(No Model.)

2 Sheets—Sheet 1.

P. L. WEBB.

KNOCKDOWN BOX.

No. 562,682.

Patented June 23, 1896.

Fig. 1.

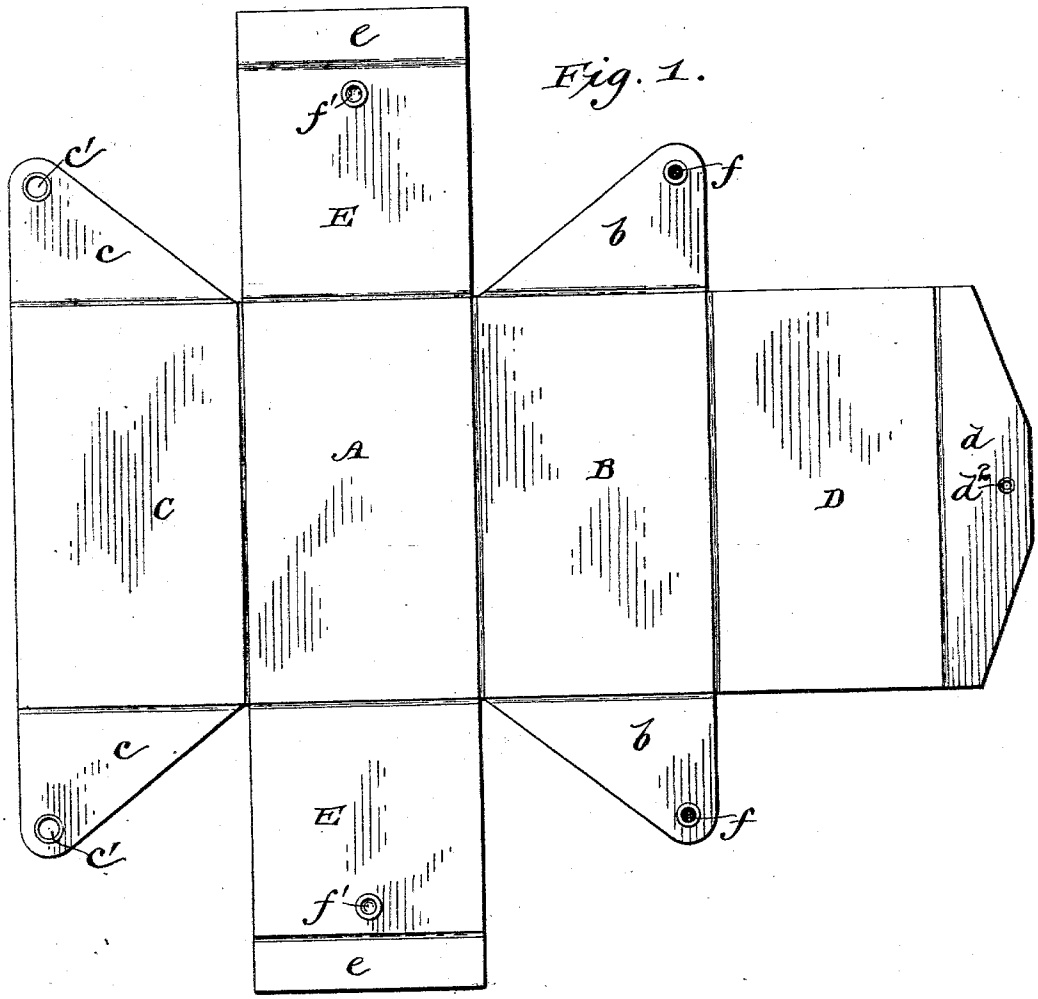
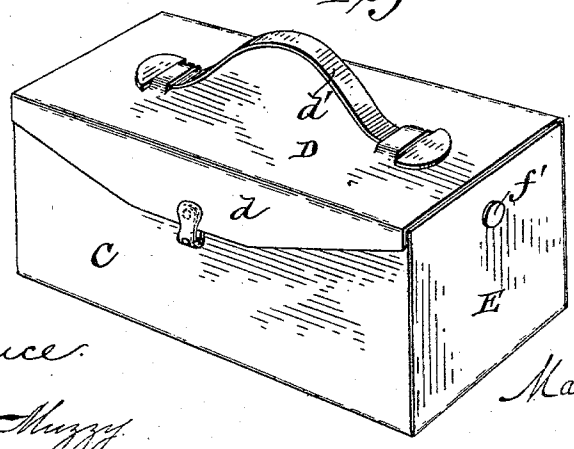


Fig. 4.



WITNESSES

Geverance.

W. Harry Muzzy.

INVENTOR

Paul L. Webb

by his Attorneys

Mason, Fenwick & Lawrence

ANDREW B. GRAHAM, PHOTO-LITHO. WASHINGTON, D.C.

(No Model.) 2 Sheets—Sheet 2.

P. L. WEBB.

KNOCKDOWN BOX.

No. 562,682. Patented June 23, 1896.

Fig. 2.

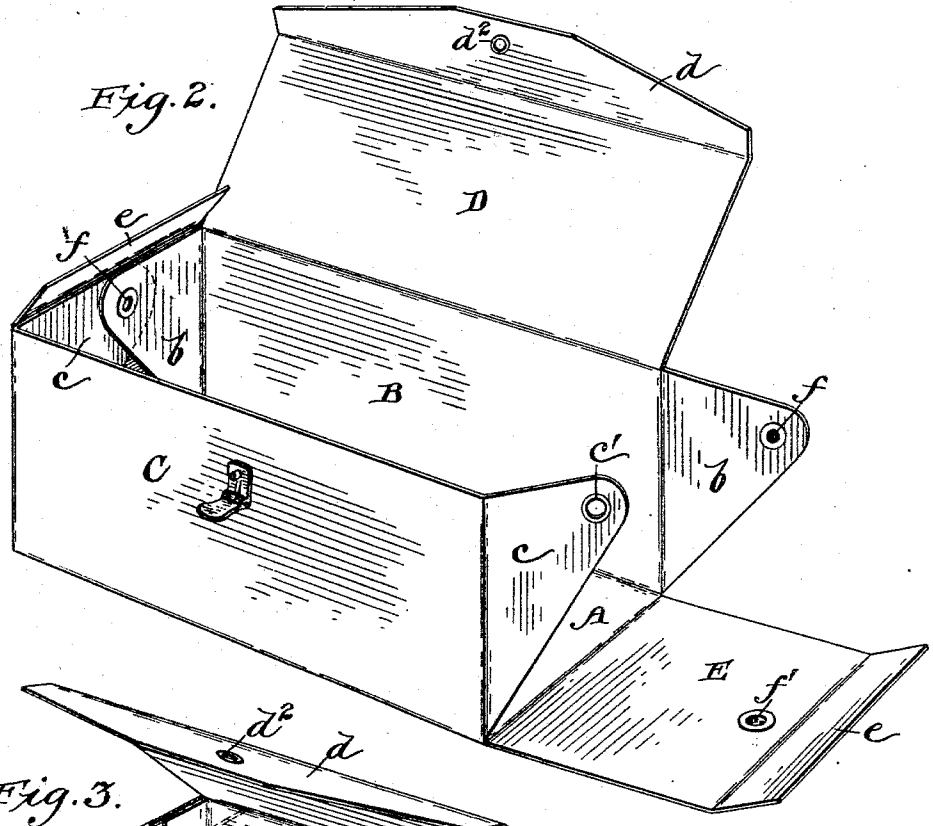
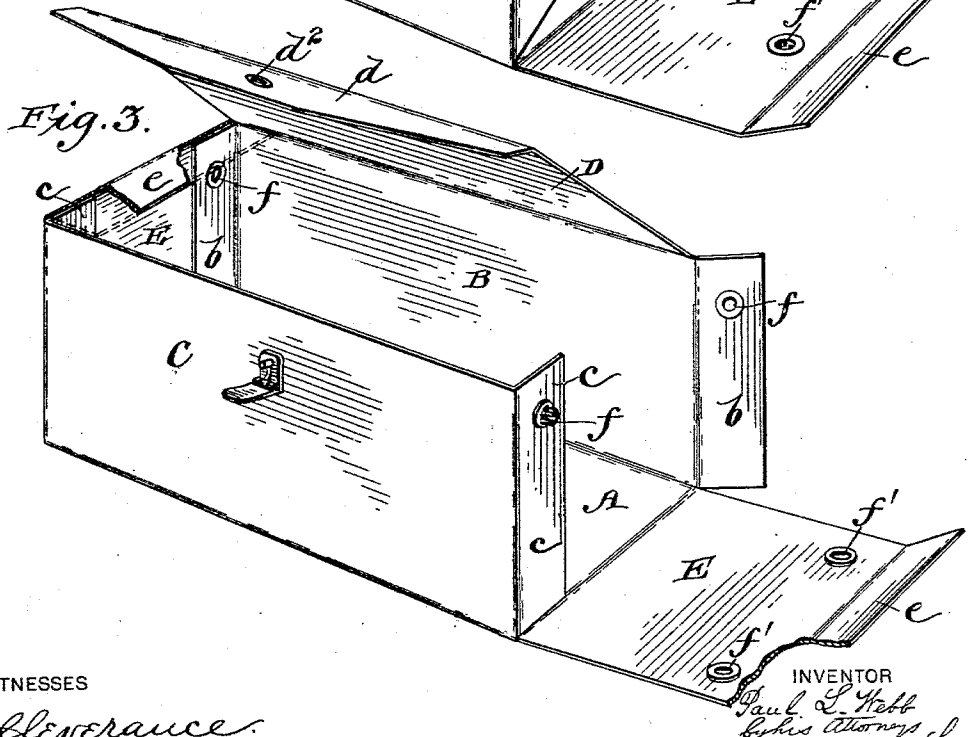


Fig. 3.



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UNITED STATES PATENT OFFICE.

PAUL L. WEBB, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF ONE-HALF TO LEWIS B. TAYLOR, OF SAME PLACE.

KNOCKDOWN BOX.

SPECIFICATION forming part of Letters Patent No. 562,682, dated June 23, 1896.

Application filed October 31, 1895. Serial No. 567,516. (No model.)

To all whom it may concern:

Be it known that I, PAUL L. WEBB, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Knockdown Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in jointed knockdown folding boxes; and it consists of a knockdown box formed with bottom, top, sides, ends, and lapping flaps, all flexibly connected, and provided at suitable points on its walls and overlapping flaps with metallic spring-fasteners, each of which comprises two members, said members being adapted to be sprung into or out of engagement with each other at will.

It also consists of certain other novel constructions, combinations, and arrangements of parts, all of which will be hereinafter more particularly set forth and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 represents a top plan view of the blank embodying my invention in an extended position. Fig. 2 represents a perspective view of the box with one end secured in position and the other end disengaged, and Fig. 3 represents a modified form of construction. Fig. 4 represents a perspective view of the box "set up."

In the drawings, A represents the bottom of the box; B, the rear side; C, the front side; D, the top, and E E the ends.

I prefer to construct my box of strawboard, wood fiber, artificial leather, or any other suitable material with or without an ornamental covering. The blank may either be struck from one single piece and scored at the junction edges to make it bend readily, or it may be constructed of several pieces united at their contacting edges by some flexible fabric to from joints, as shown. I prefer this latter construction, as it gives a more flexible and durable hinge and one that will allow the compact folding together of the box when knocked down.

The bottom, sides, and top of the box are hinged together at their edges along their length, as shown in Fig. 1, and the ends E E are hinged to the bottom A at each end. Each of the ends is provided with a small flap *e* at its upper edge, said flaps extending into the box and fitting beneath the cover at each end when the box is set up, and are designed to prevent the entrance of dust or water into the interior of the box and injuring the contents thereof.

The sides B and C of the box are provided at each end with approximately triangular-shaped flaps *b b* and *c c*, respectively. Each of the flaps *b b* is provided with a spring ball member *f* of a ball-and-socket spring-fastening, the other or socket member *f'* of each fastening being secured in the upper end of its respective end E. Each of the flaps *c c* is provided with an aperture *c'*, through which the ball of the fastening passes when the box is set up.

It will be observed that when the box is set up the flaps *b c* are secured within the ends, the flaps *b* being innermost and the flaps *c* being between the said flaps *b* and the ends E of the box, and thus one fastening means serves to hold all the flaps at one end together.

I have shown and described the flaps *b* and *c* as brought together and united to the end portions on the inside of the box, but it is obvious that the spring ball members of the fastenings might be secured on the ends and extend outward and the sockets secured on one of the flaps at each end of the box and with its opening facing inward, so that the flaps can be secured to the end pieces on the outside of the same. I consider this latter construction an equivalent of the one shown and described, though I prefer the latter.

I have shown the flaps *b* and *c* in Figs. 1 and 2 as triangular in form and provided with a single fastening member, but it is obvious that the shape of the flap might be varied and made rectangular or in any other suitable form without departing from my invention.

In Fig. 3 I have shown the flaps each provided with one of the spring ball members of the fastening and each end provided with two socket members.

The top D is provided at its forward edge with a flap *d*, which is adapted to fit over the front edge of the box when the cover is closed.

A suitable carrying-handle d' is provided on the top D, and the flap d is provided with one member d^2 of a suitable catch, the other member of said catch being on the front c, so that the cover may be secured in its closed position. From experiment I have found that a spring-catch such as is used on pocket-books is most desirable.

It is the work of much less than a minute to set up or knock down this box, and when knocked down it folds so compactly together that it can be readily carried in the coat pocket.

I do not wish to limit myself to a ball-and-socket spring-catch for securing the box together, as any spring-catch that can be quickly snapped together could be used. It will be observed in my preferred form (shown in Figs. 1 and 2) that it only requires two spring-catches to secure the whole box together, and when once so secured it is very firm and almost impossible to be accidentally shaken apart.

While my box can be made of any size and used for carrying different kinds of articles and goods, it is especially adapted as a knockdown lunch-box, which has to be used daily, and for this purpose it is especially convenient as above indicated.

It will be observed from the aforegoing specification that my fastening devices do not only hold the end flaps firmly in position, but also support and secure the entire structure of the box in its set up condition, and the said fastenings are not rendered useless in a short time by the manipulations necessary to set up or knock down the box.

My construction in employing metallic spring-fastenings is very different and much superior to knockdown boxes wherein slits are cut in the body of the box and another portion of the box is inserted into said slit and turned down, as such latter construction will not admit of frequent manipulations of the box in knocking down or setting up the same without serious injury to the box and soon rendering it totally useless.

What I claim as my invention is—

1. As an improved article of manufacture, a knockdown folding box comprising in its construction top, bottom, side and end portions joined together and which are adapted to be folded to form a completely-closed box and to be knocked down and compactly folded together, the side portions being formed with inwardly-extending end flaps, and spring-ball fastening means provided on the said flaps, and socket members on the inner face of the end portions, the members of the said fastening being adapted to be sprung into or out of engagement with each other at will, the construction and arrangement being such that the end flaps extend inside the end portions and are covered by the same so as not to project or be exposed.

2. As an improved article of manufacture, a knockdown folding box comprising in its construction top, bottom, side, and end portions joined together, the side portions being formed with inwardly-extending flaps, and one flap at each end of the box being provided with a spring-ball fastening member and the other flap at each end of the box being provided with an opening through which the spring-ball is adapted to be passed, and each end portion of the box being provided with a metallic socket which is adapted to receive and hold the respective ball members, substantially as described.

3. As an improved article of manufacture, a knockdown folding lunch-box comprising in its construction a top D, bottom A, sides B and C, and end portions E E joined together, the side portions being provided with inwardly-extending flaps $b\ b\ c\ c$, one of the flaps at each end of the box being provided with a spring ball member f, and the other flap at each end of the box being provided with an opening c' through which the spring-ball is adapted to be passed, and each end inclosing portion of the box being provided with a metallic socket f' which is adapted to receive and hold the respective ball members and cover the flaps, a top flap e on each end portion adapted to be folded under the cover, and a flap d on the front edge of the cover adapted to be turned down over the front of the box when the cover is down, substantially as described.

4. A non-metallic knockdown folding lunch-box comprising bottom, top, sides and end portions all flexibly connected, metallic spring-fasteners applied at the ends of the box for holding the parts of the box in a set-up position, the fasteners at each end of the box comprising respectively a spring ball member and a socket member which are adapted to be sprung into engagement to hold the parts of the box together, and to be separated at will, and the box compactly folded, substantially as described.

5. A portable knockdown lunch-box constructed of paper or other flexible fibrous material, with bottom, end, side, and top portions which are jointed so as to fold and unfold accordingly as the box is set up or knocked down; and provided with metallic fastenings consisting of two spring members of the type of ball-and-socket connections, said fastenings being applied upon such portions of the box as are lapped and fastened upon one another, substantially as described.

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

PAUL L. WEBB.

Witnesses:
E. T. FENWICK,
W. HARVEY MUZZY.