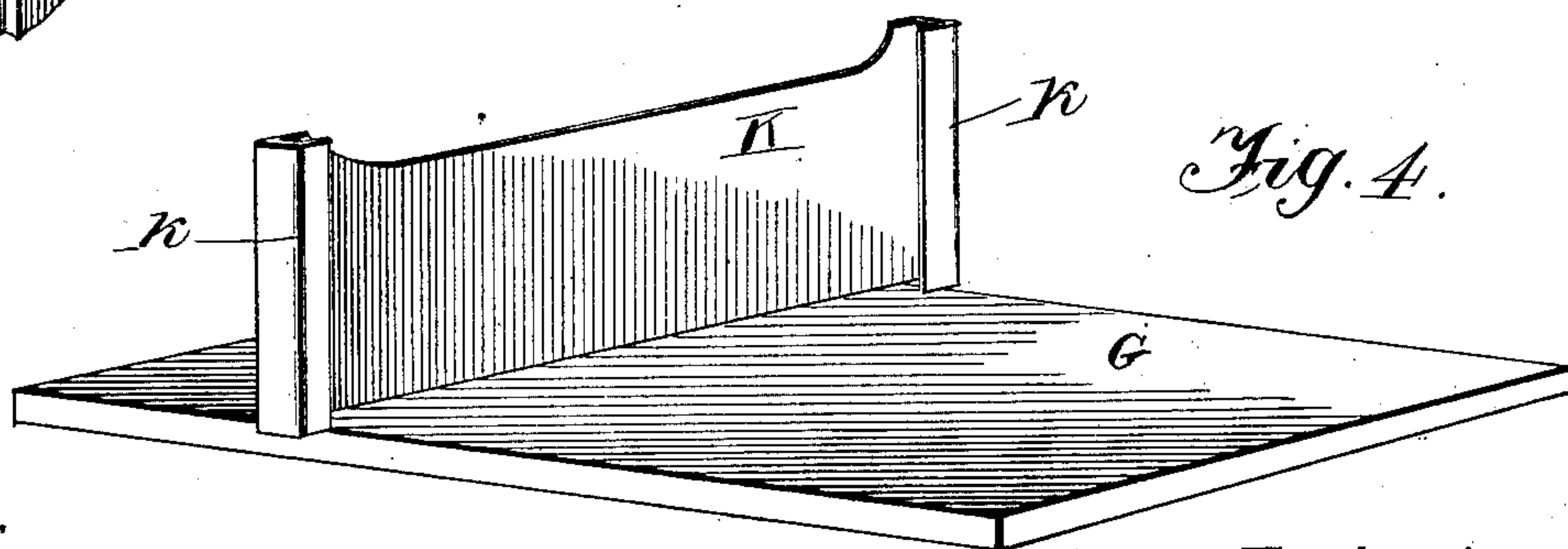
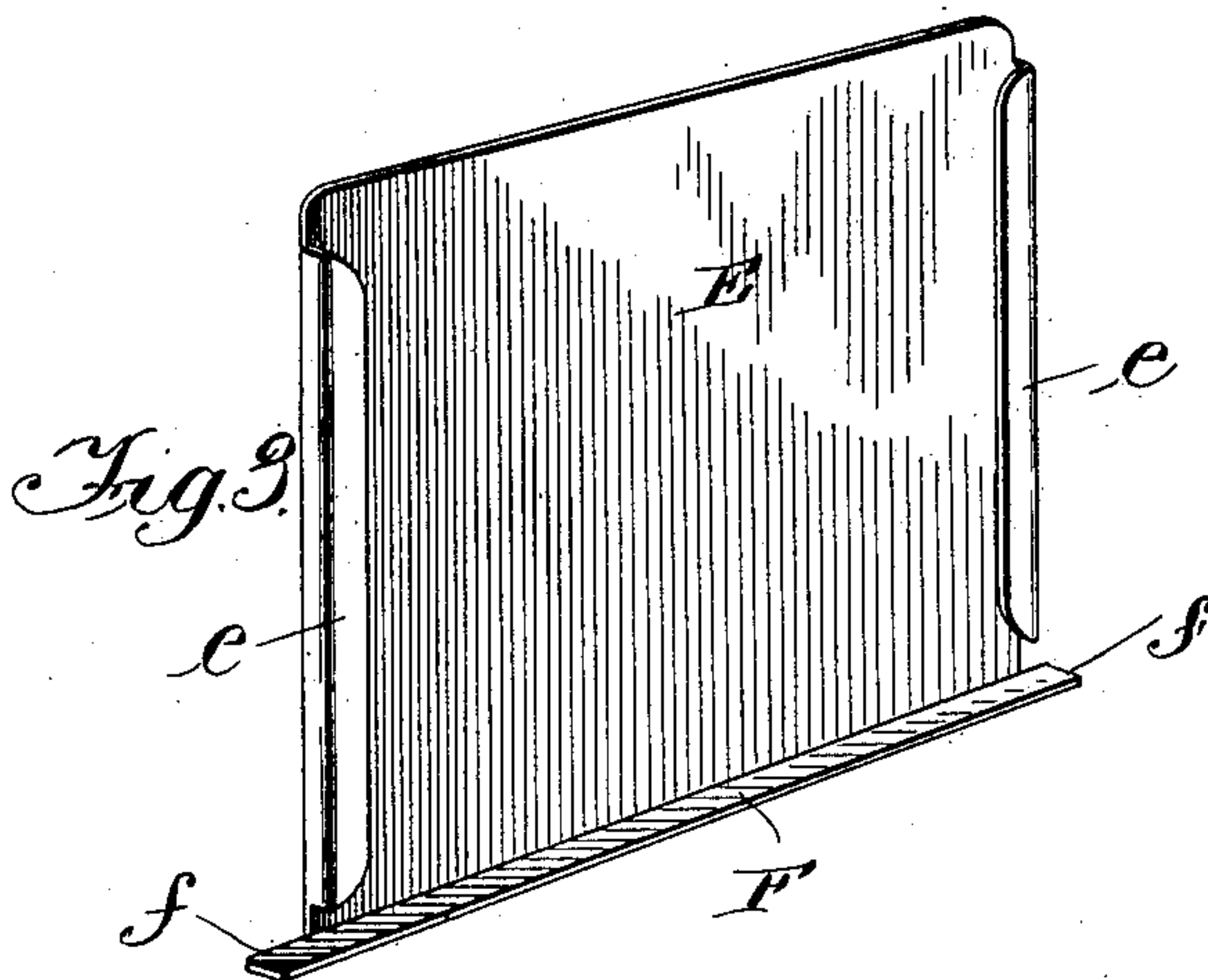
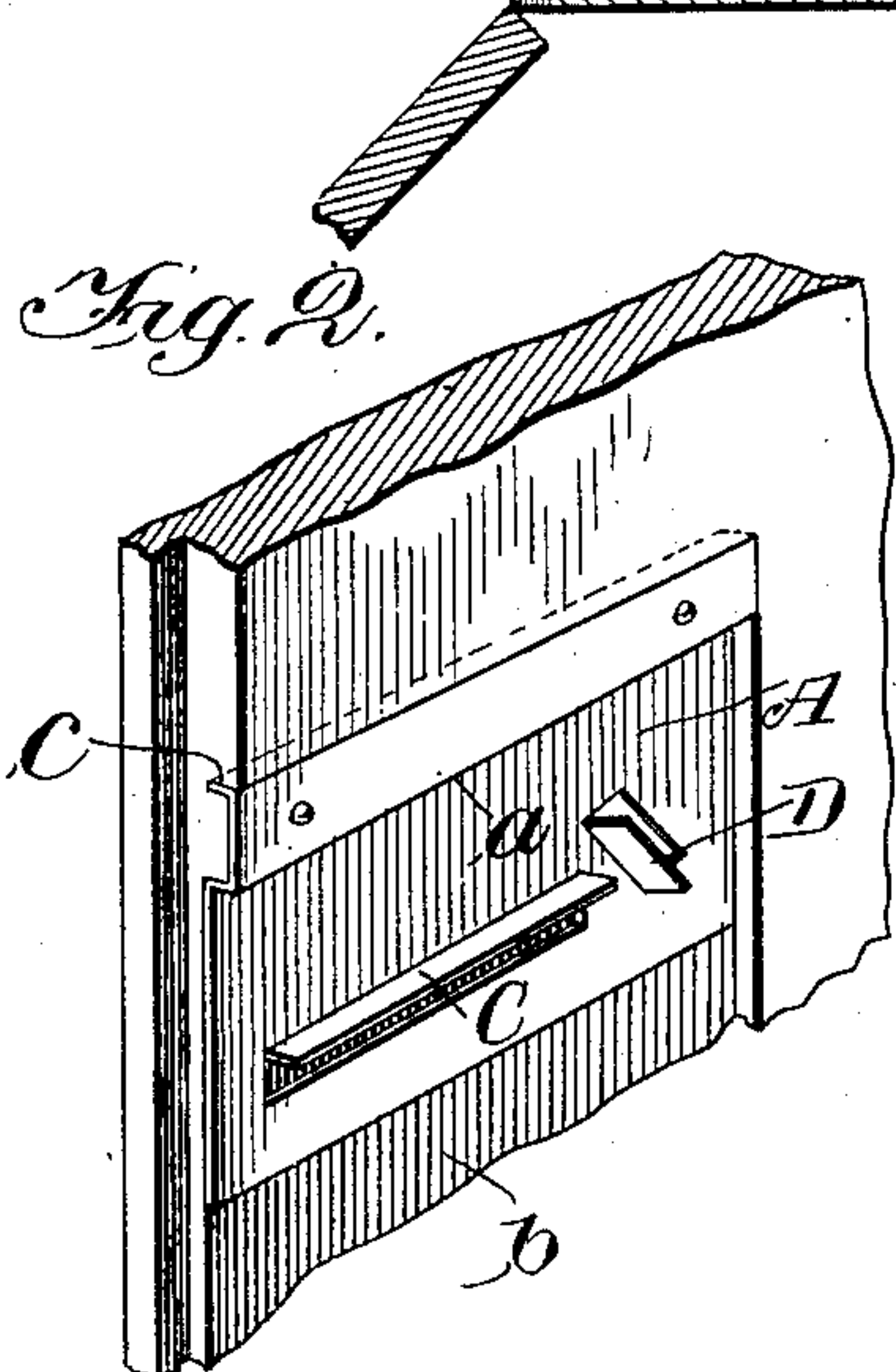
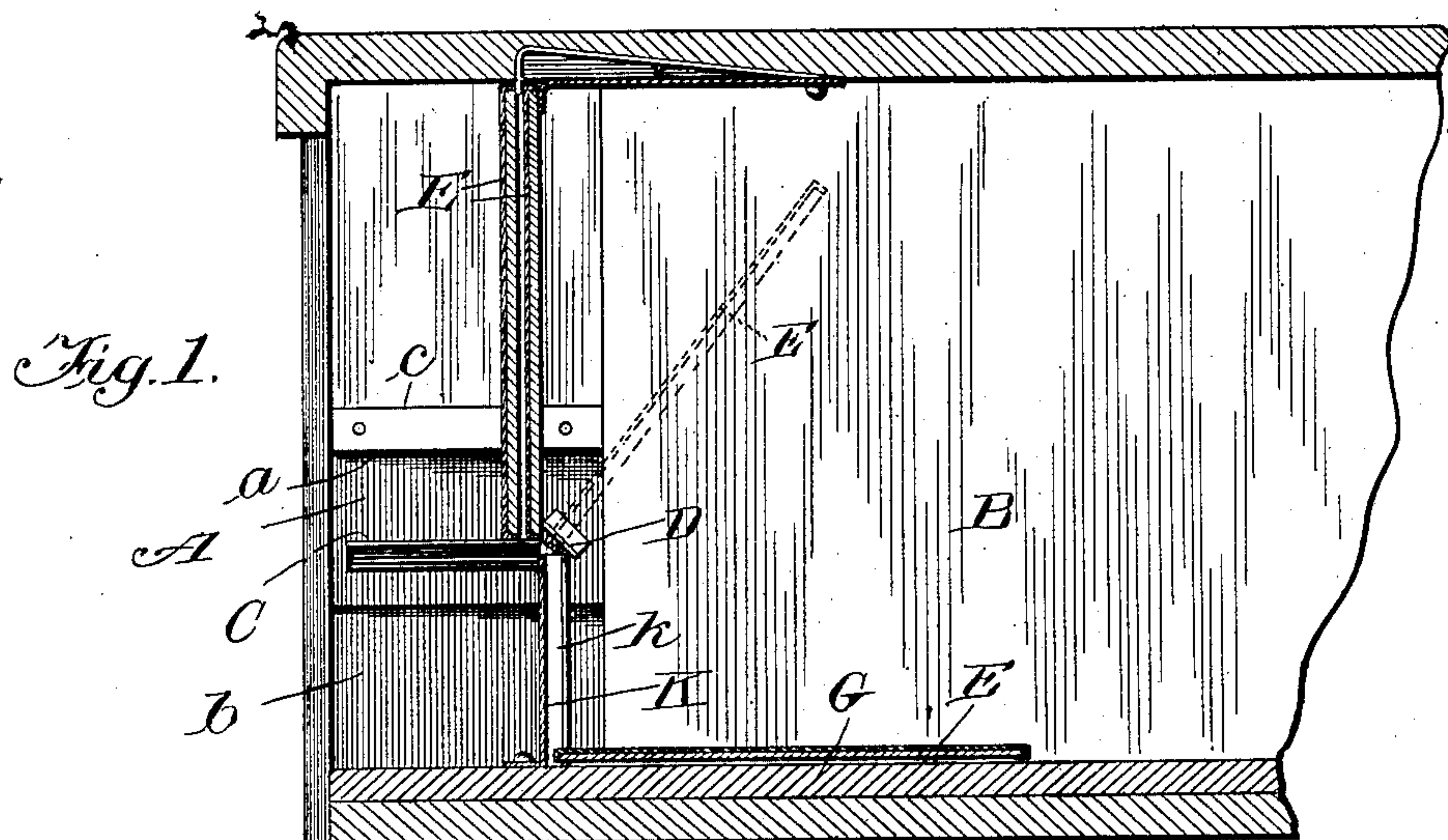


J. C. FYFE & V. ODQUIST.
FEEDING DEVICE FOR MAGAZINE CAMERAS.

APPLIOATION FILED NOV. 6, 1802.

NO MODEL.



Witnesses:

H. S. Waite
E. K. Lundy.

Inventors!

John C. Fryfe and Victor Odquist.

by Frank W. Thomas Attorney.

UNITED STATES PATENT OFFICE.

JOHN C. FYFE AND VICTOR ODQUIST, OF CHICAGO, ILLINOIS.

FEEDING DEVICE FOR MAGAZINE-CAMERAS.

SPECIFICATION forming part of Letters Patent No. 735,746, dated August 11, 1903.

Application filed November 6, 1902. Serial No. 130,260. (No model.)

To all whom it may concern:

Be it known that we, JOHN C. FYFE and VICTOR ODQUIST, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in the Feeding Devices of Magazine-Cameras, of which the following is a full, clear, and exact specification.

Heretofore in those cameras known to the trade as "magazine plate-cameras," in which the plates are arranged one back of the other and brought forward to the focal plane and then after exposure released and permitted to drop of their own gravity, the plates frequently refuse to fall, or when they do fall become disarranged from the devices which should control their movements at this point. In the former case the failure of the plate to fall is usually not known to the operator until several exposures have been made on it, and thus the plate ruined, or the plate interferes with the movement of the releasing devices, and the remaining plates in the camera cannot be exposed until the difficulty is rectified. In the latter case the plates are liable to become broken or get in such position as to obscure or interfere with the exposure.

The object of our invention is to provide simple and economically-constructed devices requiring no bench-work except when the camera is being assembled and then very easily applied and which are positive in their operation and do not permit the same to get out of order. This we accomplish by the means hereinafter fully described, and as particularly pointed out in the claims.

In the drawings, Figure 1 is a longitudinal central section through the rear portion of a magazine-camera having our invention applied thereto. Fig. 2 is a perspective view of the rear portion of the side wall of the same, having one of our improved guide-plates secured thereto. Fig. 3 is a perspective view of a plate-holder used in conjunction therewith. Fig. 4 is a perspective view of the tray.

Our invention includes three essential parts—namely, a plate-rack, a plate-holder, and an exposed plate-tray. Our plate-rack,

one of which is placed on each side of the camera-case, consists of a rectangular sheet-metal plate A, the lower portion of which is secured flat against the depressed surface of a rectangular area *b* in the lower rear part of the vertical side walls B of the camera. The upper portion of plate A is stepped outward, so as to form a longitudinal shoulder *a*, which will bear against the upper undercut horizontal edge of the said depressed area *b* and so as to lap over in front of the inner surface of the side walls just above the area *b*, and the upper edge of this plate A is bent inward and enters the horizontal kerf *c*, made in said side wall above and parallel with the undercut upper edge of the depressed area *b*. When securing plate A to the side walls of the camera, the forward vertical edge thereof is the forward vertical edge of the depressed area B. The object of this depressed area is to permit the plate A to be secured in a given position every time without requiring the exercise of eye measurement or judgment on the part of the workman when securing the same to the camera-box, and so that the sensitive plates may be positively brought to a given exposure-point in the camera every time, as will hereinafter more fully appear.

At a suitable distance below shoulder *a* we provide plate A with a horizontal ledge C by making a horizontal cut and short corresponding vertical connecting cuts at the edge thereof and then bending the metal of said plate between said end cuts outward at right angles to the same. The lateral extensions of the ends of lower edges of the vertically-arranged plate-holders rest upon ledge C, the length of which is such as to support, say, a dozen plate-holders. A short distance in front of the forward edge of the ledge C we provide said plate A with an inclined stop-lug D, which is preferably made in the same way ledge C is made—that is, a long straight cut is made in plate A continuous with the proposed lug D with corresponding end cuts connecting with and at right angles thereto, and then the metal between the end cuts is forced outward at right angles to the plate. Neither ledge C

nor lug D project beyond the plane of the inner surface of the side walls of the camera.

The plate-holder E consists of a rectangular plate of sheet metal, the width of which
5 corresponds to a little less than the distance between the side walls of the camera-case, just so that they can be easily inserted or removed therefrom, and its vertical sides are provided with corresponding wings which
10 preferably extend from near the top to near the lower edge of the holder and are bent back over the body of the holder without increasing the width thereof, so as to form guideways *e e*, into which the edges of the
15 sensitive plate can be slid. The lower edge F of the holder E is flanged forward at right angles to the body thereof to form a support for the lower edge of the sensitive plate, and the ends *f f* of this flange extend beyond the sides of the plate to an extent a little less than the depth of the depressed area B. These extensions *ff* are preferably perfectly flat and are placed and slide forward upon ledges C until they reach the
25 exposure-point, in which position said extensions will be at the very forward edge of ledge C, if not slightly overhanging the same. The forward ends of the ledges C terminate back of lugs D a distance corresponding to about
30 half the width of the extensions *f* of the plate-holders. When in position for exposure, the extensions *f* of the forwardmost plate-holder will only have the rear half of their width resting on said ledges, and their
35 forward sides will bear against the underinclined surfaces of lugs D. After exposure the upper edges of said forwardmost plate is released and the inertia of the pressure back of the series of unexposed plates on said
40 ledges causes said forwardmost plate-holder to tip forward, because of the direction given to the extensions *f* thereof by the inclined overhanging surfaces of lugs D, with which said extensions are in contact.

45 G represents a tray consisting, preferably, of a rectangular wooden board corresponding in dimensions to the floor of the camera-case, which it is designed to completely cover, although, if desired, it could be made less in
50 length. Secured to and arising from the tray is a transverse wall K, the ends of which extend beyond the side edges of the tray a distance a little less than the depth of depressed area B and are bent back to form
55 vertical retaining slides or chutes *k k* for the extensions *ff* of the plate-holders E. The wall K is so located that when the tray is in place the chutes *k k* will come immediately under the space between the forward edges
60 of the ledges and the inclined lugs, and their upper ends will contact with the latter, thus, when the plate-holders drop off the ledges, the extensions *f* of the same fall into said chutes, and, said plate-holders pile up,
65 one on top of the other, thereby securely re-

taining and holding the same against accidental displacement.

By making the flanges F of such a width that their front edges are slightly in front of the transverse plane of the guideways *e e* 70 when the plate-holders are stacked on the ledges the flange of each holder except the forwardmost will bear against the one in front of it and effectually cut off the light from the lower edge of the plate, thus avoiding dam- 75 aging the plates in a way familiar to every magazine-camera operator.

What we claim as new is—

1. The combination in a magazine-camera, with the camera-case having rectangular de- 80 pressed areas in the inner surface of its side walls, of sheet-metal plates having supporting-ledges and having its upper portion overlapping the upper edge of said area and its upper edge seamed into the said side walls. 85

2. The combination in a magazine-camera, with the camera-case having rectangular depressed areas in the inner surface of its side walls, of sheet-metal plates having horizontal ledges and inclined stop-lugs in front of 90 the same made by cutting the metal thereof and displacing the same laterally.

3. The combination in a magazine-camera, with the camera-case having rectangular de- 95 pressed areas in the inner surface of its side walls, of sheet-metal plates having horizontal ledges and inclined stop-lugs in front of said ledges made by cutting and displacing the metal thereof laterally and having its upper portion overlapping the upper edge of 100 said area, and its upper edge seamed into the said side walls.

4. In a camera, sheet-metal side plates having horizontal and corresponding connecting end cuts and the metal between said end cuts 105 bent laterally at right angles to said plate and forming supporting-ledges.

5. In a camera, sheet-metal side plates having longitudinal supporting-ledges and contiguous to the forward end thereof inclined 110 stop-lugs made by longitudinal cuts made in suitable planes and end cuts connecting therewith and the metal between said end cuts bent laterally at right angles to said plate.

6. In a camera, the combination with a 115 horizontal supporting-ledge, and an inclined stop-lug contiguous to the front end thereof, of a tray having vertical chutes secured to and arising therefrom which are adapted when said tray is in position to engage with 120 and come in respective position below the space between said ledges and stop-lugs.

7. In a camera, the combination with a horizontal supporting-ledge, and inclined stop-lugs of a tray having a transverse wall 125 the ends of which are bent back in front of the same to form vertical chutes, which when said tray is in position is below the space between said ledges and stop-lugs and into receptive engagement below the same. 130

8. In a camera, having depressed areas in
the inner surface of the side walls thereof
contiguous to the rear, of horizontal support-
ing-ledges and inclined stop-lugs in front of
5 said ledges projecting from said depressed
area, of a tray and vertical chutes secured to
and arising from said tray which project be-
yond the said edges of the same, and when
said tray is in position having their upper
10 ends, under the space between and into re-

ceptive position below the forward end of said
ledge and said stop-lugs.

In testimony whereof we have hereunto set
our hands this 6th day of October, 1902.

JOHN C. FYFE.
VICTOR ODQUIST.

Witnesses:

E. K. LUNDY,
FRANK D. THOMASON.