

No. 697,261.

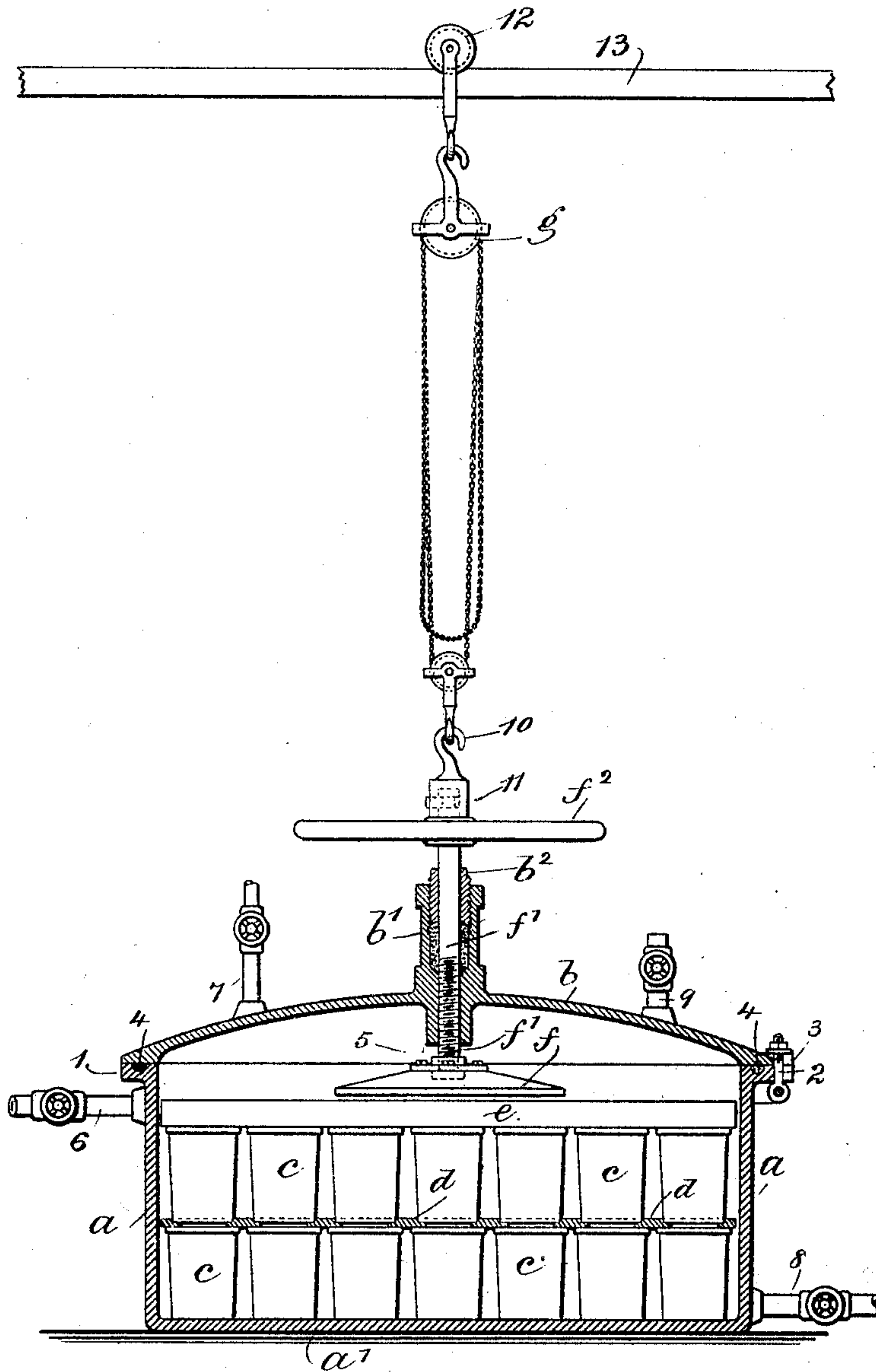
Patented Apr. 8, 1902.

G. LEES.

APPARATUS FOR CANNING FOOD.

(Application filed Aug. 17, 1901.)

(No Model.)



Witnesses

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APPARATUS FOR CANNING FOOD.

SPECIFICATION forming part of Letters Patent No. 697,261, dated April 8, 1902.

Application filed August 17, 1901. Serial No. 72,392. (No model.)

To all whom it may concern:

Be it known that I, GEORGE LEES, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have
5 invented an Improvement in Apparatus for Canning Food, of which the following is a specification.

My present invention relates to apparatus for containing cans holding various articles
10 or kinds of food to be preserved, and in which apparatus a vacuum can be formed and the cans sealed by atmospheric pressure. In this apparatus the food in the cans can also be cooked, treated by steam or by fluid; and the
15 object of my invention is to not only simplify the construction of the apparatus, but facilitate the operations of the device or a number of the devices.

I employ a cast-iron cylinder—that is, a vessel having sides and a bottom integral therewith. This vessel is adapted to hold the cans with their food contents and one or more intervening trays and means above the cans for pressing the covers on the series of cans.
20 I provide a removable top or cover, means for connecting the same to the cylinder and for forming a tight joint, and I provide means connected to the removable cover for exerting pressure applied by hand upon the series
25 of cans within the vessel or cylinder, and I also provide devices for lifting the cover and the devices connected therewith bodily from and above the apparatus or cylinder and conveying the same away or to the cylinders for
30 repeated use, so that one cover may answer for several cylinders, the treatment of the cans being effected in the cylinder upon which the cover rests and the cans being removed from the previous cylinder and being packed
35 into the succeeding cylinder.

In the drawing I have illustrated my improvement by an elevation and partial vertical section.

The cast-iron cylinder *a* is preferably circular, is made with an integral bottom *a'* and annular flange 1, the said flange being notched at intervals and provided with swinging arms
40 2, that are threaded and carry nuts, an annular recess in the upper face of the annular flange 1 receiving the rubber gasket 4. I provide the iron cylinder with a removable top

or cover *b*, and provide an air exhaust or suction 6, a steam-inlet 7, a fluid inlet or exit 8, and an air-inlet 9. The suction 6 and fluid-passage 8 are shown as connected to the cylinder *a*, and the steam-inlet 7 and air-inlet 9
55 are shown as connected to the cover; but I do not limit myself in these particulars.

c c represent rows of cans between which there is an intervening tray *d*. I have shown
60 two rows of cans with the intervening tray, but do not limit myself in this respect, as the vessel or cylinder *a* may be large enough to hold a greater number of cans.

A cover-plate *e*, preferably of hard wood, is
65 provided and fits within the cast-iron cylinder *a*, resting upon the covers of the upper row of cans.

I provide the removable top or cover *b* with a sleeve *b'*, interiorly threaded and depending from the inner surface, and a stuffing-box *b²*, rising from the opposite surface. A screw-stem *f'* passes down through the stuffing-box and through the sleeve *b'*, and the lower end of this stem carries a presser-
70 plate *f*, preferably of cast-iron, and connected to the lower end of the stem by a flexible joint 5. Upon the upper end of the stem *f'* is a hand-wheel *f²*. I provide a suspending-hook 10 and flexible joint 11, connecting the
75 same to the upper end of the stem *f'*.

A differential pulley *g* is suspended from a carrier 12 upon an elevated track 13, the lower end of the differential pulley device engaging with the suspending-hook 10. It will be
80 noticed that by this differential pulley device the removable top or cover *b*, the presser-plate *f*, its stem, and the hand-wheel may be all bodily removed together from the cast-iron cylinder or can-receptacle, the same being elevated above the body *a* sufficiently for its removal from the said cylinder to another cylinder, and if need be the said device can be made of sufficient strength so that when the cover or top *b* is securely fastened to the cylinder *a* the entire apparatus, even with the load of cans, may be lifted and removed to another locality.
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The removable top or cover sets upon the flange 1 at the upper end of the cylinder *a*,
100 and the periphery of the cover is adjustably made with forked lugs 3 to receive the swing-

ing arms 2 as the same are turned up in the position shown in the drawing. In this position the nuts are screwed down to place and force is applied to connect the cover to the
 5 cylinder or tank *a* for carrying out the operations in treating the food in cans. After the cover is thus connected the air may be exhausted and the pressure applied through the wheel *f*², the screw-stem *f*¹, and the presser-
 10 plate *f* upon the plate *e* and cans to force all the covers down to place upon the cans before air is admitted to complete the sealing.

The food in cans may also be treated by steam introduced within the apparatus or by
 15 any suitable or desirable fluid also introduced in the apparatus for treating the food in the cans prior to exhausting the air, forcing the covers to place, and then admitting air for sealing the cans.

20 I claim as my invention—

1. In an apparatus for canning food, the combination with the cylinder, a removable top or cover and means for connecting the same together, of a cover-plate within the cylinder
 25 and adapted to rest upon the covers of the uppermost series of cans, an interiorly-threaded sleeve and a stuffing-box in line with each other and forming parts of the removable cover, a stem passing through the stuffing-
 30 box and having a threaded portion passing through the sleeve, a presser-plate and a flexi-

ble joint for connecting the same to the lower end of the said stem and a hand-wheel secured to the upper end of the stem above the cover, substantially as set forth.

2. In an apparatus for canning food, the combination with a cylinder, a removable top or cover and means for connecting the same together, of a cover-plate within the cylinder and adapted to rest upon the covers of the
 40 uppermost series of cans, an interiorly-threaded sleeve and a stuffing-box in line with each other and forming parts of the removable cover, a stem passing through the stuffing-box and having a threaded portion passing
 45 through the sleeve, a presser-plate and a flexible joint for connecting the same to the lower end of the said stem and a hand-wheel secured to the upper end of the stem above the cover
 50 and a hook 10 and flexible joint connecting the same to the upper end of the stem above the hand-wheel, and a supported differential pulley device adapted to engage the hook for elevating and suspending the cover of the apparatus, and the parts connected therewith,
 55 substantially as set forth.

Signed by me this 9th day of August, 1901.

GEO. LEES.

Witnesses:

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