

(No Model.)

2 Sheets—Sheet 1

C. O. & J. W. GLASCOCK.
CENTRIFUGAL BUTTER WORKER.

No. 544,848.

Patented Aug. 20, 1895.

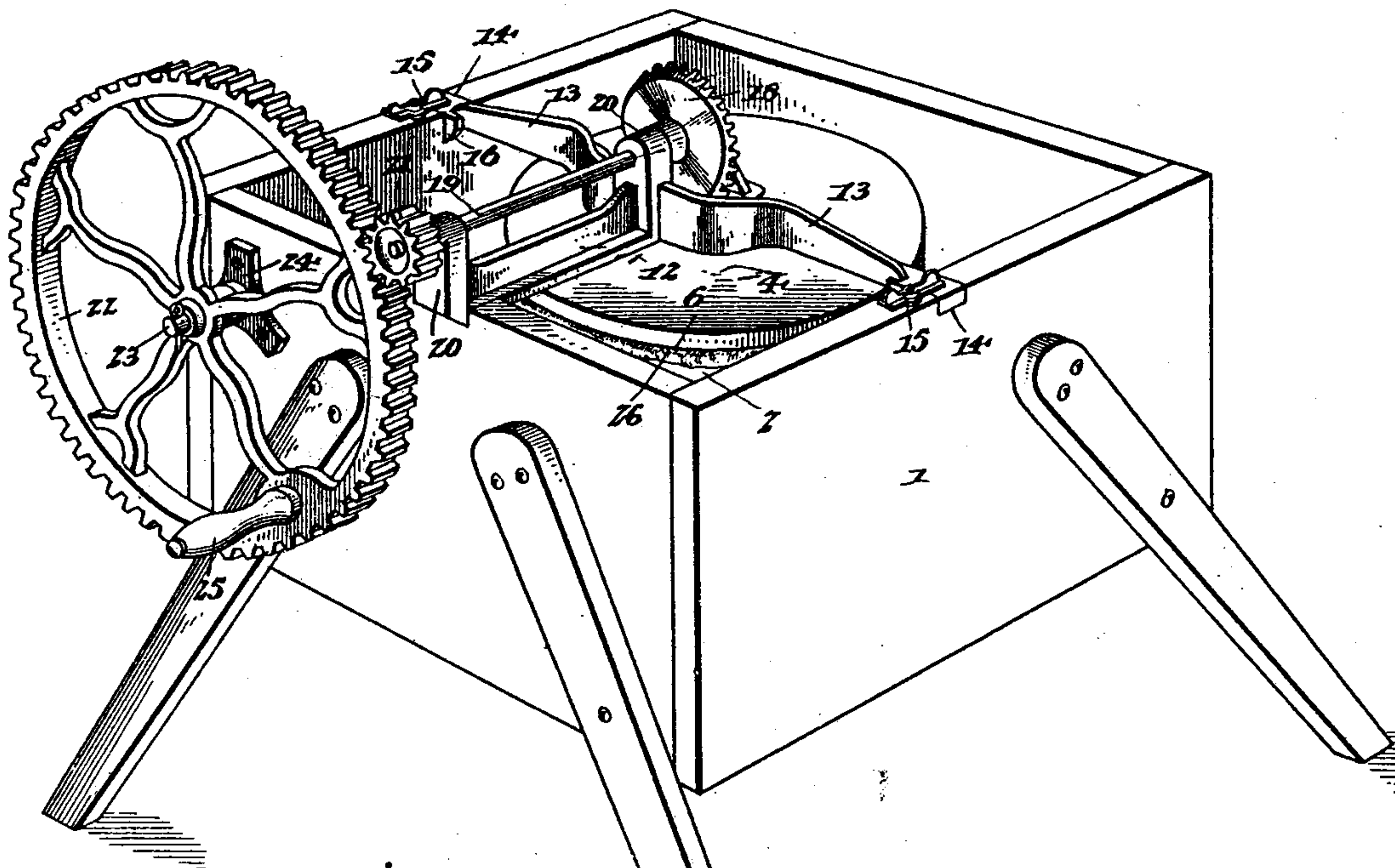


Fig. 1.

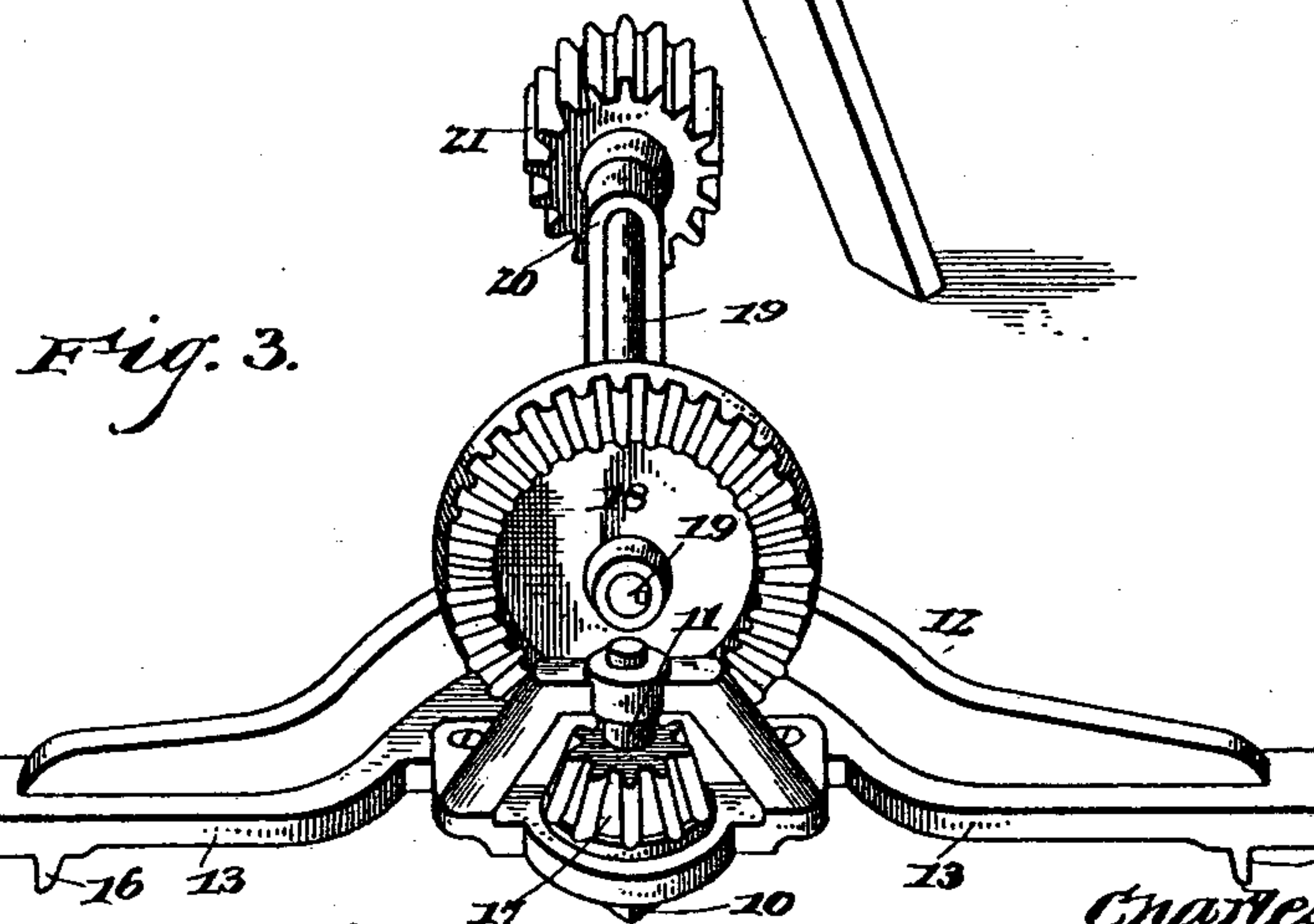


Fig. 3.

Witnesses

B. S. Ober.

[Signature]

By their Attorneys.

Charles O. Glascock.
John W. Glascock.

[Signature]

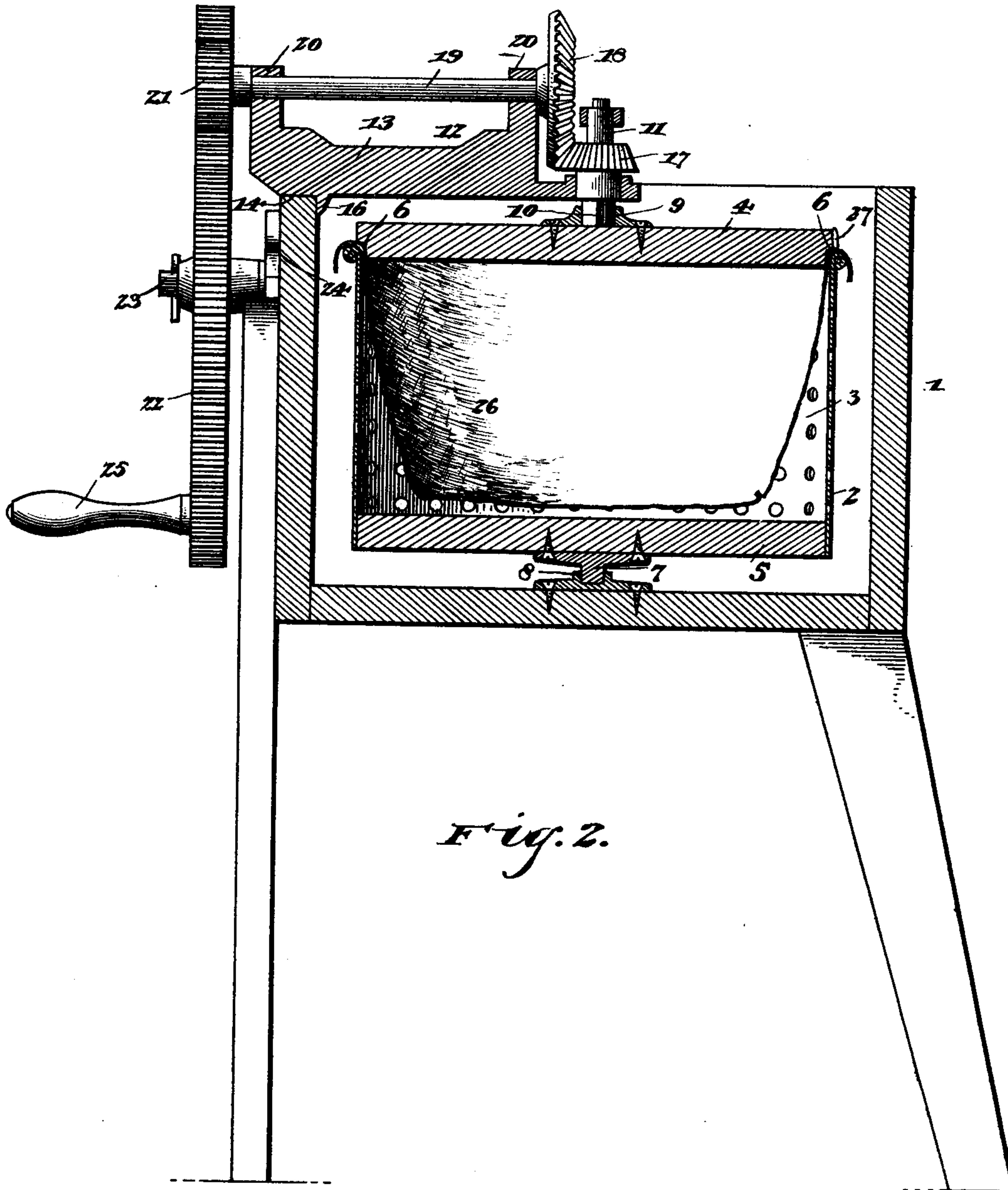
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Witnesses

B. S. Ober.
J. D. Hays

Inventors
Charles O. Glascock,
John W. Glascock,

By *their* Attorneys.

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UNITED STATES PATENT OFFICE.

CHARLES O. GLASCOCK AND JOHN W. GLASCOCK, OF MUNCIE, INDIANA.

CENTRIFUGAL BUTTER-WORKER.

SPECIFICATION forming part of Letters Patent No. 544,848, dated August 20, 1895.

Application filed July 10, 1894. Serial No. 517,130. (No model.)

To all whom it may concern:

Be it known that we, CHARLES O. GLASCOCK and JOHN W. GLASCOCK, citizens of the United States, residing at Muncie, in the county of Delaware and State of Indiana, have invented a new and useful Centrifugal Butter-Worker, of which the following is a specification.

Our invention relates to butter-workers, and has for its object to provide a device of this class adapted to expel the buttermilk by centrifugal force, to avoid the pressing of the butter by a paddle or otherwise, and hence avoid the breaking or crushing of the grains of the butter.

Further objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a machine embodying our invention. Fig. 2 is a vertical section of the same. Fig. 3 is a detail, in perspective, of the spider or supporting frame detached.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a tub or receptacle in which is mounted a vertical cylinder 2, having reticulated sides 3 and an imperforate top and bottom 4 and 5. The sides of the cylinder may be of perforated sheet metal, as indicated in the drawings, or of wire-gauze or similar material, as may be preferred, and the removable top 4 is adapted to fit within the upper edge of the sides of the cylinder, and is provided with a shoulder 6 to bear upon the upper edge of the same. The cylinder is mounted in the tub or receptacle with its axis in a vertical position, the bottom being provided with a depending trunnion 7 to fit removably in a socket 8 on the bottom of said tub or receptacle, and the removable top of the cylinder being provided with an angular socket 9, into which fits the squared terminal or boss 10 at the lower end of a vertical spindle 11. Said vertical spindle is mounted in and supported by a frame or spider 12, having the arms 13, which are fitted in recesses 14 in the upper edges of the side walls of the tub or receptacle and are held in place there-

in by means of turn-buttons 15. Said arms are provided upon their lower sides with depending ears 16 to bear against the inner surfaces of the side walls of the tub or receptacle. Said vertical spindle is provided at an intermediate point with a bevel-pinion 17, with which meshes a bevel-gear 18, carried by a shaft 19, mounted in bearings 20 upon the frame or spider. This shaft also carries a pinion 21, which meshes with the teeth of a large driving or master gear 22, mounted upon a stub-shaft 23, secured to the side of the tub or receptacle by means of a plate 24. This driving or master gear is provided with a handle 25.

In connection with the above-described mechanism we employ a pocket 26 of fabric or other porous material, which is arranged within the rotary cylinder and which is held in place therein by the engagement of its edges between the top or cover of the cylinder and the upper edges of the walls of the latter, and the butter is placed in this pocket or sack and is thus held in a compact body during the operation of the machine.

From the above description it will be seen that to open the cylinder for the insertion or removal of butter the supporting frame or spider is detached by turning the buttons to disengage its arms, after which the top or cover of the cylinder may be displaced. We also employ a spur or spurs 27 on the upper edge of the walls of the cylinder to engage the upper edges of the pocket or sack and thus hold the same until the top or cover of the cylinder has been properly adjusted, and the said top or cover is provided with a notch or notches to register with and engage said spur or spurs to prevent independent rotation of the top or cover during the operation of the machine.

The above-described mechanism for rotating the cylinder provides for a rapid movement of the same, in that the driving or master gear meshes with a small pinion, and the shaft to which said pinion is fixed also carries a large bevel-gear which meshes with a bevel-pinion on the spindle, which is engaged with the socket in the top or cover of the cylinder.

By forming the pocket or sack with sides and bottom to cover the entire inner surface

of the cylinder the butter or other material, after being worked, may be removed in the pocket or sack without difficulty and in one operation. This is of particular advantage
 5 in connection with a butter-working apparatus, and it results in a considerable saving of the material. Furthermore, the manner of securing the pocket or sack when the machine is in use by engaging its upper edge between
 10 the top or cover and the upper edge of the sides of the cylinder avoids complication and is effective, the detachment of the pocket or sack being accomplished by the same movement which removes the top or cover. The
 15 spurs, which are arranged at the upper edge of the cylinder, hold the upper edge of the pocket or sack within reach of the operator or prevent it from falling into the cylinder when the lid or cover is removed. These
 20 spurs also prevent independent relative rotation of the cylinder and its top or cover, and hence perform a double function. The pocket or sack should be arranged in the cylinder with its upper edge engaged by said spurs
 25 before the butter or material to be worked is introduced. Said arrangement provides for holding the pocket or sack in an open position to receive the material, and hence dispenses with the assistance of a second person
 30 in preparing the apparatus for operation. The application of the lid or cover firmly secures the pocket or sack, and the fact that the upper edge of the pocket or sack is thus arranged between the sides of the cylinder and
 35 the top or cover forms a packing for the joint. When the top or cover is removed, the pocket or sack does not drop into the cylinder, but is held in place until grasped by the operator to remove the contents of the cylinder in the
 40 sack.

It will be understood that various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit of the invention
 45 or sacrificing any of the advantages thereof.

Having described our invention, what we claim is—

1. In a machine of the character and for the purpose specified, the combination of a cylinder, having reticulated sides, and provided
 50 at its upper edge with a series of spurs, a sack suspended within the cylinder, and having its upper portion extending over the upper edge of the cylinder, and engaged with the spurs thereof, a cover for closing the up-
 55 per portion of the cylinder, and having an outer edge portion to rest upon the top edge of the cylinder, and bear upon the upper portion of the sack to retain the latter in working position, and having notches in its edges
 60 to correspond in number and position with the aforementioned spurs, whereby the cover and cylinder are held in locked relation, and driving mechanism applied to the said cover for operating and rotating the cylinder, substan-
 65 tially as set forth.

2. The herein specified centrifugal butter worker comprising a receptacle, a cylinder journaled therein, and having reticulated sides, and having spurs extending upwardly
 70 from its top edge, a sack suspended within the cylinder, and having its upper portion extending over the edge of the cylinder, and engaging with the spurs thereof, a cover for closing the upper end of the cylinder, and
 75 provided in its edges with notches to receive said spurs and hold the cover and cylinder in locked relation, said cover having an outer edge portion to extend over the upper end of the cylinder, a spider, or frame, removably
 80 supported upon the receptacle, and driving mechanism carried by the said spider or frame, and adapted to make connection with the cover for rotating it, and the cylinder, substantially as set forth.
 85

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

CHARLES O. GLASCOCK.
 JOHN W. GLASCOCK.

Witnesses:

WM. E. KINERT,
 ELMER E. MEREDITH.