

No. 634,646.

F. KNOBELOCH.

Patented Oct. 10, 1899.

BOX.

(Application filed Feb. 18, 1899.)

(No Model.)

2 Sheets—Sheet 1.

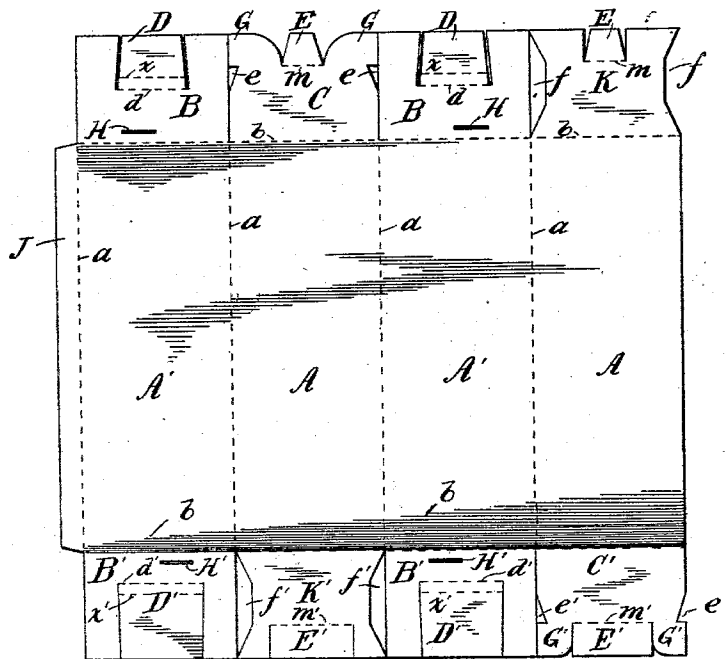


Fig. 1.

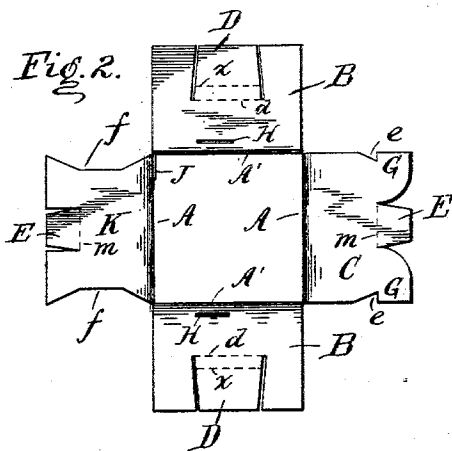


Fig. 2.

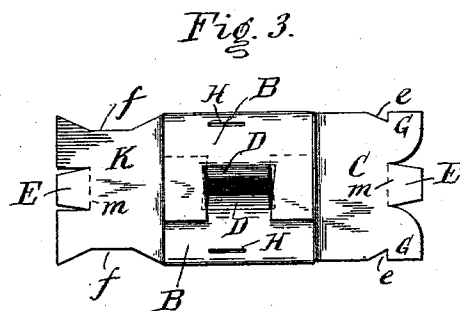


Fig. 3.

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2 Sheets—Sheet 2.

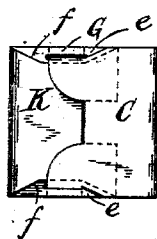


Fig. 4.

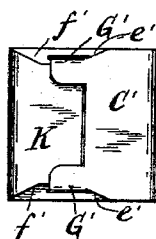


Fig. 5.

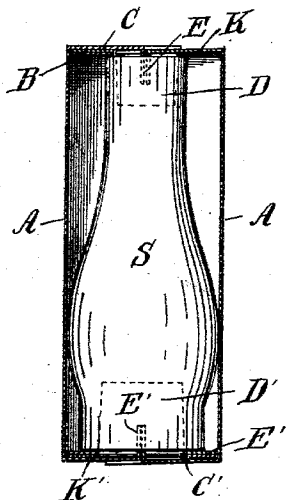


Fig. 6.

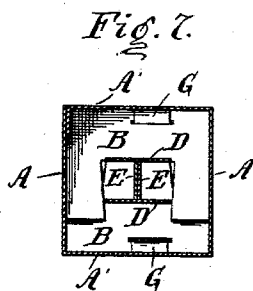


Fig. 7.

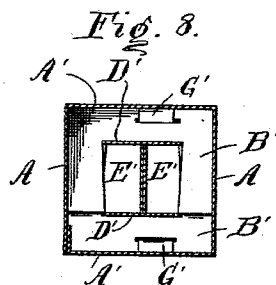


Fig. 8.

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# UNITED STATES PATENT OFFICE.

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## BOX.

SPECIFICATION forming part of Letters Patent No. 634,646, dated October 10, 1899.

Application filed February 18, 1899. Serial No. 706,044. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK KNOBELOCH, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Boxes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to an improvement in boxes or packages designed more particularly for shipping fragile goods, such as lamp-chimneys, lamp-globes, and the like, which are usually now shipped by packing them in hay or straw. To pack these articles in the ordinary way is expensive, is attended with much risk, makes a heavy awkward package, whereas by means of my improvement they are packed for shipment with safety, economy, and in a light convenient package.

In the drawings, Figure 1 is a plan view of the blank of cardboard or other suitable material cut and scored in the proper manner. Fig. 2 is a top view of the box with the end flaps folded back. Fig. 3 is the same with two of the flaps folded into position. Fig. 4 is a top view with the flaps closed. Fig. 5 is the same of the bottom. Fig. 6 is a vertical section of the box, showing a lamp-chimney in place. Fig. 7 is a section near the top, looked at from below, showing the projection of the tongues. Fig. 8 is the same of the bottom.

The blank used consists of a substantially square or rectangular piece of cardboard, and the only loss of material is in the small portions cut away to form the lock. The blank is cut and scored as shown in Fig. 1, the scores being indicated by dotted lines. The scores *a a a a* and *b b* determine the width and length, respectively, of the sides *A' A' A A*. The sides are provided at each end with flaps *B C B K* and *B' C' B' K'*. The alternate flaps *B B* and *B' B'* are provided with tongues *D D* and *D' D'*, adapted to fold along the scores *d d* and *d' d'*, said tongues being wide enough to fit snugly within the top and bottom, respectively, of the lamp-chimney or other article to be packed. The other flaps *C K* and *C' K'* are also provided with tongues *E E E' E'*, and the width of these tongues depends upon the dis-

tance between the tongues *D D* and *D' D'* when they are folded down, as will be described later and as is shown in Fig. 3. The flaps *C* and *C'* are notched, as shown at *e e e' e'*, the said notches *e e* and *e' e'* forming portions *G G* and *G' G'*, adapted to fit within the slots *H H H' H'* with which the flaps *B B* and *B' B'* are provided. The blank is also provided with a flap *J* to be used in fastening the box together. The flaps *K* and *K'* are cut away, as shown at *f f f' f'*, the reason for which will appear later.

In forming the box the sides are folded at right angles to each other along the scores *a a a a* and the flap *J* is glued or otherwise fastened to the edge of the side *A*, as shown in Fig. 2. The flaps *B B* are then folded along the scores *b b*, the one on top of the other, the tongues *D D* being at the same time folded bodily downward along the scores *d d*. The scores *x x* are simply for convenience in folding. Next the flap *K* is folded along the score *b* on top of the flaps *B B*, the slots *H H* being left uncovered by reason of the cut-out parts *f f*. At the same time the tongue *E* is folded bodily inward along the score *m*. The flap *C* is then folded along the score *b* over all, the tongue *E* folded bodily inward along the score *m*, and the corners *G G* slipped into the slots *H H*, thus locking the flaps together, as shown in Figs. 4 and 5. It will be seen from the sectional views that the tongues *D D* and *D' D'* are held apart by the tongues *E E* and *E' E'*, respectively, and that the said tongues *D D* and *D' D'*, fitting snugly as they do against the inner periphery of the chimney or other article to be packed at the top and bottom, hold it in place and prevent its movement from side to side.

In Fig. 6 the lamp-chimney is shown touching the walls of the package; but of course the box may be made slightly wider than the greatest diameter of the lamp-chimney or other article, so that there will be a space between the sides of the box and the sides of the article. No blow then will be able to touch the chimney or other article unless it is of sufficient force to crush in the walls of the box.

Having thus described my invention, what I wish to claim by Letters Patent is—

1. A box for shipping fragile articles, made from a blank, having sides and end flaps, integral with said sides, said flaps having tongues adapted to fold bodily inward, one pair of which are held apart and braced by the other pair so as to bear against the inner surface or edge of the article and hold said article in place, substantially as and for the purpose described.
2. A box for shipping fragile articles, made from a blank, having sides and end flaps integral with said sides, said flaps having tongues adapted to fold bodily inward and brace against the inner surface or edge of the article to be packed, the one pair being held apart by the other pair, said flaps being locked together in any convenient manner, substantially as and for the purpose described.
3. A box for shipping fragile articles, made from a blank, having sides and end flaps, integral with said sides, said flaps being provided with tongues adapted to fold bodily inward and bear against the inside of the article to be shipped, substantially as and for the purpose described.
4. A box made from a blank of cardboard, having sides, and end flaps integral with said sides, two of the alternate flaps having tongues adapted to fold bodily inward, and slots, and the other two having shorter tongues adapted to fold bodily inward between said other tongues, and hold them apart, and one of the latter flaps having corners adapted to fit within said slots and thus lock the flaps together, substantially as shown and described.
5. A box for shipping fragile articles, made from a blank of cardboard, having sides and end flaps integral with said sides, two of the alternate flaps having tongues, adapted to fold bodily inward, and slots, and the other two having tongues adapted to fold bodily inward between said other tongues and serving to hold them against the inside of the article to be shipped, and one of the latter flaps having corners adapted to fit within said slots and serving to lock the whole together, substantially as shown and described.

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Witnesses:

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