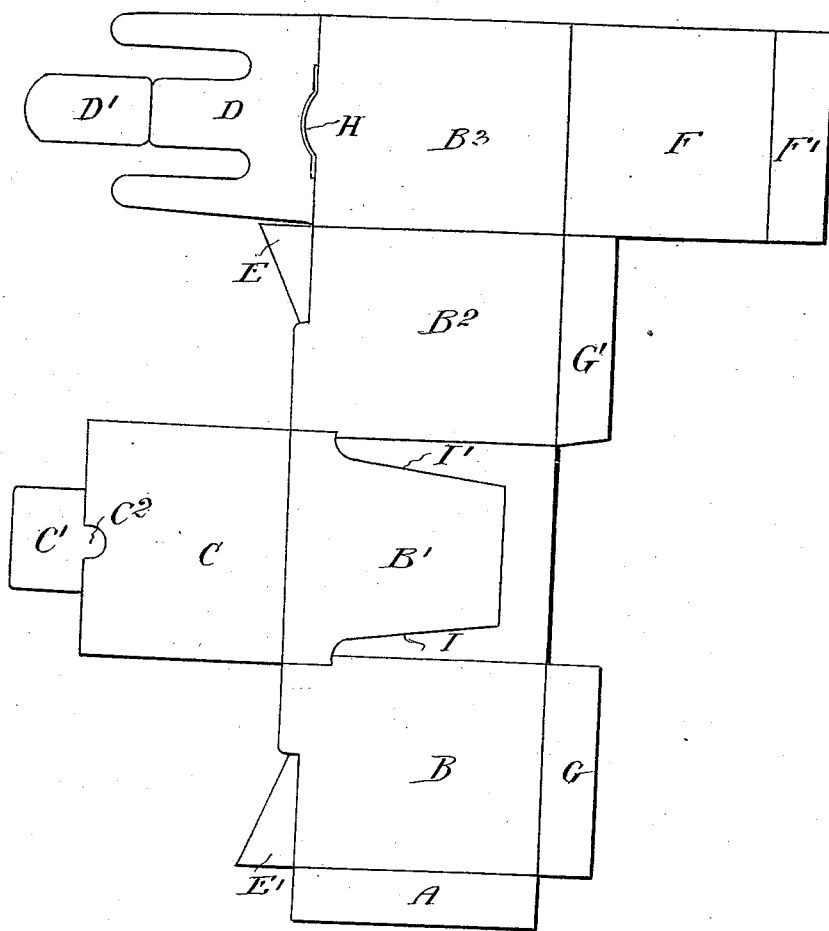


1,041,733.

A. A. BROWN.  
INCANDESCENT MANTLE BOX.  
APPLICATION FILED FEB. 25, 1911.

Patented Oct. 22, 1912.  
2 SHEETS-SHEET 1.

Fig. 1.



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Ida T. Stanley.

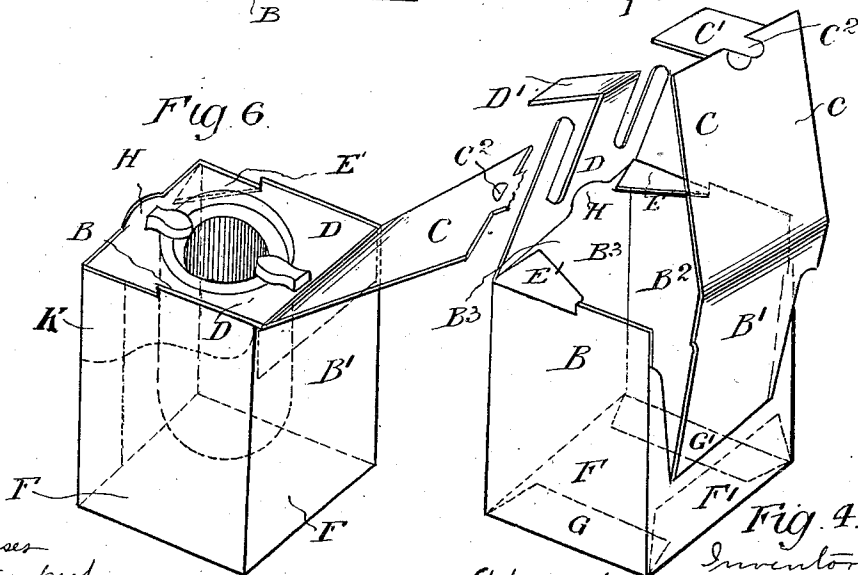
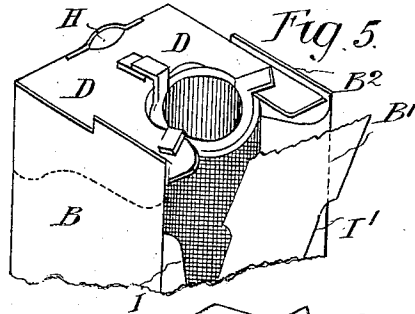
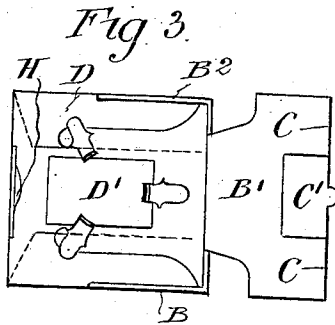
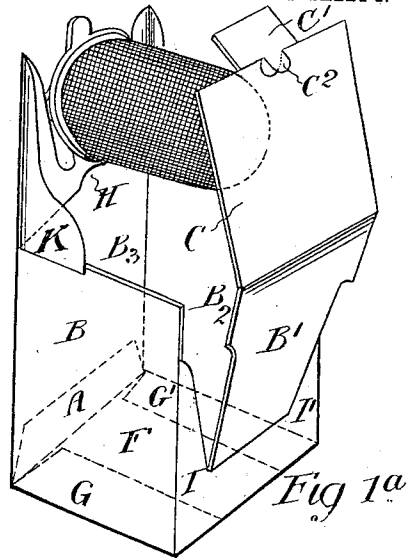
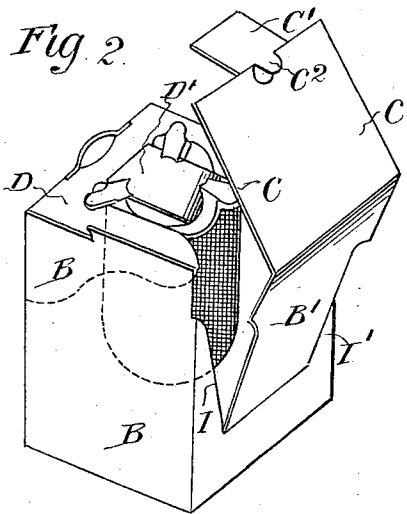
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2 SHEETS-SHEET 2.



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# UNITED STATES PATENT OFFICE.

ALEXANDER AITCHISON BROWN, OF RUTHERGLEN, SCOTLAND.

## INCANDESCENT-MANTLE BOX.

1,041,733.

Specification of Letters Patent.

Patented Oct. 22, 1912.

Application filed February 25, 1911. Serial No. 610,831.

*To all whom it may concern:*

Be it known that I, ALEXANDER AITCHISON BROWN, of Luzern, Buchanan Drive, Rutherglen, Scotland, box-manufacturer, have invented certain new and useful Improvements in and Connected with Incandescent-Mantle Boxes, of which the following is a specification.

The object of my invention is the construction of a rectangular box made of cardboard or other suitable material which is or may be collapsible and shall be complete in one piece including means for fixing by friction grip and suspending the mantle according to its form of ring from a flexible shelf and which may be raised on its hinge to expose the mantle and for protecting it against motion and contact with the sides of the box and from damage from shock in transit.

Under my invention, the box is formed from a blank which being so shaped, scored, creased, and cut comprises the four sides with extensions therefrom to form the glue lap, the bottom, the lid, and an inner shelf with additional extensions to support the shelf and lock the lid in such a manner as to prevent the box from twisting. The inner shelf is cut or shaped in various ways to accommodate the various designs of mantle rings. In some cases the side of the box carrying the lid is cut down at or near both edges and a crease made across the said side at the bottom of the said cut to form a hinge there, so that the lid and the portion of the side between the cut may be folded down to produce an opening through which the mantle may be extracted, or to give sufficient clearance to enable the shelf to be raised on which the mantle is fixed so that the mantle may be fully exposed without detaching it from the box. The part forming the said opening is at the top recessed into the other sides to assist in locking and preventing the box from twisting and yielding under pressure. The side of the box carrying the shelf and also about half the width of the other sides to right and left (when the box is built up) is about an eighth of an inch less in depth than the side which carries the lid. The space between the lid and the shelf is to accommodate the thickness of the lugs of the mantle ring. The lid has an extension with a tag to facilitate opening. The extension part is inserted in a slit so shaped as to produce an

upward projection at the center of the shelf hinge the said projection acting as a guide in closing. In closing the lid first depresses the shelf by bearing on the mantle ring then rests on the higher edges of the sides and is bent down to the lower level of the shelf hinge thus securing the mantle against motion.

Figure 1 is a blank for the box of my invention. A is the glue lap. B, B<sup>1</sup>, B<sup>2</sup>, B<sup>3</sup>, are the sides. C is the lid with locking extension C<sup>1</sup> and tag C<sup>2</sup>. D is the shelf slotted to receive one of the forms of rings with extension D<sup>1</sup> which is folded over for friction grip. K and K<sup>1</sup> (Fig. 1<sup>a</sup>) are the extensions which are folded down from the shelf to abut against the back to support the shelf. F is the bottom and F<sup>1</sup> is its locking extension. G and G<sup>1</sup> are turned in to support the bottom. H is the slit or slot so formed to produce the upward projection which acts as a guide for inserting the lid lock. I and I<sup>1</sup> represent the cuts which enable the opening to be made in this side B<sup>1</sup> through which the mantle may be withdrawn or the shelf lifted to expose the mantle. The shelf D may however be supported by the extensions E and E<sup>1</sup> bent inward from the respective sides beneath the shelf, as shown in Fig. 4. But whether carried by the shelf with the back ends thereof butting against the back B<sup>2</sup> on which the shelf is hinged, as shown in Figs. 1<sup>a</sup> and 2, or carried on the sides, as in Fig. 4, or even if both methods be used in combination (one on either side as shown in Fig. 5) they provide supporting flanges to limit the downward movement of the shelf. The shelf may be cut or shaped in various ways to accommodate the various styles or designs of mantle rings as hereinafter described and illustrated with reference to Figs. 1<sup>a</sup>, 2, 3, 5 and 6.

The cuts I and I<sup>1</sup> may sometimes be dispensed with.

The lap A may sometimes be at the opposite end of the blank from that shown in Fig. 1, and the lid, shelf, and bottom and other extensions may sometimes be transposed or occupy different positions to that shown in Fig. 1.

Figs. 1<sup>a</sup> 2 and 4 represent perspective views of a complete box, and Fig. 3 a plan of same. These figures together show the methods of supporting the shelf and also the lid cut down forming an opening allowing the shelf with the mantle attached to

fulfil the purpose specified. In Fig. 2 the mantle of the ring pattern having three lugs with inward projections, is fixed to the shelf D which is slotted and has an extension D' 5 folded over between the slots. The part D' being under the inward projections of two lugs of the ring forms a friction grip by reason of the extra thickness and the spring obtained by the folding over of this part. 10 The inward projection of the third lug rests on the end of the shelf D. Mantles mounted on three lug rings without such inward projections are fixed to the shelf as represented in Fig. 5. A semicircular opening 15 is cut with one slot at the back having a tongue to fold over, one lug is entered in the slot and rests on the folded over tongue while the greater portion of the ring passes under the shelf and the other lugs rest upon 20 the top thus producing the friction grip.

Fig. 6 represents the shelf with a circular hole to carry mantles mounted on rings having only two lugs. In this case the mantle is simply inserted and withdrawn through 25 the hole. It is to be understood however that I may adopt this shelf with circular hole to carry a mantle mounted on any design of ring and with the object of better protecting the mantle from damage when 30 being inserted and withdrawn, I may place in the hole a ring or circular band having its upper edge folded or turned over to form a flange or the edge of the hole itself may be turned over.

To build up the blank into box form, the sides B, B<sup>3</sup> are folded over at the scored lines dividing the sides, and the part A on the one side or end of the blank is glued, wire stitched, or otherwise fixed permanently to the overlapping part of the other 40 end or side. The blank in this state is the box collapsed and may now be squared into a cube form and the parts G and G<sup>1</sup> turned in, then the bottom F is folded over and 45 locked with its extension F<sup>1</sup>. The shelf is next folded down and the lid is then closed and locked by its extension engaging with the slit or slot H.

#### Claims.

50 1. A box for suspending and inclosing incandescent gas mantles, comprising a six-walled rectangular housing having a portion of the front wall severed except at its lower edge, where it is provided with a hinging

connection with the remainder of the front 55 wall; also having the top wall movable relatively to the box and connected thereto only through the movable portion of the front wall; also having a suspending shelf connected with the back wall, overlying the 60 space left by the movable top and having openings to receive the suspending base of the mantle; and having tabs connected with the side walls and extending inwardly beneath the suspending shelf to support the 65 latter; and having the front wall severed on lines which leave portions of the front rigidly associated with the bottom and sides to stiffen the structure laterally and the supporting tabs which underlie the suspending 70 shelf being in abutment with the rear wall, whereby they stiffen the structure from front to rear.

2. A box for suspending and inclosing incandescent gas mantles, comprising a six- 75 walled rectangular housing having a portion of the front wall severed except at its lower edge, where it is provided with a hinging connection with the remainder of the front wall; also having the top wall movable 80 relatively to the box and connected thereto only through the movable portion of the front wall; also having a suspending shelf connected with the back wall, overlying the space left by the movable top and having 85 openings to receive the suspending base of the mantle; and having tabs connected with the side walls and extending inwardly beneath the suspending shelf to support the latter; and having the front wall severed on 90 lines which leave portions of the front rigidly associated with the bottom and sides to stiffen the structure laterally and the supporting tabs which underlie the suspending shelf being in abutment with the rear wall, 95 whereby they stiffen the structure from front to rear; the shelf-supporting and wall-bracing tabs being connected with the rear portions only of the side walls and leaving 100 said tabs to form lateral abutments for both the supporting shelf and the inclosing top.

In testimony whereof I affix my signature in presence of two witnesses.

ALEXANDER ATCHISON BROWN.

Witnesses:

JOHN LIDDLE,

JOHN TRAIN LIDDLE.