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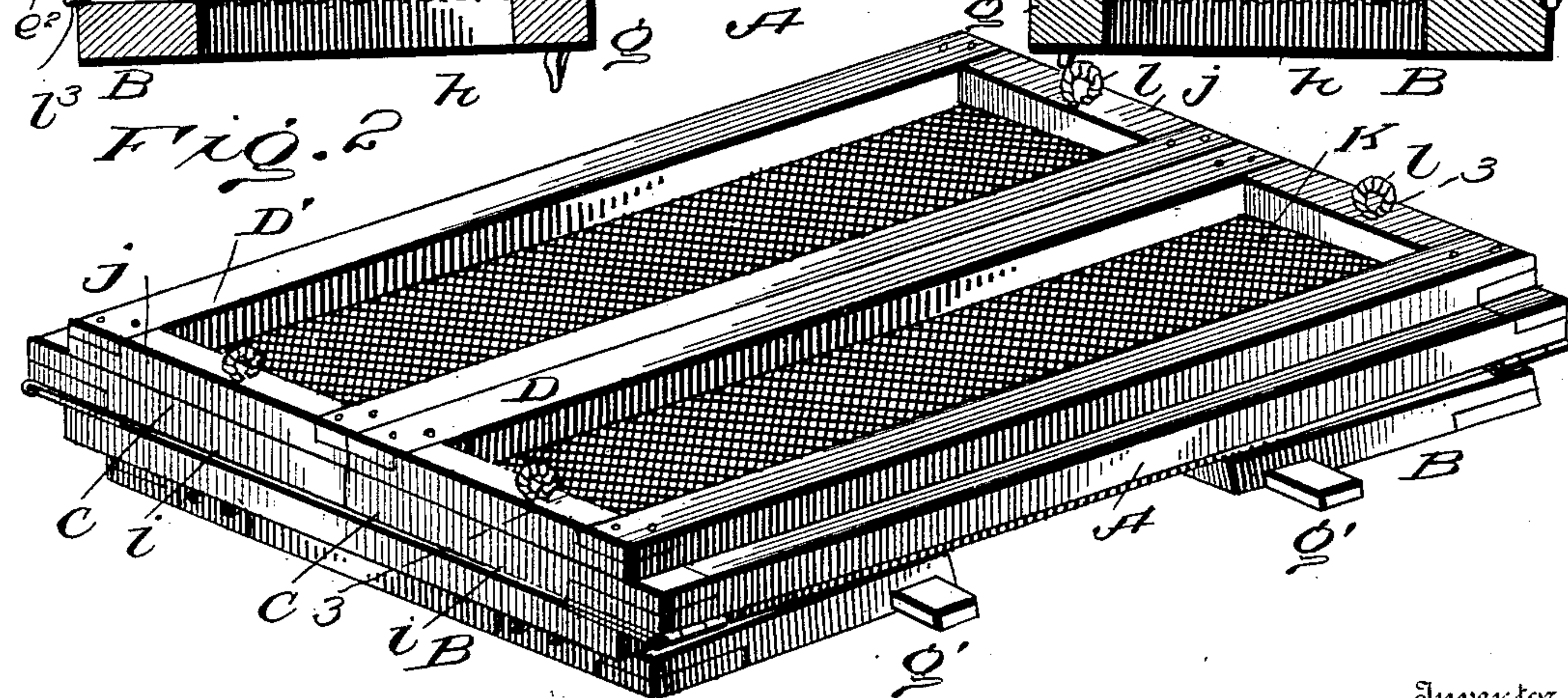
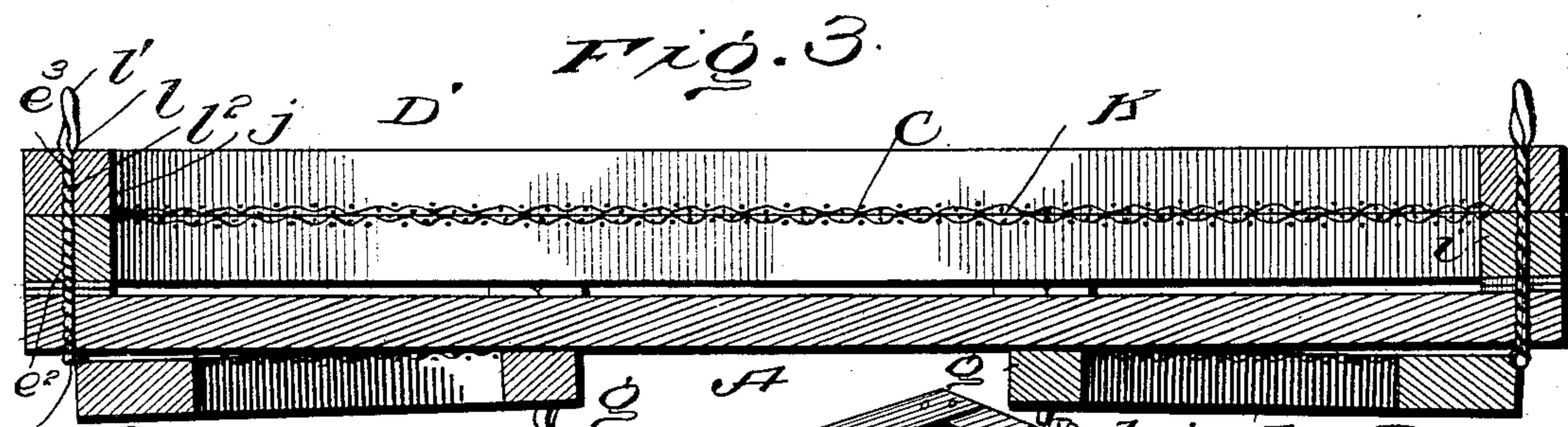
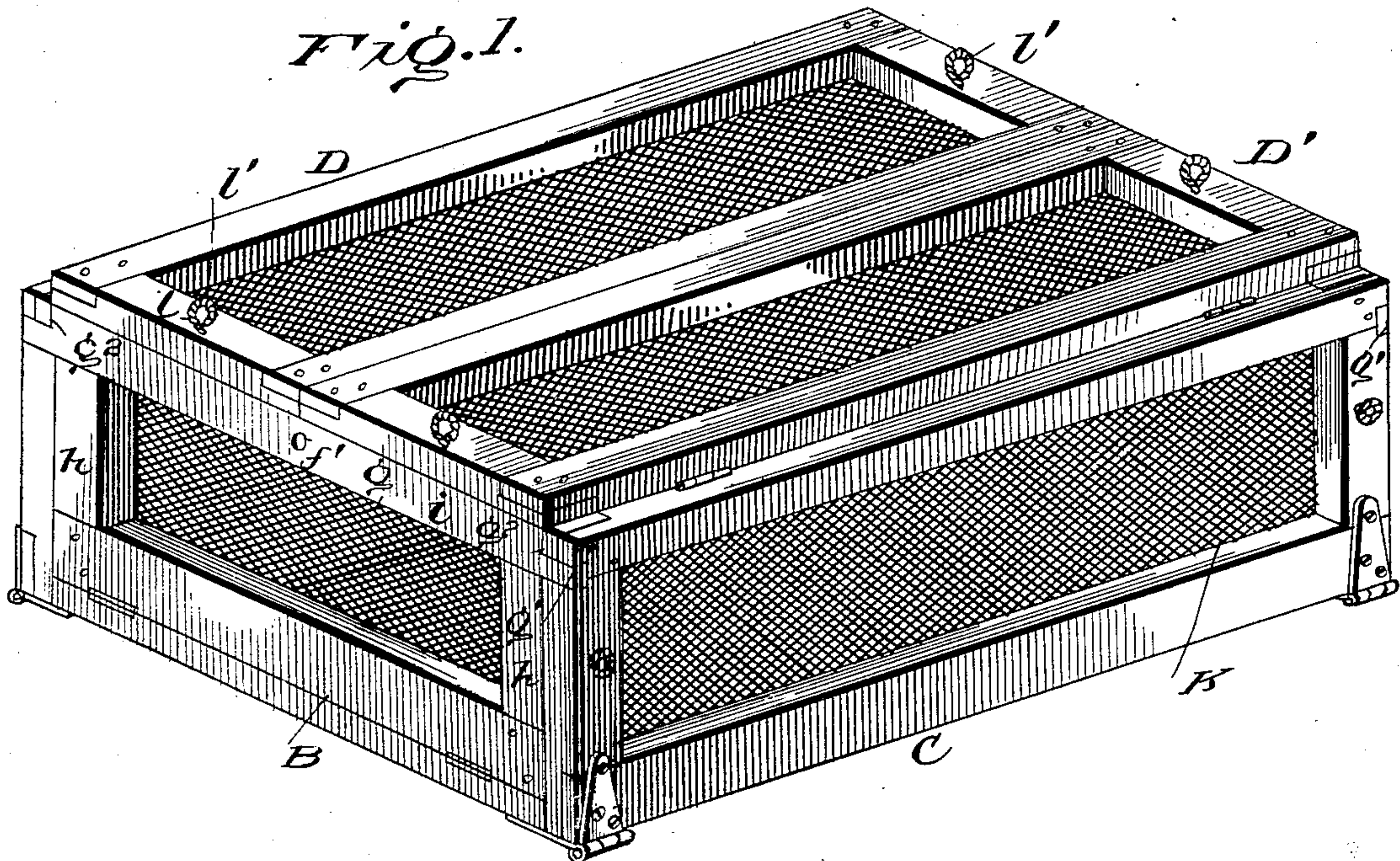
Patented Sept. 5, 1899.

L. W. COPELAND.  
FOLDING CRATE OR COOP.

(Application filed Feb. 21, 1899.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

*For Invee*  
*C. C. Hines*

Inventor  
*L. W. Copeland*

*by R. H. Lacey* his Attorney



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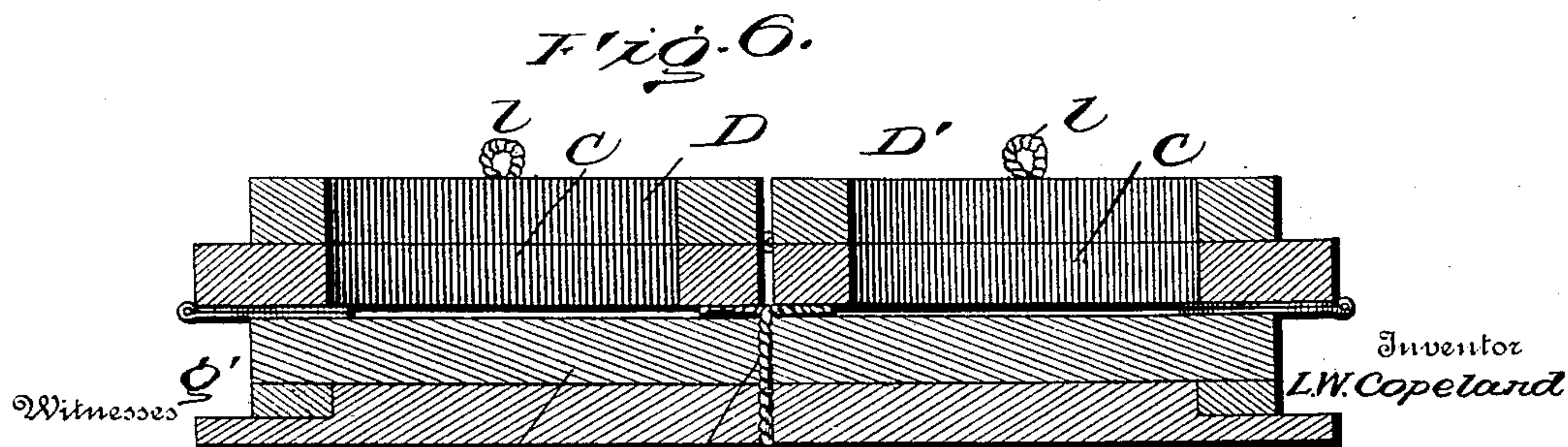
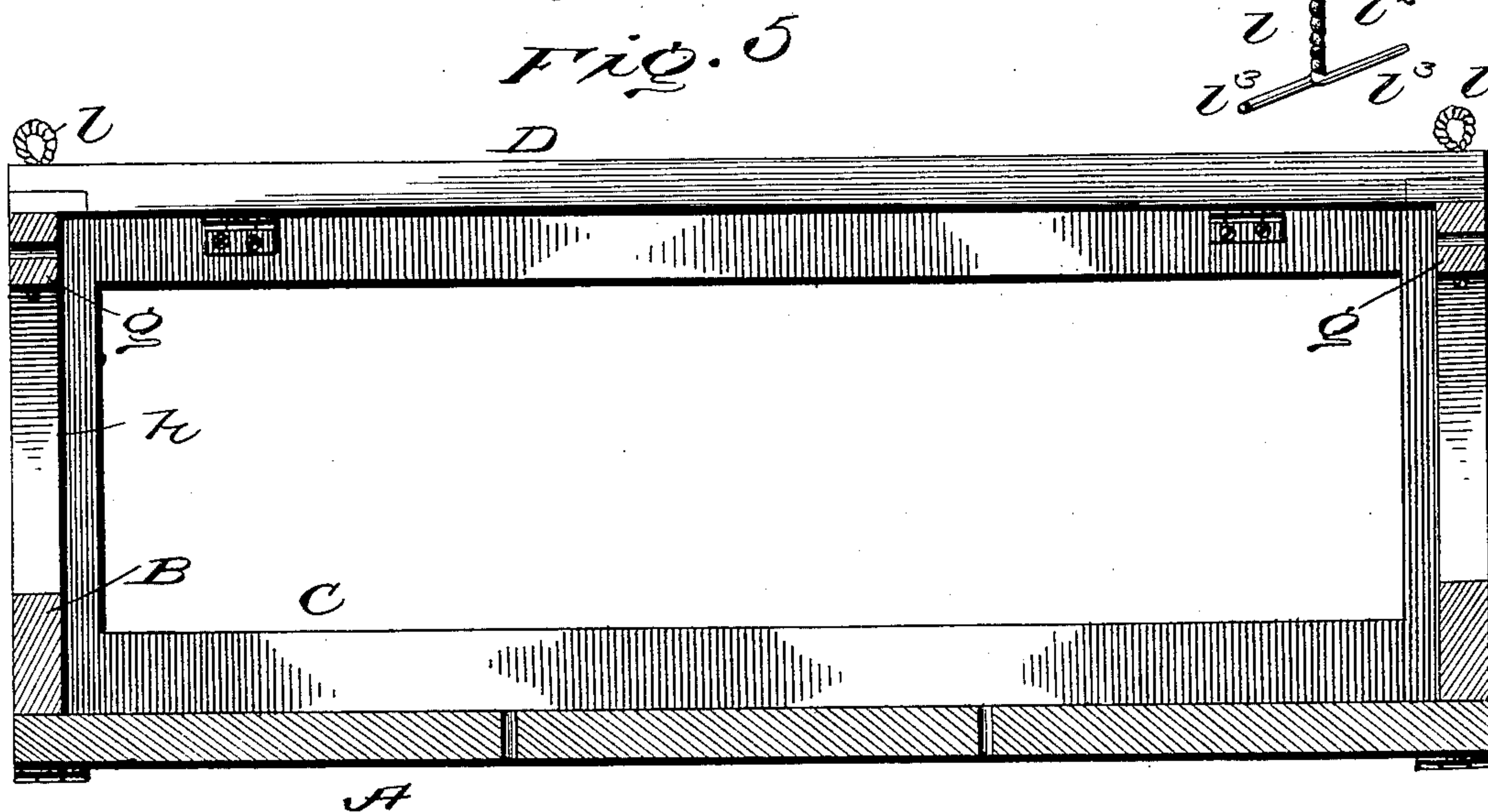
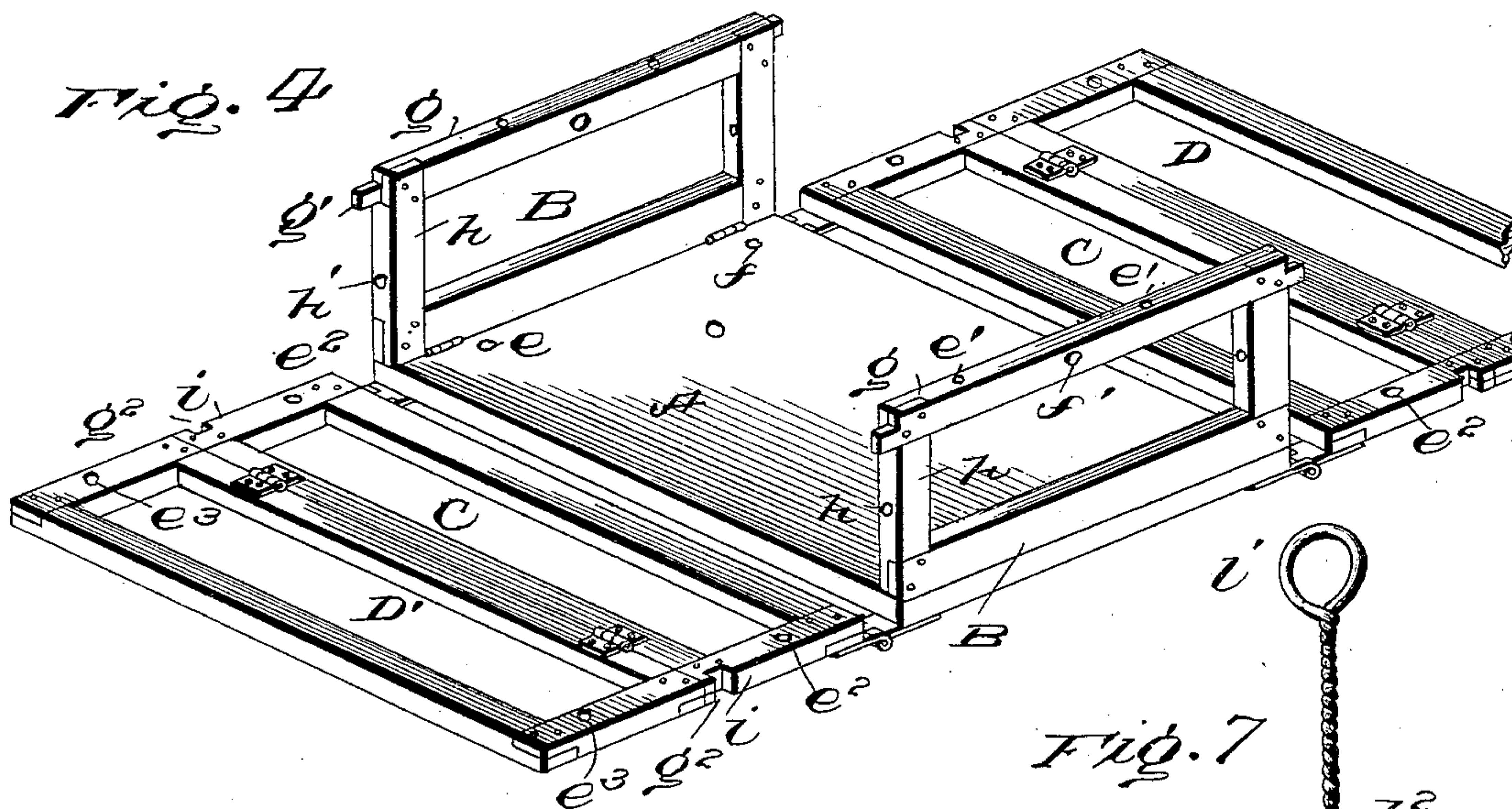
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2 Sheets—Sheet 2.



For Invoice 2  
C. C. Shiner

by R. H. R. Lacey His Attorney



# UNITED STATES PATENT OFFICE.

LUTHER W. COPELAND, OF LONGTOWN, MISSISSIPPI.

## FOLDING CRATE OR COOP.

SPECIFICATION forming part of Letters Patent No. 632,644, dated September 5, 1899.

Application filed February 21, 1899. Serial No. 706,413. (No model.)

*To all whom it may concern:*

Be it known that I, LUTHER W. COPELAND, a citizen of the United States, residing at Longtown, in the county of Panola and State of Mississippi, have invented certain new and useful Improvements in Folding Crates or Coops; 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.

This invention relates to certain new and useful improvements in crates or coops for shipping berries, vegetables, and poultry; and the object of the same is to provide a simple and cheap construction of crate or coop of foldable or knockdown type which after use may be collapsed in compact shape for storage or shipment.

A further object of the invention is to provide a coop or crate of this character in which the parts are capable of being easily and quickly placed in position to form the completed article and folded down in close compass, to provide a construction whereby the parts are rigidly connected and braced when assembled and the woven-wire coverings protected when they are folded, and also to provide improved fastening means for holding the said parts connected in both positions in a simple and effective manner.

With these and other minor objects in view the invention consists in certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of my improved coop or crate, showing the same ready for use. Fig. 2 is an inverted perspective view of the same as folded for storage or shipment. Fig. 3 is a vertical longitudinal section taken on line 3 3 of Fig. 2. Fig. 4 is a perspective view showing the sections of the coop spread apart previous to being secured together as shown in Fig. 1. Fig. 5 is a central vertical longitudinal section of the completed coop shown in Fig. 1. Fig. 6 is a cross-section through the folded coop shown in Fig. 2. Fig. 7 is a detail perspective view of the fastening-key.

Referring now more particularly to the drawings, A represents the bottom of the crate or coop; B, the ends, which are hinged to the upper side of the bottom; C, the sides, which are hinged to the under side of the bottom, and D D' the top, which is made in two parts or sections hinged, respectively, to the upper edges of the said side pieces.

The bottom A may be made of any desired material—such as tin, galvanized iron, or wood, and if wood is employed it may be made of one or more pieces closely connected to prevent refuse from dropping therethrough. It is provided with two series of openings *e* and *f*, arranged as shown, for a purpose hereinafter described. Each end section B consists of an open rectangular frame having top, bottom, and end pieces. The top piece or rail *g* of each end section is preferably made of oak or some other hard wood and is provided at its ends with projecting tongues *g'*, on opposite sides of its center with vertical openings *e'*, and at its center with a horizontal or transverse opening *f'*. The end pieces *h* of the end sections are provided with openings *h'*. The side sections C are also constructed in the form of open frames and are, as before stated, hinged to the under side of the bottom, so that the bottom pieces or rails thereof will abut squarely against the side edges of the bottom A when they are arranged vertically to form the sides of the completed coop. The end pieces *i* of each side piece are notched, as at *g*<sup>2</sup>, to receive the tongues of the end pieces and provided with openings *e*<sup>2</sup>. The two sections D D' of the top, like the side and end sections, are made in the form of open frames which are hinged to the top rails of the sides, so as to fold over upon the end sections and down upon the inner faces of said sides. The end pieces *j* of each top section are provided with openings *e*<sup>3</sup>, corresponding to the openings *e*<sup>2</sup> in the side sections. A strip of ordinary woven or poultry wire K is secured upon the inner sides of the open frames of the end, side, and top sections to close the openings therein and allow of the free passage of air through the coop for ventilation.

In forming the completed crate or coop for use the end sections are first turned up to the vertical position shown in Fig. 4, the side sec-



tions then turned up to bear against the same, and the two sections of the top folded over toward each other to rest upon the upper edges of the end sections. When this is done, it will be seen that the openings  $e^3$  in the top sections will coincide with the vertical openings  $e'$  in the end sections, and the tongues of the latter will engage the notches in the side sections to hold said side sections firmly against longitudinal movement, and thus relieve the hinges thereof of undue strain. The openings  $e^2$  in the side sections will also be brought into coincidence with the openings  $h'$  in said end sections. Fastening keys or pins  $l$  of the form shown in detail in Fig. 7 are then passed through the openings  $e^3$  and  $e'$  and  $e^2$  and  $h'$  to hold the parts connected. This key or pin consists of a piece of malleable wire formed with a finger loop or ring  $l'$  and a twisted shank  $l^2$ . The ends of the wire at the lower extremity of the shank are not twisted, but left free to be bent at right angles to form detent projections  $l^3$ , which prevent outward movement of the connected parts and withdrawal of the key. By bending these projections back to their positions in line with the shank and grasping the finger-loop the pins may be readily withdrawn whenever it is desired to fold or obtain access to the coop. The keys passed through the openings  $e^2$  and  $h'$  are adapted to hold the side sections when the top sections are opened. In lifting the coop for transportation from one place to another the top rails of the side or end sections are grasped, and thus no strain falls upon the keys. By constructing and connecting the parts in the manner above set forth a strong and durable coop or crate is provided which is not liable to collapse even under rough usage, as the keys, being made of malleable wire, will bend, but not break, under strain. All the parts will thus be held firmly connected at all times.

In folding the coop for storage or shipment the keys are first removed and the end sections folded down upon the upper surface of the bottom. When this is done, the openings  $f$  and  $f'$  will be brought into coincidence, and keys are then inserted therethrough to hold the end sections secured. The top sections are next turned down upon the inner faces of the side sections and folded therewith over upon the under side of the bottom, so that the openings  $e$ ,  $e^2$ , and  $e^3$  will register, and finally keys are passed through said open-

ings to hold each top and side section connected to each other and to the bottom. When thus folded the coop occupies only about one-third of the space that it does when opened, and the woven-wire strips secured to the inner sides of the sections are protected by being arranged between the parts, so that the coop may be thrown about without liability of the strips being torn away or punched full of holes by contact with extraneous objects.

It will of course be understood that changes in the form, proportion, and minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having thus described the invention, what is claimed as new is—

1. A folding coop or crate, comprising a bottom, end sections hinged to fold down upon the upper side of the bottom and provided with projecting tongues, side sections hinged to fold upon the under side of the bottom and having notches to receive the tongues of the end sections, a top composed of two sections hinged to turn down on the inner faces of the side sections and adapted to fold therewith upon the under side of the bottom, and keys for connecting the sections to each other and to the bottom in open or closed position, substantially as described.

2. A folding crate or coop, comprising a bottom A having the openings  $e$  and  $f$ , the open-frame end sections B hinged to fold down upon the upper surface of the bottom and provided with the openings  $e'$ ,  $f'$ ,  $h'$  and tongues  $g'$ , the open-frame side sections C hinged to fold upon the under side of the bottom and having the notches  $g^2$  to receive said tongues and openings  $e^2$ , a top composed of two open-frame sections D D' hinged to turn down upon the inner faces of the side sections and to fold therewith upon the under side of the bottom and formed with the openings  $e^3$ , a woven-wire strip secured to the inner side of each of said open-frame sections, and keys adapted to be passed through said sections to hold the same in open or collapsed condition.

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

LUTHER W. COPELAND. [L. S.]

Witnesses:

S. M. CLAYTON,  
E. W. SINCLAIR.