

(No Model.)

4 Sheets—Sheet 1.

E. W. DURAND.
Crate or Carrier for Fruit.
No. 237,837. Patented Feb. 15, 1881.

Fig. 1.

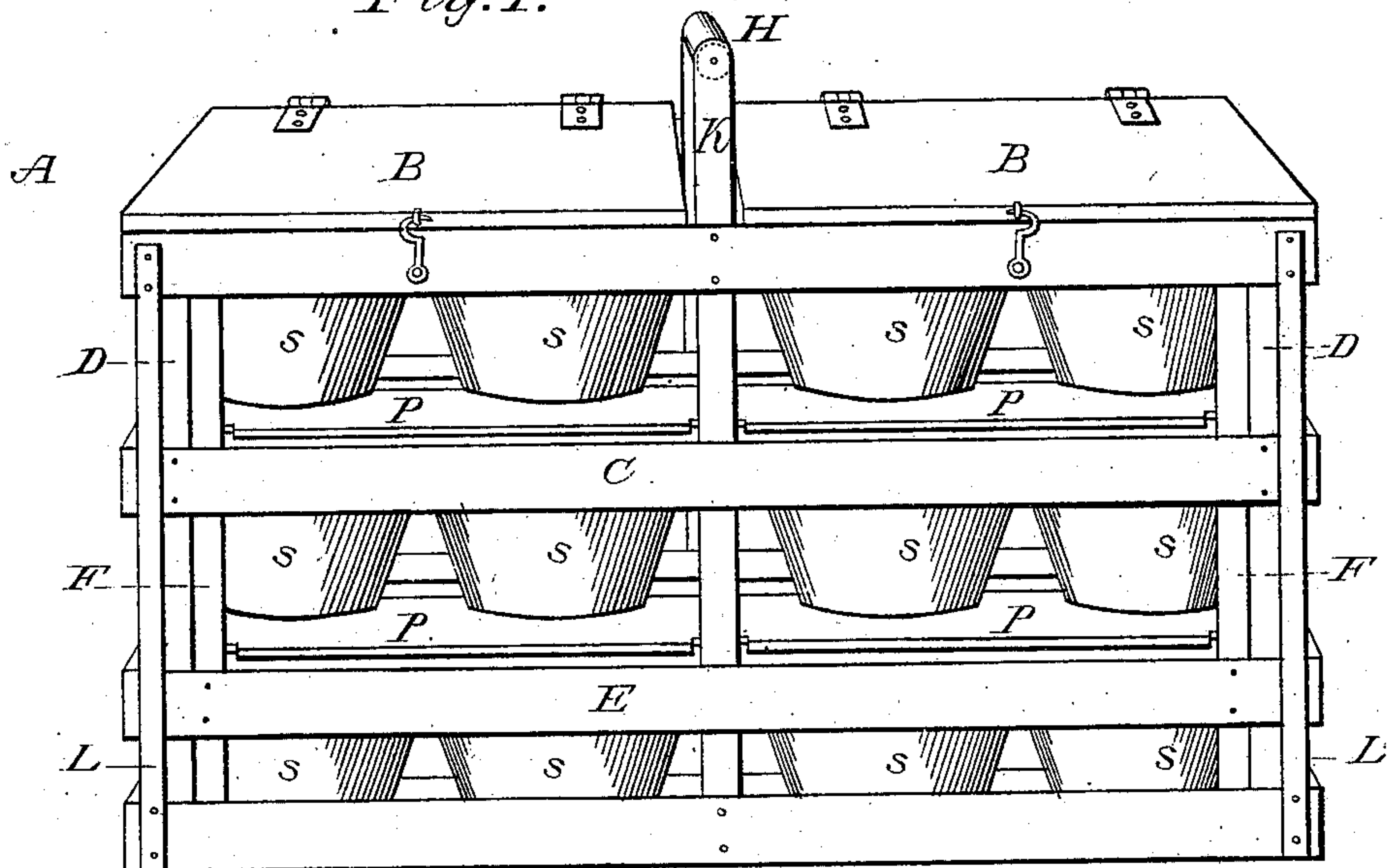


Fig. 2.

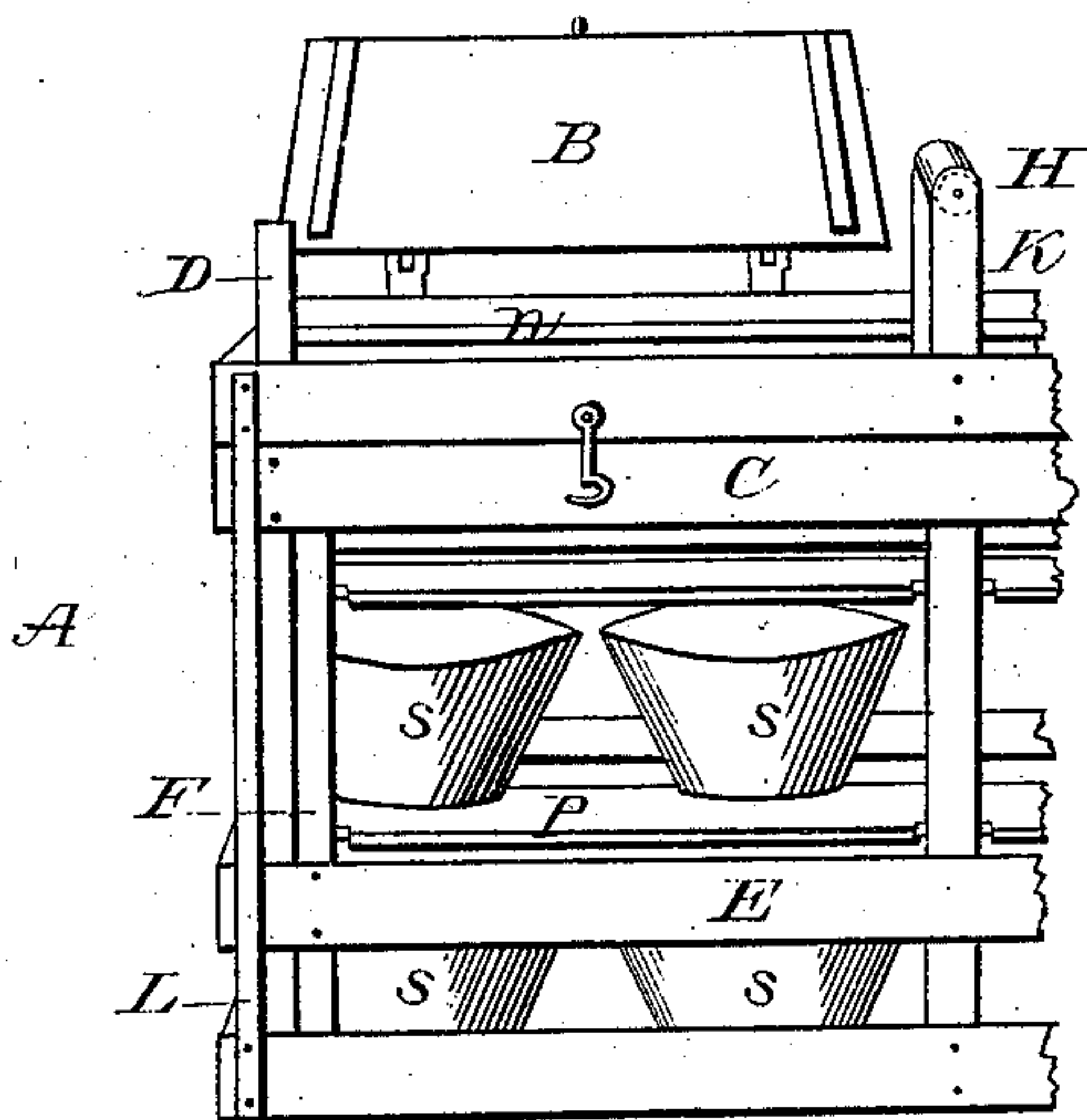
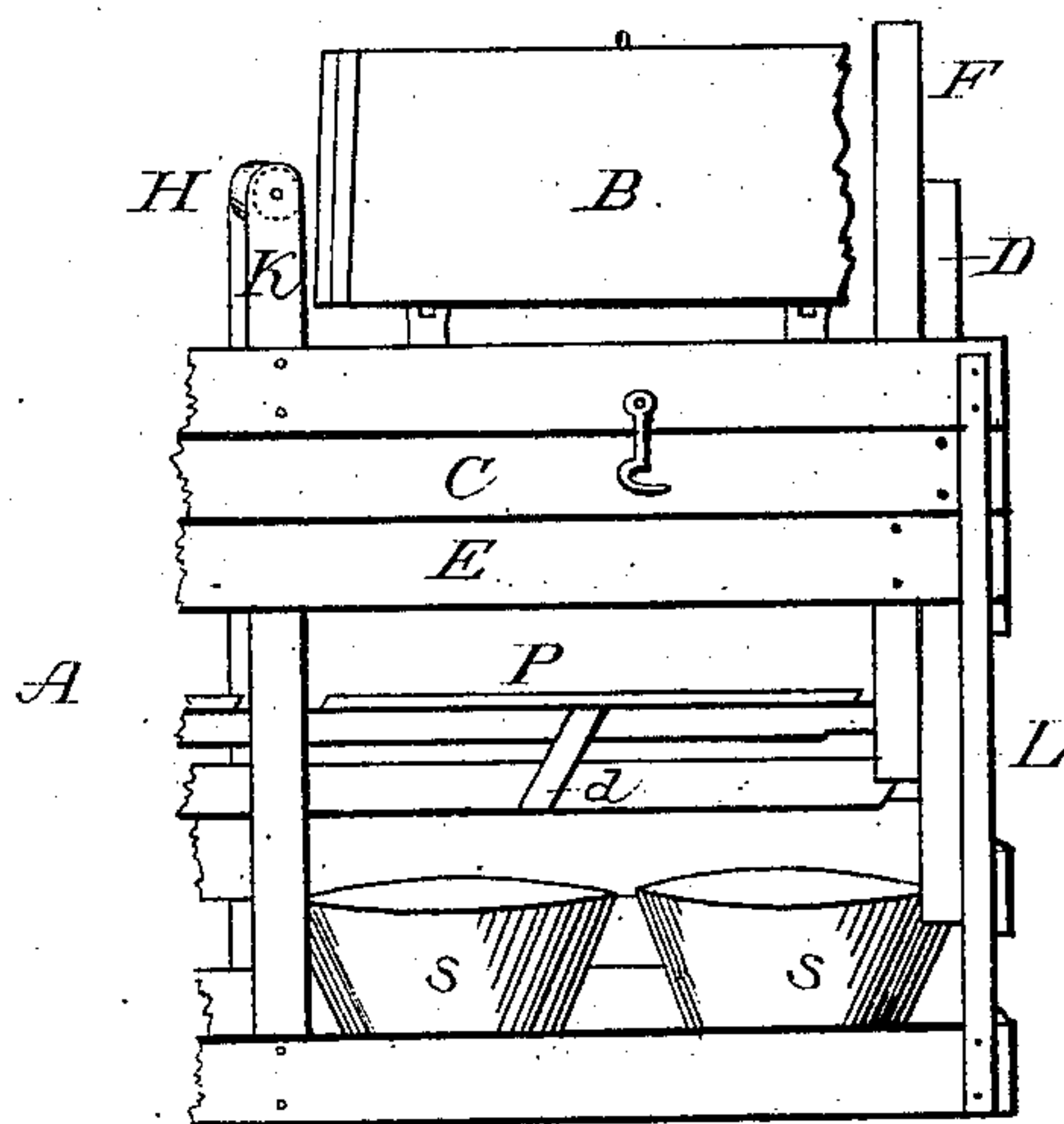


Fig. 3.



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By his Attorney
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Fig. 4.

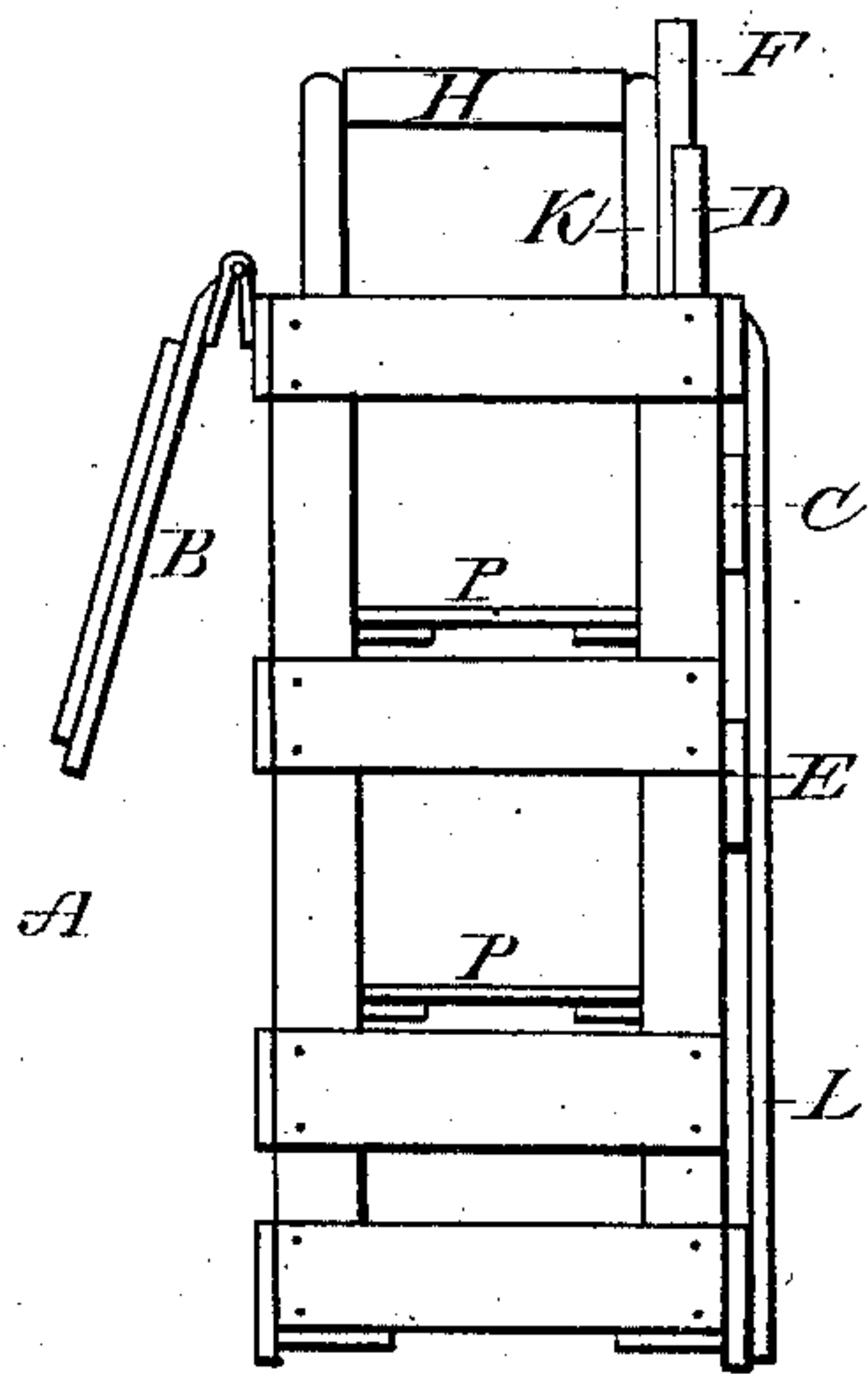


Fig. 5.

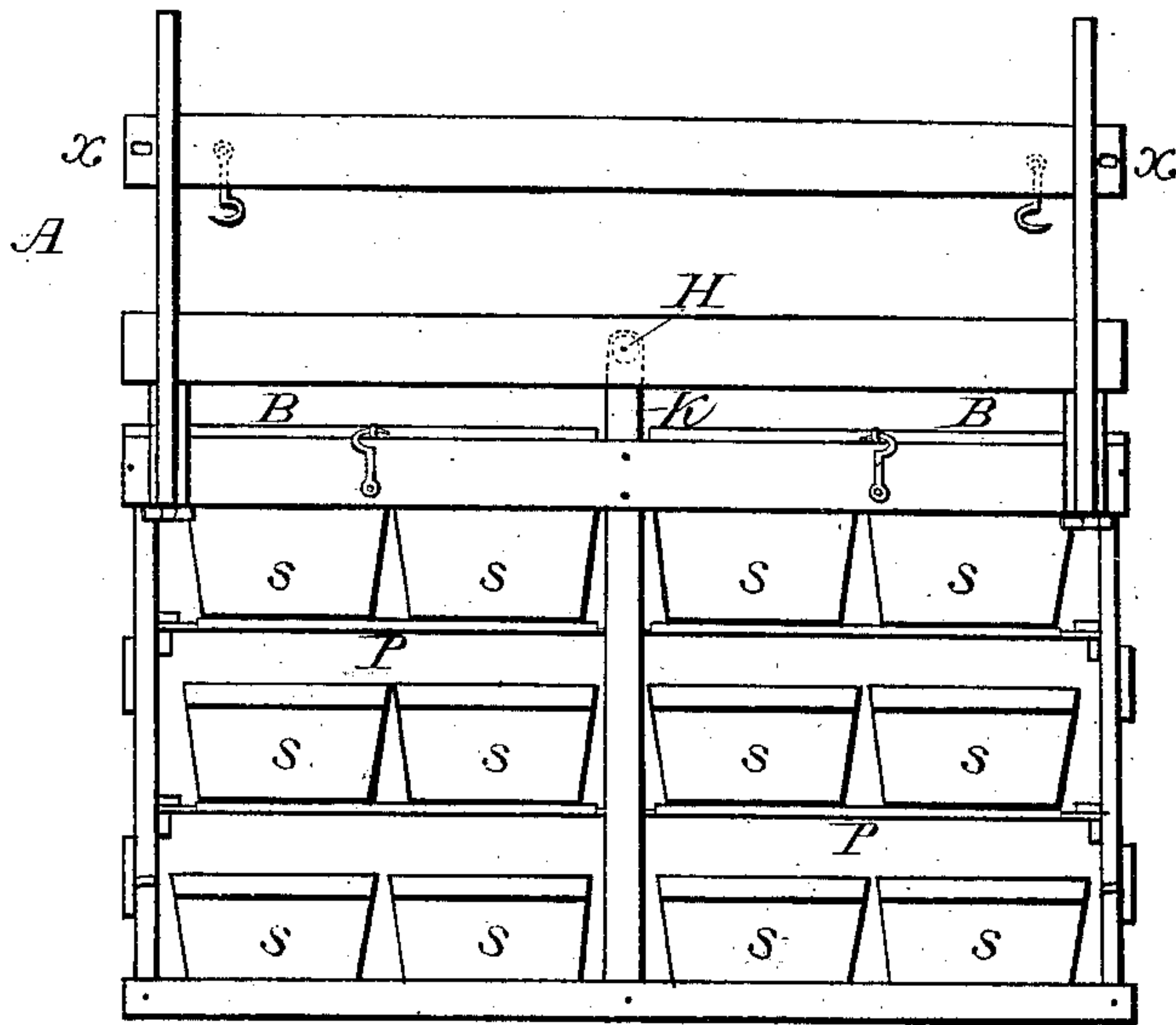


Fig. 6.

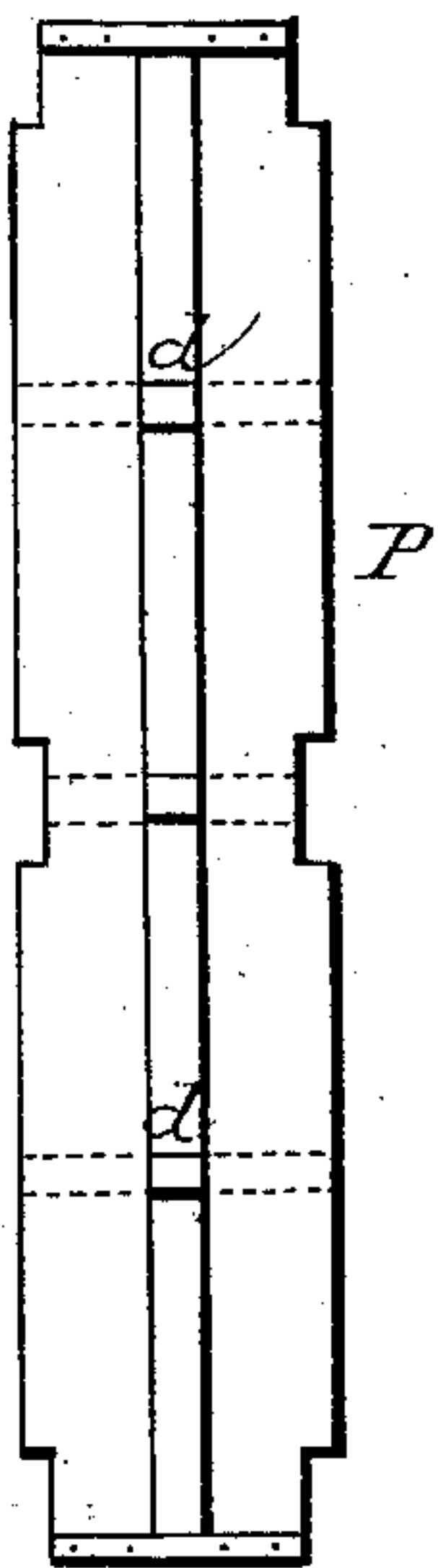
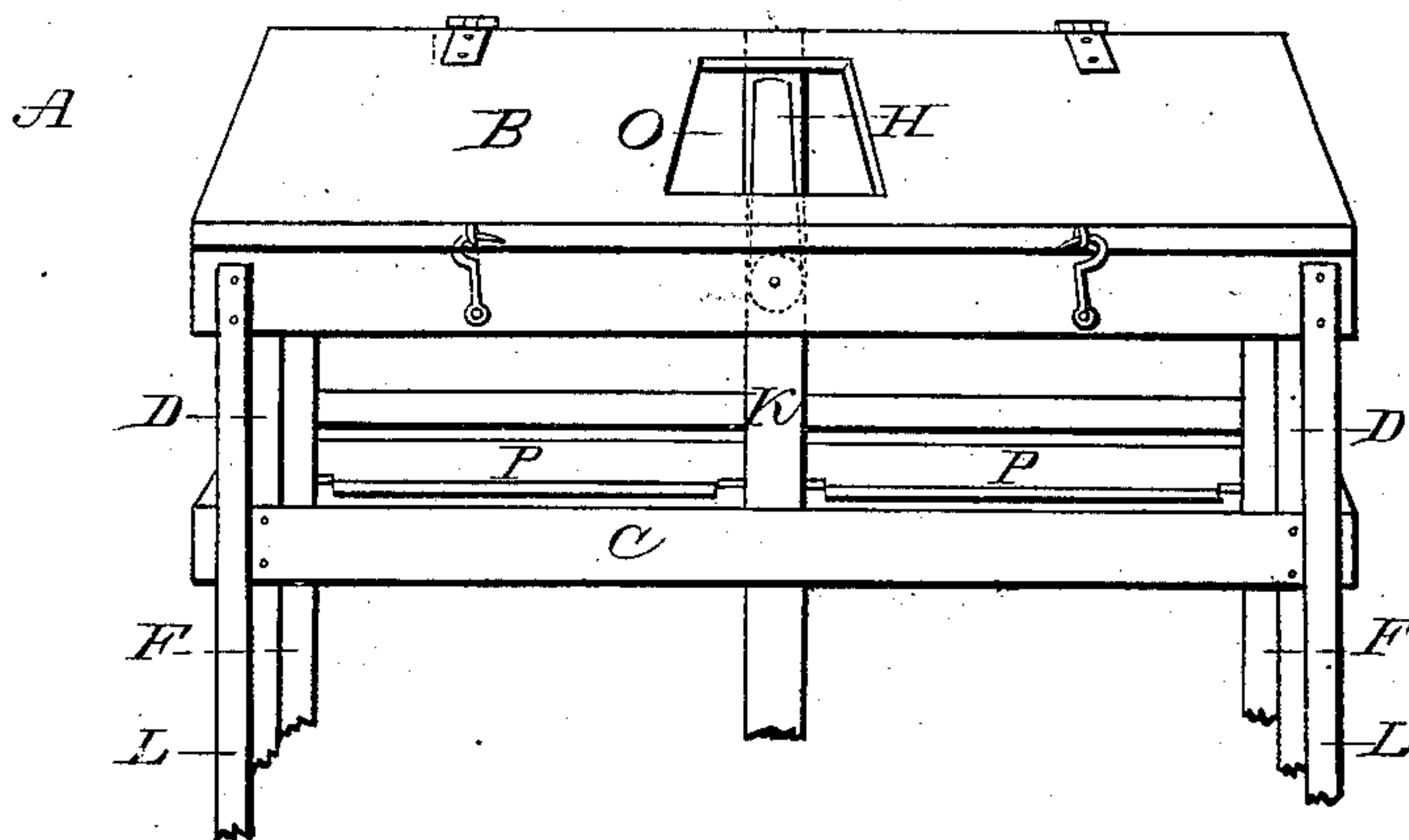


Fig. 7.



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(No Model.)

4 Sheets—Sheet 3

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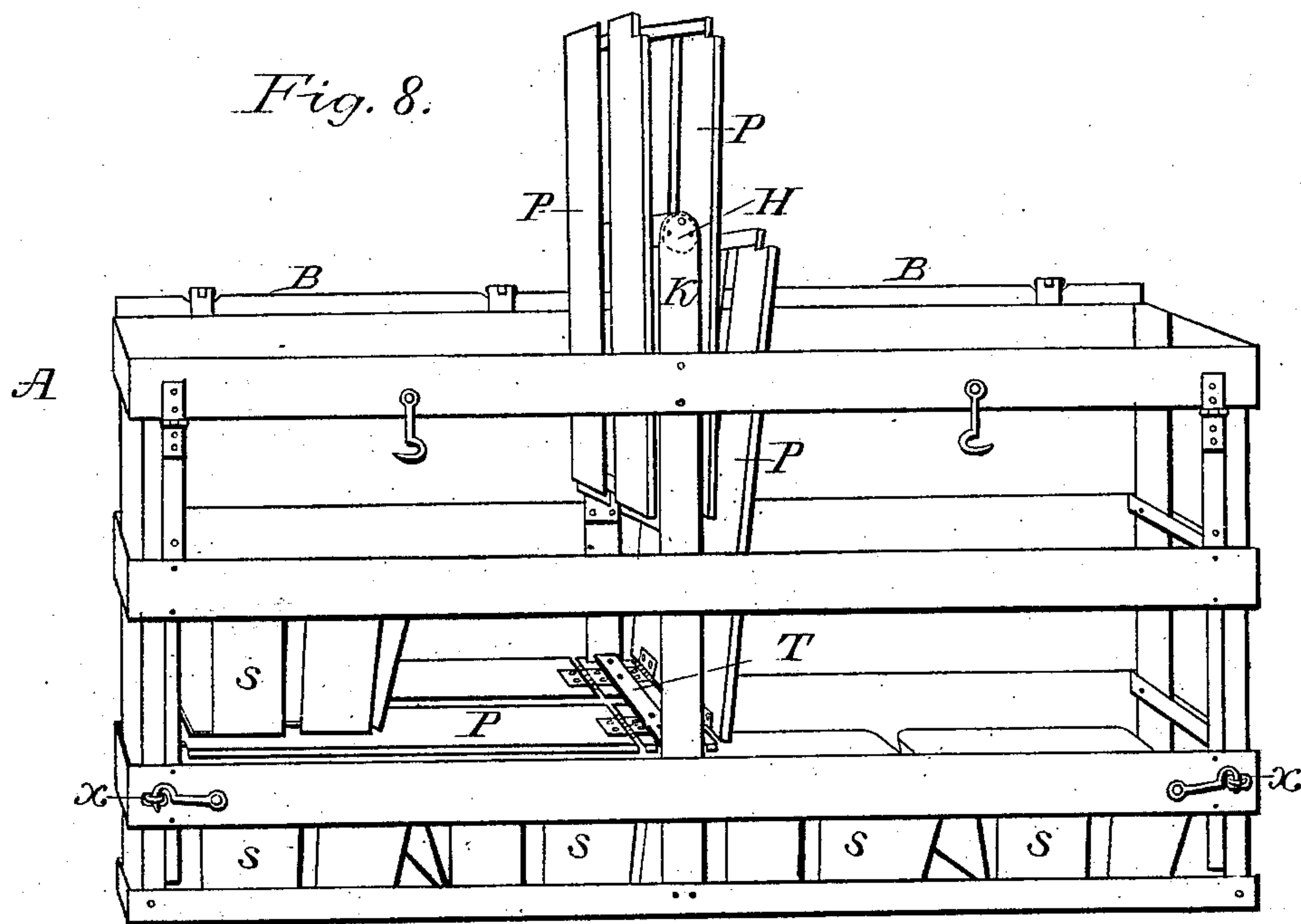


Fig. 9.

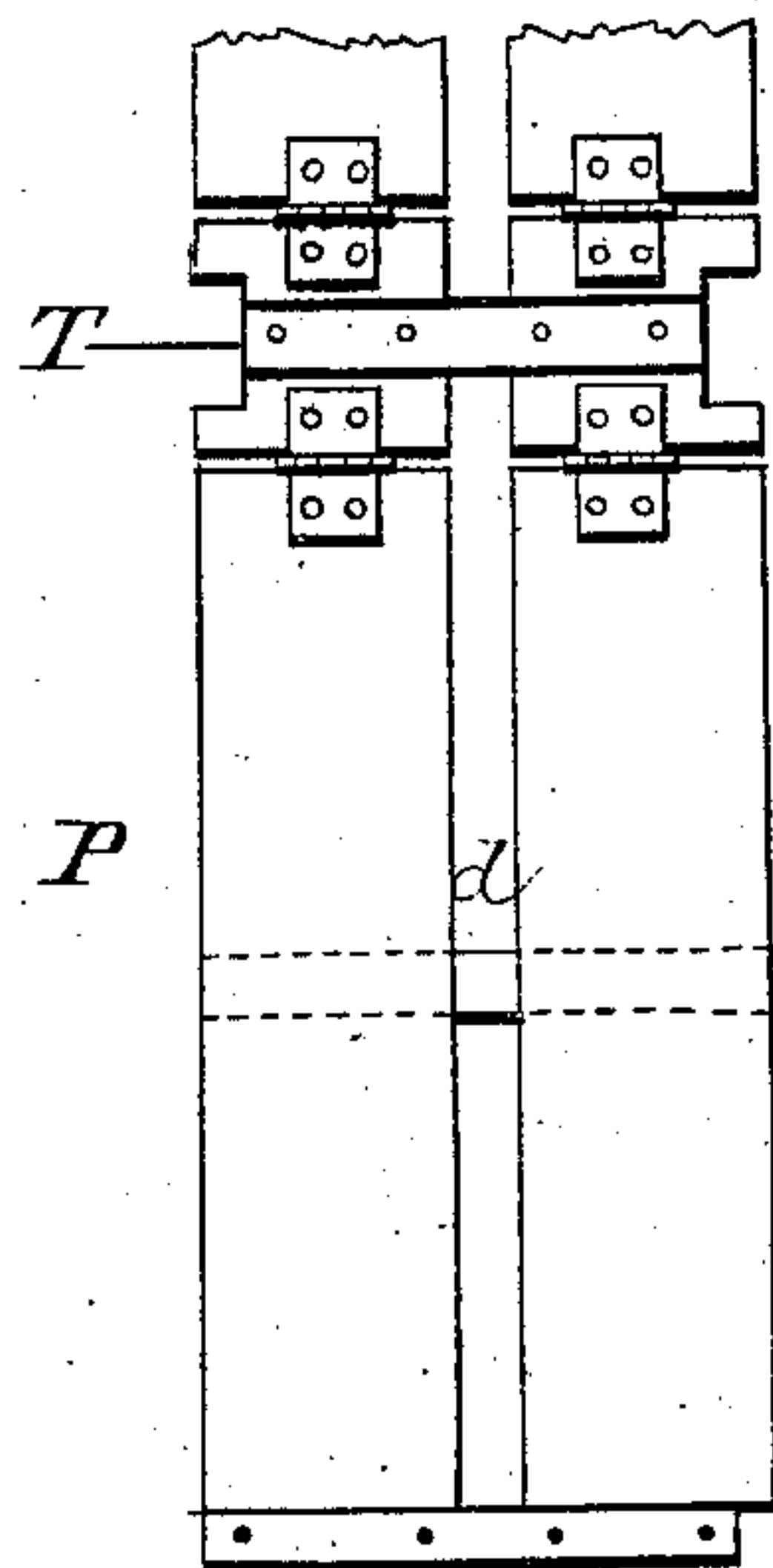
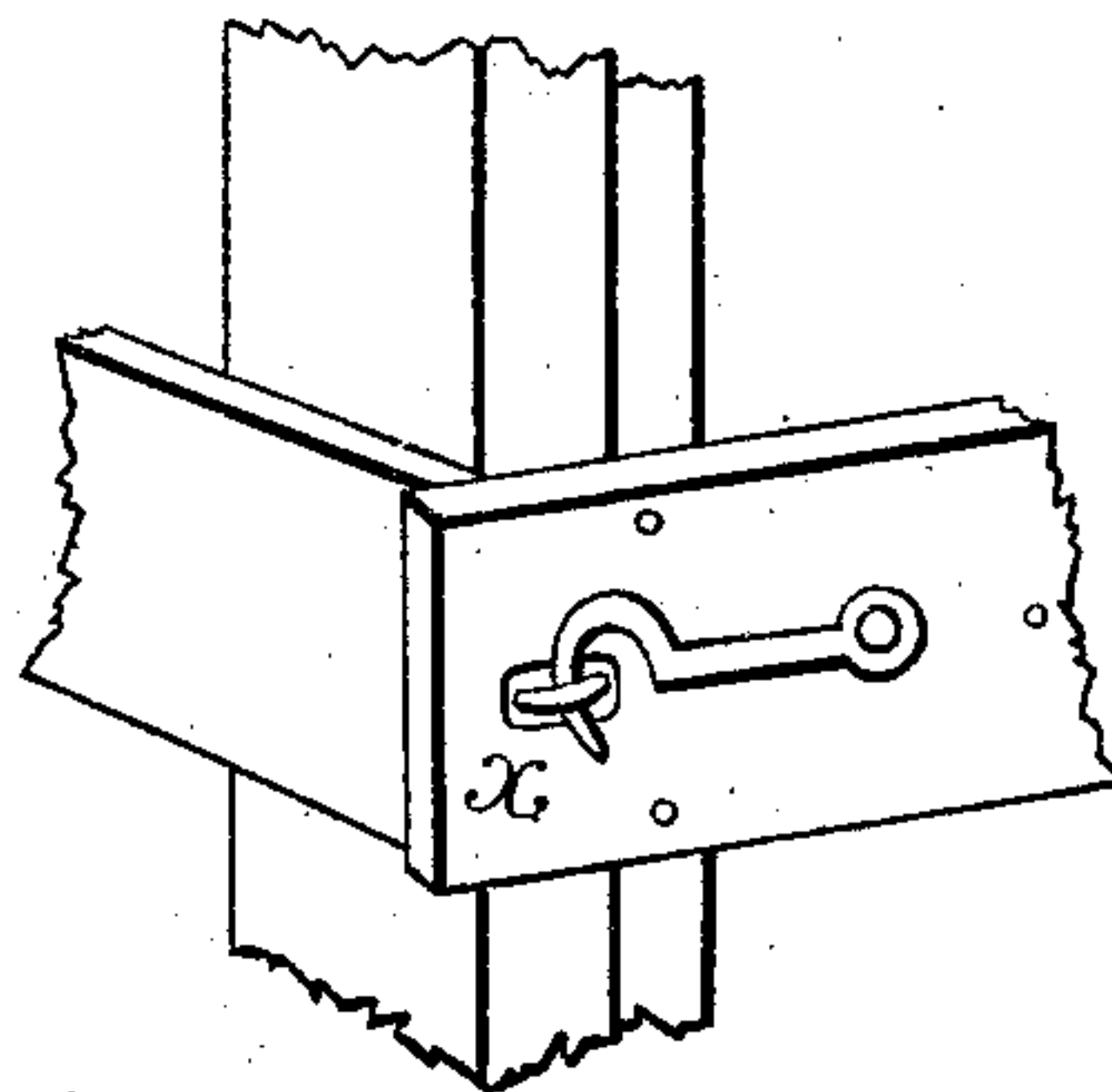


Fig. 10.



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Fig. 11.

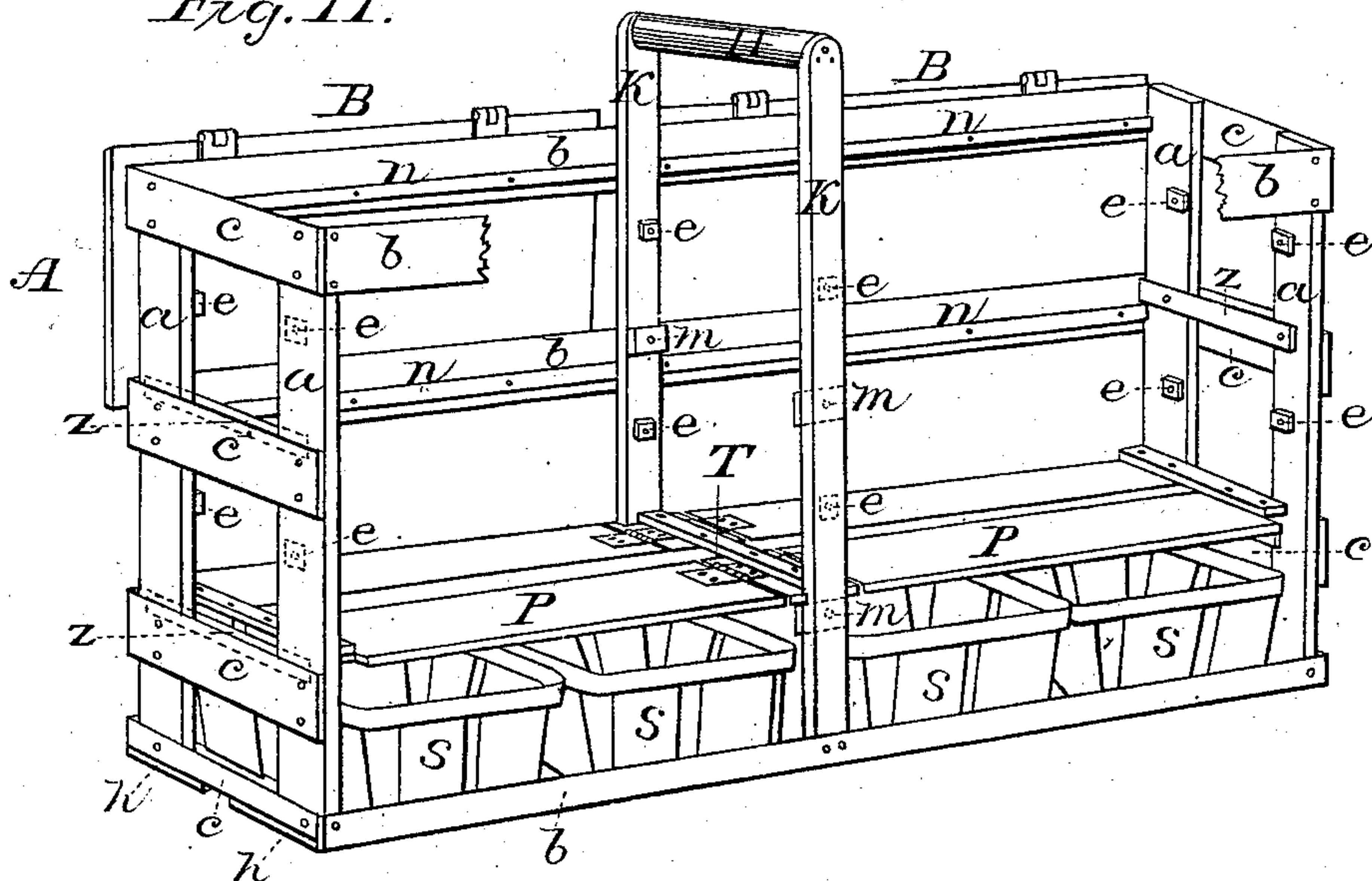
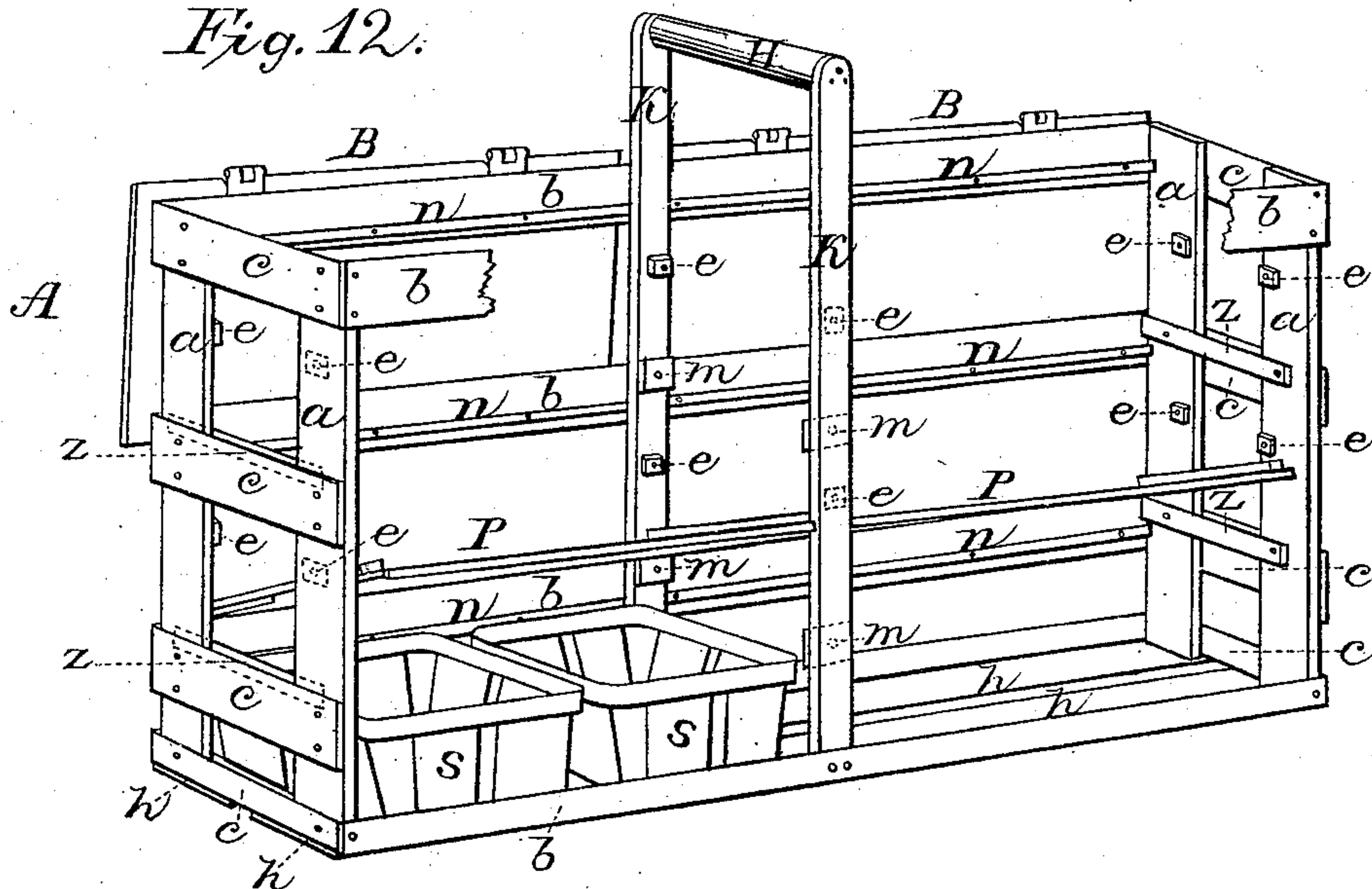


Fig. 12.



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UNITED STATES PATENT OFFICE.

ELIAS W. DURAND, OF IRVINGTON, NEW JERSEY.

CRATE OR CARRIER FOR FRUIT.

SPECIFICATION forming part of Letters Patent No. 237,837, dated February 15, 1881.

Application filed August 26, 1880. (No model.)

To all whom it may concern:

Be it known that I, ELIAS WADE DURAND, of Irvington, in the county of Essex and State of New Jersey, have invented a new and useful Crate or Carrier for Fruit, of which the following is a specification.

The objects of my invention are, first, to provide a light and durable crate or carrier, easy and convenient to lift and carry, and so arranged as to safely transport the fruit to market without bruising or otherwise injuring the same, and also well adapted as a carrier in which to place and convey the fruit, by hand or otherwise, as it is gathered in the field or garden; second, to afford facility, by means of vertically-movable non-detachable platforms or vertically-movable non-detachable hinged platforms, for conveniently placing the baskets of fruit in the crate or carrier and for readily inspecting or removing the same therefrom, the said platforms being so adjusted that, while they can be tilted up somewhat in the crate or carrier to give access to the baskets, they cannot be taken out, and are therefore protected from breakage or loss; third, to so arrange the crate or carrier that when the lid is opened the upper tier of baskets may be inspected or removed, and access may then readily be had to the remaining tiers of baskets, either by means of sliding slats on the front side of the crate or carrier, adjusted to slide up in turn for each tier of baskets, or to slide up all at once, as may be desired, or by means of hinges near the centers of the platforms, so adjusted that the platforms may be turned up near the center of the crate or carrier on each side to give access to each successive tier of baskets, and also by uniting together and hinging the front slats of the crate or carrier in such a way that the said front slats, instead of sliding up, as before, may be lifted up on hinges, thereby exposing by one movement the lower tiers of baskets, and giving free access to all at the same time; fourth, to so plan and arrange the said crate or carrier in general that, while it can readily be opened to receive the baskets of fruit or for the inspection or removal of the same, none of the parts are detachable, and are thus less liable to be broken, and cannot be taken out, exchanged, or lost, the said crate or carrier, whether full or empty, being,

with all its parts, connected together in one package, and always ready for immediate use or transportation. In order to attain these objects I construct my said crate or carrier as illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the crate or carrier of a single width of basket, of three tiers, packed and closed ready for transportation to market or to the consumer. Fig. 2 is a front perspective view of one-half of the crate or carrier (the portion not shown being correspondent) of a single width of basket as the same appears after the lid is opened, the top tier of baskets removed, and the upper sliding slat pushed up to permit the removal of the second tier of baskets. Fig. 3 is a front perspective view of one-half of the crate or carrier (the portion not shown being correspondent) of a single width of basket after the lid is opened, the first tier of baskets removed, and the upper sliding slat pushed up, the second tier of baskets removed, and the second sliding slat pushed up, giving free access to the bottom tier of baskets, and also the lower platform vertically moved or tilted up, as shown, to afford additional room in which to inspect, place, or remove the baskets. Fig. 4 is an end view of the crate or carrier of a single width of basket, with the lid opened and the sliding slats partly raised. Fig. 5 is a front view of the crate or carrier either of a single or double width of basket, having the double lid at the top, as in Figs. 1, 2, 3, 4, 5, 8, 11, and 12, but in place of the sliding slats, Figs. 1, 2, 3, and 4, having the intermediate slats in front connected together and hinged to the top front slat, so that the slats thus connected may be turned up, as shown, giving free access at once to all the baskets except those on the top platform, which in this arrangement are only exposed by the opening of the lid or lids at the top of the crate or carrier. Fig. 6 is a plan of one of the vertically-movable non-detachable platforms, non-folding, or without the central hinged arrangement shown in Figs. 8, 9, and 11. Fig. 7 is a perspective view of the top portion of the crate or carrier, showing a single lid with a central slot, O, therein to give access to the handle, which, instead of projecting above the lid, as in Figs. 1, 2, 3, 4, 5, 8, 11, and 12, is depressed or sunk

and attached below the level of the lid, as shown. Fig. 8 is a perspective view of the crate or carrier of a single width of basket, having the front intermediate slats united together and hinged to the top front slat as shown, and having also the vertically-movable non-detachable platforms hinged near their centers, so as to open up against the side of handle when the lid is opened, enabling each tier of baskets in turn to be inspected and removed, if desired, without unfastening or lifting up the said intermediate front slats, which, however, may also be lifted up, as shown in Fig. 5, if desired. One side of the lower hinged platform in Fig. 8 is folded down, as shown, and resting upon it is the basket S. Fig. 9 is a plan of a portion of a movable non-detachable platform hinged on each side of its center, as also shown in Fig. 8. Fig. 10 is a perspective view of a portion of one of the intermediate front slats of the crate or carrier, showing the slot *x* therein at the end of the slat to receive the eye shown, and through which slot the said eye projects sufficiently when the slats are closed to catch the hook used to fasten the crate or carrier. Fig. 11 is a perspective view of a crate or carrier without the front movable slats, and having the upper front slat broken away in order to show more clearly the construction of the permanent and immovable parts of the crate or carrier, and showing one of the platforms P in position ready to receive the baskets, also showing the interior end and center supports for the platforms and the interior cleats or stops, which prevent the platforms, although vertically movable, from being taken out or detached from the crate or carrier, also showing the strip *n* employed to lessen the width of the crate or carrier, so as to provide for the use of square baskets as well as round ones, as hereinafter described; and Fig. 12 is a perspective view of a crate or carrier, showing, as in Fig. 11, the plan of constructing the permanent portions of the same, also the supports and cleats or stops for the platforms and the strip *n*, and also showing a platform vertically moved or tilted up in front, in order to give free access to the baskets below it, and showing the relation of the platform when thus in a tilted position to the cleats or stops above it, which prevent it from being further lifted up or removed from the crate or carrier.

In crates as heretofore constructed the baskets are arranged on the platforms in double rows, and there is no handle or other equivalent device for taking hold of the crate to lift or carry the same, and both hands are required to move a single crate, whereas by the use of the central handle, shown in Figs. 1, 2, 3, 4, 5, 7, 8, 11, and 12, two crates may be lifted or carried by one person at the same time, one crate in each hand, and in carriers used for gathering the fruit, as heretofore constructed, the arrangement is simply for a double row of baskets of a single tier only, with a handle

above across the carrier, constituting a most inefficient and inconvenient device. By my invention all these objections are overcome and the crate or carrier is otherwise improved, as herein described.

Similar letters refer to similar parts in all the figures.

A is the crate or carrier to hold the baskets S S S S, in which the fruit is placed.

B is the lid, which may be double, as in Figs. 1, 2, 3, 4, 5, 8, 11, and 12, or single, as in Fig. 7.

C, Figs. 1, 2, 3, 4, and 7, is a front upper sliding slat attached to the outer sliding bar, D.

E, Figs. 1, 2, 3, and 4, is a front lower sliding slat attached to the inner sliding bar, F.

When the sliding slats C and E, attached respectively to the sliding bars D and F, Figs. 1, 2, 3, and 4, are employed in the crate or carrier, and the lid B (clearly shown in Figs. 1 and 7) is closed and fastened, the said lid then rests upon the tops of the sliding bars D and F, locking and securing them in a closed position, as shown in Figs. 1 and 7, so that the baskets cannot be reached or removed until the lid is opened. By opening the lid the top tier of baskets is exposed. The other tiers may then be exposed by sliding up the said slats, as already described, and as shown in Figs. 2 and 3.

H is the handle, attached in a central position to the central bars, K, of the crate or carrier; or it may be attached in any other secure way, and is planned either to project above the top of the lid, as in Figs. 1, 2, 3, 4, 5, 8, 11, and 12, or it is sunk or depressed and attached below the lid, as in Fig. 7. The lid of the crate or carrier, when the handle is sunk or depressed, may be either single or double, but must always have a central slot therein, O, Fig. 7, through which the handle H may be reached and taken hold of.

When the said sliding slats C and E are employed the outside slats, L L, Figs. 1, 2, 3, 4, and 7, are used, and are attached to the crate or carrier in front, at each end, to form, in connection with the front corner-posts of the crate or carrier, a way, within which the said sliding slats C and E are adjusted to move up and down, as shown and described. The ends of the sliding slats C and E are adjusted to bind somewhat or sufficiently in the ways between the outside slats, L L, and the corner-posts of the crate or carrier, so that they will, when moved up or down, always be retained by their own friction in any position in which they are placed, as may be desired.

P P are the platforms on which the baskets rest, Figs. 1, 2, 3, 4, 5, 7, 8, 11, and 12, also shown separate and apart in Figs. 6 and 9. These platforms are notched at their centers and ends, as shown, in order to fit the interior of the crate or carrier, and are planned and adjusted in such a way that they can be vertically moved or tilted or lifted up in front, Figs. 3 and 12, to give more room for placing

or removing the baskets. They are retained in a tilted position as long as desired by simply drawing them forward when tilted, so that they will bind against the side of the crate or carrier in front, and are also so retained by their own weight and friction, as the opposite or lower side of the platform will then rest somewhat edgewise on the side supports, Z Z, and the central supports, M M, Fig. 12, and is thus prevented from slipping down. When in position, ready to receive the baskets, the platforms P P are supported at their ends by the said cross-pieces Z Z, and are supported at their centers by the cleats M M, attached inside to the central bars, K K, Figs. 11 and 12. By the use of cleats or stops inside the crate or carrier they cannot otherwise be further moved or detached, or separated therefrom to be exchanged, lost, or broken, as is frequently the case with the shelves or platforms of crates in ordinary use. These cleats or stops are permanently attached inside the crate or carrier, as clearly shown at *e e*, Figs. 11 and 12, and are placed over and above the ends and center of each platform in such a position as that when the platform is tilted its upward movement will be arrested at the proper place by the cleats or stops *e e*, Fig. 12, and it cannot at any time be removed or liberated from the crate or carrier. The platforms P P are formed rigid and continuous without hinges, as in Fig. 6, or, as in Figs. 8, 9, and 11, in two parts, hinged to a central portion, T, and planned and adjusted in the crate or carrier in such a way that when the top lid is opened and the upper tier of baskets removed the hinged portions of the said platforms may be successively lifted or folded up, Fig. 8, to give access to the fruit, or when thus folded up may be successively returned again into place, ready to receive the baskets.

In Figs. 5, 8, and 10, *x* is a slot at each end of the lower intermediate front slat of the crate or carrier. When the said front is closed the eye shown attached to the corner-post of the crate or carrier, Figs. 5, 8, and 10, projects through the slot *x* sufficient to receive the hook attached to the said lower intermediate slat, closing and securing the crate or carrier, as described. By this arrangement the eye is protected when the slats are closed, and does not interfere with the adjustment of the crates or carriers together for transportation.

The main body or immovable portion of the crate or carrier is formed in the usual or ordinary way, Figs. 11 and 12, and consists of the corner-posts *a a* and central bars or supports K K, the side or longitudinal slats *b b*, attached thereto, and also the end slats, *c c*, and bottom slats, *h h*, and handle H, as shown in the figures.

To provide for the use of square baskets as well as round ones in the same crate or carrier, it is necessary to lessen the width somewhat of the space inside the crate or carrier on a line a little below the top of the baskets, to

prevent the square baskets from moving sideways and so bruising the fruit. To accomplish this a narrow packing-strip, *n*, Figs. 2, 11, and 12, of sufficient thickness, is attached inside to the lower edge of the top slat of the crate or carrier, also in a similar way to the corresponding permanent slats below for each tier of baskets. This arrangement is effective and sufficient for the use of square baskets, and does not interfere with the use of round ones in the same crate or carrier, as the sides of the round baskets slope so much toward the bottom that they clear the said inner rim or packing-strip, *n*.

In order to prevent the baskets from springing up when being transported, and thus injuring the fruit, cross-bars are attached on the under side of the platforms. (Shown at *d d*, Figs. 3, 6, and 9.) These cross-bars *d d*, when the platforms are in position, will rest and press firmly down upon the rims of the baskets, and so prevent them from springing or shifting.

I do not propose to confine myself to crates or carriers of a single width of basket, as the principles of my invention are applicable to any size or width of crate or carrier, although I believe those of a single width of basket will be found in use of the best advantage.

The construction of the crate or carrier as to platforms, handles, lid or lids may also be variously changed or modified without affecting the principles of my invention. The lid B in Fig. 7 may be divided into two at the center, and half of the slot O cut from the end of each of the lids, so that when the lids are closed the slot O will give the same access to the handle as if it were cut in a single lid, as shown. The front intermediate slats (shown in Figs. 5 and 8) may be hinged at the bottom instead of the top, or they may be divided into sections and hinged respectively at the bottom and top or at the sides. By this arrangement the lid or lids B may, if desired, be dispensed with or fastened permanently to the crate or carrier.

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

1. In a crate or carrier, the vertically-movable platforms P, in combination with the cleats or stops *e e*, making the platforms non-detachable, and the sliding or hinged slats C and E to cover and uncover a vertical side of the crate or carrier, substantially in the manner and for the purposes described.

2. In a crate or carrier, the lid B, provided with an aperture, O, in combination with the handle H, permanently secured to the crate or carrier beneath the aperture O in the lid, substantially in the manner and for the purposes described.

3. In a crate or carrier, the sliding slats C and E, attached to the sliding bars D and F, in combination with the vertically-movable non-detachable platforms P and central handle, H, substantially in the manner and for the purposes described.

4. In a crate or carrier, the strip *n*, in com-

bination with the vertically-movable non-detachable platforms P and sliding slats C and E, substantially in the manner and for the purposes described.

5 5. In a crate or carrier, the sliding slats C and E, attached to the sliding bars D and F, in combination with the lid B, locking and securing the slats in a closed position when the slats are down and the lid closed, substantially in the manner and for the purposes described.

6. In a crate or carrier, the combination of the sliding slats C and E, non-detachable platforms P, having the cross-bars *d d*, cleats *e e*, central handle, H, lid B, and strip *n*, substantially in the manner and for the purposes described.

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