

(No Model.)

T. J. GOLDSCHMID.
SHIPPING FLASK FOR ANHYDROUS AMMONIA.

No. 479,592.

Patented July 26, 1892.

Fig. 1.

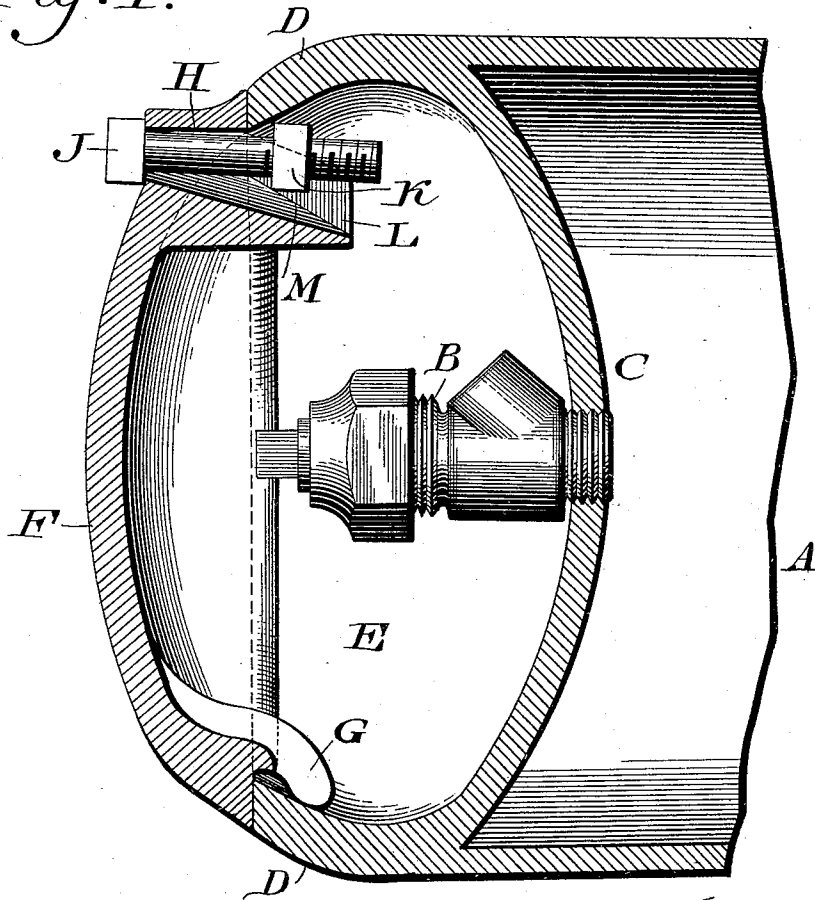
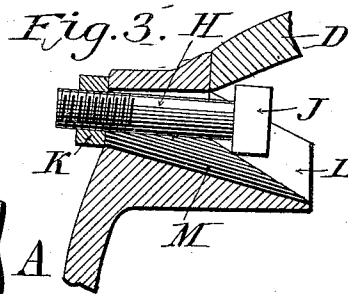
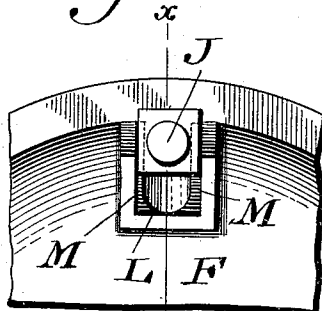


Fig. 2.



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SHIPPING-FLASK FOR ANHYDROUS AMMONIA.

SPECIFICATION forming part of Letters Patent No. 479,592, dated July 26, 1892.

Application filed March 17, 1892. Serial No. 425,247. (No model.)

To all whom it may concern:

Be it known that I, THEODORE J. GOLDSCHMID, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Shipping-Flasks for Anhydrous Ammonia, which improvement is fully set forth in the following specification and accompanying drawings.

10 My invention consists in providing a shipping-flask for anhydrous ammonia at the valve end thereof with a cap and novel means for attaching the same to the tank, whereby the valve thereof may be inclosed and improper access thereto prevented.

Figure 1 represents a longitudinal section of a portion of a shipping-flask for anhydrous ammonia embodying my invention. Fig. 2 represents an end view of a portion thereof. 20 Fig. 3 represents a sectional view of a modification of a portion of the flask.

Similar letters of reference indicate corresponding parts in all the figures.

Referring to the drawings, A designates a portion of a shipping-flask for anhydrous ammonia, and B designates the valve thereof, the same being secured to the head C of said flask, said head being concave or dished and having its end continued outwardly and somewhat converging or inwardly, thus forming the rim D and providing the chamber E for said valve B.

F designates a cap for closing the chamber E and preventing improper access to the valve B, said cap being of the form of a curved or other suitably-shaped plate with a diverging lug G, which has a bearing on the inner face of the rim D of the wall. At another portion of the cap is an opening H to receive the securing-bolt J, which enters the chamber E and is provided with a nut K, which is adapted to abut against the inner face of the rim D of the wall C, so that when the bolt is properly turned the nut is tightened against said rim D, whereby the cap is firmly connected with the flask.

Continuous of the wall of the opening H within the chamber E is the channel L, on the inner sides of which are the inclined planes or guides M, against which the nut K rests and is adapted to ride, it being noticed that

the rise of said guides M is in outward direction.

The operation is as follows: The cap is represented as secured in position; but when the same is to be removed in order to open the chamber E to admit access to the valve or for other purposes the bolt J is turned, it being noticed that the head of the same is on the outside of the cap, so that it may be readily engaged by a wrench. As the nut is prevented from turning owing to the walls of the channel L, which it freely occupies, it rides down the guides M, whereby it is removed from the rim D of the wall C, thus unlocking the cap, which latter may now be swung outwardly and entirely removed, if so desired, thus uncovering the valve-chamber. When the cap is restored, the bolt J is properly turned, whereby the nut is carried up the inclined guides M and tightened against the rim D, it now being seen that the cap is forcibly held upon the rim D and thereby reliably retained in closed position by the action of said nut and the head of the bolt. It will also be seen that, excepting the head of the bolt, the fastenings for the cap are concealed and inaccessible unless the bolt is properly operated.

It is evident that more than one bolt may be employed, in which case the proper number of openings is made in the cap, each being provided with an inclined guide for the nut, it being also evident that the bolt may be reversed, so that its head rests on the guides M and is adapted to tighten against the rim D. In this case the nut is in the end of the bolt outside of the cap, as shown in Fig. 3.

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

1. A shipping-flask for anhydrous ammonia, provided with a cap for closing the valve-chamber thereof and a bolt and nut for tightly holding said cap in position on the flask, the nut being within said chamber resting on an inclined guide and the head of the bolt outside of the cap, said parts being combined substantially as described.

2. A shipping-flask for anhydrous ammonia, provided with a cap for closing the valve-chamber thereof, said cap having an opening

and an inclined guide, in combination with a bolt in said opening and a nut on said bolt, the nut resting on said guide and when screwed up tightening against the rim of the flask, substantially as described.

5 3. A shipping-flask for anhydrous ammonia, having a cap closing the valve-chamber thereof, said cap having an opening, a channel continued inwardly therefrom, and an inclined
10 guide in said channel, a bolt in said opening, and a nut on the bolt resting on said guide, said parts being combined substantially as

described, whereby said bolt engages with the rim of the flask through the medium of said nut, as stated.

15 4. A shipping-flask for anhydrous ammonia, having a cap for closing the valve-chamber thereof, said cap being provided with a bolt, a nut, and a lug for tightening the same on the rim of the flask, substantially as described. 20

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