Nov. 21, 1950 W. E. TURNER 2,531,090

BOBBIN BOX

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Fig. 1

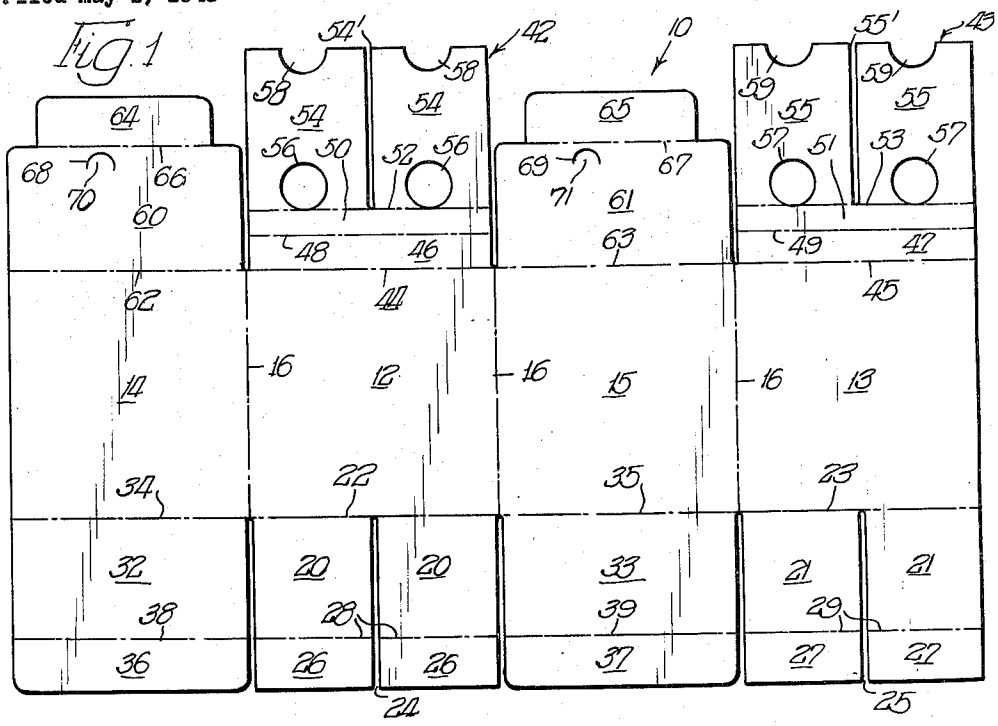
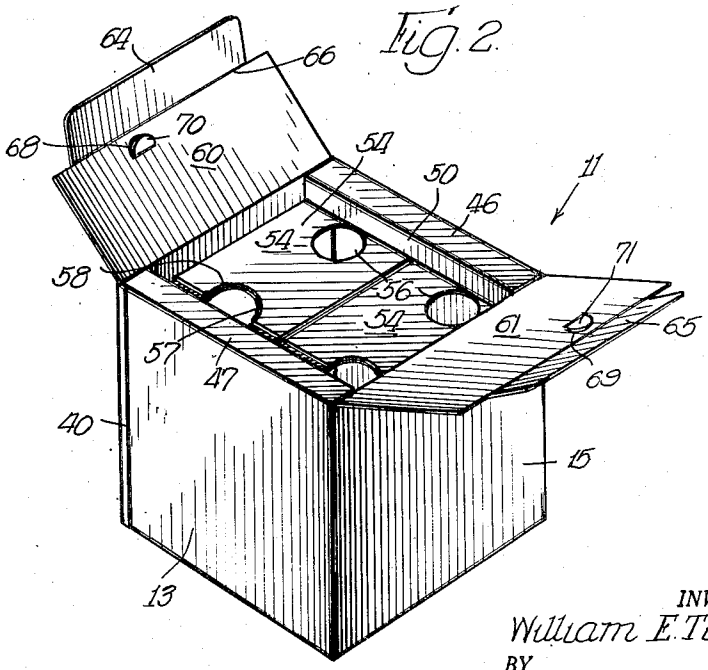


Fig. 2



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Fig. 3.

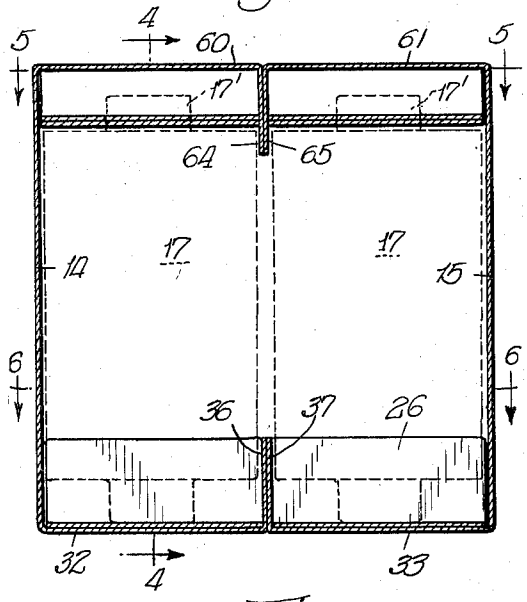


Fig. 4.

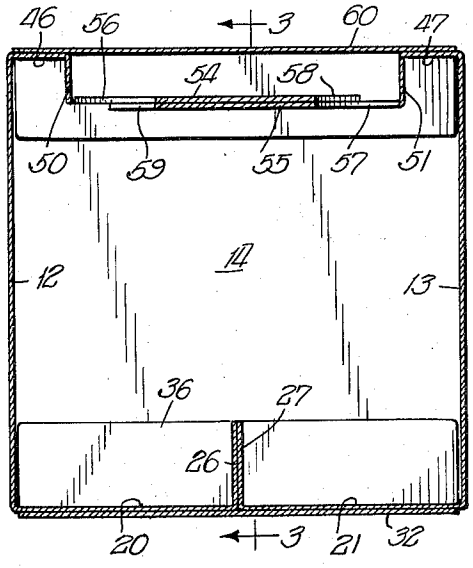


Fig. 5.

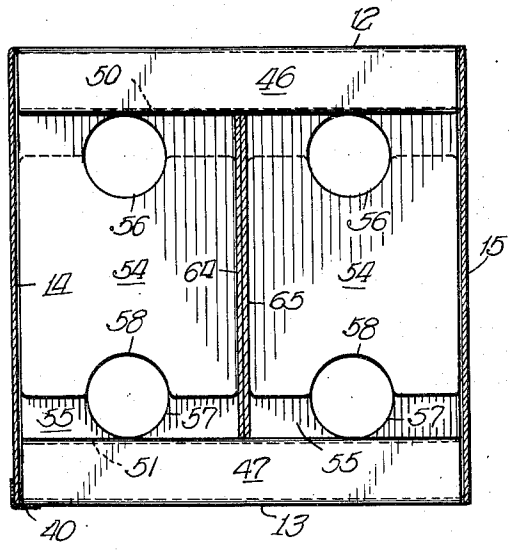
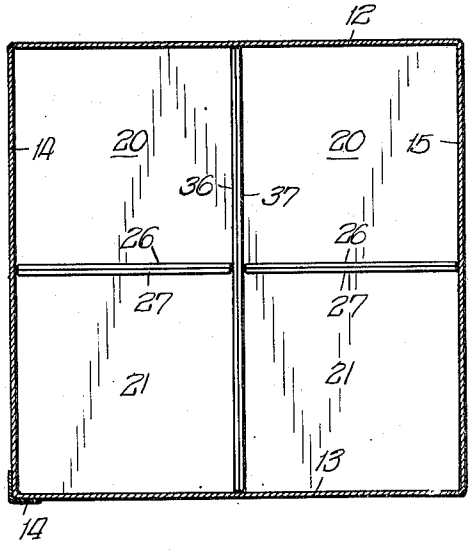


Fig. 6.



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BOBBIN BOX

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Application May 1, 1948, Serial No. 24,604

6 Claims. (Cl. 229—27)

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This invention relates, generally, to containers or boxes, and it has particular relation to bobbin boxes.

Among the objects of this invention are: To set up from a one piece paperboard blank a box which is capable of holding four bobbins; to form the blank so that, when the box is set up, extensions from the lower edges of its side walls are interfolded to provide four bobbin receiving spaces; to form the blank with extensions from the upper edges of one pair of side walls arranged so that they will overlap when the box is set up and being apertured to receive the upper ends of the bobbins; and to form the blank with extensions from the upper edges of the upper pair of opposite side walls so that, when the box is set up, they overlie the upper ends of the bobbins and can be interfolded with the overlapping extensions so as to close the upper end of the box.

Other objects of this invention will, in part, be obvious and in part appear hereinafter.

This invention is disclosed in the embodiment thereof shown in the accompanying drawings and it comprises the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth and the scope of the application of which will be indicated in the appended claims.

For a more complete understanding of the nature and scope of this invention, reference can be had to the following detailed description, taken together with the accompanying drawings, in which:

Figure 1 is a plan view of a one piece paperboard blank which can be set up to form the bobbin box of the present invention;

Figure 2 is a perspective view of the bobbin box set up from the blank shown in Figure 1 with the cover extensions in the open position;

Figure 3 is a vertical sectional view of the bobbin box of the present invention in the fully set up and closed position and taken along the line 3—3 of Figure 4; and

Figures 4, 5 and 6 are detail sectional views taken along the lines 4—4, 5—5 and 6—6, respectively, of Figure 3.

Referring now particularly to Figures 1 and 2 of the drawings, it will be noted that the reference character 10 designates, generally, a blank of paperboard that is formed in one piece and which can be set up, in a manner to be described, to form the bobbin box that is indicated, generally, at 11. Where the term "paperboard" is employed herein it is intended that it shall include fiberboard, corrugated board and like paper products which are relatively stiff and are capable of withstanding substantial stress.

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As shown in Figure 1, the blank 10 includes vertical side walls 12 and 13 and vertical end walls 14 and 15. They are joined together along score lines 16 along which they can be folded at right angles to each other in order to provide the wall portions of the box 11. The walls 12, 13, 14 and 15 may be substantially identical. In a bobbin box which has been constructed in accordance with this invention, they are square and are nine inches long on each side. However, it will be understood that the walls may be of various dimensions as desired depending upon the dimensions of the bobbins 17 which are shown in outline in Figure 3 of the drawings.

Along their lower edges, the side walls 12 and 13 are provided with pairs of extensions 20 and 21 which are joined thereto along score lines 22 and 23. The extensions 20 and 21 are spaced apart as indicated at 24 and 25 to facilitate interfolding with extensions from the end walls 14 and 15 which will be described presently. The outer ends 26 and 27 of the extensions 20 and 21 are arranged to be folded along score lines 28 and 29 so that they will extend upwardly from the bottom of the box 11.

The vertical end walls 14 and 15 are provided with single extensions 32 and 33 and are arranged to be folded with respect thereto along score lines 34 and 35. The outer ends 36 and 37 of the extensions 32 and 33 are arranged to be folded upwardly along score lines 38 and 39 and to interfit with the extensions 20 and 21 through the spaces 24 and 25 therebetween. In Figure 6 of the drawings the juxtaposed relationship between the outer ends 36 and 37 of the extensions 32 and 23 is illustrated. Also in this figure the juxtaposed relationship of the outer ends 26 and 27 is shown. It will be observed that these upturned end portions 26, 27, 36 and 37 provide four spaces for receiving the lower ends of four bobbins 17.

When the side and end walls 12, 13, 14 and 15 are set up as illustrated in Figure 2 of the drawings, the juxtaposed edges of the walls 13 and 14 can be held together by an adhesive strip 40. Other suitable means for holding the juxtaposed edges of the walls 13 and 14 can be employed such as metallic stitching and the like.

The manner in which the blank 10 of paperboard is formed to provide a closure for the top of the bobbin box 11 will be described now. As shown more clearly in Figure 1 of the drawings, the vertical side walls 12 and 13 are provided

with extensions that are indicated, generally, at 42 and 43. These extensions are joined to the upper edges of the vertical side walls 12 and 13 along score lines 44 and 45. They include first portions 46 and 47 which, as shown in Figure 4, are arranged to extend at right angles to the side walls 12 and 13. The first portions 46 and 47 are joined along score lines 48 and 49 to intermediate portions 50 and 51 that, as shown in Figure 4, are arranged to be folded downwardly toward the bottom of the bobbin box 11. The intermediate portions 50 and 51 are joined along score lines 52 and 53 to outer two part portions 54 and 55 which are spaced apart as indicated at 54' and 55'. As shown in Figure 4, the portions 54 and 55 are positioned in juxtaposed overlapping relation below the top of the bobbin box 11 a distance which is determined by the width of the intermediate portions 50 and 51.

With a view to centering the hub portions 17' of the bobbins 17, as shown in Figure 3, the portions 54 and 55 are provided with centrally located circular apertures 56 and 57 and also with centrally located semicircular apertures 58 and 59. As shown in Figures 4 and 5 of the drawings, the semicircular apertures 58 and 59 are arranged to register with the circular apertures 57 and 56, respectively, and the hubs 17' of the bobbins 17 project through as shown in Figure 3.

The cover for the bobbin box 11 is provided by extensions 60 and 61, Figure 1, which are joined to the vertical end walls 14 and 15 along score lines 62 and 63. The extensions 60 and 61 have narrowed outer ends 64 and 65 which are joined thereto along score lines 66 and 67. The narrowed outer ends 64 and 65 constitute tongues which are arranged, as shown in Figure 3, to project through the registering spaces 54' and 55' between the portions 54 and 55 so that they are frictionally held in place, the outer ends 64 and 65 being folded, as shown, into juxtaposed relationship.

In order to facilitate opening the cover of the bobbin box 11 provided by the extensions 60 and 61, they are provided with openings 68 and 69 for insertion of the fingers, these openings being arranged to be closed by flaps 70 and 71 which are struck from the extensions 60 and 61 as shown more clearly in Figure 2 of the drawings.

Since certain changes can be made in the foregoing construction and different embodiments of the invention can be made without departing from the spirit and scope thereof, it is intended that all matter shown in the accompanying drawings and described hereinbefore shall be interpreted as illustrative and not in a limiting sense.

What is claimed as new is:

1. A rectangular box for four bobbins set up from a one piece paperboard blank comprising four vertical walls, one pair of opposite walls each having a pair of extensions from its lower edge with upturned juxtaposed outer ends, the other pair of opposite walls each having an extension from its lower edge with upturned juxtaposed outer ends extending between said pairs of extensions and forming with their upturned ends four bobbin receiving spaces; one pair of opposite walls each having an extension from its upper edge having a first portion extending toward the other, an intermediate portion extending toward the box bottom, and an outer two part portion with each part having a central circular opening adjacent said intermediate portion and a central semicircular opening at the outer end registering with the circular opening in the juxtaposed other part for receiving the upper ends of the four bobbins; and the other pair of opposite walls each having an extension from its upper edge with narrowed downturned juxtaposed outer ends extending between said parts.

2. A box for four bobbins set up from a one piece paperboard blank comprising substantially identical vertical side and end walls, each side wall having a pair of extensions from its lower edge with their outer ends turned upwardly for juxtaposition with the corresponding upturned ends of the other pair of side wall extensions, each end wall having an extension from its lower edge with its outer end turned upwardly for juxtaposition with the upturned end of the other end wall extension, the upturned ends of the end wall extensions extending between said pairs of side wall extensions and forming with their upturned ends four bobbin receiving spaces; each side wall having an extension from its upper edge having a first portion extending toward the other side wall, an intermediate portion extending toward the box bottom, and an outer two part portion with each part having a central circular opening adjacent said intermediate portion and a central semicircular opening at the outer end registering with the circular opening in the juxtaposed other part for receiving the upper ends of the four bobbins; each end wall having an extension from its upper edge with a narrowed outer end turned downwardly for juxtaposition with the downturned narrowed end of the other extension and the two ends extending between said parts, and the extensions from the upper edges of said end walls having openings therein closed by flaps formed integrally therewith providing finger holes to facilitate opening of the box.

3. A box for bobbins set up from a one piece paperboard blank comprising four vertical walls, one pair of opposite walls each having a pair of extensions from its lower edge with upturned juxtaposed outer ends, the other pair of opposite walls each having an extension from its lower edge with upturned juxtaposed outer ends extending between said pairs of extensions and forming with their upturned ends four bobbin receiving spaces; one pair of opposite walls each having an extension from its upper edge comprising a portion extending toward the box bottom and an outer two part portion joined to said first portion, each part of said outer portion having a central circular opening adjacent its inner end and a central semicircular opening at its outer end in register with the circular opening in the juxtaposed other part for receiving the upper ends of four bobbins; and the other pair of opposite walls each having an extension from its upper edge with downturned juxtaposed outer ends extending between said parts.

4. A box for four bobbins set up from a one piece paperboard blank comprising a substantially identical vertical side and end walls, each side wall having a pair of extensions from its lower edge with their outer ends turned upwardly for juxtaposition with the corresponding upturned ends of the other pair of side wall extensions, each end wall having an extension from its lower edge with its outer end turned upwardly for juxtaposition with the upturned end of the other end wall extensions extending between said pairs of side wall extensions and forming with their upturned ends four bobbin receiving spaces; each

side wall having an extension from its upper edge comprising a portion extending toward the box bottom and an outer two part portion joined to said first portion, each part of said outer portion having a central circular opening adjacent its inner end and a central semicircular opening at its outer end in register with the circular opening in the juxtaposed other part for receiving the upper ends of four bobbins; each end wall having an extension from its upper edge with a downturned outer end for juxtaposition with the downturned outer end of the extension of the other end wall with the two ends extending between said parts, the extensions from the upper edges of said end walls having openings closed by flaps formed integrally therewith providing finger holes to facilitate opening of the box.

5. A bobbin box comprising four vertical walls and bottom closure means, one pair of opposite walls each having an extension from its upper edge comprising a portion extending toward the box bottom and an outer two part portion joined to said first portion, each part of said outer portion having a central circular opening adjacent its inner end and a central semicircular opening at its outer end in register with the circular opening in the juxtaposed other part for receiving the

upper ends of four bobbins; and the other pair of opposite walls each having an extension from its upper edge with downturned juxtaposed outer ends extending between said parts.

6. A bobbin box comprising four vertical walls and bottom closure means, one pair of opposite walls each having an extension from its upper edge comprising a portion extending toward the box bottom and an outer part joined to said portion and having a central circular opening adjacent its inner end and a central semicircular opening at its outer end in register with the circular opening in the juxtaposed other part for receiving the upper ends of bobbins.

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