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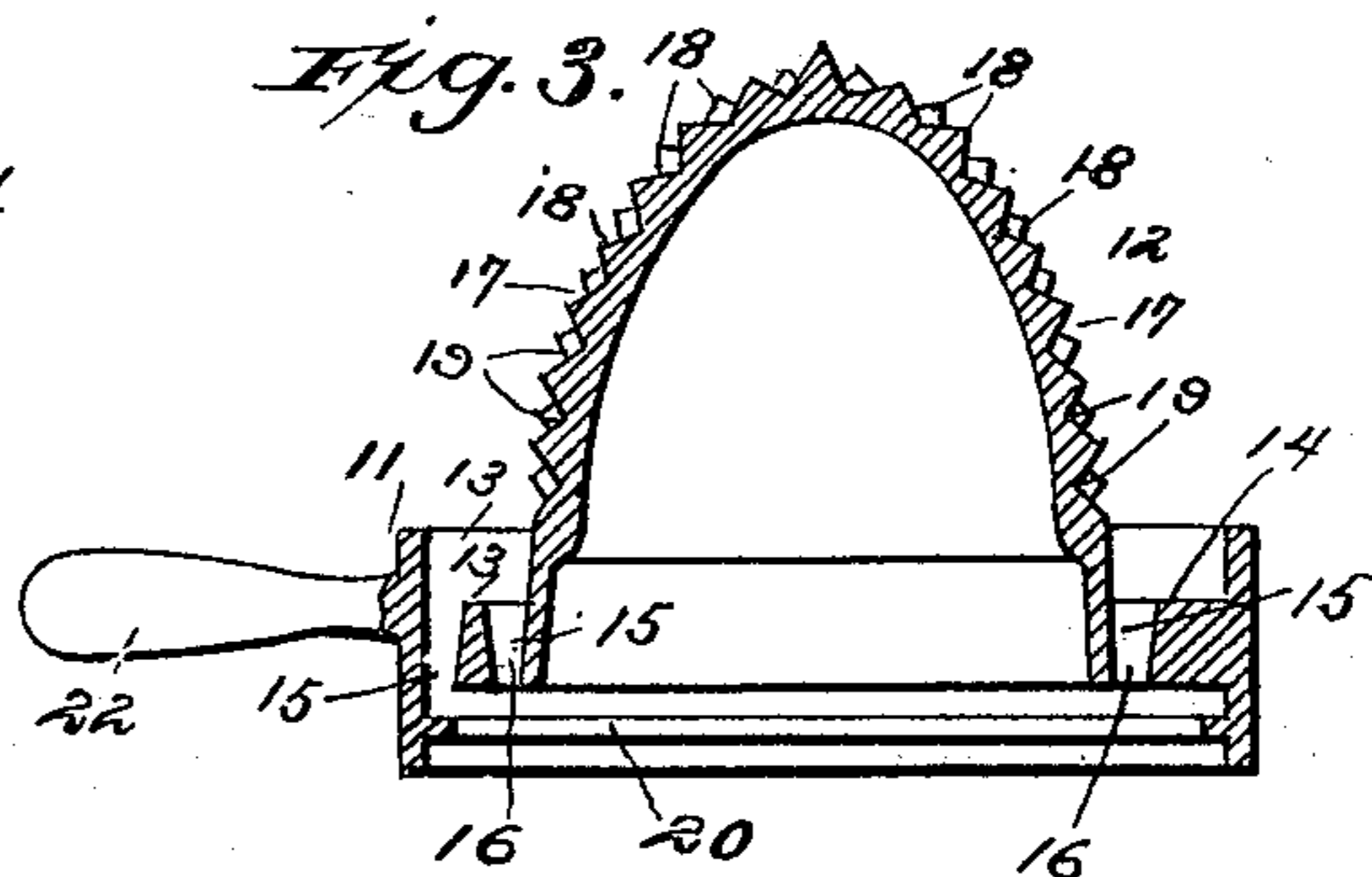
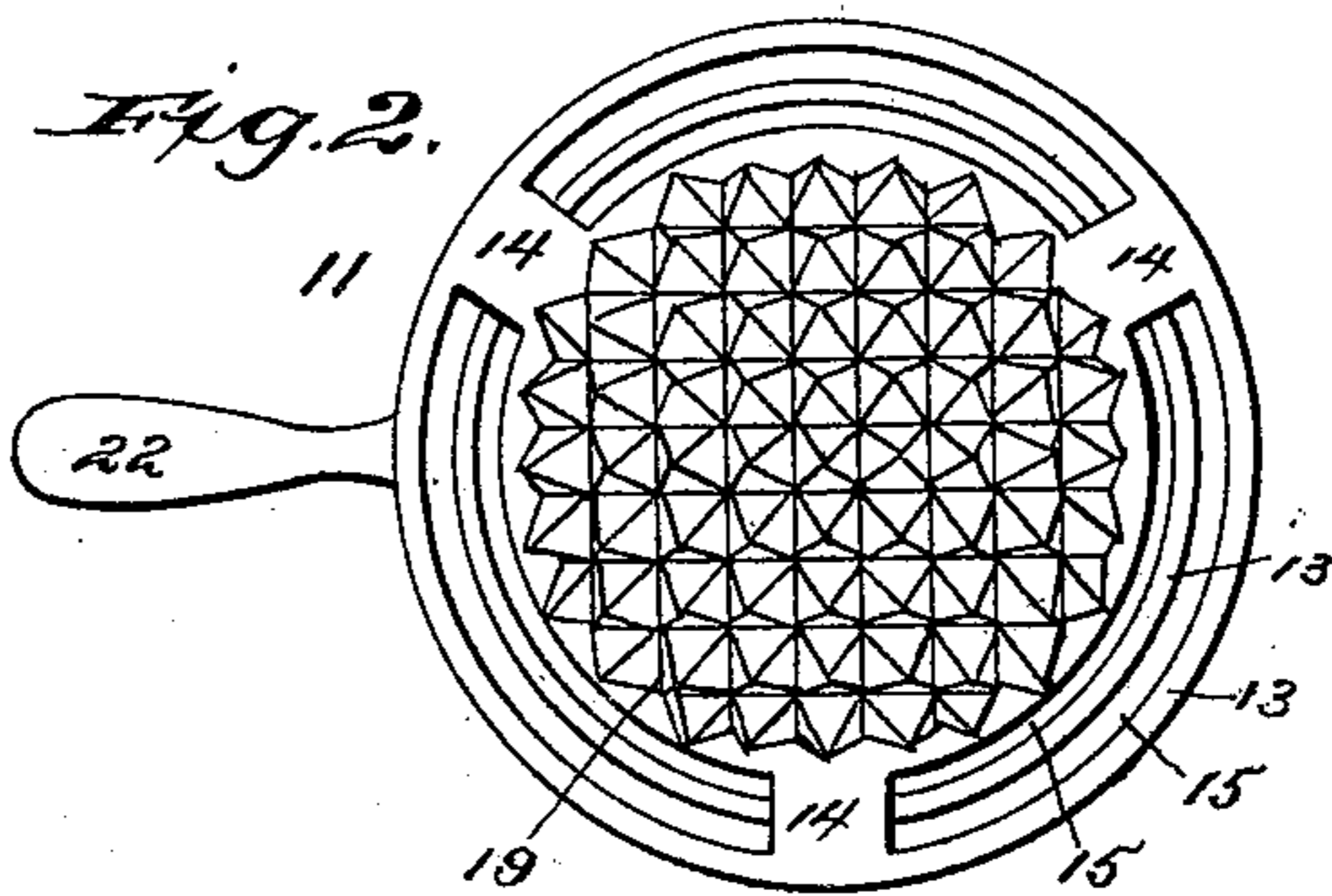
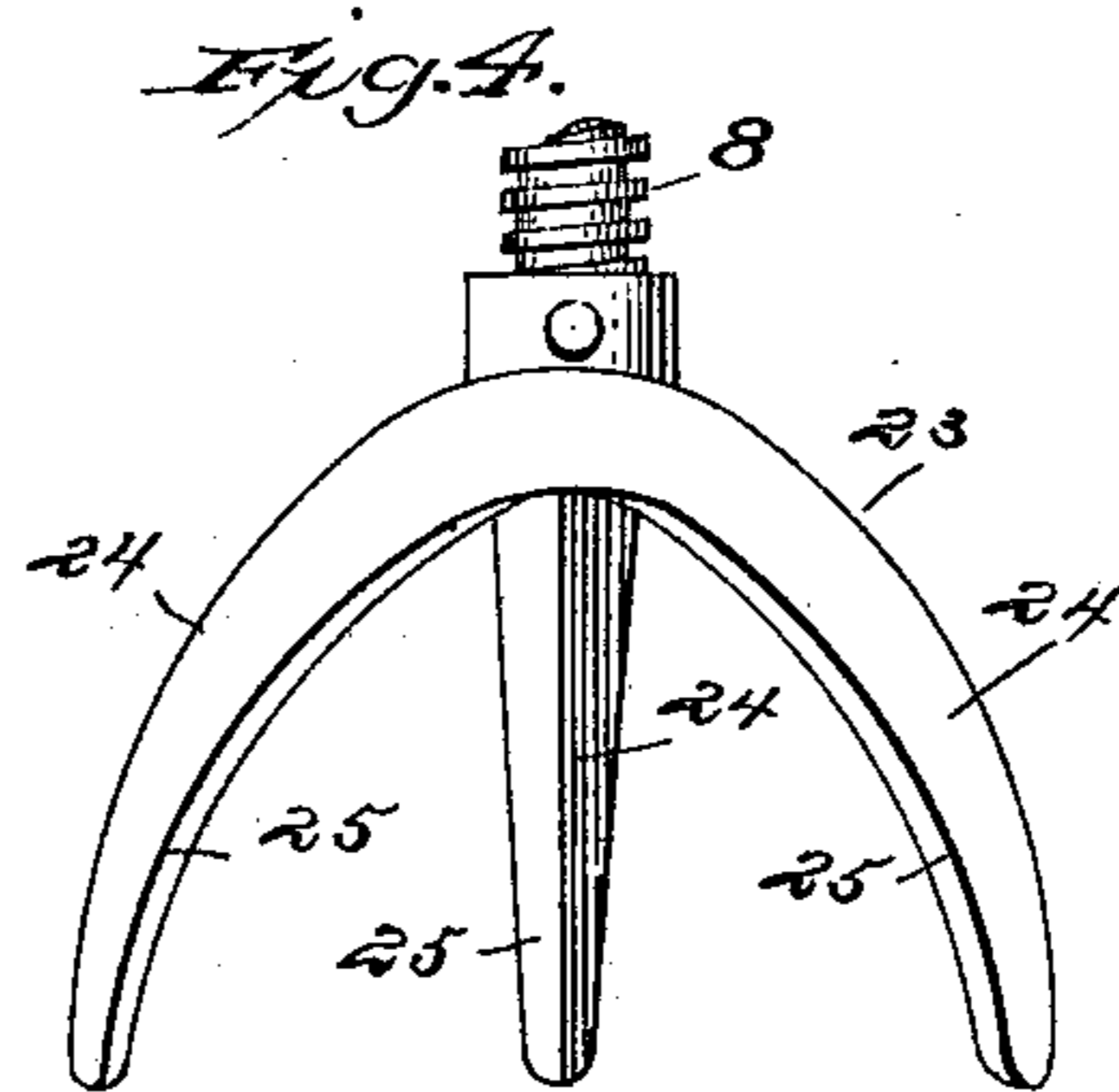
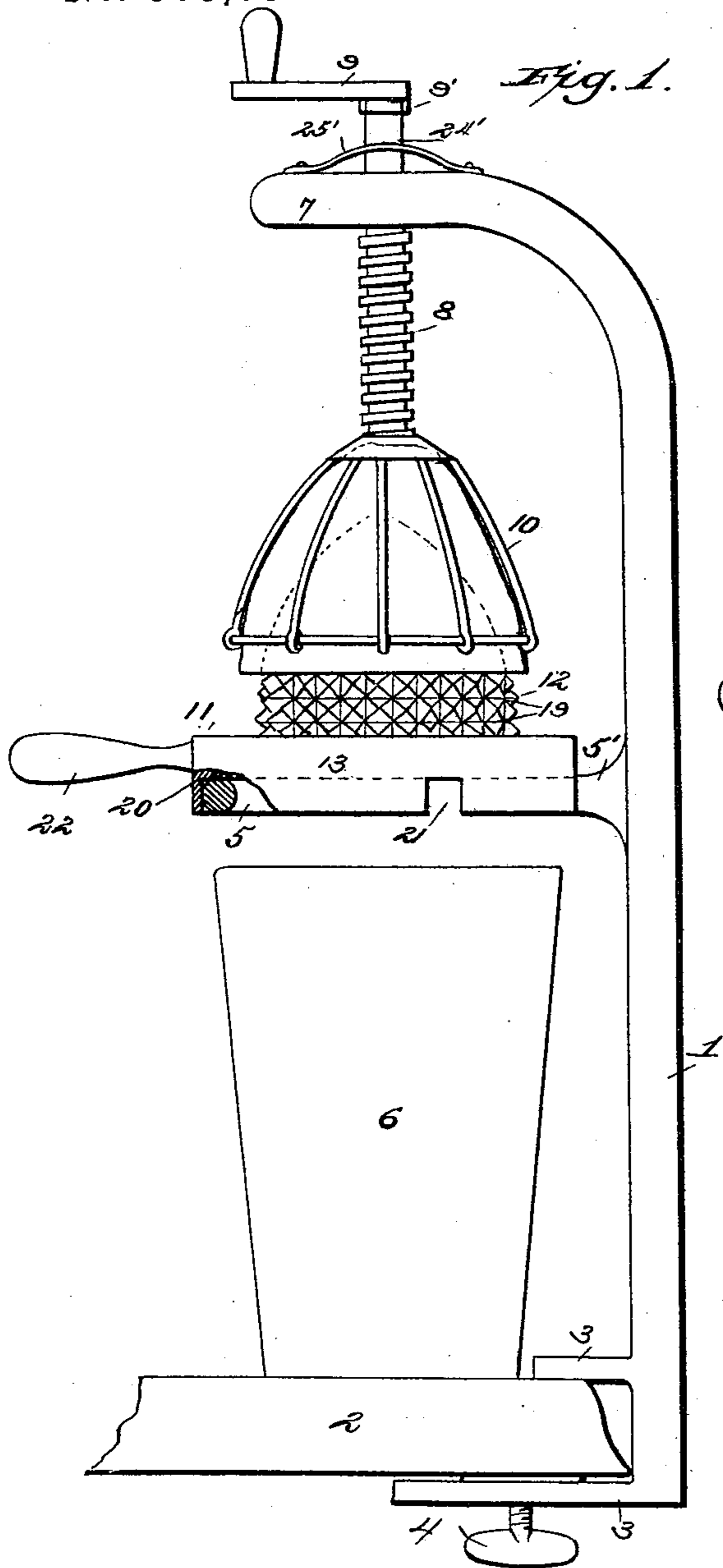
2 Sheets—Sheet 1.

J. L. EASLEY.

LEMON JUICE EXTRACTOR.

No. 385,851.

Patented July 10, 1888.



WITNESSES:
C. Sedgwick,
J. M. Ritter

INVENTOR.
J. L. Easley
BY *Munn & Co*
ATTORNEY

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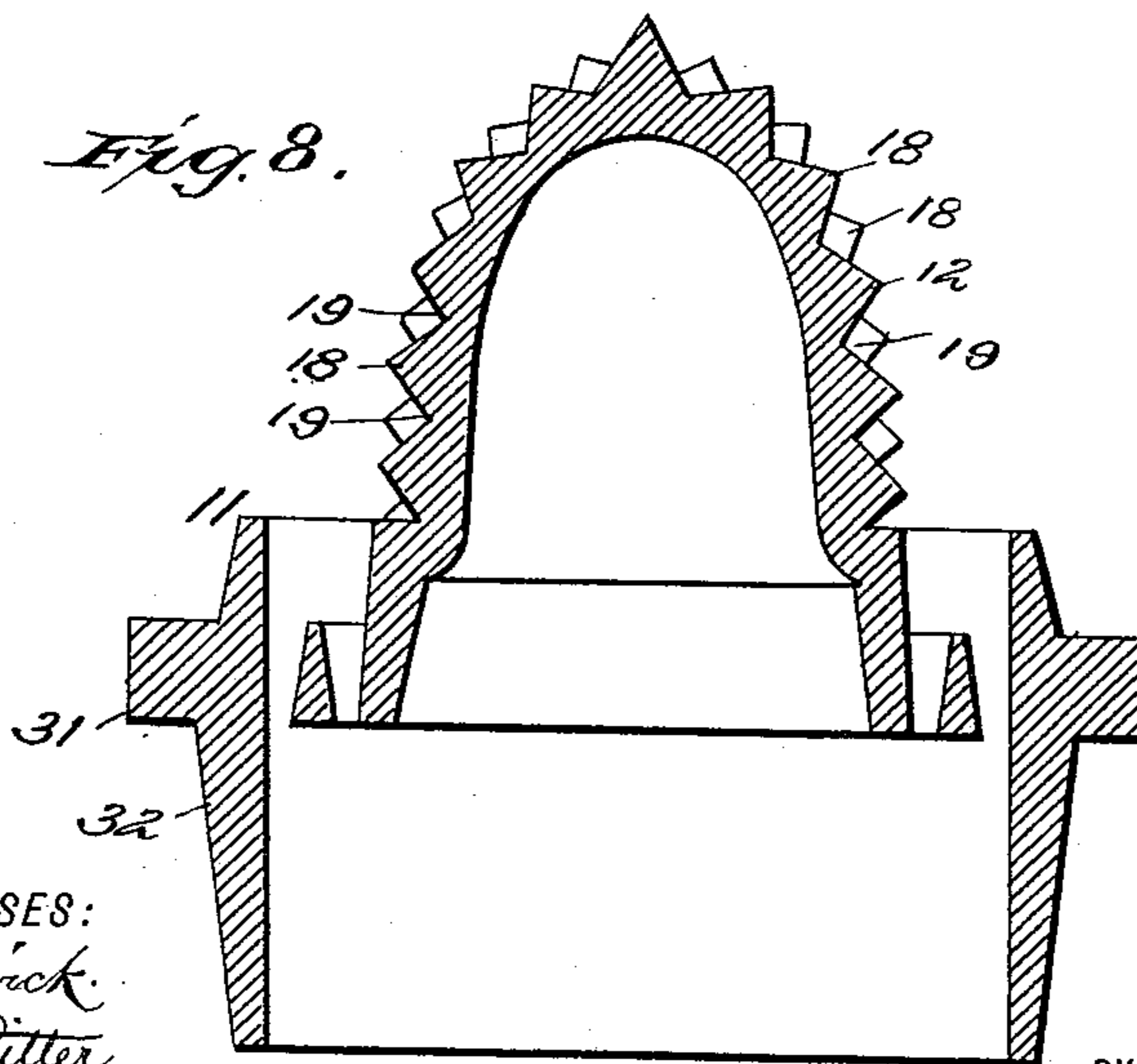
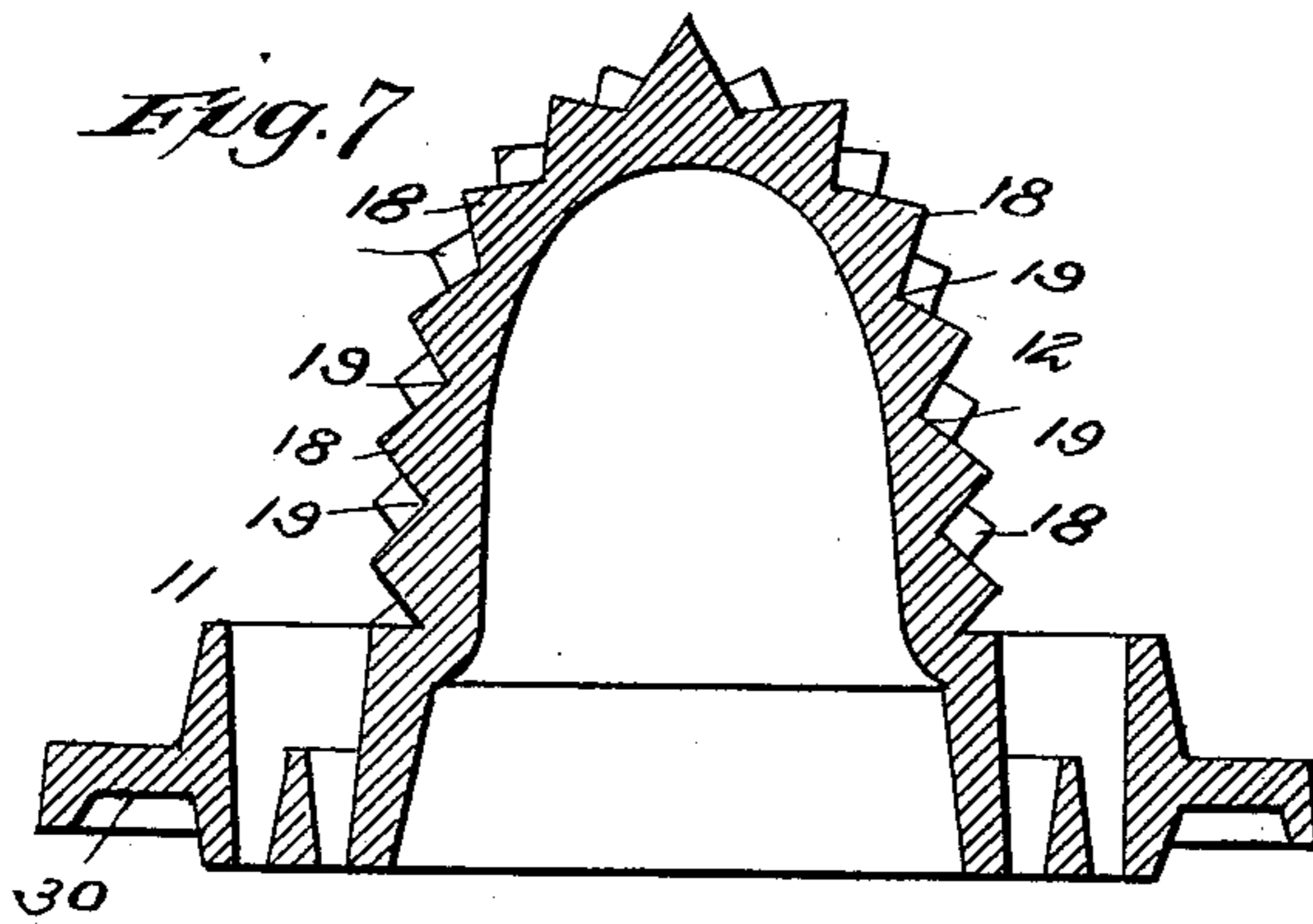
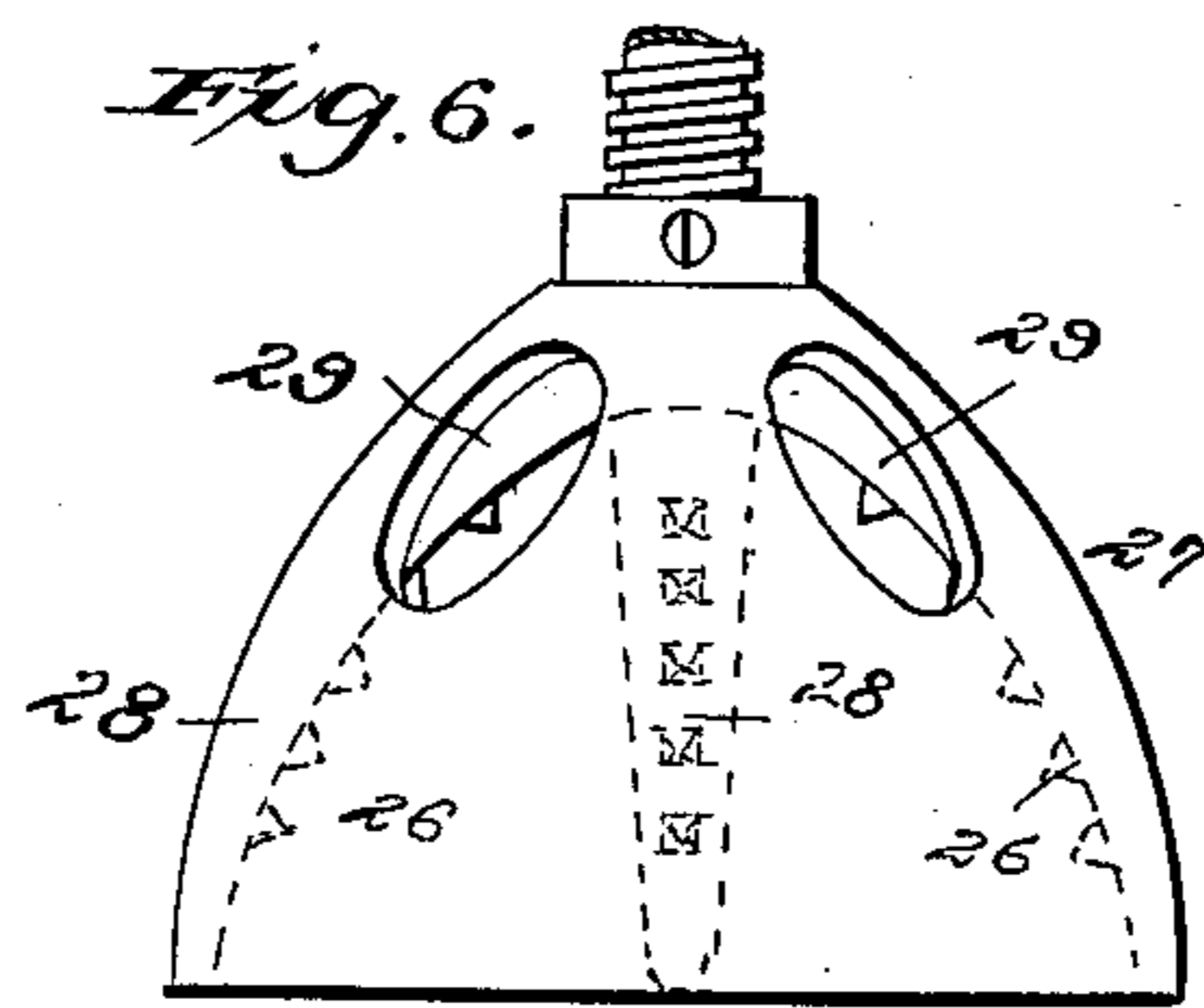
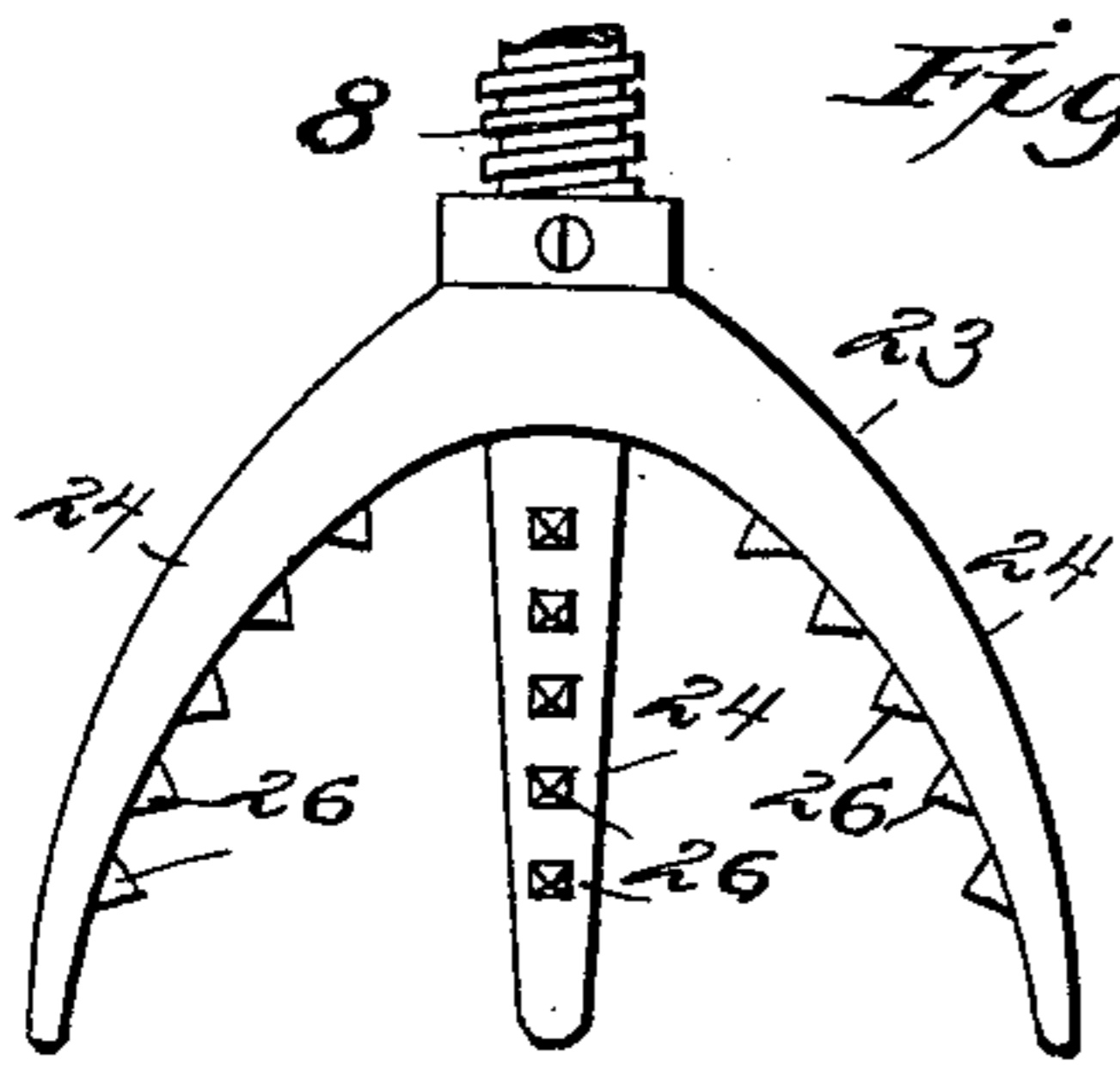
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UNITED STATES PATENT OFFICE.

JOHN LAWRENCE EASLEY, OF NEW YORK, N. Y.

LEMON-JUICE EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 385,851, dated July 10, 1888.

Application filed April 26, 1888. Serial No. 271,876. (No model.)

To all whom it may concern:

Be it known that I, JOHN LAWRENCE EASLEY, of the city, county, and State of New York, have invented a new and Improved Lemon-Juice Extractor, of which the following is a full, clear, and exact description.

This invention relates to a device for extracting the juice from lemons; and has for its object to provide an apparatus for this purpose by means of which the juice may be entirely extracted from a lemon and will be free from the oil of the skin, and the pulp and seeds caught up without impeding the flow of the juice.

The invention consists in an apparatus for this purpose, and in details of construction, as hereinafter described and claimed.

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

Figure 1 illustrates the invention in position for use. Fig. 2 is a plan view. Fig. 3 is a vertical section of a part of the apparatus which disintegrates the pulp and retains it and the seeds. Figs. 4, 5, and 6 represent modifications of the lemon-holder. Fig. 7 is a vertical section of a modification of the disintegrator and pulp and seed retainer, and Fig. 8 is a vertical section showing a further modification thereof.

In carrying out this invention I provide a suitable standard, 1, which may be mounted on a base, or, as here shown, is preferably secured to the edge of a table, 2, or other support by means of the arms 3 and set-screw 4. The standard 1 is formed with a bracket consisting of a ring, 5, and arm 5', and located at a suitable height on the standard, so as to permit a glass, as 6, or other suitable receptacle, to be placed beneath it. The upper portion of the standard is formed with an arm, 7, extending over the ring-bracket 5, and provided with a screw, 8, having an operating-handle, 9, at its upper end, and a wire frame, 10, at its lower end adapted to receive the cut portion of a lemon and by the spring action of the wire serving to hold the portion of the lemon. A device for disintegrating the pulp of the lemon and at the same time retaining it with the seeds, while the juice is permitted to flow

freely, consists of a frame, 11, preferably formed with an oval central vertical portion, 12, and concentric strips 13, connected together and to the central portion, 12, by strips 14, and thereby forming slots 15. The slots 15 are tapering in depth, so as to be narrower at the bottom 16 than at the top, thereby retaining pulp and seeds and permitting the flow of juice. The central portion is formed with a surface, 17, so constructed as to present a rough surface consisting of a series of projections, 18, forming intersecting grooves 19. As here shown, the projections 18 are formed with facets, but they may be of any other irregular shape. The outer concentric strip, 13, is provided with a flange or support, 20, to permit it to rest on the ring 5, and is formed with slots 21, by means of which it may fit over the arm 5'. The frame 11 has a handle, 22, by means of which it may be placed upon and lifted from the ring 5. The frame 11 may rest upon the top of a glass, if desired, instead of on the ring 5.

To operate the device the cut portion of a lemon is pushed into the wire frame 10, and the frame 11 being in position on the ring 5, two or three turns are given to the handle 9, which, by reason of the size and pitch of the thread of the screw 8, will cause the lemon in frame 10 to be pressed against the central portion, 12, and to be revolved thereon. The pressure of the lemon in the wire frame 10 will cause it to be wedged in the frame and held fast to turn on the projection 12. The lemon revolving on the roughened surface of the projection 12, the pulp is torn and disintegrated thereby, and the juice runs down through the grooves 19 and the inner slot 15 into the tumbler. The pulp and seeds will collect in the inner slot 15, and as the latter becomes too clogged up for the juice to pass the juice will flow over the collected pulp and down through the outer groove 15. Before the pulp and seeds have accumulated to clog up both slots 15, all the juice will have passed through to the tumbler. Upon raising up the frame 10 the lemon-skin may be pushed out of the wire frame, and the frame 11, containing the pulp and seeds, is lifted off the ring 5 by means of handle 22 and the contents thrown away. It is obvious that the frame 11 may

rest on the top of a glass instead of on the ring 5, and that the lemon may be turned on the central portion, 12, by hand instead of by means of the frame 10, screw 8, and handle 9.

5 In lieu of the wire frame 10, I may employ a frame, 23, as in Fig. 4, consisting of arms 24, with sharp edges 25. The lemon will be held by pressure within these arms and prevented from turning therein, the edges 25, together
10 with the lemon, wedging between the arms 24, serving to hold the lemon in place and prevent its twisting therein.

To avoid downward pressure at the close of the rotation of frame 10, I provide a spring, 15 25', secured to standard 1, and through which the screw 8 passes. The screw 8, being plain at its upper end, as at 24', will cease to act upon reaching that point, and the shoulder 9' of handle 9, bearing against spring 25', a yield-
20 ing pressure will be obtained and the frame 10 rotated without descending farther. By this means the peel is prevented from becoming unduly jammed and the oil thereof forced out. Any other form and arrangement of
25 spring may be used in connection with screw 8 to obtain the same effect.

Fig. 5 is another modification of frame 10, in which the arms 24 are provided with points 26 instead of the edges 25. Fig. 6 represents
30 another modification of frame 10, consisting of an inverted cup, 27, with interior ribs, 28, and points 26 and holes 29, by means of which the lemon-skin may be pushed out of the cup by the finger.

35 In Fig. 7 a modification of frame 11 is shown, in which a flange, 30, is provided to rest on the ring 5 or the top of a glass and adapted to glasses of different widths at the opening.

Fig. 8 is another modification of frame 11, 40 in which a supporting-flange, 31, is provided and a depending portion, 32, which projects into the tumbler. These frames, as well as frame 11, may have a lifting-handle. Instead of two slots, 15, but one may be employed; but
45 two are preferred, as being more effective.

By constructing the lemon-holding frame with vertical ribs having spaces between, the lemon is not only firmly held from turning therein by its skin bulging between the arms,
50 but the skin can also be readily pushed out of the frame.

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

55 1. In a lemon-juice extractor, a clamp for holding a piece of lemon, consisting of a rotary frame having vertical curved arms or ribs, between which a lemon may be wedged, with openings between the arms by means of
60 which the lemon-skin may be dislodged from

the frame, substantially as shown and described.

2. In a lemon-juice extractor, a clamp for holding a piece of lemon, consisting of a rotary frame formed with inverted cup 27, with 65 interior vertical ribs, 28, having points 26, and openings 29 between the ribs 28, substantially as shown and described.

3. In a lemon-juice extractor, a pulp-disintegrator and juice-extractor, consisting of an 70 oval-shaped vertical projection having a solid surface with facets and a laterally-extending base portion with slots beneath the grooves formed by the facets, and a supporting-flange, substantially as described. 75

4. A lemon-juice extractor consisting of a standard having a bracket, a detachable frame mounted on the bracket, and formed with a vertical projection having an abrading surface- 80 consisting of facets, and a laterally-extending base portion with vertical slots and a supporting-flange exterior thereto, and a rotary vertically-movable clamp located above the bracket, with mechanism in the standard for operating the same, substantially as described. 85

5. In a lemon-juice extractor, a rotary vertically-movable clamp for holding a piece of lemon, provided with an operating screw-rod having a smooth portion and cushioning- 90 spring, thereby permitting the screw-rod to have a yielding vertical rotary movement when released from threaded engagement, substantially as described.

6. In a lemon-juice extractor, a detachable frame, 11, for disintegrating and retaining the 95 pulp and seeds of a lemon and permitting the juice to flow freely, consisting of the oval vertical central portion, 12, having a surface formed with the diamond-shaped projections 18, and intersecting grooves 19, the concentric 100 strips 13, with downwardly-tapering slots 15 adjacent to the base of vertical portion 12, and the supporting-flange 20 and handle 22, substantially as described.

7. A lemon-juice extractor consisting of 105 standard 1, with ring 5 and arm 5', the detachable frame 11, with handle 22, supported on ring 5, and consisting of central vertical portion 12, with abrading-surface 17, and having grooves 19, and adjacent to its base concentric 110 strips 13, and slots 15, and the wire lemon-holding frame 10, having vertical screw 8, mounted in standard 1, and handle 9, with cushioning-spring 25', substantially as described.

JOHN LAWRENCE EASLEY.

Witnesses:

EDWARD W. CODY,
EDGAR TATE.