

(No Model.)

3 Sheets—Sheet 1.

A. W. LEWIS.
COCOANUT PARER.

No. 411,598.

Patented Sept. 24, 1889.

Fig. 1.

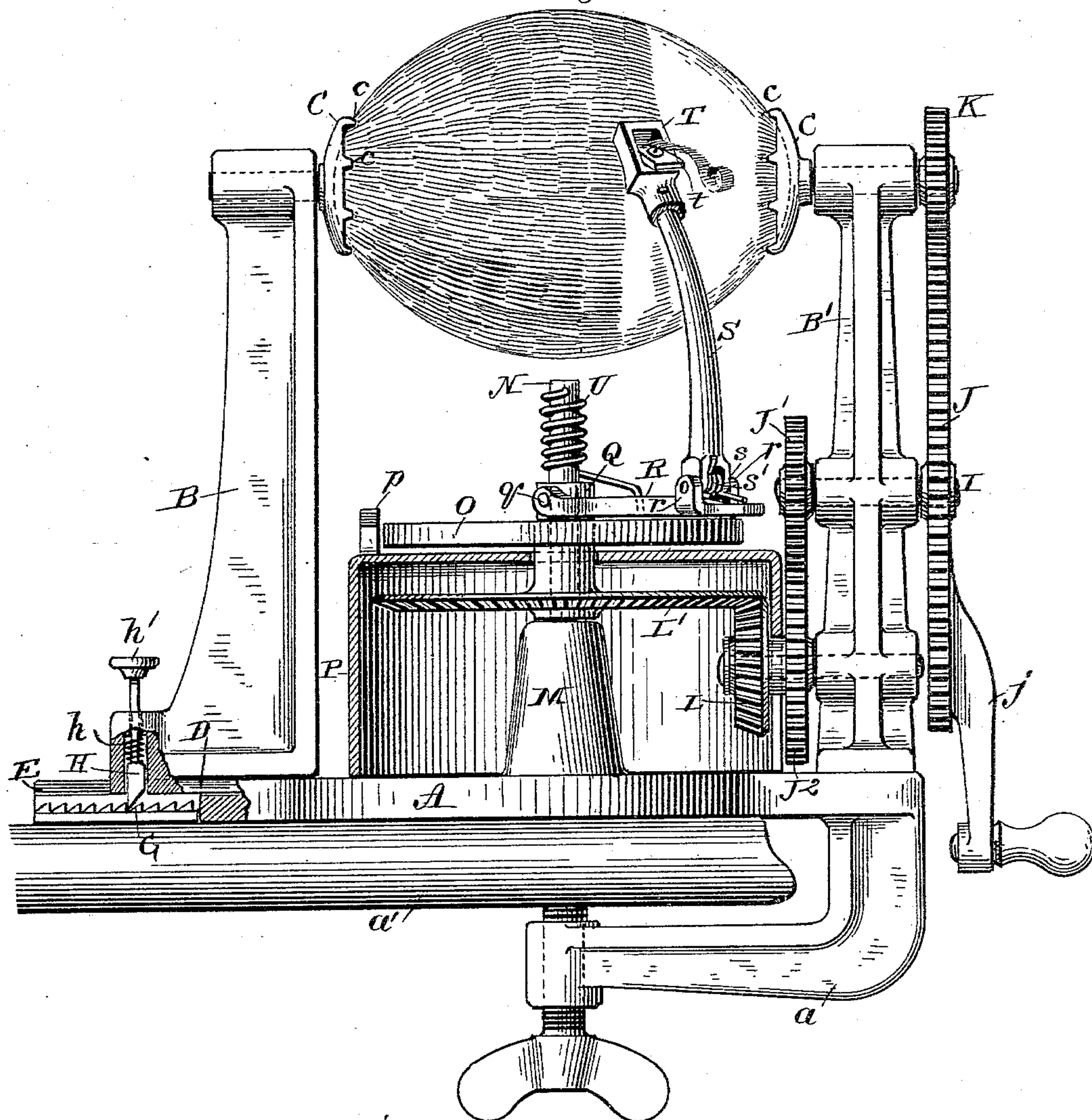
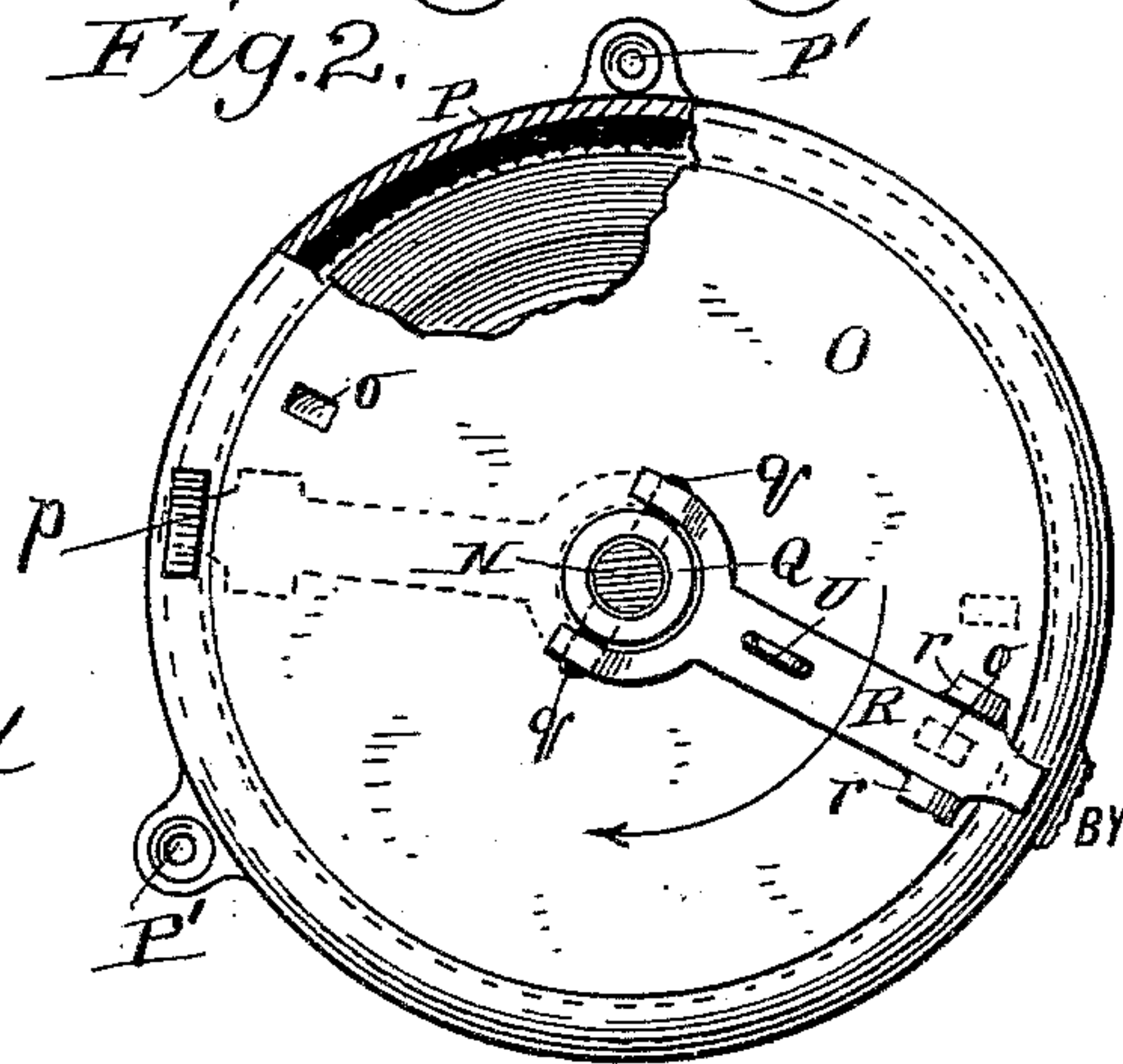


Fig. 2.



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ATTORNEYS.

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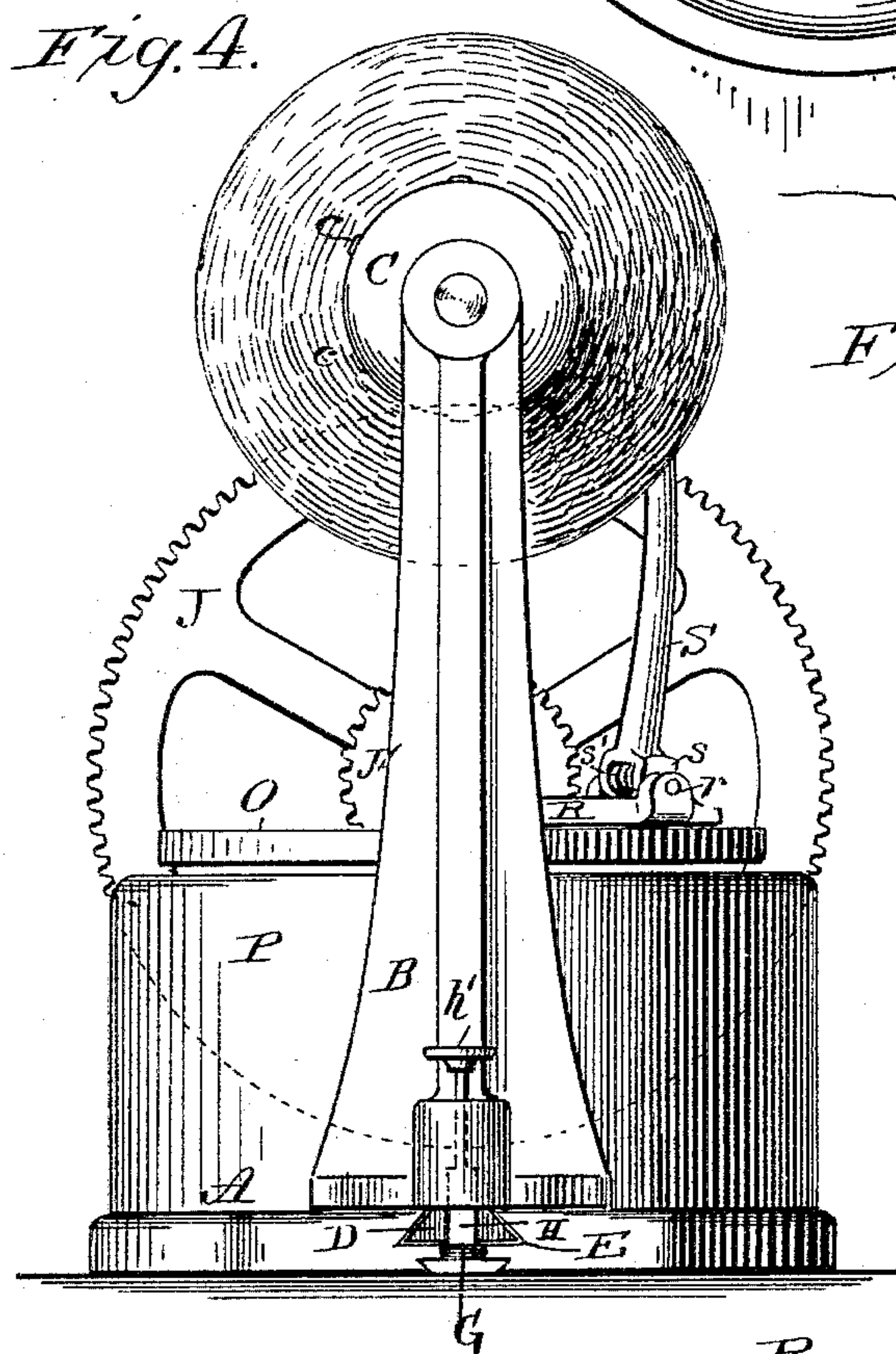
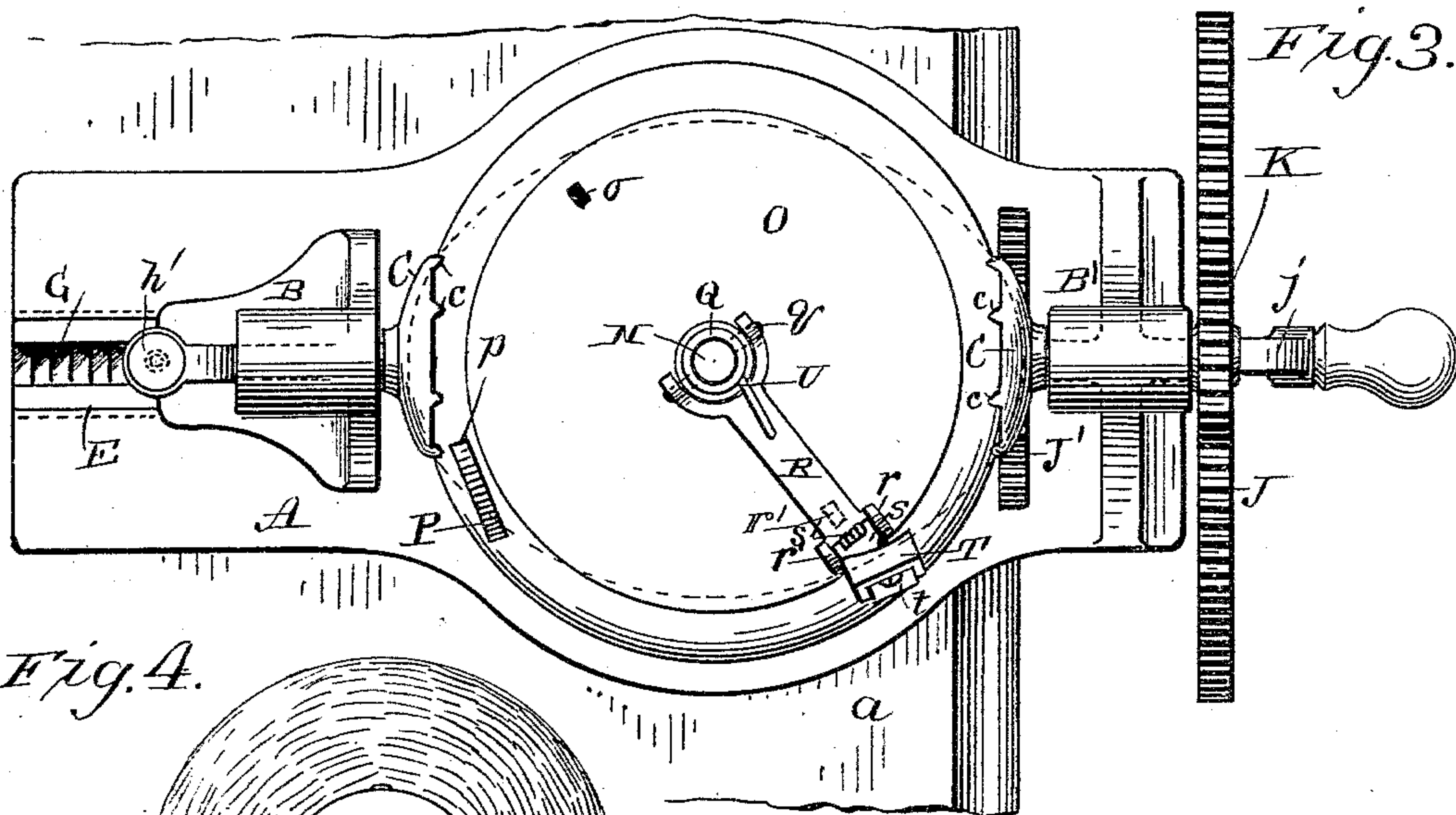


Fig. 5.

Fig. 6.

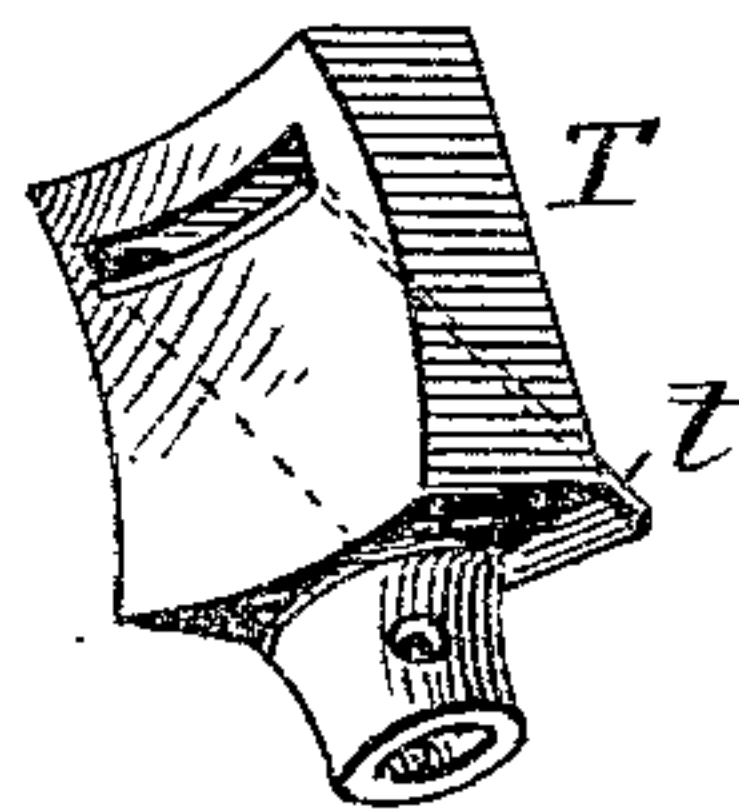
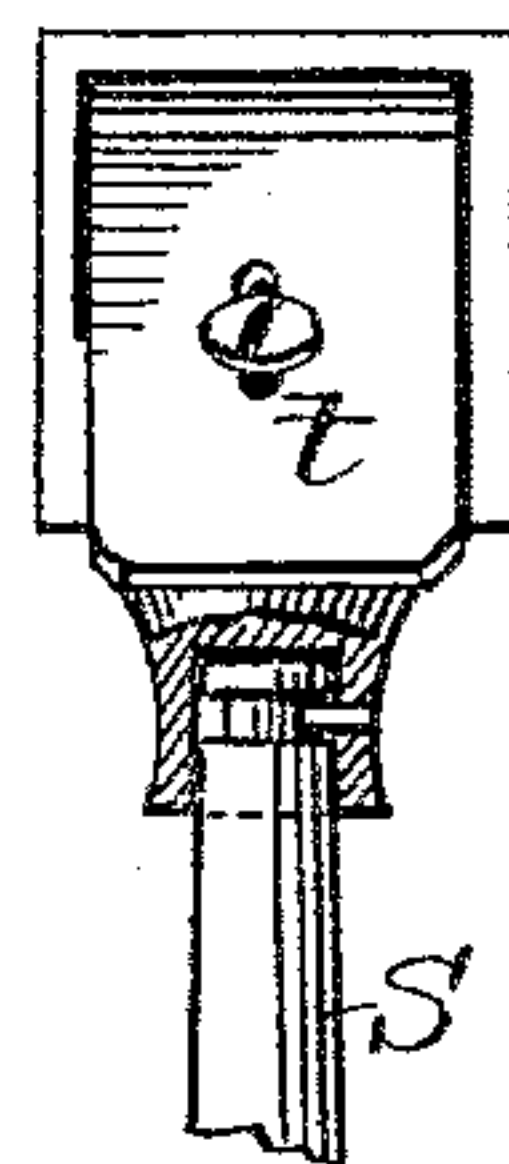


Fig. 7.



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Fig. 8.

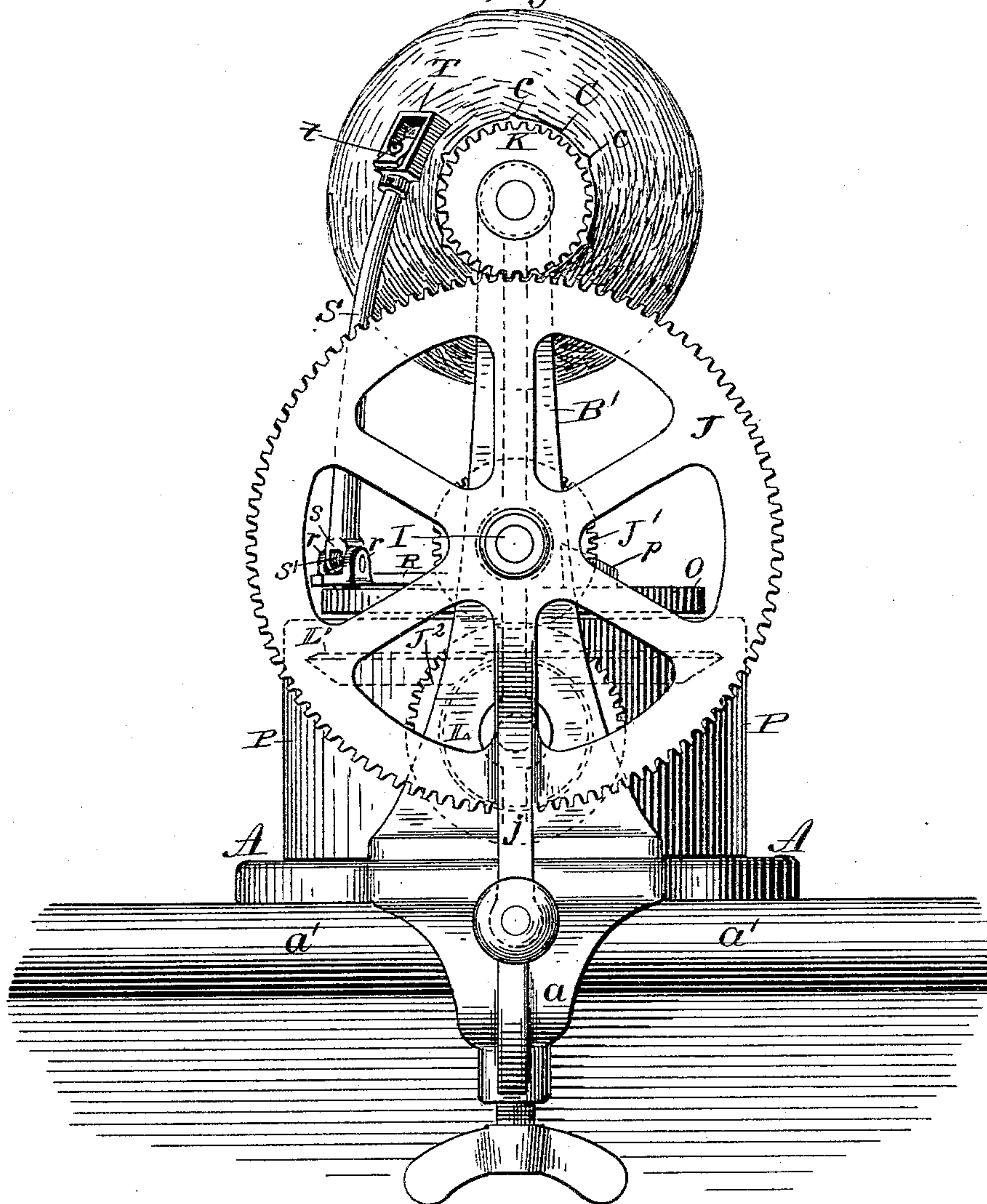
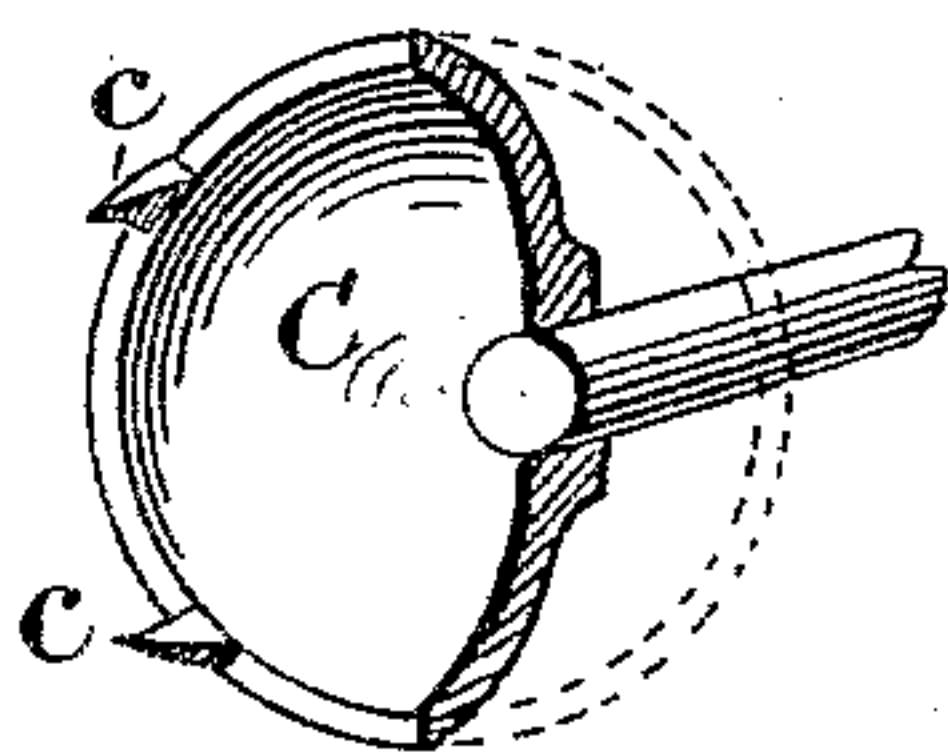


Fig. 9.



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UNITED STATES PATENT OFFICE.

ABRAM W. LEWIS, OF ASBURY PARK, NEW JERSEY.

COCOANUT-PARER.

SPECIFICATION forming part of Letters Patent No. 411,598, dated September 24, 1889.

Application filed November 23, 1888. Serial No. 291,631. (No model.)

To all whom it may concern:

Be it known that I, ABRAM W. LEWIS, of Asbury Park, in the county of Monmouth and State of New Jersey, have invented a new and Improved Cocoanut-Parer, of which the following is a full, clear, and exact description.

The object of my invention is to provide a machine that will rapidly and thoroughly pare cocoanuts. Ordinarily, in reducing the nut, after the hard shell has been removed, much difficulty has been experienced in paring the skin or covering from the edible portion of the same, the paring being done in an indifferent manner by hand. To overcome this difficulty my invention aims; and it consists in the construction and combination of parts, as will be hereinafter fully described and claimed.

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

Figure 1 is a side elevation of the machine complete. Fig. 2 is a plan view of the plate and arm carrying the knife-post. Fig. 3 is a full view in plan. Fig. 4 is a rear end elevation. Figs. 5, 6, and 7 are views of the knife-carrying arms and post. Fig. 8 is a front end elevation, and Fig. 9 is a detail sectional view of one of the cups for holding the nut in turning.

In the drawings, A represents a base or bed plate of a shape to accommodate the various parts of the machine, and provided with an arm *a*, carrying a winged screw to clamp the machine to a bench or table, as shown, *a'* representing the table.

B B' are standards between which the cocoanut revolves. The standard B works over the base, as will be hereinafter described, to accommodate different sizes of cocoanuts, and the standard B' is made integral with the base A. It may, however, be bolted thereto. The free outer ends of the standards B B' are bored to give a bearing for the spindles carrying the cups or nut-holders C. The holders C receive the ends of the cocoanut, and have marginal spurs *c* to bite into the nut to securely hold the same while being pared. The standard B' affords bearings for the operating train of gearing. The standard B has a dovetailed projection D, adapted to slide in a correspondingly dovetailed way E,

to allow the said standard to travel over the base A for different sizes of cocoanuts. In order to lock the standard at the necessary position, there is a second dovetailed recess immediately below the way E, to admit a correspondingly-shaped rack-bar G, with which engages the dog H. The dog H is held in engagement with the rack-bar G by a spiral spring *h*, seated in a recess in the foot of standard B. A suitable head *h'* to the dog H permits of the easy manipulation of the said dog. I is a spindle bearing in the standard B' and carrying the large driving-gear wheel J, which is provided with the handle *j*, and the small gear-wheel J', which meshes with intermediate gearing for operating the paring mechanism. The gear J meshes with gear K, mounted on the spindle carrying the right-hand nut-holder C, to revolve the cocoanut while paring the same. Gear J' meshes with gear J², carried on the hub of bevel-gear L, said hub being mounted on the spindle bearing in the lower part of standard B'.

M is a cone-shaped projection on the base A, supporting a post N, on which revolves the large bevel-gear L', meshing with its mate L. The bevel-gear L' is provided with a projecting hub to carry the circular plate O, which carries the knife-arm, the bevel-wheel L', and plate O, revolving on the post N, to carry the paring-knife through the medium of the arm over the surface of the revolving cocoanut. To keep the bevel-gears clear of parings, &c., there is provided a casing or box P, resting on the base A, and secured thereto by set-screws passing through the ears P' and completely covering the said bevel-gears.

On the post N, above the plate O, is loosely mounted a collar Q, having oppositely-projecting pins *q*, which carry the bifurcated end of the arm R. The connection, being loose, permits said arm to lift up, for a purpose hereinafter described. The free end of the arm R is provided with side lugs *r*, adapted to receive the knife-post S. At the lower end of post S, where the connection is made with the arm R, there are lugs *s*, which pass inside of the lugs *r*. The lugs *r* and *s* are perforated and adapted to register, so that a connecting-pintle may be passed through to make a loose joint at that place. A spiral spring *s'* is coiled around the pintle, and its ends bear against the post S and arm R, as shown, to

stiffen the joint as well as to press the knife-post S inward against the revolving cocoanut.

The knife-holder T is held to the post S by a swivel-joint to permit the holder to accommodate itself to the difference in the surface of the cocoanut while passing over the same in paring. To further permit of this, the holder is concaved in the bearing-face, as shown fully in Fig. 6.

The bearing-face of holder T has the cross-slot from which the knife *t* projects, said knife being secured in the holder by set-screw or other suitable means.

U is a retracting-spring coiled around the post N, one end being secured to said post and the other end to the arm R.

The plate O has diametrically-opposite apertures *o*, into which, in turn, the depending lug *r'* on the arm R falls, so that the plate in revolving will carry said arm R till the plate reaches a certain position, where the arm is released by the cam *p* on the box P, the arm then returning to the initial position.

The operation is as follows: The cocoanut, being securely held by the holders C between the standards, is caused to revolve toward the knife, and the plate O is at the same time started in a course from right to left, as indicated by arrow, Fig. 2, by the same train of gearing. The lug *r'* on the arm R being in the aperture at the right hand, said arm is carried along, also the post S, with knife-holder T, containing paring-knife *t*. As the cocoanut revolves, the knife is carried over the revolving cocoanut a little above the median line, paring the same till the knife reaches the opposite end. As the knife reaches the end of the nut the end of the arm R rides up the cam *p*, which causes the lug *r'* to leave the aperture in the plate O. As the arm is free, the retracting-spring U carries it to the opposite side of the plate O for the next nut. In Fig. 2 the arm R is shown in full lines as starting with the plate in the direction of the arrow. When the arm has traveled to the position shown in dotted lines, the aperture in advance has reached a position (shown opposite in dotted lines) to receive the lug *r'* on the arm R when the same has been released by the cam *p*, the spring carrying the arm back.

The gearing is arranged with regard to size to give the cocoanut a more rapid revolution than that attained by the revolving plate carrying the knife-post, so that as the knife is advanced the width of its cut by the bevel-gear L' the cocoanut will complete a revolution.

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

1. The combination, with the base, the standards, the holders on the standards, and the post on the base, of the rotary plate on the post, an oscillating arm on the post across the face of the plate and carried in one direction by said plate, a trip for releasing the

arm, a spring for returning the arm to its starting-point, an upright knife-post, and a knife-holder carried by the said post, substantially as set forth.

2. The combination, with the base, the standards, the holders, and the post on the base, of the rotary plate on the post between the standards, the horizontally-oscillating and vertically-swinging arm on the post above the plate and having a depending projection engaged by the plate to carry it in one direction, a projection or cam for raising the arm to release its projection from the plate, a spring for returning the arm to its starting-point, and an upright knife-post on said arm and provided with a knife-holder, substantially as set forth.

3. The combination, with a plate having opposite marginal apertures and revolving on a central post projecting from the base, of the horizontal arm having a depending lug to pass into the apertures in the plate, the upright post provided with a paring-knife holder and carried by the horizontal arm, and means for revolving the plate, substantially as shown and described.

4. The combination, with the circular plate revolved by gearing on a central post and having opposite marginal apertures, of a horizontal arm having a depending lug to set in the apertures and fitted loosely to the central post, a spring coiled around the central post and set in the horizontal arm, an upright post carrying a paring-knife and secured to the horizontal arm, and a releasing-cam placed to release the horizontal arm from the revolving plate, substantially as shown and described.

5. A knife-holder containing a paring-knife and having a concave face, swiveled on an upright post, to carry the knife over the surface of the cocoanut in paring the same, substantially as shown and described.

6. The combination, with a revolving plate carried on the hub of a gear and revolving on a central post, of the horizontal arm secured to a collar fitted loosely on the central post, an upright post carrying a paring-knife and secured to the horizontal arm by a hinge-joint, a coiled spring placed to stiffen said joint, and a spring coiled around the central post and attached to the arm and post, substantially as shown and described.

7. The combination, with a fixed and an adjustable standard, and holders revoluble in said standards, of a fixed post, a revoluble plate, a knife-post, an arm carrying the knife-post loosely mounted on the fixed post, and provided with a lug engaging the revoluble plate, a spring on the fixed post engaging said loose arm, and a cam in the path of said arm, substantially as shown and described.

ABRAM W. LEWIS.

Witnesses:

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