

**No. 671,333.**

**Patented Apr. 2, 1901.**

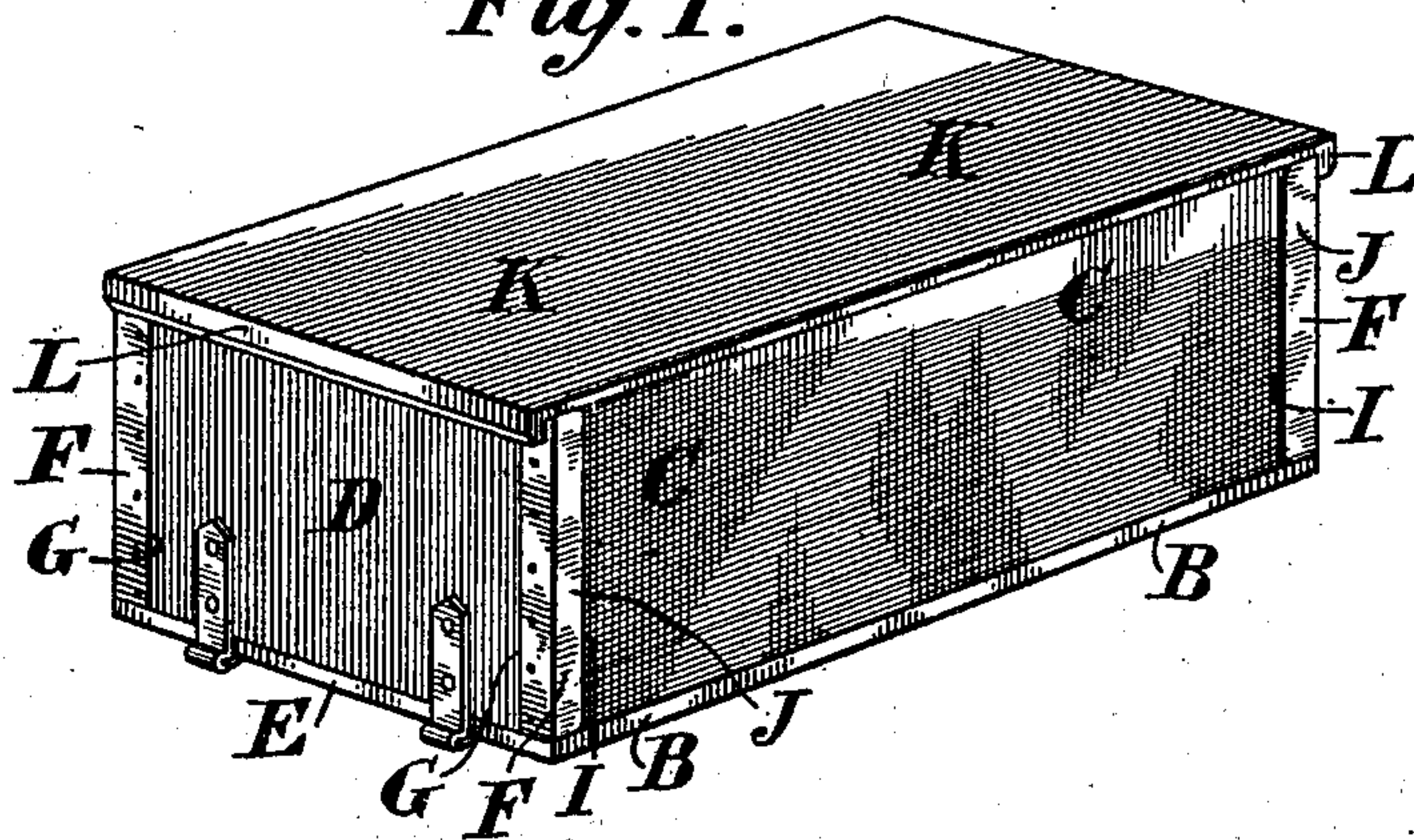
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**FOLDING BOX OR CRATE.**

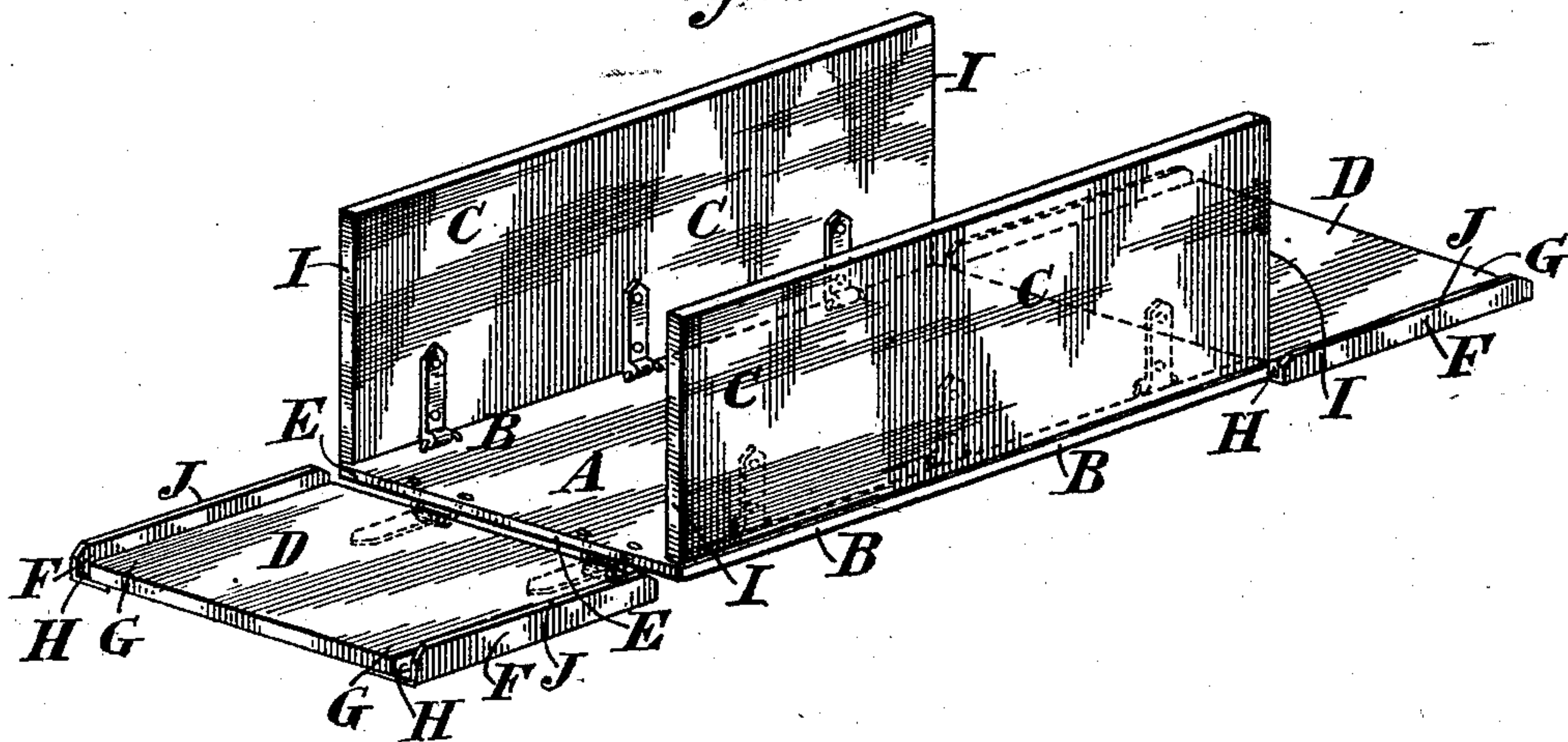
(Application filed Dec. 24, 1897.)

(No Model.)

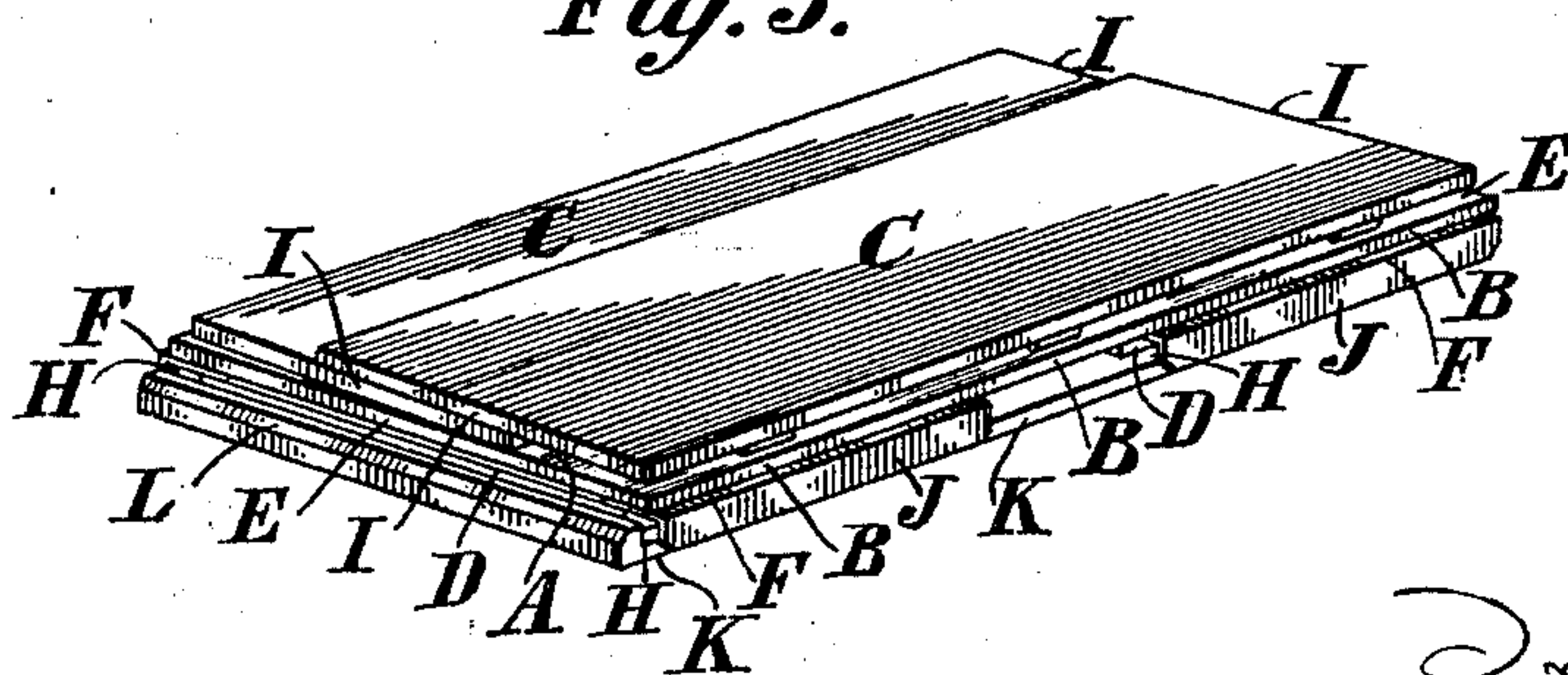
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



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# UNITED STATES PATENT OFFICE.

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## FOLDING BOX OR CRATE.

SPECIFICATION forming part of Letters Patent No. 671,333, dated April 2, 1901.

Application filed December 24, 1897. Serial No. 663,322. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM DAVY, a subject of the Queen of Great Britain, residing at 97 Wood street, city of London, England, have invented certain new and useful Improvements in Folding Boxes or Crates, (patented in Great Britain, No. 4,752, dated February 22, 1897,) of which the following is a specification.

The object of this invention is to construct the body of a box or crate in such manner that the sides can by suitable hinges be folded upon the upper surface of the bottom and the two ends, also hinged to the bottom, be folded downward and under to lie upon the under surface of the bottom, the said ends having metal corner-strips with right-angled flanges which project at a distance from the edges of the ends, so that pockets are formed into which the end edges of the side pieces can be lodged, when the several parts are folded upwardly to form the body of the box or crate for the reception of goods, the lid having ends, beads, or flange-strips to lock the parts together for transport when bound by a cord.

Boxes or crates constructed as above set forth can, when the sides and ends are folded upon the bottom, be so reduced in bulk and the parts lie so flat in contact that a box or crate when opened out and having the dimensions of, say, thirty-six inches long, twenty-four inches wide, and twenty-four inches deep can by folding be reduced from twenty-four inches to two inches deep, including the thickness of the lid which packs over it.

The right-angled flanges of my corner-strips are bent slightly inward, so that when the two sides are folded upwardly their end edges are pinched and held sufficiently tight to retain them and the ends of the box in a vertical position during the packing or insertion of the goods.

The hinging of the two sides of the box or crate is from the inside and the hinging of the two ends from the outside.

I have not referred to fastenings other than by cords; but any kind of fastener can be adopted, if so desired.

It will be understood that the metal corner-strips give great strength to resist rough

usage and add to the solidity of the article as a box or crate.

To hold the ends of the box in position while being packed, a stretcher, bar, or the like may be employed.

The annexed drawings clearly show my invention.

Figure 1 is an isometrical perspective elevation of a box in a closed condition ready for transport and supposed to be filled with goods; Fig. 2, a similar perspective elevation with the lid removed and the two ends folded downward. Fig. 3 represents the several parts of the box folded in close contact ready (when corded) to be stored or to be transported, or returned empty. This figure shows the reduction in bulk to which such box is capable.

A is the bottom to the inner face edges B. The two longer sides C C are hinged to fold inwardly. The two ends or shorter sides D D are hinged in any appropriate manner to the outer or under surface of the ends E E of the bottom A and are adapted to fold downwardly and under said bottom.

F F F F are angled strips of metal secured to the side edges G G G G of the ends D D, the spaces H H H H forming pockets for enclosing the end edges I I I I of the two longer sides C C. The exposed lips J J J J of the angled metal strips F F F F are inwardly inclined, so that when the ends D D are folded upwardly said inclined lips nip the ends of the sides C C to hold the ends D D and also the sides C C upright to constitute the body of the box, a lid K, with end cleats or ribs L L, only being sufficient to retain the several parts temporarily together.

Any means of fixing the parts can be adopted, such as cords bound around the box for transport, and during the filling of the box if the lid D be canted over at the back for the ribs L L to bear against the two ends D D while the box is being packed said ends DD will be prevented from folding outwardly. The cleats or ribs L L and the corner-strips H H constitute the sole means for holding the crate or box assembled. These cleats or ribs are only on the opposite ends of the top or lid D, by reason of which the lid may be slid sidewise in a horizontal plane to any ex-



5 tent to obtain access to the contents of said box or crate without possibility of the latter collapsing. Besides this, the lid may be canted to any extent and the same peculiar advantage will follow.

I do not propose to employ clips or hooks or other kinds of fasteners with my improved folding box; but such can be fitted, if so desired.

10 The box is intended chiefly for light and delicate articles of merchandise—such as gloves, silks, hosiery, and the like—it being general for manufacturers and warehousemen in sending such goods to customers to  
15 have the boxes returned as empties and which from their bulk in the ordinary way are subject to heavy charges for return freightage, besides requiring immense storage room to hold them in stock for future use,  
20 whereas with my improved box the bulk of the box for the return is so reduced that freightage should be reduced in proportion. Again, in the storing of such boxes only a tithe of room will be required, and from the  
25 closeness of the several parts of each box they are rendered more handy and offer greater facilities for being stacked on edge or on one another.

30 For crates—*i. e.*, boxes of skeleton frames such as are used for the conveyance of bottles, gas-glasses, crockery, and the like—this invention is also specially applicable.

What I claim, and desire to secure by Letters Patent, is—

In a folding box or crate, a bottom, sides 35 hinged to the upper sides of the bottom and its edges arranged to fold downward thereon, ends hinged to the under side of the bottom at its ends and arranged to fold against the under side of the bottom and to be raised to 40 a position between the sides at the ends of the latter, corner-strips attached to the edges of said ends and provided with approximately right-angled flanges located at a distance 45 from said edges to provide spaces for receiving the ends of the sides, and bent inward toward each other to tightly grasp the ends of the sides and clamp the parts together, and a removable top having cleats at its ends on 50 the under side thereof to engage the ends and hold them in place between the sides, said cleats and corner-strips constituting the sole means for holding the sections assembled and the end cleats permitting side movement of 55 the top, and the cleats remaining in engagement with the ends during such side movement.

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

WILLIAM DAVY.

Witnesses:

EDMUND S. SNEWIN,  
WILLIAM OSWALD BROWN.