

March 8, 1949.

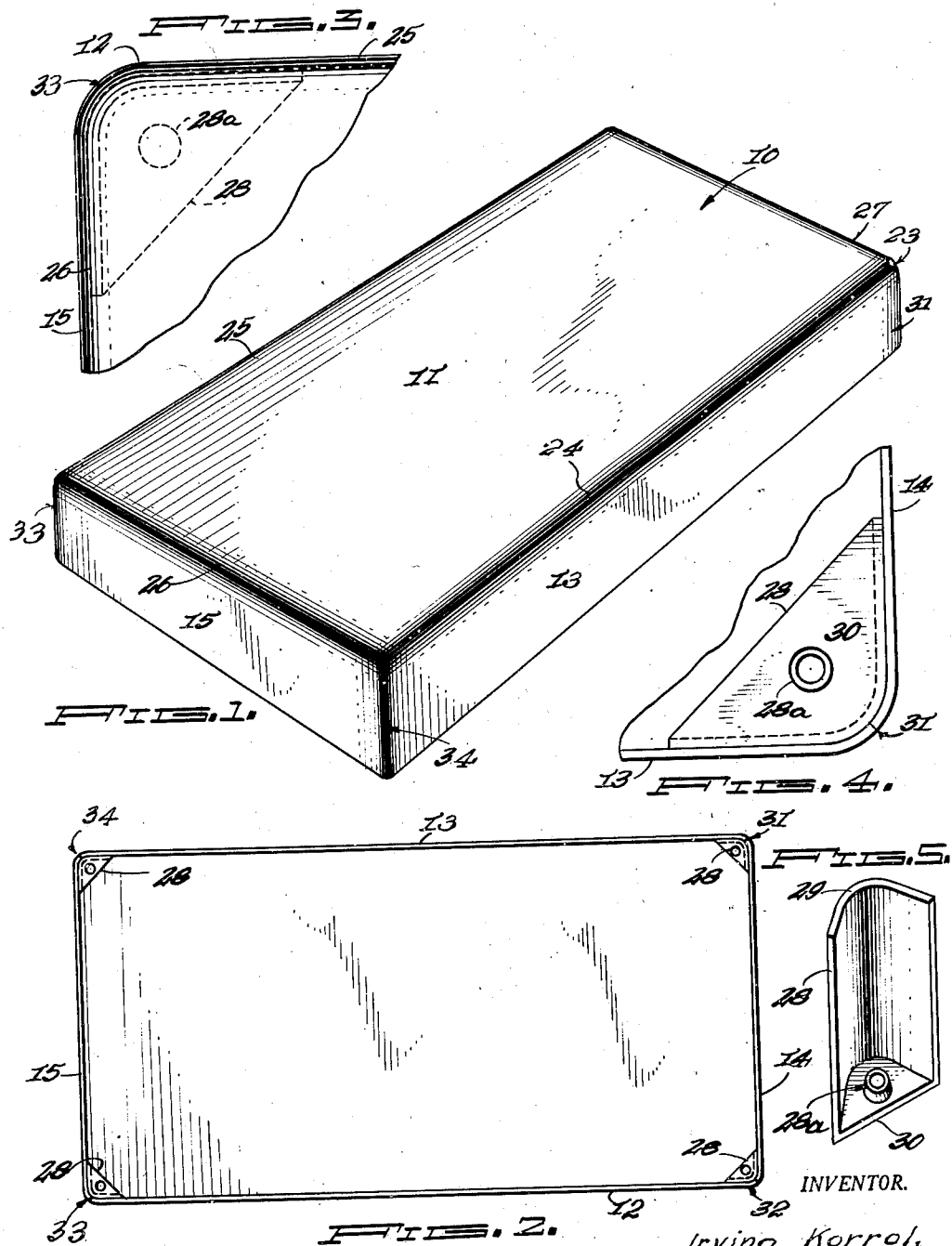
I. KORROL

2,463,780

BLANK BASE AND THE METHOD OF ITS MANUFACTURE

Filed April 24, 1945

4 Sheets-Sheet 1



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**2,463,780**

# BLANK BASE AND THE METHOD OF ITS MANUFACTURE

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4 Sheets-Sheet 3

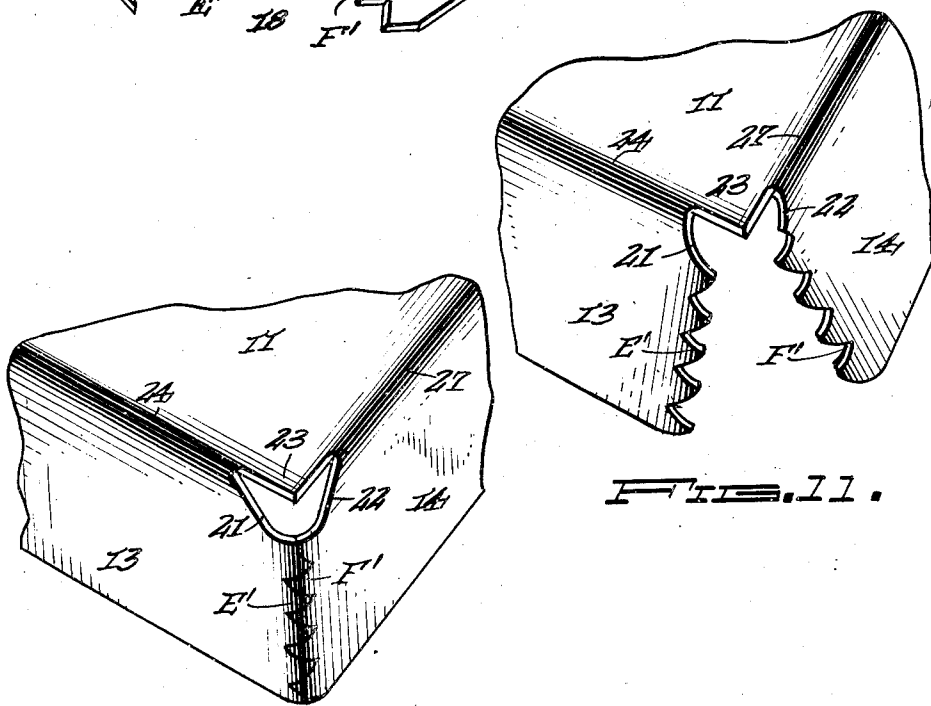
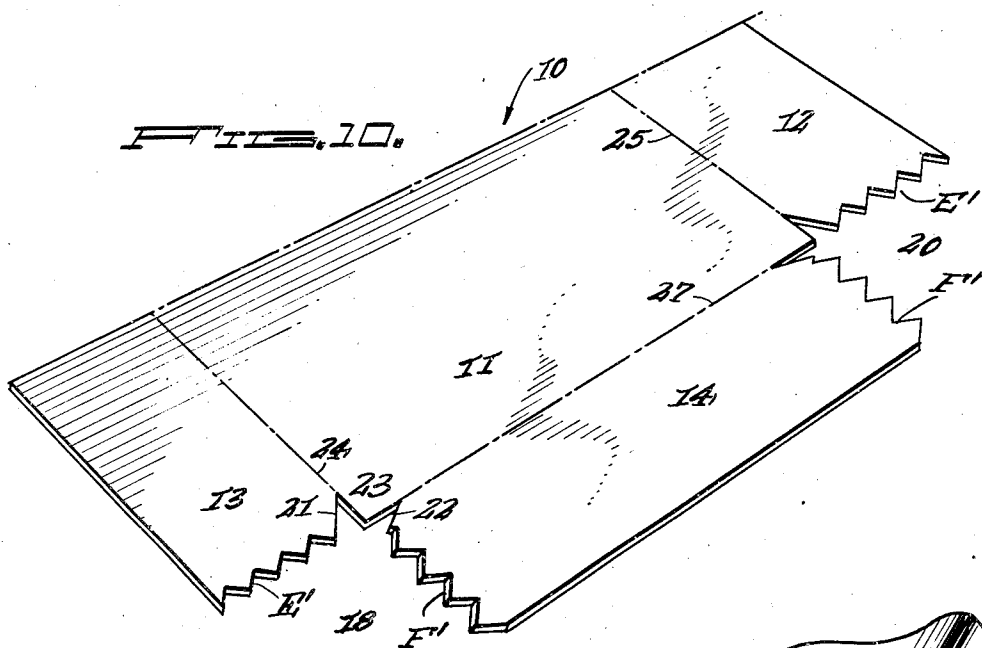


**FIG. 12.**

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FIG. 13.

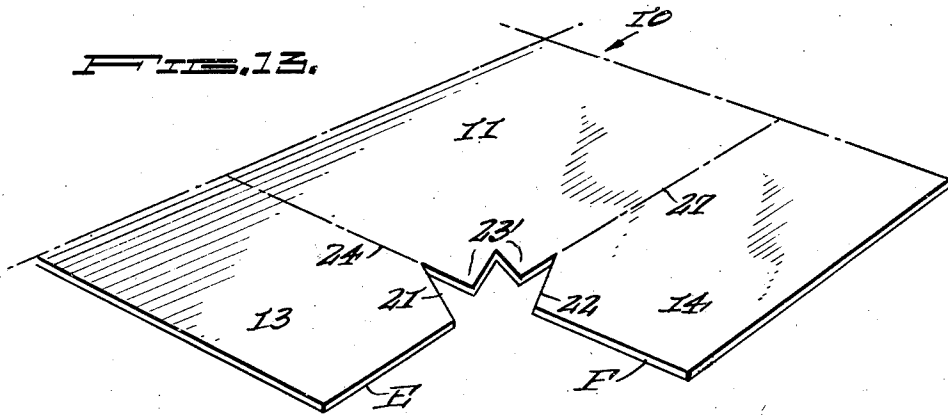


FIG. 14.

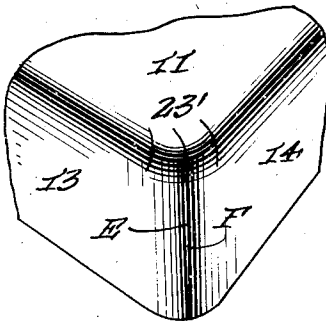


FIG. 15.

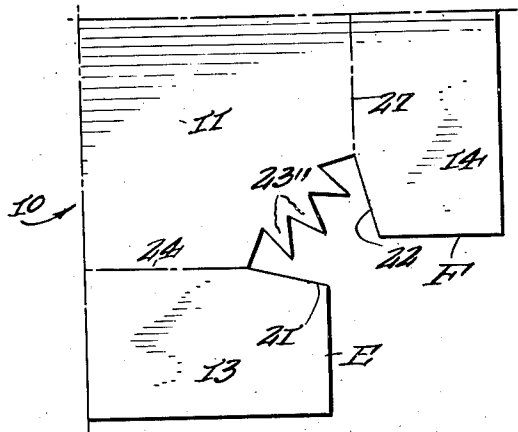


FIG. 16.

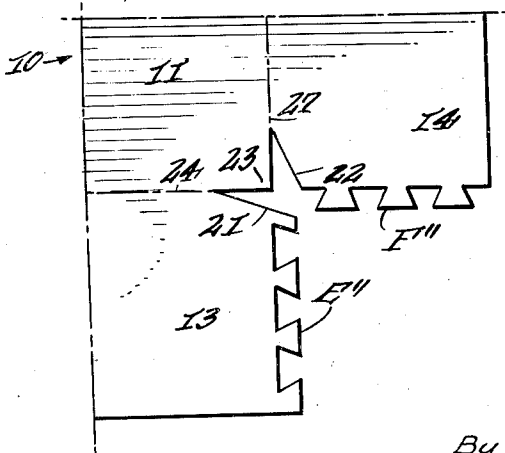
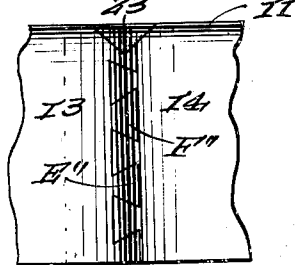


FIG. 17.



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## UNITED STATES PATENT OFFICE

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BLANK BASE AND THE METHOD OF ITS  
MANUFACTURE

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2 Claims. (Cl. 248-174)

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This invention relates to improvements in blank bases and in the method of their manufacture.

Although not limited thereto, blank bases according to the invention find particular utility as chassis of the type conventionally employed as a mount or platform for certain of the electrical parts of a radio receiving set, for example, and which, upon the mounting of said parts thereon, is adapted to be handled and installed as a unit in the cabinets of radio receivers, juke-boxes, and the like. The present invention contemplates and provides an improved blank base which can be manufactured and sold as such in an appropriate range of sizes to manufacturers or assemblers of radio and electrical equipment generally, and which is so constructed that it can be readily drilled in a simple operation by such manufacturers or assemblers to provide mounting holes therein, to thereupon form a thoroughly dependable chassis or support for the electrical parts laid out on and secured thereto. A further object of the invention is to provide a blank base particularly suitable for but not limited to use as a chassis for radio equipment which is characterized by closed box-like construction and rounded corners throughout and which thus possesses the advantages of finished and neat appearance and ability to be fitted into radio and juke-box cabinets of modern design, with the rounded corners providing extra strength and moreover assisting in the handling and assembling of the base and furthermore preventing injuries likely to occur with sharply-cornered constructions. According to a further feature of the invention, blank bases as herein proposed, by reason of their closed box construction, prevent ingress of seepage or moisture into the seams, thereby preventing rusting of the seams and prolonging the life of the base. The invention also has for an important object the provision of a simple, inexpensive and fast method of constructing blank bases of the type referred to on a quantity or production basis.

Other objects will be in part obvious and in part hereinafter pointed out in connection with the following analysis of the invention wherein are illustrated in detail several embodiments of bases as herein proposed.

In the drawings—

Fig. 1 is a perspective view of one form of blank base according to the invention;

Fig. 2 is a bottom view of the blank base illustrated in Fig. 1;

Figs. 3 and 4 are, respectively, enlarged top

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and bottom views of one of the rounded corners of the base as shown in Fig. 1, Fig. 4 also illustrating in bottom plan a corner piece as may be employed for reinforcement.

Fig. 5 is a perspective view showing one of the reinforcing corner pieces in its upright position;

Fig. 6 is a face view of a blank from which the base shown in Fig. 1 is fabricated;

Figs. 7, 8 and 9 are illustrative of the successive operations practiced on the blank in forming the rounded corners of the finished base;

Fig. 10 is a partial view of a base blank for forming a base having a serrated or saw-tooth seam or joint between the side flanges thereof;

Figs. 11 and 12 show successive stages in the formation of the serrated joint referred to;

Fig. 13 is a partial view of the blank for forming the modified end corner construction as illustrated in Fig. 14;

Fig. 15 is a partial view of another style of blank as employed in obtaining desirable end corner construction;

Fig. 16 is a partial view of a blank for forming a dove-tailed seam or joint between side flanges; and

Fig. 17 is a detail view looking into a dove-tailed corner seam or joint formed from the partial blank shown in Fig. 16.

Referring to the drawings, and more particularly to the modification illustrated in Figs. 1-9 thereof, a blank base 10, according to the invention, takes the form of an open-bottom box-like structure (Fig. 1) having a top 11, which preferably is flat, and integral side flanges 12, 13, 14, 15, depending therefrom to form supporting sides and ends for the flat top. The illustrated base is further characterized by rounded corners throughout, and to this end the horizontal edge corners 24, 25, 26 and 27, which connect the top with the several side flanges are rounded, as are the vertical corners 31, 32, 33, 34, formed by the closed-seam joints between the meeting ends of adjacent side flanges. Moreover, the four end corners 23, i. e. those at the corner areas of the base top 11, are so rounded or otherwise formed that they merge into the curvature of the rounded horizontal and vertical corners, thus to provide a structure which is devoid of protruding corners or edges.

According to a further feature of the invention, provision is made for additional reinforcement of the base to support vertical load for applications making such further reinforcement necessary or advisable. To this end, the box-like

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structure forming the base is interiorly reinforced at each of its four corners by corner members 28, as shown in Fig. 5, which are transversely rounded so that they can be fitted or nested into the rounded vertical corners of the structure. The height of the corner pieces is such that their top edges 29 engage against the under face of the top, and their bottom against the bottom or base line of the structure, thereby to impart vertical rigidity and adequate support for loads placed on the top. As shown, the corner members 28 are each provided with a flat bottom piece 30 having a flanged opening 28a punched or otherwise formed therein. The corner members may be secured in place by welding, and preferably by the spot-welding which secures the meeting edges of the side flanges. It will be observed, that, in addition to their reinforcing function, the corner members provide a simple means for securing the base to a horizontal support as by bolts or screws passed through the flanged holes 28a.

Referring to Figs. 6-9, illustrating a base according to the invention in various stages of its manufacture, Fig. 6 is illustrative of a rectangular blank of sheet material such as metal of the required gauge, employed in the fabrication of the base. Preferably, the rectangular sheet is supplied in the exact size required to form the base, so that all unnecessary trimming or cutting is avoided. In this view the dotted line corner squares 17, 18, 19 and 20 illustrate corners which have been punched out from the rectangular sheet, thus to provide a rectangular top forming area 11 and depending therefrom the side wings 12, 13 as defined by end edges E and end wings 15, 16 as defined by end edges F, which wings subsequently form the supporting side flanges of the finished base. In addition to punching out the corner squares, a small M-shaped area extending diagonally from the relatively inner corner of each of the punched-out squares is also removed from the sheet, with the result that a space S is defined at each of the corners between the angular cut lines 21, 22 corresponding to the sides of the M-shaped cut-out, into which extends a generally right-angular tongue 23, as shown. It will also be seen that the angular sides of the tongues form extensions of the dotted lines 24, 25, 26 and 27, which latter indicate the lines of bend between the top area 11 and the side wings.

In the next operation, the side wings 12, 13, 14 and 15 are bent in a suitable die, to depend vertically from the top area 11 along the lines of bend 24, 25, 26, 27, the edge corners being gently rounded, as distinguished from right-angles, thus to provide the rounded horizontal edges of the finished product. In the same or in a supplementary bending operation, the adjacent ends E and F of the several side wings or flanges are curled relatively towards each other, as indicated in Fig. 7, until their end edges are finally brought into meeting relation to form a rounded butt joint as shown in Fig. 8. Thereupon the four corner tongues 23, corresponding to the corner areas of the top, are pressed down or otherwise shaped into the space S resulting from the M-shaped cut-out, so that their defining angular edges close against the angular edges 21, 22, which upon the base being set up, as in Fig. 8, diverge from the joint formed by the end edges E, F of the side flanges. The final result as to cornering is indicated in Fig. 9, wherein the co-joined or butted ends of the side wing form a closed-seam and smooth surfaced rounded joint, with the corner tongues 23 merging into the curvature of both the

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rounded horizontal and vertical corners of the structure. Preferably, the butted edges E and F of the joints are secured as by spot-welding and, if corner pieces such as the corner pieces 28 (Fig. 5) are employed, these are secured interiorly of the base structure and adjacent the corners thereof by the welds which co-join the edges E and F of the side flanges.

In a final operation, all joined edges are ground off smoothly in a conventional finishing operation, thus giving the final base product a finished and neat appearance.

It will be observed that the end edges E and F of the side wings or flanges are formed straight according to the preceding description. However, as illustrated in Fig. 10, such edges may be complementally serrated or formed as saw-teeth, as indicated at E', F'. Fig. 11 illustrates an intermediate position of two of the side wings 13, 14 in the rounding or curling thereof, with Fig. 12 illustrating the complemental serrations E', F' being brought to interfitting relation, thus to form a rounded vertical corner characterizing a base of the invention.

It is also possible, according to the modifications illustrated in Figs. 13, 14 and 15, to effect definite rounding of the end corners, as distinguished from the somewhat flat and triangular corners 23 of the earlier embodiments. Thus, to provide the rounded corner areas, as illustrated in Fig. 14, the corner areas of the top forming area 11 of the blank are so incised or undercut that the two tongues 23' are formed in such corner areas rather than a single tongue 23 as shown in Fig. 6. Upon bending of the side wings and rounding up of the meeting end portions E, F thereof, the twin tongues 23' can be shaped to provide an end corner which connects the rounded horizontal edge corners 24, 27, for example, and which extends along a definite curvature when viewed in plan.

A greater degree of rounding of the aforesaid end corners can be achieved by providing a greater number of tongues, i. e. the three tongues designated 23'', in the corner areas of the top 11 of the blank as illustrated in Fig. 15. Thus, upon the edges E and F of the side flanges being brought into end-to-end or abutting relation, the plurality of tongues 23'' are deformed and brought into engagement one with the other to provide a corner having a substantial radius of turn as viewed in plan and which, moreover, merges into the vertical corner resulting from the curling and bringing together of the end edges E and F of the side flanges.

Figs. 16 and 17 illustrate a modified form of joint or seam between the meeting ends of the side flanges, according to which said ends, instead of being straight (Fig. 6) or serrated (Fig. 10), are formed with complemental tongue and grooves E'', F'', which are adapted to interlock and provide a dove-tailed joint. Upon rounding up or curling the adjacent ends of the side flanges as described, in conjunction with the interlocking of the complemental tongues and grooves thereof, there results a dove-tailed seam or joint as seen in Fig. 17.

Without further analysis, it will be observed that a blank base according to the invention is characterized by rugged and durable construction and by rounded corners throughout, the latter providing the advantages of neat appearance and ease in handling and in fitting the bases in modern radio cabinets and juke-boxes, for example. It will also be observed that the method of

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manufacturing such blank bases as outlined is simple and quick in practice and permits of economical production on a quantity basis. It is a further feature of the described method that it may be practiced with simple bending dies and thus overcomes the requirement of expensive tooling-up for individual size bases, as would be necessary to the manufacture of like bases by the conventional drawing methods, for example.

As many changes could be made in carrying out the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. A blank base of the character described comprising a substantially flat top and integral side flanges depending therefrom to provide supporting sides, the end portions of adjacent side flanges being curled towards each other and their end edges being secured in abutting relation, thereby to provide rounded vertical corners with smooth seams between the side flanges, the horizontal corners joining the top and the side flanges being also rounded, and curved tongues provided in the corner areas of the top, said tongues merging into the curvature of the rounded vertical and horizontal corners.

2. A blank base of the character described comprising a substantially flat top and integral side flanges depending therefrom to provide support-

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ing sides, the end portions of adjacent side flanges being curled towards each other and their end edges being secured in abutting relation, thereby to provide rounded vertical corners with smooth seams between the side flanges, the horizontal corners joining the top and the side flanges being also rounded, curved tongues provided in the corner areas of the top, said tongues merging into the curvature of the rounded vertical and horizontal corners, and corner reinforcing members secured interiorly of the base comprising curved corner pieces nesting within the rounded vertical corners of the base and secured to the abutting ends of the side flanges, the height of the corner pieces corresponding to the interior depth of the base.

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