

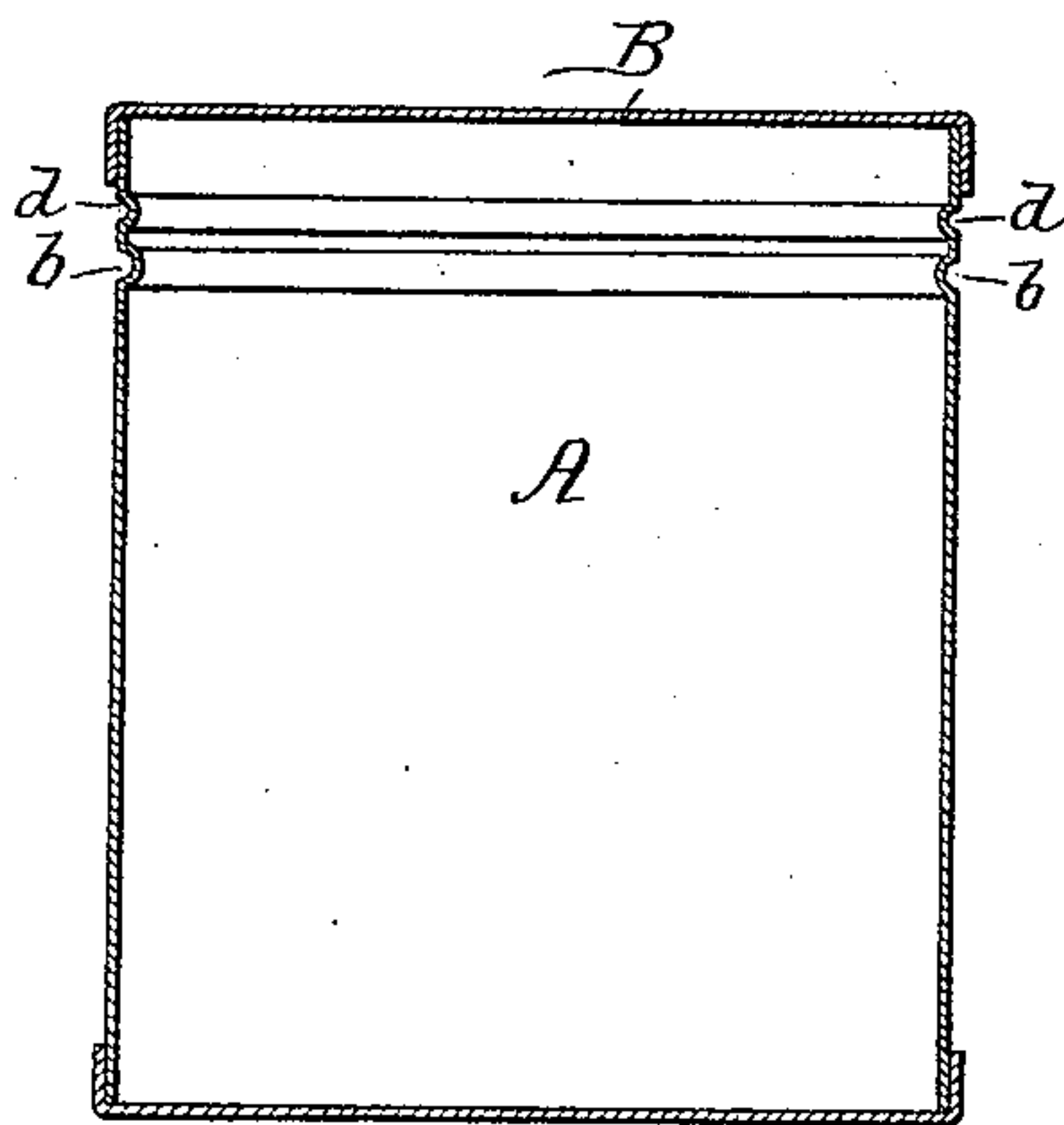
(No Model.)

G. A. WAEBER & A. KLEINFELDT.  
SHEET METAL VESSEL.

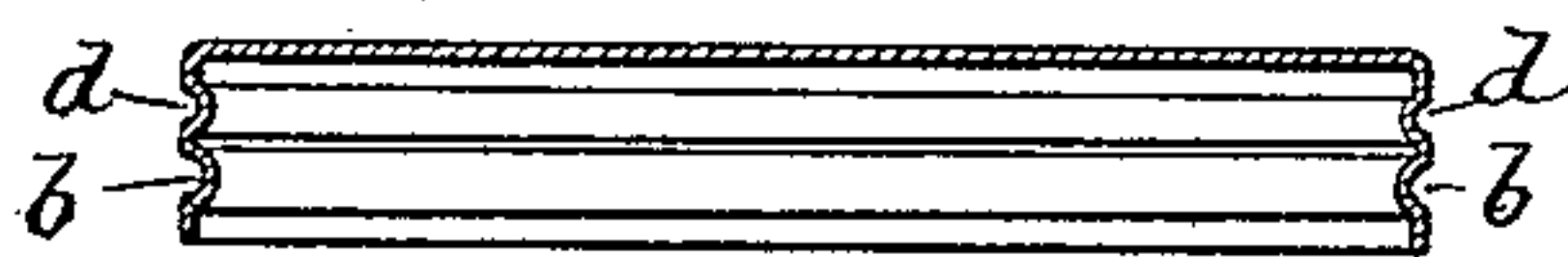
No. 466,994.

Patented Jan. 12, 1892.

*Fig. 1*



*Fig. 2*



Witnesses:

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Inventors:

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# UNITED STATES PATENT OFFICE.

GUSTAVUS A. WAEBER AND ARTHUR KLEINFELDT, OF NEW YORK, N. Y.

## SHEET-METAL VESSEL.

SPECIFICATION forming part of Letters Patent No. 466,994, dated January 12, 1892.

Application filed December 23, 1891. Serial No. 415,946. (No model.)

*To all whom it may concern:*

Be it known that we, GUSTAVUS A. WAEBER and ARTHUR KLEINFELDT, citizens of the United States, residing in the city of New York, in the county and State of New York, have made a new and useful improvement in sheet-metal cans and other vessels which are intended to preserve their contents by keeping the latter from contact with the exterior atmosphere; and we hereby declare that the following is a full, clear, and exact description of the same, reference being had to the drawings which accompany and form part of this specification.

This invention relates to that class of sheet-metal receptacles which after being rendered air-tight are designed to be opened by being ruptured in a definite weakened line entirely around their periphery by means of blows or other sudden force applied to one of the heads or covers of the vessel.

The object of this improvement is to provide a sheet-metal receptacle of the character described which shall be simple in construction and very readily opened and which shall constitute an alternative form for the vessel of analogous kind which is described in Letters Patent granted to us of even date herewith, and which, like that vessel, may serve as a satisfactory substitute for the various forms of hermetically sealing cans, which are opened by stripping off a portion of the metal composing them, while at the same time it dispenses with certain parts essential to all such strip-vessels, and consequently can be produced with much more economy than they are able to be.

All strip-vessels require to have the blanks out of which their bodies are formed so cut that one end of the strip-section shall be prolonged beyond the actual diameter of the vessel in order to constitute what is generally termed a "tongue," which is to be grasped by the opening instrument to start the stripping operation. This necessitates a very great waste of material, since in every vessel a piece of metal equal in width to the length of the tongue and in length to the height of the vessel-body must be cut away to form the tongue and then becomes worthless. In addition there must be provided with every vessel a

suitable tool, usually termed a "key," which is necessary for tearing off the strip-section. The value of this waste metal and the expense of keys for a large number of strip-vessels amount to a very considerable sum and add materially to the cost of such receptacles. Our invention entirely does away with these sources of expense; and it consists in a sheet-metal vessel or receptacle provided with a somewhat deep circumferential bead, rib, or corrugation at any convenient point between the extremities of its body or between the top and bottom edges of its head or cover, in combination with another circumferential bead, rib, or corrugation immediately above the first one, but without any incision, strip-section, tongue, or key.

To enable others to put our invention into practice, we will proceed to describe it in detail.

In the drawings, Figure 1 is a central vertical section of a sheet-metal vessel which embodies our invention, and Fig. 2 is a vertical central section of a head or cover suitable for the vessel shown in Fig. 1 and illustrates the application of our improvement to such a cover.

A in Fig. 1 represents the body of a cylindrical sheet-metal vessel or can of the ordinary kind, and B is its head or cover, which in the style of can here shown is constructed and secured to the body A in the usual manner.

In carrying out our improvement we impress in the metal a corrugation, bead, or channel of suitable depth, as seen at *b* in this figure, and immediately adjacent thereto we impress another corrugation or channel *d*, preferably somewhat shallower than the corrugation *b* and preferably located on the side of the latter which is toward that end of the can-body nearest to the said corrugation *b*. The manner of opening the can when thus constructed is extremely simple and easy, as it is only necessary to strike a few sharp blows upon either of the heads of the vessel with a hammer or any other suitable instrument which it may be convenient to use or to apply a quick force or pressure in any other manner to either of the heads, whereupon the body of the can or vessel will at once be ruptured along a line between the corrugations or chan-



nels *b* and *d* or along the upper part of the corrugation or channel *d*, the effect of the force being to produce a shearing or severing action on the metal on one or the other of these lines. As soon as this action takes place the head of the can can be easily removed with the fingers.

No description of the cover illustrated in Fig. 2 will be needful, as the corrugations or channels *b* and *d* are precisely the same and operate in the same way as has been described in respect of Fig. 1, the cover being included in the drawings mainly for the purpose of showing that our improvement is equally as well applicable to the covers as to the bodies of sheet-metal vessels.

The can here described will be found to operate with entire satisfaction. At the same time the decided economy with which it can be manufactured on a large scale as compared with strip-vessels and many other kinds of cans renders it especially desirable for pack-

ers and others who require air-tight receptacles in great quantities.

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

A sheet-metal vessel or receptacle provided with a somewhat deep circumferential corrugation at any convenient point between the extremities of its body or between the top and bottom edges of its head or cover, in combination with another circumferential corrugation immediately adjacent to the first one, such corrugations being so formed and combined that the vessel can be readily opened by rupturing in the manner described, and incisions, strip-section, tongue, and key can be dispensed with, substantially as set forth.

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Witnesses:

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