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CONSTRUCTION OF WAGON AND LIKE TANKS

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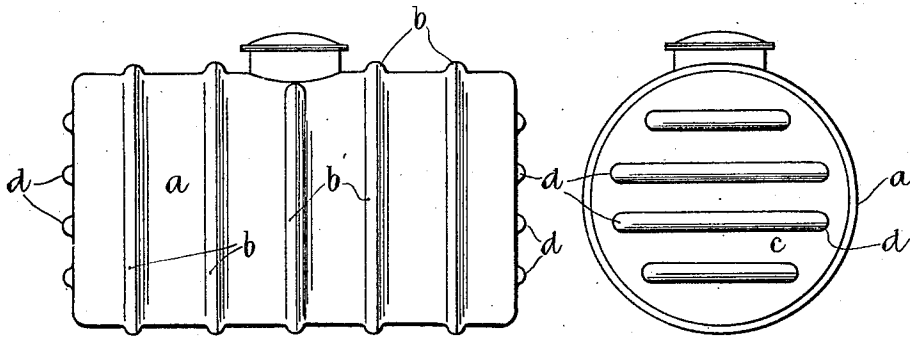


Fig. 1.

Fig. 2.

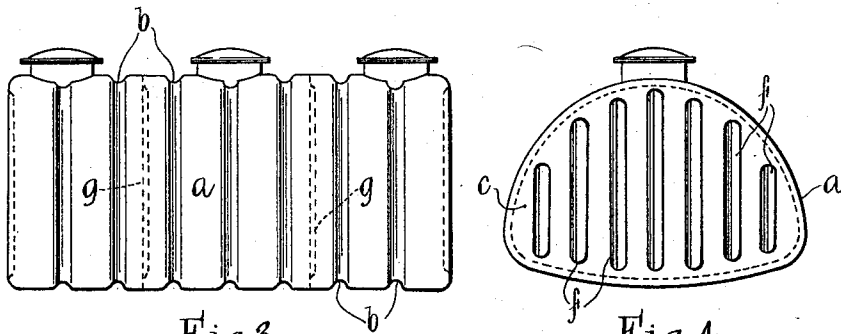


Fig. 3.

Fig. 4.

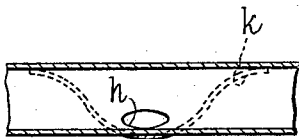


Fig. 5.

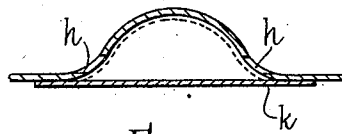


Fig. 6.

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CONSTRUCTION OF WAGON AND LIKE TANKS.

Application filed August 4, 1927, Serial No. 210,472, and in Great Britain May 7, 1927.

This invention relates to wagon and like tanks and more particularly wagon tanks such as are used for the conveyance of petrol, paraffin, oils and other liquids usually mounted upon road lorries, steam lorries, carts and the like, and has for object to provide improvements therein.

A tank made according to the present invention is provided with corrugations of any type, design or distance apart rolled or pressed circumferentially, longitudinally, diagonally or otherwise, to stiffen and strengthen the body.

Further, according to the present invention the end and/or the division plates of the tank may be embossed or corrugated vertically, horizontally, annularly or with a suitable pattern.

The corrugations may be internal and in this case provision may be made for completely draining the tank. A suitable way of draining the tank consists in cutting draining holes or slots through the corrugations and welding a covering plate over the holes or slots. Such an arrangement permits of retaining continuous corrugations and consequently maintaining unimpaired the strength and rigidity of the tank.

The tanks may be cylindrical, oval, D-shaped or of other suitable form.

Tanks made according to the present invention are illustrated, by way of example, in the accompanying drawings, wherein,—

Figs. 1 and 2 show, in front and end elevation respectively, a cylindrical single compartment tank, with external corrugations;

Figs. 3 and 4 show, in front and end elevation respectively, a D-shaped triple compartment tank, with internal corrugations;

Figs. 5 and 6 are detail views illustrating a suitable draining arrangement for use in tanks provided with internal corrugations.

Referring to Figs. 1 and 2, the body *a* of the tank is provided with external corrugations *b* rolled or pressed circumferentially. The end plates *c* are embossed or corrugated in horizontal lines *d*.

In Figs. 3 and 4 the corrugations *b* are internal, and the end plates *c* are corrugated or embossed in vertical lines *f*. The division plates *g* are corrugated in the same way as the end plates *c*.

The draining arrangement shown in Figs.

5 and 6 is suitable for use in the tank shown in Figs. 3 and 4. In Figs. 5 and 6, *h*, *h'* are the draining slots and *l* is a plate welded over the said slots. Figs. 5 and 6 show holes through the strengthening ribs or corrugations through which the liquid may flow to the outlet of the tank to prevent retention of liquid between the ribs of the tank which lie at the bottom. This allows the tank to be completely emptied, which would otherwise be very difficult. Thus the holes permit of communication between the channels between successive ribs and thus the openings of the corrugations are for the purpose of allowing the liquid trapped between the corrugations to flow towards a spigot provided at a suitable place, for example, in the end of the tank.

Whilst the two drawings of the tanks show circumferential outside or inside corrugations it is provided that the embossings or corrugations may run as shown or longitudinally, diagonally or otherwise, and the ends or divisions may be strengthened by vertical, horizontal, or annular corrugations, or with any suitable pattern.

The combined weight of the tank and its fittings and the liquid contents thereof form the total load on the vehicle, and thus the lighter the weight of the tank the greater is the weight of liquid which can be carried, with any given total load. Hitherto such tanks have been made of steel plates varying from $\frac{1}{8}$ " to $\frac{1}{4}$ ", but by the use of this invention very much thinner metal sheets may be used thus increasing the efficient load of the vehicle, whilst at the same time the necessary strength is maintained.

What I claim and desire to secure by Letters Patent is:

1. In a wagon tank a draining device, said draining device comprising at least one draining orifice in a strengthening projecting part on said tank, and a covering plate to said orifice, said covering plate being so disposed to avoid interfering with the continuity of the projection.

2. A wagon tank of curvilinear outline in cross section comprising vertical corrugations, a drainage device thereto, and a cover plate to said drainage device.

In testimony whereof, I affix my signature.
CLEMENT HENRY STEVENS.