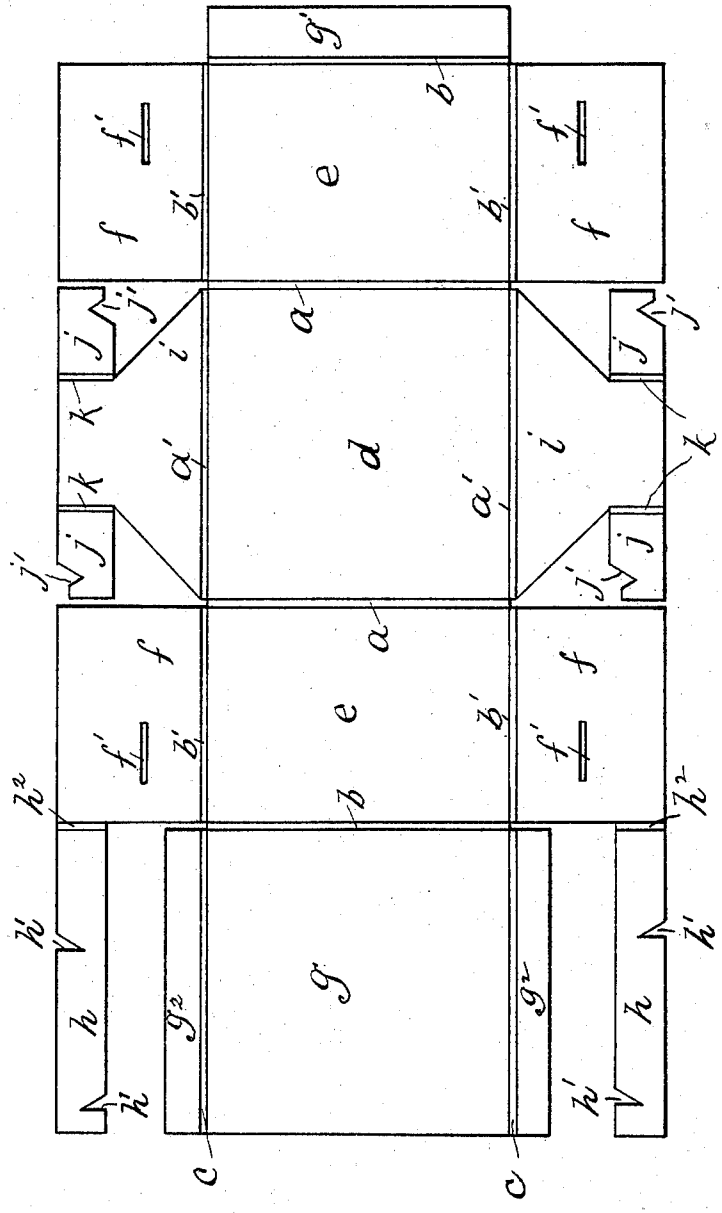
(No Model.) 3 Sheets—Sheet 1.

R. H. FILMER.

FOLDING BOX.

No. 590,058. Patented Sept. 14, 1897.

Fig. 1.



Witnesses
Frank A. Lueke.
Alonzo M. Lutton.

Inventor,
Requald Harry Filmer,
By Attorney
Frank H. Allen

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

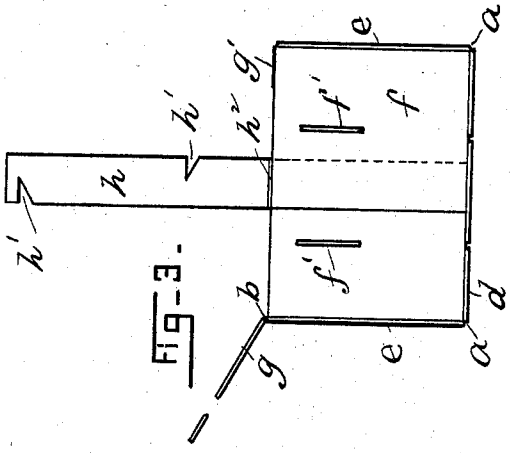
(No Model.)

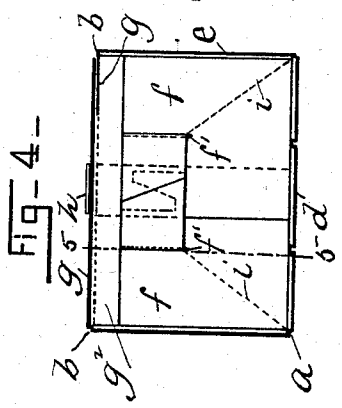
3 Sheets—Sheet 2.

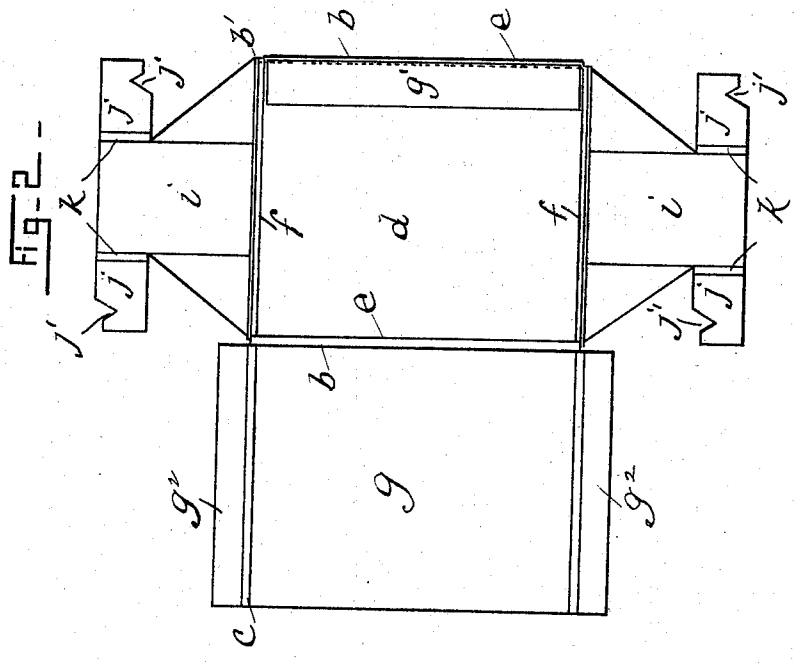
R. H. FILMER.

FOLDING BOX.

No. 590,058. Patented Sept. 14, 1897.







Witnesses
Frank A. Lueke.
Howard R. Luther.

Inventor
Reginald Harry Filmer,
By Attorney
Frank H. Allen.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.)

3 Sheets—Sheet 3.

R. H. FILMER.

FOLDING BOX.

No. 590,058. Patented Sept. 14, 1897.

Fig. 6.

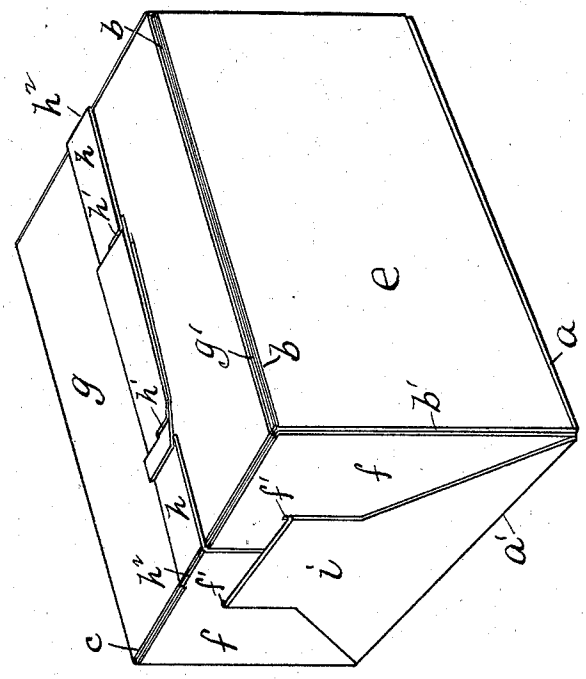
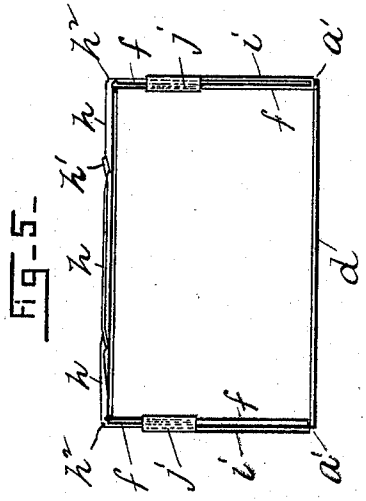


Fig. 5.



Witnesses

Frank A. Lester.

Chauncey R. Lester.

Inventor

Reginald Harry Filmer,

By Attorneys

Frank H. Allen

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

REGINALD HARRY FILMER, OF LONDON, ENGLAND.

FOLDING BOX.

SPECIFICATION forming part of Letters Patent No. 590,058, dated September 14, 1897.

Application filed July 13, 1896. Serial No. 599,030. (No model.) Patented in England February 21, 1896, No. 10,825.

To all whom it may concern:

Be it known that I, REGINALD HARRY FILMER, a subject of the Queen of Great Britain, residing at 17 Little Sutton Street, Clerkenwell, in the city of London and county of Middlesex, England, have invented certain new and useful Improvements in Folding Boxes, (for which I have obtained a patent in Great Britain, No. 10,825, bearing date February 21, 1896,) of which the following is a specification.

This invention has for its object an improved construction of folding box of cardboard, leather-board, or such like material in which the body and lid, as well as the parts for securing said body and lid, may all be comprised in a single piece of material and in which a handle formed integral with the said body may be provided, if desired.

In order to clearly explain my said invention, I have provided the annexed sheets of drawings, in which—

Figure 1 is a plan of the blank shaped and scored, bent, or grooved according to my invention to form a box, lid, fastening and holding means from a single piece of material. Fig. 2 is a plan, and Fig. 3 a cross-section, of the same partially folded into shape. Fig. 4 is a vertical cross-section. Fig. 5 is a vertical longitudinal section on line 5 5, Fig. 4; and Fig. 6 is a perspective view of the complete box, showing the lid fastening and holding means secured for use.

The blank to form the box is cut to the shape required and scored, bent, or grooved on lines *a a' b b' c*, binding the bottom *d*, sides *e*, ends *f*, and lid *g* of the box to enable it to be readily folded on such lines. The ends of the box-body are formed of overlapping flaps *f*, forming end continuations of the sides *e*, and one of such flaps *f* at each end of the box has extending therefrom, as here shown, locking and holding flap *h*, which has one or two locking-notches *h'*, so that when the box is folded into form these locking and holding flaps *h*, which are bent, scored, or grooved at their junction h^2 with the end flaps *f*, may be placed across the lid *g* and have their notches *h'* interlocked, thereby forming a lock to hold the lid *g* in position and at the same time form a support to the ends and a handle by which the box can be carried.

Ordinarily the end flaps *f* are secured in position as follows: At the ends of the box-bottom are flaps *i*, which on the folding-lines *a'* are of the full width of the box end, but which narrow down to the width apart of two supplemental locking-flaps *j*, formed thereon and scored, bent, or grooved on the folding-lines *k*. These supplemental locking-flaps *j* are together of a greater length than the distance between the bases of the flaps at the lines K and are formed with locking-notches *j'*. The overlapping end flaps *f* are slotted at *f'* parallel with the bending-line *b* at the base of the flap and at such a distance therefrom as to enable the supplemental locking-flaps *j* to be passed therethrough, and these latter flaps *j*, after having been passed through such slots *f'* and turned toward each other by bending on the lines *k*, have their notches *j'* interlocked, thereby securing the parts *f*, forming the box ends, firmly together.

The lid-flap *g* has end flaps g^2, which descend into the body of the box and may be made wide enough to rest upon the supplemental locking-flaps *j* of the ends *i*. The lid is formed of two overlapping parts *g g'*, which may be of equal width, but I prefer that one of them, *g*, as also its end flaps g^2, shall be of such length that they may bear endwise against the inside of the box sides *e*, and thereby afford support against crushing in that direction. The other part *g'* of the lid may in this case be narrow and without end flaps, as shown.

When the lid is formed of two overlapping parts *g g'*, each of width less than that of the box-body, each of such parts is provided with end flaps g^2, and in such case the locking and holding flaps *h* being necessarily shorter than in the other case can each have only one locking-notch *h'*, and in such case in order to increase the facility of manufacture one of the locking and holding flaps *h* would be formed on one end flap *f*, adjacent to the lid-flap *g*, and the other on the end flap *f* at the opposite corner of the other side of the blank adjacent to the lid-flap *g'*. When the flaps g^2 are deeper than shown in the drawings, I find it convenient to round off or remove their corners, so as to enable them to be readily inserted into the box.

The following is the method of folding the blank into a box and lid and of fastening

down the lid and providing a handle for carrying the same. The sides *e* are first folded on the lines *a*, so as to stand vertically in relation to the bottom *d*. The end flaps *f* are then folded on the lines *b'*, so as to stand across and form the ends of the box, as shown at Figs. 2 and 3. The flaps *i* are next folded on the lines *a'*, and the supplemental locking-flaps *j* are folded on the lines *k* and passed through the slots *f'*, then folded toward each other, after which such flaps *j* have their locking-notches *j'* interlocked on the inner sides of the ends *f*. The end flaps g^2 of the lid are then folded on the lines *c* and the flaps *g g'*, forming the lid, are folded on the lines *b b* over the top of the box. The flap *g* extends over the flap *g'*, and the end flaps g^2 pass inside the end flaps *f* and, according to the example shown in the drawings, rest upon the locking-flaps *j* and fit at their ends against the sides *e* of the box, thereby affording support to the sides and lid of the box against a crushing-pressure. The locking and holding flaps *h* are next folded on the lines h^2 over the top of the box and their notches *h'* interlocked, thereby securing the lid and at the same time forming a convenient handle for carrying the box.

Other means of locking the flaps *j* and *h* may be adopted, and, if desired, the body of a box may be made as above described and used independently of a lid, or a lid for the same might be formed in any suitable manner. The handle *h h* may also be dispensed with, if desired.

The special advantages resulting from my improved construction of folding box in comparison with those hitherto in use are complete security of the fastening means, increased strength against deformation from without as well as from within, and convenience for carrying the box, which is moreover of a neater appearance and without any openings through which dust or the like can enter, and being made all in a single piece there is no fear of any of the parts being absent at the moment when required for use.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. A folding-box blank consisting of a bottom having projecting ends formed with notched flaps *j*, and sides having perforated extensions adapted to overlap to form the box ends, the perforations in the ends being of such size and shape and located at such position from the base-lines of the ends that the said flaps on the bottom projections may be folded up and passed through the said perforations and interlocked within the box, substantially as and for the purpose specified.

2. A folding-box body made of a single piece of cardboard or like material, scored bent or grooved, on the lines bounding the bottom *d*, sides *e* and end flaps *f* forming end continuations of the sides *e* and having locking-slots *f'* therein, locking-flaps *i* at the ends of the bottom *d*, supplemental creased and notched locking-flaps *j* at the upper ends of the flaps *i* which are passed through the slots *f'*, then bent toward each other and interlocked to secure the ends and thereby hold the body of the box securely together, substantially as herein shown and described.

3. A folding box made of a single piece of cardboard or like material, scored, bent or grooved, on the lines bounding the bottom *d*, sides *e* and end flaps *f* forming end continuations of the sides *e* and having locking-slots *f'* therein, locking-flaps *i* at the ends of the bottom *d*, supplemental locking-flaps *j* at the upper ends of the flaps *i* which are passed through the slots *f'*, then bent toward each other and interlocked to secure the ends, a lid formed of flaps *g g'*, one or both of which is provided with end flaps g^2, and a locking and holding flap *h* on each of two end flaps *f* which are folded over the lid and interlocked to form a combined fastening and holding means, substantially as herein shown and described.

REGINALD HARRY FILMER.

Witnesses:
WILLIAM GEORGE FILMER,
HERBERT RAWSON BARUS.