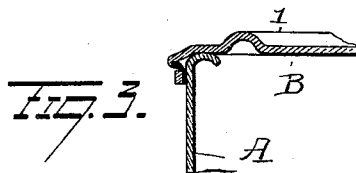
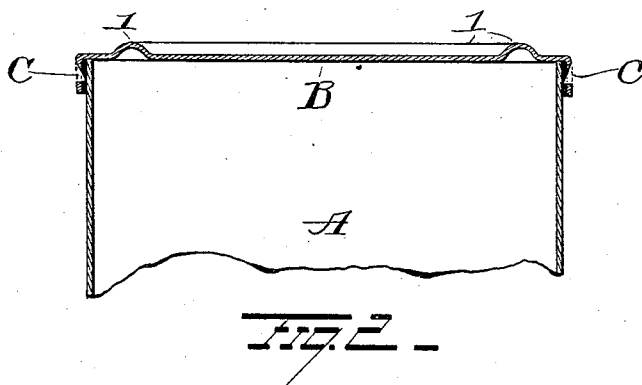
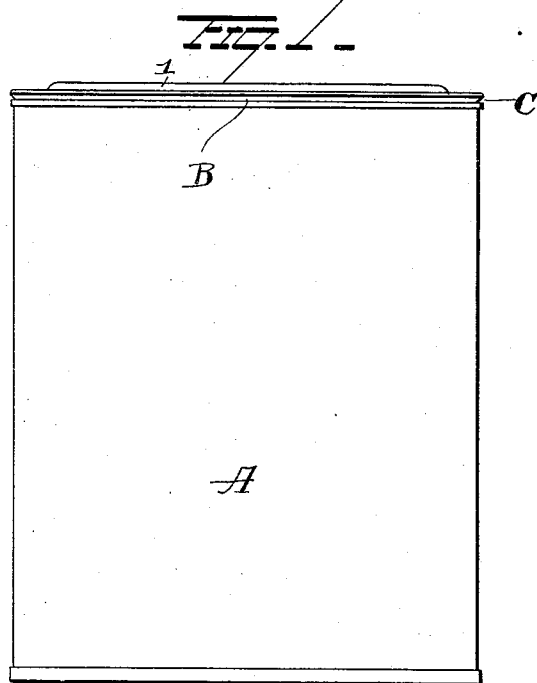


(No Model.)

F. N. RUSSELL.
SHEET METAL CAN.

No. 536,970.

Patented Apr. 2, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANK N. RUSSELL, OF ELMIRA, NEW YORK, ASSIGNOR OF ONE-HALF TO
LEWIS D. PARKHURST, OF SAME PLACE.

SHEET-METAL CAN.

SPECIFICATION forming part of Letters Patent No. 536,970, dated April 2, 1895.

Application filed November 6, 1894. Serial No. 528,087. (No model.)

To all whom it may concern:

Be it known that I, FRANK N. RUSSELL, of Elmira, in the State of New York, have invented certain new and useful Improvements in Sheet-Metal Cans; 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.

My invention relates to an improvement in sheet metal cans.

Heretofore sheet metal cans have been constructed with a special view to effecting a quick and easy removal of the can top from the can but in so doing the can has been more or less weakened so that in "Processing" the contents of the can the weakened part has frequently given way entirely or else its strength has been so much impaired that it has caused damage to the canned goods contained therein by allowing the admission of air thereto. A word with relation to the manner in which processing is done will make it clear as to how this result tends to take place.

The corn, peas, beans, tomatoes or whatever the vegetable or fruit happens to be is placed in the can and sealed after which it is placed in a suitable cooking receptacle where it is thoroughly cooked. This is called "processing" during which the top and bottom are subjected to great pressure and are bulged out to a point of great tension. If any weakening device has been applied to either end of the can before this "processing" the danger from leaks is increased one hundred per cent. and may and often does result in much loss to the packers by reason of the cans bursting.

The object of my invention is to obviate this objection and it consists in an ordinary can the end of which is in the form of a practically smooth and straight cylinder, in connection with a cover having a straight flange thereon, the cover adapted to rest upon the edge of the can and the flange conforming to the shape of the can and soldered to the portion of the can which it encircles, said flange severed in twain at a point slightly below the upper edge of the can whereby this portion of the cover is divided into a flange and a reinforcing band.

In the accompanying drawings, Figure 1 is a view in perspective, Fig. 2 is a sectional view, and Fig. 3 is an enlarged detail in section of a portion of the can and top indicating the position assumed by the parts when the cover has been pounded at the edges.

A, represents a can and B the top or cover. The can is of the usual construction and the cover or top is of the usual construction with this variation, that it is provided with the annular bead or rib 1 the object of which is to keep the cans resting upon this bead or rib when cans are packed for shipment or piled one upon another, which if the weight or pressure were great enough might cause the solder joint formed to break, if allowed to rest on edge of top.

After the cans have been filled, sealed and processed in the usual manner the sealed can is placed in a suitable machine for the purpose and the groove C is cut through the flange of top B to the body portion of the can A, thus entirely severing the lower portion of the flange or burr from the upper portion or cutting the flange or burr into two parts. This groove C is preferably V-shaped as shown with the horizontal portion at the bottom and the other side oblique as in this manner greater efficiency results. This groove C having been formed, the lower portion of the flange or burr constitutes a reinforcing band keeping the upper edge of the can rigid and preserving its shape when the edges of the top are pounded to remove the latter from the can. This rim serves another function which is to form a stop or abutment for the lower edge of the flange left remaining on the can, which forces or turns the latter outward. When the can is to be opened a few smart blows are applied to the edge, all around. This causes the extreme upper edge of the can to curl inward and the remaining flange (above the groove formed) to bend outward and thus cause a complete separation of the flange from the can.

It will be observed that the can does not break down and bend except at the extreme upper edge, or above the rim, the rim serving to reinforce and keep the can firm at that point. Hence it follows that the mutilation of the can is slight at most and only at the

extreme upper edge and in consequence the
can may be filled to the top and in opening
the liquor does not spatter, or if at all, but
very slightly, which allows a wider range in
5 its use than with others. Further it will be
observed that the can itself requires no special
construction and it is not absolutely necessary
that the top or cover should be specially
constructed as the rib of bead is only to in-
10 sure against accidental severance of the top
from the can due to the weight of pressure of
other bodies. Aside from this top or cover is
of the usual construction. In short most satisfactory
results have been obtained by taking the old style
15 of can, after it has been filled, and sealed and
processed, and cutting the groove in or severing
the flange or burr. In this way a most efficient
opening device is provided at a trifling expense,
capable of application to any can after the
20 sealing and processing shall have been completed.

Having fully described my invention, what
I claim as new, and desire to secure by Letters
Patent, is—

The combination with an ordinary can the
25 end of which is in the form of a practically
smooth and straight cylinder, of a cover having
a straight flange thereon, the cover adapted
to rest upon the edge of the can and the
flange conforming to the shape of the can
30 and soldered to the portion of the can which
it encircles and the flange severed in twain,
at a point slightly below the upper edge of
the can whereby this portion of the cover is
divided into a flange and a reinforcing band
35 so that a sharp downward blow upon the edge
of the cover causes the flange to sever from
the body of the can and the upper edge of the
latter to curl inward and the flange to turn
outward, substantially as described and for
40 the purpose set forth.

In testimony whereof I have signed this
specification in the presence of two subscribing
witnesses.

FRANK N. RUSSELL.

Witnesses:

O. D. GOODRICH,
W. D. REYNOLDS.