

July 7, 1931.

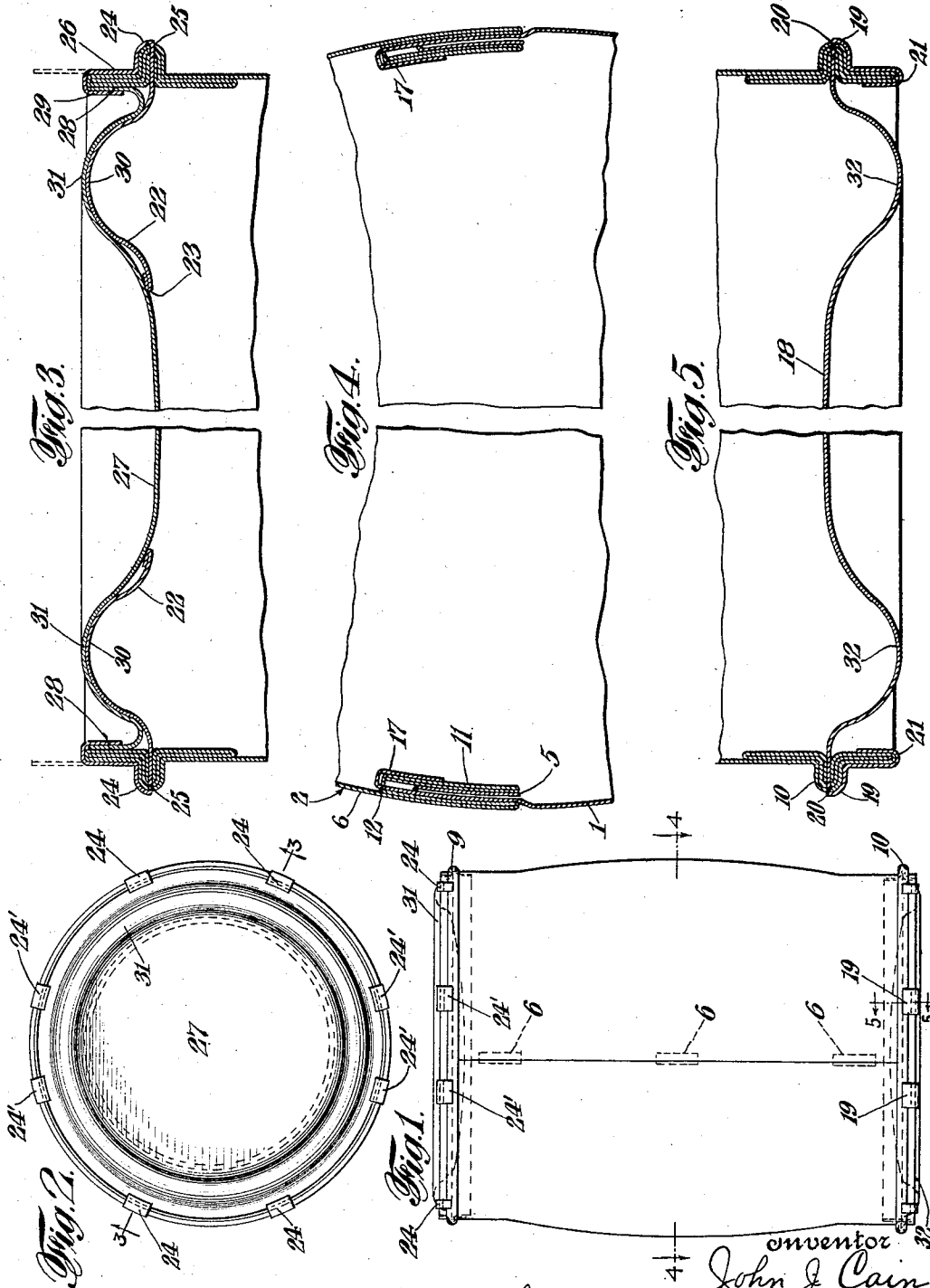
J. J. CAIN

1,812,929

METAL DRUM, BARREL, OR CONTAINER

Filed Oct. 28, 1927

2 Sheets-Sheet 1



By his Attorneys *John J. Cain*
Prindle, Wright, Neal & Bean

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2 Sheets-Sheet 2

Fig. 11.



Fig. 10.

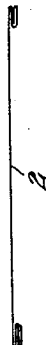


Fig. 9.

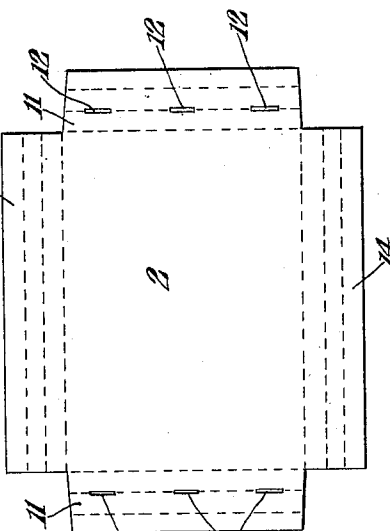


Fig. 12.

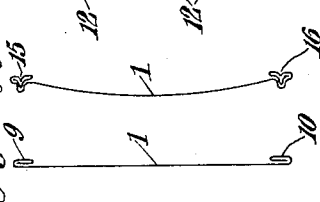


Fig. 8.

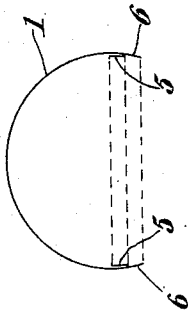


Fig. 7.

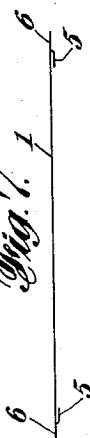
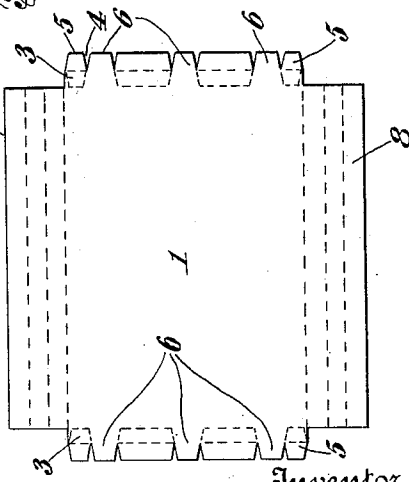


Fig. 6.



Inventor
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UNITED STATES PATENT OFFICE

JOHN J. CAIN, OF BAYONNE, NEW JERSEY

METAL DRUM, BARREL, OR CONTAINER

Application filed October 28, 1927. Serial No. 229,310.

This invention relates to improvements in a drum, barrel or container and more particularly to such an article made of metal.

The principal object of this invention is the provision of such an article which may be readily and cheaply made, simple and strong in construction, composed of few parts, easily packed for shipment in a knockdown condition and with the use of a minimum space, which may be quickly and securely assembled and closed and affords a safe and secure container for shipment of merchandise of all kinds.

Further objects of the invention include improvements in details of construction whereby a device of this character is provided.

To the accomplishment of the foregoing and such other objects as may hereinafter appear, this invention consists in the construction, combination and arrangement of parts hereinafter described and then sought to be defined in the appended claims, reference being had to the accompanying drawings forming a part hereof and which show, merely for the purpose of illustrative disclosure, a preferred embodiment of my invention, it being expressly understood, however, that various changes may be made in practice within the scope of the claims without departing from my inventive idea.

In the drawings—

Figure 1 represents a side elevation of a complete metal drum, barrel or container constructed according to my invention.

Figure 2 is a top plan view of the same.

Figure 3 is a vertical cross section of the top taken substantially on line 3—3 of Figure 2.

Figure 4 is a horizontal transverse section taken substantially on line 4—4 of Figure 1.

Figure 5 is a vertical transverse section of the bottom taken substantially on line 5—5 of Figure 1.

Figure 6 is a view in elevation of one of the parts forming the body of the article after being cut or stamped but before being folded and shaped.

Figure 7 is a diagrammatical top plan view

of Figure 6 after the side members have been folded.

Figure 8 is a diagrammatical top plan view of the element shown in Figure 7 after it has been formed into a cylindrical shape.

Figure 9 is a view in elevation of the other part forming the body of the article after being cut or stamped but before being folded and shaped.

Figure 10 is a diagrammatical top plan view of Figure 9 after the side members have been folded.

Figure 11 is a diagrammatical top plan view of the members shown in Figure 10 after it has been shaped.

Figure 12 is a diagrammatical side elevation of the members shown in Figures 6 and 9 after the top and bottom portions thereof have been folded.

Figure 13 is a view similar to Figure 12 after the parts have been shaped.

The method of making this article will first be described and for that purpose reference is first had to Figures 6 to 13 inclusive of the drawings. The article is made out of flat sheet material and the complementary sheets 1 and 2 are cut out. These sheets when folded and shaped complement each other to form the body of the drum, barrel or container. The member 1 is provided on each side with an extension 3 which is notched or cut out as at 4, whereby a plurality of lugs 5 and 6 are provided, the lugs 5 being bent down upon the body as indicated in dotted lines in Figure 6, and as clearly shown in Figure 7, leaving the lugs 6 outstanding and projecting. This member 1 is provided on the top and bottom with the extended portions 7 and 8 which are folded upon the dotted lines indicated in Figure 6 to form the beads 9 and 10 (see Figure 12).

The member 2 like member 1 is cut or stamped in the general form of a rectangle having the portions 11 extending from each side thereof. These portions 11 are provided with a plurality of slots 12 and are adapted to be folded along dotted lines indicated in Figure 9, so that the slots 12 are positioned along the inner edge of the folded portions 11 when the member 2 is shaped as shown

in Figure 11. Member 2 is also provided with a top portion 13 and bottom portion 14 extending therefrom and adapted to be folded along the lines indicated to form the top and bottom beads such as 9 and 10 (Figure 12). These parts, in addition to being shaped in the form of a semi-cylinder, may also be bulged or convexed as indicated in Figure 13 and have the top and bottom beaded portions bent or grooved as at 15 and 16 (see Figure 13) to provide grooves to receive the top and bottom members.

The two parts just described, together with the top and bottom members, form the completed article, the parts 1 and 2 complementing each other to form the body of the article. They are held together by passing lugs 6 through the slots 12 and then bending the ends of lugs 6 over and against the folded side extensions 11 of member 2 as shown at 17 in Figure 4. The bottom member is designated generally by the reference character 18 and is provided at its edges with the lugs 19, which are adapted to be passed through slots 20 formed in the beads 10, as indicated at 21 in Figure 5 of the drawings. At the top of the article I provide a holding member 22 which is in the general form of a ring having a large central opening 23 and having a plurality of lugs 24 at the side. These lugs are adapted to pass through apertures or slots 25 formed in the top beads 9 and are then bent over said top beads 9 as at 26 extending straight upwardly, as indicated in dotted lines in Figure 3. When the drum, barrel or other container is filled the lid or cover 27 is placed in position. This is in the form of a disc having its outer edge upturned in the form of a flange 28, which fits tightly against the inner surface of bead 9. When in position the free extremities of the lugs 24 are bent down over the flange 28 of the lid or cover 27, as indicated at 29 in Figure 3, whereby the lid or cover is securely held in position. In order to assist in and insure the proper adjustment and fitting of the lid or cover by the holding member 22, I may form the latter with the bulge or bow 30 and then form the lid or cover with a corresponding bulge or bow 31, whereby it may fit over and upon the bulge or bow 30 of the holding member. The bottom member 18 may be provided with a similar bulge or bow 32 if desired.

It is to be noted (see particularly Figure 2) that a plurality of lugs 24 is provided at intervals around the top of the drum, barrel or container, and that the lugs 24' adjacent the meeting edges of the two parts of the drum, barrel or container are positioned somewhat closer together than the other lugs. This is for the purpose of affording additional security along the junction of the two parts. This also applies to the bottom lugs 19 as well. Furthermore, it is to be under-

stood that the number of lugs 6 and slots 12 may be varied in accordance with the size of the article, and that the size of these lugs may be varied as desired.

It is seen, therefore, that I have provided an article of the character described which may be made entirely of metal and is composed of four major parts, two side or body members, a bottom member and a top member. The top member may be made of two parts if desired. The parts are all formed of simple metal operations in such a way as to insure speedy, quick and accurate assembling by unskilled labor. It may be shipped in a knockdown condition and utilizes a minimum quantity of space. When assembled for filling the parts are securely held in position against distortion and displacement, and when filled the lid or cover may be quickly, accurately and tightly secured in position. The parts of a plurality of these articles may be readily and conveniently and compactly packed and nested for shipment.

What I claim is:—

1. A device of the character described including, in combination, a body part formed of two members, one member having a plurality of lugs formed integrally along each side thereof, the other member being provided with a plurality of slots along each side thereof corresponding in position to said lugs and adapted to receive the lugs, whereby the two members may be assembled to form the body part, said body part being formed with a plurality of slots near each end, a bottom member having a plurality of lugs adapted to pass through said slots in the lower end of said body member and to be bent around the lower edge of the body member, a lid or cover member having a plurality of lugs adapted to pass through said slots in the upper part of said body member and to be bent around the upper edge of the body member.

2. A device of the character described including, in combination, a body part formed of two members, one member having a plurality of lugs formed integrally along each side thereof, the other member being provided with a plurality of slots along each side thereof corresponding in position to said lugs and adapted to receive the lugs, whereby the two members may be assembled to form the body part, said body part being formed with a plurality of slots near each end, a bottom member having a plurality of lugs adapted to pass through said slots in the lower end of said body member and to be bent around the lower edge of the body member, a lid or cover member having a plurality of lugs adapted to pass through said slots in the upper part of said body member and to be bent around the upper edge of the body member, said lid or cover member being composed of two parts, said lugs being formed in one part which constitutes a holding member and an-

other part constituting a lid or cover proper adapted to fit over the holding member and to be held in position by said bent-over lugs.

3. A device of the character described including, in combination, a body member formed of two parts, one of said parts being formed with a plurality of lugs on each side, the other of said parts being provided with extending portions on each side with a plurality of slots therein corresponding to said lugs, said extending portions being folded upon themselves so as to position said slots upon the inside of said part to receive said lugs when the parts are assembled, said lugs being bent over said folded portions, each of said body parts being formed with a reinforced bead at the top and bottom, said beads being grooved to provide a recess and formed with a plurality of slots in said recess, a bottom member fitting in the bottom recess and having a plurality of lugs passing through the slots in said recess and bent over the beaded bottom edge, a top member fitting within the top recess and having a plurality of lugs passing through the slots therein and bent over the top beaded edge.

4. A device of the character described including, in combination, a body member formed of two parts, one of said parts being formed with a plurality of lugs on each side, the other of said parts being provided with extending portions on each side with a plurality of slots therein corresponding to said lugs, said extending portions being folded upon themselves so as to position said slots upon the inside of said part to receive said lugs when the parts are assembled, said lugs being bent over said folded portions, each of said body parts being formed with a reinforced bead at the top and bottom, said beams being grooved to provide a recess and formed with a plurality of slots in said recess, a bottom member fitting in the bottom recess and having a plurality of lugs passing through the slots in said recess and bent over the beaded bottom edge, a top member fitting within the top recess and having a plurality of lugs passing through the slots therein and bent over the top beaded edge, said top member being formed of two parts, one of said parts being detachable and held in position by said bent-over lugs.

5. A device of the character described including, in combination, a body member formed of two parts, one of said parts being formed with a plurality of lugs on each side, the other of said parts being provided with extending portions on each side with a plurality of slots therein corresponding to said lugs, said extending portions being folded upon themselves so as to position said slots upon the inside of said part to receive said lugs when the parts are assembled, said lugs being bent over said folded portions, each of said body parts being formed with a rein-

forced bead at the top and bottom, said beads being grooved to provide a recess and formed with a plurality of slots in said recess, a bottom member fitting in the bottom recess and having a plurality of lugs passing through the slots in said recess and bent over the beaded bottom edge, a top member fitting within the top recess and having a plurality of lugs passing through the slots therein and bent over the top beaded edge, said top member being formed of two parts, one of said parts being detachable and held in position by said bent-over lugs, both of said top parts being formed with a bulge or bow so as to fit each other.

6. A device of the character described including, in combination, a body part formed of two members, one of said members being provided with an extension on each side which is notched or cut out to provide a plurality of lugs, certain of these lugs being bent down to provide reinforcements, the other lugs remaining in an outstanding position, the other of said members being provided with an extending portion on each side, each extending portion being provided with a plurality of slots corresponding in number and position to said outstanding lugs, said extending portions being bent upon themselves for reinforcement purposes and so as to position said slots to receive said outstanding lugs when the two members are assembled after being bent into a semi-circular shape, and top and bottom members fitting between the top and bottom portions of said two members.

7. A device of the character described including, in combination, a body part formed of two members, one of said members being provided with an extension on each side which is notched or cut out to provide a plurality of lugs, certain of these lugs being bent down to provide reinforcements, the other lugs remaining in an outstanding position, the other of said members being provided with an extending portion on each side, each extending portion being provided with a plurality of slots corresponding in number and position to said outstanding lugs, said extending portions being bent upon themselves for reinforcement purposes and so as to position said slots to receive said outstanding lugs when the two members are assembled after being bent into a semi-circular shape each of said members also having top and bottom portions extended and folded upon themselves to provide a reinforcing bead on the top and bottom, said reinforcing bead being grooved, and top and bottom members for said assembled device fitting within said grooves.

8. A device of the character described including, in combination, a body part formed of two members, one of said members being provided with an extension on each side

which is notched or cut out to provide a plurality of lugs, certain of these lugs being bent down to provide reinforcements, the other lugs remaining in an outstanding position, the other of said members being provided with an extending portion on each side, each extending portion being provided with a plurality of slots corresponding in number and position to said outstanding lugs, said extending portions being bent upon themselves for reinforcement purposes and so as to position said slots to receive said outstanding lugs when the two members are assembled after being bent into a semi-circular shape, each of said members also having top and bottom portions extended and folded upon themselves to provide a reinforcing bead on the top and bottom, said reinforcing bead being grooved, and top and bottom members for said assembled device fitting within said grooves, said grooves being formed with a plurality of slots and said top and bottom members being provided with a plurality of lugs to pass through said slots and to be bent over said first-mentioned members.

9. A device of the character described, including in combination, a body member pre-shaped to provide meeting edges having complementary locking means, a bottom member and a top member, said bottom and top members being adapted to be held in position within said body member by frictional engagement when said locking means is in position, said body member being provided with an internal groove adapted to receive the edge of said bottom member, a plurality of slots formed in said body member and a plurality of lugs formed on said bottom member adapted to pass through said slots when assembled and to be bent against said body member.

10. A device of the character described, including in combination, a body member pre-shaped to provide meeting edges having complementary locking means, a bottom member and a top member, said bottom and top members being adapted to be held in position within said body member by frictional engagement when said locking means is in position, said top member being formed of two parts, one being a holding, supporting and bracing member having means whereby it is held within said body member, said holding, supporting and bracing member being provided with an opening to permit the device to be filled, and a lid or cover for said opening.

11. A device of the character described, including in combination, a body member pre-shaped to provide meeting edges having complementary locking means, a bottom member and a top member, said bottom and top members being adapted to be held in position within said body member by frictional engagement when said locking means is in

position, said top member being formed of two parts, one being a holding, supporting and bracing member having means whereby it is held within said body member, said holding, supporting and bracing member being provided with an opening to permit the device to be filled, and a lid or cover for said opening, said bracing member and said lid or cover having interfitting parts and having means for locking the lid or cover to said bracing member.

12. A device of the character described, including in combination, a body member pre-shaped to provide meeting edges having complementary locking means, a bottom member and a top member, said bottom and top members being adapted to be held in position within said body member by frictional engagement when said locking means is in position, said top member being formed of two parts, one being a holding, supporting and bracing member having means whereby it is held within said body member, said holding, supporting and bracing member being provided with an opening to permit the device to be filled, and a lid or cover for said opening, said body member being provided with an internal groove within which said holding, supporting and bracing member fits, said holding means including lugs on said holding, supporting and bracing member, said body member being provided with slots through which said lugs are adapted to pass and then be bent against said body member.

13. In combination in a knock-down barrel construction, a body member, a bottom member and top member, said bottom and top members being adapted to be held in position within said body member by frictional engagement, said body member being provided with an internal groove adapted to receive the edge of said bottom member and having a plurality of slots formed therein, the said bottom member having a plurality of lugs adapted to pass through said slots when assembled, and to be bent against said body member.

14. In combination in a knock-down barrel construction, a body member, a bottom member and top member, said top member being formed of two parts, one being a holding, supporting and bracing member, having means whereby it is held within said body member, said holding, supporting and bracing member being provided with an opening to permit the barrel to be filled and a lid or cover for said opening, said holding, supporting and bracing member and said lid or cover being of substantially the same diameter.

15. In combination in a knock-down barrel construction, a body member, a bottom member and top member, said top member being formed of two parts, one being a holding, supporting and bracing member, hav-

ing means whereby it is held within said body member, said holding, supporting and bracing member being provided with an opening to permit the barrel to be filled and a lid or cover for said opening, said bracing member and said lid or cover having inter-fitting parts and having means for locking the lid or cover to said bracing member.

16. In combination in a knock-down barrel construction, a body member, a bottom member and a top member, said top member being formed of two parts, one being a holding, supporting and bracing member, having means whereby it is held within said body member, said holding, supporting and bracing member being provided with an opening to permit the barrel to be filled and a lid or cover for said opening, said body member being provided with an internal groove within which said holding, supporting and bracing member fits, said holding member being provided with lugs and said body member being provided with slots through which said lugs are adapted to pass, and then be bent against said body member.

17. In combination in a knock-down barrel construction, a body member, a top member including a holding member in the form of a ring or annulus, having a large central opening and a plurality of lugs extending from the edge thereof, said body member being provided with a plurality of slots through which said lugs are adapted to pass, a lid or cover in the form of a disc adapted to fit said holding member and having its outer edge upturned to fit against the inner surface of the body member and to be held in position by the free ends of the aforesaid bent lugs.

18. In combination in a knock-down metallic barrel construction, a preformed body member having its upper edge bent in a plurality of folds to form a reinforced bead and provided with a groove in said bead formation and also having a plurality of slots therethrough, a holding member in the form of a ring or annulus with a large opening therethrough adapted to fit within the upper part of said body and having a plurality of elongated and bendable lugs adapted to extend through said slots and to be bent up and over the top edge of said body, a closure member in the form of a disc fitting upon said holding member and provided with a peripheral flange fitting within the upper part of said body and adapted to be engaged by the downwardly bent lugs aforesaid.

19. In combination in a metallic knock-down barrel construction, a body member having its lower end bent into a plurality of folds to form a reinforced beaded construction with an internal groove formed in said beaded construction and having a plurality of slots therethrough, a bottom member in the form of a disc adapted to fit within said

body member and engaged with its peripheral edge in said groove and having a plurality of elongated bendable lugs adapted to pass through said slots and around and over the bottom edge of said beaded construction and against the interior surface thereof.

20. In combination in a knock-down metallic barrel construction, a body part formed of two members one of said members being formed with a plurality of lugs on each edge thereof, the other of said members being provided with an extended portion on each side having a plurality of slots in said extended portion corresponding to said previously mentioned lugs, said extended portions being bent or folded upon themselves a plurality of times so as to position said slots in one of said folds to receive said lugs when the two members are assembled.

21. In combination in a knock-down metallic barrel construction, a body part formed of two members one of said members being formed with a plurality of lugs on each edge thereof, said edges being reinforced between said lugs, the other of said members being provided with an extended portion on each side having a plurality of slots in said extended portion corresponding to said previously mentioned lugs, said extended portion being bent or folded upon themselves a plurality of times so as to position said slots in one of said folds to receive said lugs when the two members are assembled.

22. A device of the character described including, in combination, a body part formed of two members, said body part being formed with a plurality of slots near one end, a lid or cover member having a plurality of lugs adapted to pass through said slots in said body part and to be bent around the upper edge of said body part, said lid or cover member being composed of two parts, said lugs being formed on one part which constitutes a holding member and the other part constituting a lid or cover adapted to fit over the holding member and to be held in position by said bent over lugs.

23. A device of the character described including, in combination, a body member formed of two parts, one of said parts being formed with a plurality of lugs on each side, the other of said parts being provided with extending portions on each side with a plurality of slots therein corresponding to said lugs, said extending portions being folded upon themselves so as to position said slots upon the inside of said part to receive said lugs when the parts are assembled, said lugs being bent over said folded portions, each of said body parts being formed with a reinforced bead at the top and bottom, said beads being grooved to provide a recess and formed with a plurality of slots in said recess, and a bottom member fitting in the bottom

recess and having a plurality of lugs passing through the slots in said recess and bent over the beaded bottom edge.

In testimony that I claim the foregoing, I
5 have hereunto set my hand this 4th day of
October, 1927.

JOHN J. CAIN.

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