

F. B. CASE.

REVERSIBLE BACK FOR CAMERAS.

APPLICATION FILED JAN. 17, 1903.

NO MODEL.

Figure 1.

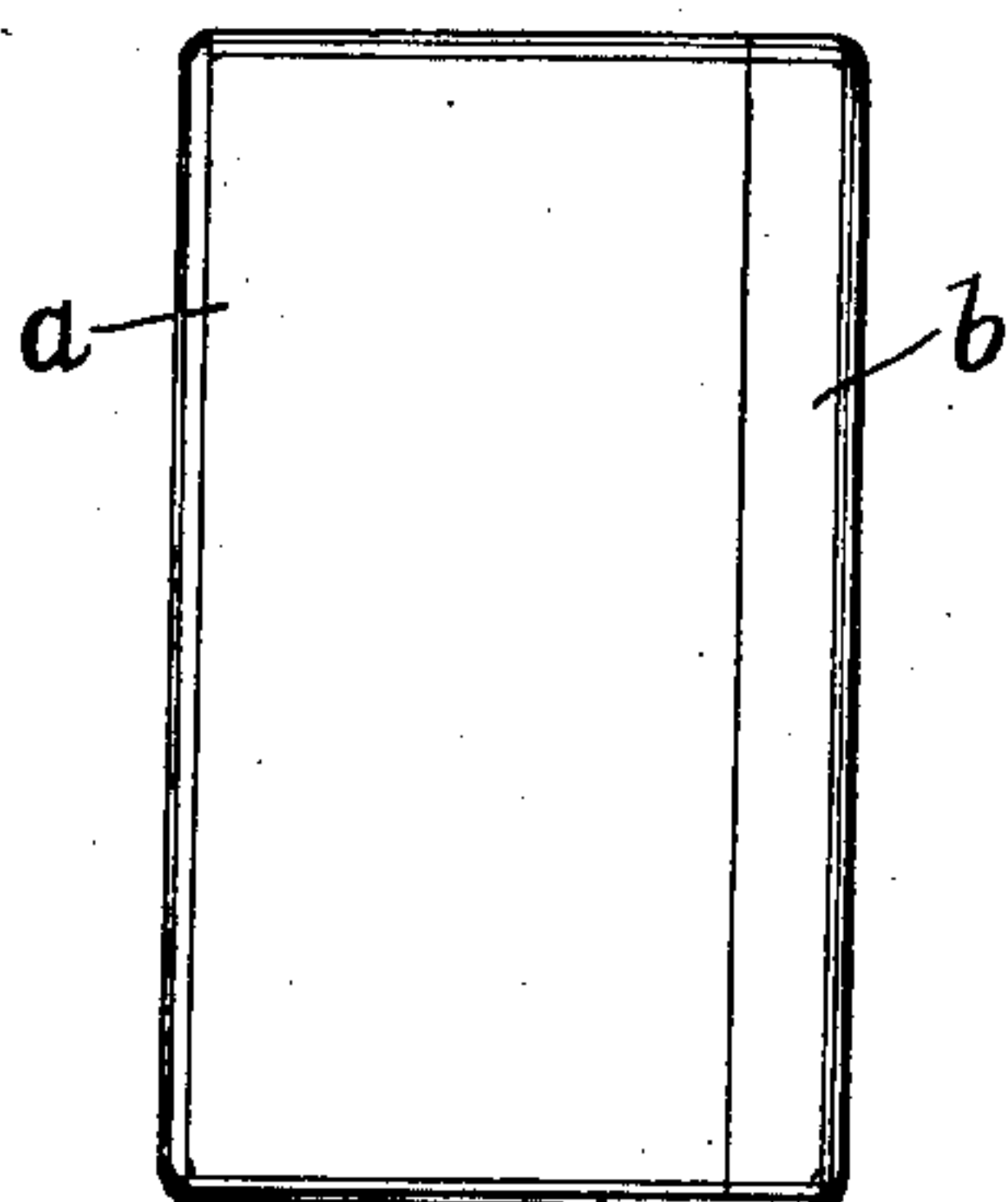


Fig. 2.

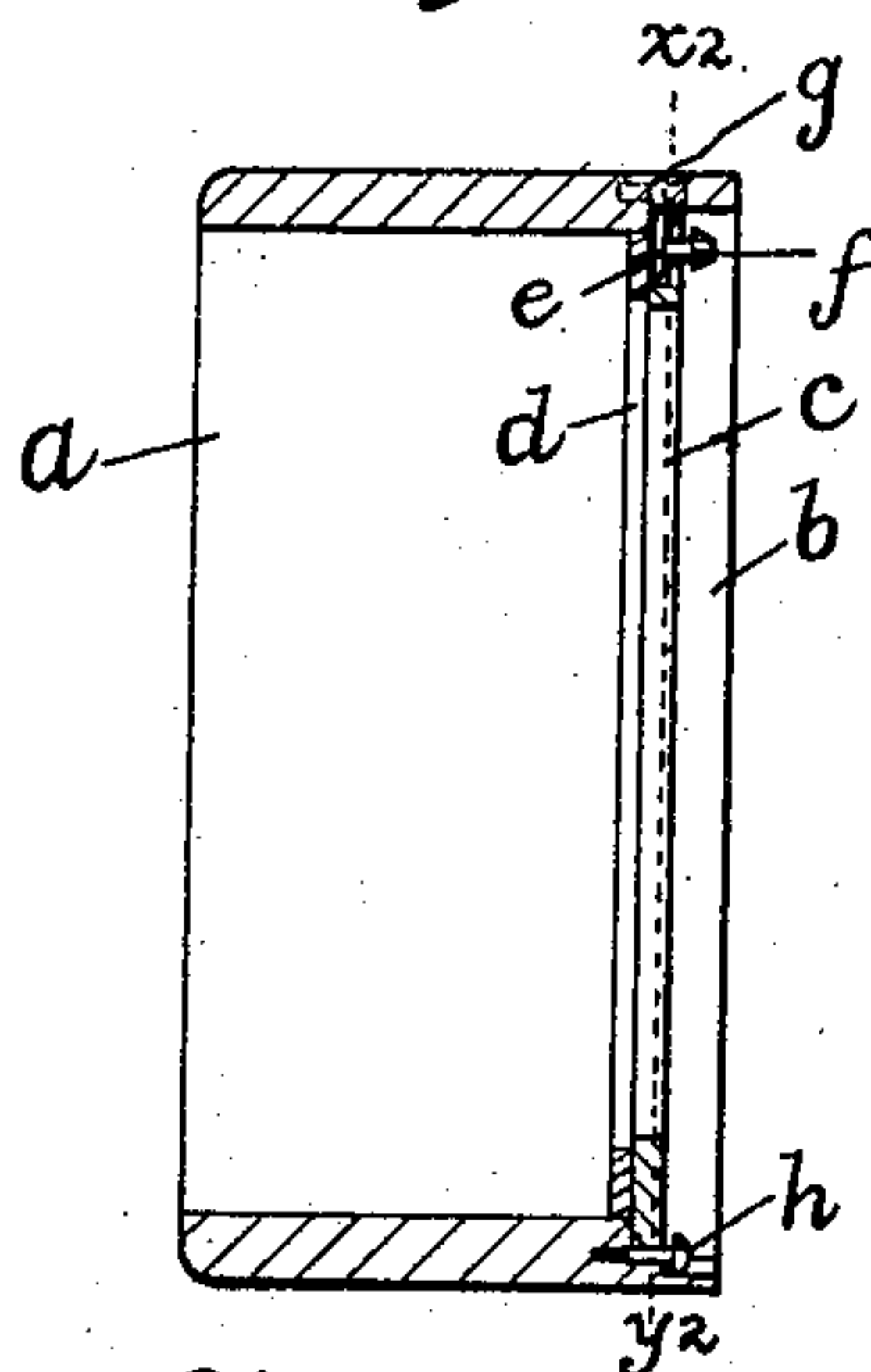


Fig. 3.

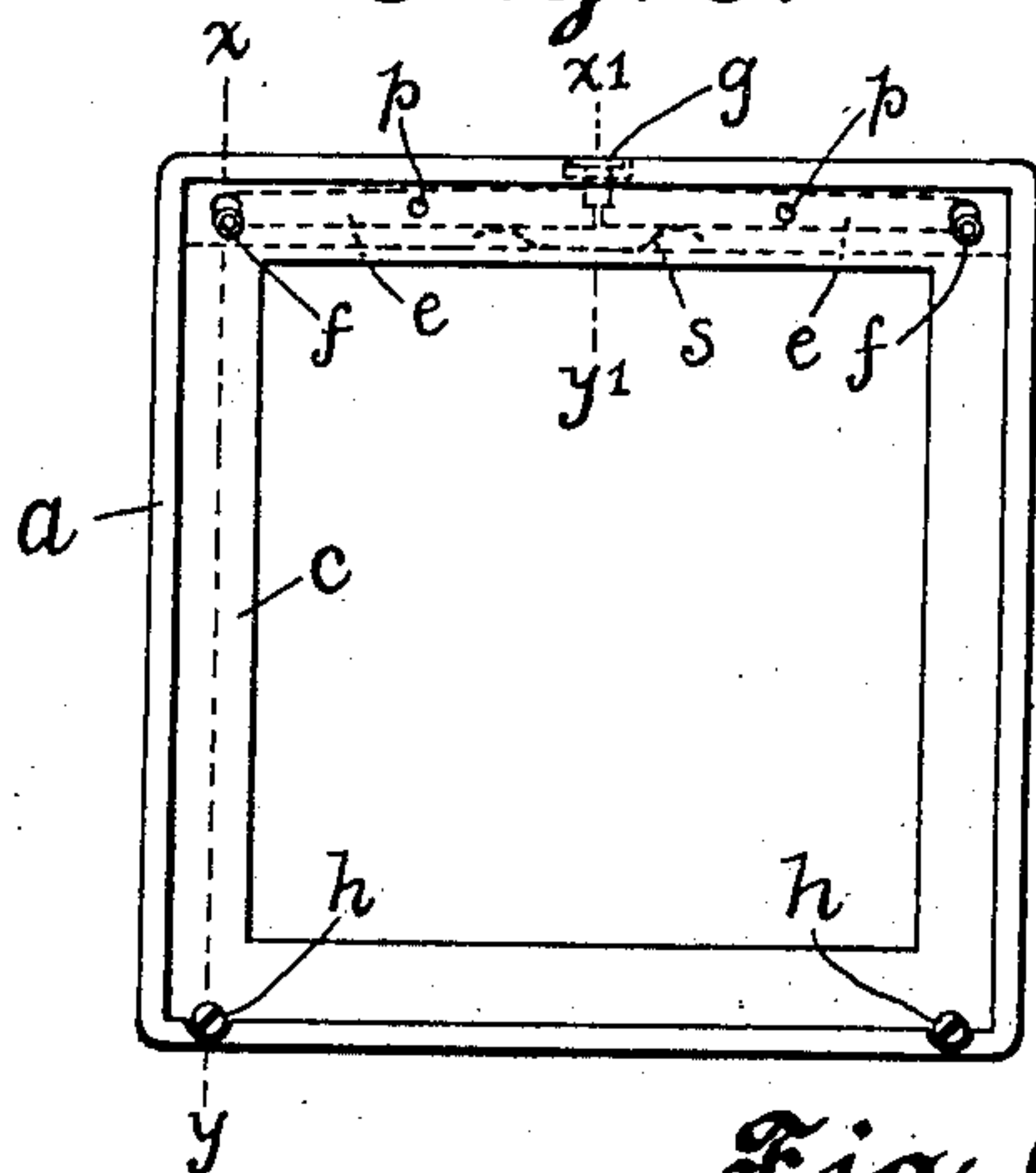


Fig. 4.

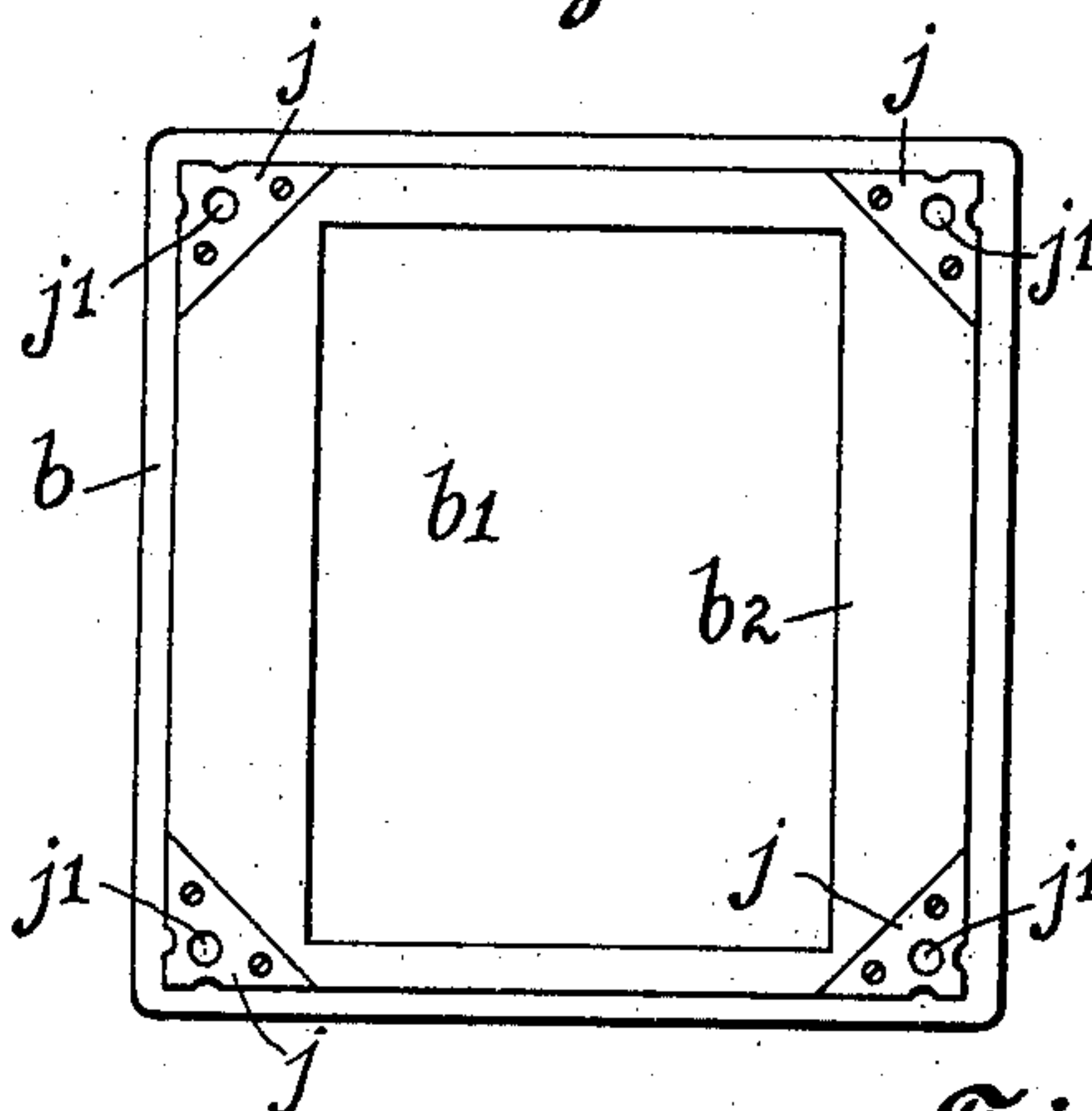


Fig. 5.

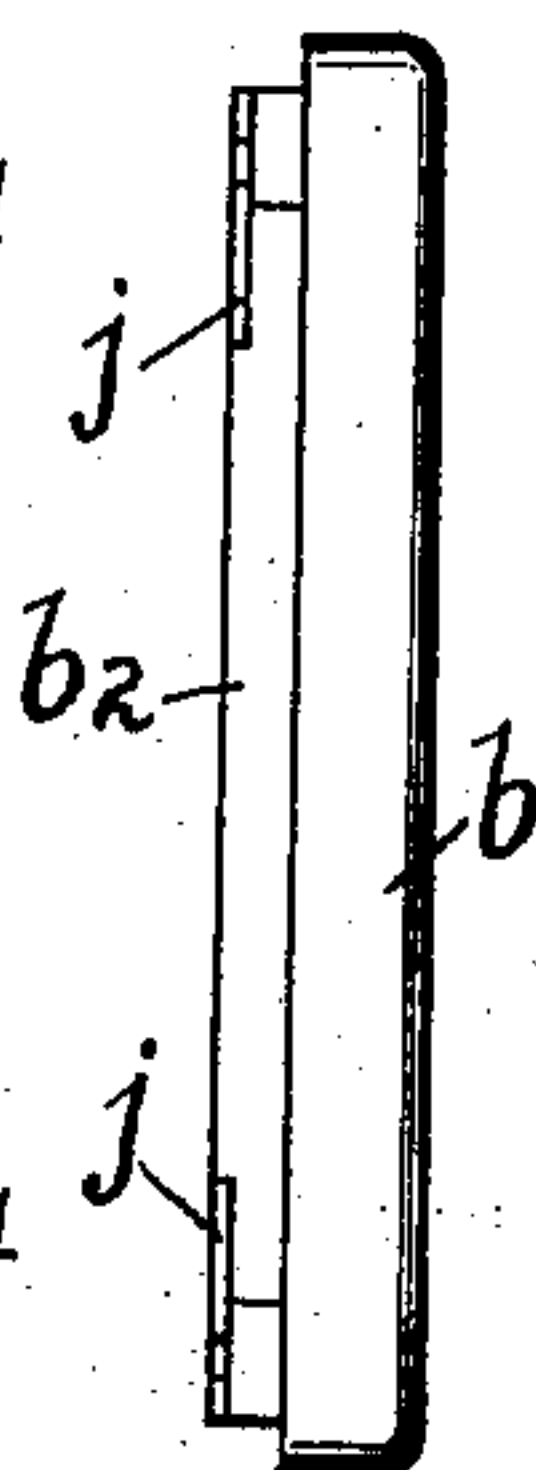


Fig. 6.

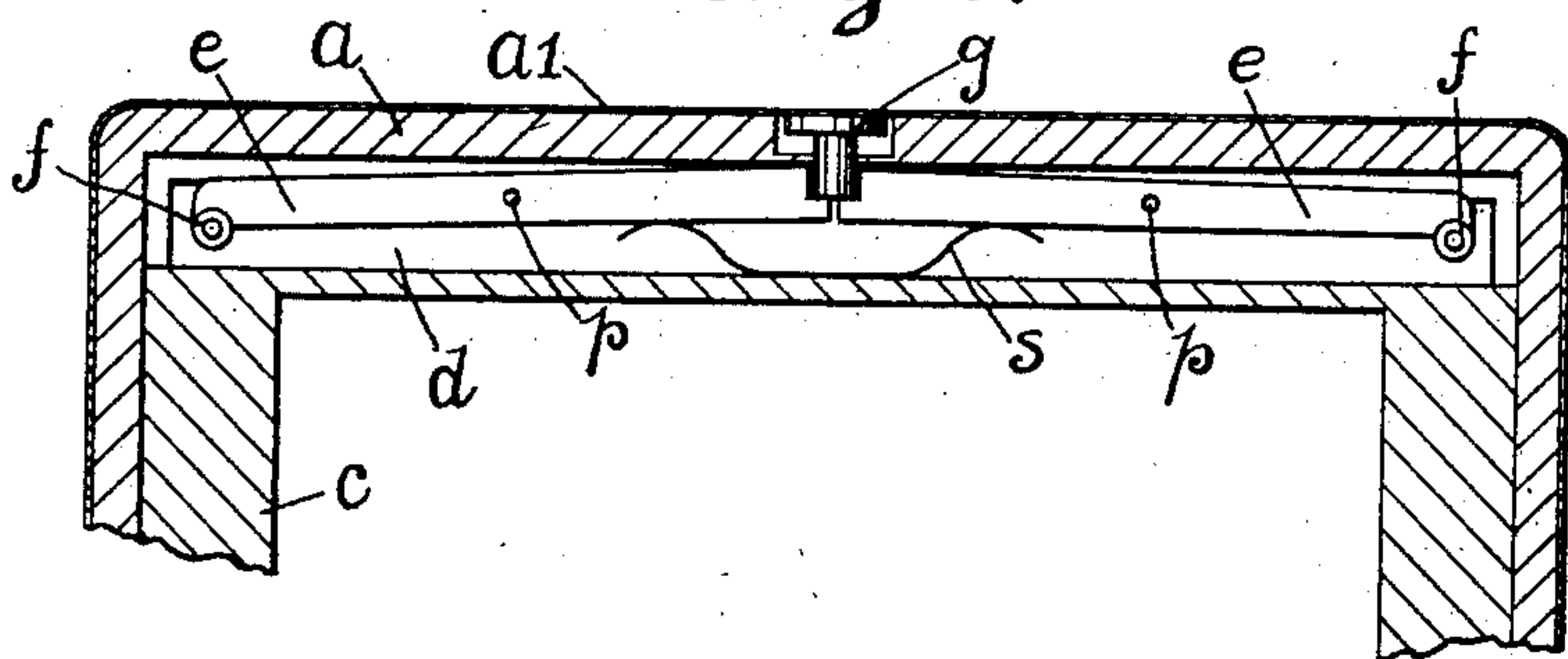
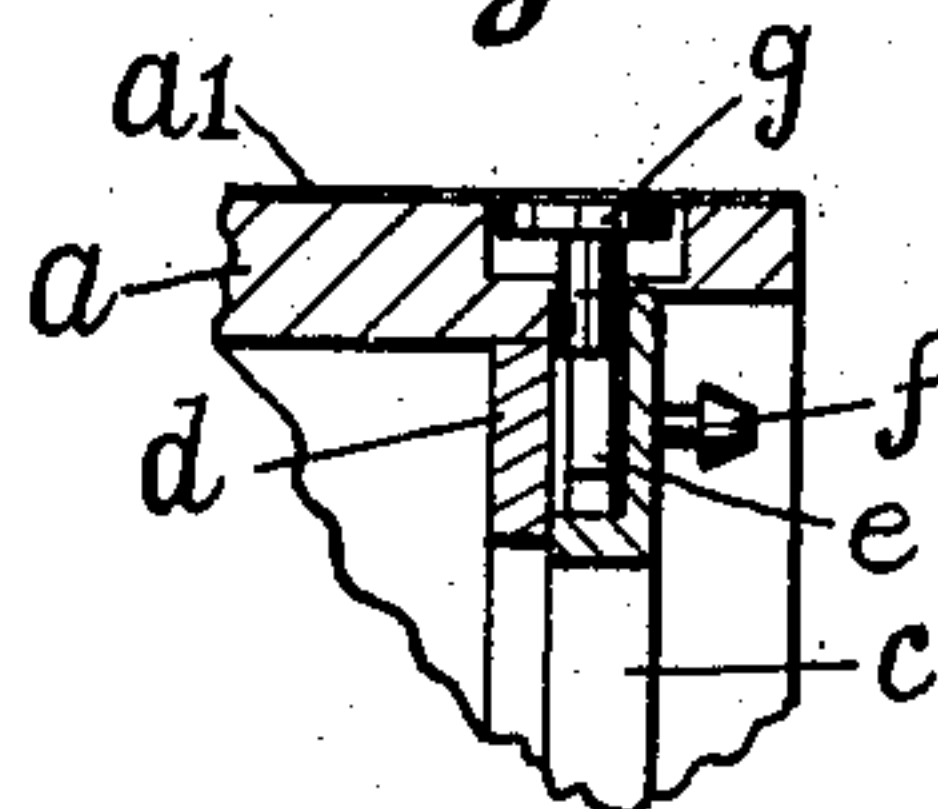


Fig. 7.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANK B. CASE, OF ROCHESTER, NEW YORK.

REVERSIBLE BACK FOR CAMERAS.

SPECIFICATION forming part of Letters Patent No. 736,212, dated August 11, 1903.

Application filed January 17, 1903. Serial No. 139,453. (No model.)

To all whom it may concern:

Be it known that I, FRANK B. CASE, a citizen of the United States, and a resident of Rochester, in the county of Monroe and State of New York, have invented a new and Improved Reversible Back for Photographic Cameras, of which the following is a specification.

The object of my invention is to provide a reversible back for photographic cameras of such a character that the back may be unlocked or released from the camera-box by the operation of a single releasing push-button or equivalent device and one which will be firmly held in its operative position by positive holding mechanism at or near each one of the four corners thereof. Such a holding mechanism must be necessarily of such a character that the camera-back may be held in its operative position with any one of its four edges uppermost.

A further object of my invention is to provide a more efficient reversible camera-back than has heretofore been done and one that shall be more economical to construct and in which the mechanism for holding at least two of the corners of the camera-back shall be adjustable.

These objects I accomplish by means of the arrangement shown in the accompanying drawings, the several views of which, illustrating my invention, are as follows:

Figure 1 is a side view of a camera-box *a* with the camera-back *b* attached. Fig. 2 is a vertical sectional view of the camera-box *a* taken along the dotted line *x y* of Fig. 3, with all parts to the left of such line removed. Fig. 3 is a view from the right of the camera-box *a*, as seen in Fig. 1, with the back *b* removed. Fig. 4 is a view of the camera-back *b* as seen from the left in Fig. 1. Fig. 5 is an edge view of the camera-back *b*. Fig. 6 is an enlarged sectional view of the camera-box *a*, taken along the dotted line *x² y²* of Fig. 2, with the parts to the right of such dotted line removed. Fig. 7 is an enlarged sectional view of part of the camera-box *a*, taken along the dotted line *x' y'* in Fig. 3, with the parts to the left of such line removed.

Similar letters refer to similar parts throughout the several views.

As seen in the drawings, *a* is a camera-box

of usual construction, having a rabbet formed inside and at the back thereof, into which the projection *b²* of the back *b* is arranged to fit. In order to reverse the back *b*, it will be understood it is desirable that both the camera-box *a* and the camera-back *b* be square, as indicated, as well as the projection *b²*, so that such projection *b²* may fit into the camera-box *a* in any desired position.

As seen in Figs. 2 and 3, a square frame *c* is set into the rabbet in the box *a*, and a similar frame *d* is secured to the inner face of the frame *c*. These frames serve in the completed camera to secure the rear end of the bellows (not shown) to the camera-box *a*.

As seen in Figs. 2 and 7, the frame *c* has a rabbet cut in its forward face, across its upper edge, to receive the levers *e e*. (Shown more clearly in Fig. 6.) These levers are pivoted near their middle points at *p p* to the frame *c* and are so conformed that their inner ends are engaged by a push-button *g*, for which a suitable clearance is provided in the box *a*. This push-button is secured in place by the covering material *a'*, usually leather, with which the camera is finished, as seen in Figs. 6 and 7.

At their outer ends the levers *e e* carry rearwardly-projecting pins *f f*, provided with conical heads, as seen. Suitable slots are made in the frame *c* to permit these pins *f f* to move vertically when desired. A spring *s* is also provided in the rabbet in the frame *c* to keep the inner ends of the levers *e e* up when no pressure is exerted upon the button *g*. The result of the construction just described is that when the button *g* is depressed the inner ends of the levers *e e* are depressed against the action of the spring *s* and the outer ends of such levers *e e* and the pins *f f*, carried thereby, are raised. When the button *g* is released, the spring *s* forces the inner ends of the levers *e e* and the button *g* to their upper positions and the outer ends of such levers *e e* and the pins carried thereby to their lower positions. At the bottom edge of the frame *c* and near the corners thereof two round-headed screws *h h* are screwed into the box *a*, so that their heads will project to the rear from the frame *c*.

On each of the corners of the projection *b²* of the back *b* a triangular plate *j*, having a

hole j' near the center thereof, is secured by screws, as indicated. These plates $j j j j$ are so proportioned and the holes $j' j' j' j'$ are of such a size and so located that the projection b^2 of the back b may be placed in the box a with any desired edge uppermost, and the two lower edges of the two lower plates $j j$ will rest on the screws $h h$ between the heads thereof and the rear face of the frame c and with the notches seen in the corners of the plates $j j$ engaging the screws $j^2 j^2$, and the holes $j' j'$ in the upper plate $j j$ will just be engaged by the small ends of the heads of the pins $f f$. By then pressing in on the back b the pins $f f$ and outer ends of the levers $e e$ will be raised against the action of the spring s and the heads of the pins $f f$ pass through the holes $j' j'$, at which time the pins $f f$ and outer ends of levers $e e$ will be depressed by the spring s , and the back b will be securely held in place. Suitable clearances are cut in the back b to accommodate the heads of the screws $h h$ and pins $f f$, which heads are located at such a distance from the rear face of the frame c that the plates $j j$ will just fit between such heads and such frame c . Hence the back b may be placed upon the camera-box in any desired position and sprung into place as described, and to remove the back it is only necessary to depress the button g , which raises the pins $f f$ and permits the back b to be swung on the screws $h h$ off from the heads of the pins $f f$, and then the back b may be lifted clear of the box a . Thus when in place upon the camera-box a the back b is securely held at four points and yet may be instantly released therefrom, when desired, by depressing a single button g .

Attention is especially called to the fact that the screws $h h$ may be turned in or out so as to adjust the fit between the parts. By this means, then, there is provided an adjustable connection between the camera-box and a reversible camera-back.

What I claim is—

1. In combination with a camera-box and a removable back thereto, fixed, but adjust-

able, retaining devices located on one side of such box and near the ends thereof, yielding retaining devices located upon the opposite side of such camera-box and also near the ends thereof, a common operating device and connections between such operating device and such yielding retaining devices, a spring operating normally to hold such yielding retaining devices in their operative positions, mechanism secured upon each edge of such removable back for engaging each of such fixed retaining devices, and also mechanism secured upon each edge of such removable back for engaging each of such yielding retaining devices, such fixed and such yielding retaining devices cooperating with the mechanisms on such removable back, for engaging the same, to rigidly hold such removable back in place on such camera-box with any one of its four edges uppermost.

2. In combination with a camera-box and a removable back thereto, fixed retaining devices located on one side of such box and near the ends thereof, yielding retaining devices located upon the opposite side of such camera-box and also near the ends thereof, a common operating device and connections between such operating device and such yielding retaining devices, a spring operating normally to hold such yielding retaining devices in their operative positions, mechanism secured upon each edge of such removable back for engaging each of such fixed retaining devices, and also mechanism secured upon each edge of such removable back for engaging each of such yielding retaining devices, such fixed and such yielding retaining devices cooperating with the mechanisms on such removable back, for engaging the same, to rigidly hold such removable back in place on such camera-box with any one of its four edges uppermost.

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Witnesses:

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