

No. 696,645.

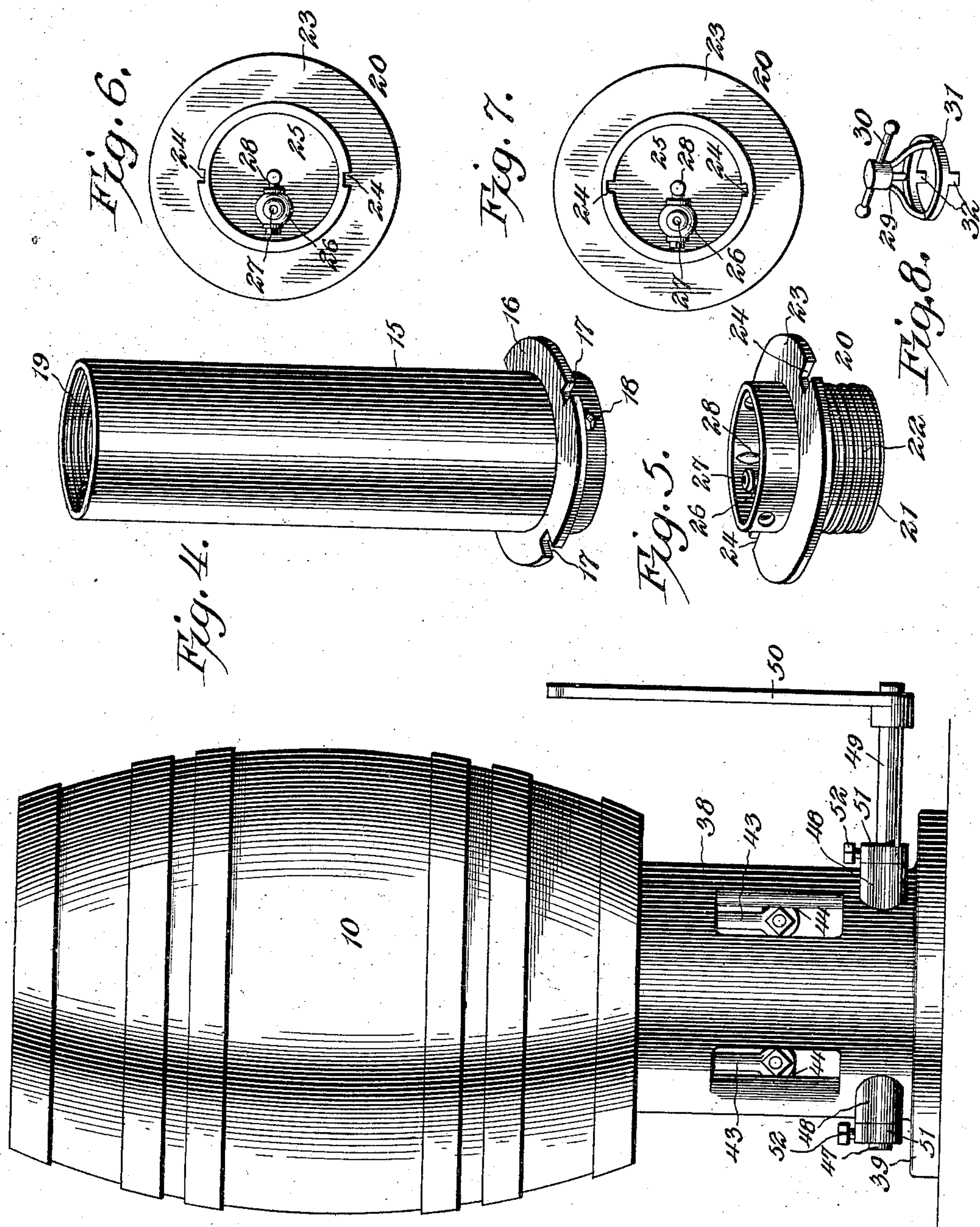
Patented Apr. 1, 1902.

A. B. KOKERNOT.  
REFRIGERATOR ATTACHMENT.

(Application filed July 11, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses  
Howard R. Orr.  
B. G. Foster.

Fig. 1.

Alexander B. Kokernot, Inventor:

By

E. G. Siggers.

Attorney



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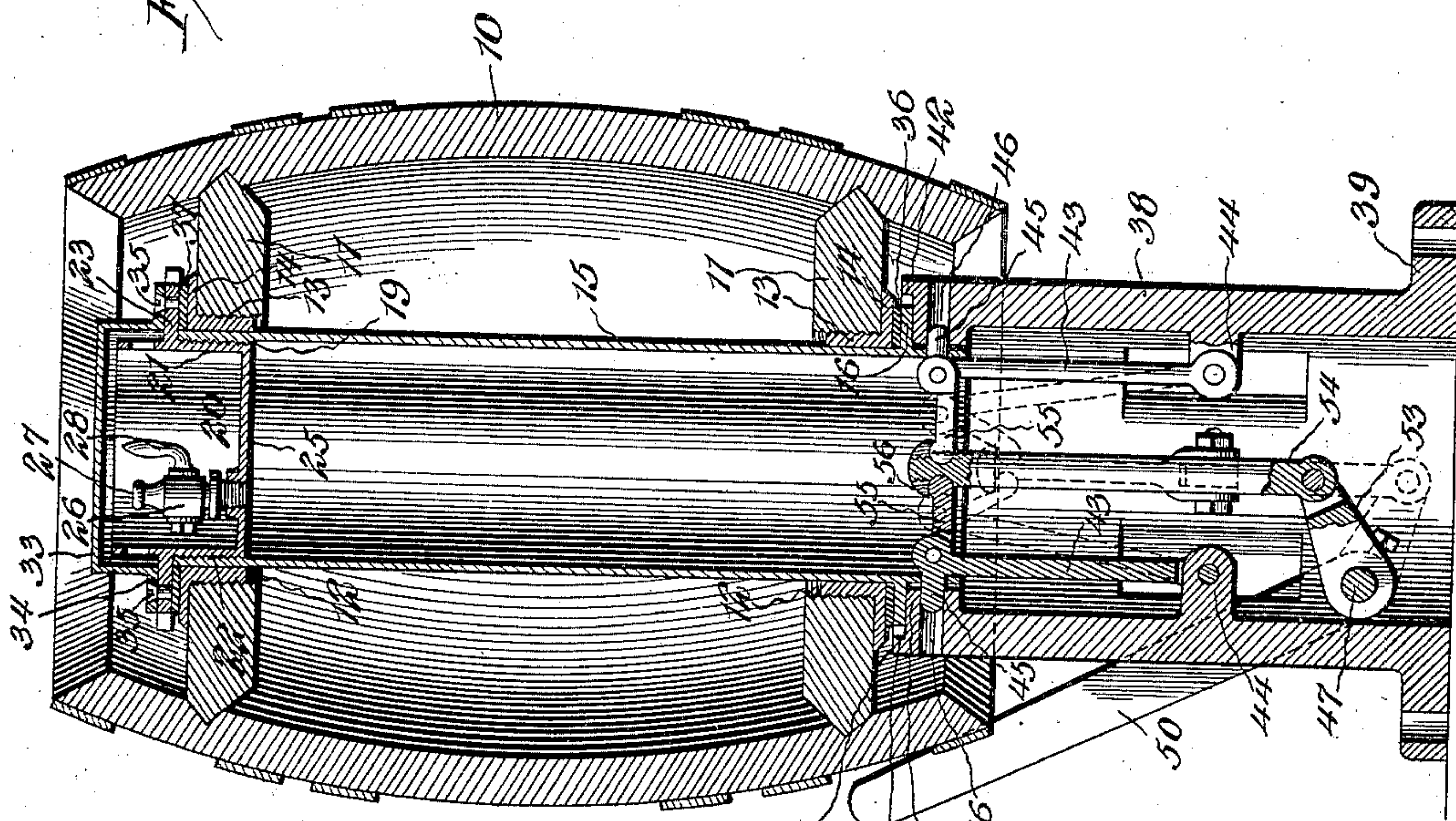
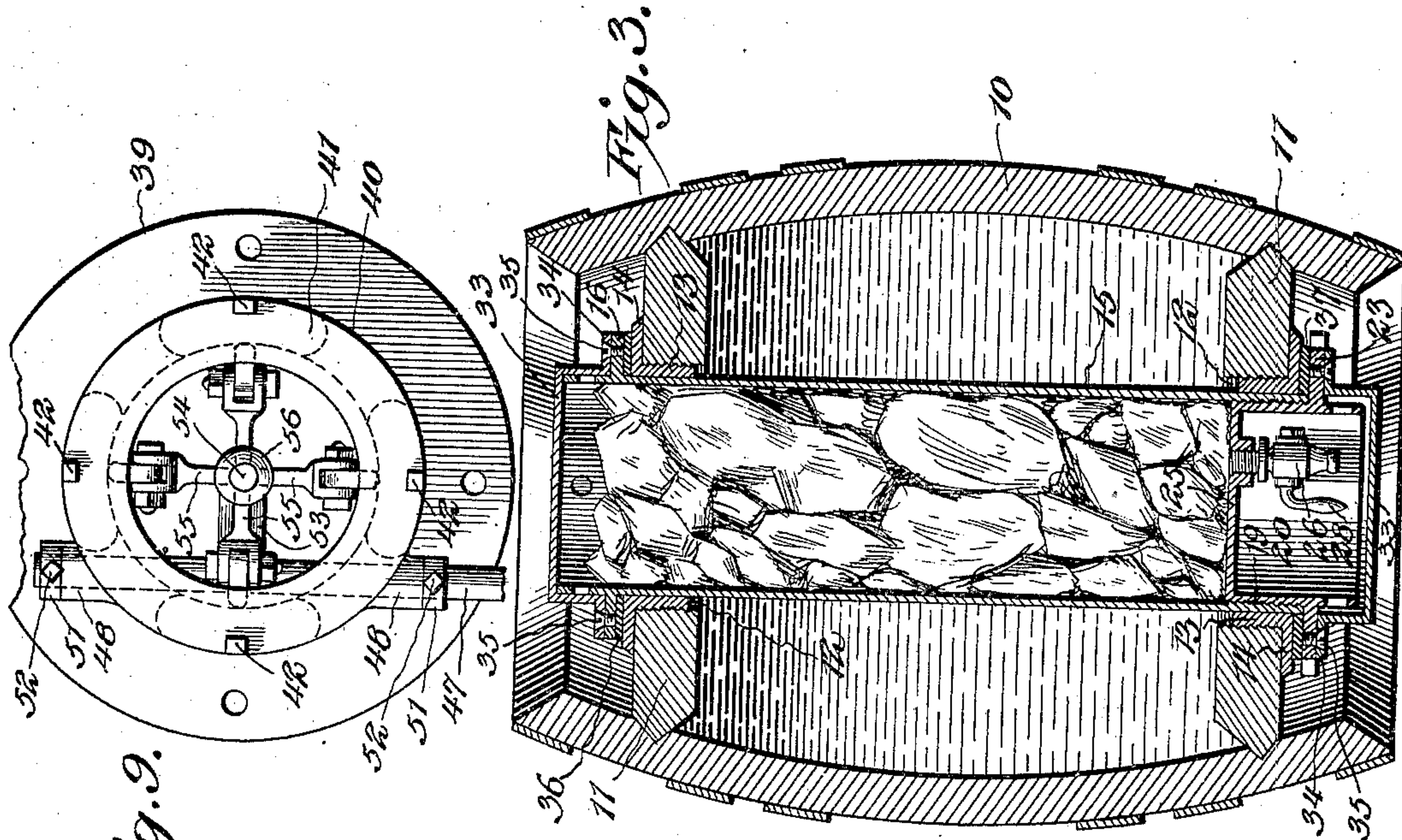
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(No Model.)

2 Sheets—Sheet 2.



Witnesses  
Howard D. Carr.  
B. H. Fortin.

Fig. 2.

Alexander B. Kokernot, Inventor:

By

E. G. Siggers.

Attorney



# UNITED STATES PATENT OFFICE.

ALEXANDER B. KOKERNOT, OF NEW ORLEANS, LOUISIANA.

## REFRIGERATOR ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 696,645, dated April 1, 1902.

Application filed July 11, 1901. Serial No. 67,874. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER B. KOKERNOT, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and useful Refrigerator Attachment, of which the following is a specification.

The present invention relates to machines for holding the tubes of refrigerating barrels or receptacles while the former are being inserted into or removed from said barrels or receptacles.

The invention is especially designed for use in connection with a novel construction of refrigerator described and claimed in a copending application filed October 7, 1901, Serial No. 77,894, and a divisional application of this case.

While no claims are made for the refrigerator *per se* in the present application, in order that a clear understanding may be had the construction of said receptacle and its relation to the machine are shown in the accompanying drawings and described in the following specification.

The object of this invention is to provide a machine which may be readily applied to and will securely hold a refrigerator-tube while the latter is being inserted or removed from a barrel or other receptacle and as readily released from the same.

The preferred embodiment of the invention is fully described in the following specification, and the construction thereof is shown in the drawings which accompany and form a part thereof. The construction thus set forth and described is, however, open to various changes and modifications within the scope of the claims hereto appended.

In the drawings, Figure 1 is a side elevation of the machine employed for holding the refrigerator-tubes while being inserted or removed from a receptacle, a beer-barrel being shown thereon to illustrate the manner of supporting the same. Fig. 2 is longitudinal sectional view. Fig. 3 is a vertical section through a barrel, showing the improved tube in place therein. Fig. 4 is a perspective view of the tube detached. Fig. 5 is a detail perspective view of the removable head. Figs. 6 and 7 are top plan views showing slightly modified forms of heads. Fig. 8 is a perspec-

tive of the key employed for removing the head shown in Fig. 5. Fig. 9 is a top plan view of the tube-holding device.

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

In the present case the refrigerator attachment is shown in connection with an ordinary beer-barrel; but it will be readily understood that it may be employed in receptacles of various kinds. In the drawings the barrel is designated by the numeral 10 and has the usual heads 11, provided with centrally-arranged screw-threaded openings 12, into which are screwed bushings 13, having annular flanges 14, that bear against the outer faces of said heads. Extending across the barrel is the refrigerator-tube 15, the opposite ends of which fit snugly within the bushings 13. By referring particularly to Fig. 4 it will be seen that this tube is preferably cylindrical in form and has on its exterior face, contiguous to one end, an annular flange 16, provided with notches 17 in its peripheral edge. The end of the tube extending beyond this flange has a plurality of openings 18, the purpose of which will hereinafter appear. The opposite end of the tube is provided with internal threads 19 and is arranged to receive a head 20, the preferred form of which is shown in Fig. 5. This head comprises a cylindrical collar 21, having external threads 22, which coact with the threads 19 in the end of the tube. It is furthermore provided on its exterior face with an annular flange 23, having a pair of oppositely-disposed peripheral notches 24. A wall 25 extends across the collar, and a nipple 26 is secured therein, said nipple having a passage-way 27 there-through, which is closed by a turning-plug 28 or other suitable valve. It will thus be seen that when the head is screwed within the tube the wall 25 closes the end of said tube and the flange extends over the end edge thereof. For the purpose of applying this head a key (illustrated in Fig. 8) is provided, said key comprising a shank 29, having at one end a handle 30 and at the other a ring 31, provided with projecting lugs 32, arranged to engage in the notches 24 of the flange. By applying this device and rotating it in one direction or the other the head can be removed



or replaced. In Figs. 6 and 7 slightly-modified forms of head are shown, the same collar 21 and flange 23 being provided, but the notches 24 being located, respectively, in the outer and inner faces of the collar. It will be obvious that a slightly-modified form of wrench or operating device will be necessary, in which case the lugs 32 will be located either on the inner or outer faces of the ring 31, as may be necessary. For the purpose of closing the open end of the tube a cap 33 is provided, which fits over the projecting end of said tube and has an annular flange 34, that rests upon the integral flange 16. Screws 35 or other suitable fasteners detachably connect this cap to the flange. By this means not only is the open end covered, but the side openings 18 are also closed.

The manner of applying the device will be perfectly evident. The head is first detached and a packing-gasket 36 is located upon the integral flange 16. The tube is then inserted in the barrel and another gasket 37 is applied to the end thereof, a small portion of which projects beyond the bushing, after which the head is inserted and screwed down tightly. As a result the integral flange of the tube will be drawn snugly against the gasket 36, and a tight joint at both ends of the tube will be insured. Furthermore, because of the internal threading of the tube, said threads will not interfere in the least with the removal or insertion of the tube and will be protected from injury.

The refrigerator as thus described forms no part of the present invention, the novelty in this case residing in the machine for holding the tube while being inserted in or removed from a barrel or other receptacle. The mechanism illustrated in the accompanying drawings is at present considered preferable. A hollow base-support 38 is secured in vertical position by a flange 39 or other suitable means located at the lower edge thereof, said support being provided at its upper end with a centering-ring 40, having a flat upper face 41, upon which are located positioning-lugs 42, as clearly shown in Fig. 9. Within the support are arranged arms 43, pivoted at their lower ends to lugs 44 and provided at their upper ends with offset outwardly-extending fingers 45, which are arranged to engage in openings 46, made for the purpose in the upper end of the support. A rock-shaft 47 is journaled in the bearings 48 in the lower portion of the support and has a projecting end 49, that carries an operating-lever 50. Suitable collars 51, secured to the shaft by set-screws 52, hold said shaft against longitudinal displacement. To the portion of the shaft located within the support is secured a crank-arm 53, and the outer end of said crank-arm is pivoted to the lower end of an upright stem 54, the upper end of said stem being pivotally connected to links 55, that are in turn pivoted to the upper ends of the arms 43. The preferred manner of connecting the links 55 to

the stem is shown in Fig. 2, said stem being provided with an annular groove and the links having heads which fit in said grooves. A nut 56, screwed upon the end of the stem, fits over the heads, and thus holds them in place, but permits of the necessary pivotal movement.

Assuming the tube is to be inserted in a barrel, said tube is first placed upon the base-support so that its integral flange will rest upon the centering-ring and the projecting end adjacent thereto will be located within the upper end of the support. The tube is then rotated until the lugs upon the centering-ring engage in the notches of the integral flange, whereupon the openings 18, above described, will align with the openings 46 in the upper end of the support. During this operation the arms 43 are in the position shown by dotted lines in Fig. 2, and thus are entirely out of the way. After the tube has been properly positioned, however, the lever is thrown downwardly, consequently raising the stem and the links, which links will force the arms apart, so that the fingers will engage in their respective sockets and necessarily pass through the openings in the tube aligned therewith. By this means the tube is securely locked in place. The barrel is then placed upon the same and the head inserted in the manner already described. To remove the tube, the caps are first removed and the barrel is placed upon the support in the manner shown in Figs. 1 and 2. Said tube is then locked and the barrel removed. By this means it will be seen that a simple but very efficacious device is provided that will securely hold the tube in place and yet will readily release the same when desired. The elements are simple and are so constructed and arranged that there is little chance of their getting out of order; but should they for any reason become deranged or broken they are completely accessible for the purposes of repair or replacement.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In a machine for holding refrigerator-tubes, the combination with a support having an open seat in one end in which the end of the tube engages, of tube-engaging devices movably mounted upon the support and arranged to engage the tube to hold it against movement upon the support, and operating mechanism for the tube-engaging devices also carried by the support.



2. In a machine for holding refrigerator-tubes, the combination with a support having a seat at one end against which a portion of the tube bears, of arms each pivoted at one end upon the support and having a finger at its other end, which fingers are located adjacent to the seat and are arranged to engage the tube to hold it against turning, and operating means for moving the arms, also carried by the support.

3. In a machine for holding refrigerator-tubes, the combination with a support, of movable arms carried by the support and having holding devices arranged to be brought into engagement with the tubes and support, and mechanism for moving said arms and the holding devices carried thereby into and out of engagement with said tubes and support.

4. In a machine for holding refrigerator-tubes, the combination with a support, of movable arms pivoted upon the support and having holding-fingers arranged to engage with the tubes and with the support, and means for operating the arms to move the fingers carried thereby into and out of engagement with said tubes and support.

5. In a machine for holding refrigerator-tubes, the combination with a hollow support, of movable arms pivoted at their lower ends within the support and having holding-fingers on the outer sides of their upper ends, said fingers being arranged to be brought into engagement with the tubes, and means for operating the holding-arms to move the fingers into and out of engagement with said tubes.

6. In a machine for holding refrigerator-tubes, the combination with a hollow support having openings in its walls contiguous to the upper end, of movable holding-arms pivoted at their lower ends within the support and having fingers at their upper ends arranged to fit in the openings of said support, said fingers being also adapted to engage the tubes, and means for swinging the arms and moving the fingers into and out of the openings of the support.

7. In a machine for holding refrigerator-tubes, the combination with a stationary support against which the tube bears, of arms pivoted to the support and movable toward and from each other, means for moving the arms, and tube-engaging fingers carried by and projecting from the outer faces of the arms, said fingers being arranged to engage a tube placed upon the support to prevent the movement of said tube away from the support.

8. In a machine for holding refrigerator-

tubes, the combination with a support against which one end of the tube to be held bears, of holding means mounted upon the support and arranged to engage the tube to hold it against movement, positioning devices for the tube located upon the end of the support and arranged to engage the tube to hold the same against turning and in coacting relation with the holding means.

9. In a machine for holding refrigerator-tubes, the combination with a support, of holding-arms pivoted upon the support and having fingers arranged to engage the ends of the tube, a rock-shaft journaled upon the support, an operating-lever secured to the shaft, a crank-arm also connected to the shaft, and links pivotally connected with the free ends of the holding-arms and with the stem.

10. In a machine for holding refrigerator-tubes, the combination with a hollow supporting-standard, of arms pivoted at their lower ends within the standards and having fingers at their upper ends arranged to engage the end of the tube, a rock-shaft journaled upon the standard and having an exposed end, an operating-lever mounted upon the exposed end, a crank-arm connected to the shaft within the standard, a stem having a pivotal connection with the crank-arms, and links pivotally connecting the stem and holding-arms.

11. In apparatus for holding refrigerator-tubes, the combination with a standard, of tube-engaging means mounted thereon and including movable fingers arranged to engage in openings of the tube to be held, and a centering-ring located at the upper end of the standard and provided with positioning-lugs that engage in sockets in the tube to hold the openings of said tube in coacting relation with the movable fingers.

12. In apparatus for holding refrigerator-tubes, the combination with a hollow standard having a centering-ring at its upper end, said ring being provided with upstanding positioning-lugs, of tube-engaging means mounted within the hollow standard and including movable fingers arranged to engage the end of a tube inserted therein.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ALEXANDER B. KOKERNOT.

Witnesses:

FELIX J. DREYFOUS,  
ALBERT GUILBAULT.