L. HALL.

WAGON TANK CONSTRUCTION.

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1,316,949.

Patented Sept. 23, 1919.

Fig. I.

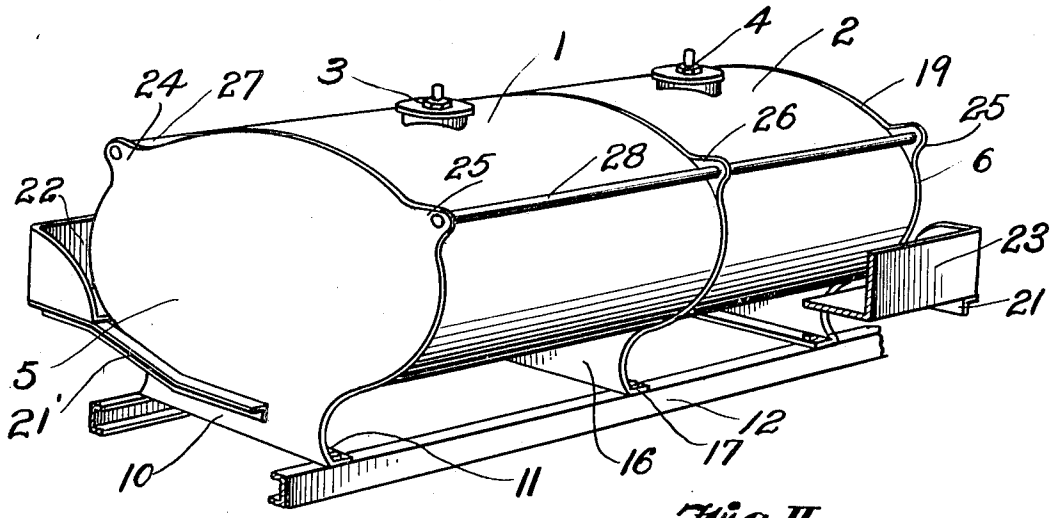


Fig. II.

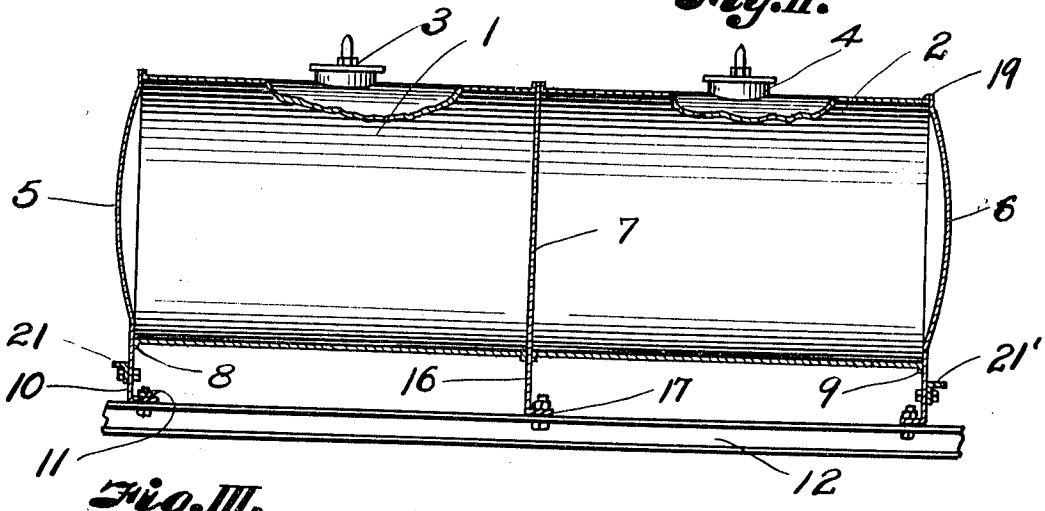
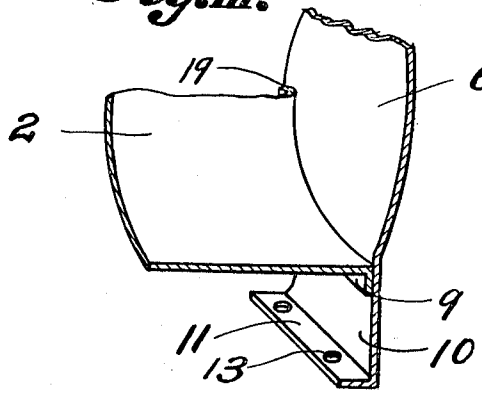


Fig. III.



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WAGON-TANK CONSTRUCTION.

1,316,949. Specification of Letters Patent. **Patented Sept. 23, 1919.**

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To all whom it may concern:

Be it known that I, LEE HALL, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Wagon-Tank Construction; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to tank construction and particularly to portable tanks generally supported upon a vehicle body or frame. Heretofore, wagon tanks have generally been supported upon saddles, transverse-sills or side sills, not infrequently made of wood. In actual practice I have found this construction to be more or less objectionable on account of the expense of so constructing the vehicle body as well as the objection that impacts, due to the passage of the vehicle wheels over an uneven road bed, are communicated to the tank body and to the contents of the tank. A tank is in effect a box girder and where the stresses and strains are applied thereto locally, there is danger of collapse unless the tank is constructed of metal of prohibitory thickness.

I have provided means whereby the stresses and strains in the tank will be minimized as well as to render the cost of manufacture of the complete wagon tank less expensive and more convenient to construct.

According to my invention I have provided means whereby the ends of the tank and the intermediate partition sheets (if partitions are used) may have formed integral therewith tank supporting bolsters adapted to rest upon the frame of a wagon or other vehicle so that the stresses, strains and shocks may be communicated to and dissipated by the end sheets and the partition sheets. I have also provided means whereby can racks may be suitably supported by the bolsters, the end sheets and partition sheets also being provided with integral rail brackets, if desired.

In the drawings,

Figure I is a perspective view of a wagon tank constructed in accordance with my invention.

Fig. II is a vertical longitudinal sectional view through the tank, and

Fig. III is a fragmentary detail perspective view of an end sheet and a portion of the tank body showing the relative positions for autogenous welding.

Referring now to the drawings by numerals of reference:

1 and 2 designate two cylindrical portions of a tank, each provided with a filling opening adapted to be closed in a suitable manner, those here illustrated being designated 3 and 4. 5 and 6 designate the end plates of the tank and 7 is a partition therefor. 8 and 9 are end flanges by means of which the tubular portions of the tank are fastened to the end plates and partition plate. Integral with each of the end sheets 5 and 6 is a bolster or transom 10 having a laterally projecting flange 11 at the lower end thereof, the flange and transom extending substantially across the side rails of the chassis frame 12 and provided with openings 13 to receive bolts or fastening devices whereby the tank may be fastened to the side rails 12. If a partition sheet such as indicated at 7 is provided, it is also constructed with an integral transom or bolster 16 having a laterally projecting flange 17 corresponding to the flange 11 on the bolster 10, the flange 17 also being adapted to be fastened to the side rails 12. The inner ends of the tank sections 1 and 2 are autogeneously welded to the partition 7, as indicated at 19.

Since the support for the tank rests directly beneath the end sheets and partition sheets, it is obvious that shocks or impacts from the transom or frame 12 will be communicated to the end sheets and partition sheets and dissipated thereby so that it will lessen the shocks and strains to which the load will be subjected or to which the tank members 1 and 2 will be called upon to receive.

Another advantage of the construction is that the tank is not only better able to resist shocks and stresses but it is also neater in appearance and more easy to construct, it being possible to construct the entire device of metal including the frame 12, if desired.

If found expedient, can rack supporting arms 21 and 21′, here shown as angles, may be secured to the bolsters and they may project laterally to support the can racks 22 and 23, as best seen in Fig. I.

24 and 25 are rail or rod supporting brackets on the end sheets or heads 5 and 6 and 26 is a similar bracket on the partition sheet, the rods or rails 27 and 28 being fastened to the brackets in any appropriate manner.

From the foregoing, it will be obvious that a tank constructed in accordance with my invention will be strong, durable and inexpensive to manufacture and I would have it understood that I do not limit myself to the exact details of construction shown but reserve the right to make such changes in form, proportion and minor details of construction as properly come within the scope of my invention and without departing from the spirit thereof.

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

1. A tank comprising a tubular body portion, end sheets closing the tubular body portion, and bolsters integral with the end sheets.

2. A tank comprising a tubular body portion having intermediate partition and end sheets, and bolsters integral with the partition and end sheets respectively.

3. A tank comprising a tubular body portion, a sheet secured to the periphery of a hollow body portion, and a bolster integral with said sheet.

4. A tank comprising a tubular body portion, end sheets for closing the same, and tank supports in the plane of the end sheets.

5. A tank comprising a tubular body portion, end sheets for closing the ends of the tubular body portion, intermediate partition sheets for the tank, and supports in the plane of the end sheets and the partition sheets.

6. A sheet for engaging the tubular body portion of a tank, the sheet having an integral bolster for supporting the tank.

7. A sheet for engaging the tubular body portion of a tank, the sheet having an integral bolster for supporting the tank, said bolster being provided with a laterally projecting anchoring flange.

8. A sheet for engaging the tubular body portion of a tank, the sheet having an integral bolster for supporting the tank, and can rack supporting means carried by the bolster.

9. A sheet for engaging the tubular body portion of a tank, the sheet having an integral bolster for supporting the tank, and rod supporting brackets projecting from the periphery of the sheet.

10. A sheet for supporting the tubular portion of a tank comprising a body portion, rod supporting brackets projecting from the periphery of said sheet, a bolster integral with said sheet, means for supporting a can rack carried by the bolster, and an anchoring flange along the bottom edge of said bolster.

In testimony whereof I affix my signature.

LEE HALL.