Jan. 24, 1928.

1,657,084

J. M. HOTHERSALL

KNOCKDOWN SHEET METAL CRACKER CAN

Filed June 16, 1924

2 Sheets-Sheet 1

Fig. 1.

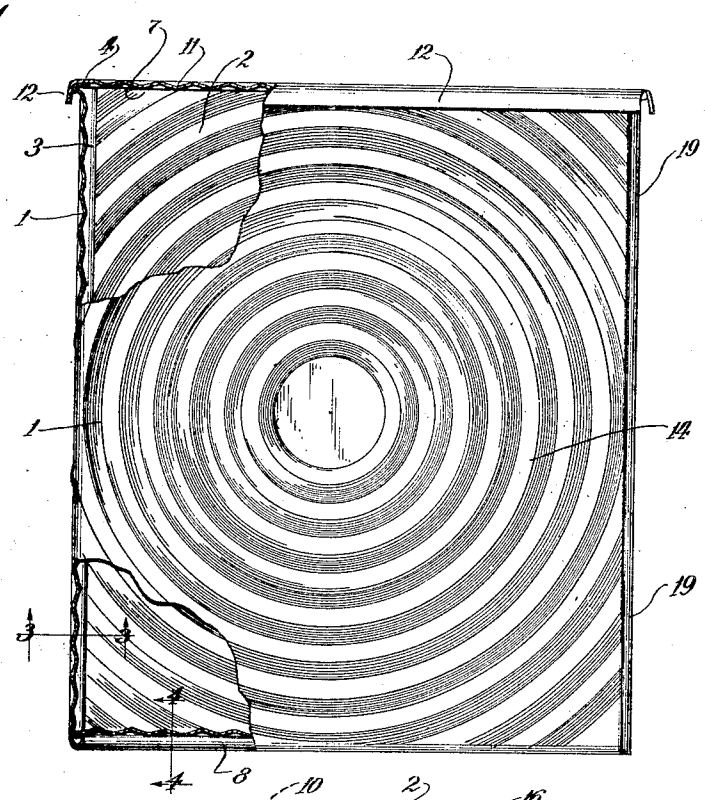


Fig. 2.

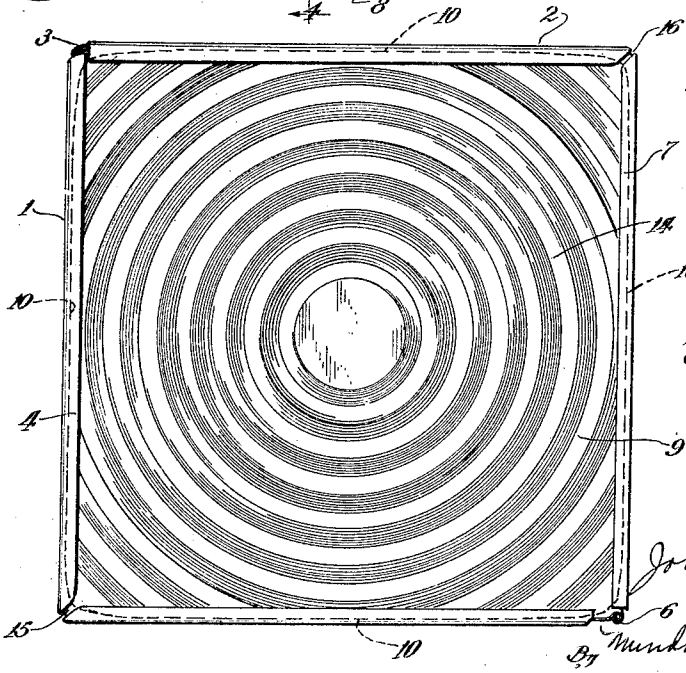


Fig. 3.

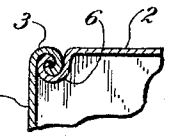
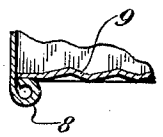


Fig. 4.



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2 Sheets-Sheet 2

Fig. 6.

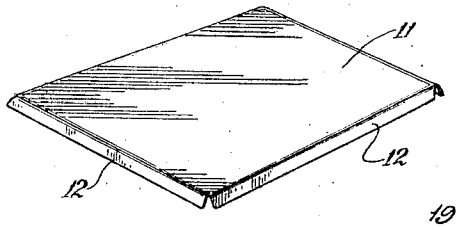


Fig. 10.

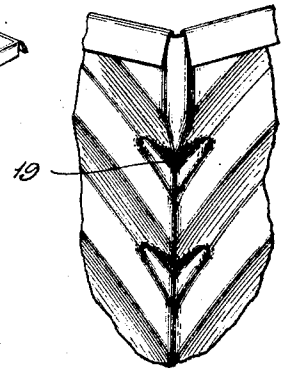


Fig. 7.

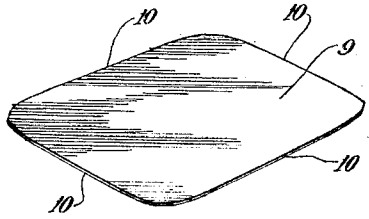
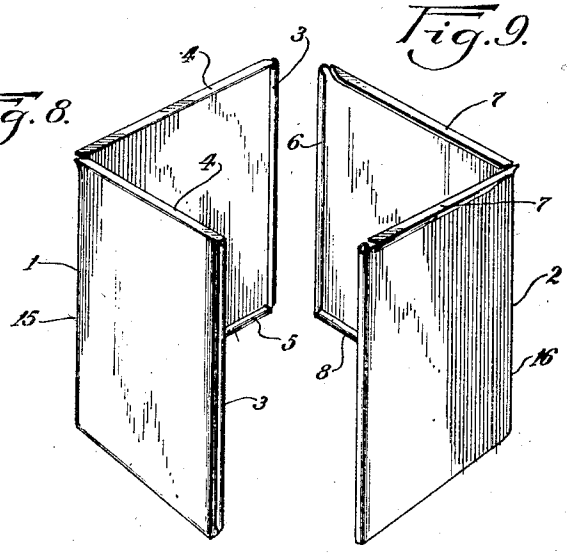


Fig. 9.

Fig. 8.



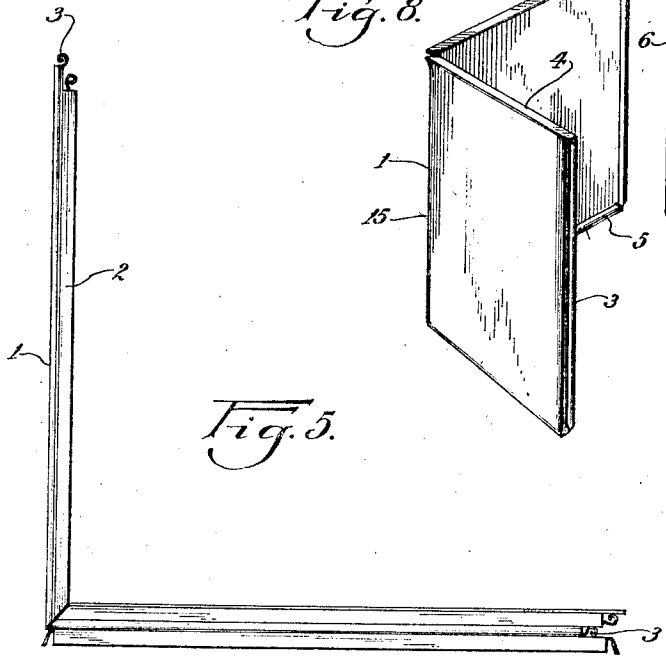


Fig. 5.

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UNITED STATES PATENT OFFICE.

JOHN M. HOTHERSALL, OF BROOKLYN, NEW YORK, ASSIGNOR TO AMERICAN CAN COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

KNOCKDOWN SHEET-METAL CRACKER CAN.

Application filed June 16, 1924. Serial No. 720,252.

My present invention relates to knockdown sheet metal containers for crackers and like products and is in the nature of an improvement, or modification of the invention of my co-pending application, Serial No. 714,772, filed May 21, 1924.

As stated in said co-pending application, the general object of the invention therein described and claimed is to provide a single shipment container for crackers and like food products which will not be subject to the disadvantages of the so-called fiber caddies ordinarily used for this purpose in the past. These disadvantages are, chiefly, the likelihood of the caddy becoming crushed during handling and storing and the danger of mice and rats gaining access to the contents by chewing away portions of the fiber body when the container is stored in freight warehouses, or elsewhere. The present invention has the same general object and is directed particularly to the provision of certain features of advantage in the construction and arrangement of the parts.

These features relate to, first, the form and method of positioning the bottom member; second, the means of reinforcing and strengthening certain of the parts; and third, the type of cover which may be employed in conjunction with the other features of construction just mentioned.

Other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

Referring to the drawings,

Figure 1 is a side view, partially in vertical section, of a sheet metal container constituting a preferred embodiment of the invention and showing the container assembled with the cover applied:

Fig. 2 is a plan view of the same with the cover removed;

Fig. 3 is an enlarged detail horizontal section on line 3—3 of Fig. 1;

Fig. 4 is an enlarged detail vertical section on line 4—4 of Fig. 1;

Fig. 5 is a side elevation of the knockdown container, showing the parts thereof nested within one another for storage or transportation purposes;

Fig. 6 is a perspective view of the cover;

Fig. 7 is a similar view of the removable bottom portion of the container;

Fig. 8 is a perspective view of one of the unitary body or wall sections;

Fig. 9 is a similar view of the other wall section in position prior to its engagement with the section shown in Fig. 8; and

Fig. 10 is a detail perspective view of one of the corners.

As shown in said drawings, the wall portions of the container are preferably two in number, and are indicated as 1 and 2. The wall or body portion 1 consists of a sheet of metal bent at right angles to form an integral corner 15, and is provided at its side edges with integrally formed and outwardly curled or hooked flanges 3. The body section 1 is provided at its upper portion with integrally inturned horizontal flanges 4, and at its lower portion with a reinforcing upwardly curled bead 5, which is further adapted to support the removable bottom section as hereinafter described.

The wall or body section 2, like the section 1, is bent to form an integral corner 16, and at its side edges the section 2 is integrally formed with the inwardly curled hooked flanges 6, adapted to cooperate with the outwardly curled flanges 3 of the member 1, when the container is assembled. The body section 2 is also provided with integrally formed, inwardly projecting horizontal flanges 7 at its upper portion, and an upwardly curled lower bead 8, similar to the bead 5.

In assembling the container, one of the body sections is lifted and slipped vertically into telescoping locking engagement with the other body section, and the oppositely curled or hooked side flanges of the two sections cooperate to form a tubular sliding joint (Figs. 2 and 3). This sliding tubular joint results in a secure corner construction. By forming the body of the container of two sections, 1 and 2, the assembled body is caused to maintain its shape, relative twisting movement of the sections is prevented by the integral corners 15 and 16, and the assembled body is substantially square in horizontal section.

The bottom portion 9 is next inserted into and downwardly between the assembled body sections, and, as best seen in Figs. 2 and 7, the bottom portion 9 consists of a

single sheet of metal substantially in the shape of a square but differing to the extent that the median portions of the respective sides are bulged outwardly at 10. The bottom portion 9 is adapted to rest upon and be supported by the cooperating lower beads 5 and 8, and when inserted into the container, the tight engagement of the bulged portions 10 with the center of the wall portions serves to crowd the corners inwardly to more closely engage the vertical edges of the can body, consisting of tubular seams formed by the interlocking hooked flanges 3 and 6.

The cover 11, of the usual slip type, consisting of a single sheet of metal having downwardly turned integrally formed marginal flanges 12, is next applied to the assembled container, this being after the container has been filled with crackers, or other contents. As best seen in Fig. 1, when the cover 11 is applied, the same rests upon the inturned flange portions 4 and 7 of the wall sections, and the depending flanges 12 of the cover serve to prevent it from being accidentally displaced. A somewhat additional reinforcement for the upper portion of the assembled container is offered by this slip engagement of the cover with the container walls.

When it is desired to dismantle the container, the cover 11 is first removed and the bottom portion 9 is released from engagement with the wall sections by being pushed upwardly from beneath the container, and the telescopic interlocking wall sections are separated by a relative vertical sliding movement. The wall sections are adapted to be nested within one another and superposed above the cover, as shown in Fig. 5, and the bottom portion 9 is in turn nested or laid on top of the upper body section. It will be apparent that a large number of containers may be thus packed or nested in succession in superposed relation for packing or transporting purposes, with a resulting convenience in packing and economy of space.

The sheet metal of which the container is constructed is preferably provided with flutes or corrugations 14, which serve to provide the necessary additional reinforcement of the relatively light sheet metal, and the meeting points or intersections of these flutes or corrugations at the corners 15 and 16 of the wall sections serve to further reinforce the container at these corners. Adequate reinforcement of the corners 17 and 18 (Fig. 2) is afforded by the interlocking telescoping joints described.

The container is reinforced at the corner walls 15 and 16 by means of diagonal crimps or ridges 19, formed in the metal at these corner sections, and which crimps serve to greatly strengthen the container wall at these points, which is of considerable importance when the container is constructed of exceedingly light sheet metal.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention, or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A knock-down sheet metal container, comprising body sections, each having an integral corner portion, and provided at their side edges with hooked flanges, the hooked flanges of one of said sections being curled oppositely to the hooked flanges of another of said sections when the latter are assembled, to provide a removable telescoping joint when said body sections are assembled, and a bottom member having outwardly bulged side edges adapted to press outwardly the lower wall portions of said body sections, whereby a tight engagement of said engaged hooked flanges of said body sections is effected.

2. A knock-down sheet metal container, comprising a plurality of two-sided angular body sections having at their side edges hooked flanges adapted to slidably engage with one another to lock said sections in assembled position, said sections having reinforcing beads at their lower edges, and a removable bottom member adapted to be supported by said beads, said bottom member having outwardly bulged portions adapted to force outwardly the lower wall portions of said assembled body sections, to tightly engage the interlocked side edges of said assembled body sections.

3. A knock-down sheet metal container, comprising a plurality of two-sided and angular body sections having at their side edges hooked flanges adapted to slidably engage with one another to lock said sections in assembled position, said sections having reinforcing beads at their lower edges, said body sections having at their upper edges inwardly projecting flanges, a removable bottom member adapted to be supported by said beads, said bottom member having outwardly bulged portions adapted to force outwardly the lower wall portions of said assembled body sections, to tightly engage the interlocked side edges of said assembled body sections, and a slip cover adapted to be removably supported by said inwardly projecting flanges of said removable body sections.

4. A knock-down sheet metal container having in combination, a pair of side and end angular portions each comprising a side and

an end joined in one piece at a vertical corner angle, one vertical edge of the said portion being formed with an outwardly turned tubular hook flange and the other vertical edge being formed with an inwardly turned tubular hook flange, the outwardly turned flanges being adapted to telescope within the inwardly turned flanges to form a hollow angular body, the bottom edges of said side and end portions being formed with inward curls, a bottom having edges which are bulged outwardly at their middles whereby to force outward the middle parts of said side and end portions and draw inward the interlocked corners, and a cover fitting the top edge of said body.

JOHN M. HOTHERSALL.