No. 783,913. PATENTED FEB. 28, 1905.

W. H. THOMPSON.

FOLDING BOX.

APPLICATION FILED JUNE 10, 1903.

Fig. 1.

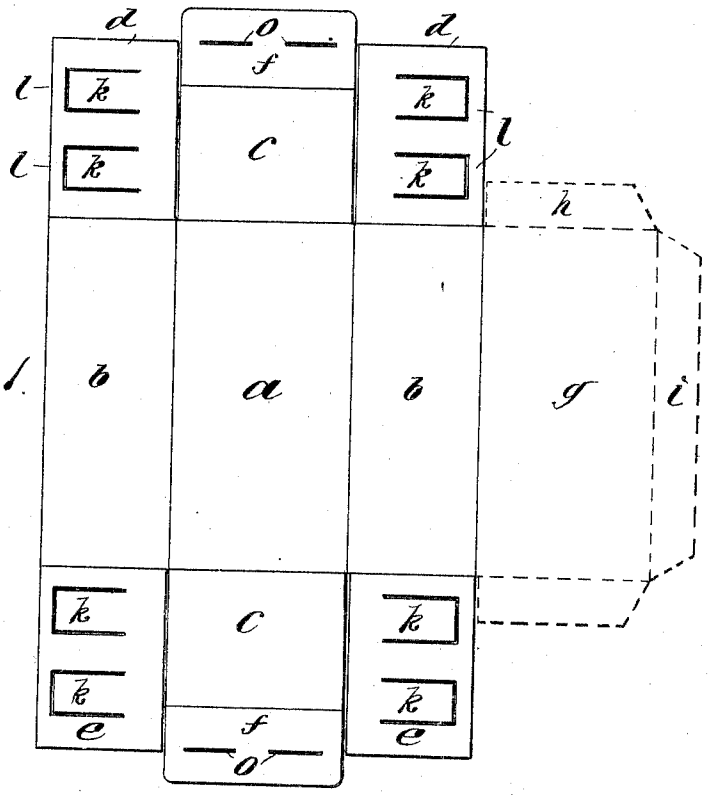


Fig. 2.

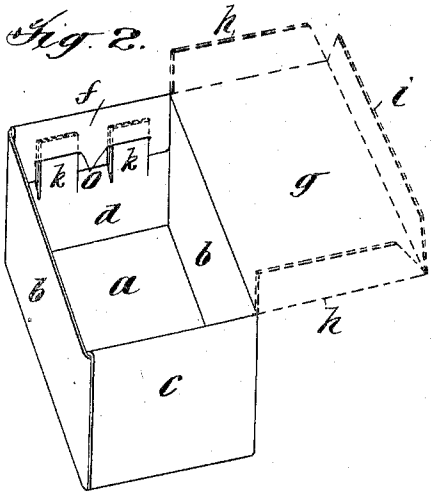
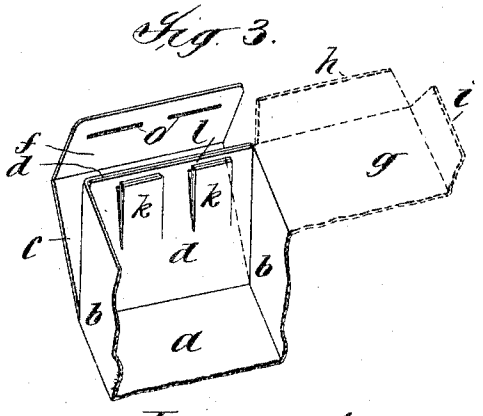


Fig. 3.



Attest:
L. E. Brown
W. H. Kennedy.

Inventor:
William H. Thompson
by Philipp Sawyer Rice & Kennedy
Attys

No. 783,913. Patented February 28, 1905.

UNITED STATES PATENT OFFICE.

WILLIAM H. THOMPSON, OF MORRISTOWN, NEW JERSEY, ASSIGNOR OF ONE-HALF TO JOHN S. W. THOMPSON, OF MORRISTOWN, NEW JERSEY.

FOLDING BOX.

SPECIFICATION forming part of Letters Patent No. 783,913, dated February 28, 1905.

Application filed June 10, 1903. Serial No. 160,825.

To all whom it may concern:

Be it known that I, WILLIAM H. THOMPSON, a citizen of the United States, residing at Morristown, county of Morris, and State of New Jersey, have invented certain new and useful Improvements in Folding Boxes, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention aims to provide an improved folding box, and especially to provide an improved lock for the folded ends or sides of such boxes.

By my invention a box is provided which is easily set up and knocked down, which is strong and rigid when set up, is of attractive appearance, having its exposed sides and ends unbroken and having no projecting parts on the inside liable to be engaged by articles packed in the box or to interfere with the use of the box, the blank for which cuts to advantage without waste of material, and which is especially adapted for making a rigid and secure box from light material.

A full understanding of the invention can best be given by a detailed description of a preferred form of box embodying the various features of the invention, and such a description will now be given in connection with the accompanying drawings.

In said drawings, Figure 1 is a plan view of an unfolded blank cut and scored in accordance with the invention. Fig. 2 is a perspective view of the box set up. Fig. 3 is a broken perspective view of one end of the box, partly set up.

Referring to the drawings and first to Fig. 1, the blank, which may be formed of paperboard or other suitable sheet material, comprises a bottom section *a* and sides *b b* and *c c*, extending from the edges of the bottom section and separated therefrom by score-lines, as usual. Extending from the ends of the sides *b b* are end flaps *d d* and *e e*, and extending from the sides *c c* are flaps *f f*, adapted to fold inwardly and downwardly inside the box. For providing the box with a hinged cover formed in one piece with the body of the box a cover-section *g* may be provided extending from the outer or upper edge of one of the sides *b*, this cover-section being of a size and form corresponding with the bottom section of the box and preferably being provided with edge tucks *h h* and *i*. The flaps *d d* are each cut to form an upwardly-pointing tongue *k*, the free edge of which is near that edge of the flap which is at the top when the box is set up. The tongues do not extend entirely to the top edges of the flaps; but the top portions of the flaps are left with connecting-strips *l* above the upper edges of the tongues. These tongues are so positioned on the flaps *d* that when the flaps are overlapped in the position shown in Fig. 3 the tongues will register with each other and may be bent flatwise inward, the tongue of the outer flap *d* then extending through the opening formed by the tongue of the inner flap, thereby securely locking the flaps *d d* together. The tongue of the outer flap is preferably made slightly wider than the tongue of the inner flap, so that when bent inward, as shown in Fig. 3, the tongue of the outer flap will fit snugly in the opening formed by the tongue of the inner flap. Each of the flaps *d d* may be provided with a plurality of tongues *k*, and when the side of the box is of considerable length it is preferable to provide a plurality of such interlocking tongues. In the drawings two such sets of interlocking tongues are provided for each of the built-up sides of the box, and this number will be found in many cases preferable.

It will be seen that the flaps *d d* may be provided with a plurality of interlocking tongues without weakening the end of the box when the tongues are formed, so as to leave connecting-strips *l* above them, the upper edges of the flaps *d d* being thus left uncut. The flaps *e e* will be similarly provided with interlocking tongues *k* for forming the other end of the box.

Each of the flaps *f f* is formed with one or more slits *o*, corresponding to the number of interlocking tongues in the flaps *e* and *d*, such slits preferably extending substantially hori-

zontally and being in position to receive the ends of the tongues *k* when the box is set up, as shown in Fig. 2.

To set the box up, the sides *b b* are turned upward, and the flaps *d d* and the flaps *e e* are turned inward to overlap, as shown in Fig. 3. The interlocking tongues *k* of the overlapping flaps will then register and may be bent flatwise inward, as shown in Fig. 3, thereby securing the overlapping end flaps together. The sides *c c* are then bent upward against the overlapping end flaps and the flaps *f f* turned over and downward inside the overlapping end flaps, and the ends of the tongues *k* are tucked inward through the slits *o* of the flaps *f*, as shown in Fig. 2, thereby securely locking the sides *c* and the overlapping end flaps together and forming a secure fastening for holding the box rigidly in its set-up position.

Instead of providing the box with a folding cover extending from the edge of one of the sides *b* the box as shown in full lines may be employed in connection with a similar part of slightly larger size or with any other suitable part for forming a telescope-box.

It will be understood that the invention is not to be limited to a box of the exact form or proportions shown, but that the construction shown may be varied as desired, according to the form and size of the box and the material of which it is made.

What is claimed is—

1. A box having a wall formed of parts extending from adjacent walls, a tongue formed in one of said parts, a tongue formed in a part which lies next to said part, said tongues both extending in the same direction and being in position to register with each other so that they may be bent flatwise the tongue of one part projecting through the opening in the other part, and a locking-flap extending from another of said parts and adapted to fold over and downwardly against the parts having the tongues, and inside the tongues said flap having a slit through which the ends of said tongues are adapted to be tucked inside said flap, substantially as described.

2. A folding box having flaps extending from the ends of opposite sides and adapted to fold against a third side of the box, said flaps being formed with upwardly-pointing tongues in position to register with each other so that said tongues may be bent flatwise the tongue of one flap extending through the opening in the other flap, a locking-flap extending upwardly from said third side of the box and adapted to fold over and downwardly against said flaps having the tongues and inside the tongues and formed with a slit through which the upper ends of said tongues are adapted to be tucked inside the locking-flap, substantially as described.

3. A folding box having flaps extending from the ends of opposite sides and adapted to fold against a third side of the box, said flaps being formed with upwardly-pointing tongues in position to register with each other so that said tongues may be bent flatwise, the tongue of one flap extending through the opening in the other flap, said flaps having uncut upper portions, and a locking-flap extending upwardly from said third side of the box and adapted to fold over and downwardly against said flaps having the tongues and inside the tongues and formed with a slit through which the upper ends of the tongues are adapted to be tucked inside the locking-flap, substantially as described.

4. A folding box having flaps extending from the ends of opposite sides and adapted to fold against a third side of the box, said flaps being formed each with a plurality of upwardly-pointing tongues the tongues of each flap being in position to register with the tongues of the other flap so that said tongues may be bent flatwise the tongues of one flap extending through the openings in the other flap, a locking-flap extending upwardly from said third side of the box and adapted to fold over and downwardly against said flaps having the tongues and inside the tongues and formed with a plurality of slits through which the upper ends of said tongues are adapted to be tucked inside the locking-flap, substantially as described.

5. A folding box comprising a bottom portion and sides extending upward from the bottom portion, flaps extending from opposite edges of opposed sides and adapted to fold and overlap against adjacent sides, said flaps being formed with upwardly-pointing tongues in position to register with each other so that the tongues may be bent flatwise, the tongue of one flap extending through the opening in the other flap, and locking-flaps extending upwardly from the tops of the last-mentioned sides adapted to fold over and downward against said overlapping flaps and inside the tongues, each of said flaps being formed with a slit through which the upper ends of the tongues are adapted to be tucked inside the locking-flaps, substantially as described.

6. A folding box comprising a bottom portion and sides extending upward from the bottom portion, flaps extending from opposite edges of opposed sides and adapted to fold over and overlap against the adjacent sides, said flaps being formed with upwardly-pointing tongues in position to register with each other so that said tongues may be bent flatwise, the tongue of one flap extending through the opening in the other flap, said flaps having uncut upper portions, and locking-flaps extending upwardly from the tops of the last-mentioned sides adapted to fold over and downward against said overlapping flaps and inside the tongues, each of said flaps being formed with a slit through which the up-

per ends of the tongues are adapted to be tucked inside the locking-flaps, substantially as described.

7. A folding box comprising a bottom portion and sides extending upward from the bottom portion, flaps extending from opposite edges of opposed sides and adapted to fold over and overlap against the adjacent sides, said flaps being formed with upwardly-pointing tongues in position to register with each other so that said tongues may be bent flatwise, the tongue of one flap extending through the opening in the other flap, said flaps having uncut upper portions, locking-flaps extending upwardly from the tops of the last-mentioned sides adapted to fold over and downward against said overlapping flaps and inside the tongues, each of said flaps being formed with a slit through which the upper ends of the tongues are adapted to be tucked inside the locking-flaps, and a cover extending from the top edge of one of said opposed sides having tucks *h h* and *i*, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WILLIAM H. THOMPSON.

Witnesses:
H. L. KEITT,
T. F. KEHOE.