Aug. 24, 1926. 1,597,324

A. MAUSER

CONTAINER SUCH AS BARREL, DRUM, OR THE LIKE

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Fig. 1.

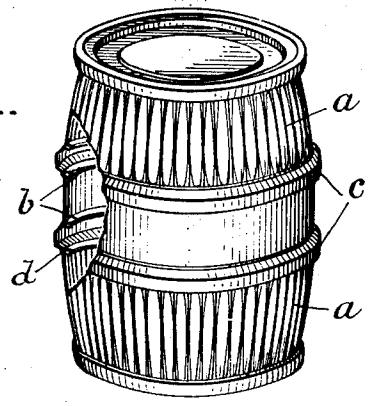


Fig. 2.

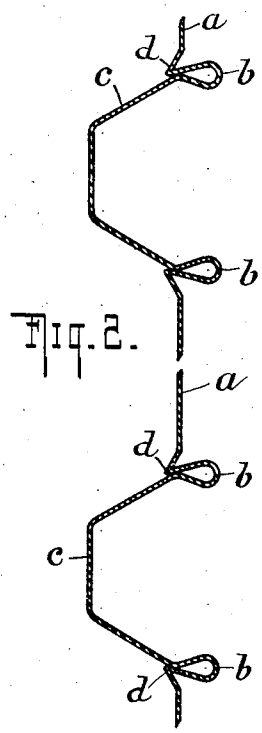


Fig. 3.

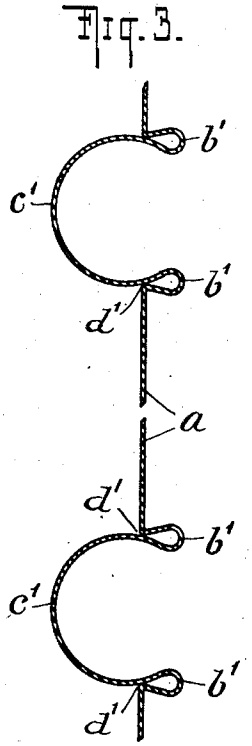
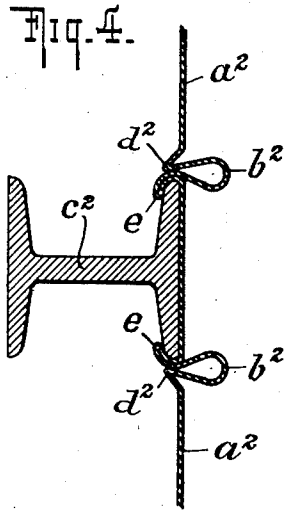


Fig. 4.



WITNESS

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CONTAINER SUCH AS BARREL, DRUM, OR THE LIKE.

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This invention relates to containers such as barrels, drums, or the like and has for its principal object to provide a new and improved construction for a barrel or drum of great strength and simplicity, capable of being manufactured at low cost.

Considered more specifically, a further object is to provide a construction for a barrel or similar container preferably constructed of sheet metal and provided with a plurality of reinforcing loops between which is located a ring on which the barrel may be rolled. These loops provide an elastic or cushioning structure which will absorb to a large extent the force of the shocks and blows to which the barrel is subjected during the handling and transportation thereof. These and further objects will appear from the following more detailed description and by reference to the accompanying drawings forming a part hereof and wherein various examples of constructions in accordance with the principles of my invention are illustrated. In the drawings, Fig. 1 is a perspective view of a barrel partly in section; Fig. 2 is an enlarged sectional detail showing an example of a construction of the supporting and reinforcing rings; Figs. 3 and 4 are views similar to Fig. 2 showing different forms of construction. As shown in the drawings, the barrel A is provided between its ends with a number of circumferentially extending rolling rings, extending preferably about that portion of the barrel adjacent to the center thereof. The barrel A is preferably constructed of sheet metal and in the forms shown in Figs. 1, 2, and 3, the rolling rings c, c', are formed integrally with the side walls of the barrel. As shown in Fig. 2, the cross-sectional configuration of the ring c is trapezoidal. The inner ends of the side walls of the ring merge with a portion extending inwardly of the container, the material then being bent backwardly upon itself so as to form the loop b. The outer end d of the loop contacts with the inner end of the side wall of the ring c, the material then being bent inwardly a short distance so that the end d forms a projection extending beyond the side wall of the barrel. It will be seen that with this construction the loop b forms with the ring c an elastic structure. If the outer wall of the ring c is subjected to any blows or shocks, the loop portions b will yield or bend elastically and thereby absorb the force of such shocks. The contact of the projecting end d of the loop b with the outer side wall of the ring c will serve to support and strengthen this side wall and prevent distortion thereof.

In the form shown in Fig. 3, the rings c' are in the form of an arc of a circle, the inner ends of which merge with the inwardly extending loop portions b'. The metal of the side walls is bent backwardly upon itself to form the loop portions as in Fig. 2, but the projections d are omitted. The outer end of each loop portion is preferably arranged to contact as at d' with the outer side wall of the ring portion c and serves to support and strengthen the side wall.

In the form shown in Fig. 4, the reinforcing ring c^2 is shown as constructed of a separate piece of metal which may be of any suitable configuration but which, as shown, is in the form of an I beam. The sheet metal side wall a^2 of the barrel is bent inwardly at spaced points to form the inwardly projecting loops b^2; said loops being arranged in pairs having at their outer ends the curved clamping faces e facing toward each other and adapted to engage over the base of the ring c^2 and clamp the same securely to the side of the barrel. An outwardly extending projection d^2 is formed by the opposite outer end of the loop b^2 and preferably contacts with the curved portion e to strengthen and support the same.

In each of the examples of the invention illustrated, the transversely extending loop portions b, b', b^2, form a springlike structure capable of yielding elastically to any shocks or blows to which the barrel may be subjected in the handling or transportation thereof. The number of ring structures c and the space between them will be varied in accordance with the purposes for which the container is to be used, and the amount of reinforcement required. While the outer ends d, d', d^2, of the loops are preferably formed to contact with the adjacent outer edge of the loop, my invention is not necessarily limited in this particular, as it will be understood that the loops may be open at their outer ends. The size and shape of the loops as shown may be varied as desired; for example, the lower rounded portions of the loops may be made flatter so as to bring the side walls of the loop closer together or even in contact. Likewise the cross sectional configuration of the rings c' may be greatly varied from the substantially U-

shaped configurations shown in Figs. 2 and 3. While it is preferable to have the loops b, b', b^2, extend inwardly especially when fluid material is to be placed in the container, so that pressure due to expansion of the fluid will not cause permanent distortion of the loops, it will be understood that the loops may also be formed to extend outwardly of the side walls of the container.

It will be further understood that the shape of the container may be varied as desired, the barrel shown in Fig. 1 being merely an illustrative example.

I claim:

1. A sheet metal barrel, drum, or like container, provided between its ends with a reinforcing and rolling ring arranged between a pair of loops extending from and formed integrally with the side walls of the container, the side walls of each of said loops extending substantially transversely of the side wall of the container and each of said loops being formed from a sufficient length of the sheet metal material of the container to constitute a spring-like structure at each side of said ring capable of yielding elastically to absorb the shocks or blows to which said ring is subjected.

2. A sheet-metal barrel, drum or like container, provided between its ends with an outwardly projecting reinforcing and rolling ring arranged between a pair of loops projecting inwardly from, and formed integrally with, the side walls of the container, the side walls of said loops extending substantially transversely of the side walls of the container and forming a spring-like structure capable of yielding elastically to absorb the shocks or blows to which said ring is subjected.

3. A sheet-metal barrel, drum, or like container, provided between its ends with a plurality of outwardly projecting circumferential reinforcing and rolling rings, each of said rings being arranged between a pair of loops projecting inwardly from and formed integrally with the side walls of the container, the side walls of said loops extending substantially transversely to the side walls of the container and forming a spring-like structure capable of yielding elastically to absorb the shocks or blows to which said ring is subjected.

4. A sheet-metal barrel, drum, or similar container, provided between its ends with a circumferentially arranged reinforcing and rolling ring pressed outwardly from and integral with the side wall material of the barrel, the cross-sectional configuration of said ring forming a substantially U-shaped channel, and a pair of inwardly projecting loops formed from the side wall material of said container at the inner ends of the legs of said U-shaped channel to provide a spring-like structure capable of yielding elastically to absorb the shocks or blows to which said ring is subjected.

5. A sheet-metal barrel, drum, or similar container provided between its ends with a circumferentially arranged reinforcing and rolling ring pressed outwardly from and integral with the side wall material of the barrel, the cross-sectional configuration of said ring forming a substantially U-shaped channel, and a pair of inwardly projecting loops formed from the side wall material of said container at the inner ends of the legs of said U-shaped channel to provide a spring-like structure capable of yielding elastically to absorb the shocks or blows to which said ring is subjected, the outer ends of said loops contacting with and bracing the outer side walls of the legs of said U-shaped channel.

6. A sheet-metal barrel, drum, or similar container, provided between its ends with a circumferentially arranged reinforcing and rolling ring pressed outwardly from and integral with the side wall material of the barrel, the cross-sectional configuration of said ring forming a substantially U-shaped channel, and a pair of inwardly projecting loops formed from the side wall material of said container at the inner ends of the legs of said U-shaped channel to provide a spring-like structure capable of yielding elastically to absorb the shocks or blows to which said ring is subjected, the outer ends of said loops projecting outwardly beyond the side walls of said container to contact with and brace the outer side walls of the legs of said U-shaped channel.

7. A sheet-metal barrel, drum, or similar container, provided between its ends with a plurality of spaced, inwardly projecting circumferentialy extending loops formed integrally with the side walls of said container to provide a spring-like structure, the outer ends of said loops projecting outwardly beyond the side walls of said container, and a circumferentially extending, reinforcing ring located between the outwardly projecting ends of an adjacent pair of loops, said ring projecting beyond the side walls of said container to provide a supporting surface upon which the container is adapted to be rolled.

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