

No. 638,473.

Patented Dec. 5, 1899.

G. I. REMER.
FOLDING SHIPPING CRATE.

(Application filed Jan. 21, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

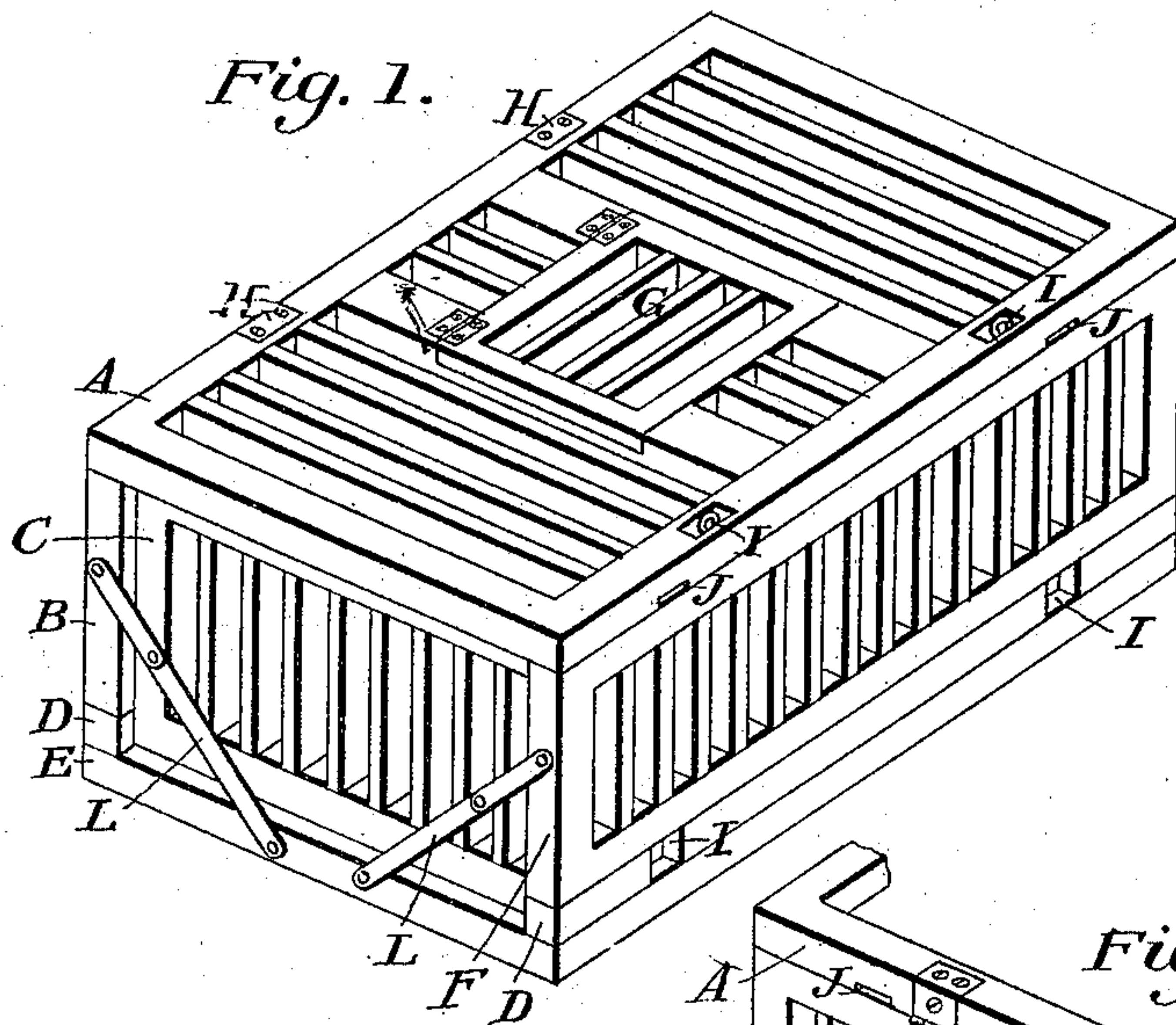


Fig. 2.

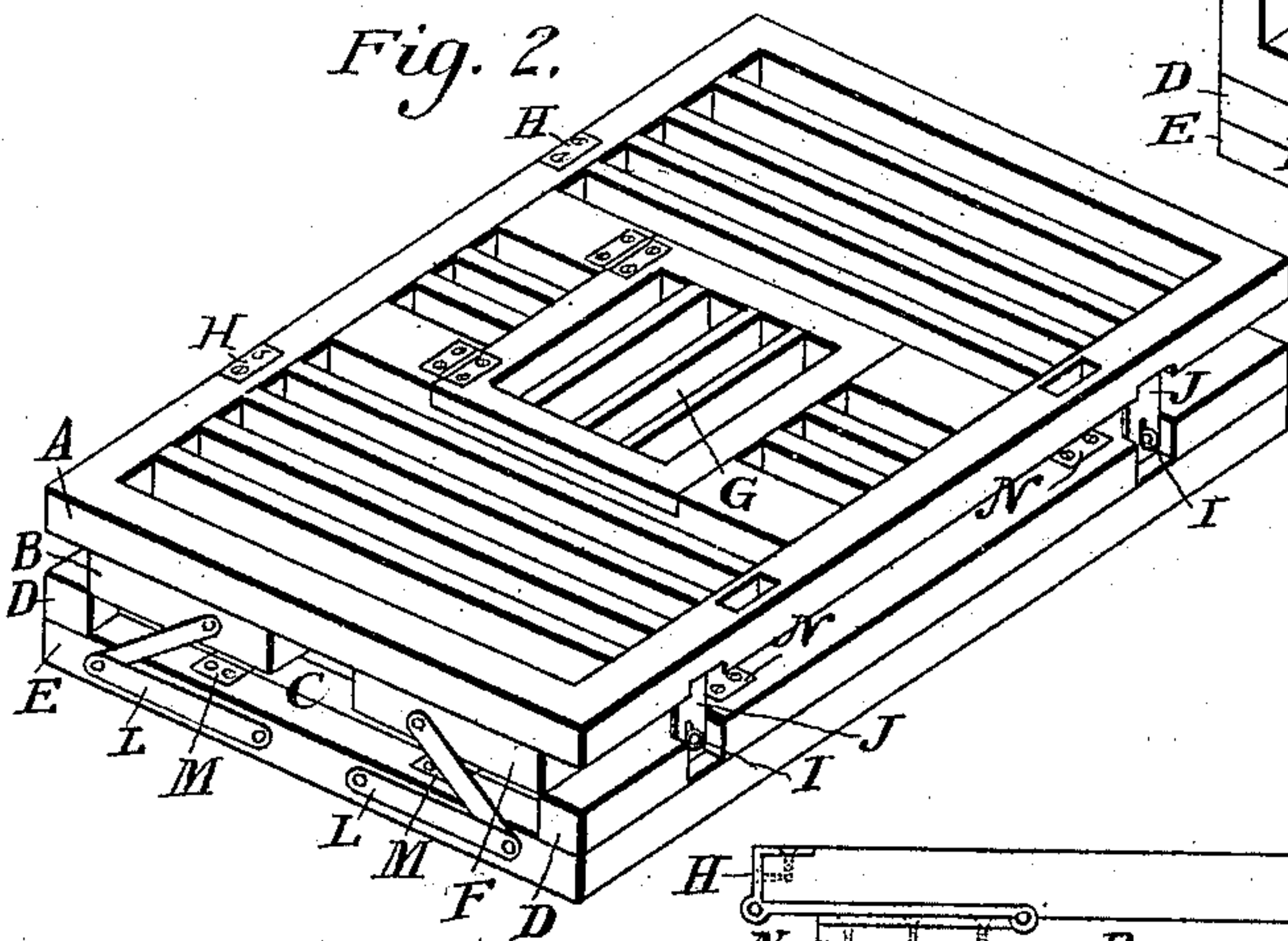


Fig. 3.

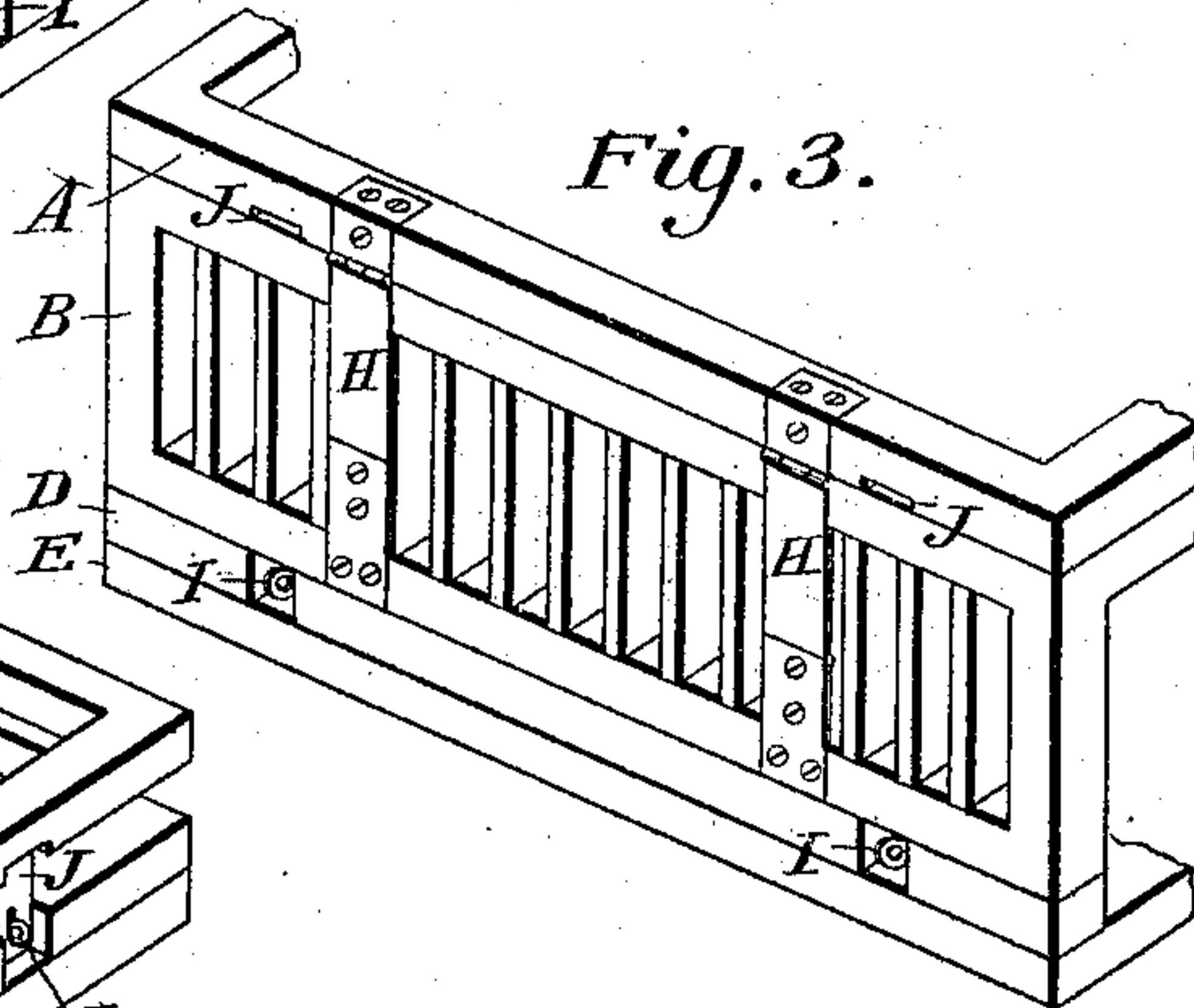


Fig. 4.

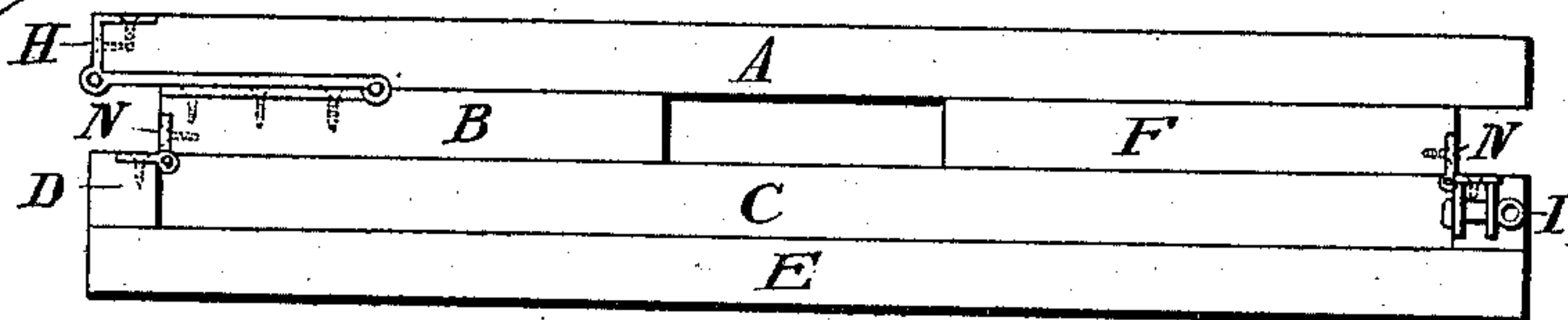


Fig. 5.

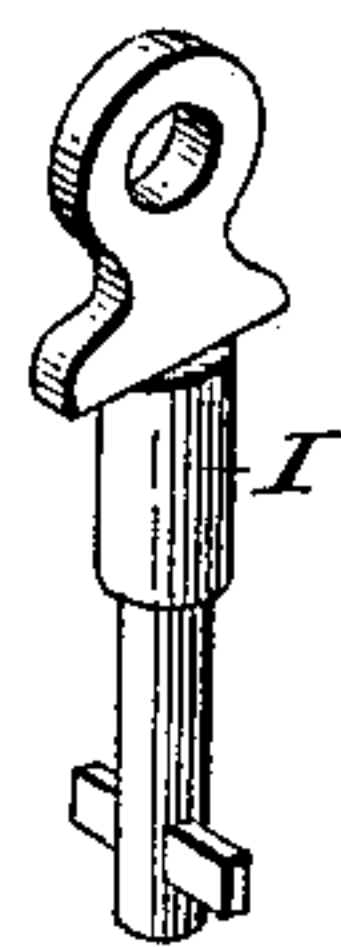


Fig. 6.

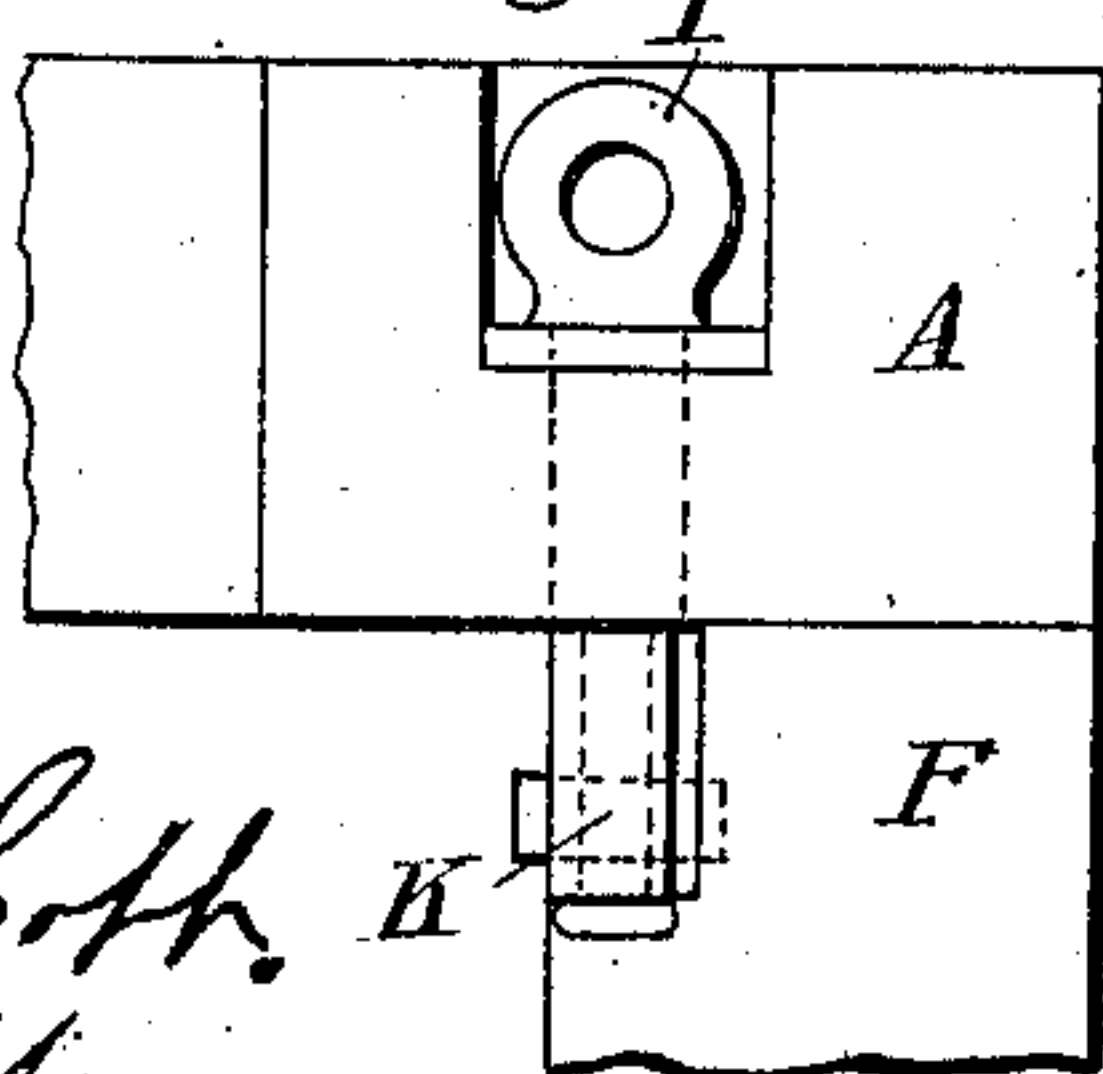
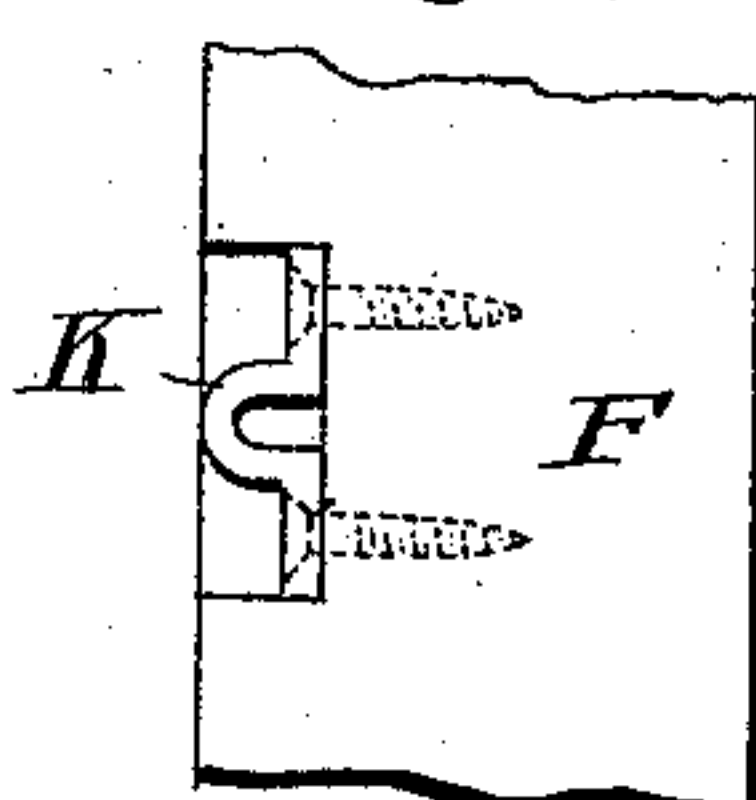


Fig. 7.



Witnesses.

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2 Sheets—Sheet 2.

Fig. 8.

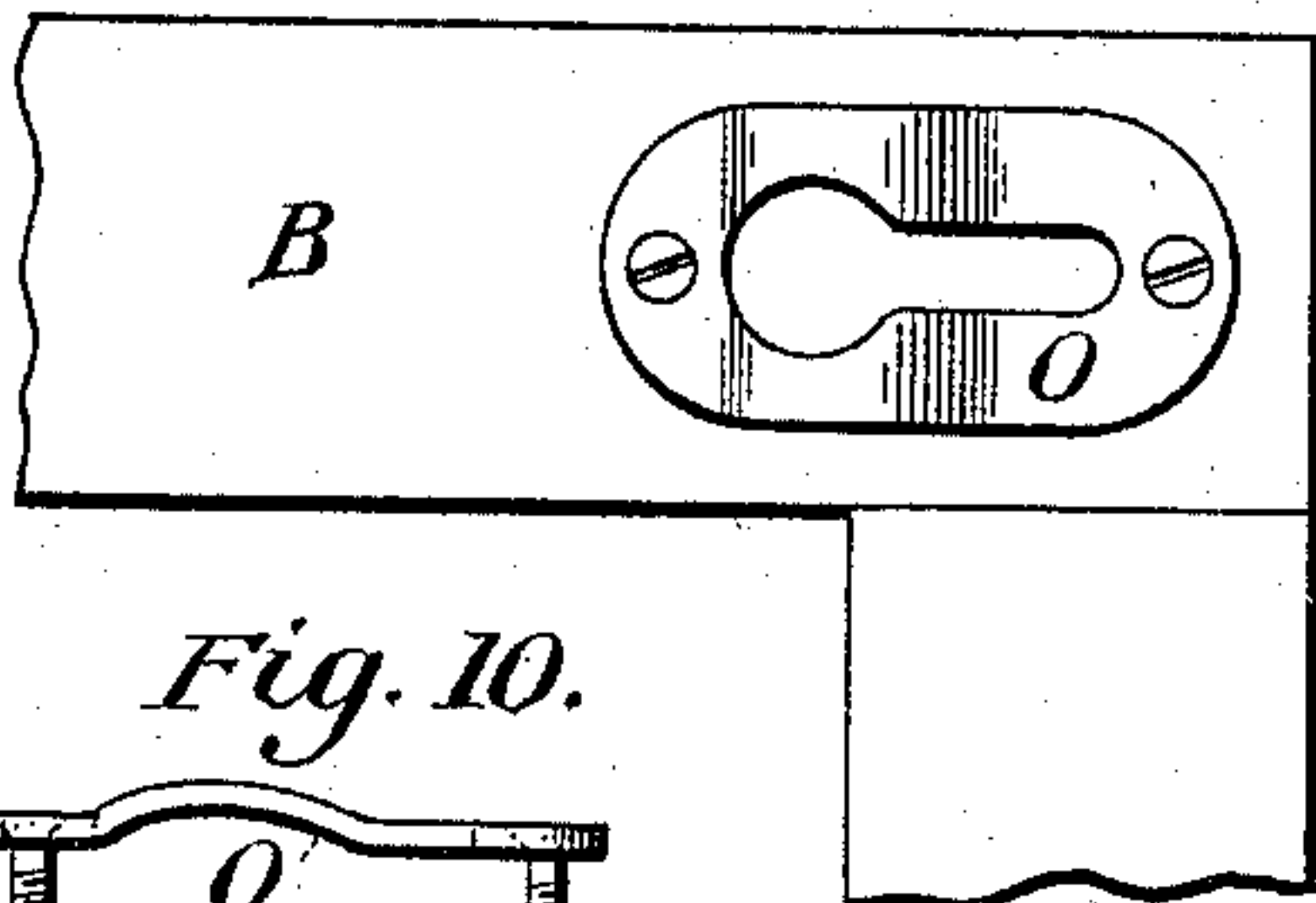


Fig. 9.

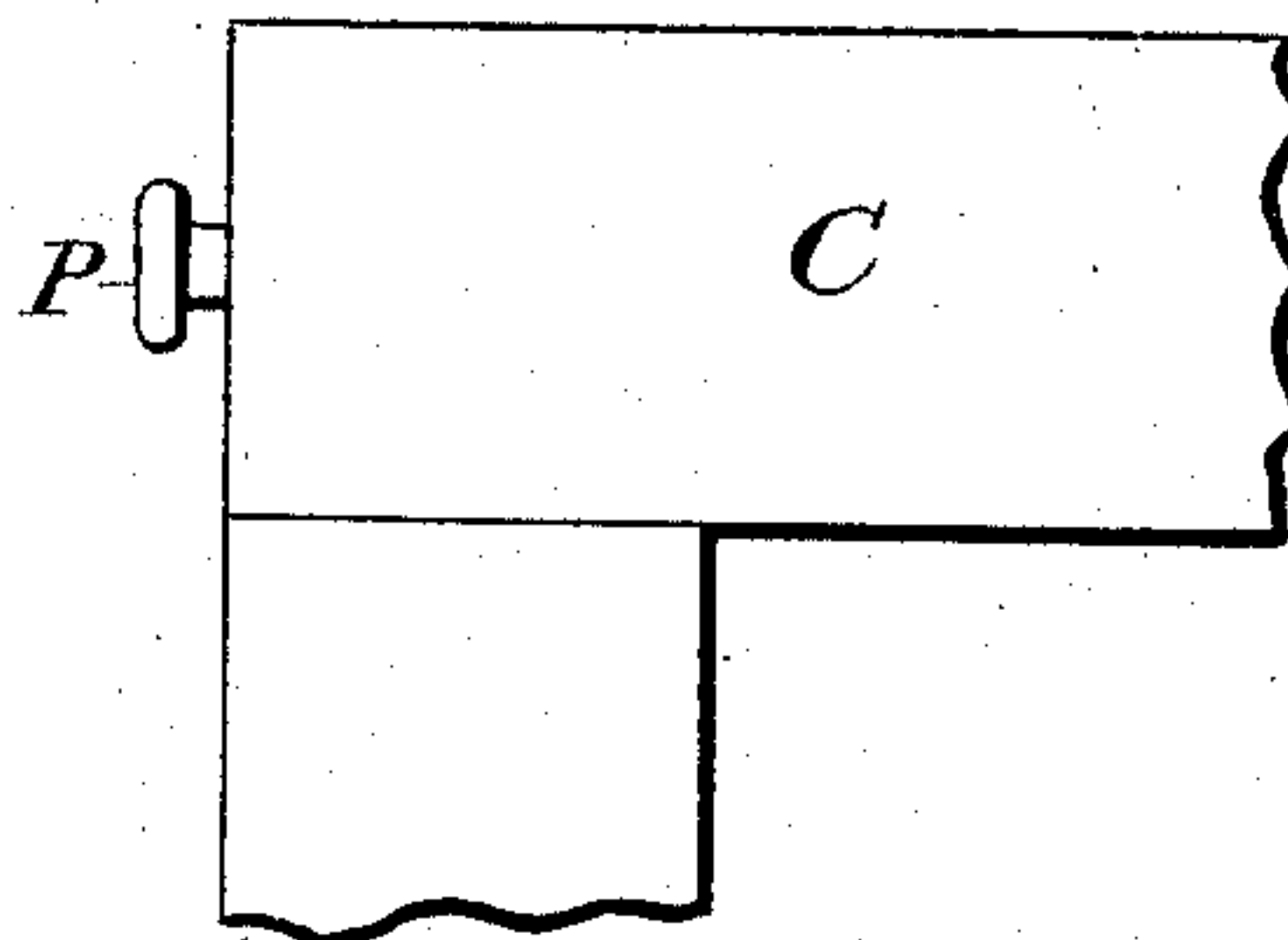


Fig. 10.



Fig. 11.

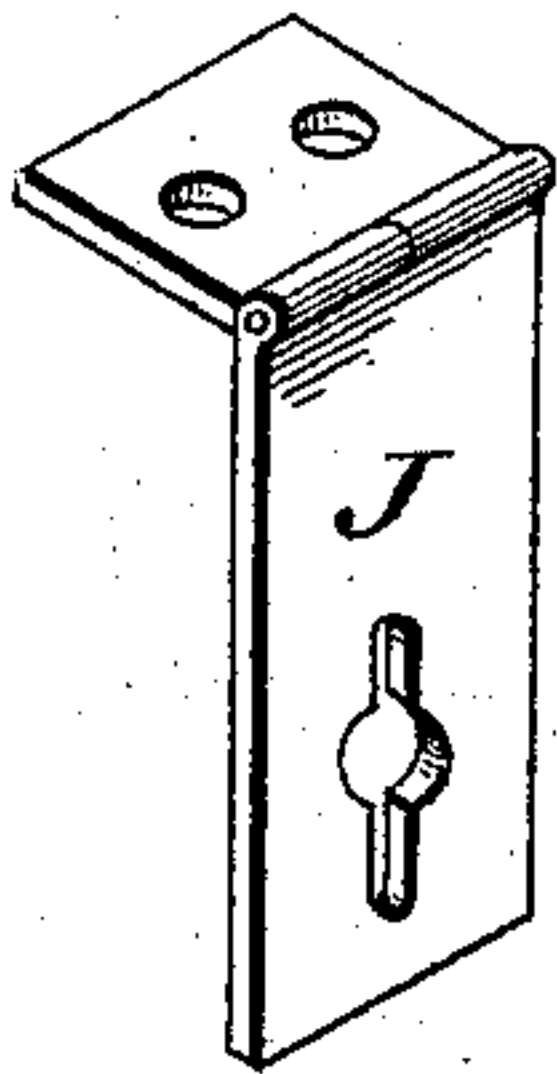
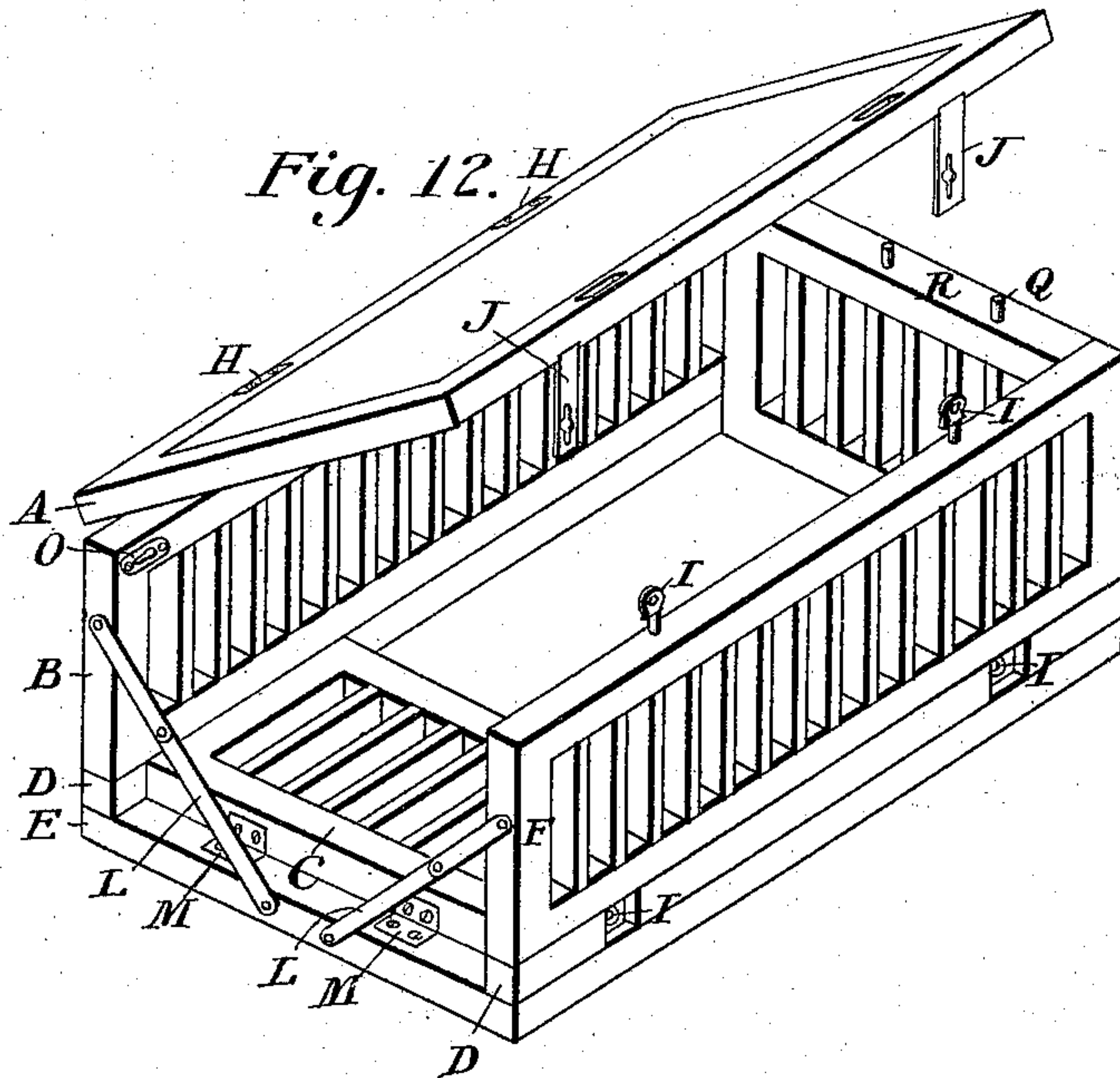


Fig. 12.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE I. REMER, OF KEOKUK, IOWA.

FOLDING SHIPPING-CRATE.

SPECIFICATION forming part of Letters Patent No. 638,473, dated December 5, 1899.

Application filed January 21, 1899. Serial No. 702,948. (No model.)

To all whom it may concern:

Be it known that I, GEORGE I. REMER, a citizen of the United States, and a resident of Keokuk, Lee county, Iowa, have invented a new and useful Poultry-Crate, of which the following is a specification.

My invention relates to improvements in crates for use in handling or shipping poultry, game, and the like; and my object is to provide a convenient and substantially constructed crate and one that can be folded when not in use, so as to occupy but little space when empty. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the crate with all of its parts in place as it appears when in use. Fig. 2 is in perspective of the crate folded. Fig. 3 is a perspective rear view showing the folding hinges H. Fig. 4 is a sectional view of the crate folded and cut directly through from H to N in Fig. 2. Fig. 5 is a clasp-key, which is again shown in Fig. 6. Fig. 7 shows simply a metal bearing set in the material used or attached to it for the reception of clasp-key I. (See Fig. 6, letter F.) Figs. 8, 9, and 10 illustrate the device used for holding the parts in place when unfolded and prepared for use. Fig. 11 is a clasp used for holding the parts together when folded. Fig. 12 is in perspective of the crate with the front edge of the lid upraised and with the end piece C folded so as to show the attaching-hinges M.

Similar letters refer to similar parts throughout the entire drawings and the several views.

A is the top piece or lid.

B and F are the side pieces.

C and R are the end pieces.

E is the floor or bottom piece, to which are fastened the pieces D D, which are termed "adjusting-plates."

G is a trap-door in the lid.

H H are the folding hinges by which A is attached to the back of the rear side piece B.

I is a clasp-key, the outer end of which is flat, with shoulders projecting in opposite directions, so that when the oblong eye of a clasp is pressed down over it and the key turned half around the clasp is caught and held tight, as is shown by I in Figs. 2 and 6.

This key is also used in holding the lid in place when in use, as is shown in Figs. 1 and 12.

J is a clasp used in connection with I in fastening the parts together when folded. There are four of these clasps used—two on the front and two on the rear edge of the lid on the underside. They have pivotal attachments, so that they are folded back when the crate is in use.

K is a short key which passes through the inserted end of I to hold it in place.

L is a pivotal hinge-brace, two of which are used at each end of the crate, as shown in Figs. 1, 2, and 12, to prevent the sides B and F from flaring out.

The end pieces C and R are attached to the bottom E by the use of hinges M. These hinges are set so that in folding C and R they fall inward. When they fall thus inward, they fall between the adjusting sills or plates D D and therewith form a plane on which B and F rest when folded. That is the purpose of D D, to which B and F are attached in the same manner as C and R—that is, B and F are attached by hinges so set as to compel them to fold inward when folding. (See N in Figs. 2 and 4.)

O is an eye set on the inside of each upper corner of B and F for receiving and retaining the pin-head P.

P is a pin with a head at the outer end set one in each end of C and R at the top, so as to fit into O, which, together with the lugs Q, serve to hold C and R in place when arranged for use. The crate may be constructed of wood in part or all of metal.

A plan of the use and operation of my invention may be explained as follows: To arrange for use, raise the side pieces B and F with the lid A. Then raise the end pieces C and R, so that the pins P rest in the eyes O. Then clamp the lid down by turning the top keys I I. Open the trap-door on top and through it place the poultry. Then close it. When empty, fold together, drop the clasps J down over the keys I, and turn the keys half around. It will be seen that when folded but little space will be taken up by the crate.

What I claim as new, and for which I desire Letters Patent, is as follows:

In a folding crate having a floor or bottom which is a distinct part thereof but which is provided with an adjusting-plate D on each outside edge thereof, and which crate has its
5 end pieces C and R made into separate parts thereof but which parts are attached to said bottom by hinges so that each will fold inward, and which crate has its side pieces B and F made into separate parts thereof but
10 said parts are attached to the adjusting-plates D by hinges so that each of said parts will fold inward on the top of C and R when they are first folded, and said crate having its lid made into a separate part thereof which lid
15 is attached to piece B on the lower outside by the use of a double folding hinge H which al-

lows said lid to drop down directly over the other folded parts in folding, and said crate having pivotal joint-braces at each end to prevent the side pieces from flaring out when
20 in use and having the device O in combination with P for holding the top corners together when in use and having the keys I for fastening the lid down with, and having a trap-door in the lid, and having the device J
25 in combination with I for claspings the parts together when folded, all substantially as shown and described.

GEORGE I. REMER.

Witnesses:

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F. M. BALLINGER.