Oct. 14, 1924. 1,511,569

E. G. LEHMAN

TOTE BOX

Filed Jan. 14, 1920 2 Sheets-Sheet 1

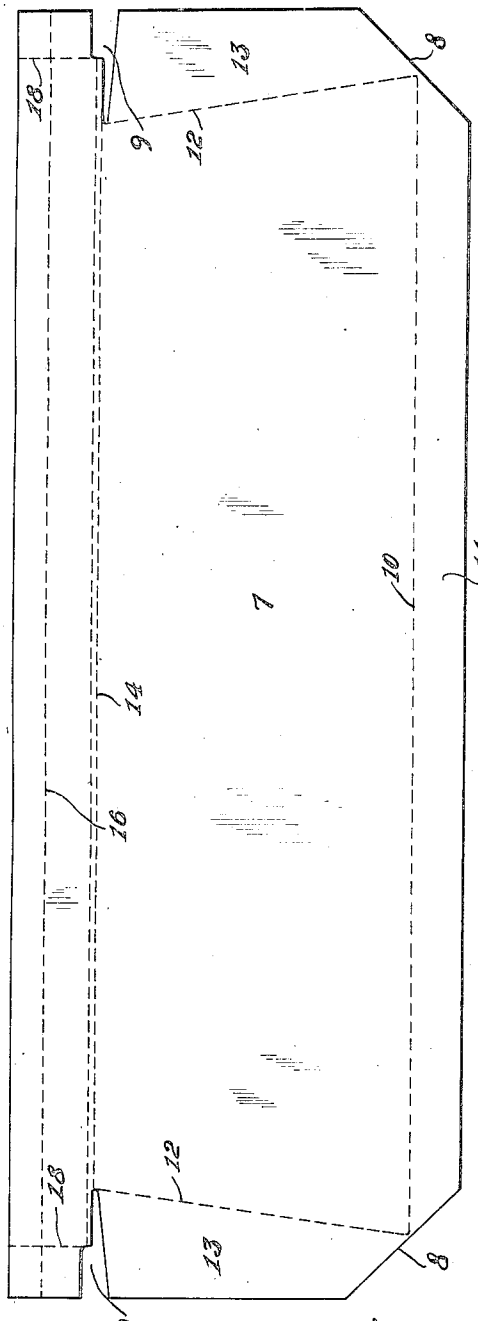


Fig. 2

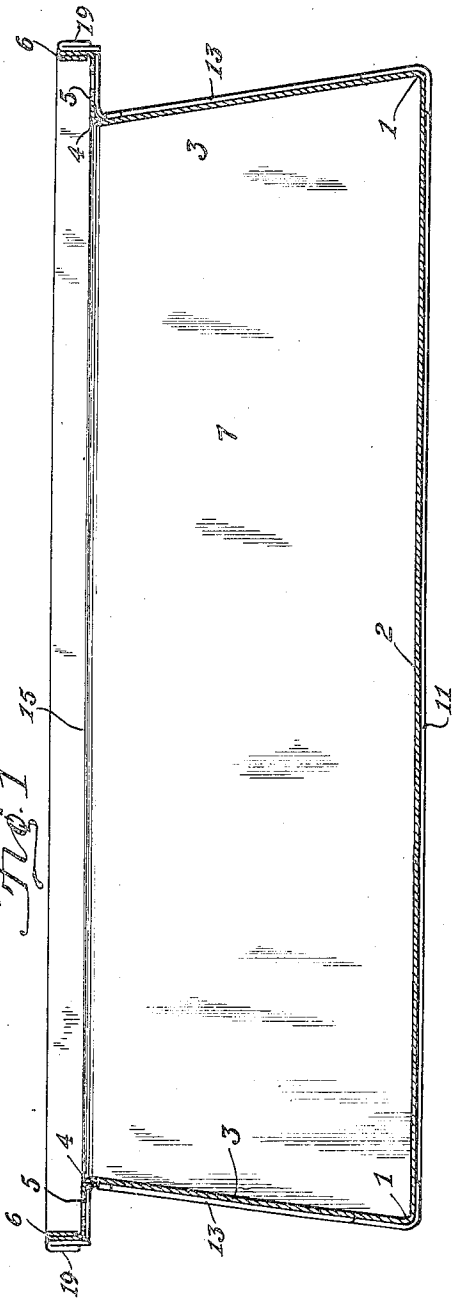


Fig. 1

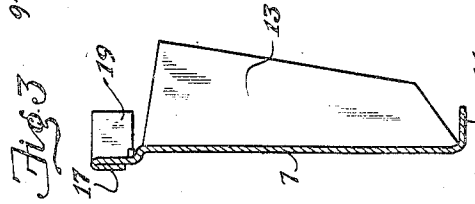


Fig. 3

INVENTOR

Edward G. Lehman

BY: Grease, Merkel, Seywell & Bond

ATTYS.

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Fig. 4

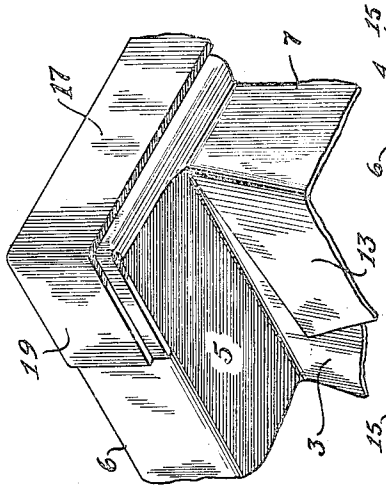


Fig. 6

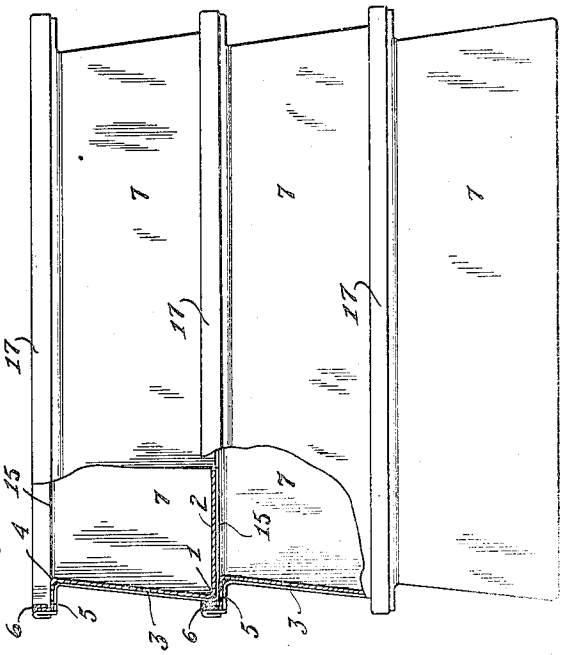
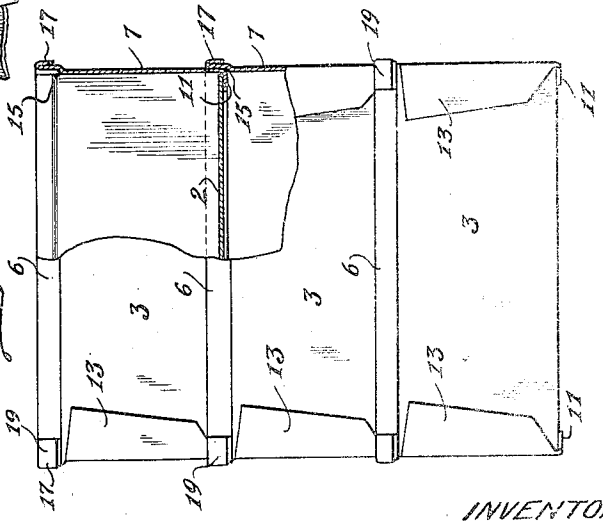


Fig. 5



INVENTOR

Edward G. Lehman

BY: Pierce, Merkel, Sayjwell and Bond

ATTYS.

Patented Oct. 14, 1924. 1,511,569

UNITED STATES PATENT OFFICE.

EDWARD G. LEHMAN, OF CANTON, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS, TO UNITED ALLOY STEEL CORPORATION, OF CANTON, OHIO, A CORPORATION OF NEW YORK.

TOTE BOX.

Application filed January 14, 1920. Serial No. 351,379.

To all whom it may concern:

Be it known that I, EDWARD G. LEHMAN, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Tote Boxes, of which the following is a specification.

The invention relates to the construction of tote boxes used in factories for containing bolts, nuts, and other small parts, and for carrying the same from place to place, and the object of the improvement is to make a strong and durable box of sheet metal from rectangular blanks, with off-set rims for stacking the boxes in tiers and forming lifting ledges at the ends.

A preferred embodiment of the invention is illustrated in the accompanying drawings forming part hereof, in which—

Figure 1 is a longitudinal section of a box constructed in accordance with the invention;

Fig. 2, an elevation of one of the sheets from which one side of the box is formed, the dotted lines showing the lines of bending;

Fig. 3, a vertical section through one of the side sheets after it is bent into finished form;

Fig. 4, a fragmentary perspective view showing one corner of the finished box;

Fig. 5, an end elevation of several boxes piled in a tier, parts being broken away for the purpose of illustration; and

Fig. 6, a view similar to Fig. 5, showing a side elevation of the boxes.

Similar numerals refer to similar parts throughout the drawings.

The bottom and ends of the box are formed from a rectngular blank of sheet metal, bent upward on transverse lines at 1 to form the bottom 2 and the ends 3; which ends incline slightly inward from normal and are bent outward along transverse lines 4 to form the overhanging ledges 5 extending outward freely beyond the lower end corners 1 of the box, whence the blank is bent first upward and thence inward and downward upon itself to form the end rims 6, all as well shown in Fig. 1 of the drawings.

Each side of the box is made of a rectangular sheet metal blank 7 having its lower corners cut diagonally as at 8, and narrow L slots 9 cut in each end to accommodate the bending of flanges at the ends of the box. Each side sheet is bent inward along line 10 to form flanges 11, extending under the side edges of the box bottom 2; and the ends below the slots 9 are bent inward along the inclined lines 12 to form the flanges 13, which overlap the side edges of the box ends 3.

The upper or rim portion of the side sheets are off-set outward along the line 14, extending between the slots 9, to form seats 15 for the side corners of the bottom of a like box; and the rim portion of the side sheets are also folded downward upon themselves along the line 16 to form side rims 17 of the box as shown in Figs. 3 and 4, after which the end portions of the side rims are bent inward along the line 18 to form the flanges 19 extending around the corners of the end rims 6, as shown in Fig. 4.

The overlapping flanges 6 thus described are then secured by rivets, spot-welding or like means to the contiguous parts, and the box thus formed is not only strong and rigid throughout, but is reinforced by overlapping metal at all the corners and rims and has a double reinforcement at each rim corner.

The parts are so proportioned that a plurality of boxes may be stacked one upon another in a tier, as shown in Figs. 5 and 6, in which arrangement the bottom corners of the box rest upon the end ledges and off-set seats formed by the rims of the subjacent box, thus giving a firm support for each individual box in the tier; and it is obvious that the overhanging ledges formed at the ends of the boxes furnish convenient handles which may be grasped by the hands of workmen.

I claim:

1. A box comprising a rectangular sheet metal blank bent upward on transverse lines to form bottom and inwardly inclined end walls, and bent outward and upward along transverse lines to form ledges overhanging the end walls and rims outside the bottom corners; and two rectangular sheet metal blanks forming the side walls having their lower corners cut and their rim portions slotted and flanges bent inward along the side edges of the bottom, the end walls and the corners of the end rims; the side rims

being off-set outward in the plane of the ledges to form seats for the bottom edges of another like box.

2. A box comprising a rectangular sheet metal blank bent upward on transverse lines to form bottom and inwardly inclined end walls, and bent outward and upward along transverse lines to form ledges overhanging the end walls and rims outside the bottom corners; and two rectangular sheet metal blanks forming the side walls having their lower corners cut and their rim portions slotted and flanges bent inward along the side edges of the bottom, the end walls and the corners of the end rims; the rim portions being folded downward upon themselves.

3. A box comprising a rectangular sheet metal blank bent upward on transverse lines to form bottom and inwardly inclined end walls, and bent outward and upward along transverse lines to form ledges over-hanging the end walls and rims outside the bottom corners; and two rectangular sheet metal blanks forming the side walls having their lower corners cut and their rim portions slotted with flanges bent inward along the side edges of the bottom, the end walls, and the corners of the end rims.

EDWARD G. LEHMAN