

No. 787,156.

PATENTED APR. 11, 1905.

L. DIESEL.
TIN CAN.

APPLICATION FILED MAY 13, 1904.

Fig. 1.

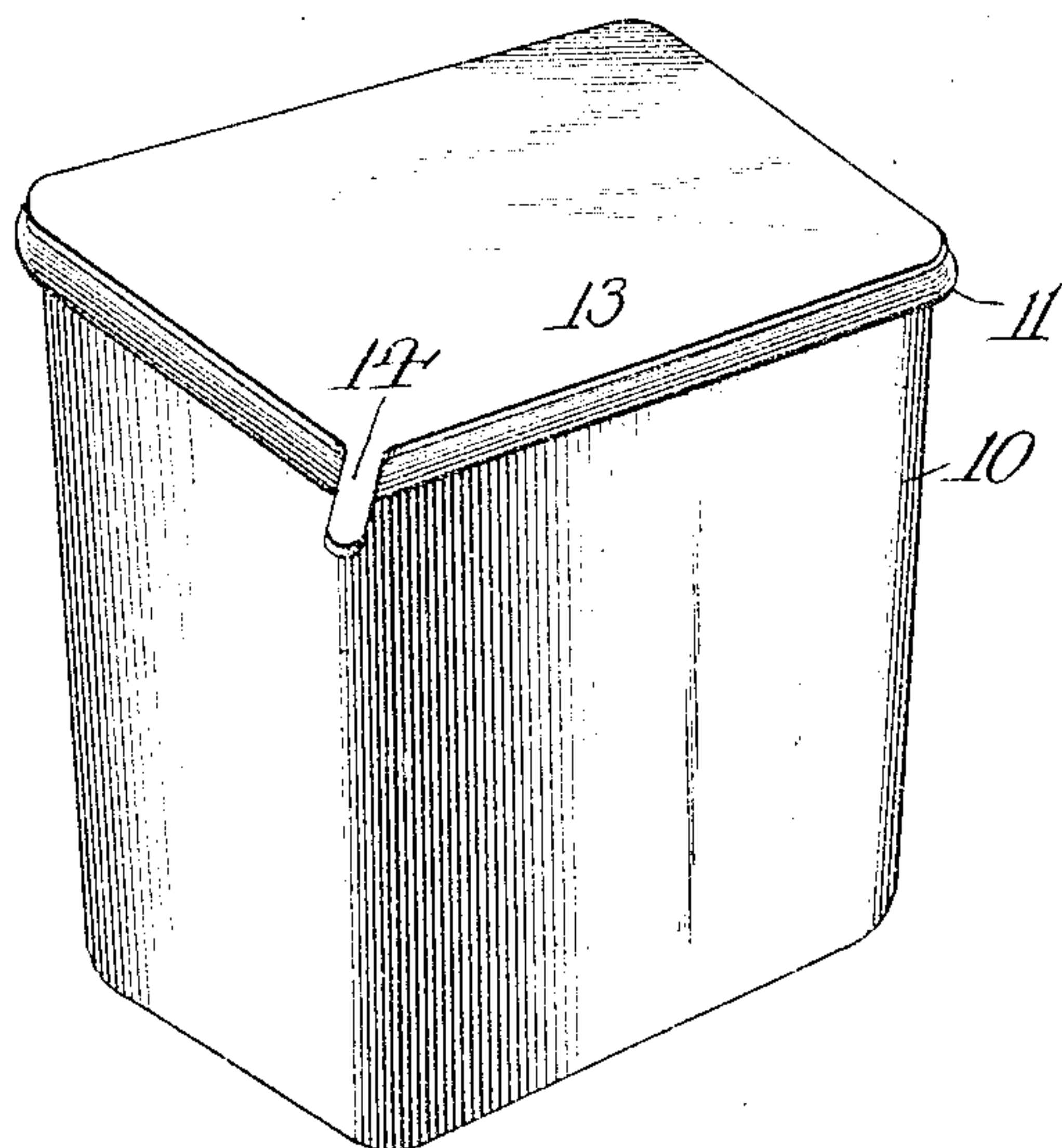
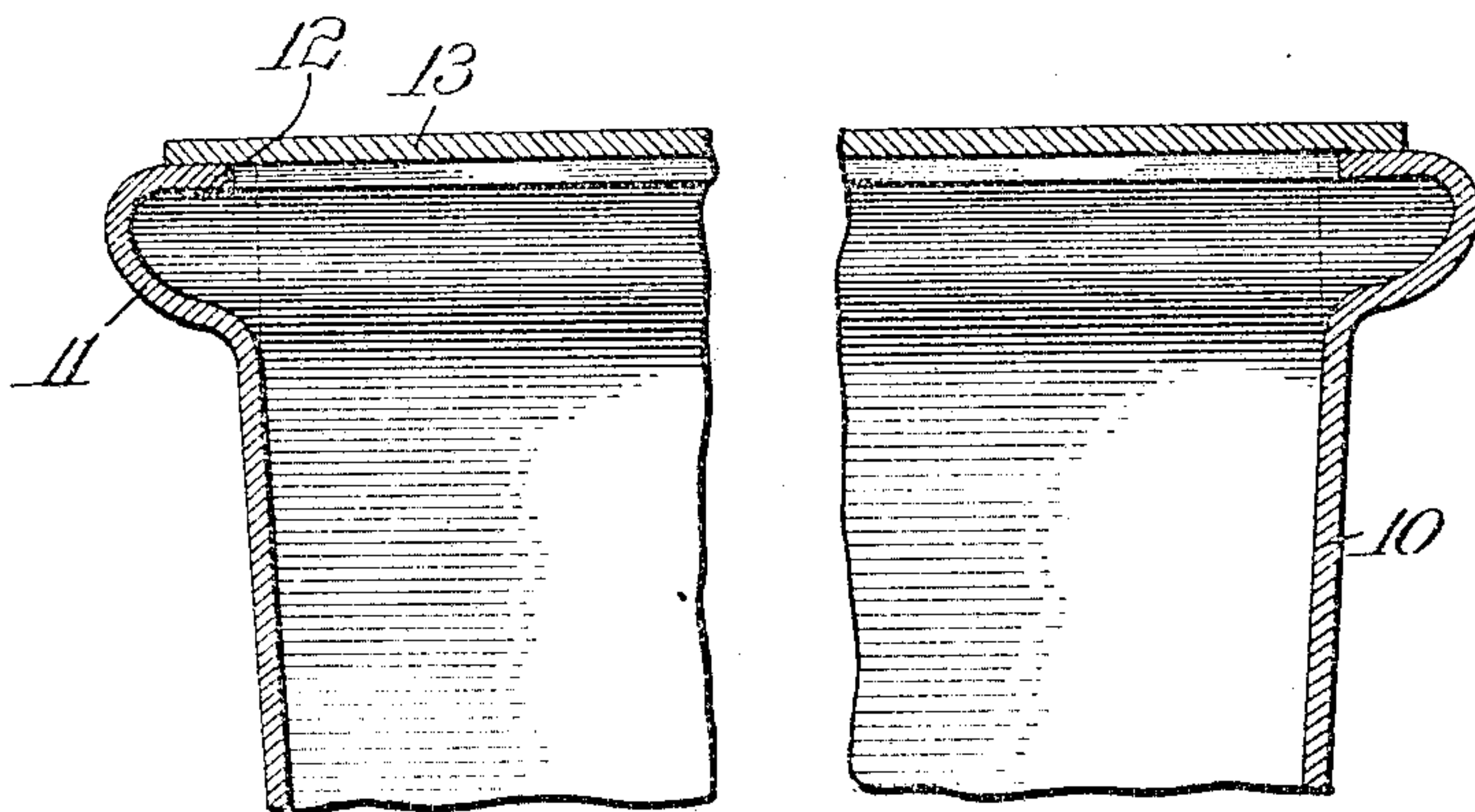


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

LOUIS DIESEL, OF CHICAGO, ILLINOIS.

TIN CAN.

SPECIFICATION forming part of Letters Patent No. 787,156, dated April 11, 1905.

Application filed May 13, 1904. Serial No. 207,748.

To all whom it may concern:

Be it known that I, LOUIS DIESEL, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Tin Cans, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

This invention relates to that type of tin cans commonly known as "roll-top" cans in which the upper end of the body of the can, whether the same be round or angular, is flanged to form a flat seat for the cover, and the latter is soldered thereto, the cover being provided with a tongue for the engagement of a key, by which it may be detached from the body.

The object of the present invention is to provide a more secure joint for cans of this type by so forming the flange at the top of the body that it may readily yield outwardly under internal pressure. This object is attained in the construction hereinafter described and which is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of a can; and Fig. 2 is a similar section in detail, drawn to a larger scale.

The can-body is shown at 10 and is of tin and, as shown, is tapering in form from top to bottom. This form is immaterial to the invention, nor is it material what form the can takes in cross-section, and the bottom may be attached thereto in any preferred manner.

At the upper end of the can-body the side walls are bowed outwardly, as shown at 11, and then turned inwardly, as shown at 12, the return portion being flat and perpendicular to the axis of the body. The bowed portion 11 is rounding, so as to be free from angles. The cover 13 conforms in shape to the cross-section of the can and is of such size that its edges reach to the outer end of the flat portion of the flange 12 and conform nicely to it, so that, solder being applied, a close and uniform joint of considerable area is secured.

The flange 12 falls short of reaching inwardly to the line of the can-body, so that the contents of the can when in solid form may

be discharged without mutilation after the cover has been removed. At 14 is shown a projecting tongue for the convenient attachment of a key, an expedient common in this type of cans.

In the canning of goods, such as meats, there is a cooking or processing operation after the sealing of the can. This operation develops considerable internal pressure, and it has been found in practice exceedingly difficult to apply a so-called "roll top" to a can and have the joint sufficiently secure so that the percentage of failures will not be prohibitive of its use. This pressure is sufficient to bulge out the top of the can, as well as its sides, if the can be square, and when the top is thus bulged out there is of course great strain applied to the soldered joint. Unless the flange to which the cover is soldered will yield to this internal pressure rupture of the joint will occur in some instances. It is important, therefore, not only that the flange to which the cover is attached shall be so disposed that pressure may be applied directly to it, but it is also important that the shank portion of this flange shall be of such form that it may be readily flexed.

In the manufacture of cans for the class of goods referred to it is furthermore desirable that there be no weakening, as by creasing in order to tear out a strip. Such weakening is peculiarly objectionable when applied to the cover of the can, so that the outward pressure, applied as it is to an area of considerable extent, brings a very severe strain upon such crease and applies it transversely to the material with great danger of opening a seam by substantially the same action as a seam is intended to be opened by the use of a key—that is to say, such a weakening crease provides for the ready separation of the material by strain applied upon one side of the crease transversely to the material, the crease leaving the material of ample strength to resist strains applied in the plane of the material. My improved can, therefore, is provided with a cover 13 not weakened by creasing, with a flange 12 of ample area to insure a strong joint, and with a curved shank portion 11, car-

rying the flange, which will readily flex under outward strains applied to the flange, thereby relieving the joint in great measure of the strain of internal pressure in that the
5 curvature of the cover due to its bulging or arching is continued to the edge thereof, and the strains incident to it are thus transmitted through the plane of the material and of the joint and not transversely thereto.

10 I claim as my invention—

1. A sheet-metal can having an open out-
standing bead at one end of the wall of its
body portion, the return portion of the bead
forming a flat flange perpendicular to the axis
15 of the can-body and not projecting beyond the
line of the inner face of the wall of the body,

and a cover seated upon and soldered to such
inturned flange.

2. A sheet-metal can having an open out-
standing bead at one end of the wall of its 20
body portion, the return portion of the bead
forming a flat flange perpendicular to the axis
of the can-body and not projecting beyond the
line of the inner surface of the wall of the
body, and a cover of substantially uniform 25
strength throughout its area seated upon and
soldered to the inturned flange.

LOUIS DIESEL.

Witnesses:

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