

(No Model.)

F. REISET & G. A. WAEBER.
SHEET METAL CAN.

No. 457,456.

Patented Aug. 11, 1891.

Fig 1

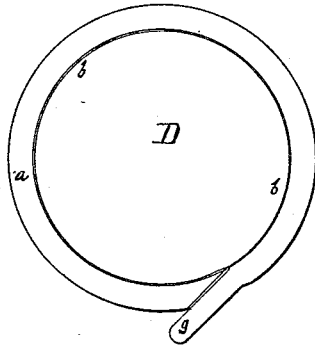


Fig 3.

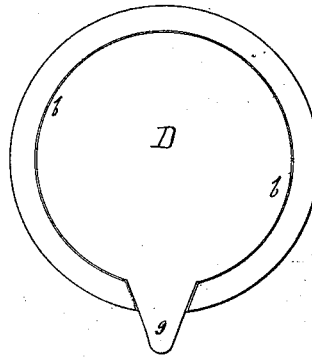


Fig 2.

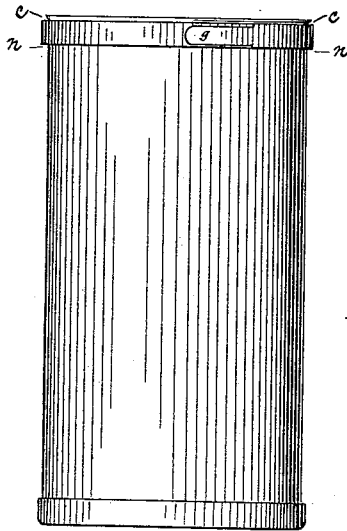
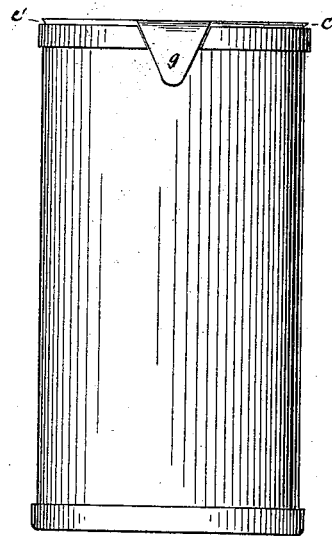


Fig 4.



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UNITED STATES PATENT OFFICE.

FREDERIC REISET AND GUSTAVUS A. WAEBER, OF NEW YORK, N. Y.

SHEET-METAL CAN.

SPECIFICATION forming part of Letters Patent No. 457,456, dated August 11, 1891.

Application filed January 25, 1890. Serial No. 338,071. (No model.)

To all whom it may concern:

Be it known that we, FREDERIC REISET, a native of France, residing in the city of New York, in the county and State of New York, and GUSTAVUS A. WAEBER, a citizen of the United States, residing in the said city, county, and State, have invented a new and useful Improvement in Sheet-Metal Cans and Boxes; and we hereby declare that the following is a full, clear, and exact description thereof, reference being had to the drawings which accompany and form part of this specification.

In the drawings, Figure 1 is a plan of the head of one of our improved cans separate from the can-body and before its flange has been formed. Our improvement is applicable to either the top or the bottom head of a can, and therefore the figure may be taken to represent either head. Fig. 2 is a side or front view of a can with both of its ends or heads in place. Fig. 3 is a plan view of one head of a can, showing another mode in which our invention may be applied; and Fig. 4 is a side view of the same can, the blank for the head of which is shown in Fig. 3.

This invention relates to that class of sheet-metal cans and other receptacles which after being filled are hermetically closed by soldering and are opened by tearing away a portion of the material of which the can or cover is composed along the line of an incision made partially through the metal. In cans or boxes of this character experience has shown it to be necessary, in order to render the tearing operation satisfactory in use, that means should be employed to stiffen or strengthen the thin metal on one side of the line of the incision sufficiently to enable it to resist properly the force of the tearing action on the other side of the line, thereby avoiding the buckling and bending of the metal, which would make the tearing difficult.

Our improvement is designed, principally, to be applied to cans and boxes the covers or ends of which are made by striking or stamping them in dies and presses to form the circumferential flange which overlaps and incloses the end of the vertical wall or body of the can.

It consists in a can head or cover or can end or bottom formed with a circumferential flange and having on one side of its flat sur-

face an incision made partially through the metal at the top or upper side of the flange just at the point where the metal is turned over laterally to form the flange, thereby enabling the can to be opened, either stripping off the flange itself along the line of the incision on one side and along the line of the solder on the other side, as represented in Fig. 2, or by tearing out the entire top or bottom inside of the incision-line, as shown in Fig. 4. In this manner all the needed resistance against the stripping or tearing operation is provided by the stiffness and strength of the flanged portion of the cover or bottom, and a can is furnished which is easy and cheap of construction and efficient in operation.

To enable others to make use of our invention, we will proceed to describe it in detail.

D, Fig. 1, represents the central portion, and *a* the flange portion, of one head of a can or box constructed in accordance with our improvement. As before stated, this figure may be taken as showing either the top head or cover or the bottom head of the can, and it exhibits the flange portion *a* before it has been turned over to form the flange. When it is so turned over, its top, and consequently the outer edge of the cover or bottom, will be coincident with the double line in the figure marked *b b*, and it is at this point and along this line that we make the incision. The incision will be clearly seen at *c c* in Fig. 2, and it will be manifest that by thus locating it where the metal is the most rigid we obtain all the stiffness of the side of the flange and of the corner or fillet where the flange is turned over to oppose as a resistance or fulcrum against the operation of stripping off or tearing away a part of the material to open the can. Moreover, by our method of construction we are enabled to secure another very important result. This is the opening or spreading out of the incision throughout its entire extent by the operation of turning the metal over to form the flange. This materially augments the weakening of the metal along the line of the incision, and thereby greatly facilitates the opening of the can, and will be found to operate very satisfactorily in practical use.

Our improvement may be so applied as to operate either upon the flange only of the can

or box or upon the flat or central portion D of the cover or bottom. Figs. 1 and 2 represent the first of these modes of carrying out our invention, and Figs. 3 and 4 the second.

5 In each of these figures, *g* denotes a short lateral outward projection of the metal, which forms the customary tongue by means of which the stripping or tearing is started. The flange *a* of Figs. 1 and 2 is soldered in the usual way

10 to the body of the can or box on the line *n n*, and by grasping the tongue *g* with the fingers or inserting the end of it in the slot or opening of a suitably-shaped key the entire flange may be stripped off along the line of the incision *c c* on one side of it and along the solder-line *n n* on its other side, thus readily

15 opening the can. In this instance the tongue *g* is formed by slightly prolonging the flange *a*. In Figs. 3 and 4, however, the tongue is

20 formed by an outward extension of the flat surface of the cover or bottom, and when this projecting part is gripped by the fingers or by a suitable tool placed in the slot of the key, as in the other example, and the metal

25 is pulled forcibly upward the entire central portion D of the cover or bottom inside of the line of the incision *c' c'* may be turned out, thereby completely exposing the contents of the can. The incision should preferably be

30 made in the metal before the flange of the can or box is turned over. This course will

not only be found to be usually the most convenient in practice, but it enables us to obtain the advantage of having the incision opened out by the operation of turning the flange over, as above set forth. If desired, however, the flange may be formed first and the incision produced in it afterward; or the flange may be turned over or struck up and the incision made in it at one and the same operation by the use of suitable dies, cutters, and presses.

The incision may be made either on the upper or the under surface or face of the cover or bottom, and it should preferably be of a depth equal to about half the thickness of the sheet metal; but it may be slightly more or less.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

A sheet-metal can, box, or other receptacle having a flanged end containing a circumferential or partly circumferential incision made partially through the metal thereof at the point where the flange is turned down, substantially as and for the purpose set forth.

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Witnesses:

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