

(No Model.)

2 Sheets—Sheet 1.

C. L. LOCKWOOD.
SECTOR SHAPED BOX.

No. 421,504.

Patented Feb. 18, 1890.

Fig. 1.

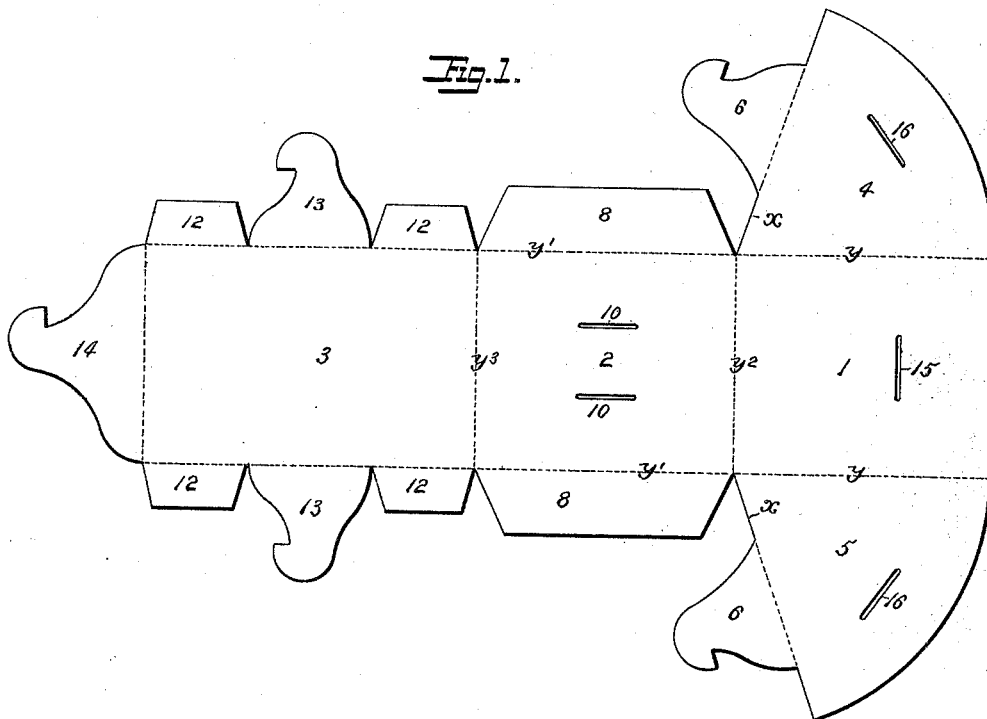


Fig. 2.

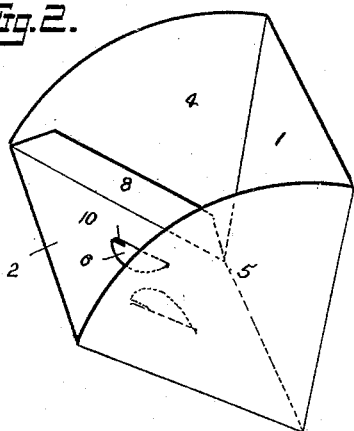
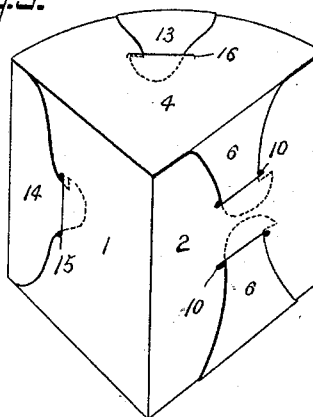


Fig. 3.



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2 Sheets—Sheet 2.

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Fig. 4.

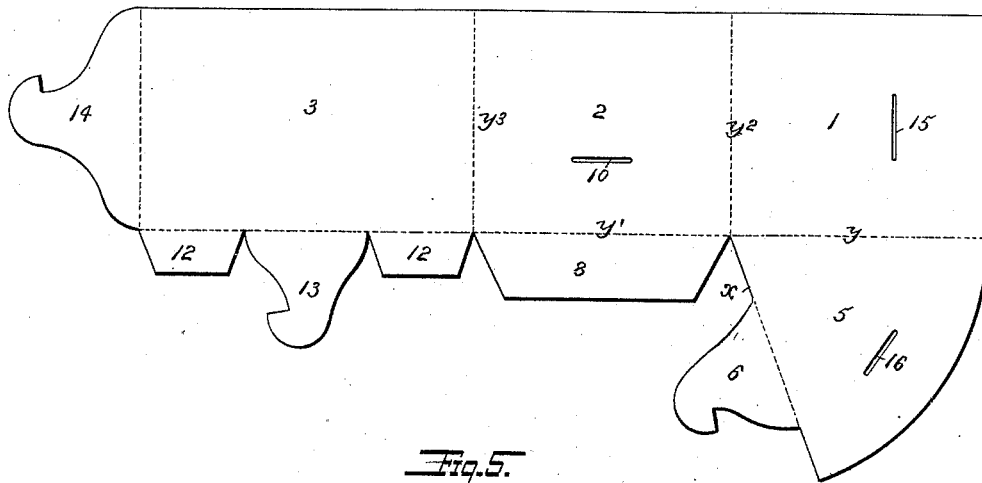
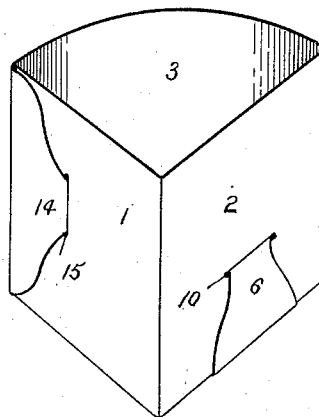


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHARLES L. LOCKWOOD, OF PHILADELPHIA, PENNSYLVANIA.

SECTOR-SHAPED BOX.

SPECIFICATION forming part of Letters Patent No. 421,504, dated February 18, 1890.

Application filed December 28, 1889. Serial No. 335,214. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. LOCKWOOD, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Paper Boxes, of which the following is a specification.

My invention relates to that class of boxes which may be made of paper or other thin material capable of being bent up into shape, having two flat and one curved sides, so as to be sextant or quadrant shaped; and my invention consists in making such boxes from blanks consisting each of a single sheet with two or more rectangular sections and connected sextant-shaped end sections and locking tongues and slits, as fully set forth hereinafter, and as illustrated in the accompanying drawings, in which—

Figure 1 represents a blank for forming a sextant-shaped box, open at its curved side, with a permanently-attached cover. Fig. 2 is a perspective view showing the body of the box without the curved side or cover. Fig. 3 is a perspective view of the box made from the blank of Fig. 1. Fig. 4 illustrates the form of the blank when the box is to be open at one end. Fig. 5 is a perspective view of the box made from the blank shown in Fig. 4. The blank of which the box is formed consists of two or more sections 1 2 3. These sections are rectangular and in line with each other, as shown in the drawings, and section 1 is provided with two end pieces 4 and 5, adapted to be hinged at right angles to the section 1 upon a crease-line y , and each end piece is provided with a tongue 6, and a locking end or shoulder for engaging with a portion of the section 2 when the thin tongue is passed through one or two slits 10 in said section 2. This section 2 is adapted to be folded at an angle to section 1 upon a crease-line y' , and where there is a section 3 it is adapted to be folded at an angle to the section 2 upon the crease-line y'' , and at each end of the section 2 there is a flap 8, adapted to be folded at an angle to the section 2 upon a crease-line y' .

When the box is to be formed with a detachable cover, it is made up from a blank consisting of the sections 1 2 and the parts connected therewith, as shown. In forming

such a blank into a box the section 1 is bent at an angle to the section 2, so as to bring the end pieces 4 and 5 opposite the sides of the flaps 8, and the tongues 6 are then bent in and under the section 2, and the locking ends are passed through the slits 10, so that their shoulders are brought to engage with section 2 and lock the section 1 at an angle to the section 2, the end pieces extending between the two sections and forming the ends of the box. As thus constructed and illustrated in Fig. 2, the box is in the form of a sector with the periphery or curved side open. To this side may be applied a detachable cover of any suitable kind whenever a cover is required.

Whenever a box with a permanent locking-cover is needed, the section 3 is connected with the section 2. The section 3 is preferably provided with end flaps 12 and with end locking-tongues 13, the ends of which are adapted to slits 16 in the end pieces 4 and 5 of the section 1, and at the end of the section 3 is a locking-tongue 14, adapted to engage with a slot 15 in section 1. The blank thus made is folded up to the shape illustrated in Fig. 2, and then the cover or section 3 is folded upon the crease-line y'' , and the flaps 12 are turned up at right angles to the section 3 and passed inside the end pieces 4 and 5, and the tongues 13 are introduced into the slots 16 and the tongue 14 into the slot 15, thereby forming a single box of the form illustrated in Fig. 3. The angles of the sections 1 2 to each other in the completed box will depend upon the angles of the edges x of the end pieces 4 5 of the section 1 to the sides or edges of the section 2, and by forming the edges x at right angles to the sides of the section 2 the box may be made quadrant-shaped.

The box thus formed is adapted to be packed with other boxes of a similar character into barrels or other cylindrical vessels, each box forming a definite section of a complete circle, as a quadrant or a sextant.

Where the box is to be opened at one end instead of at the periphery or curved side, as shown in Fig. 2, the flaps and tongues are omitted from one edge, as illustrated in Fig. 4. In this construction the parts are locked together, as before; but when the box is com-

plete, the end will be open, as illustrated in Fig. 5. It will be apparent that the flaps 8 and 12 may be omitted in some cases where it is not necessary to closely seal the box.

- 5 It will be seen that the sections constituting the body of the box are rectangular and on a straight line, so that the blanks can be cut with less waste than when the body-sections are in the form of sectors and the blank
10 is generally curved.

While I have described my improved box as being made of paper, and that is the preferred material, it is evident that these boxes may be made from other light material, as
15 tin, sheet metal, card-board, &c.

Without limiting myself to the precise construction shown, I claim—

1. A sector-shaped box formed of a single sheet having rectangular sections 1 2, the
20 former section with a connected sector-shaped end piece at both sides, and a locking-tongue on each end piece, and the latter section slitted to receive said tongues, substantially as set forth.

- 25 2. The blank for a sector-shaped box, hav-

ing rectangular-shaped sections 1 2 in line, and one or more sector-like end pieces, each with a locking-flap adapted to enter a slit in the opposite section, substantially as described.

3. A sector-shaped box having a permanently-attached cover, and consisting of a blank having three rectangular sections bent to form the two sides and the cover of the box, one terminal section having a sector-
35 shaped piece at one or both ends, with locking-tongues which fit into slits in the central section, and the other terminal section having a locking-tongue at one or both ends adapted to slits in the sector-shaped pieces,
40 and a terminal tongue which fits into a slit in the other terminal section, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of
45 two subscribing witnesses.

CHARLES L. LOCKWOOD.

Witnesses:

HARRY J. SHALLER,
GEO. H. SMITH.