

F. EBERHART.
SLIP COVER SHEET METAL BOX.
APPLICATION FILED FEB. 7, 1910.

984,548.

Patented Feb. 21, 1911.

Fig. 1

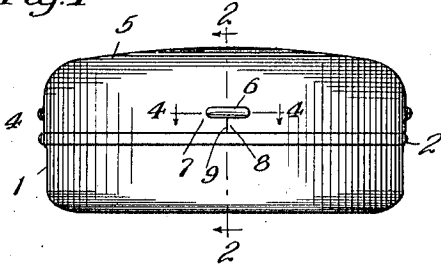


Fig. 4

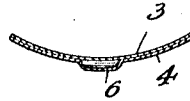


Fig. 2

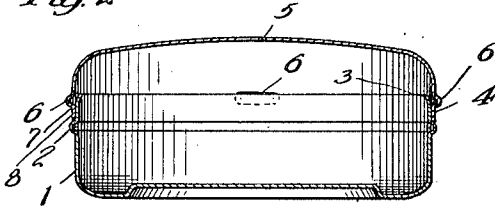


Fig. 5

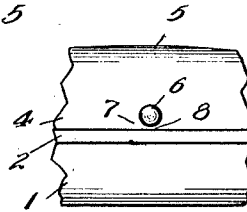
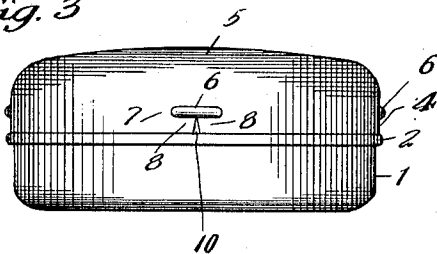


Fig. 3



Witnesses:

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UNITED STATES PATENT OFFICE.

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SLIP-COVER SHEET-METAL BOX.

984,548.

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To all whom it may concern:

Be it known that I, FELIX EBERHART, a citizen of the United States, residing in Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Slip-Cover Sheet-Metal Boxes, of which the following is a specification.

My invention relates to improvements in the construction of slip cover sheet metal boxes.

Heretofore great difficulty has been experienced in the use of sheet metal slip cover boxes, especially of the kind used for shoe polish or blacking, and wherein it is desired that the slip cover fit very closely and tightly the body of the boxes, in opening the boxes or removing the slip cover, the contents of the box and the lacquer or decorative coating on the outside of the box frequently causing the cover and body to stick together so tightly that it is with the greatest difficulty that the cover can be removed.

The object of my invention is to provide an improved construction of slip cover box, in which the cover may fit on the body of the box very closely and tightly as required, and at the same time be capable of easy and ready removal.

My invention consists in the means I employ to practically accomplish this object or result. That is to say, it consists in providing the depending flange of the cover with an integral hollow projection, bead or boss near its lower edge at one or more points of its circumference, and with a narrow rupturable zone between such projection, bead or boss and the extreme lower edge of the cover flange. The narrow strip of metal left between the lower edge of the cover flange and the lower portion of the hollow projection, boss or bead is rupturable when the cover of the box is given a sharp rap or blow against or with any hard object, by reason of the sudden expansion of the cover resulting from such rap or blow, thus permitting the lower portion of the cover flange to separate and enlarge and loosen itself on the body of the box so that it can be readily removed. The narrow rupturable strip left between the boss or bead and the extreme lower edge of the cover flange may be made so narrow or small that it will readily rupture under the ex-

pansion caused by a rap or blow against the cover, but in practice, I ordinarily prefer to provide this narrow strip with a cut, crease or weakened line extending from the lower portion of the boss or bead to the extreme lower edge of the flange.

My invention also consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown and described and more particularly specified in the claims.

In the accompanying drawing forming a part of this specification, Figure 1 is a side elevation of a sheet metal slip cover box embodying my invention. Fig. 2 is a vertical section on line 2—2 of Fig. 1. Fig. 3 is a side elevation showing the box after the cover has been loosened on the box by rupturing the narrow zone of the cover flange below the hollow projection, bead or boss in the flange. Fig. 4 is a detail, horizontal section on line 4—4 of Fig. 1 and Fig. 5 is a partial elevation, showing a modification in which the hollow projection, bead or boss is made circular in form and located nearer the lower edge of the cover flange and the scored or weakened line omitted.

In the drawing, 1 represents the body of a shoe polish or other box, preferably stamped up out of one piece and provided with an annular externally projecting bead 2 and a mouth or flange portion 3 which is engaged and embraced by the depending flange 4 of the cover or lid 5, which is preferably also drawn or stamped up out of one piece. The depending flange 4 of the cover 5 fits very snugly and tightly the corresponding flange or wall 3 of the body and thus effects a strong, firm and secure closure. To enable this tight fitting cover to be readily and easily removed from the body of the box, its depending flange 4 is provided with a hollow external projection, segmental bead or boss 6 near the extreme lower edge 7 of the cover flange, and leaving a narrow, rupturable zone or strip 8 of metal between this bead or boss and the lower edge of the flange. To enable the narrow, rupturable zone or strip 8 to be more readily broken by striking or rapping the cover 5 of the box against a hard object, I prefer to provide it with a crease, cut or weakened line 9, extending from the lower portion of the hollow boss or segmental bead 6 to the extreme lower edge of the cover flange. I find, how-

ever, that by locating the segmental bead or boss 6 somewhat nearer the lower edge of the cover flange, as illustrated for example in Fig. 5, the narrow zone or strip 8 may be readily ruptured or broken under the expansion of the cover caused by a sharp rap or blow without necessity of providing it with any weakened line.

When the lid or cover of the box is given a sharp rap or blow against some hard object, as, for example, against the corner of a desk or chair or upon the floor, the quick expansion of the cover incident to the blow causes the narrow rupturable strip or zone 8 to separate at the weakened line 9, if one is provided, or at the weak or narrower portion thereof if no weakened line is provided, thus enabling the extreme lower portion of the cover flange to separate, as shown at 10 in Fig. 3, and thus become enlarged in diameter, and thereby loosening the cover on the body so that it can be easily removed. The hollow projection, bead or boss on the cover flange may be made of any desired shape, although I prefer to employ the form shown in Figs. 1 to 4 of the drawing. The depending flange of the cover is preferably provided with a plurality of rupturable portions and a plurality of hollow projections or bosses above said rupturable portions. In practice, I prefer to use four, equally spaced. The boss or projection 6 closely adjacent to the rupturable zone 8 which extends from the boss 6 to the lower edge of the tight fitting rim 4 of the cover serves when struck a sharp blow against a hard object to concentrate the expansion of the sheet metal of the rim incident to the blow at the narrow zone 8, and thus to rupture the same as the weakest part of the rim, and thereby loosen the tight wedging fit slip cover so that it can be readily removed.

I claim:—

1. A box having a cover with a depending tight fitting slip cover flange, provided with a hollow projection, bead or boss near its lower edge, and a narrow, integral rupturable zone between said projection, bead or boss and the lower edge of the cover flange, said zone being rupturable under a blow against the cover incident to the tension of the rim due to the tight fit of the cover and the concentration of the expansion of the rim under blow at said zone as the weakest point, substantially as specified.
2. A box having a cover with a depending tight fitting slip cover flange, provided with a hollow projection, bead or boss near its lower edge, and a narrow, integral rupturable zone between said projection, bead or boss and the lower edge of the cover flange, said narrow, rupturable zone having a weakened line extending across it, said zone being rupturable under a blow against the cover incident to the tension of the rim due to the tight fit of the cover and the concentration of the expansion of the rim under blow at said zone as the weakest point, substantially as specified.
3. The combination with a box, of a tight fitting slip cover therefor, provided with a depending flange having at its lower edge a plurality of narrow, rupturable portions, said narrow portion being rupturable incident to the tension on the rim and the concentration of expansion of the metal under blow at such portion and a plurality of projections near its lower edge above said rupturable portions, substantially as specified.

FELIX EBERHART.

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