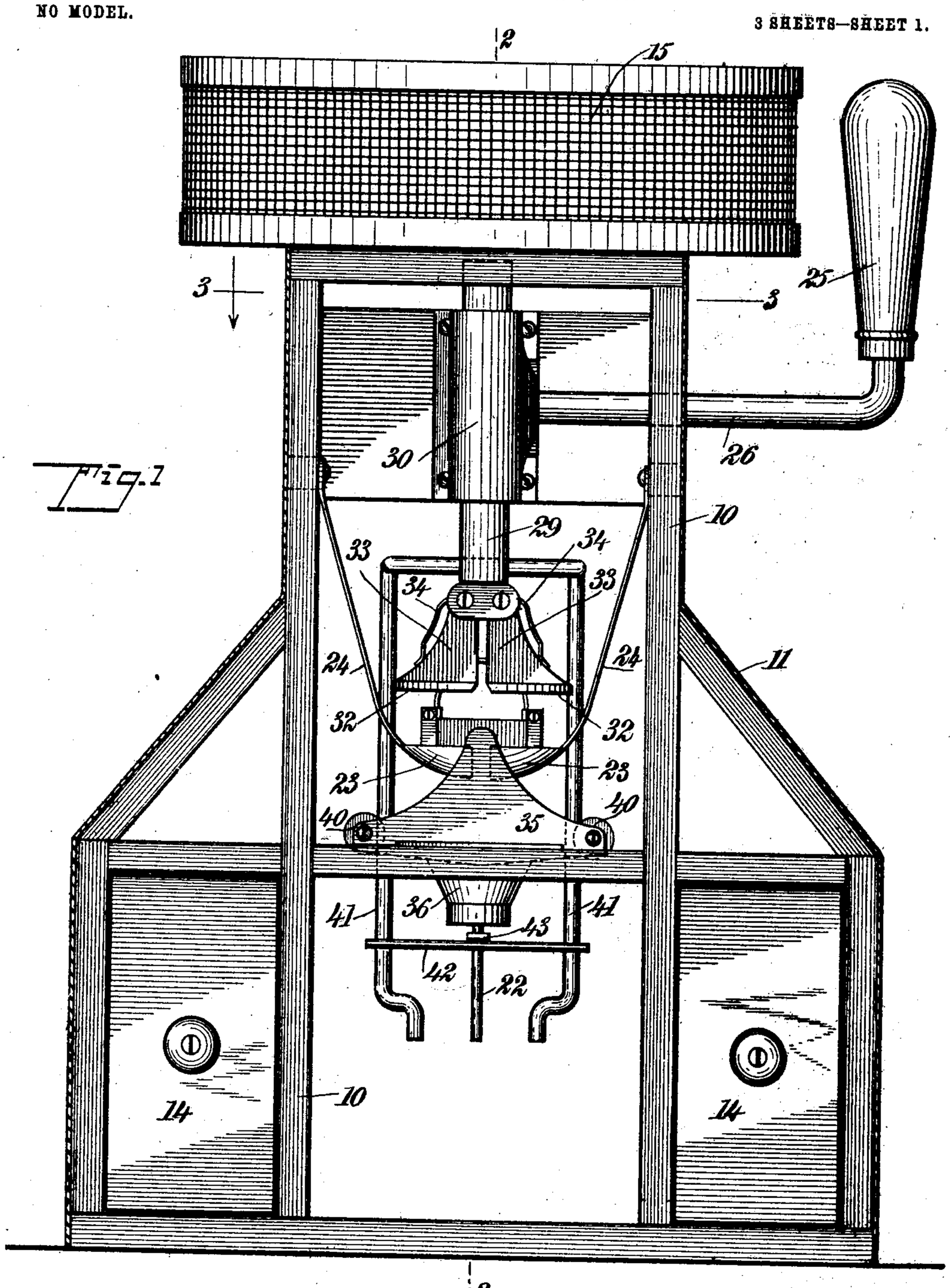
W. H. GREGORY.

LEMON SQUEEZER.

APPLICATION FILED MAR. 6, 1903.

NO MODEL. 3 SHEETS—SHEET 1.

Fig. 1



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NO MODEL. 3 SHEETS—SHEET 2.

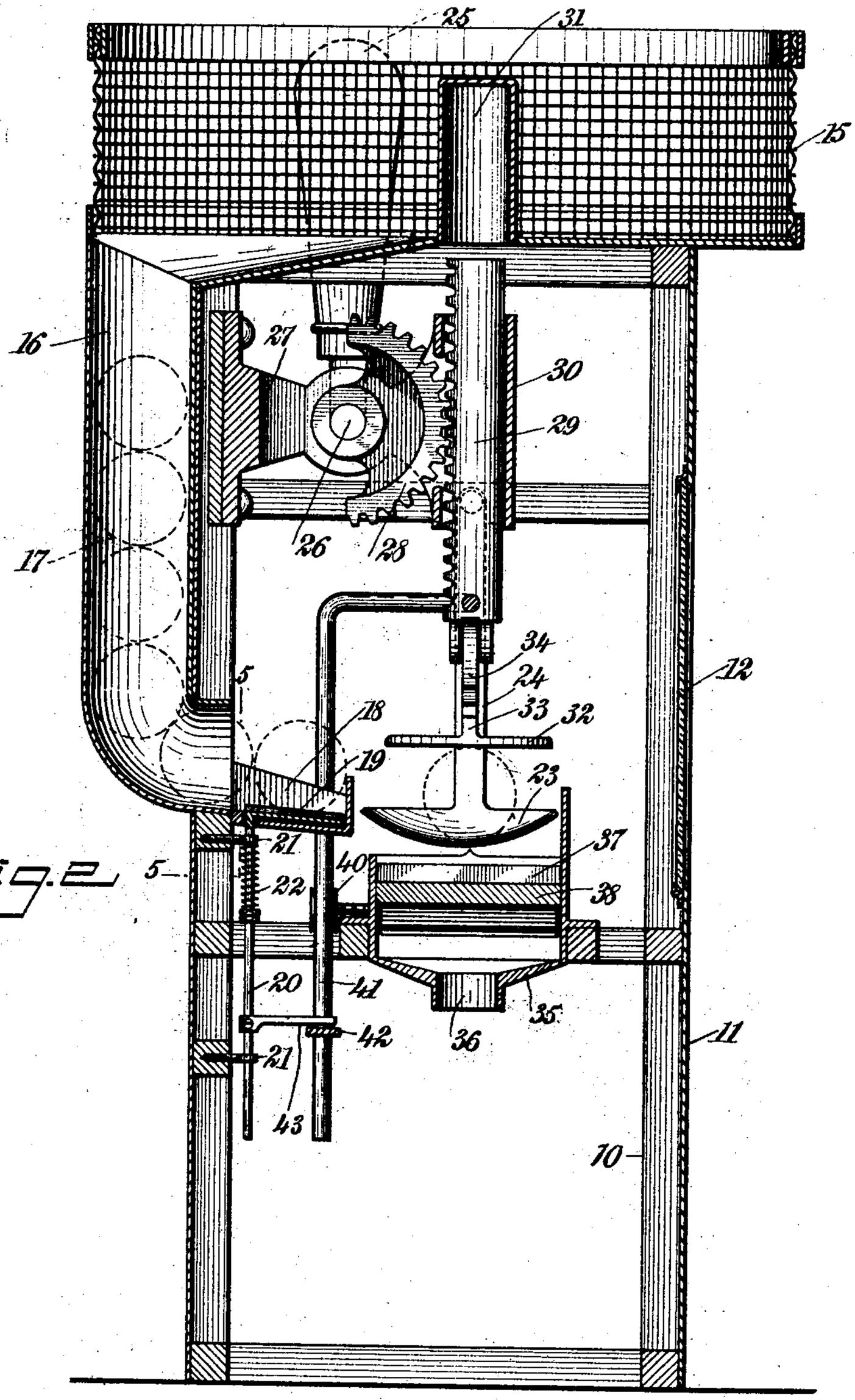

Fig. 2

Fig. 3

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NO MODEL. 3 SHEETS—SHEET 3.

Fig. 3

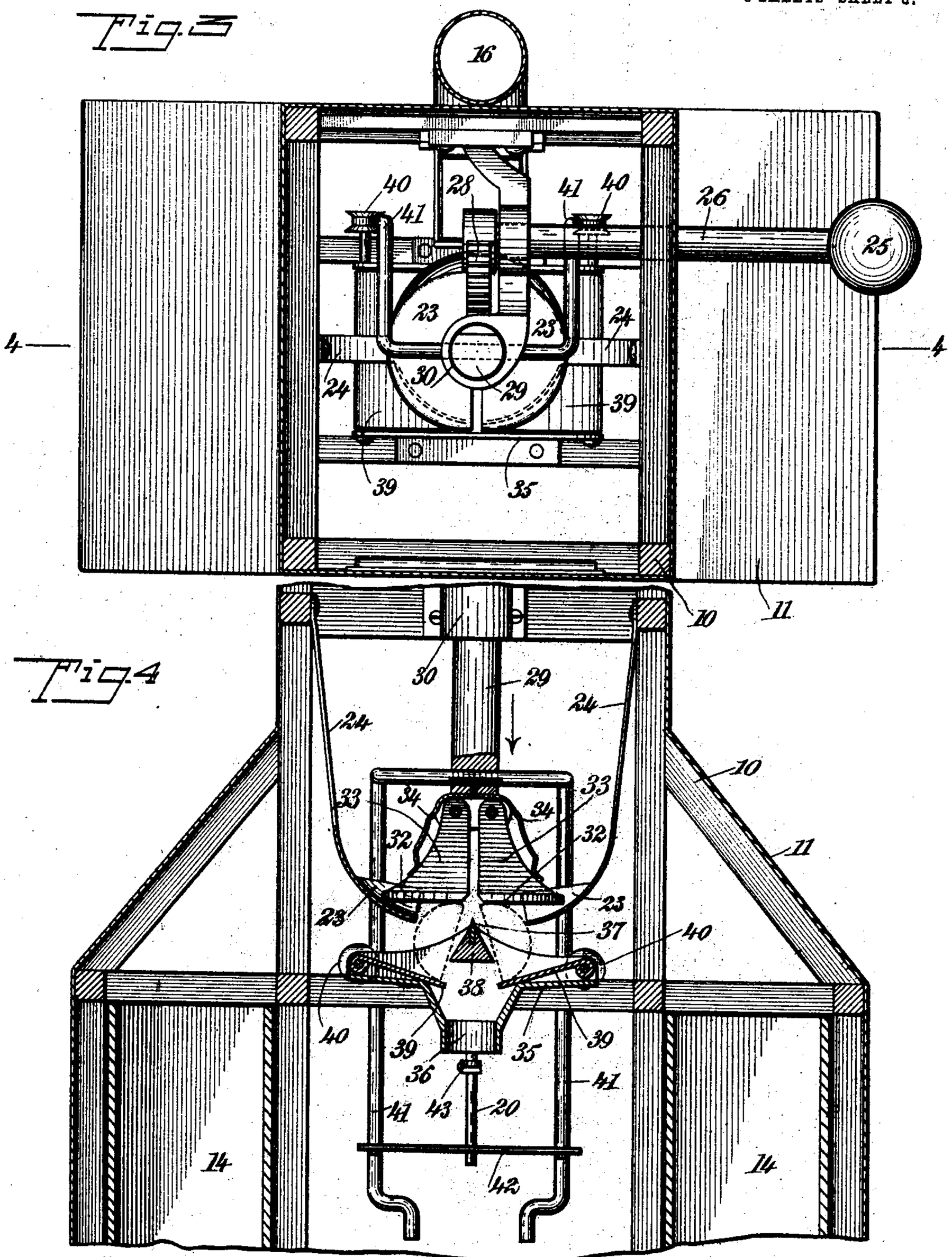

Fig. 4

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No. 765,005. Patented July 12, 1904.

UNITED STATES PATENT OFFICE.

WILLIAM HACKETT GREGORY, OF VALLEJO, CALIFORNIA.

LEMON-SQUEEZER.

SPECIFICATION forming part of Letters Patent No. 765,005, dated July 12, 1904.

Application filed March 6, 1903. Serial No. 146,473. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HACKETT GREGORY, a citizen of the United States, and a resident of Vallejo, in the county of Solano and State of California, have invented a new and Improved Lemon-Squeezer, of which the following is a full, clear, and exact description.

This invention relates to a device provided with a magazine or storage-bin in which lemons, limes, and other like fruit may be stored and with mechanism below this bin for cutting and squeezing the fruit, so that by the operation of this mechanism the fruits may be successively cut and squeezed.

The device is intended especially for application to the counters or bars of places where beverages are sold, so that the merchant may obtain the lemon-juice directly from the lemon whenever desired and in full view of the customer.

This specification is an exact description of one example of my invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of the mechanism of my invention, the casing or covering thereof being shown in section. Fig. 2 is a vertical section of the device on the line 2 2 of Fig. 1. Fig. 3 is a horizontal section on the line 3 3 of Fig. 1. Fig. 4 is a section on the line 4 4 of Fig. 3, and Fig. 5 is a section on the line 5 5 in Fig. 2.

The mechanism of my invention is supported on a suitable framing 10, having a covering 11, of sheet metal or the like, and this covering is provided at its front with a glass-covered orifice 12, (see Fig. 2,) which enables the customer standing in front of the machine to observe the cutting and squeezing of the lemon. At the bottom of the frame 10, at each side thereof, two boxes 14 are provided, these boxes serving to receive the lemon-rinds after the cutting and squeezing of the lemons. By drawing out the boxes 14 they may be emptied at will. At the top of the frame 10 is arranged a basket or bin 15, in which the lemons or other fruit are placed, and from the bottom of this bin a chute 16 passes downward to carry the lemons therefrom. In Fig. 2 the dotted circles 17 indicate the lemons in the chute 16. The lower end of the chute 16 is turned laterally inward, so as to discharge the fruit horizontally into a holder 18, which comprises a bottom and side and end walls, as shown, and working toward and from the bottom of this holder is an ejector 19, which moves vertically and is attached to a stem 20, reciprocating in guides 21, carried on the frame 10.

22 indicates a spring pressing downward on the stem 20 and serving to hold the ejector 19 in the position shown in Fig. 2. The parts are adapted to have the fruit rolled into the holder 18, so as to lie over the ejector 19 when the same is lowered, as in Fig. 2, and then when this ejector is raised the fruit is rolled out into spoon-like holders 23, these lying just inward of the holder 18 and being supported by spring-arms 24, attached to the frame 10, so that the spoons 23 may be moved toward and from each other. The said spoons 23 hold the fruit, and from these spoons the fruit is taken to be cut and squeezed.

25 indicates a handle which is attached to a rock-shaft 26, carried in suitable bearings 27, mounted on the frame 10, and to this shaft 26 is fastened a toothed sector 28, in mesh with a rack-bar 29, mounted to move vertically in a guiding-sleeve 30.

31 indicates a hood which is placed in the bin 15 in position to receive the upper end of the rack-bar 29 as said bar moves upward. The lower end of the rack-bar 29 carries the squeezing-plungers 32, which are pivotally attached by webs 33 to the lower end of the rack-bar and are pressed together in the position shown in Figs. 1 and 4 by means of springs 34, attached to the rack-bar and bearing on the plungers. These plungers are free to move toward and from each other, subject, of course, to the action of the springs 34, which tend to hold the plungers moved together.

35 indicates a tray mounted on the framing 10 just below the holding-spoons 23 and having a centrally-located discharge-spout 36,

through which the fruit-juice is ejected. Extending transversely across the tray 35 is a knife 37, which is carried in a cross-bar 38, as shown best in Fig. 4, and on each side of this knife 37 are arranged ejector-wings 39. These wings are mounted to swing on the tray 35 from the position shown in Fig. 4 to a position outward from the tray, with the wings 39, respectively, over the boxes 14. Fastened to the journals of the wings 35 are grooved rollers 40, and with these rollers are engaged rods 41. Said rods are attached at their upper ends to the rack-bar 29 and are of spring tendency, so that they are continuously engaged with the rollers 40. Therefore as the rack-bar 29 moves up and down the wings 39 are by the coaction of the parts 41 and 40 thrown in and out, according to the movement of the rack-bar. Mounted on the lower ends of the rods 41 is a cross-piece 42, which is adapted to engage upon the upward movement of the rods 41 with an arm 43, projecting from the stem 20 of the ejector 19, so that as said rods 41 are moved up the ejector 19 is raised and the fruit in the holder is thrown from this holder into the spoons 23.

In the operation of the invention the fruit will roll into the chute 16 and lie superposed therein, as the dotted lines in Fig. 2 indicate. Upon throwing up the rack-bar 29 the ejector 19 will be correspondingly moved and the fruit will be thrown into the spoons 23. After this the movement of the rack-bar 29 should be reversed, the plungers 32 being thereupon moved downward, pushing the fruit from between the spoons 23, which are thereby spread apart, as indicated in Fig. 4, and causing the fruit to be severed by the knife 37. As the parts 29 and 32 continue their movement the fruit is squeezed on the wings 39. During the downward movement of the rack-bar 29 the rods 41 hold the wings 39 down, as shown in Fig. 4; but the instant that the parts begin to move upward the wings 39 will be thrown outward, thus throwing the parts of the rind into the respective boxes 14.

Various changes in the form, proportions, and minor details of my invention may be resorted to at will without departing from the spirit and scope thereof. Hence I consider myself entitled to all such variations as may lie within the intent of my claims.

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

1. The combination with a receptacle and a chute leading therefrom, of a holder, an ejector, a second holder into which the ejector discharges the fruit from the first-named holder, a plunger, means for operating the plunger, means for operating the ejector in unison with the plunger, a tray having a knife thereon, movable wings mounted to swing on the tray at each side of the knife, and means for operating the wings in unison with the plunger.

2. The combination of a yielding holder, a plunger movable past the same, a knife, a tray toward and from which the plunger moves, movable wings mounted adjacent to the knife, and means for operating the wing in unison with the plunger.

3. The combination of a movable bar, a two-part plunger the parts of which are pivotally mounted on the bar, a tray, a knife carried thereby, movable wings mounted on the tray at each side of the knife, and means for operating the wings in unison with the plunger.

4. In a lemon-squeezer, the combination with a bin, of a holder for receiving the lemon thereon, an ejector arranged in the holder, a second holder for receiving the fruit from the first-named holder, a plunger, means for operating the ejector in unison with the plunger, a swinging wing, and means for operating the wing in unison with the plunger.

5. In a fruit-squeezer, the combination with a bin, of a holder for receiving the fruit therefrom, an ejector coacting with the holder, squeezing devices, and means for operating the ejector in unison with the squeezing devices.

6. In a fruit-squeezer, the combination with a bin, of squeezing devices, and means for separately delivering the fruit from the bin, said means being connected to work in unison with the squeezing devices.

7. The combination of a tray, a swinging wing thereon, a wheel in connection with the wing, a reciprocating rod adapted to engage with the wheel, to throw the wing back and forth as the rod reciprocates and a plunger connected with the rod.

8. The combination of a tray, a knife placed therein, a swinging wing arranged each side of the knife, wheels attached to the wings, reciprocating rods adapted to engage with the wheels to throw the wings back and forth as the rods reciprocate, and a plunger movable toward and from the tray and connected with the rods.

9. The combination of a plunger, spring-holders arranged below the same and between which the plunger is adapted to move, a tray below the holder, a member movably mounted with respect to the tray, and means for operating said member in unison with the plunger.

10. A lemon-squeezer, comprising a support, a knife mounted thereon, a member mounted at each side of the knife, said members being movable toward and from the same, a plunger mounted to move toward and from the knife, means for operating the said movable members in unison with the plunger, the said plunger being formed of two relatively movable parts, and means for yieldingly holding them in close proximity to each other.

11. A lemon-squeezer, comprising a support, a knife mounted thereon, a member mounted at each side of the knife, said members being movable toward and from the

same, a plunger mounted to move toward and from the knife, means for operating the said movable members in unison with the plunger, and a yielding holder for the lemon, said holder being mounted above the knife and the plunger being arranged to move past the holder to take the lemon therefrom.

12. In a fruit-squeezer, the combination with a bin or container for the fruit, of mechanism for squeezing the fruit, mechanism for automatically delivering the fruit from the bin to the squeezing mechanism, and means for connecting the two mechanisms to work in unison.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM HACKETT GREGORY.

Witnesses:
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L. B. GREGORY.