

No. 880,834.

PATENTED MAR. 3, 1908.

C. STOLLBERG.

SHEET METAL KEG FOR WHITE LEAD AND OTHER HEAVY ARTICLES.

APPLICATION FILED JAN. 6, 1906.

Fig. 1

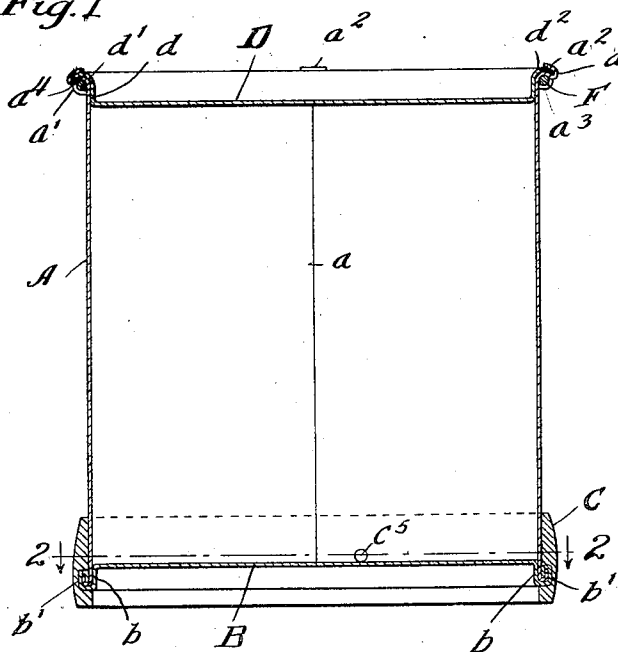


Fig. 3

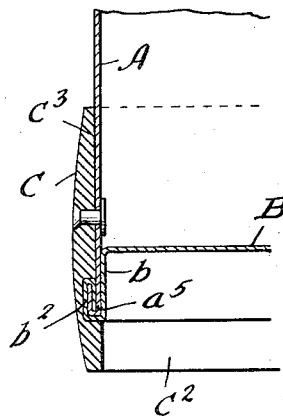


Fig. 2

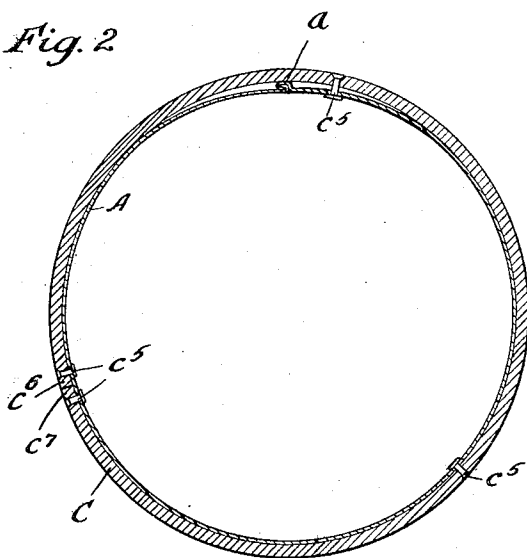


Fig. 4

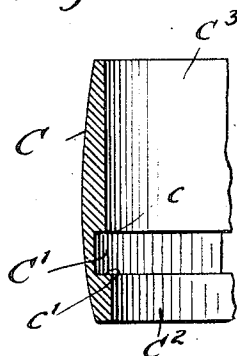


Fig. 5

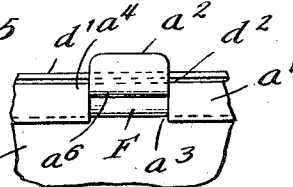
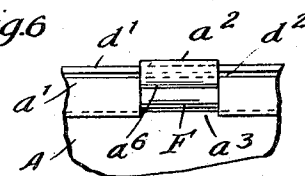


Fig. 6



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UNITED STATES PATENT OFFICE.

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SHEET-METAL KEG FOR WHITE LEAD AND OTHER HEAVY ARTICLES.

No. 880,834.

Specification of Letters Patent.

Patented March 3, 1908.

Application filed January 6, 1906. Serial No. 294,815.

To all whom it may concern:

Be it known that I, CHARLES STOLLBERG, a citizen of the United States, residing in Toledo, in the county of Lucas and State of Ohio, have invented a new and useful Improvement in Sheet-Metal Kegs for White Lead and other Heavy Articles, of which the following is a specification.

My invention relates to metallic kegs or vessels designed to be used as a substitute for the ordinary oak or wooden kegs customarily employed for containing and shipping white-lead and other heavy articles.

The object of my invention is to provide a sheet metal, preferably sheet steel, keg or vessel of a strong, simple, efficient and durable construction, capable of being cheaply manufactured, and which may be safely used for containing and shipping white lead, or other like heavy articles in the larger amount or sizes, such for example 100 pounds, and in which the vessel will have at each end a suitable projecting chime portion of such length as to afford the requisite finger hold for lifting the 100 pound keg in the customary manner ordinarily used in lifting and handling the 100 pound wooden white lead kegs, and in which there will be no danger of the vessel being injured or broken open in case the 100 pound keg accidentally drops and strikes upon its corner or chime, as it most frequently does in case of such accidents, whether falling from the wagon or from the hands, and in which, at the same time the cover, while being adapted to be conveniently removed in opening the keg, will at the same time be securely locked and held upon the vessel so as to brace and strengthen its upper or mouth end.

My invention consists in the means I have devised and employ for practically accomplishing this object or result; that is to say it consists in a sheet metal or steel keg or vessel for containing and shipping white lead or other heavy articles, having a metallic or sheet steel body formed from a single piece into cylindrical shape, the meeting edges securely united by a folded or lock side seam, in combination with a countersunk sheet metal bottom or lower head fitting within the lower end of said body so as to brace and stiffen and strengthen the same, and secured thereto by an externally folded or double seam, an external metallic chime ring or band surrounding and embracing the lower end of

the body, and furnished on the inside with an annular groove or channel to receive the external folded seam which unites the bottom or lower head with the body, so that this external folded seam will itself afford a connection between the body of the vessel and the chime band or ring, and serve as the means for transmitting any blows or strains upon the chime band to the body of the vessel, and thus cause the chime band itself to strengthen, brace and stiffen the body of the vessel and protect it from injury when the heavy keg or vessel drops upon its lower end chime or corner.

My invention further consists, in connection with these parts, in providing the body of the vessel at its upper end with an integral external roll surrounding and embracing a stiffening wire or small rod, in combination with a deep countersunk cover, fitting with its annular countersink flange inside the upper end or mouth of the body to stiffen, brace and strengthen the same, and having a marginal or annular curved flange or rim fitting upon the annular roll at the upper end of the body, the roll at the upper end of the body being provided with a plurality of integral cover locking lips starting at their base from the upper outer portion of the body roll closely adjacent to the edge of the cover rim or flange, and adapted to be bent over said annular flange or rim of the cover and thus securely lock and hold the cover on the body. These integral lips of the body roll serve to lock and hold the cover in place with great strength and rigidity, as they are integral with the body roll, and as their base or point of union with the body roll is only the thickness of the annular rim or flange of the cover from the upper face of the flange or rim, the bend of these overlocking lips being thus very short in extent so that the annular rim of the cover has little or no leverage on these integral locking lips of the body roll.

My invention also consists in the novel devices and in the novel combinations of parts and devices herein shown and described, and hereinafter more particularly specified in the claims.

In the accompanying drawing forming a part of this specification, Figure 1 is a central vertical longitudinal section of a metallic or sheet steel keg or vessel embodying my invention; Fig. 2 is a horizontal section on line 2—2 of Fig. 1; Fig. 3 is an enlarged par-

tial vertical section taken through one of the connecting rivets between the body and chime ring; Fig. 4 is a detail sectional view of the chime ring or band; Fig. 5 is a detail elevation showing one of the integral cover locking lips on the roll at the upper end or mouth of the body before it is bent down; and Fig. 6 a similar view after it is bent down.

In the drawing A represents the body of a metallic or sheet steel keg or vessel embodying my invention, B the bottom or lower head, C the chime ring or band and D the cover, all these parts being, preferably, made of sheet steel, excepting the chime ring or band, which is preferably formed of a rolled bar or strip of iron or steel of the required cross section. The body A is formed from a single piece of sheet steel blank, formed up into cylindrical shape, and having its meeting ends united by a lock or folded side seam a . At its upper end the body A is furnished with an integral external roll a^1 embracing and curved around a strengthening and stiffening wire F, preferably made from a steel wire of a heavy gage, or from a small steel rod. This integral annular roll a^1 at the upper end or mouth of the vessel is provided with a plurality of integral cover locking lips a^2 formed by slits a^3 and projecting upwardly therefrom, as shown in Fig. 5, from the upper outer portion a^4 of the body roll a^1 , closely adjacent to the outer edge d^2 of the cover rim or flange d^1 , and adapted to be bent down over said cover rim or flange, as shown in Fig. 6, to lock and hold the cover securely in place.

The lower head or bottom B is countersunk and its annular countersink wall b is preferably of considerable depth or width and fits snugly within the lower end of the body A, so that this head B will serve to brace, strengthen and stiffen the lower end of the body, and said head B is united to the body A by an external double or folded seam b^1 , formed by folding together the seaming flanges b^2 on the head B and a^5 on the body A. The external double or folded seam b^1 extending around the body at the lower end thereof, serves also to strengthen and stiffen the lower end of the body as well as to unite the head B thereto.

The external chime band or ring C, which is preferably made of a rolled bar of iron or steel of the required cross section, is furnished with an annular groove or channel C^1 on its inner face to receive and accommodate the annular double or folded external seam b^1 which unites the bottom head B to the body A of the can, and thus cause the annular external seam at the lower end of the body, in connection with the annular groove in the chime band or ring and the shoulders c c^1 at the upper and lower edges of this annular groove, to themselves serve as a means for rigidly and securely connecting the

chime band or ring with the body of the vessel, and of transmitting blows or strains from the chime band or ring to the body of the vessel and of protecting it against collapse or injury. The lower shoulder c^1 , the one at the lower edge of the groove or channel C^1 , preferably projects slightly beyond the upper one c , so that the inner portion of this shoulder c^1 may be directly in line with the wall of the body A, as will be readily understood from the enlarged views, Figs. 3 and 4 of the drawing, thus affording an extended and better bearing for this shoulder c^1 against the body A and bottom head B and the external seam uniting the same. In other words the portion c^2 of the metallic chime ring or band C, below the channel or groove C^1 , is somewhat offset in respect to the portion c^3 thereof above said groove or channel C^1 . As the channel or groove and shoulders of the chime ring or band, in connection with the external folded seam uniting the bottom head to the body of the keg or vessel, constitute a very strong, firm and rigid means of connection between the chime ring and the body, and of transmitting blows or strains upon the chime ring to the body, and of protecting the body from injury by such blows or strains. I have not in practice found it necessary to provide the vessel with further additional means of connection between the chime ring and body; although I prefer to employ a few connecting rivets c^5 , two of which are preferably located at the meeting ends c^6 c^7 of the band or ring C, as I thereby save the expense of welding or otherwise uniting the meeting ends of the chime ring or band. Preferably about four of these rivets are employed, the same being distributed as illustrated in Fig. 2.

The cover D has a deep countersink annular wall d which fits inside the upper end or mouth of the body A, and serves to brace, stiffen and strengthen the upper end of the body, in connection with the annular roll a^1 on the body and the stiffening wire F embraced by said roll, and the curved annular rim d^1 of the cover, which in cross section is curved to fit and snugly embrace the upper half or portion of said roll a^1 on the body. The deep countersink wall or flange d of the cover also serves to give a secure chime hold for the fingers for lifting the heavy pound keg, in connection with the chime hold afforded by the lower projecting portion of the chime ring C and countersink wall or flange b of the bottom head B. The deep countersunk cover D fits snugly within the upper end or mouth of the body A, and is pressed or driven forcibly home after the vessel has been filled, and then the cover D is securely locked and held in its cooperative bracing relation with the upper end or mouth of the body A with its curved annular rim d^1 in snug close fitting engagement with

the upper portion of the roll a^1 on the upper end of the body by bending over the rim d^1 of the cover the locking lips a^2 which project from the upper outer portion of said roll a^1 , and hammering said locking lips snugly down against the rim of the cover. The countersunk inside fitting bracing cover being thus by the integral locking lips a^2 , having short bends a^3 therein, very securely and rigidly locked on and connected with the body A at the upper end thereof, and its curved annular rim d^1 snugly maintained in close engagement with the correspondingly curved annular roll a^1 on the body, thus causes the inside fitting deep countersunk cover and its annular countersink wall d and annular curved rim d^1 , in connection with the roll a^1 at the upper end of the body, and the wire F embraced thereby, to constitute together a very stiff, strong rigid and effective bracing and strengthening chime for the upper end of the vessel, and which, in connection with the chime ring or band at the lower end of the vessel and the parts co-operating therewith, thus results in a vessel or structure, as a whole, which is practically adapted for the successful handling and shipment of white lead, or other heavy material in 100 pound, or even larger weights; while at the same time the construction of my improved keg or vessel is such that it may be cheaply and economically manufactured, and thus made a successful and practical substitute for the oaken or wooden kegs heretofore customarily used for this purpose.

I claim:

1. The sheet steel keg for white lead or other heavy material herein shown and described, and comprising in one unitary structure the parts of which mutually connect, brace, strengthen and stiffen each other, a body A having a folded or locked side seam a , and provided at its upper end or mouth with an integral annular roll a^1 furnished with integral cover locking lips a^2 , a bottom or lower head B having an annular countersink wall or flange b fitting within and bracing the lower end of said body, and an external double or folded seam b^1 uniting said bottom or head B with the body, a chime ring or band C having on its inner side a channel or groove C^1 to receive said external seam b^1 , the portion of said chime ring or band below said groove or channel being inwardly offset in respect to the portion thereof above said groove or channel, a wire F embraced by said roll at the upper end of the body, and a deep countersunk cover D having a countersink wall d fitting within the upper end or mouth of the body, and an annular curved rim fitting and snugly engaging the upper portion of said roll on the body, said integral cover locking lips a^2 on the body roll being bent over and engaging the rim of the cover

to securely lock and hold the cover in place, substantially as specified.

2. In a sheet steel or metal keg or vessel, the combination with a body, of a countersunk bottom or lower head having its countersink wall fitting within the lower end of the body, an external folded seam uniting said bottom or lower head with the body, and a chime ring or band embracing the body both above and below said bottom head and having a groove or channel on its inner face in which said external seam fits, the portion of said chime ring or band below said groove or channel being inwardly offset in respect to the portion thereof above said groove or channel, substantially as specified.

3. In a sheet steel or metal keg or vessel, the combination with a body having an integral external annular roll at its upper end or mouth, of a strengthening wire embraced thereby, and a cover having a countersink wall fitting within and bracing the upper end or mouth of said body and provided with an external annular curved rim fitting upon and snugly embracing the upper portion of said roll on the body, said roll on the body being provided with integral cover locking lips projecting at their base from the upper outer portion of said roll, and bent over the rim of the cover to lock and hold the cover in place and in coöperative bracing and stiffening relation with the roll on the body, substantially as specified.

4. In a sheet metal keg or vessel, the combination with a body having an integral annular external roll at its upper end or mouth, and provided with integral cover locking lips projecting from the upper outer portion of said roll, of a cover having a countersink wall or flange fitting within the upper end or mouth of the body and having an external annular rim fitting on said roll, said cover being locked and held in place by said integral lips on the body roll, substantially as specified.

5. In a sheet metal keg or vessel, the combination with a body having an integral annular external roll at its upper end or mouth, and provided with integral cover locking lips projecting from the upper outer portion of said roll, of a cover having a countersink wall or flange fitting within the upper end or mouth of the body and having an external annular rim fitting on said roll, said cover being locked and held in place by said integral lips on the body roll, the rim of the cover being curved in cross section to fit and embrace the upper portion of said roll on the body, substantially as specified.

6. In a sheet metal keg or vessel, the combination with the body having an annular external roll at its upper end furnished with integral cover locking lips, of a cover having a countersunk wall fitting within the upper end or mouth of the body and provided with

external curved rim fitting said roll at the upper end of the body and locked and held on the body by said lips, substantially as specified.

- 5 7. In a sheet metal vessel, the combination with the body A, having countersunk bottom B secured to said body by an external folded seam, of a chime ring or band embracing the body above said bottom head
10 and having a channel or groove on its inside to receive said external seam, said body

having an external annular roll at its upper end or mouth furnished with integral cover locking lips, and a countersunk cover fitting within the upper end or mouth of said body, 15 and furnished with a rim engaged by said integral cover locking lips on said roll of the body, substantially as specified.

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Witnesses:

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