Jan. 17, 1933. C. F. WALP 1,894,649

SKID BOX

Filed Sept. 28, 1929

Fig. 1.

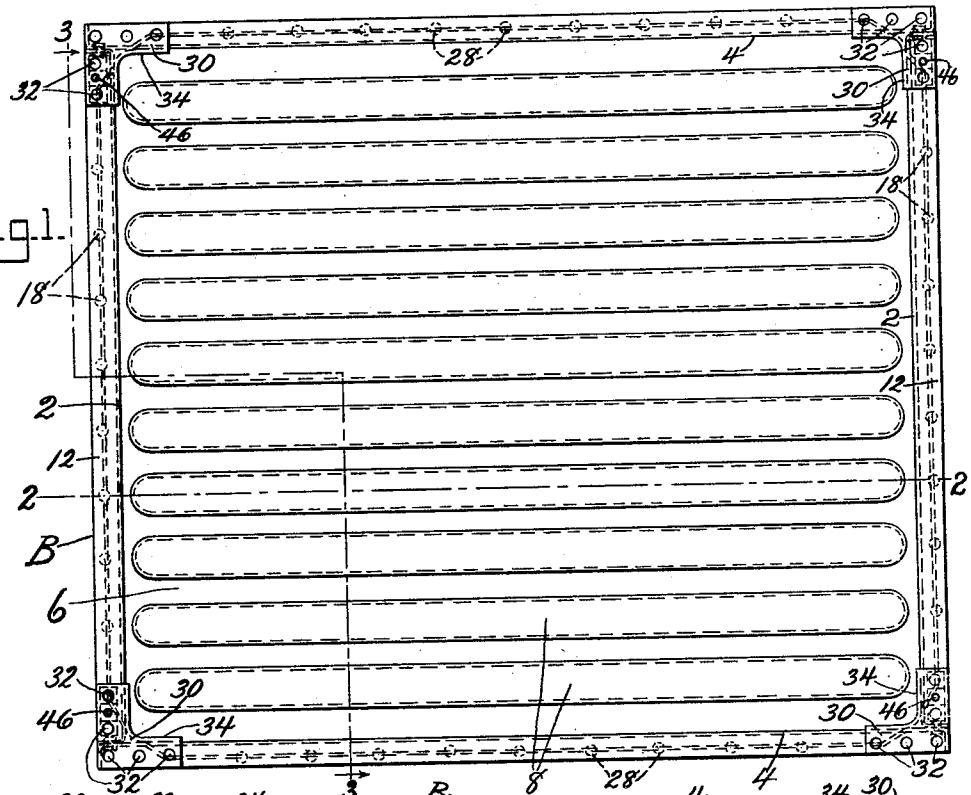


Fig. 2.

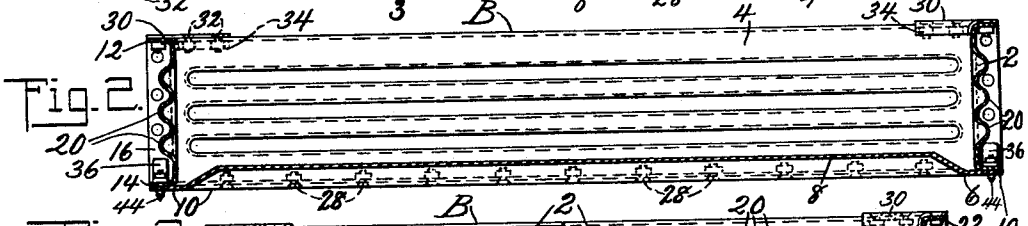


Fig. 3.



Fig. 5.

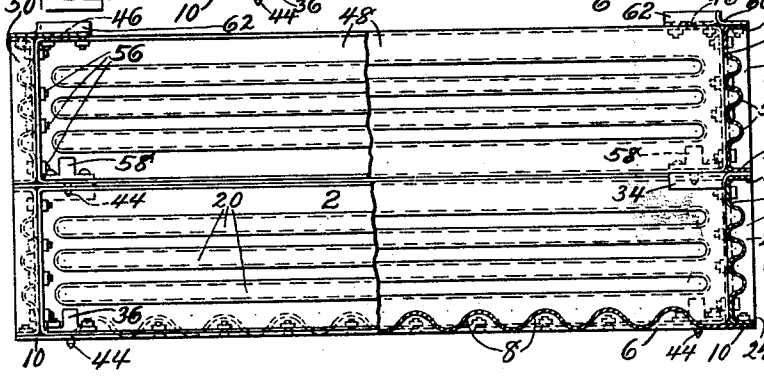
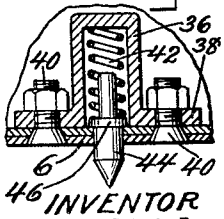


Fig. 4



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UNITED STATES PATENT OFFICE

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SKID BOX

Application filed September 28, 1929. Serial No. 395,865.

This invention relates generally to metallic receptacles and has particular reference to receptacles such as are known in the art as skid boxes.

At the present time in warehouses, foundries, manufacturing plants generally and in various other lines of business, use is made of skids or platforms for transporting goods from place to place; the skids being adapted to rest on the floor or other flat surface and being so constructed as to permit the insertion of a lift truck therebeneath, to be elevated whereby to clear the skid from the floor.

It has been found desirable when small items such as bolts, rivets, small castings and other small articles are to be transported from place to place, to provide boxes to receive and hold the articles, and such boxes are of such form as to be received and supported by a skid. These boxes are termed skid boxes and the present invention has for one object the provision of a strong and durable skid box.

Another object of this invention is the provision of a knock-down sectional skid box.

Still another object of the invention is the provision of a skid box which may be readily assembled and dis-assembled and which is so formed as to permit easy replacement of any part thereof.

A further object of the invention is the provision of a skid box formed of a plurality of independent units adapted to be connected in such a manner that the height of the box may be increased or diminished in accordance with necessary requirements.

A still further object of the invention is the provision of a skid box formed of metal which includes a base unit which may be utilized as an entire box if desired, and other units adapted to be superposed on the base unit; said units being freely and easily detachable each from the other.

Another object of this invention is the provision of a skid box, the body portion of which is formed of connected plates having marginal flanges providing pan-shaped walls; the said walls being detachably connected together to permit easy replacement of any of the walls should occasion arise, the adjacent flanges of adjacent walls defining vertical stiffening ribs for the edges or corners of the body portion.

Other objects and advantages of this invention will be apparent from the following description taken in conjunction with the accompanying drawing in which:

Figure 1 is a top plan view of the base unit;

Fig. 2 is a sectional view on the line 2—2 of Fig. 1;

Fig. 3 is a sectional view on the line 3—3 of Fig. 1;

Fig. 4 is a sectional view of one of the positioning devices or keepers associated with the skid box; and

Fig. 5 is an end elevation, partly in section, of a skid box comprising two assembled units.

Referring now more particularly to the drawing in which similar characters of reference designate similar parts in the several views, the skid box shown in the drawing is merely by way of example, but as illustrated, referring now to Fig. 5, it comprises two units indicated at A and B respectively; unit A being superposed on and detachably connected to unit B, which latter I term the base unit or base box.

As before mentioned herein the skid box of the present invention may be built up to any desired height but the base unit itself forms a skid box and the unit A or other units superposed upon the latter are in effect extension units.

The base unit B comprises the sides 2, ends 4 and a bottom 6. The bottom 6 is formed of a sheet of metal having longitudinal corrugations 8 pressed therein which terminate short of the ends, as clearly shown in Fig. 1, thereby providing an attaching margin 10 to which the sides and ends 2 and 4 are secured.

The sides 2 each comprise a pan-shaped metal pressing (rectangular in the instance shown in the drawing) having marginal flanges along the upper, lower and side edges thereof indicated at 12, 14 and 16 respectively; the sides 2 being secured to the margins 10 by means of suitable fasteners 18 which extend through the lower flanges 14. For stiffening the sides 2 the latter are pro-

vided with horizontally arranged corrugations 20 pressed therein.

The ends 4 are formed similar to the sides 2, being provided with marginal flanges along the top, bottom and side edges, as shown at 22, 24 and 26 respectively, and the sides and ends are connected together at adjacent flanges by suitable fasteners such as the bolts 28.

From the above description it will be apparent that the base box or base unit comprises connected sides, ends and a bottom, each of which is corrugated to provide the necessary stiffness and the unit is further stiffened by the marginal flanges; the flanges 16 and 26 defining vertical reinforcing ribs for the corners or edges of the unit. As will be obvious from the drawing the side walls are inset from the side edges of the end walls, that is, the flanges 16 fit against the end edges of the end walls whereby the box presents a construction in which the corners include rigidifying elements which are substantially Z-shape in section. It will also be apparent that should either of these elements become distorted or broken they may be easily replaced, thus providing a construction which may be repaired with the least possible expense.

In addition to the stiffening corrugations, the base box is reinforced at the upper corners thereof by angles 30 secured at the corners to the adjacent flanges of the sides and ends by suitable fasteners 32. These angles are provided with a downturned flange 34 arranged inside the unit at each upper corner thereof (see Figs. 1 and 3).

The base unit is adapted to be carried by a skid and it is provided with means for preventing lateral shifting thereof on the skid. These positioning devices each comprise a socket 36 (see Fig. 4) having an attaching flange 38 by which it may be secured to the lower flange of either the sides or ends of the unit by suitable fasteners 40 as shown clearly in Figs. 2 and 3. The socket retains a spring 42 which works against a pin 44 extending through the flange to which socket is secured and also through the unit bottom 6 at the margin 10 thereof; the pins each being provided with a spring seat 46 for an obvious purpose. The pins 44 of the several positioning devices are adapted to enter corresponding openings in the supporting surface of a skid whereby to retain the unit on the skid against lateral shifting as will be apparent.

As before mentioned, the present invention contemplates the provision of a sectional box or a box which may be built up of several units, and the drawing discloses a supplemental unit A superposed on the base unit or base box B. The unit A is, in effect, an open bottom box and may be possitioned directly on a skid if desired, as will be apparent hereinafter from the following description.

The unit A is substantially similar to the unit B but is devoid of a bottom and comprises the sides and ends 48 and 50 respectively, which are horizontally corrugated as at 52 and which are marginally flanged as at 54 in a manner similar to that described in reference to the base unit B. Adjacent flanges of the sides and ends of unit A are secured together by suitable fasteners 56. This unit A is provided at each lower corner with a positioning element 58 similar to that heretofore described and as illustrated in Fig. 4; the pins 44 of the elements 58 are adapted to enter corresponding openings 46 formed in the angles 30 whereby to position the unit A on the unit B and to retain the same on said unit B against horizontal shifting.

If desired, other units may be added to a box comprising the units A and B, and, in fact, the assemblage may be built up to any required or desired height. To obtain this result the open bottom skid boxes are each provided at their upper corners with reinforcing angles 60 having angular guide flanges 62 for positioning a superposed box or unit; the angles 60 being further provided with openings for receiving the pins of a box to be superposed as will be apparent.

From the above description it is believed that the construction of the skid box of the present invention will be fully apparent to those skilled in the art. The construction affords a skid box having a base unit and units superposed thereon and connected to each other in such a manner that the height of the box may be regulated to any desired degree. The construction also affords a skid box which may be readily assembled or disassembled as occasion demands and the parts of said box including the base box or closed bottom box and the open bottom box may be easily replaced when necessary.

The drawing herein illustrates one embodiment of the invention but it is to be understood that this drawing is for illustrative purposes only and that various changes in the form and proportions of the device may be made within the scope of the appended claims without departing from the spirit of the invention.

What is claimed is:

1. In a skid box adapted to be mounted on a support, means for restraining the box against sidewise shifting on the support, comprising sockets secured to the lower portion of the box, pins arranged in the sockets and normally projecting therefrom for cooperation with the support, and spring means in the sockets for normally urging the pins to projecting position.

2. In an extension skid box, side and end walls of pressed metal having end flanges and corrugations between their ends, means

for securing the flanged ends of certain of the walls to the inner faces of certain other walls adjacent the flanged ends thereof to form rigidifying members of substantially angle shape which project beyond the corners of the box, and corner pieces secured to overlie the wall ends where they are secured and being provided with vertical angular flanges.

3. In an extension skid box, an enclosure formed of walls having outwardly extending flanges at their ends, the corners being formed by abutting the end flange of one wall with the end portion of the inner face of another whereby a Z-shaped corner is provided with the middle bar of the Z of double thickness, means for securing the walls as abutted at the corners, and corner pieces overlying the Z-shaped corners having provision for locating another enclosure.

4. A skid box comprising connected side and end walls each having marginal flanges along the side edge portions thereof so formed and arranged as to constitute substantially Z-shaped rigidifying members for the corners of the box.

5. A skid box comprising side and end walls each provided with marginal flanges along the top, bottom and side edge portions thereof, and fasteners connecting said side and end walls, the edge portions and flanges of adjacent walls being so arranged as to provide substantially Z-shaped corner portions for said box.

6. A knock-down skid box comprising side and end walls each having out-turned flanges on their top and bottom edge portions, and angle-shaped rigidifying members at the corners of the box comprising adjacently arranged side marginal portions of the box deflected outwardly from the planes of the respective walls.

7. A knock-down skid box comprising side walls having outwardly facing marginal flanges, marginally flanged end walls extending between the side walls and inset from the end edges of the latter and cooperating with the end portions of said side walls to provide rigidifying corners for the box substantially Z-shaped in section, fasteners connecting adjacent side and end walls, and reinforcing elements secured to the upper corners of the box at the juncture of the side and end walls and so formed as to constitute positioning elements for a superposed box.

In witness whereof I have hereunto set my hand.

CHARLES F. WALP.