April 24, 1945. H. L. SNYDER 2,374,390

RECEPTACLE

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Fig. 1.

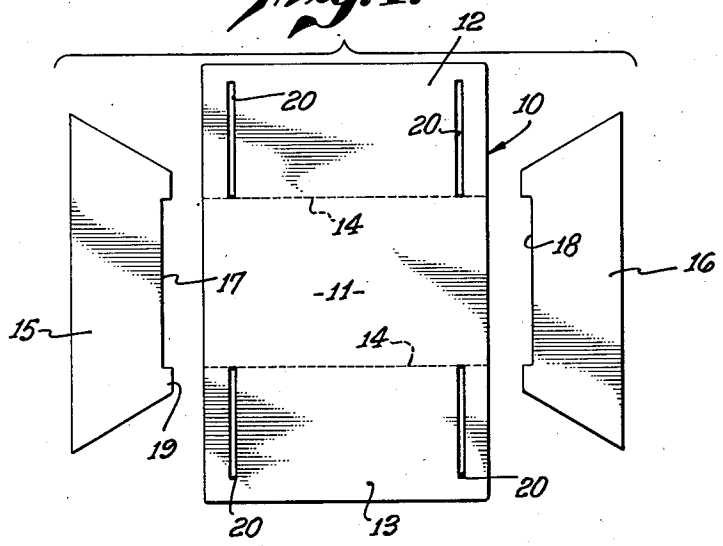


Fig. 2.

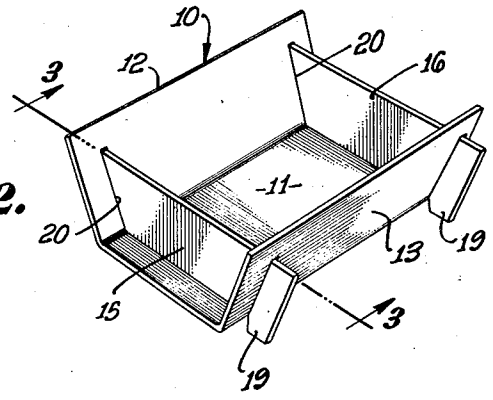
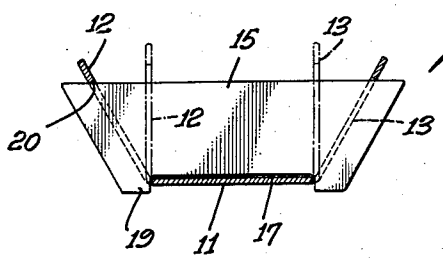


Fig. 3.



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Fig. 4.

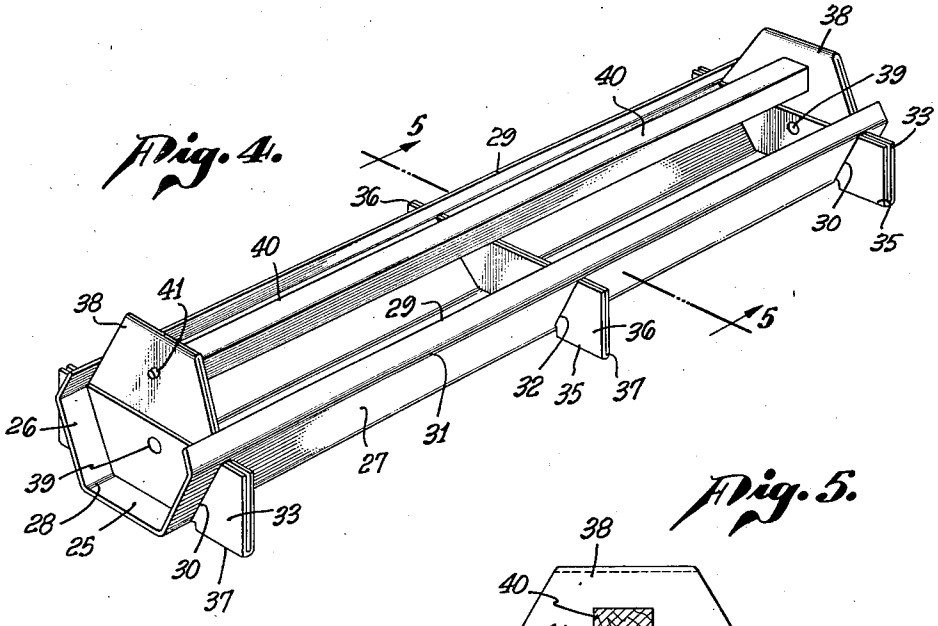


Fig. 5.

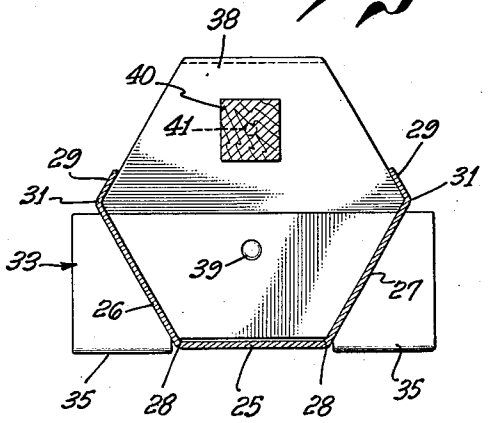


Fig. 6.

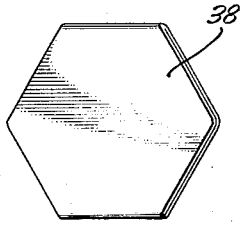
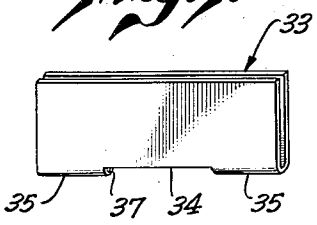


Fig. 7.



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UNITED STATES PATENT OFFICE

2,374,390

RECEPTACLE

Harry L. Snyder, West Los Angeles, Calif.

Application May 8, 1943, Serial No. 486,223

2 Claims. (Cl. 229—41)

This invention relates to improvements in receptacles.

The primary object of the invention is to provide an improved receptacle, the parts of which may be stamped or die cut from any reasonably stiff material such as cardboard, paper board or the like and which may be shipped or stored in flat knockdown condition and easily set up forming a relatively sturdy receptacle which is inexpensive in its construction.

More specifically the object of the invention is to provide a receptacle comprising a bottom to which sides are foldably connected, the sides having slots through which extend ends with the tops of the slots engageable with the top edges of the ends to limit outward movement of the sides when the receptacle is set up and to provide means for holding the ends against longitudinal displacement whereby the receptacle is maintained in its setup condition when the parts are assembled.

Still another object of the invention is to provide a receptacle having the above mentioned characteristics and which may be advantageously employed as a feed holder for small poultry or baby chicks, provision being made to resist outward movements of the sides and inward movements thereof, thus forming a rigid receptacle and provision also being made to prevent chicks roosting over the receptacle.

With the foregoing and other objects in view, which will be made manifest in the following detailed description and specifically pointed out in the appended claims, reference is had to the accompanying drawings for an illustrative embodiment of the invention, wherein:

Figure 1 is a plan view of the parts or blanks employed in forming one type of receptacle embodying the present invention.

Figure 2 is a perspective view of the receptacle in its setup condition, the receptacle being constructed from the blanks or parts shown in Fig. 1.

Fig. 3 is a sectional view taken substantially upon line 3—3 upon Fig. 2 in the direction indicated, the dotted lines indicating positions assumed by the sides in the course of assembly.

Fig. 4 is a perspective view of another type of receptacle embodying the present invention, the receptacle being shown in fully setup position.

Fig. 5 is a vertical section taken substantially upon the line 5—5 upon Fig. 4 in the direction indicated.

Fig. 6 is a perspective view of one of the parts of the receptacle shown in Fig. 4.

Fig. 7 is a perspective view of another one of the parts forming a part of the receptacle shown in Fig. 4.

Referring to the accompanying drawings wherein similar reference characters designate similar parts throughout, the receptacle illustrated in Figs. 1 to 3 inclusive is suitable for use as a berry box, but may be employed for any other purpose desired.

It consists of a main or body part generally indicated at 10 which provides a bottom 11 and two opposed sides 12 and 13. The sides are defined from the bottom by fold lines such as scoring indicated at 14. Ends 15 and 16 which are counter parts of each other are also provided.

The above mentioned parts may be stamped or die cut from any reasonably stiff material such as cardboard, paper board, veneer or the like. For purposes of economy I frequently employ used mats employed in printing newspapers. Such mats are inexpensive and possess the required stiffness.

As clearly shown, Figs. 1 and 3, the bottom edge of each of the ends 15 and 16 is recessed as at 17 and 18, forming downward extended projections or feet 19 that are spaced from each other a distance equal to the width of the bottom 11. Slots 20 are cut in the side walls 12 and 13 adjacent to end edges thereof, which slots extend upwardly from fold lines 14 to points adjacent but short of the top edges of the sides. The lengths of these slots are but slightly in excess of the overall heights of the ends 15 and 16 and are somewhat greater than the dimensions between the recesses 17 and 18 and the top edges of the ends 15 and 16 respectively.

The receptacle shown in Figs. 1 to 3 may be shipped or stored with the parts in flat or knockdown condition. In setting up the receptacle the sides 12 and 13 are bent upwardly relatively to the bottom 11 above the fold line 14. When the sides are in vertical position as illustrated by dotted lines on Fig. 3, the end members 15 and 16 may be inserted through the slots 20 until they occupy a position wherein the recesses 17 and 18 overly the bottom 11. The sides 12 and 13 then may be released and will normally spring outward, assuming inclined positions as illustrated in Figs. 2 and 3. In these positions the top edges of the slots 20 engage the top edges of the ends 15 and 16, so that further outward movement of the sides is thus limited by engagement of the slots with the top edges of the end members. The end members are consequently urged downwardly to maintain the edge of the recesses

17 and 18 in engagement with the top surface of the bottom 11, wherein the projections or feet 19 which bear against the sides of the bottom 11 at bottom of slots 20 hold the end members against longitudinal displacement.

A receptacle thus constructed can be manufactured very economically and the parts shipped or stored conveniently. When the receptacle is set up it forms a sturdy structure capable of containing and transporting relatively heavy loads without danger of warping or tearing. If it is desired to knock down the receptacle, this can be readily accomplished by springing the sides towards each other, causing them to assume the dotted lines positions shown in Fig. 3. In this position the end members can be lifted to disengage bottom 11 and slipped endwise out of slots 20.

In Figs. 4 to 7 inclusive, another form of construction is disclosed embodying the present invention. The receptacle therein illustrated may be suitably employed to contain feed for baby chicks or small poultry. In this form of construction the main or body member provides an elongated bottom 25 to which the sides 26 and 27 are foldably connected along fold lines 28. The top edges of the sides 26 and 27 are preferably equipped with inwardly bendable flaps 29, although the presence of these flaps in some instances is optional. Slots 30 are formed in the sides 26 and 27 and extend upwardly from the fold lines 28 to the fold lines 31. The slots 30 are formed in the sides 26 and 27 adjacent to end edges thereof and if desired additional slots 32 may be formed in the sides intermediate the ends of the sides. Ends 33 are provided which are also formed of sheet material and which are capable of being extended through the slots 30. These ends are recessed at their bottom edges as indicated at 34, the recesses being substantially equal in length to the width of the bottom 25, thus providing downwardly extended projections or feet 35 which will serve to support the bottom 25 above the surface of the ground or other supporting surface.

Partition members 36 which are similar in construction to ends 33 may be slipped through the intermediate slots 32 in a similar manner. These partition members may be employed to divide the receptacle into compartments, but their primary purpose is to stiffen the receptacle intermediate its ends where the receptacle is quite lengthy as illustrated. The ends 33 and the partition 36 are preferably formed of sheet material that is folded upon itself about a central fold line 37. However, the construction of the ends and partitions of material that is thus rendered of double thickness is not essential. The ends and partition may be formed of single thickness if desired.

In this form of construction as well as that illustrated in Figs. 1 to 3, the sides are held in vertical positions through the insertion of the ends on the partitions. When the sides are released they will intend to spring outwardly until the tops of the slots 30 and 32 engage the top edges of the ends and the partitions respectively. Additional end members may be provided such as those illustrated at 38. These are shaped to fit against the bottom 25 and between the opposed sides 26 and 27 and to project upwardly thereabove. The end members 38 may likewise be formed of double thickness as shown and when the end members 33 are of double thickness they are inserted between the thicknesses of the end members and secured in place by suitable fasteners 39 such as split rivets. If the end members 33 are formed of single thickness, the members 38 are merely positioned thereagainst and secured in place by the fastener 39. The members 38 hold the sides 26 and 27 in their fully spread or spaced position and thus cooperate with the feet 35 which engage the side edges of the bottom 25 in holding the ends 33 against longitudinal displacement.

If the receptacle is to be employed as a chicken or poultry feeder, it is desirable to provide some means for preventing the chicks roosting thereover. To this end a bar 40 may be formed of wood and which is square or rectangular in section is provided which extends between the members 32. Nails or the equivalent indicated at 41 can be driven through the members 38 into the bar 40 so as to rotatably support the bar over the receptacle. Chickens attempting to roost on the bar find that the bar will turn under their weight and consequently they will not remain thereon. The flaps 29 which are optionally employed lie against the upwardly convergent side edges of the members 38 when they are employed.

From the above described construction it will be appreciated that an improved and highly economical receptacle is provided, the parts of which can be readily cut from any stiff but bendable sheet material. The parts may be shipped or stored in flat condition and easily and quickly set up. When set up a receptacle which is sturdy and strong is provided.

Various changes may be made in the details of construction without departing from the spirit or scope of the invention as defined by the appended claims.

I claim:

1. A receptacle comprising a flat bottom, sides foldably connected to the bottom, end members having recesses in their bottom edges adapted to accommodate the bottom and providing downwardly extending feet at the ends thereof, there being closed opposed slots in the sides extending upwardly from adjacent the bottom, said slots being slightly greater in length than the distance from the tops of the recesses in the end members to the top edges of the end members and being adapted to receive the end members, the top edges of the end members being substantially straight and engageable by the tops of the slots upon outward swinging movement of the sides so as to hold the bottom against the tops of the recesses in the bottoms of the end members, said end members being of double thickness, and means insertable between the thicknesses thereof for locking the sides against inward swinging movement thereof.

2. A receptacle comprising a bottom, sides foldably connected thereto, end members, closed opposed slots in the sides extending from adjacent the bottom to adjacent the top thereof, said slots being slightly greater in length than the height of the end members and being adapted to receive the same, said end members presenting substantially straight top edges against which the upper ends of the slots may engage as the sides swing outwardly and being of double thickness, and means insertable between the thicknesses of the end members for locking the sides against inward swinging movement.

HARRY L. SNYDER.