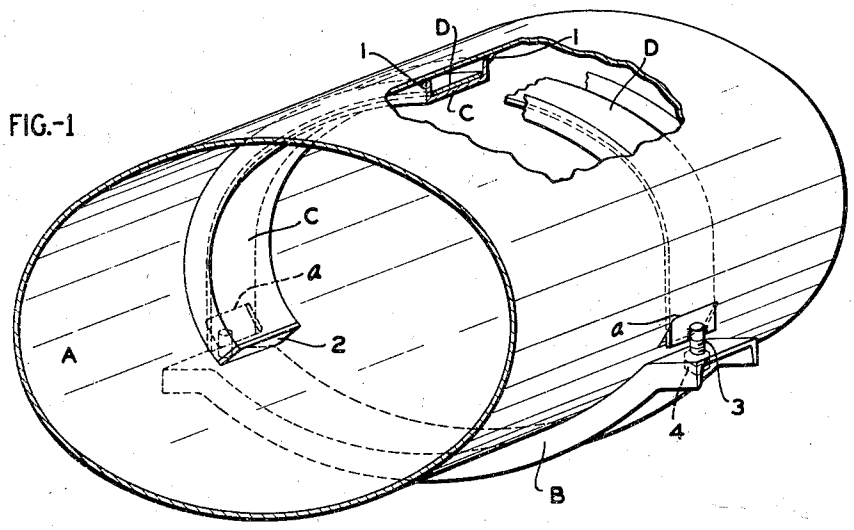
Dec. 22, 1936. H. A. CRARY 2,065,268

TRUCK TANK MOUNTING MEANS

Filed April 16, 1936

FIG.-1



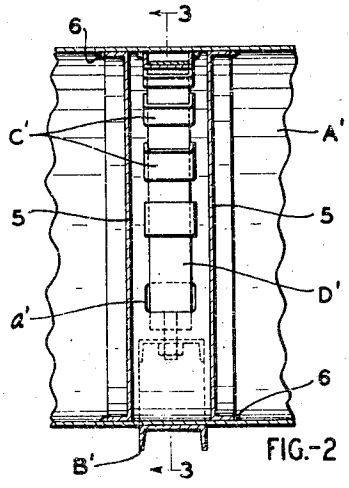




FIG.-2

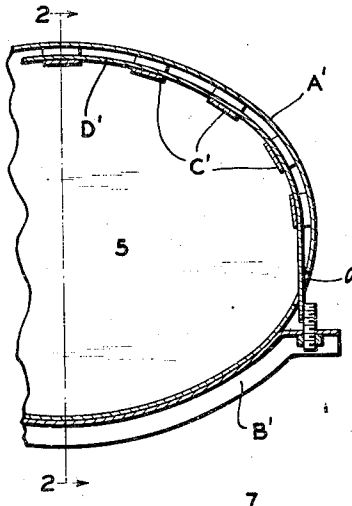



FIG.-3

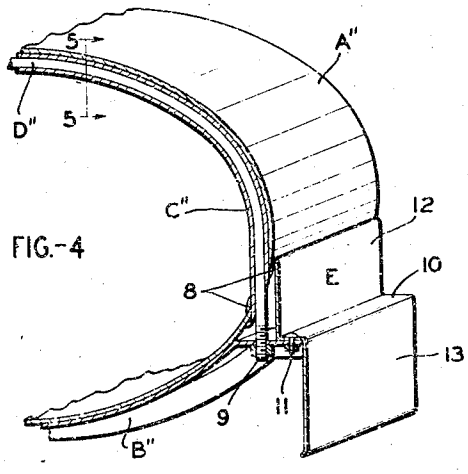



FIG.-4

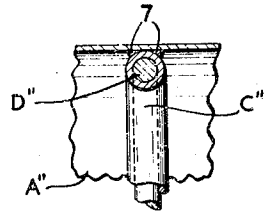



FIG.-5

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## TRUCK TANK MOUNTING MEANS

Horace A. Crary, Warren, Pa., assignor to Pennsylvania Furnace & Iron Company, Warren, Pa., a corporation of Pennsylvania

Application April 16, 1936, Serial No. 74,810

13 Claims. (Cl. 280—5)

This invention relates to means for mounting a tank upon a supporting base, and the invention has particular adaptability to applications wherein the tank shell is of generally cylindrical character, horizontally disposed upon the frame of a vehicle, a familiar arrangement employed in highway transportation of gasoline, milk, etc.

Such a tank is commonly secured upon its base by hold-down bands or similar tension members having end connections with the vehicle frame and passing transversely over and above the tank, and preferably without rigid connection with the shell so that some relative motion is permitted between the parts in order to reduce maximum stresses.

It is the object of this invention to improve the appearance of the tank by disposing its hold-down means to be invisible, while retaining the structural advantages of the described hold-down arrangement; another object being to conceal the vehicle frame as well as the hold-down means where desired.

The exact nature of this invention together with further objects and advantages thereof will be apparent from the following description taken in connection with the accompanying drawing, in which Fig. 1 is a perspective view of typical portions of a tank, a supporting base therefor and the securing means effective therebetween, parts being broken away to show details of construction; Figs. 2 and 3 are typical sectional elevations in longitudinal and transverse planes respectively, illustrating a modified arrangement permissible where the tank is provided with bulkheads, the section of Fig. 2 being indicated by line 2—2, Fig. 3, and the section of Fig. 3 being indicated by the line 3—3, Fig. 2; Fig. 4 is a fragmentary perspective view illustrating another modification; and Fig. 5 is an enlarged sectional view as in the plane of line 5—5, Fig. 4.

With reference now to the drawing and first to Fig. 1 thereof, A represents the shell of the tank, and B a base on which it is supported.

The tank shown is generally cylindrical, being of elliptical cross section, and particularly according to this invention the top part of its shell is convex.

The illustrated base part B may be one of several transverse members of a vehicle frame, and has curvature within which the shell seats.

According to this invention means are arranged in the general plane of the member B to provide an arched way leading transversely within the shell and following the general contour of its upper portion, between openings *a* on either side of the shell adjacent the corresponding extremities of the supporting member B.

For this purpose in the present instance a saddle member such as the channel C is arranged to fit transversely of the tank immediately within the shell, and secured in position as by continuous welding along its flange extremities as indicated at 1. While the saddle member C may be of channel form with rectangular typical section, it will be obvious that other sectional shapes might be employed for the purpose. The saddle member C may extend endlessly about the shell or it may terminate as illustrated, with an end shortly below each of the shell openings *a*. In the latter event the ends of the channel are cut off from communication with the load-containing cavity of the shell by closure members 2, continuously welded or otherwise sealed with adjacent parts of both the channel C and the shell A.

A tension member generally indicated at D is provided, disposed to extend through the way formed by the saddle member C and the openings *a* in the shell, and having end connections with the corresponding end parts of the member B. The greater and intermediate part of the tension member D is of sectional form to seat within the saddle member C, and where the saddle member is of channel form as illustrated, the tension member D is preferably of strap form in its intermediate portion. For its end connections, bolts 3 are secured to the strap as by welding, and threaded to receive nuts 4, the frame members B having openings to receive the bolts 3, all as indicated.

It will be apparent that by the arrangement illustrated and described, the tank is secured to its supporting base by the tension member D, which however is substantially concealed, being disposed for the most part within the shell yet effective upon the shell substantially in the same manner as though it were outside.

With reference now to Figs. 2 and 3, a modification is shown, adapted for empoyment where the tank includes a bulkhead provided by a pair of transverse walls 5, these walls being longitudinally spaced from each other and peripherally sealed with the shell A' as by integral flanges welded to the latter at 6.

The shell is provided with openings *a'* adjacent the ends of the base member B' as before, the latter being located in the general plane of the bulkhead as indicated in Fig. 2. Here a plurality of spaced clips C' are each secured to the inner face of the shell A' as by welding, to define a way leading between the opening *a'* and following the

contour of the shell. The tension member D' is disposed along this way with end connections to the base member B' as before.

With reference now to the modification of Figs. 4 and 5, a tubular saddle member C'', as of circular or other suitable sectional form, is employed, welded to the shell A'' either continuously or at intervals along its length as indicated at 7, and leading between openings at the sides of the shell and adjacent the supporting member B'', the member C'' being sealed in these openings as by the peripheral welding indicated at 8. The tension member D'' may preferably be cylindrical throughout its length, fitting loosely within the tubular member C'' through which it extends, the end connections of the tension member D'' with the base member B'' being accomplished by threading its ends to receive bolts as indicated at 9.

To conceal the described openings in the shell and the corresponding end connections of the tension members, mask means are provided. Such mask means may be preferably in the form of moldings E, running longitudinally at the sides of the shell, between the longitudinally spaced transverse shell-supporting members. The moldings may preferably have bends providing a shelf part 10 disposed to overlie the projection ends of the base members B to which securement may be had as by bolts 11, an upstanding lip 12 concealing the end connections between tension and base members and the corresponding openings in the shell. The molding E may also preferably include a dependent skirt portion 13 which may extend downwardly sufficiently to conceal as much of the supporting frame structure as desired, or even some of the running gear of the vehicle.

While for clarity of showing the mask molding E is specifically illustrated only in Fig. 4, it will be obviously equally adaptable for employment in the modifications of Fig. 1 and of Figs. 2 and 3.

What I claim is:

1. Means for securing a tank shell upon a supporting base, comprising means arranged to define an arched way leading within the shell between end openings at the sides of the shell, without communication with the load-containing cavity of the shell, said base having parts adjacent said openings, and a tension member having end connections with said base parts and extending therebetween along said way.

2. Means for securing a tank shell upon a supporting base, comprising means arranged to define a way leading within the shell between end openings at the sides of the shell, without communication with the load containing cavity of the shell, said base having parts adjacent said openings, and a tension member having end connections with said base parts and extending therebetween along said way.

3. Means for securing a tank shell upon a supporting base, said shell having a convex top, said securing means comprising means arranged to define a way leading within the shell and following the contour of said top, between end openings at the sides of the shell, without communication with the load-containing cavity of the shell, said base having parts adjacent said openings, and a tension member having end connections with said base parts and extending therebetween along said way.

4. Means for securing a tank shell upon a supporting base, said shell having a convex top, said securing means comprising means having connection with said top and arranged to define a way leading within the shell and following the contour of said top, between end openings at the sides of the shell, without communication with the load-containing cavity of the shell, said base having parts adjacent said openings, and a tension member having end connections with said base parts and extending therebetween along said way.

5. Means for securing a tank shell upon a supporting base, said shell having a convex top, said securing means comprising channel means disposed within the shell to define a way following the contour of said top between openings in the shell at the sides of the latter, sealing means at the sides of said channel member closing communication along the channel between the channel cavity and the load-containing cavity of the shell, and a tension member having end connections with said base and extending therebetween through said way and shell openings.

6. Means for securing a tank shell upon a supporting base, said shell having a convex top, said securing means comprising a plurality of spaced channel means disposed within the shell to define a way following the contour of said top between openings in the shell at the sides of the latter, sealing means at the sides of said channel member closing communication along the channel between the channel cavity and the load-containing cavity of the shell, sealing means at the ends of said channel member, and a tension member having end connections with said base and extending therebetween through said way and shell openings.

7. Means for securing a tank shell upon a supporting base, said shell having a convex top and a pair of adjacent transverse bulkhead walls, said shell having openings at its sides between said walls, means disposed between said walls and extending transversely of said shell with arched characteristics to define an arched way within said bulkhead, and a tension member having end connections with said base, and therebetween extending through said shell openings and along said way.

8. Means for securing a tank shell upon a supporting base, said shell having a convex top, said securing means comprising a tubular member disposed within said shell between openings at the shell sides, said tubular member having end portions sealed with the shell at said openings and being secured to the shell top intermediate said end portions, said base having parts adjacent said openings, and a tension member having end connections with said base parts and extending therebetween through said tubular member.

9. Means for securing a tank shell upon a supporting base, said shell having a convex top, said securing means comprising a tubular member disposed within said shell between openings at the shell sides, said tubular member having end portions sealed with the shell at said openings and intermediate its ends following the contour of said shell top and secured thereto, said base having parts adjacent said openings, and a tension member having end connections with said base parts and extending therebetween through said tubular member.

10. Means for securing a tank shell upon a supporting base, said shell having a convex top, said securing means comprising a tubular member disposed within said shell between openings at the shell sides, said tubular member having end portions sealed with the shell at said openings and being disposed to follow the contour of said

shell top with uniform connection thereto intermediate said end portions, said base having parts adjacent said openings, and a tension member having end connections with said base parts and extending therebetween through said tubular member.

11. Means for securing a tank shell upon a supporting base, comprising means arranged to define an arched way leading within the shell between end openings at the sides of the shell, without communication with the load-containing cavity of the shell, said base having parts adjacent said openings, a tension member having end connections with said base parts and extending therebetween along said way, and means mounted upon said base and arranged to mask said end connections.

12. Means for securing a tank shell upon a supporting base, comprising means arranged to define an arched way leading within the shell between end openings at the sides of the shell, without communication with the load-containing cavity of the shell, said base having parts adjacent said openings, a tension member having end connections with said base parts and extending therebetween along said way, and molding means arranged upon said base at the sides of said shell and extending longitudinally thereof to mask the corresponding of said end connections.

13. Means for securing a tank shell upon a supporting base, comprising means arranged to define an arched way leading within the shell between end openings at the sides of the shell, without communication with the load-containing cavity of the shell, said base having parts adjacent said openings, a tension member having end connections with said base parts and extending therebetween along said way, and molding means arranged upon said base at the sides of said shell and extending longitudinally thereof to mask the corresponding of said end connections, said molding means extending below said connections to conceal said base.

HORACE A. CRARY.