

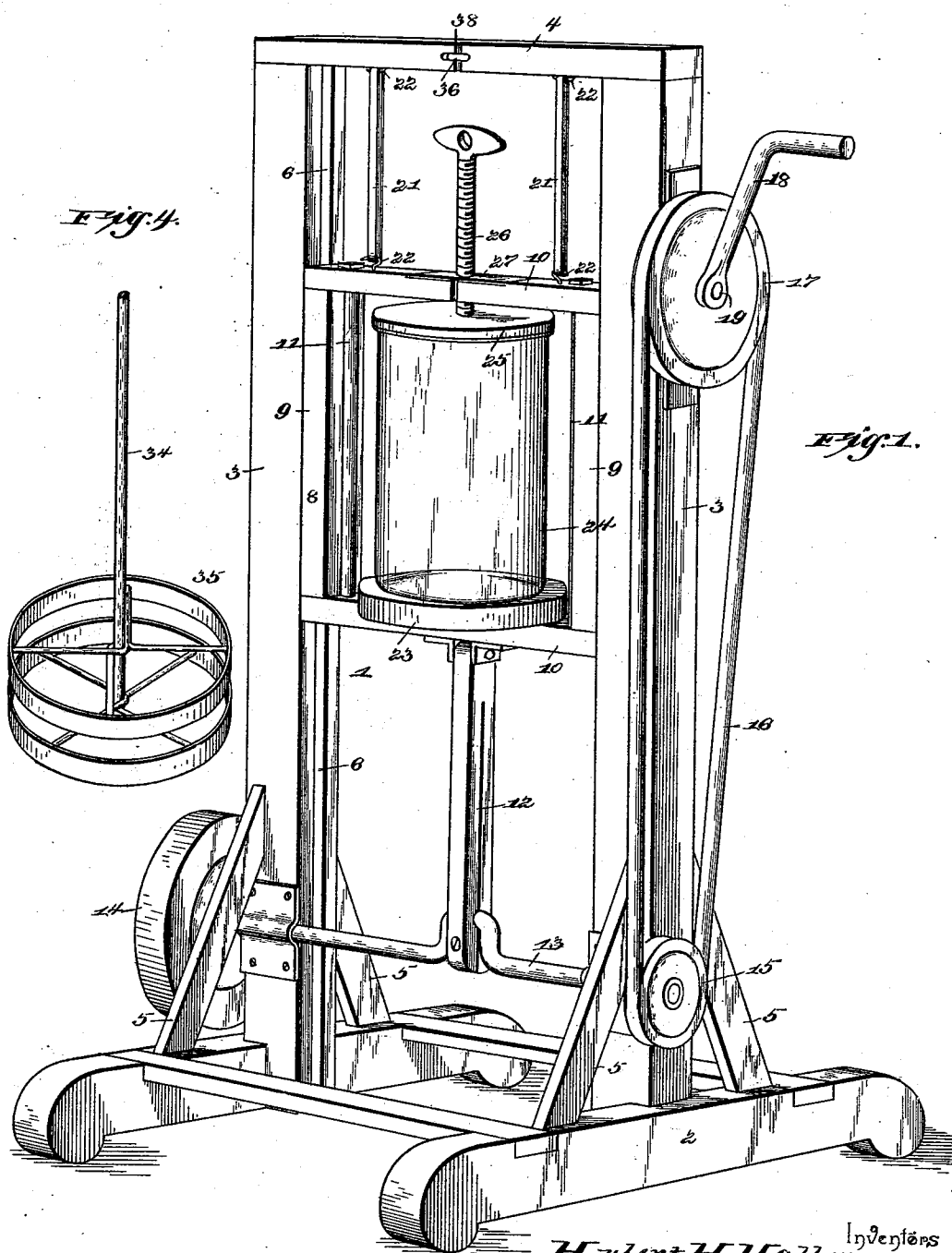
(No Model.)

2 Sheets--Sheet 1.

H. H. HALLEY, J. D. WORLEY & J. S. HALLEY.
COMBINED CHURN, ICE CREAM FREEZER, AND PRESS.

No. 549,961.

Patented Nov. 19, 1895.



Witnesses

W. F. Doyle
J. H. Riley

Inventors
Hubert H. Halley,
John D. Worley, and
James S. Halley,
By their Attorneys.

C. Snow & Co.

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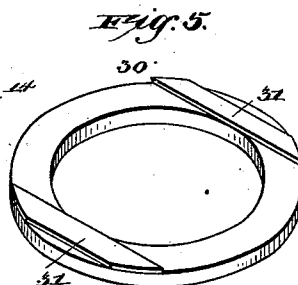
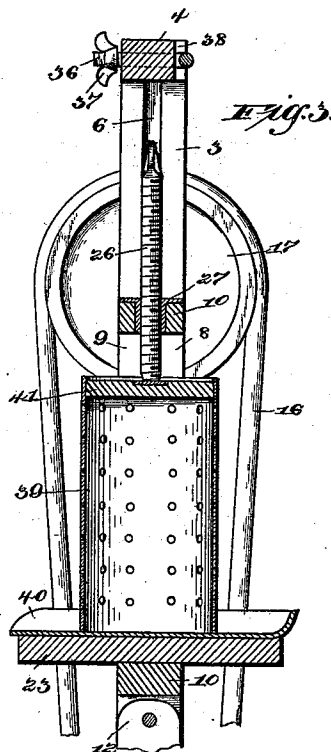
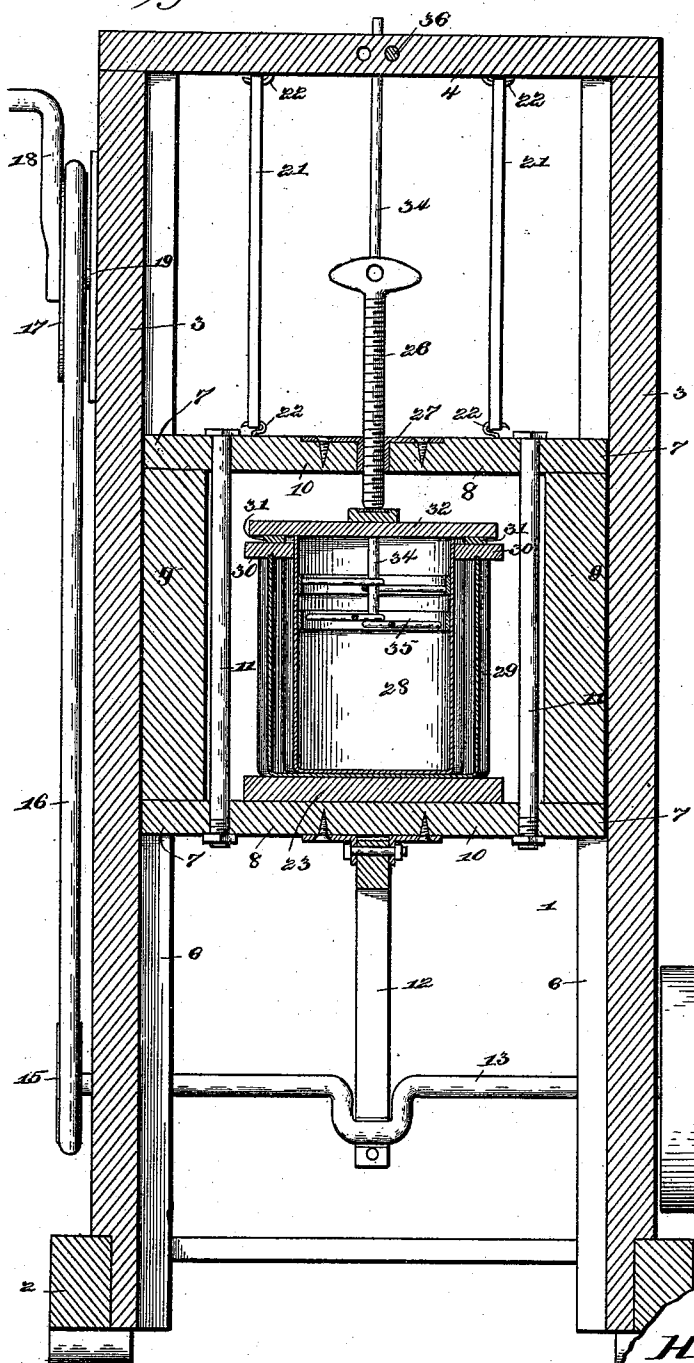
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UNITED STATES PATENT OFFICE.

HUBERT H. HALLEY, JOHN D. WORLEY, AND JAMES S. HALLEY, OF LONG
BRANCH, MISSOURI.

COMBINED CHURN, ICE-CREAM FREEZER, AND PRESS.

SPECIFICATION forming part of Letters Patent No. 549,961, dated November 19, 1895.

Application filed November 10, 1894. Serial No. 528,441. (No model.)

To all whom it may concern:

Be it known that we, HUBERT H. HALLEY, JOHN D. WORLEY, and JAMES S. HALLEY, citizens of the United States, residing at Long Branch, in the county of Monroe and State of Missouri, have invented a new and useful Combined Churn, Ice-Cream Freezer, and Press, of which the following is a specification.

The invention relates to improvements in combined churns, ice-cream freezers, and presses.

The object of the present invention is to provide a combined churn, ice-cream freezer, and press which will be simple and inexpensive in construction, capable of easy operation, and adapted to be readily converted from one form to another in order that it may be readily used as a churn, freezer, or press.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view showing the parts arranged for churning. Fig. 2 is a vertical sectional view, the parts being arranged to form an ice-cream freezer. Fig. 3 is a detail sectional view showing the parts arranged for forming a press. Fig. 4 is a detail perspective view of the scraper. Fig. 5 is a similar view of the ring or cover.

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

1 designates a supporting-frame comprising a rectangular base 2, a pair of uprights or standards 3, and a top cross-bar 4, connecting the upper ends of the uprights or standards, which are braced at the bottom by inclined bars 5.

The standards or uprights 3 are provided in their inner opposite faces with longitudinal grooves 6, forming vertical ways, and receiving corresponding tongues or ribs 7 of a vertically-movable rectangular frame 8, which is reciprocated in the supporting-frame between the uprights or standards thereof. The rectangular frame is adapted to receive a receptacle, which may be a churn-body, ice-cream-freezer can, or other receptacle, and it

is composed of similar sides and top and bottom bars 9 and 10, and it is firmly braced by a pair of vertical rods 11, which are located adjacent to the sides, and which pass through the top and bottom bars. The rods are provided at their upper ends with heads, and their lower terminals are threaded and receive nuts, and by these means the parts of the reciprocating frame are firmly clamped together.

The bottom of the frame 8 is connected by a pitman 12 with a crank-shaft 13, journaled in suitable bearings of the uprights or standards 3, and extended outward beyond the same. This shaft is provided with a central crank-bend, to which the lower end of the pitman is connected. One end of the shaft carries a balance-wheel 14 and the other end of the shaft has fixed to it a pulley 15. The pulley 15 is connected by a belt 16 with a driving-pulley 17, having a crank-handle 18 and located at a convenient height for convenient operation. The driving-pulley is journaled on a stub-shaft 19, formed integral with or otherwise connected to an attachment plate, which is secured to the adjacent upright or standard of the supporting-frame. This form of pulley reciprocates the receptacle-receiving frame in a noiseless manner, and the weight of the receptacle is balanced and the operation of the apparatus is assisted by elastic bands 21, of rubber or other suitable material, connecting the top of the reciprocating frame with the top cross-bar of the supporting-frame. The elastic bands 21 are detachably secured to the two frames by means of hooks 22, and they may be readily removed to enable a heavier or lighter band to be employed according to the weight of the receptacle.

The reciprocating frame is provided at its bottom with a supporting-disk 23 for the reception of a churn-body 24 or other receptacle. The churn-body is preferably constructed of glass in order to be transparent, to enable the condition of the contents to be inspected without removing the cover 25 of the body, and the cover 25 is securely clamped on the body by a vertically-disposed screw 26, located at the top of the reciprocating frame. The clamping-screw 26 is mounted in a perforation or threaded opening of a plate 27, and it

passes through a perforation in the top bar of the reciprocating frame and engages the cover 25, which is rubber-lined to effect a tight joint, and which is provided with a wear-plate to be engaged by the clamping-screw.

When it is desired to convert the apparatus into an ice-cream freezer, an inner cream-receiving can 28 and an outer ice-receiving receptacle 29 are employed, and are arranged in the reciprocating frame. The outer receptacle is covered by a ring 30, arranged on the upper portion of the cream-can and provided with cleats 31 to prevent the ring from warping or splitting. The upper faces of the cleats 31 are located in the same plane as the upper edges of the inner can, and a cover 32 for the latter engages the cleats and secures the ring-shaped cover in place. The cover 32 is provided with a cleat and has a wear-plate to be engaged by the screw, and it has a central opening through which passes an adjustable rod 34, which carries a circular scraper 35. The upper end of the rod 24 is adjustably secured by means of an eyebolt 36 and a thumb-nut 37 in a groove 38 of the top cross-piece of the supporting-frame, whereby the circular scraper, which is located in the cream-can, is adapted to be adjusted to the reciprocation of the can. As the can is reciprocated, the scraper removes the frozen cream from the sides, as will be readily understood. The rod is arranged in a groove of the top bar of the reciprocating frame, and the freezer-cans are placed slightly eccentrically of the supporting-disk in order to bring the inner can directly under or centrally of the circular scraper.

The circular scraper 35 is composed of two similar upper and lower rings, disposed edge-wise and separated by a slight horizontal space and supported by radial arms or rods extending outward from and secured at their inner terminals to the rod 34.

When used as a press, the reciprocating frame remains stationary and a perforated cylinder 39 is employed. The cylinder is open at both ends. Its lower end is placed upon a plate 40, which is arranged on the supporting-disk, and in the upper end of the cylinder is placed a follower 41. The adjusting-screw engages the follower and is provided in its

head with a perforation or opening, in which may be placed a suitable rod or lever, to enable great pressure to be applied to the follower.

It will be seen that the apparatus is susceptible to easy conversion to provide a churn, an ice-cream freezer, or a press, that it is capable of substantially noiseless operation, and that the gearing is conveniently located for the use of the operator.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What we claim is—

In a combined churn, ice cream freezer and press, the combination of a supporting frame having vertical standards with ways and provided with a top cross-piece connecting the standards, a reciprocating rectangular frame arranged between the standards and mounted in the ways thereof, and comprising top, bottom and sides rigidly connected and adapted to receive the receptacle of a churn, ice cream freezer or press, a crank shaft journaled on the standard and located at the bottom of the supporting frame and provided with a crank bend, a pitman connected with the bottom of the reciprocating frame and with the crank bend, a clamping screw arranged at the top of the reciprocating frame for engaging the cover of a receptacle or the follower of a press, elastic connections between the reciprocating frame and the top of the supporting frame, a rod arranged vertically and adjustably and detachably secured to the top of the supporting frame and supported by the top of the reciprocating frame and designed to extend within a receptacle and to carry a scraper or agitator, and means for operating the crank shaft, substantially as described.

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

HUBERT H. HALLEY.
JOHN D. WORLEY.
JAMES S. HALLEY.

Witnesses:

E. G. MCGEE,
JNO. T. GRIGSBY.