H. M. BOE.

GREASE DISPENSING APPARATUS.

APPLICATION FILED JULY 8, 1918.

1,320,729. Patented Nov. 4, 1919.

Fig. 1

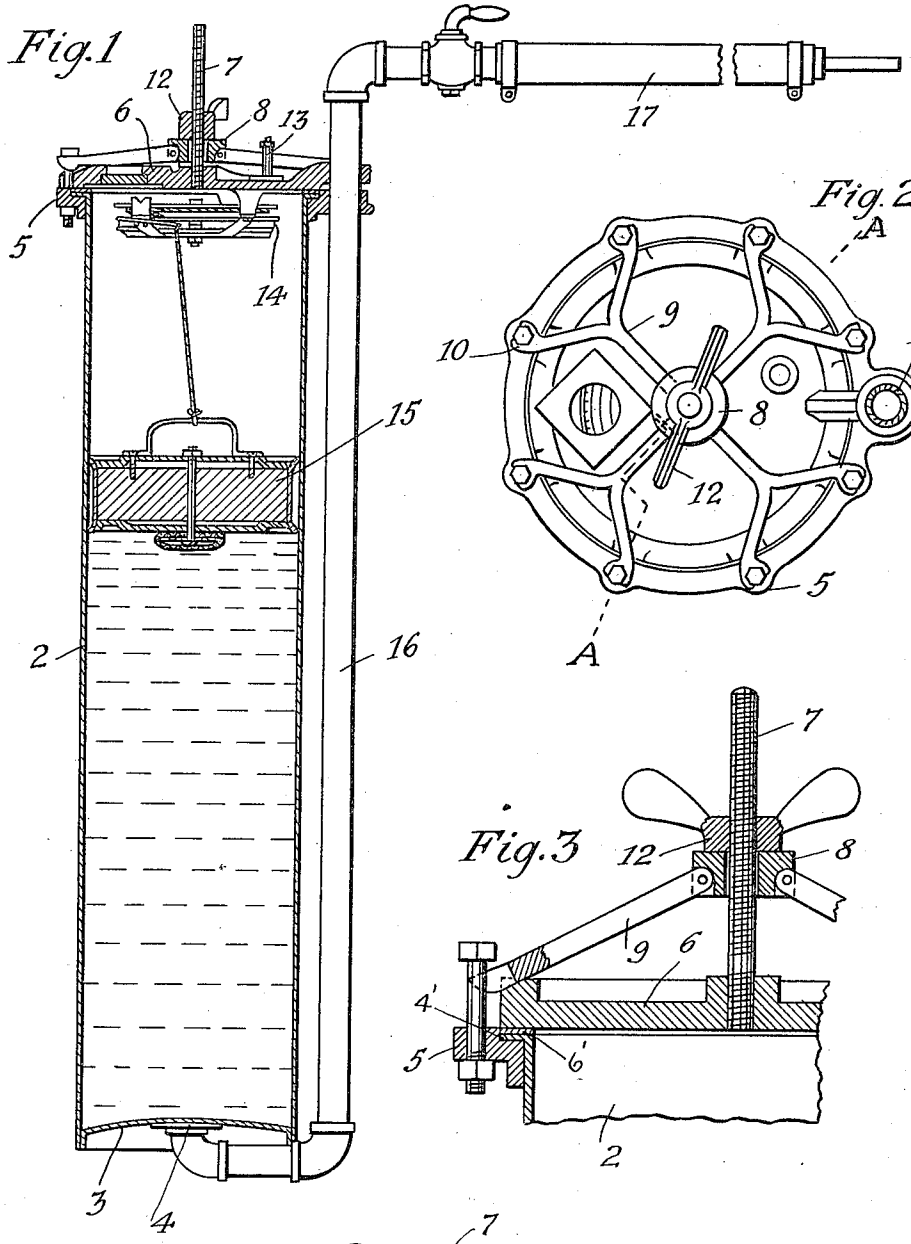
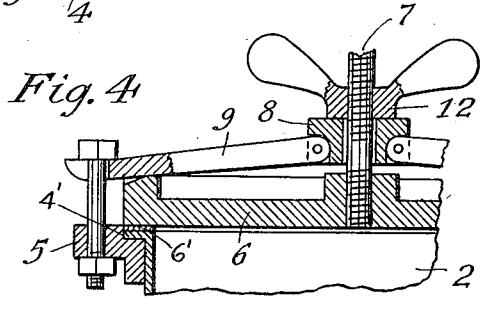


Fig. 2

Fig. 3

Fig. 4



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UNITED STATES PATENT OFFICE.

HANS M. BOE, OF MINNEAPOLIS, MINNESOTA.

GREASE-DISPENSING APPARATUS.

1,320,729. Specification of Letters Patent. Patented Nov. 4, 1919.

Application filed July 8, 1918. Serial No. 243,977.

To all whom it may concern:

Be it known that I, HANS M. BOE, a citizen of the United States, resident of Minneapolis, county of Hennepin, State of Minnesota, have invented certain new and useful Improvements in Grease-Dispensing Apparatus, of which the following is a specification.

My invention relates to tanks or containers designed particularly for grease or other lubricant in liquid or semi-liquid form and the object of the invention is to provide means for easily and quickly clamping the cover down upon the container preliminary to the admission of pressure thereto and discharging the contents of the container.

The invention consists generally in various constructions and combinations, all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawing forming part of this specification,

Figure 1 is a vertical sectional view of a container and cover, with my invention applied thereto,

Fig. 2 is a top view of the same.

Figs. 3 and 4 are detail sectional views showing the locked and released position of the clamps on section line A—A of Fig. 2.

In the drawing, 2 represents the tank or container having a bottom 3 provided with a discharge port or opening 4. The upper walls of the tank or container are outwardly turned at 4′ and seated in an encircling ring 5. A cover 6 is seated on a gasket 6′ resting upon the flanged upper walls of the container within said ring and provided with a centrally arranged threaded stud 7 whereon a collar 8 is loosely mounted. A series of levers 9 are pivoted at their inner ends on said collar and have forked outer forming pairs of arms terminating in recessed ends 10 which engage the shanks of bolts 11 mounted in the ring 5 and projecting upwardly therefrom above the said cover. The collar 8, as shown, is loosely mounted on the stud 7 and the levers 9 have loose pivotal connections with said ring. The cover has a raised peripheral portion which forms a fulcrum for the levers 9 so that when the ring 8 has moved down on the stud 7 the levers will be rocked and recessed ends of the arms engaging the heads of the bolts 11 and fulcrumed on the cover will exert a downward pressure on the edges of the cover to clamp it securely on the walls of the container and hermetically seal the joint between them. For depressing the collar 8, I prefer to provide a wing nut 12 having threaded engagement with the stud 7. By revolving this nut, pressure may be applied to the levers to clamp the cover or release it.

As indicated in Fig. 2, I have shown what might be termed a double fork. The diverging portions or arms of the levers bear on the cover near their point of engagement with the heads of the bolts and the levers will therefore have a very strong leverage for clamping the cover and each lever having a double bearing on the cover, there will be no tendency to tilt or twist out of position and cause an improper seating of the cover or an imperfect closing of the joint between the cover and the top of the container. This forked or double bearing of the levers on the cover will have the effect of equalizing the leverage of the bolts so that there will be an even pressure on the cover throughout its bearing on the gasket 6′. This forked arrangement of the levers also eliminates any tendency of cramping or binding of the levers.

I have found this forked construction of the levers to be an important feature of the invention, as it not only greatly facilitates the quick closing of the cover but positively insures a tight joint between the cover and its seat and in containers of this kind which have to be opened quite frequently, provision for increasing the speed of operation and efficiency of the cover adds considerably to the value of the device. Air is admitted to the container through the valve 13. A suitable indicator 14 is mounted on the underside of the cover with a cable connecting it to the piston 15, the contents of the container being discharged through the pipe 16 and the hose 17. These latter features I make no claim to in this application and do not, therefore, illustrate or describe them in detail.

I claim as my invention:

1. A device of the class described comprising a container, a cover therefor, projections carried by said container and encircling said cover and extending above the same and having heads formed thereon, levers having forked outer ends forming arms provided with recessed ends for strad-

dling said projections and engaging said heads, said cover having a bearing for said levers near said projections, a sliding collar wherein the inner ends of said levers are pivoted for freedom of movement, a guide for said collar and means for moving said collar vertically to depress or release the inner ends of said levers and clamp or release said cover.

2. A device of the class described comprising a container, a cover therefor, bolts mounted at intervals on said container and adjustable vertically and encircling said cover, levers having bearings on said cover near said bolts and pairs of arms formed on their outer ends each arm having a recessed end for engagement with said bolt and the head thereof, a sliding collar whereon the inner ends of said levers are loosely pivoted, a guide for said collar, and means for depressing said collar and the inner ends of said levers to clamp said cover.

3. The combination, with a liquid container having an open top and an outwardly projecting annular flange, of a ring encircling the top of said container and having a recessed upper surface to receive said flange, bolts mounted in said ring and extending above the top of said container and having heads at their upper ends, a cover for said container seated on said flange, clamping levers having outer ends for engagement with said bolts and fulcrumed on the adjacent surface of said cover, and means for operating said levers to lock or release said cover.

In witness whereof, I have hereunto set my hand this 21st day of June 1918.

HANS M. BOE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."