

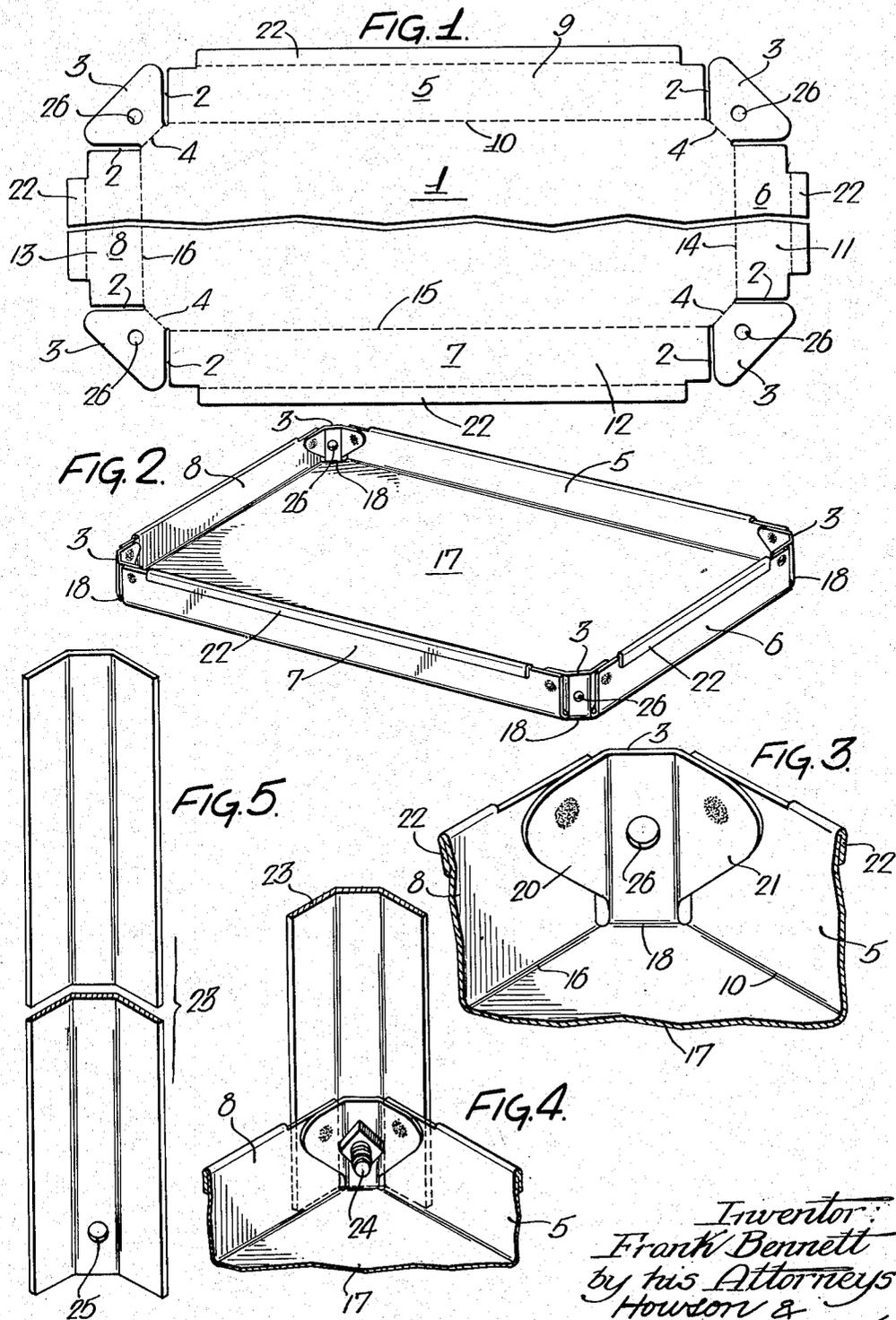
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SHEET METAL TABLE TRAY CONSTRUCTION

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SHEET METAL TABLE TRAY CONSTRUCTION

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This invention has to do primarily with metal receptacles of the type having a bottom wall and upright side walls and formed from an integral blank of sheet metal.

The invention relates in particular to a novel corner construction for receptacles of this character, and a principal object of the invention is to provide a receptacle having an improved corner construction which favorably affects the physical characteristics of the receptacle as a whole in the cost of production.

Another object of the invention is to provide a novel and improved receptacle and supporting leg assembly which includes as a functional part thereof the aforesaid corner structure.

A still further object of the invention is to provide a novel method of producing trays of the stated class.

The invention will be more readily understood by reference to the attached drawings wherein:

Fig. 1 is a face view of a sheet metal blank from which the receptacle is produced;

Fig. 2 is a view in perspective of the finished receptacle;

Fig. 3 is an enlarged fragmentary perspective view of one corner of the receptacle;

Fig. 4 is a view in perspective of one of the leg elements designed for cooperation with the corner structure shown in Fig. 3 to provide a suitable support for the receptacle; and

Fig. 5 is a fragmentary perspective view showing the manner in which the receptacle is secured to the leg elements.

With reference to the drawings, a receptacle made in accordance with the present invention may be produced from a flat sheet metal blank of the form shown in Fig. 1. As therein illustrated, the blank 1 has a slot 2 adjacent to each corner thereof and in each of the edges of the blank at opposite sides of the corner, said slots extending inwardly from and at right angles to the respective side edges in which they are formed and defining the opposite sides of a corner section 3 which is joined to the blank along a relatively narrow base line 4 which extends diagonally to and between the inner ends of the slots.

From this blank the receptacle is formed by turning up the edge portions of the blank which lie between the slots 2 of each side, and also the corner sections 3, along the lines which intersect the inner ends of the slots to thereby form the upright side walls of the receptacle including the side walls proper indicated in Fig. 2 by the reference numerals 5, 6, 7 and 8, and the corner

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sections 3, each of which lies between the proximate ends of an adjoining pair of the side walls 5, 6, 7 and 8.

Thus, with reference to Fig. 1, the edge portion 9 of the blank which forms the side wall 5 is turned upwardly from the plane of the blank along the line 10 which extends between the two slots 2 at opposite ends respectively of this edge portion. Similarly, the edge portions 11, 12 and 13 are turned up respectively about the lines 14, 15 and 16. Each of the corner sections 3 is turned up about its base line 4, and the extended side portions of each of these corner sections are bent from the plane of the corner section into the planes of the adjoining side wall sections 5, 6, 7 and 8, as the case may be, as shown in Fig. 2, so as to lie in face-to-face relation to the proximate ends of these wall sections. The side wall structure is then completed by welding or otherwise securing these angularly offset side portions of the corner sections to the confronting faces of the side wall sections which they respectively overlap.

The resulting tray, illustrated in Fig. 2, then comprises the substantially rectangular bottom wall 17 having at each of the side edges thereof the upturned flanges which constitute the primary side walls 5, 6, 7 and 8 of the receptacle, said bottom wall having diagonal corners at 18 defined by the bases of the integral corner sections 3 which extend upwardly between the proximate ends of the adjoining side walls and which have the transversely extended side portions, 20 and 21 respectively, overlapping the said proximate ends of the adjoining side walls and secured to the confronting faces of the latter to form the closed receptacle corners.

In the present instance each of the side edge portions 9, 11, 12 and 13 of the blank which form the respective side walls 5, 6, 7 and 8, are provided with an extension 22 at its outer edge which terminates short of the ends of the edge portions and which are turned outwardly and downwardly against the outer faces of the said edge portions, as shown in Fig. 2, to provide reinforcement for the upper edges of the side walls. It will be noted also that in the present instance the side extensions 20 and 21 of the corner sections 3 overlap the inner surfaces of the adjoining side walls and are secured flatly against these inner surfaces.

In conjunction with a receptacle having corners of the character described above, I may employ tray supports in the form of legs 23 of channel formation. These legs have a transverse

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cross-section corresponding to the contour of the individual receptacle corner so that the corners will fit snugly and accurately within the channels, as illustrated in Fig. 5, with the legs extending at right angles to the plane of the bottom wall 17 of the receptacle. The side portions of these legs lie flatly against the outer faces of the side walls of the receptacle in the areas beyond the ends of the reinforcing bead portions 22 and are secured in place by bolts 24 which extend through registering apertures 25 and 26 in the legs and in the corner sections 3 of the side wall. With this construction, the ends of the side walls 5, 6, 7, and 8 are in effect clamped between the inner surfaces of the legs and the side portions of the corner sections 3 so that pressures tending to displace the legs with respect to the receptacles will not fall upon the welded or other joints which secure the sides of the corner sections to the side walls.

The invention provides a strong, rugged and inexpensive receptacle of the stated class composed of an integral piece of sheet metal and well adapted for use in conjunction with supporting legs of the simple channel form described.

I claim:

1. A sheet metal receptacle comprising a substantially rectangular bottom wall and upturned flanges at the edges of said bottom forming the side walls of said receptacle, the said bottom wall having a diagonal corner intermediate the proximate ends of adjoining side walls, and an upturned flange at the diagonal corner edge between the said proximate ends of the adjoining side walls, said corner flange having transversely extended side portions turned respectively into the planes of and overlapping the inner sides of the said side walls and secured to the confronting faces of the latter to form a closed receptacle corner, and an intermediate portion of the free edge of each of the side wall flanges being extended and the said extended portions being turned back against the outer surfaces of the respective side walls to form a multiple thickness of metal at the upper edges of the walls, said multiple thickness terminating short of the said corners so as to provide at the outer sides of the latter inset sockets for reception of supporting leg elements.

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2. A sheet metal receptacle comprising a substantially rectangular bottom wall and upturned flanges at the edges of said bottom forming the side walls of said receptacle, the said bottom wall having a diagonal corner intermediate the proximate ends of adjoining side walls, an upturned flange at the diagonal corner edge between the said proximate ends of the adjoining side walls, said corner flange having transversely extended side portions turned respectively into the planes of and overlapping the inner sides of the said side walls and secured to the confronting faces of the latter to form a closed receptacle corner, support means in the form of a plurality of channel bar legs each corresponding in transverse cross-sectional form to the contour of the individual receptacle corner so as to fit snugly around the outside of the latter in position extending at right angles to the plane at the bottom wall of the receptacle, the upper edge portions of the side walls being turned outwardly and downwardly against the outer faces of the walls over substantially the entire space between the proximate edges of each adjoining pair of said legs so that the outer surfaces of the said walls in the upper areas of the latter are approximately co-planar and continuous with the outer surfaces of the legs, and means for securing the legs to the receptacle.

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