

No. 676,393.

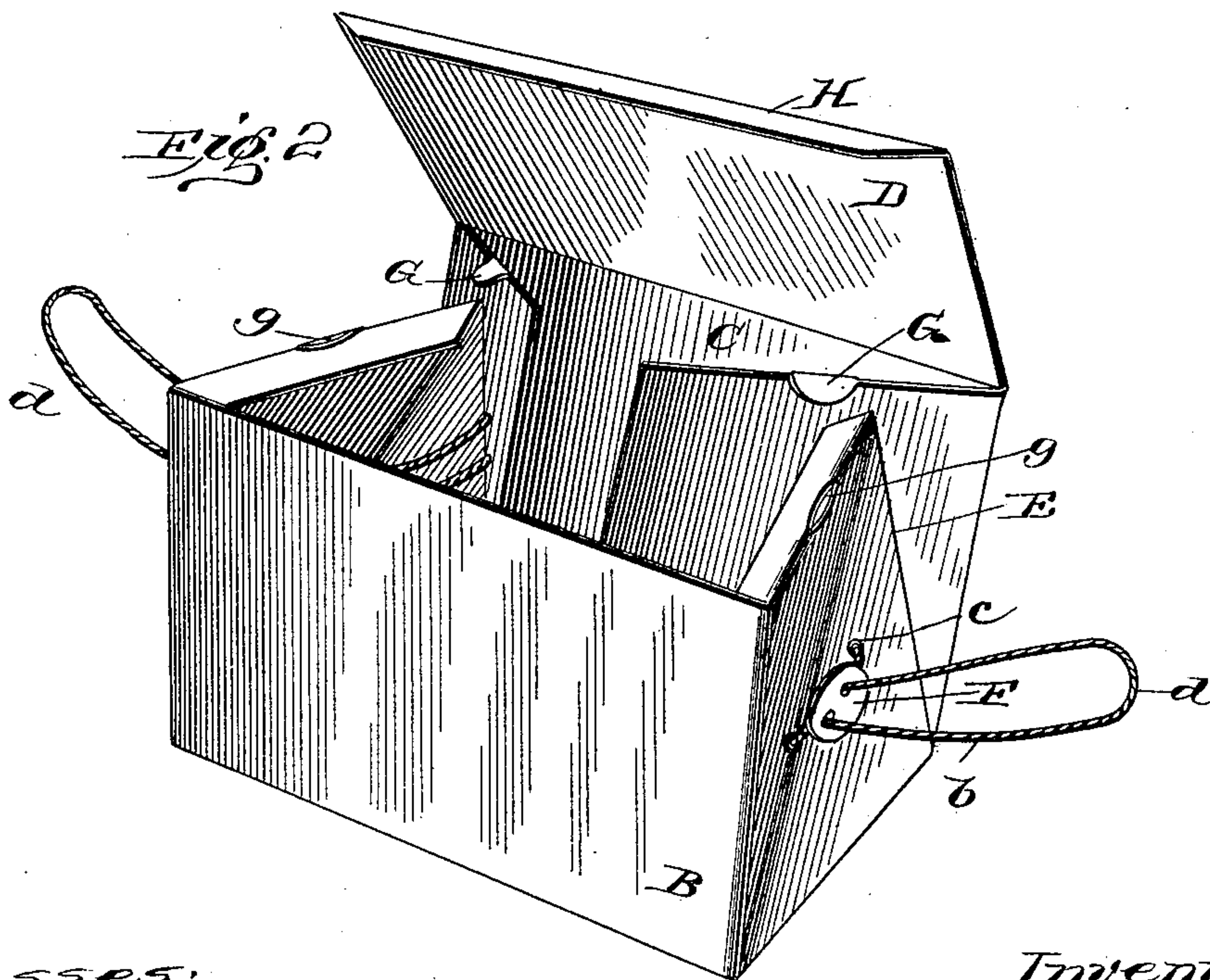
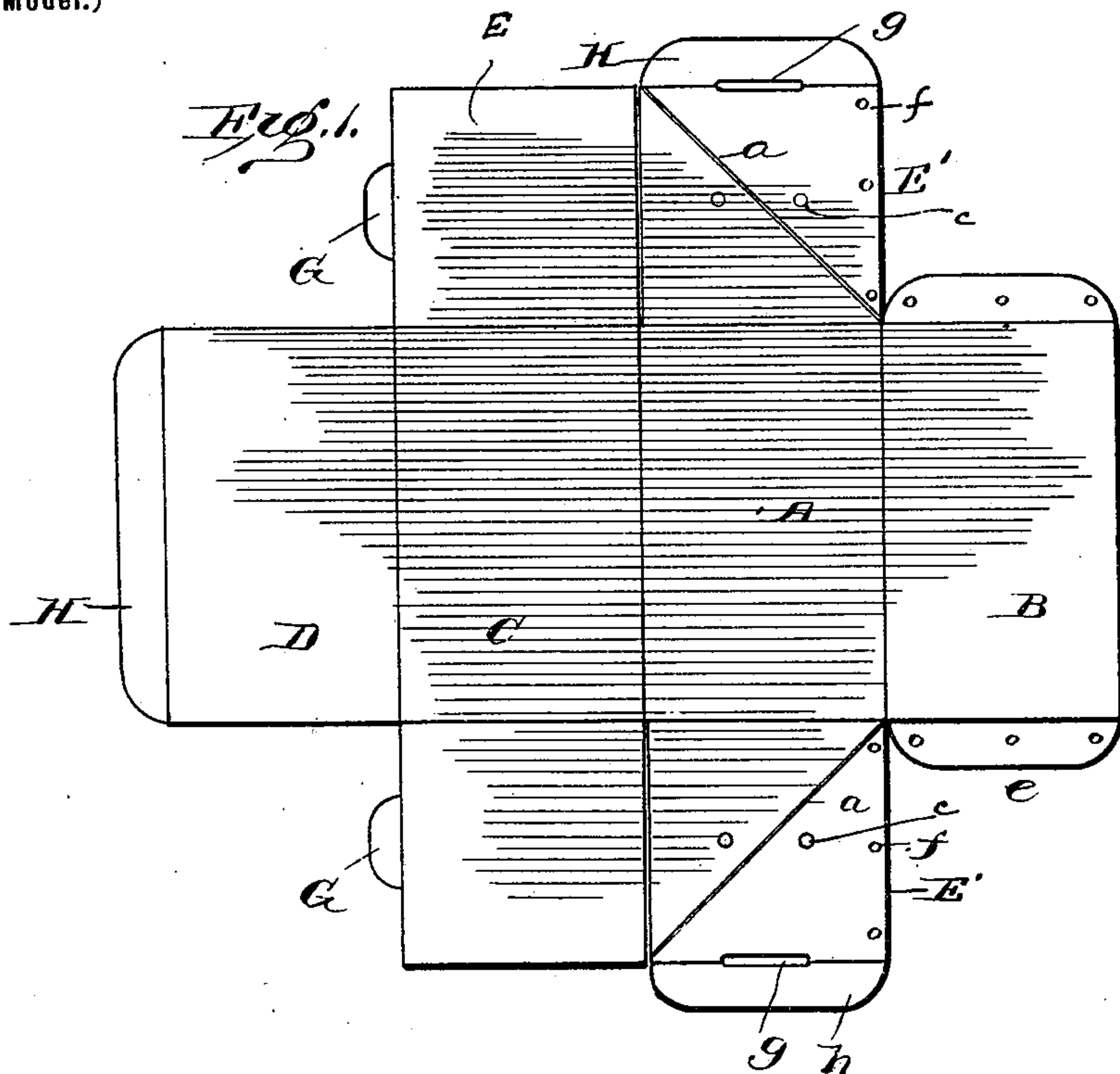
Patented June 11, 1901.

D. DRAWBAUGH.
FOLDING BOX.

(Application filed Aug. 22, 1900.)

(No Model.)

2 Sheets—Sheet 1.



witnesses.

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ay

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2 Sheets—Sheet 2.

Fig. 3.

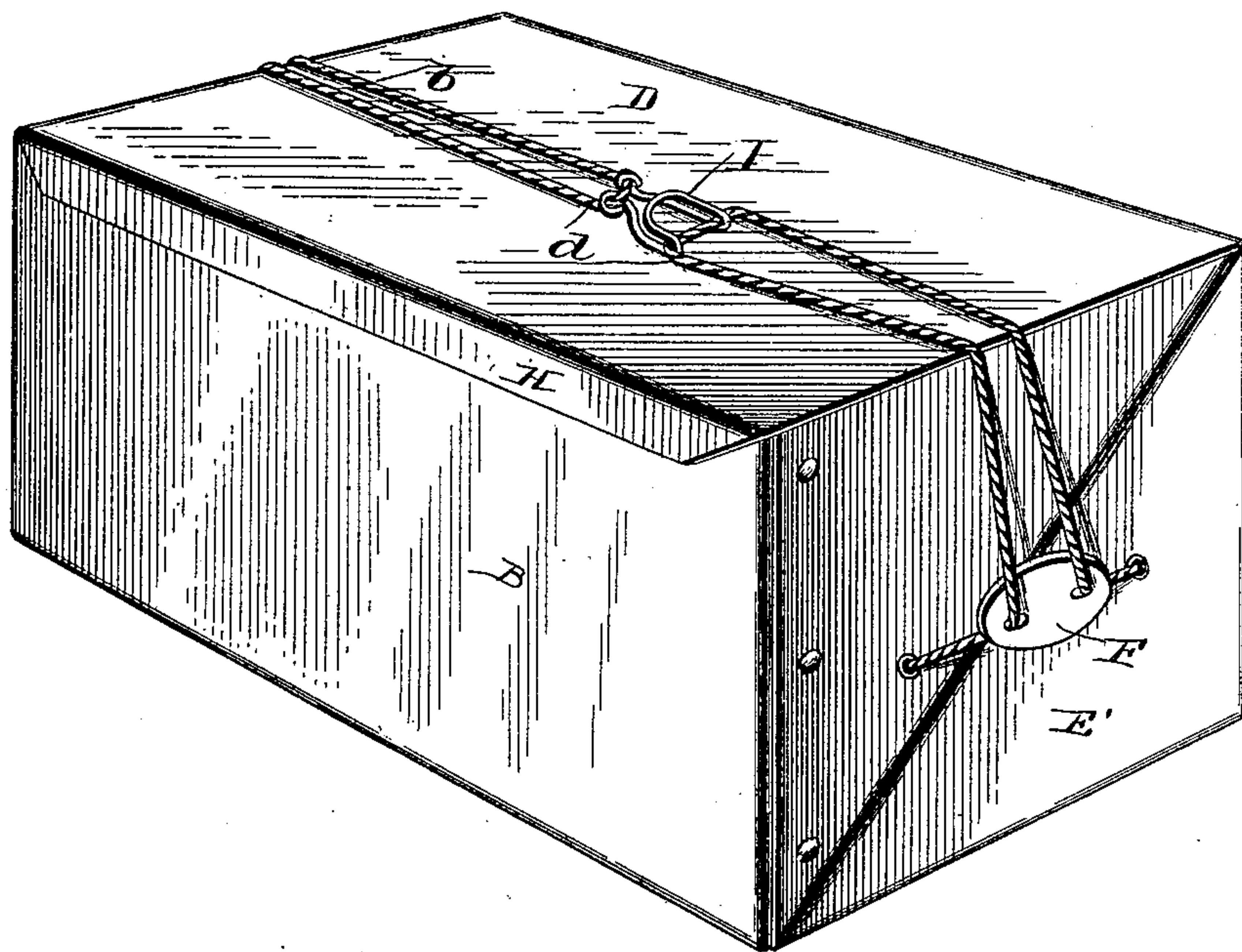
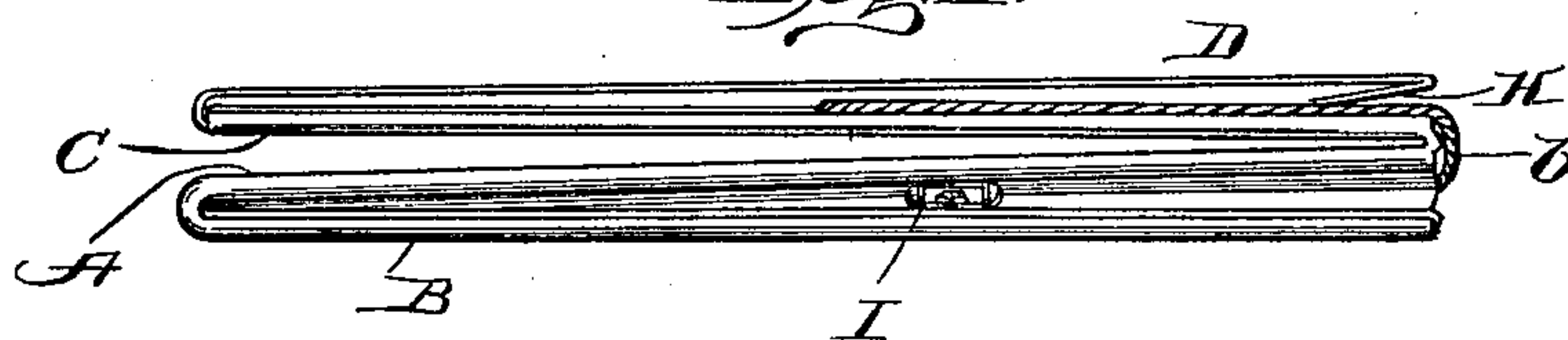


Fig. 4.



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UNITED STATES PATENT OFFICE.

DANIEL DRAWBAUGH, OF EBERLYS MILL, PENNSYLVANIA.

FOLDING BOX.

SPECIFICATION forming part of Letters Patent No. 676,393, dated June 11, 1901.

Application filed August 22, 1900. Serial No. 27,694. (No model.)

To all whom it may concern:

Be it known that I, DANIEL DRAWBAUGH, a citizen of the United States, residing at Eberlys Mill, in the county of Cumberland, State of Pennsylvania, have invented certain new and useful Improvements in Folding Boxes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

My invention relates to packing and storing receptacles, but has particular reference to knockdown or folding boxes designed, primarily, for lunch-boxes, being arranged and adapted to fold flat for convenience in carrying when not in use.

More particularly stated, the invention comprises a box or closure made of cardboard, heavy paper, or other flexible material, which is first blanked out of a single sheet, then creased and folded upon predetermined lines, and finally equipped with manipulating cords or bands, by agency whereof the several folding members of the box may be instantly assembled or set up. These cords also perform the important function of retaining said box members in relative relation, also serving as a convenient handle whereby the box may be carried.

In the accompanying drawings, which form part of this specification, Figure 1 represents a single blank from which my improved form of folding box is made. Fig. 2 is a perspective view of box partly open or in course of assembling. Fig. 3 is also a perspective view illustrating the box closed, as when in use; and Fig. 4 is an edge view of same when folded.

Reference being had to the drawings which form part of this specification, and to the letters marked thereon, which indicate corresponding parts in the several views, A represents the bottom of my improved box; B C, its front and reverse sides, respectively; D, the lid, and E E' the double opposite ends of the structure. As hereinbefore stated, these elements or members are preferably blanked, as shown by Fig. 1, from a single sheet of suitable material, being creased, as indicated by dotted lines, to facilitate folding and the formation of parts above enumerated.

The end pieces E' E' are hinged or folded upon themselves at the diagonal line *a* for purposes that will later appear, while secured to each end E is what may be termed a "manipulating-cord" *b*, passing thence through eyelets *c c* in the folding ends E', and terminating in loops *d*, as best shown by Fig. 2. Upon each of said loops is slidably strung suitable washers F, rings or similar means for locking or retaining ends E and E' in locked relation, as also for taking up the slack of said cords, all as will now more fully appear in a statement of the mode of setting up or assembling the component parts of my improved box.

A box-blank, Fig. 1, being provided, flaps *e e* at each end of side B are secured to ends E' E' by means of rivet-holes *f f f*, together with rivets, eyelets, or fasteners of any description. Having thus joined side B and ends E' E', cords *b* are securely attached to ends E E', passing thence through eyelets *c c*, as stated. A pull upon the loop or outer ends *d d* of said cords will now serve to instantly assemble all parts of the box, as indicated by Fig. 2, the solid ends E underlapping and reinforcing the folding ends E' and being retained in such assembled position by means of washers F, which are then forced into close proximity to the ends E' upon their respective cords *b*. The ends E E' are further secured together in firm but detachable relation by means of ears G upon each end E, adapted to be inserted in corresponding slots *g* in each of the end members E', flaps *h* of each end E' folding over the top edge of each end E, thus positively securing said parts against accidental displacement, but at same time permitting them to be readily folded when occasion requires. The lid or cover D is also provided with an overhang or flap H for closing over the upper edge of front side B, and this may, if desired, have a projecting tongue adapted to interlock with a slot in said side to constitute a locking means for the box-lid.

By reference to Fig. 3 in particular it will be noted that the extremities of cords *b b* are detachably joined by a hook I, in which connection said cords furnish a convenient handle or means of carrying the box when in use. It will also be observed that the washers F F perform the additional function of taking up

the slack in said cords and are therefore doubly useful.

This being a description of my present invention, it may be stated that the method of
5 knocking down or folding the box is directly the reverse of that hereinbefore described, so that this operation need not be dwelt upon.

It will be noted that the flexible ends are permanently connected along two adjacent
10 edges with two adjacent sides of the box. Thus in the box illustrated the flexible ends are connected with the bottom and front sides, and the folds in the ends extend from the angle of the front and bottom to the diagonally
15 opposite corner. The advantage in such construction is that practically half the box is so connected as to open out into proper shape whenever the side is swung up from the bottom, and the remaining flaps will fold to close
20 the other side and top and to supplement and render the end walls rigid in such simple manner that no mistake can be made by even a most careless person.

The foregoing being then a statement of the
25 invention in its preferred form of embodiment, it should be understood that I do not limit myself to this, as various modifications and changes may be made in the form or construction of boxes without departing from the
30 spirit and the controlling features of my invention, which having been thus described may now be claimed as follows:

1. The herein-described folding box having double ends each composed of a member flexible on a diagonal line and a rigid member said
35 members being independent of each other and one being hinged along two of its edges and the other along one of its edges to the side walls of the box, the rigid member being
40 adapted to be brought into parallelism with and in proximity to the flexible member to form a rigid end when the box is set up and a flexible connection attached to one and passing through the other of said members,
45 whereby they are drawn together and retained

in relative position; substantially as described.

2. The herein-described folding box having double ends, each composed of a scored member and a rigid member hinged to different
50 sides of the box, the flexible member being scored to fold on a diagonal line starting at one corner of the end when the box is collapsed, and the rigid member being hinged at one edge only and adapted to be brought
55 into parallelism with and in proximity to the flexible member to form a rigid end when the box is set up, and a flexible connection attached to one and passing through the other of said members whereby they are drawn together and retained in relative position; substantially as described.

3. The herein-described folding box having four side walls hinged together, flexible end walls hinged to two adjacent side walls for
65 holding said sides against opening farther than a right angle, rigid end walls hinged to a side wall other than those to which the flexible end walls are hinged, and means for holding a rigid and flexible end wall in registry
70 with each other at each end of the box when set up ready for use; substantially as described.

4. The herein-described folding box having front, bottom and rear side walls hinged together, end walls hinged to two adjacent side
75 walls to prevent their opening farther than a right angle and having a diagonal fold extending from the angle of said side walls and on which folds the end walls double when the
80 box is collapsed, rigid end walls hinged to the other one of said side walls and means for holding the rigid and flexible end walls in registry when the box is set up; substantially as described.

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Witnesses:

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JOHN S. HAMILTON.