Aug. 30, 1955 H. LINDE 2,716,505

RECEPTACLE OF SHEET METAL

Filed Jan. 23, 1952

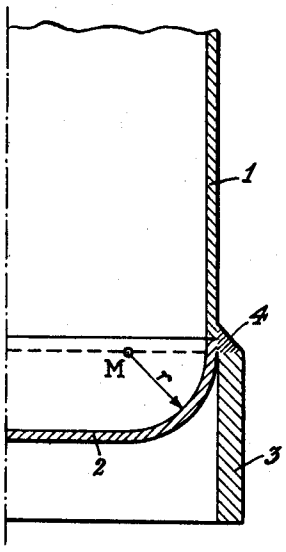


Fig. 1

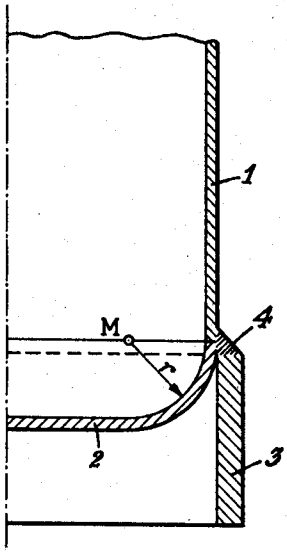


Fig. 2

Inventor
Hilding Linde
by Sommers & Young
Attorneys

United States Patent Office 2,716,505 Patented Aug. 30, 1955

2,716,505

RECEPTACLE OF SHEET METAL

Hilding Linde, Kalmar, Sweden

Application January 23, 1952, Serial No. 267,761

Claims priority, application Sweden January 27, 1951

2 Claims. (Cl. 220—69)

This invention relates to a receptacle of sheet metal, especially a dustbin, comprising a jacket part, a bottom part and a supporting bottom ring welded together.

One object of the invention is to unite the three parts in such a way that bending strain is prevented in the joint by the load.

Another object is to provide a completely smooth surface at the inside of the joint between the jacket part and the bottom part whereby the receptacle can easily be cleaned and disinfected.

A further object is to combine the three parts in such a way that they do not form such pockets which remain uncovered at the galvanization and in which the acid in which the receptacle is to be dipped before the galvanization may remain and corrode the metal.

A still further object is to provide a very simple joint for uniting the three parts which is easy to make and which makes it possible to use a thin metal sheet without constituting a weekened zone.

With these and other objects in view the invention is hereinafter described and illustrated by way of example in the accompanying drawing in which:

Fig. 1 is a vertical section through one half of a dustbin according to a preferred form of the invention.

Fig. 2 is a similar vertical section through a slightly modified form.

The jacket part **1** is made of sheet iron and may have a cylindrical, conical or other form. In a section perpendicularly to the axis the jacket may form a circle, a square or other form. The jacket rests on the bottom part **2** in such a way that it forms with the peripheral and upwardly bent portion of the bottom part a butt joint. The both parts are so dimensioned that a continuous inner surface is obtained along the joint. The bottom part extends in a vertical section along a circle having the centre M and the radius *r*. The thickness of the sheet iron usually varies between 0.5 and 2 mm. but is shown in the drawing enlarged for the sake of clearness. Within the rounded portion the bottom is substantially plane. A bottom ring **3** is made of band iron having a thickness exceeding that of the jacket part. The band iron is bent in a separate operation to a ring and has the ends welded together. The position of the bottom part **2** is adjusted in such a way that the upper edge thereof extends slightly above the bottom ring **3** and usually 1–3 mm. or a distance corresponding to half the thickness of the bottom ring. The centre M is according to Fig. 1 located at the same level as the upper surface of the bottom ring. According to Fig. 2 the centre is located at a short distance above the bottom ring, and the bottom part rests with its upper surface against the bottom ring substantially only in points located along a circle. The space beween the bottom ring and the bottom part is thereby enlarged in order to facilitate the penetration of the zinc between the both surfaces facing each other and a complete galvanization of said surfaces.

The receptacle may be manufactured in the following manner. When the bottom part has been formed by a pressing operation and when the jacket part has been welded together along a vertical butt joint the both edges of the parts to be united are ground on a surface grinding machine in order to obtain plane abutting surfaces in the butt joint. The jacket part is hereafter placed on the bottom part, and the correct position of the edges to be joined is performed by means of an implement, such as a welding jig, so that the inner surface becomes smooth. The both parts are then welded together on their outer surfaces so that a continuous and all around extending welding seam is obtained. The bottom ring is now placed in correct position in the bottom part, whereafter the bottom ring is fastened by welding either continuously or discontinuously along the welding seam between the jacket part and the bottom part. It is also possible to unite the three parts in a single welding operation. The shelf formed between the upper surface of the bottom ring and the side wall of the bin may be filled out by the welding material, whereby a rigid connection between the three parts is secured. The receptacle may be galvanized by dipping in a molten zinc bath whereby the joint is completely covered by a zinc layer.

By the continuously rounded bottom the risk of rupture is precluded, and as all the inner surface is completely smooth without any unevenness in the joint and without any sharp corner the receptacle can very easily be cleaned, and it can, therefore, also be used in such cases where great hygienic demands are made, such as upon milk receptacles.

I claim:

1. In a method of manufacturing a receptacle of sheet metal composed of a jacket part, a bottom part and a supporting bottom ring, the steps comprising pressing the peripheral portion of the bottom part upwardly so as to form an extension of the jacket part in a butt joint between said parts and a smooth inner surface at the joint, grinding the abutting edges of said parts to a plane form, uniting the both parts by means of a welding seam along the outside of the butt joint, placing thereafter the bottom ring around the bottom part in such a position that its upper edge is located immediately below the level of the butt joint, and welding the upper edge of the bottom ring and said welding seam together.

part only between the end surfaces corresponding to the

2. In a galvanized receptacle of sheet metal, a jacket part, a bottom part having its peripheral portion bent upwardly so as to form a smooth butt joint with said jacket square sections or said parts, a supporting bottom ring of a constant thickness bearing only with its upper and inner edge against said bottom part and positioned with its upper end surface at a distance below the edge of the bottom part, said distance being less than the thickness of said bottom ring, and a single welding seam provided in the angle between the upper end surface of the bottom ring and the outer side surfaces of the bottom part and the jacket part so as to unite the side surfaces of both of said parts with the upper end surface of the bottom ring.

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