H. HELLWEG.

BOX TRAY SUPPORT AND LIFTER.

APPLICATION FILED APR. 18, 1921.

1,402,928. Patented Jan. 10, 1922.

Fig. 1.

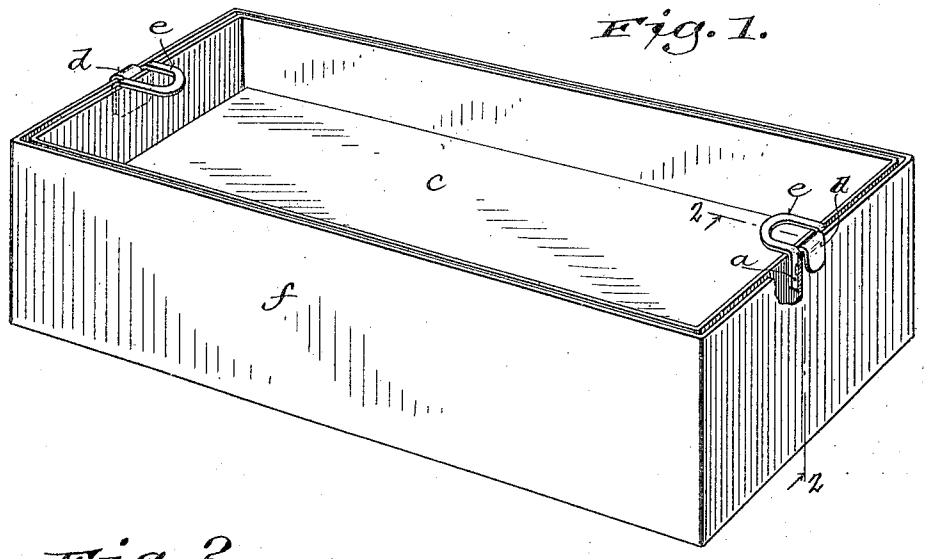


Fig. 2.

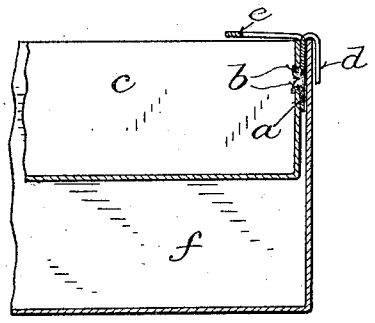


Fig. 3.

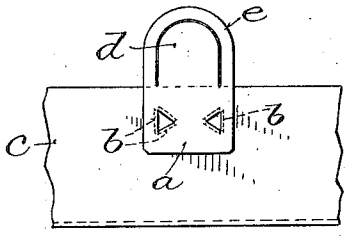


Fig. 4.

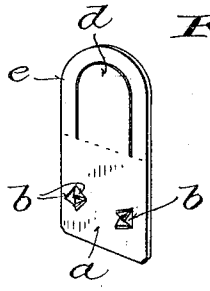
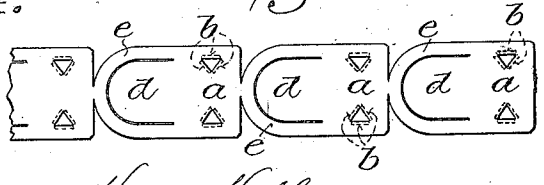


Fig. 5.



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UNITED STATES PATENT OFFICE.

HENRY HELLWEG, OF MILWAUKEE, WISCONSIN.

BOX-TRAY SUPPORT AND LIFTER.

1,402,928. Specification of Letters Patent. Patented Jan. 10, 1922.

Application filed April 18, 1921. Serial No. 462,120.

To all whom it may concern:

Be it known that I, HENRY HELLWEG, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Box-Tray Supports and Lifters, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof.

The main objects of this invention are to provide a simple, inexpensive and effective support and lifter for trays of paper candy boxes and other boxes for containing and displaying various kinds of merchandise, and to facilitate the application of the device to box trays.

It consists in the construction, arrangement and combination of parts as hereinafter particularly described and pointed out in the claims.

In the accompanying drawing like characters designate the same parts in the several figures.

Figure 1 is a perspective view of a box such as a paper candy box, having a removable tray fitted therein and provided at the ends with supports and lifters embodying the invention; Fig. 2 is a partial section of the box, tray and one of the supports and lifters, on the line 2—2, Fig. 1; Fig. 3 is an enlarged side elevation of the support and lifter as applied to the end of a tray before the supporting and lifting members are bent into the relative forms and positions shown in Figs. 1 and 2; Fig. 4 is an enlarged perspective view of one of the supports and lifters before it is bent into its final form, showing the prongs on the inner side thereof for fastening it to a tray; and Fig. 5 is a view showing a series of the supports and lifters in the form of a continuous strip.

The support and lifter constituting the present invention is stamped or made, preferably in a single piece, from a thin flat flexible sheet or blank of suitable material, preferably sheet metal that can be easily bent and will retain its shape when bent sufficiently to properly perform the functions of the device, viz: supporting a box tray with its contents suspended from the ends or sides of a box in which it is removably fitted, and affording convenient means for lifting the tray with its contents from the box.

The lower part *a*, of the sheet or blank forming each support and lifter, is punched with one or more holes, as shown in Figs. 2, 3 and 4, to produce sharp spurs or prongs *b*, for fastening the device to a box tray *c* by pressing the spurs or prongs through or into and clenching them against or in the paper board or other material of which the tray is made, as shown in Fig. 2.

The upper part of the sheet or blank is punched, slit or cut, as shown in Figs. 3 and 4, to form two parts or members *d* and *e*, which are bent in opposite directions, one outwardly and the other inwardly, on a transverse line adjacent the top or upper part of the tray, as indicated by a dotted line.

The part or member *d*, preferably having the form of a rounded ear, is bent outwardly and downwardly and adapted to be hooked over the top or upper edge of a box *f* in which the tray is inserted, as shown in Figs. 1 and 2, the downwardly bent portion of the ear or member lying close to the outer face of the box so as not to interfere with a cover (not shown) with which the box is provided.

The other part or member *e*, preferably having the form of a loop, is bent inwardly and forms a convenient thumb piece for lifting the tray with its contents from the box or placing it in the box.

One of these supports and lifters is attached to each end of a tray midway between its sides, but more or less of them may be used and they may be differently arranged or attached to the inner faces of the tray instead of the outer faces, as shown.

For larger trays and boxes designed to contain heavier material, one or more of the supports and lifters may be attached to each side or to each end, or to both the sides and ends of the tray.

The supports and lifters may be punched or cut as shown in Fig. 5, in continous strips which may be wound into rolls of small compass for convenience in transportation, storage and use, and from which they may be cut or severed as they are applied to box-trays by special machines or otherwise.

I claim:

1. A box-tray support and lifter formed of thin flexible material with an outwardly and downwardly bent part adapted to hook over the edge of a box and with an inwardly bent part for lifting the tray.

2. A box-tray support and lifter formed integrally of sheet metal with an outwardly and downwardly bent ear adapted to be hooked over the edge of a box in which the tray is removably fitted and with an inwardly bent lifting loop.

3. A box-tray support and lifter consisting of a thin metallic plate having prongs punched therefrom for attaching it to a tray and provided with an outwardly and downwardly bent member adapted to be hooked over the edge of a box for supporting the tray therein and with an inwardly bent lifting member.

In witness whereof I hereto affix my signature.

HENRY HELLWEG.