

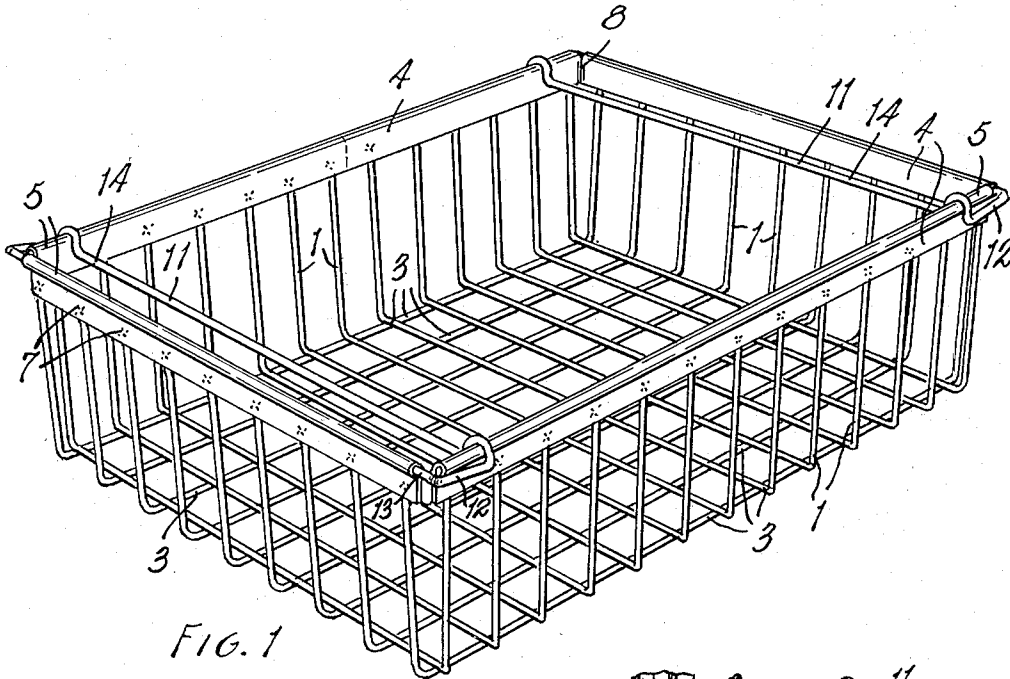
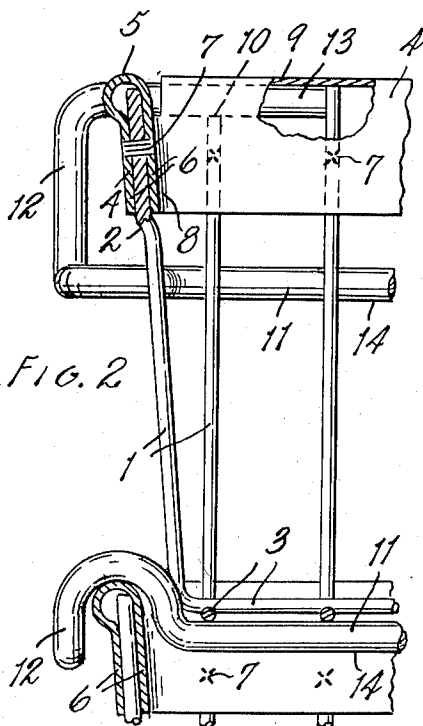
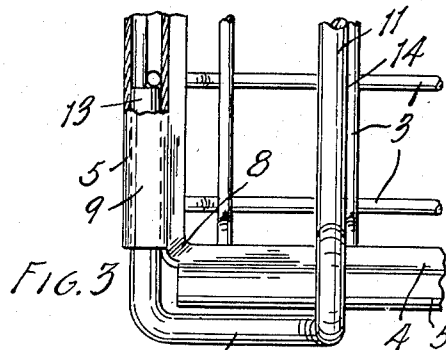
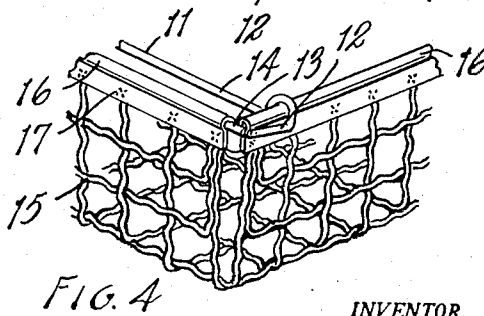
Jan. 8, 1952

F. J. ULLRICH

2,581,613

STACKING BOX OR TRAY

Filed Oct. 3, 1946



INVENTOR.
FRED J. ULLRICH
BY *Otha A. Earl*
Attorney.

UNITED STATES PATENT OFFICE

2,581,613

STACKING BOX OR TRAY

Fred J. Ullrich, Kalamazoo, Mich., assignor to
Lee A. Fordon, Detroit, Mich.

Application October 3, 1946, Serial No. 700,968

4 Claims. (Cl. 220-19)

1

This invention relates to improvements in stacking box or tray.

The main objects of this invention are:

First, to provide a stacking box or tray formed mainly of wire which is strong and rigid and capable of carrying superimposed loads even when formed of relatively light stock.

Second, to provide a stacking box or tray which is desirable for use for a wide range of purposes.

Objects relating to details and economies of the invention will be apparent from the description to follow. The invention is defined in the claims.

A structure which embodies the features of the invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view of a box or tray embodying my invention with the stacking bails in erected position.

Fig. 2 is a fragmentary view of vertical section of stacked trays embodying my invention.

Fig. 3 is an enlarged fragmentary plan view illustrating certain features of the structure.

Fig. 4 is a perspective view of a modified form or embodiment of my invention in which the open work or grid type of bottom and walls are formed of interwoven wires.

The preferred form of my invention illustrated in Figs. 1 to 3 inclusive comprises wall slats 1 of wire disposed in spaced relation and having their upper ends outwardly offset at 2. The lower ends of opposed pairs of slats are connected by bottom slats 3, the bottom slats being disposed in cross relation and welded together at their crossing points, the welding not being illustrated.

The sheet metal rim members 4 are of downwardly facing channel section and have rounded web portions 5 constituting the edge or rim of the structure. The flanges 6 of the rim members closely embrace outwardly offset ends of the wall slats and are welded thereto at 7 so that the rim members become integrally connected to the wall slats, each slat being welded to the rim members. The offset of the wall slats is preferably such that the inner faces or sides of the rim members are flush with the inner sides of the slats. This permits the boxes or trays being quite compactly nested.

The inner flanges 6 of the rim members are integrally connected at the corners as shown at 8, Fig. 3, so that the walls are connected and cannot spread or swing outwardly. The ends of opposed pairs of rim members are adapted to serve as pintle sockets or bearing members 9,

2

this being accomplished merely by cutting off the upper ends of certain of the slats as indicated at 10 in Fig. 2. The stacking bails 11 are provided with arms 12 terminating in inturned pintles 13 engaging these sockets or bearing members.

The longitudinal ridges 14 of the bails are downwardly offset so that the bottom of a superimposed box is below the top of the lower box as is shown in Fig. 2. This prevents the superimposed boxes from sliding off the boxes on which they are superimposed.

In the embodiment of my invention shown in Fig. 4, the sides and bottom of the box are formed of woven corrugated wires 15, the vertical strands of which are arranged between the flanges of the channel-shaped rim 16 and welded thereto as indicated at 17. Other than the walls and bottom being formed of corrugated woven wire the structure is the same as that of the embodiment shown in Figs. 1 and 3.

Stacking boxes or trays embodying my invention are well adapted for use in offices, factories, stores, and other relations where a light, strong structure is desired, particularly where it is desired to stack the trays or boxes and also to nest them.

I have illustrated and described the invention in practical embodiments thereof. I have not attempted to illustrate or describe other embodiments or adaptations as it is believed that this disclosure will enable those skilled in the art to embody or adapt my invention as may be desired.

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

1. A stacking and nesting box or tray comprising wall slats of generally vertically extending wires disposed in laterally spaced relation and having straight upper ends, the lower ends of opposed pairs of slats being integrally connected by bottom wires disposed in crossed relation and welded together at their crossing points, sheet metal rim members of downwardly facing channel section having rounded web portions and disposed with their flanges embracing the upper ends of the wall slats and welded thereto, the inner flanges of the rim members being integrally connected at the corners of the box, the ends of one pair of opposed rim members and the rounded web portions thereof constituting pintle bearings, and stacking bails provided with arms having inturned pintles engaged in said bearings, the end slats in said opposed rim members terminating

3

below said bearings, the ends of interior slats in said opposed rim members extending into said rounded portions and constituting stops for the inner ends of said pintles.

2. A stacking and nesting box or tray comprising wall slats of generally vertically extending wires disposed in laterally spaced relation, the lower ends of opposed pairs of slats being integrally connected by bottom wires disposed in crossed relation, sheet metal rim members of downwardly facing channel section having rounded web portions and disposed with their flanges embracing the upper ends of the wall slats and welded thereto, the inner flanges of the rim members being integrally connected at the corners of the box, the ends of one pair of opposed rim members and the rounded web portions thereof constituting pintle bearings, and stacking bails provided with arms having intumed pintles engaged in said bearings, the end slats in said opposed rim members terminating below said bearings, the ends of interior slats in said opposed rim members extending into said rounded portions and constituting stops for the inner ends of said pintles.

3. A box or tray comprising side and end wall slats of wire disposed in spaced relation and having straight upper ends, the lower ends of opposed pairs of slats being integrally connected by bottom members disposed in crossed relation and welded together at their crossing points, sheet metal rim members of downwardly facing channel section disposed with their flanges embracing the upper portions of the wall slats and welded thereto, the folded portion of the ends of opposed rim members defining pintle bearings above the ends of the end slats secured in said opposed rim members, the inner flanges of the

4

rim members being integrally connected at the corners of the box, and stacking bails provided with arms having intumed pintles engaged in said bearings.

4. A stacking box or tray comprising wall slats of wire disposed in spaced relation and having generally straight unfolded upper ends, sheet metal rim members of downwardly facing channel section embracing the free ends of the wall slats and welded thereto, the inner flanges of the rim members being integrally connected at corners of the box, the folds of one pair of opposed rim members being open at each end and constituting pintle bearings, and stacking bails provided with arms having intumed pintles engaged in said bearings swingably supporting the bails for adjustment to erected position in supported engagement with the other opposed pair of rim members or to a depending position at the ends of the box or tray.

FRED J. ULLRICH.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
893,786	Collis et al.	July 21, 1908
933,517	Worcester	Sept. 7, 1909
1,409,336	Fahlman	Mar. 14, 1922
1,445,259	Wiseloge	Feb. 13, 1923
1,689,217	White	Oct. 30, 1928
1,950,921	Gray et al.	Mar. 13, 1934
2,105,179	Best et al.	Jan. 11, 1938
2,438,030	Bitney	Mar. 16, 1948
2,502,781	Erickson	Apr. 4, 1950