

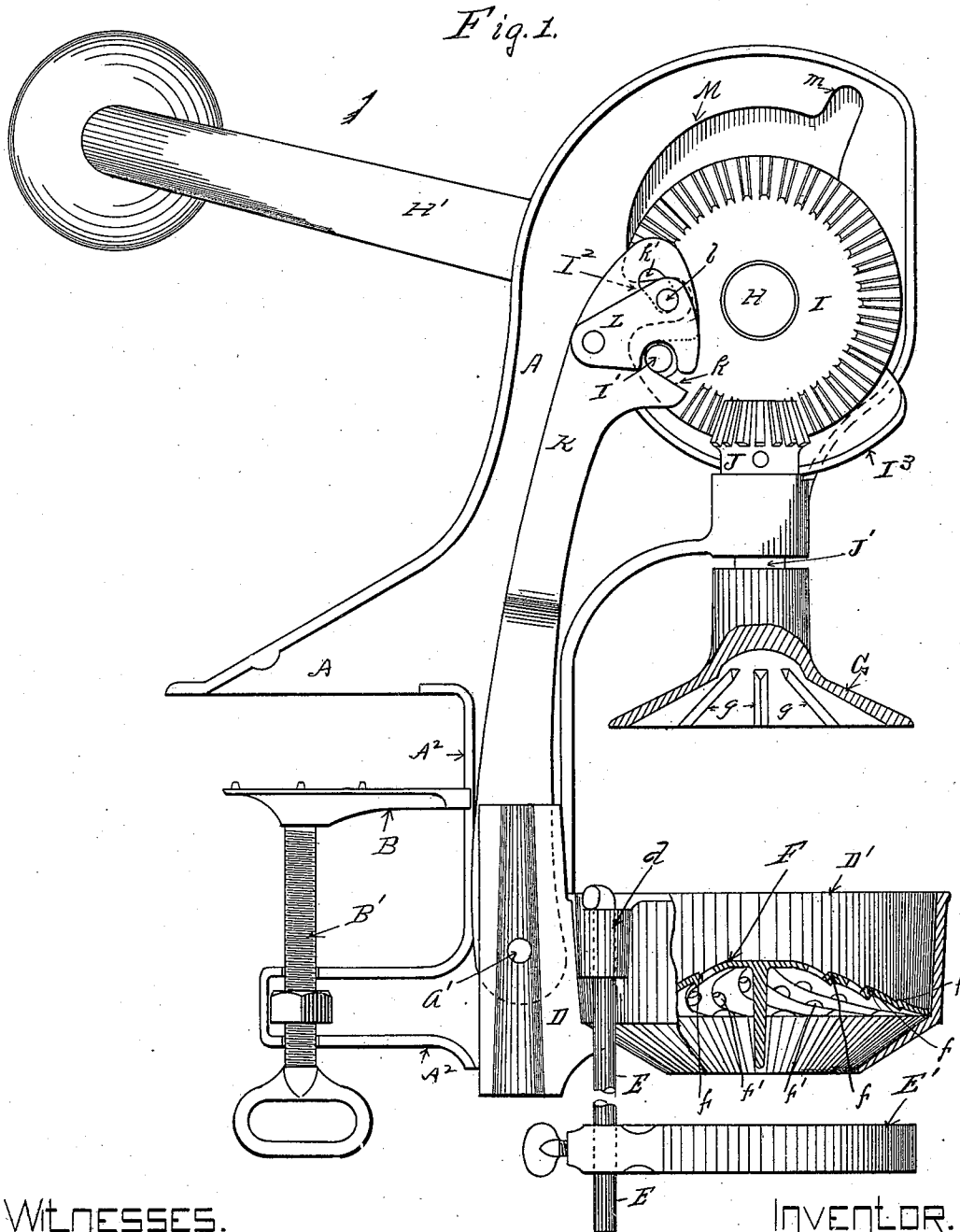
(No Model.)

2 Sheets—Sheet 1.

E. WALKER.
LEMON SQUEEZER.

No. 576,706.

Patented Feb. 9, 1897.



WITNESSES.

Fred Einfeldt
 A. L. Jackson

INVENTOR.

Edwin Walker
By H. Sturgeon
Att'y.

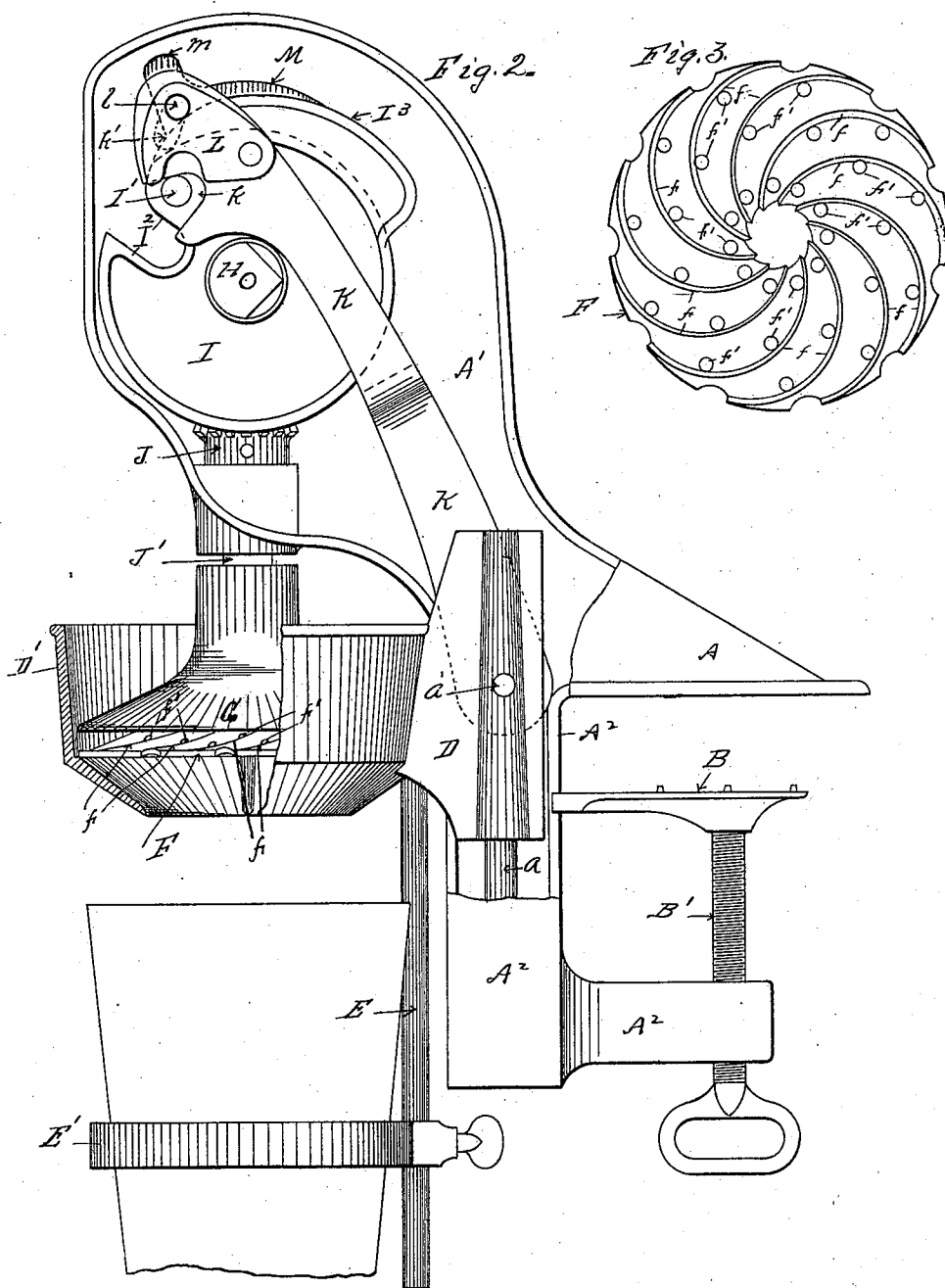
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By *Ab. Sturgeon*
Atty.

UNITED STATES PATENT OFFICE.

EDWIN WALKER, OF ERIE, PENNSYLVANIA.

LEMON-SQUEEZER.

SPECIFICATION forming part of Letters Patent No. 576,706, dated February 9, 1897.

Application filed May 13, 1896. Serial No. 591,317. (No model.)

To all whom it may concern:

Be it known that I, EDWIN WALKER, a citizen of the United States, residing at the city of Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Lemon-Squeezers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention consists of the improvements in lemon-squeezers hereinafter set forth and explained and illustrated in the accompanying drawings, and embodies such a construction of mechanism that the cup containing the lemon to be squeezed is rapidly raised into contact with a rotating compressor by means of a link until the compressor commences to operate, when a cone or eccentric is brought into operation, which operates more slowly to compress the lemon and complete the operation.

This invention also embodies a cone-shaped lemon-holder, provided on its upper surfaces with curved ribs and with perforations for the passage of the juice extracted. The curved ribs on this cone start from the center and curve toward the periphery of the cone in such shape that when the rotating compressor acts upon a half lemon placed thereon it tends to carry the loose pulp and seeds toward the center or apex of the cone, instead of pressing a portion of the pulp out between the peripheries of the cone and rotating compressor.

Other features of the invention are herein after referred to in the specification.

In the accompanying drawings, Figure 1 shows a view in elevation of my improved lemon-squeezer ready to receive the lemon and with the left-hand side of the frame thereof removed and with the rotary compressor and the cone-cup and cone-shaped lemon-holder therein in section. Fig. 2 shows a view in elevation of the same, with the compression cam or eccentric just coming into action and with the right-hand side of the frame and the operating-handle removed. Fig. 3 shows a top or plan view of my im-

proved cone for receiving and supporting the lemon to be squeezed.

In the construction of my invention illustrated in the accompanying drawings, A A' are the right and left hand halves of the frame, which is provided with a clamping mechanism B B', by means whereof it can be secured to a suitable support. In the lower part A² of the frame are guides *a*, upon which the part D of the cone-cup D' moves up and down. On one side of the cone-cup D' is an ear *d*, in which is secured a downwardly-projecting rod E, to which a glass-holder E' is adjustably secured, the rod E turning loosely in the ear *d*, so that the glass-holder E' can be swung sidewise from under the cone-holder D', as desired.

In the cone-holder D' there is a cone-shaped lemon-holder F. (See Fig. 3.) This lemon-holder is provided on its upper surface with ribs *f*, curved from the center toward the periphery of the cone in such shape that when the rotary compressor G (hereinafter described) compresses a half lemon thereon the rotation of the compressor G operates to turn the lemon on the cone F, so that the pulp and seeds travel along the curved ribs *f* toward the center of the cone and thereby prevents any portion of the pulp or seeds of the lemon from being pressed out around the peripheries of the cone and compressor. The cone F is also provided with openings *f'* adjacent to the ribs *f* for the escape of the juices.

In the upper part of the frame A A' there is mounted a transverse shaft H, provided with an operating handle or lever H', and on this shaft H is secured a bevel gear-wheel I, provided with teeth for about four-fifths of its circumference, which intermesh with a bevel-pinion J on a vertical shaft J', to the lower end of which is secured a compressor G, made in the form of a hollow cone adapted to fit down over the cone F. The under surface of the hollow cone G is provided with radial ribs *g*, adapted to engage the lemon to be compressed and rotate it upon the cone F.

In one edge of the wheel I is secured a transverse pin I', which projects out from each side of the wheel I far enough to be engaged by recesses *k* in links K, which extend down behind the shaft H and are secured by means of a pivot *a'* in the part D of the vertically-

moving cone-cup D'. To the upper end of each of the links K is pivoted a hook L, these hooks on either side being connected together by means of a pin *l*, which passes through slots *k*' in the ends of the links K, so that the hooks L move up and down in unison. The ends of the pin *l* also extend out on each side beyond the faces of the hooks L, so as to engage cam-shaped recesses M *m* in each side of the frame, so that the upward movement of the hooks L is limited thereby. In the edge of the wheel I there is also a slot or depression I², into which the pin *l* passes when the parts are in the position shown in Fig. 1. On the periphery of the wheel I there is also a cam or eccentric-shaped surface I³, which commences at or near the point where the pin I' is located in the wheel I and extends at a gradually-increasing pitch around about one-third of the periphery of the wheel I and is adapted to engage the central part of the transverse pin *l*, through which it acts upon the links K, so as to powerfully compress anything placed upon the cone F.

In operation, the parts being normally in the position illustrated in Fig. 1, the lever H' is raised, which operates to rotate the wheel I and compression-cone G geared thereto, and as the parts move around the point illustrated in Fig. 2 the cam or eccentric surface I³ commences to engage the pin *l*, raising the hooks L, as illustrated in Fig. 1. The links K having meanwhile contacted with the shaft H, the pin I' passes out of the slots *k* in said links and the cam-surface I³ continuously operating on the pin *l* forces it upward in the part *m* of the recess M until the compression is completed, after which the movement of the lever H' is reversed and the parts moved back to their normal position, (illustrated in Fig. 1,) ready for another operation.

Having thus fully described my invention, so as to enable others to construct and operate the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination in a lemon-squeezer, of a rotary compressor an operating-lever geared to and rotating said compressor, a cone-cup adapted to be moved up to the compressor, links pivoted to the cone-cup, and hook-and-cam mechanism connecting the links with the operating mechanism, substantially as and for the purpose set forth.

2. The combination in a lemon-squeezer, of a vertical rotating compressor a bevel gear-wheel geared to and rotating said vertical

compressor, a vertically-moving cone-cup, links extending from said cone-cup up on each side of said bevel gear-wheel, a pin in said gear-wheel adapted to engage said links during a portion of its revolution, and a cam-surface on said wheel adapted to engage said links during another portion of the revolution of said wheel, substantially as and for the purpose set forth.

3. The combination in a lemon-squeezer, of a conical compressor a bevel gear-wheel geared to and rotating said conical compressor, a vertically-moving cone-cup, links pivoted to the frame of said cone-cup, and extending up on each side of said bevel gear-wheel, a pin in said gear-wheel adapted to engage recesses in said links, hooks on said links adapted to keep the recesses in said links in engagement with the pin in said wheel during a portion of the revolution thereof, a pin connecting said hooks, and a cam on said wheel adapted to engage said pin and disengage said hooks, and cam-surfaces in the frame engaging the end of said pin, substantially as and for the purpose set forth.

4. In a lemon-squeezer, a cone-shaped support for the lemon to be squeezed, having openings therethrough for the passage of the juices and curved ribs radiating from the center and extending to its periphery on the upper surface thereof, substantially as and for the purpose set forth.

5. The combination in a lemon-squeezer, of an operating-lever H' secured to a shaft H, a bevel gear-wheel I on said shaft, a vertical shaft J' driven by said gear-wheel, a conical compressor G having ribs *g* on its under surface thereof, a vertically-movable cone-cup D', a cone F having curved ribs on its upper surface therein, links K extending from said cone-cup up on each side of the wheel I, a pin I' in said wheel adapted to engage slots *k* in said links, hooks L adapted to retain said links in engagement with said pin I' during a portion of the revolution of said wheel, a cam-surface I³ on said wheel and a pin *l* through the hooks L adapted to be engaged thereby, and cam-surfaces in the side frame A A' adapted to engage the ends of the pin *l*, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDWIN WALKER.

Witnesses:

FRED EINFELDT,
H. J. CURTZE.