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CONTAINER AND BRACKET ASSEMBLY

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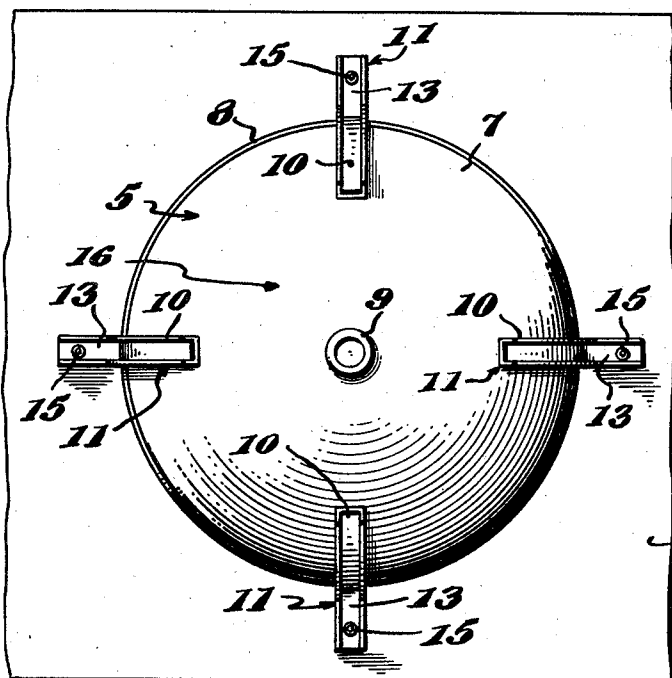
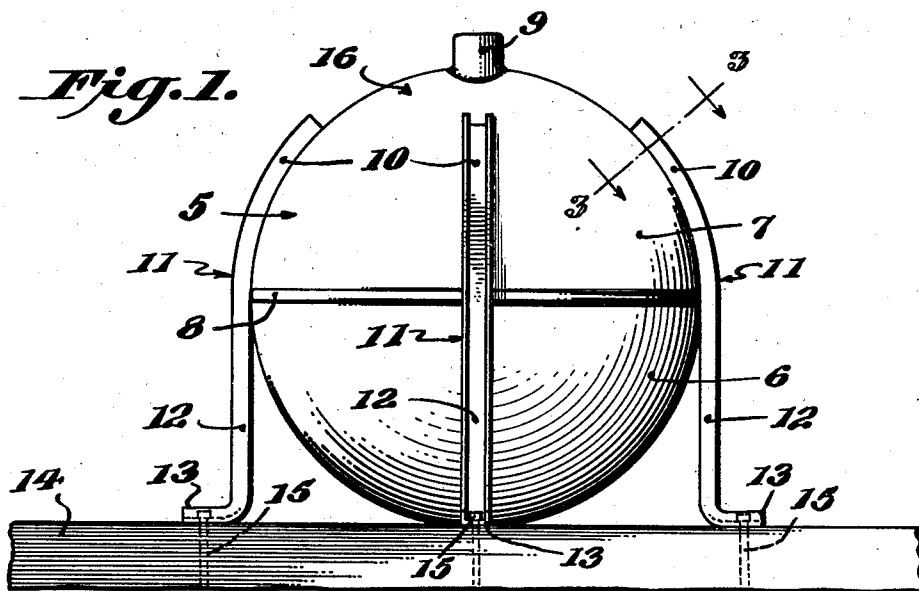


Fig. 3.



Fig. 2.

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CONTAINER AND BRACKET ASSEMBLY

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3 Claims. (Cl. 248-146)

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My invention relates to containers for fluid pressure media, and more particularly to a container and bracket assembly.

An object of my invention is to provide an improved unitary container and bracket assembly.

Another object of my invention is to provide a container and bracket assembly of the foregoing described character which is simple in construction, durable in use, economical in manufacture, easy of assembly, and which lends itself to mass production.

A further object of my invention is to provide a container and bracket assembly which is so constructed and arranged to effect a rigid structure when the assembly is mounted on a support and to thus preclude any relative movements of the parts of the assembly which may be occasioned by vibrations or the like.

Other and further objects of the invention will be obvious upon an understanding of the illustrative embodiment about to be described, or will be indicated in the appended claims, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

A preferred embodiment of the invention has been chosen for purposes of illustration and description and is shown in the accompanying drawing, forming a part of the specification, wherein:

Figure 1 is a side elevation of a device constructed in accordance with one form of my invention.

Figure 2 is a plan view thereof.

Figure 3 is a sectional view taken on the line 3-3 of Figure 1.

In practicing my invention, as illustrated in the drawing, I provide a container 5 adapted for the storage of a fluid pressure medium, for instance, oxygen for breathing purposes, or carbon dioxide for use in connection with extinguishing fires, inflating various devices and other useful purposes. The container 5 may comprise a pair of metallic hemispherical sections, designated, for purposes of description, as a lower or inner section 6 and an upper or outer section 7. The sections are secured together, for example, by welding, and define an equatorial joint 8 about the container. The upper or outer section 7, at its apical zone 16, is provided with one or more spuds or connections 9, for introducing the medium into the container or discharging it therefrom.

Secured to the outer section 7 are embracing end portions 10 of a plurality of equatorially spaced elongated bracket members 11 having sub-

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stantially straight opposite end or leg portions 12 caging the inner section 6 and terminating in feet 13 adapted to be secured to a supporting means or structure 14 by means of bolts 15 or the like. The embracing end portions 10 are curved to conform to the contour of the outer section 7 and welded thereto to effect an integral container and bracket assembly.

It will be noted that the embracing end portions 10 terminate in proximity to the apical zone 16 of the outer section 7 thus permitting the section 7 to have secured thereto, within said zone, additional spuds 9 when desired.

In mounting the assembly on the supporting means or structure 14, the inner section 6 is disposed in engagement with the surface of the supporting means and the bolts 15 are operated to secure the feet upon the surface, whereby the bracket members 11 maintain the inner section 6 in clamped relation with the surface to render the assembly extremely rigid when mounted.

While the joint 8 of the container is illustrated as being disposed in a plane transversely bisecting the leg portions 12 and in parallelism with the adjacent surface of the supporting structure 14, it is to be understood that the container may be arranged, with respect to the bracket members, in a manner to dispose the joint 8 in a different plane whereby the end portions 10 can be secured to both sections 6 and 7 of the container in paired relation, thereby, permitting access to the spud 9 from a different location.

As various changes may be made in the form, construction and arrangement of the parts herein, without departing from the spirit and scope of the invention and without sacrificing any of its advantages, it is to be understood that all matter herein is to be interpreted as illustrative and not in any limiting sense.

It is also to be understood that the following claims are intended to cover all the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

I claim:

1. A gun fire resistive container and bracket assembly, comprising in combination a lightweight spherical shell for a fluid medium under high pressure, and at least three bracket members spaced circumferentially about said shell and substantially equidistantly from each other, said bracket members having upper portions conforming substantially to the spherical contour of said shell and being welded to said shell at a

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zone adjacent the equator of said shell and having lower portions extending tangentially from said shell at the equator thereof and terminating in a plane spaced a minimum distance from the lowermost portion of said shell, said lower portions having means at the lower ends thereof adapted to be secured to a supporting structure, said lowermost portion of said shell thereby being adjacent and substantially in contact with the supporting structure.

2. A gun fire resistive container and bracket assembly, comprising in combination a lightweight spherical shell for a fluid medium under high pressure, and at least three bracket members spaced circumferentially about said shell and substantially equidistantly from each other, said bracket members having upper portions conforming substantially to the spherical contour of said shell and being welded to said shell at a zone adjacent the equator of said shell and having lower portions extending tangentially from said shell at the equator thereof and terminating in a plane spaced a minimum distance from the lowermost portion of said shell, said lower portions having means at the lower ends thereof adapted to be secured to a supporting structure, said lowermost portion of said shell thereby being adjacent and substantially in contact with the supporting structure, said assembly being constructed and arranged so that bending moments produced by the impact of a projectile and/or the recoil effect of the pressure medium escaping from a hole in the shell caused by a projectile are of a minimum for the worst possible hit, and so that the resultant force always acts substantially through the center of the shell and produces

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bending moments which are approximately of a minimum.

3. A gun fire resistive container and bracket assembly, comprising in combination a lightweight spherical shell for a fluid medium under high pressure, and at least three channel-sectioned bracket members spaced circumferentially about said shell and substantially equidistantly from each other, said bracket members having upper portions conforming substantially to the spherical contour of said shell and being welded to said shell at a zone adjacent the equator of said shell and having lower portions extending downwardly from said shell and being tangentially disposed to said shell at the equator thereof and terminating in a plane spaced a minimum distance from the lowermost portion of said shell, said lower portions having feet at the lower ends thereof adapted to be secured to a supporting structure, said lowermost portion of said shell thereby being adjacent and substantially in contact with the supporting structure, said assembly being constructed and arranged so that bending moments produced by the impact of a projectile and/or the recoil effect of the pressure medium escaping from a hole in the shell caused by a projectile are of a minimum for the worst possible hit from any direction, so that the resultant force always acts substantially through the center of the shell and produces bending moments which are approximately of a minimum, and so that the area of the weld is such as to prevent tear outs of portions of the shell at the weld when the shell is struck by a projectile.

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