

UNITED STATES PATENT OFFICE.

GEORGE MILLER, OF BALTIMORE, MARYLAND.

SHEET-METAL CAN OR BOX.

SPECIFICATION forming part of Letters Patent No. 660,730, dated October 30, 1900.

Application filed June 8, 1900. Serial No. 19,580. (No model.)

To all whom it may concern:

Be it known that I, GEORGE MILLER, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Sheet-Metal Cans or Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to sheet-metal cans or boxes; and it is particularly applicable to cylindrical vessels of this class, such as the cans usually used for packing hermetically-sealed goods or boxes, with removable lids for the reception of powders and like merchandise.

One object of the invention is to generally improve the construction of such vessels, and especially to provide vessels of this general class of such construction that when closed there shall be no laterally-projecting beads, whereby the vessels may be more closely packed, less liable to wear, and more readily labeled.

A further object is to provide specially-improved constructions of end joints and removable covers.

With these objects in view the invention consists in the improved construction, arrangement, and combination of parts, hereinafter fully described and afterward specifically claimed.

In the accompanying drawings, Figure 1 is a view in side elevation of a sheet-metal box with a removable lid constructed in accordance with this invention. Fig. 2 is a bottom end elevation. Fig. 3 is a vertical central section through the construction shown in Figs. 1 and 2. Fig. 4 is an enlarged fragmentary detail view of the seam or joint between the ends or head and the side or body of the vessel.

Like letters of reference indicate like and corresponding parts in all the figures.

Referring to the drawings by letters, A indicates the body of the vessel, preferably cylindrical, but which may be of other shape, if desired. This cylindrical body may be of a single piece of metal, like the section of a tube, or may be formed into cylindrical shape by bending and side-seaming a sheet of metal

in the usual manner of manufacturing tin cans.

B indicates the bottom or lower head, which is joined to the body A by a seam C, Fig. 3. (Shown in detail in Fig. 4.) This seam is formed in any approved manner by suitable sheet-metal-working machinery and when completed comprises a horizontal ring or inwardly-projecting flange D at the end of the body A, the inner edge of which is turned upward at E and back outward, forming a parallel annular flange F. The head or end B is formed into an annular flange G at right angles to the bottom and parallel with the side A, a horizontal annular flange H extending outwardly from the edge of the flange G, a vertical bend or flange I lying against the inner surface of the side A, and a horizontal annular flange J resting between the horizontal flanges D and F of the body, as before described. When the seam is finished, it will be observed that the outer surface of the body A is plain and unbroken from top to bottom, and the outer surface of the head or end B is flush with the bottom of the side or body A, the annular flange D of the body A being in the same plane and affording a smooth firm foundation upon which to stand the vessel, the capacity of the vessel being somewhat increased in comparison with the capacity of a similarly-shaped vessel of the same dimensions, but in which a bead is provided projecting below the bottom head. While I have illustrated this seam for joining the head and body as applied to the bottom of the vessel, it will be readily understood that it may be applied to either or both heads.

K indicates the removable cover or top, which is provided with an annular flange L at right angles to and extending from its periphery. This flange, as usual, is intended to fit over the upper edge of the main body A of the box or vessel. In boxes of this character as heretofore made it has been usual to provide an outwardly-extending annular bead in the body itself and to provide the lid with a plain flange, the object of the bead being to form a stop to prevent the flange L of the cover from being pressed too far down upon the body in closing the box. In order that there may be no projecting bead upon the main body of my box, I provide an inwardly-

projecting bead M in the cover, so that when the lid is fitted on the box said bead M will act as a stop to prevent the lid from being pressed too far upon the body.

5 By means of my improved seam or joint, as heretofore described, and my improved lid I am enabled to provide a box with a removable lid in which the only projection beyond the surface of the main body is the single
10 thickness of the metal composing the lid-flange L.

While I have illustrated and described my improved lid as applied to a vessel constructed with my improved seam or joint, it will be
15 obvious that this lid may be applied to vessels otherwise constructed.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

20 1. A metal can or box, comprising side walls forming a body portion having its edge at one end turned inwardly to form a supporting-shelf for the head or end of the can, an upwardly and inwardly extending hook portion
25 formed on the inner edge of the said supporting-shelf, a head or cover adapted to be supported on said inwardly-turned shelf and having at its edge an upwardly-extending shouldered portion adapted to fit in the opening left
30 by the inturned edge at the end of the can, the main body portion of said head lying flush with the inturned supporting edge of the can-body, and an outwardly horizontally extended hook portion formed on the said head adapted to en-

gage the hook portion formed on the inwardly- 35 extending shelf of the body, the structure being such that the head is strongly held in place upon the inwardly-extending edge of the can-body, substantially as described.

2. A metal can or box having a body portion 40 formed of suitable walls, an inwardly-extending shelf formed at one end of said body portion for supporting the head of the can, an inwardly and backwardly extending hook formed on the inner edge of said shelf, the
45 head adapted to fit in the opening formed by said shelf comprising a body portion, an upwardly-turned flange formed at the edge of said body portion and making a shoulder adapted to fit against the inner edge of the
50 shelf on the body portion, an outwardly-projecting flange formed on said head and adapted to rest on top of the hook formed on the shelf, and a downwardly and inwardly extending hook formed on the edge of said head
55 for engaging the hook formed upon the shelf, the structure being such that internal strain does not come directly upon the hooks but is largely supported by the said shelf on the
60 body portion and the upwardly and outwardly extending flanges of the head, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

GEORGE MILLER.

Witnesses:

HARRY CRAVER,
EDGAR HAMILTON.