

No. 616,740.

Patented Dec. 27, 1898.

R. A. SLOAN & J. E. L. BARNES.
HERMETICALLY SEALED CAN AND OPENER FOR SAME.

(Application filed Jan. 28, 1897.)

(No Model.)

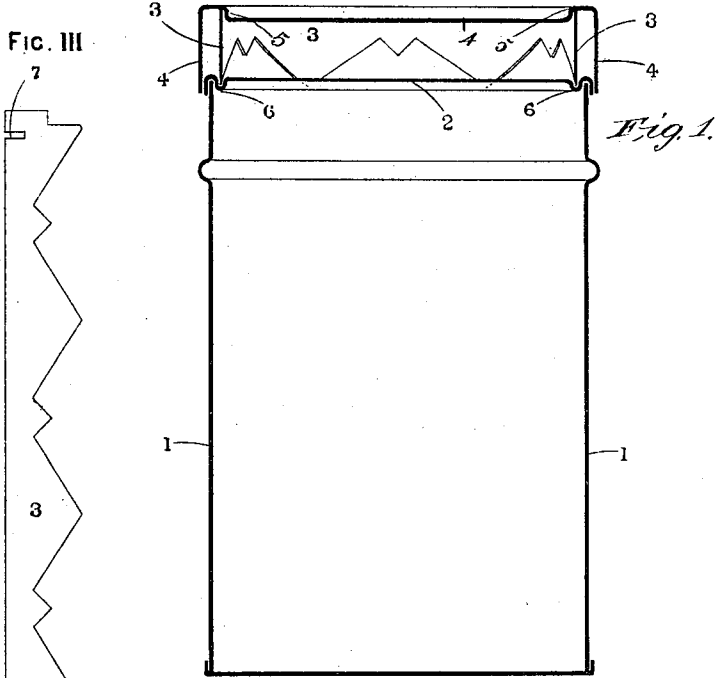


FIG. II

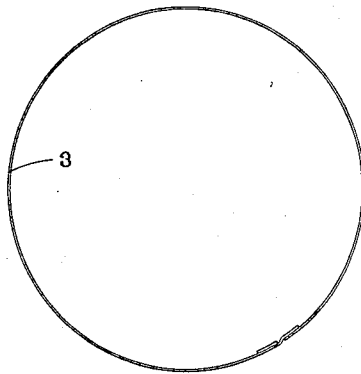


FIG. IV

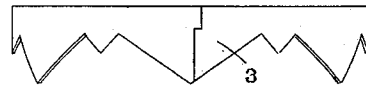


FIG. V

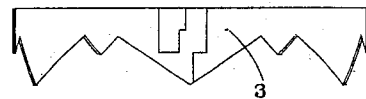
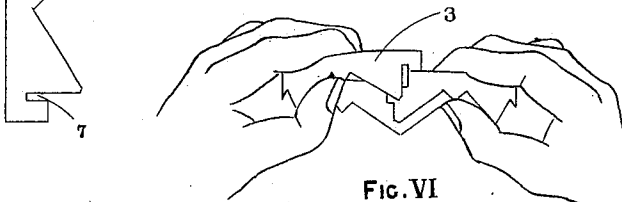


FIG. VI

Attest
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UNITED STATES PATENT OFFICE.

ROBERT ALEXANDER SLOAN AND JOHN E. LLOYD BARNES, OF BIRKENHEAD,
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HERMETICALLY-SEALED CAN AND OPENER FOR SAME.

SPECIFICATION forming part of Letters Patent No. 616,740, dated December 27, 1898.

Application filed January 28, 1897. Serial No. 621,075. (No model.)

To all whom it may concern:

Be it known that we, ROBERT ALEXANDER SLOAN and JOHN EDWARD LLOYD BARNES, subjects of the Queen of Great Britain, residing in Birkenhead, in the county of Chester, England, have invented certain new and useful Improvements in Hermetically-Sealed Cans and Openers for the Same, of which the following is a specification.

Our invention has reference to the opening of hermetically-sealed cans the covers of which are made of thin tinned plate or the like; and it consists, broadly, in providing an opener in the form of a serrated rim and in some cases so modifying the construction of the can as to suit the operation of the opener.

We have illustrated our invention in the accompanying drawings, in which—

Figure I shows the can and the opener in position ready for operation, all in medial sectional elevation. Fig. II is a plan of the opener clasped ready for use, and Fig. III is a development showing the opener before it is bent into shape. Fig. IV is an elevation showing the clasped part when looked at in the direction of the arrow A, and Fig. V is a sectional elevation looking in the reverse direction. Fig. VI shows how the ends of the opener are clasped.

Throughout the drawings the same parts are indicated by the same reference-figures.

The can 1 may be of any suitable size and configuration, and it is usually provided with a cover 2, made of thin tinned plate, and the can is opened by cutting through the cover 2 as near the edge thereof as possible.

According to our invention we effect the cutting by means of the serrated edge of a thin metallic strip, which is caused to cut through the cover by pressure exerted normally thereto.

It will be seen that the cutter is formed by bending a thin serrated strip 3, Fig. III, to the contour of the periphery of the cover, the dimensions of the strip when bent being somewhat less than the internal dimensions of the can. The strip or opener is then placed over the cover 2 with its serrated edge in contact therewith and pressure is applied in a direc-

tion normal to the cover, with the result that the opener cuts through the latter, and so opens the can. The ordinary lid which is usually supplied with the can may be used to transmit the pressure of the hand to the opener; but with the view of facilitating the cutting we prefer usually to modify the lid and the cover of the can, and in some instances we modify the body of the can so as to adapt it to snugly house the cutter.

The modifications of the lid and the cover are clearly shown in the figure last referred to and are as follows: The lid 4 has a peripheral recess, which forms a shoulder 5, which is adapted to preserve the contour of the opener and to locate it in proper position when the pressure is applied. The rim of the lid is made sufficiently deep to embrace the can when placed over the opener, by which means the lid is concentrically located, as shown in Fig. I. The cover 2 has a peripheral groove 6, which serves to locate the apices of the serrations of the opener.

The adjacent edges of the opener may, when the opener is bent to shape, be soldered or otherwise permanently united. We prefer, however, in order to facilitate the packing of the opener, to form the ends so that they may be clasped together as shown. An opener made in this manner may for convenience of packing be sprung open while unclasped sufficiently to encircle the body of the can and may be housed between the can and the lid. It is of course clasped prior to the operation of opening.

The construction of the clasp will be best understood on reference to Figs. II, III, IV, and V, from which it will be seen that it is formed by cutting notches 7 in the ends of the strip and slightly cranking the ends, so that they may be readily engaged after the manner shown in Fig. VI. We prefer to form the serrations in more than one series and to arrange that the apices of the different series shall be at different heights.

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

1. In combination with a can, an opener

therefor comprising a ring having a cutting
edge to engage the top of the can, said cutter
being split and adapted to be expanded to fit
around the can or to have its ends interlocked
5 to form the cutter, substantially as described.

2. In combination, the can, an expansible
cutter of ring form having interlocking ends
whereby the cutter may be expanded to fit
about the can or have its ends interlocked
10 to form the ring-shaped cutter, and the lid

formed separately from the cutter and adapted
to fit thereupon, substantially as described.

In testimony whereof we have hereunto set
our hands in the presence of two subscribing
witnesses.

ROBERT ALEXANDER SLOAN.

J. E. LLOYD BARNES.

Witnesses:

CHARLES COLLINS,

JOHN HOYLAND.