April 5, 1955 R. C. HUCKSTEP 2,705,588

CHICK BOX

Filed Nov. 20, 1952

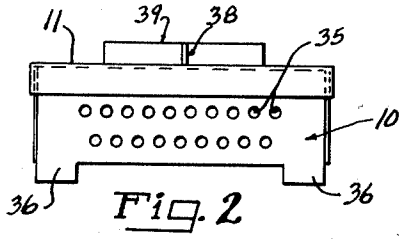


Fig. 2

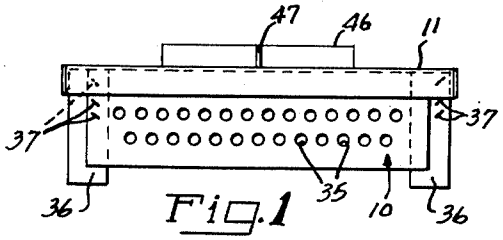
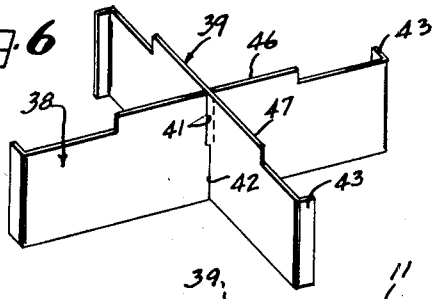


Fig. 1

Fig. 6



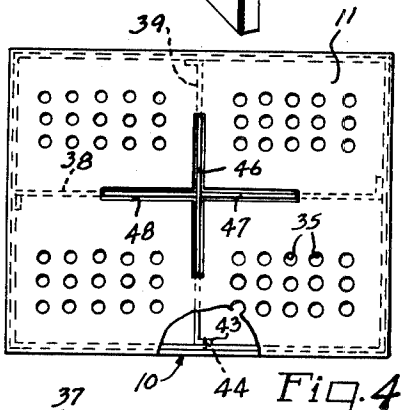


Fig. 4

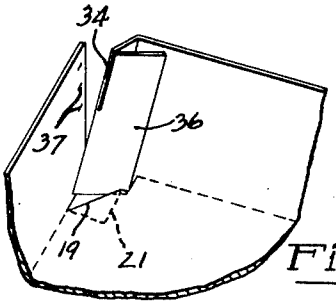


Fig. 5

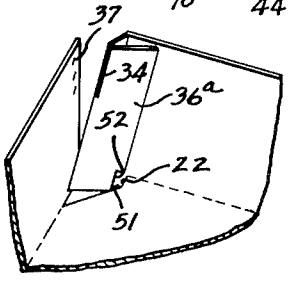


Fig. 8

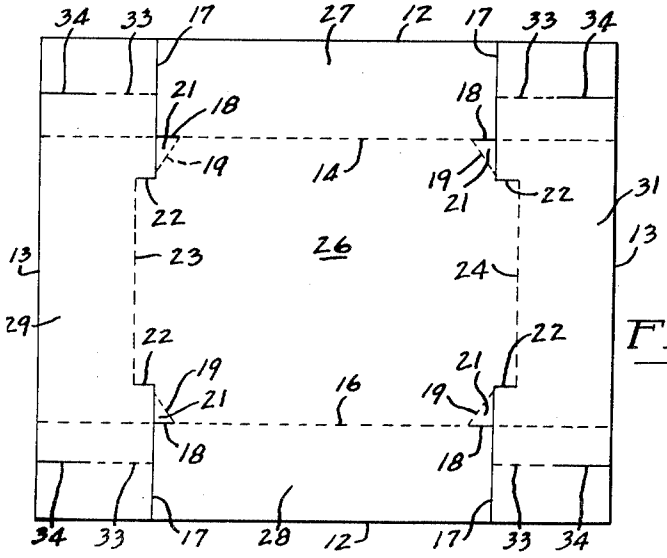
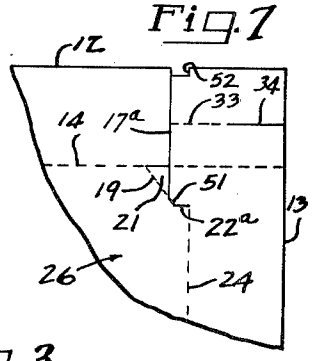


Fig. 3

Fig. 7



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United States Patent Office 2,705,588 Patented Apr. 5, 1955

2,705,588

CHICK BOX

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Application November 20, 1952, Serial No. 321,685

7 Claims. (Cl. 229—32)

This invention relates to a chick box such as is employed for handling and shipping baby chicks and has for its principal object the provision of such a box made from a unitary fiber board blank which shall include integral leg members, thus providing for ready assembly and also permitting a plurality of such boxes to be stacked one on another and yet afford ample ventilation between the boxes.

A further object of my invention is to provide a chick box of the character designated which is easily formed from a rectangular fiber board blank and one in which a minimum amount of material is required to construct the same.

A still further object of my invention is to provide a chick box of the character designated which shall be sturdy of construction, economical to manufacture and one which readily lends itself to mass production.

A device employing features of my invention is illustrated in the accompanying drawings forming a part of this application, in which:

Fig. 1 is a side elevational view;

Fig. 2 is an end elevational view thereof;

Fig. 3 is a view showing the blank from which the box is made;

Fig. 4 is a plan view of the assembled box, partly broken away;

Fig. 5 is a fragmentary perspective view showing the manner in which the blank is folded to form the box;

Fig. 6 is a perspective view showing the partition walls for the box;

Fig. 7 is a fragmentary view of a modified form of blank; and,

Fig. 8 is a perspective view showing the manner in which the blank shown in Fig. 7 is folded to form a box.

Referring now to the drawing for a better understanding of my invention, the box is indicated generally at **10** and its cover at **11**. The blank, as shown in Fig. 3, is preferably formed from a rectangular sheet of fiber board having side edges **12** and end edges **13**. The blank is scored along lines **14** and **16** which extend the length of the blank and lie substantially parallel to, and positioned inwardly of, the edges **12** of the box a distance equal to the depth of the box. The blank is slit near each corner along four lines **17** which intersect the scored lines **14** and **16** perpendicular thereto and are spaced from, and lie substantially parallel to, the edges **13**, as shown in Fig. 3.

Short slits **18** are provided in each of the scored lines **14** and **16**, which extend inwardly from the points of intersection with each of the slits **17**. Extending from the inner ends of each of the short slits **18** to points adjacent the inner ends of the lines **17** are scored lines **19**. The lines **19** together with the slits **18** and the inner portion of the slits **17** form triangular flaps **21**.

At the inner ends of each of the slits **17**, there is a slit **22** which extends toward the adjacent end edges **13** perpendicular to the slit **17** and substantially parallel to the edges **12**. Connecting the outer ends of the slits **22** at opposite ends of the blank are scored lines **23** and **24**. It will thus be seen that the scored lines **14**, **16**, **23**, and **24** divide the blank into a bottom panel **26**, side panels **27** and **28** and end panels **29** and **31**. The slits **17** and **22** intersect at points on the blank inwardly of the adjacent ends of the lines **23** and **24** so that, when the end panels **29** and **31** are folded upwardly to form the ends of the box the portions of the blank defined by the slits **17** and **22** extend downwardly below the box to form legs as more particularly described hereafter.

Each corner portion of the blank is scored along lines **33** intermediate the ends of the scored lines **14** and **16** and the adjacent edges **12**, each of which extends from the adjacent slit **17** part way to the adjacent edge **13** and perpendicular to the slit **17**. The remainder of the distance to the edge **13** of each corner portion is slit along a line **34** for a purpose to be set forth hereinafter. Each of the corner portions of the blank defined by the slits **17** and scored lines **14** and **16** is folded inwardly along the scored lines **33** and the ends of the scored lines **14** and **16** to form triangular shaped legs **36** for the box. The lower portions of the legs **36** project below the surface of the bottom **26** when the ends **29** and **31** of the box are folded upwardly, as shown in Figs. 1 and 2.

When the ends **29** and **31** of the box are folded upwardly along the scored lines **23** and **24**, the slits **22** and the inner ends of slits **17** provide ample clearance for the leg portions of the blank to move downwardly below the bottom **26** to form the legs. As the legs **36** are moved below the bottom of the box, the triangular flaps **21** are engaged and pressed downward to the dotted line position shown in Fig. 5. The flaps **21** in this position frictionally engage the sides of the legs **36** thereby bracing the same and forming a very rigid construction. After the sides of the box **27** and **28** are folded up along the scored lines **14** and **16**, they are joined to the upper portions of the triangular shaped legs **36** by any suitable means, such as by staples **37**. The slits **34** permit the upper portion of the inner sides of the triangular shaped legs to be bent inwardly of the box to permit the insertion of a stapling head.

The box is provided on the sides, ends and top, with the usual air holes **35** for supplying air to the chicks. Also, partition walls **38** and **39** may be provided in the chick box to prevent the chicks from all shifting to one side. The partition walls **38** and **39** are joined together adjacent the center thereof, as shown in Fig. 6, by providing a slit **41** adjacent the upper center portion of the wall **38** and a slit **42** adjacent the lower center portion of the wall **39**. The upper center portion of the wall **39** thus fits in the slit **41** and the lower center portion of the wall **38** fits in the slit **42**, thus locking the partition walls together. The ends of the walls **38** and **39** are bent laterally to form flanges **43** which are in turn, secured to the inner walls of the chick box by any suitable means such as staples **44**. The upper central portions of the partition walls **38** and **39** project above the walls of the chick box to provide upstanding portions **46** and **47** respectively.

The cover **11** of the box is provided with slits **48** and **49** at the center thereof through which the portions **46** and **47** extend to engage the bottom central portion of a superimposed box thus supporting the same and providing ample ventilation between the boxes. The legs **36** serve to space each chick box from a subjacent box thus permitting circulation of air therebetween. By providing the legs **36** at each corner of the chick box a plurality of such boxes may be stacked one on the other. The upwardly projecting members **46** and **47** form a central support for a superimposed box and provide means whereby boxes which do not have such legs may be supported in spaced relation to my improved box. Where all of the boxes are provided with legs **36** the upstanding members **46** and **47** may be omitted, thus causing the boxes to be separated from each other by means of the legs only.

Referring now to Figs. 7 and 8 I show a slightly modified form of box construction in which the blank is provided with the scored lines **14**, **16**, **23**, **24**, **19**, **33** and **34** as hereinbefore described. The blank is slit along lines **17***a* which extend from the edges **12** thereof to the points of intersection with the scored lines **19**. Short diagonal slits **51** are provided in the blank which extend from the points of junction of scored lines **19** and slits **17***a* to point outwardly thereof and in the same vertical planes as the scored lines **19**. Also, short slits **22***a* connect the outer ends of the slits **51** to the adjacent ends of the scored lines **23** and **24**. The flap portions defined by the slits **17***a* and the ends of the scored lines **14** and

16 are cut away as at 52 to permit the lower end of the leg 36*a* to pass below the bottom of the chick box when the ends thereof are folded upwardly. By providing the diagonal slits 51 and the cut-away portions 52, the legs 36*a* fit snugly in the openings left by the flaps 21 and there are no openings left in the corners of the box in which the feet of the chicks might become lodged.

From the foregoing it will be seen that I have provided an improved chick box which is easily constructed from a single rectangular sheet of material and in which there is no waste of material. By forming the legs as an integral part of the box and causing the triangular flaps at each corner of the box to bear against the legs, a very sturdy box is provided. Also, by providing the slits 22 at the inner terminals of the slits 17, the legs 36 and 36*a* are easily pressed downwardly below the bottom of the box and there is a minimum of open space between the legs and the bottom of the box.

While I have shown my invention in but two forms it will be obvious to those skilled in the art that it is not so limited but is susceptible of various other changes and modifications without departing from the spirit thereof, and I desire, therefore, that only such limitations shall be placed thereupon as are specifically set forth in the appended claims.

What I claim is:

1. A box blank comprising a rectangular sheet of material having a pair of scored lines along opposite sides extending from end to end thereof to define the sides of the box and having slits extending inwardly from the opposite sides and inwardly of the ends to points inwardly of and at right angles to said scored lines and terminating in outwardly extending short end portions parallel to said scored lines, said scored lines and said slits defining flaps at each corner of the blank, said flaps being scored near the middle perpendicular to said slits to fold inwardly and upwardly and form triangular shaped legs as viewed in cross section for the box, said blank having another pair of scored lines joining the inner ends of said slits whereby the ends of the blank may be folded upwardly to form the ends of the box.

2. A box blank as defined in claim 1 in which the first mentioned pair of scored lines are provided with short slits which extend inwardly from the first mentioned slits defining small flap portions at each corner of the box which are adapted to be pressed downwardly by the legs as the ends of the blank are folded upwardly.

3. A box blank as defined in claim 1 in which the scored portions of the flaps perpendicular to the slits extend from the slits part way across the flaps and the remainder of the distance to the adjacent end of the blank is slit.

4. A box blank comprising a rectangular sheet of material having a pair of scored lines along opposite sides extending from end to end thereof to define the sides of the box, and having slits extending inwardly from the opposite sides and inwardly of the ends to points inwardly of and perpendicular to said scored lines, there being short inwardly extending slits along said scored lines from the points of junction of said scored lines with said first mentioned slits, there being short outwardly extending slits at the inner ends of said first mentioned slits, said first mentioned scored lines and said first mentioned slits defining flaps at each corner of the blank, said flaps being scored near the middle perpendicular to said first mentioned slits to fold inwardly and upwardly and form triangular shaped legs as viewed in cross section for the box, said blank having another pair of scored lines joining the outer ends of said short outwardly extending slits whereby the ends of the blank may be folded upwardly to form the ends of the box.

5. A box blank as defined in claim 4 in which the short outwardly extending slits extend in a direction substantially parallel to the sides of the blank.

6. A box blank as defined in claim 4 in which the sheet of material is scored along lines which extend from the inner ends of the short inwardly extending slits to a point adjacent the inner ends of said first mentioned slits.

7. A box blank as defined in claim 4 in which the short outwardly extending slits extend diagonally toward the central portion of the ends then outwardly in a direction substantially parallel to the sides of the blank and in which the flaps are provided with cut-out portions at the outer edges thereof adjacent the first mentioned slits.

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