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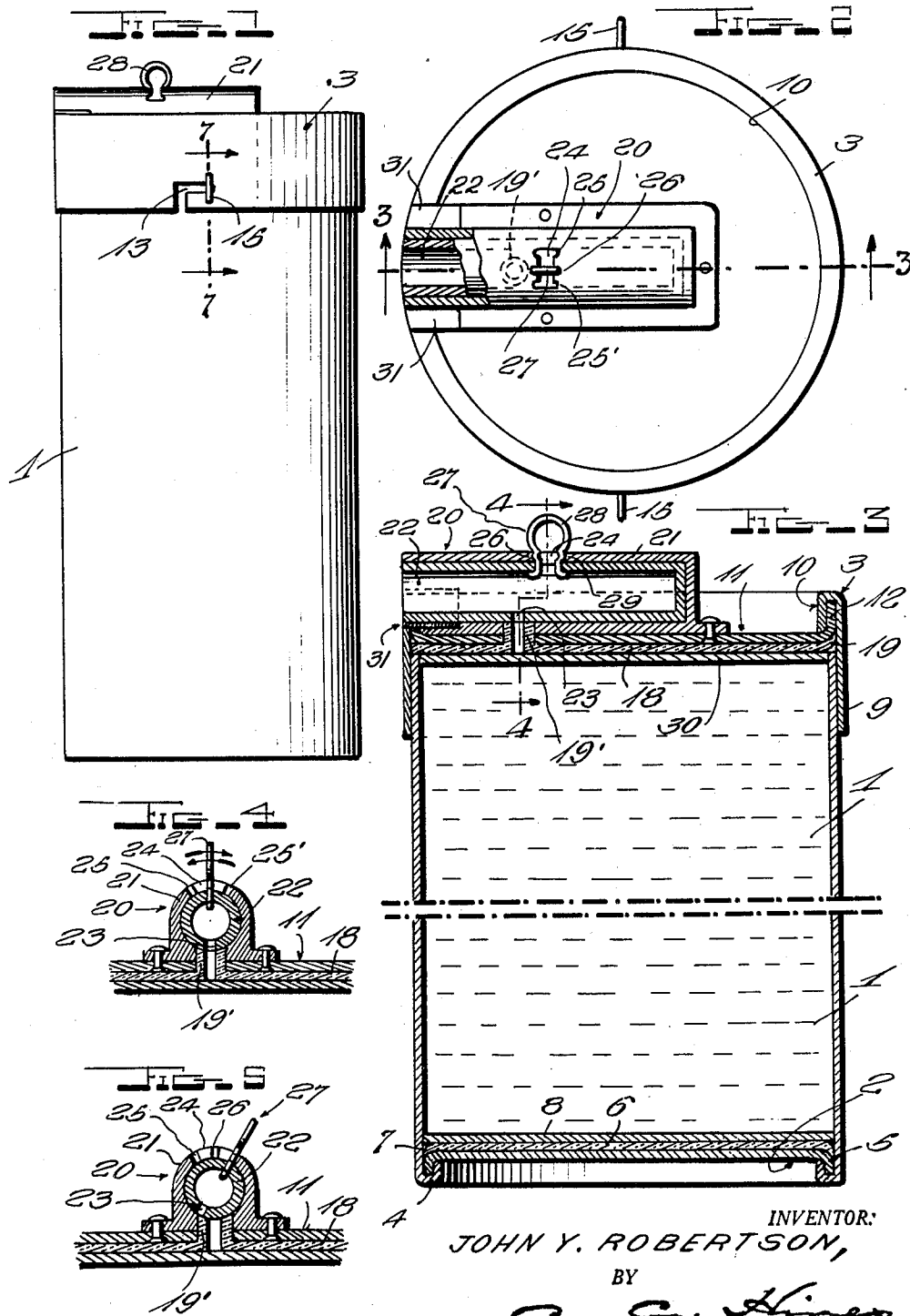
J. Y. ROBERTSON

2,334,035

CONTAINER FOR COMMODITIES

Filed Oct. 27, 1942

2 Sheets-Sheet 1



INVENTOR:
JOHN Y. ROBERTSON,

BY

C. C. Hines,
ATTORNEY.

Nov. 9, 1943.

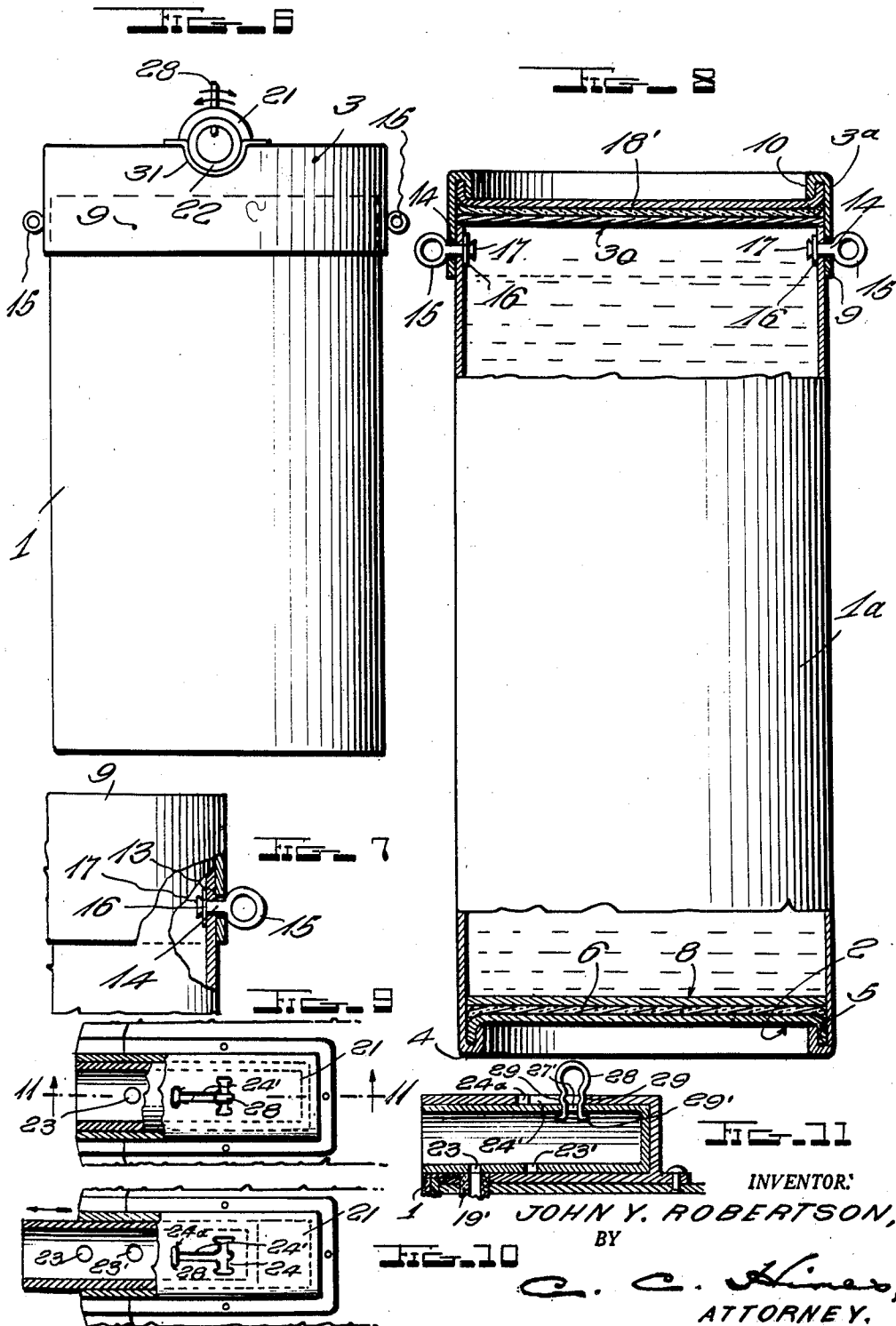
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UNITED STATES PATENT OFFICE

2,334,035

CONTAINER FOR COMMODITIES

John Y. Robertson, El Paso, Tex.

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6 Claims. (Cl. 221-19)

This invention relates to improvements in containers, and particularly containers of the cylindrical carton type adapted for use in the packing of oils, syrups and other liquids, fruits and vegetables, and various other solids and semisolid commodities.

One object of the invention is to provide a container which may be largely made of fibrous or synthetic plastic materials, and which is impenetrable by or impervious to oils and other liquids, and capable of being cheaply made and used with advantage in the packing of goods of the character named, as well as for the packing of various other kinds of goods or materials.

Another object of the invention is to provide a container which, after being once filled and emptied, may be repeatedly used and kept in a clean and sanitary condition.

Still another object of the invention is to provide a container which in its use as a liquid container may be provided with a discharge device of novel construction for conveniently dispensing the liquid as desired.

The invention consists of a container embodying certain novel features of construction, combination and arrangement of parts, hereinafter fully described and claimed, and shown in the accompanying drawings, in which:

Fig. 1 is a side elevation of the improved container provided with a discharge device.

Fig. 2 is a top plan view thereof with a portion of the discharge device shown in section.

Fig. 3 is a vertical section on the line 3-3 of Fig. 2.

Figs. 4 and 5 are sectional views through the top of the container, showing the discharge device, respectively, in discharge position and one of its cut-off positions.

Figure 6 is a side elevation of the container looking toward the same at right angles to the view shown in Fig. 1.

Fig. 7 is a view, partly in section, of the top of the container and cover, showing one of the cover fasteners in fastening position.

Fig. 8 is a side view of a modified construction of container, showing the upper and lower portions thereof in section.

Fig. 9 is a top plan view, partly in section, showing a modified form of discharge device in one of its discharging positions.

Fig. 10 is a similar view of the discharge device shown in Fig. 9 in its other discharge position.

Fig. 11 is a sectional view taken on line 11-11 of Fig. 9.

Referring now more particularly to Figures 1

to 7, inclusive, of the drawings, 1 designates the body of the container which, as shown, is of cylindrical shape and formed of cardboard, fibre-board or other similar heavy paper, or of cellulosic material or any other fibrous or plastic material or materials. This container body is permanently closed at its lower end or bottom by a disk or head 2 and is adapted to be closed at its upper end by a detachable top or cover 3. The lower edge of the container body is rolled or turned inwardly to form a channeled internal bead or rim 4 and the head or disk 2 is provided with a marginal flange 5 which fits within the channel of the rim and in which it may be fixed by crimping the flange and side walls of the rim or by gluing or otherwise securing the flange in position. The head or disk 2 may be made like the body of fibrous or cellulose material and the body 1 and head 2 may be impregnated or coated with any suitable kind of protecting or water-proofing material. When, however, the container is designed to hold oil, fruit juices or other liquids, which may be stored in the container for a long period, I provide special means for sealing the bottom of the container against leakage and loss of the liquid and protecting the bottom, so that the container, after having been once filled and emptied, may be refilled and repeatedly used for storage purposes. To this end, a sealing disk or liner 6 of waterproof material is arranged to cover the upper or inner surface of the head 2 to which it may be secured by indissoluble cement or otherwise fastened, and this disk 6 may be formed with a downturned edge or peripheral flange 7 to fit in and close the crevice between the wall of the body and flange of the head 2. In practice the disk 6 may be made of glass, isinglass or other inherently waterproof material, or a material impervious to oils or liquids generally and capable of being washed with water or otherwise cleaned. Thus, if the container is originally used as a holder for oil, fruit juice, or other liquid or substance liable to leave a coating or deposit on the bottom head, the character of the material of which the head is made will allow the coating or deposit to be readily washed off in cleaning the interior, so that the container may be readily cleansed for refilling and further use. If desired, a protector head or disk 8 may additionally be used as a cover for the disk 6 to protect the same from deposits when the container is filled and also to prevent injury to the disk 6 in transit and while the container is being handled before filling and thereafter and until the container is emptied of its original contents. This disk 8 may be fric-

tionally held in position and removed after the original contents are discharged so that the disk 6 will be exposed. By this means all, or substantially all, of the deposits will be removed with the disk 8, so that the container may be cleaned for reuse with surety and with ease and greater facility.

The cap or cover 3 comprises a cylindrical body portion 9 normally open at top and bottom and having an intumed or rolled portion 10 forming a channeled rim. The upper part of this cover body is closed by a depressed head 11 lying in the plane of the base of the rim and having an upturned marginal flange 12 fitted in the channel of the rim and permanently secured thereto by crimping and interlocking the flange and walls of the rim or gluing or otherwise fastening the flange to the rim. The body and head of the cover may be formed of any of the materials mentioned and the cover may be adapted to be fitted frictionally down upon the upper end of the container body 1 with a tight fit and used in conjunction with sealing means to hermetically seal the container, or it may have a threaded engagement with the container body or be secured thereto by any other suitable fastening means. In the present instance the cover body is shown as provided at diametrically opposite sides with L-shaped keeper slots 13 having locking portions extending circumferentially of the cover and entrance portions extending vertically and opening outwardly through the lower edge of the cover. These slots are adapted to engage fasteners 14 on the container body, each comprising a rotary shank or stem having an eye forming a handle 15 at its outer end and passing at its inner end through a retaining washer 16 disposed on the inner side of the container body and headed, as at 17, to hold it from displacement. By slipping the cover down on the container to engage the entrance portions of the slots with the stems of the fasteners and then turning the cover to bring the locking portions of the slots into engagement with the stems of the fasteners the cover may be brought into locking position and locked by turning the heads of the fasteners at right angles to the locking portions of the slots, whereby the body of the cover will be clamped to the body of the container. By reversing these movements the cover may be released for removal, as will be readily understood.

Arranged on the inside of the cover and bearing against the head 11 is a disk 18 similar to the disk 6 and also formed of glass, isinglass or like moisture-proof material. This disk 18 is suitably fastened to the head 11 and is provided with an upturned marginal edge or flange 19 closing the crevice between the cover body and flange 12. This disk 18 protects the head 11 against saturation by any liquid in the container and against being coated by deposits from the material stored in the container. This disk may be a plain disk, like the disk 6 or like the disk 18' in the structure shown in Fig. 8, hereinafter described, in the embodiment of the invention in a spoutless container, but in the construction shown in Figs. 1 to 7, inclusive, wherein a discharge device is employed, the disk 18 is formed with a tubular projection or nipple 19' for cooperation with a discharge device 20, whereby, if desired, liquid contents of the container may be dispensed in quantity desired without removal of the cover.

The discharge device 20 comprises a casing 21 suitably secured to the head 11 and extending radially thereof, said casing having a closed inner

end and an open outer end. The open end of the casing fits in a concavity or recess formed in the rim 10 and terminates in line with the outer face of the cover body 9 at one side thereof. In this casing fits a tubular discharge spout 22, closed at its inner end and open at its outer end. The bottom of the casing 21 is formed with an opening in which is received the nipple 19', which extends thereinto through the head 11, and the bottom of the spout 22 is formed with a port 23 which is designed to register with the nipple when the spout is in discharge position. The spout is adapted to be rocked or turned laterally on its longitudinal axis from either one of two closed or cut-off positions to an intermediate discharge position. To this end the casing is provided in its top with a transverse slot 24 with which intersect sets of side locking notches 25 and 25' and a set of central locking notches 26. Suitably engaged at their lower ends with an opening 27' in the top of the spout are the arms of a looped spring metal handle and fastener 27, the upper ends of whose arms are connected by a bight or return portion 28 forming a head or grip portion. These arms extend through the slot 24 and their portions lying in the slot are provided with offsets or locking projections 29 engageable with any of the sets of locking notches. The fastener is movable in the slot 24 to turn the spout to a central discharge position, in which the projections 29 are adapted to engage the notches 26 to lock the spout in such position, or to dispose the spout in one or the other of the cut-off positions, in which the projections 29 will engage the notches 25 or 25' to lock the spout in the selected cut-off position. By gripping the handle 28 between the thumb and forefinger the operator may exert pressure on the spring arms to retract the locking projections from engagement with a set of notches and permit movement of the fastener in the slot 24 to turn the spout, and by their releasing the pressure on the handle when the projections are properly disposed the projections will be allowed to engage selected notches to lock the spout in selected position. The spout may thus be adjusted to discharge position and held in such position for the discharge through the nipple, outlet port and spout of all or any desired amount of liquid from the container, after which the spout may be turned to either cut-off position, in which it will be automatically locked, to close the discharge device against the escape of liquid, regardless of the position of the container. The lower ends of the fastener arms are formed with bent portions 29' to hold the fastener from displacement.

A disk 30 similar to the disk 8 may be used in the cover to protect the disk 18 after the container is filled and during its storage and shipment. This disk 30 may be punctured in line with the nipple 19' when it is desired to dispense liquid through the spout without removing the disk, or the disk may be removed to expose the nipple prior to such a dispensing operation.

The container provided with the discharge nozzle may be used for the packaging of oil, fruit juices and various liquids, which may be discharged in bulk by removal of the cover, or discharged in any quantity desired at the time through the discharge nozzle. By the use of a waxed or other properly protected container body and the provision of the protected container ends liquids or semi-liquids or solids containing a percentage of liquid may be stored in the container

for a long period without liability of the liquid penetrating and soiling the body or protected heads at the ends of the container. After the original contents of the container have been discharged, and in the event that it is desired to use the container again, the disks 8 and 30 may be removed for the removal with them of all deposits, leaving the disks 6 and 18 exposed, which will be in a fully or comparatively clean state and which with the interior of the container body may be washed or otherwise cleansed to provide a sanitary container for further use. In the mounting of a discharge spout in the manner described in which a portion of the rim of the cover is cut away to form a concavity or seat for the outer end of the spout casing, allowing the spout to be partially inclosed in the space bounded by the rim 10, it is desirable to provide a bushing 31 to face and protect the raw edges of the cut and to reinforce the rim at this point. The spout casing, spout and bushing may in practice be molded or otherwise formed of a suitable plastic material. By thus making the container as a whole of fibrous and cellulosic or suitable plastic materials, a container which is light in weight but strong, durable and moisture-proof may be economically produced.

In Fig. 8 I have shown a container 1^a which is generally similar in construction to the container shown in Figs. 1 to 7, inclusive, but in which the cover 3^a is designed to be used without a discharge spout. This form of container may also be used for holding liquids, semiliquids and solids, which are removable on removal of the cover. Otherwise this container is employed in the same manner as the form of container shown in Figs. 1 to 7, inclusive.

In Figs. 9, 10 and 11 I have shown a modified form of spout construction in which the spout casing is provided with a longitudinal slot 24' allowing the spout to be projected outward beyond the body of the container for a better dispensing action under some conditions, and in which the spout is provided with a second port 23' to register with the nipple 19' when it is so projected for use.

The slot 24' may intersect locking notches 24^a at its outer end with which the locking projections 29 may be engaged to lock the spout in projected position by compressing the fastener and turning it in the opening 27' to a position at right angles to its normal position. The fastener may be released in an obvious manner to return it to normal position to allow the spout to be retracted and to properly dispose it again for movement in slot 24.

By the use of the term "fibrous material" in the claims, I mean any of the materials mentioned or their equivalent.

From the foregoing description, taken in connection with the drawings, the construction, mode of use and advantages of my improved container will be readily understood without a further and extended description. While the structures shown are preferred, it will, of course, be understood that changes in the form, construction and arrangement of parts may be made within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described my invention, I claim:

1. A container for commodities comprising a container body having a detachable cover provided with a liquid discharge port, a radially arranged casing on the top of the cover having a

port registering with the port in the cover and having an open outer end terminating substantially in line with the rim of the cover, a rotatable and longitudinally slidable tubular discharge spout arranged in the casing and having a discharge port movable into and out of registry with the discharge port in the casing by reverse rotary movements of the spout in the casing, said spout being closed at its inner end and open at its outer end, and means for slidably moving the spout into and out of discharge positions and locking the same to the casing in such positions.

2. A container for commodities comprising a container body having a detachable cover provided with a liquid discharge port, a radially arranged casing on the top of the cover having a port registering with the port in the cover and having an open outer end terminating substantially in line with the rim of the cover, a rotary and slidable tubular discharge spout arranged in the casing and having a discharge port movable into and out of registry with the discharge port in the casing by reverse rotary movements of the spout in the casing, said spout being closed at its inner end and open at its outer end and said casing having a slot and locking notches intersecting the same, and a handle connected to the spout and movable laterally in the slot to reversely rotate the spout to move the discharge port therein into and out of registry with the port in the casing and to longitudinally slide the spout to open and closed positions, said handle having resilient jaws with locking portions to engage the notches and lock the spout in such positions.

3. A container for commodities comprising a container body having a detachable cover provided with a liquid discharge port, a radially arranged casing on the top of the cover having a port registering with the port in the cover and having an open outer end terminating substantially in line with the rim of the cover, a rotary and longitudinally slidable tubular discharge spout arranged in the casing and having a discharge port movable into and out of registry with the discharge port in the casing by reverse movements of the spout in the casing, said spout being closed at its inner end and open at its outer end, and guiding and keeper means on the casing and a resilient handle and locking device on the spout engaging said guiding means to rotate the spout to move the ports into and out of registry and to longitudinally slide the spout into and out of discharge position and engageable with the keeper means to lock the spout in such positions.

4. A container for commodities having an end closure provided with a discharge port, a radially arranged casing on the outer side of said closure having an outer end portion terminating substantially in line with the rim of the closure, a hollow valve having a port therein to register with the port in the closure, said valve being rotatably movable in the casing to dispose the ports in registering and non-registering positions and being slidably movable in the casing through said outer end portion thereof into and out of dispensing position, and means for rotating and sliding the valve.

5. A container for commodities having an end closure having a discharge port and provided with a surrounding rim flange formed with a seat aperture therein, a radially arranged casing on the outer surface of said closure within the space bounded by the rim flange, said casing being

in communication with the container through said discharge port and having an outer end portion seated in said seat aperture in the rim flange and terminating substantially in line with the outer face of said flange, a hollow valve having a port therein to register with the port in the closure, said valve being rotatably movable in the casing to dispose the ports in registering and non-registering positions and being slidably movable in the casing through said outer end portion thereof into and out of dispensing position, and means for rotating and sliding the valve.

6. A container having an end closure provided with an outlet port, a cylindrical casing extend-

ing radially on the outer surface of the closure and having an open end portion terminating substantially in line with the rim of the closure, said casing having a guide slot therein, a valve in the casing having a port to register with the outlet port and movable in the casing into and out of dispensing positions, and an operating member for moving the valve, said operating member extending through the guide slot and being movable therein to move the valve and comprising members relatively movable for locking engagement with and disengagement from portions of the walls of the slot.

JOHN Y. ROBERTSON.