T. W. BUNTE.

STACKING TRAY.

APPLICATION FILED DEC. 27, 1910.

1,008,239. Patented Nov. 7, 1911

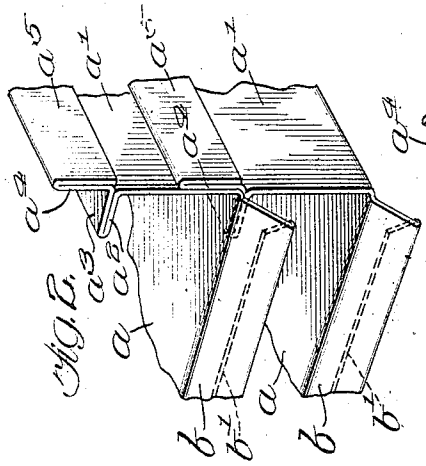

Fig. 2.

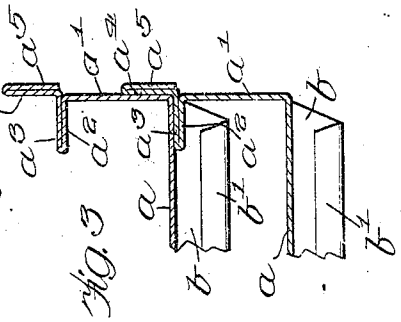

Fig. 3

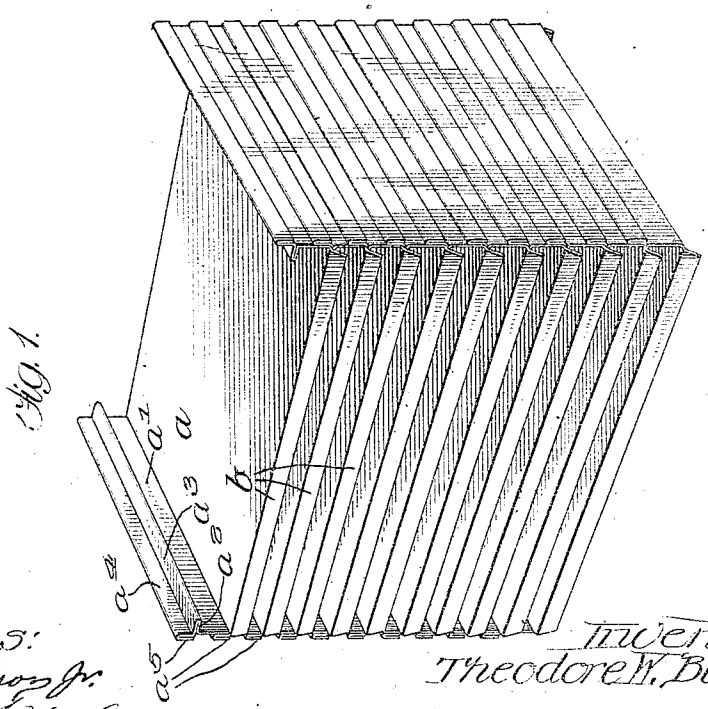

Fig. 1.

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UNITED STATES PATENT OFFICE.

THEODORE W. BUNTE, OF CHICAGO, ILLINOIS, ASSIGNOR TO BUNTE BROTHERS, A CORPORATION OF ILLINOIS.

STACKING-TRAY.

1,008,239. Specification of Letters Patent. Patented Nov. 7, 1911.

Application filed December 27, 1910. Serial No. 599,283.

To all whom it may concern:

Be it known that I, THEODORE W. BUNTE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Stacking-Trays, of which the following is a specification.

My invention relates to stacking trays, particularly those designed for confectioners' use, where chocolate creams or other confections have to be chilled and dried, and sometimes stored for a short time before the packers can place them in boxes.

The objects of my invention are, first, to make trays of such configuration that when stacked one upon another they will not only protect the goods stored but will form a stack that is firm and rigid in all directions; second, to form a tray of this character which shall be strong, durable, sanitary and readily cleansed; third, to provide a tray which shall be reversible end for end in the stack, and which shall be universal in the sense that it may occupy any position in the stack; fourth, to provide a tray having the above characteristics and formed of a single piece of sheet metal; fifth, to form the sheet metal tray in such manner that substantially all of the exposed edges shall be of metal doubled back upon itself, whereby a smooth fold will be presented and the tray may be readily handled by the bare hands of the operator without danger of cutting or abrading them.

I accomplish my objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a stack of trays made in accordance with my invention. Fig. 2 is a perspective view on an enlarged scale showing the corner of some of the trays and the manner in which the trays interfit. Fig. 3 is a vertical sectional view through the end portion of a pair of trays.

Similar letters refer to similar parts throughout the several views.

Each tray consists of a flat body portion a having a depending flange b along the front and rear edge and having standing flanges at the ends, which consist of upright portions a', inwardly projecting horizontal portions a^2, superposed horizontal portions a^3, rising portions a^4 and downwardly extending portions a^5. The trays are made of a single piece of sheet metal, preferably galvanized iron, which is substantially non-rustable and readily cleaned. For convenience the vertical portions a' at the ends of the tray may be considered a clearance portion as they determine the vertical distance between the bodies of the trays when stacked up. The horizontal portions a^2 and a^3 are formed by folding the metal back upon itself. These portions constitute a ledge for supporting the superposed tray. The vertical portions a^4 and a^5 are also formed by folding the metal back upon itself. They form end stops for preventing endwise movement of the superposed tray. The depending flanges b are so formed as to fit over the ends of the ledges a^2, a^3 and prevent transverse movement of the tray of which they form a part. A portion b' of the depending flanges is turned inward and upward so as to form double thickness. Of course the portions d' and a^5 may be omitted if desired but they are advantageous for two reasons; first, they increase the stiffness of the structure, and, second, they finish off the edges and thus render the tray much easier and safer to handle than if the edges were left rough.

In use, after the tray is filled, it is placed upon a bench, truck, in a chilling room, or wherever desired. After another tray is filled, it is placed upon the first one with the flanges b extending down over the ends of the ledge portions a^2, a^3. Other trays as filled are subsequently stacked up in the same manner, practically to any height desired. I have found from use that thirty of these trays one upon the other may be stacked with entire safety, the stack being firm and rigid in every direction. On account of the formation on the ends the trays are very easy to handle, the operator placing the palm of his hand over the upper edge of the portions a^4, a^5, and the thumb underneath the ledge portion a^2. A smooth surface is presented to the hand and to the clothing of the operator, for usually in carrying a tray one of the depending flanges will contact the person of the operator when the tray is being lifted. The same is true of the depending flanges b'.

It will be noted that there are vertical flanges on all four edges of the tray and hence the latter is very stiff and rigid and has a high resistance to working strain.

Furthermore, as there are no corners or pockets the trays may be readily cleansed.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. Sheet metal stacking trays consisting of flat rectangular body portions having at the ends two upturned integral flanges and inwardly turned flanges integral with said upturned flanges above the body portions for supporting the tray above, and downward integral flanges at the edges of said body portions adapted to fit over the inwardly turned flanges of the tray beneath.

2. Stacking trays having flat rectangular body portions adapted to lie horizontal, said body portions being provided with flanges along all four edges thereof, two opposed flanges on each tray extending upward and two extending downward, and all of said flanges being of sheet metal integral with the body of the tray, the upwardly extending flanges having inwardly extending folds intermediate of the height thereof for supporting a similar superposed tray, the portions above said ledges being adapted to prevent endwise movement of the superposed tray and the downwardly extending flanges being adapted to fit over the ends of the ledges of a similar tray beneath, thereby preventing lateral movement of the tray relatively to the one beneath.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

THEODORE W. BUNTE.

Witnesses:
HOWARD M. COX,
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