

No. 607,053.

Patented July 12, 1898.

J. C. KIMSEY.
PHOTOGRAPHIC PLATE MAGAZINE.

(Application filed Mar. 24, 1898.)

(No Model.)

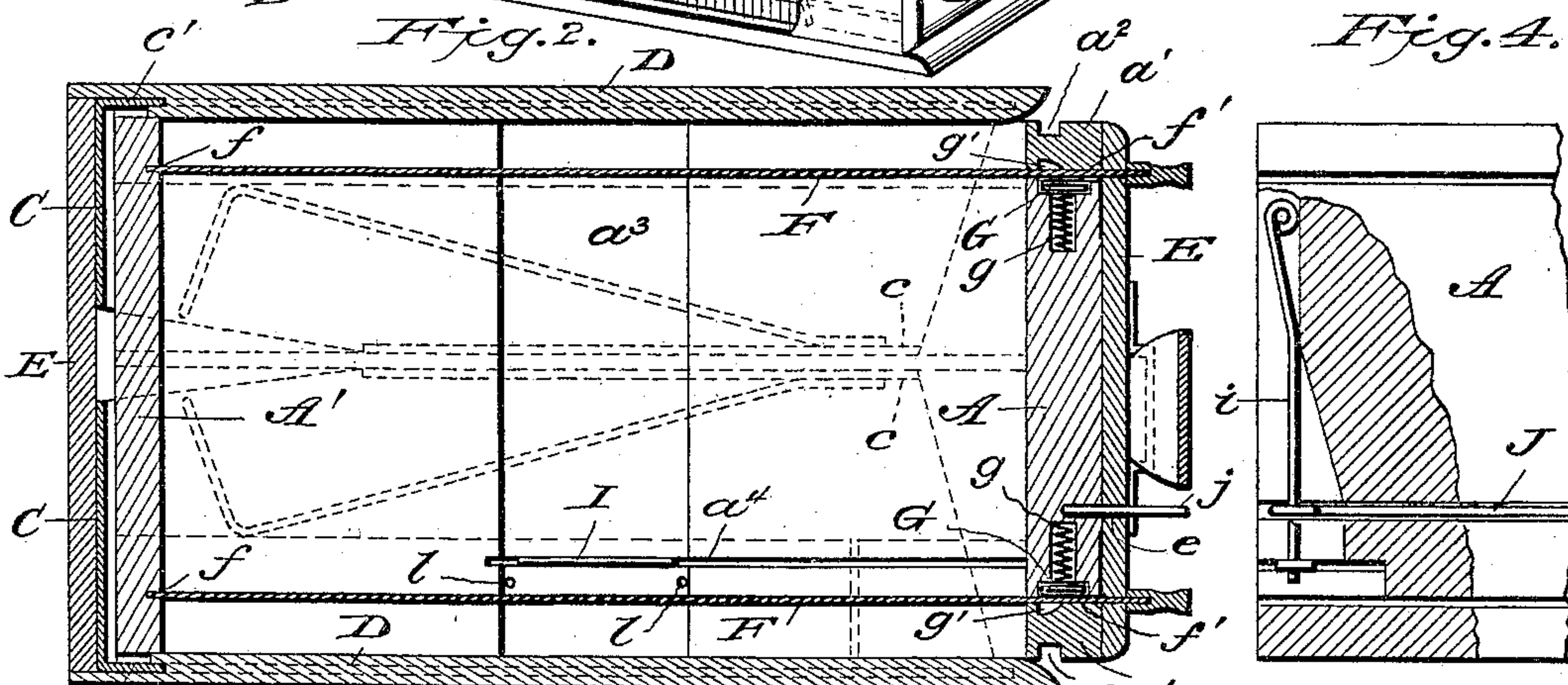
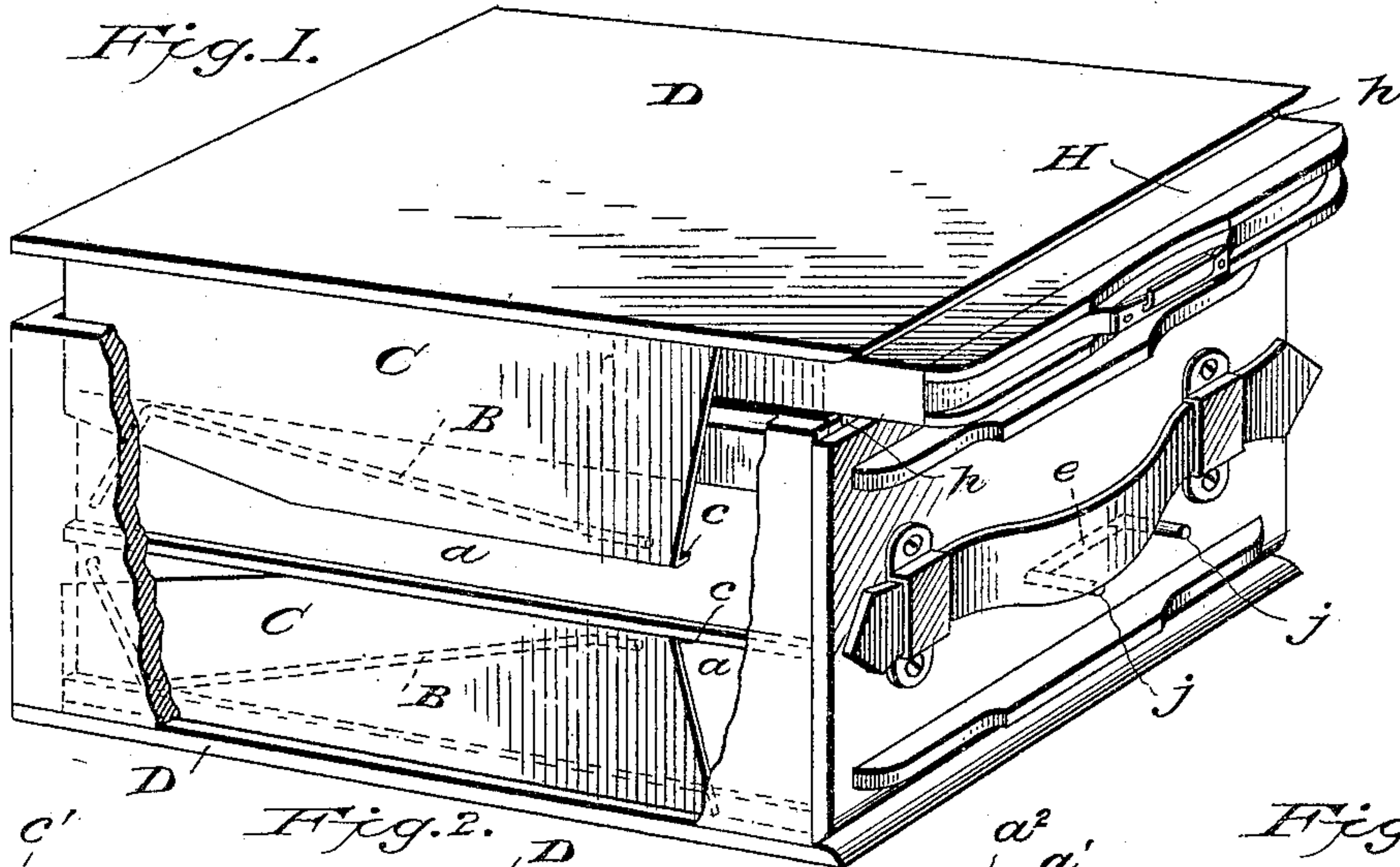


Fig. 4.

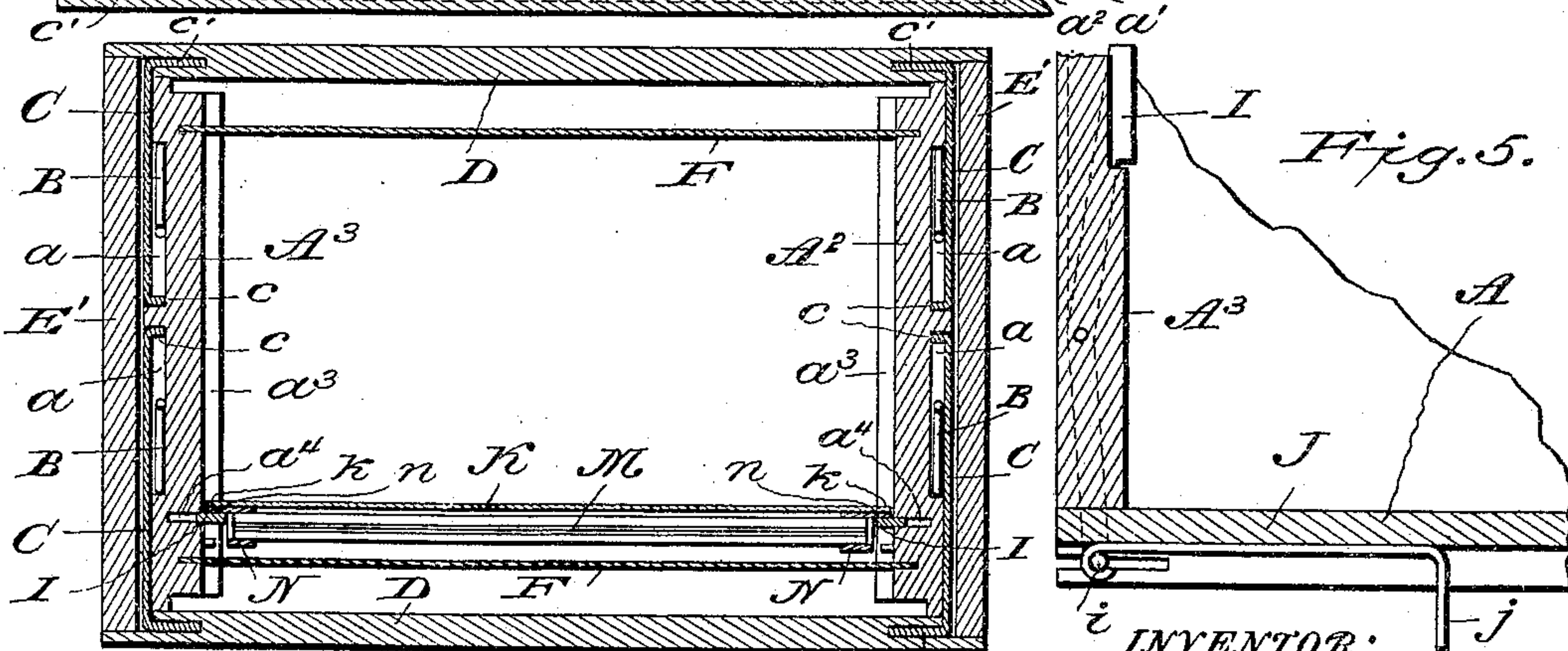
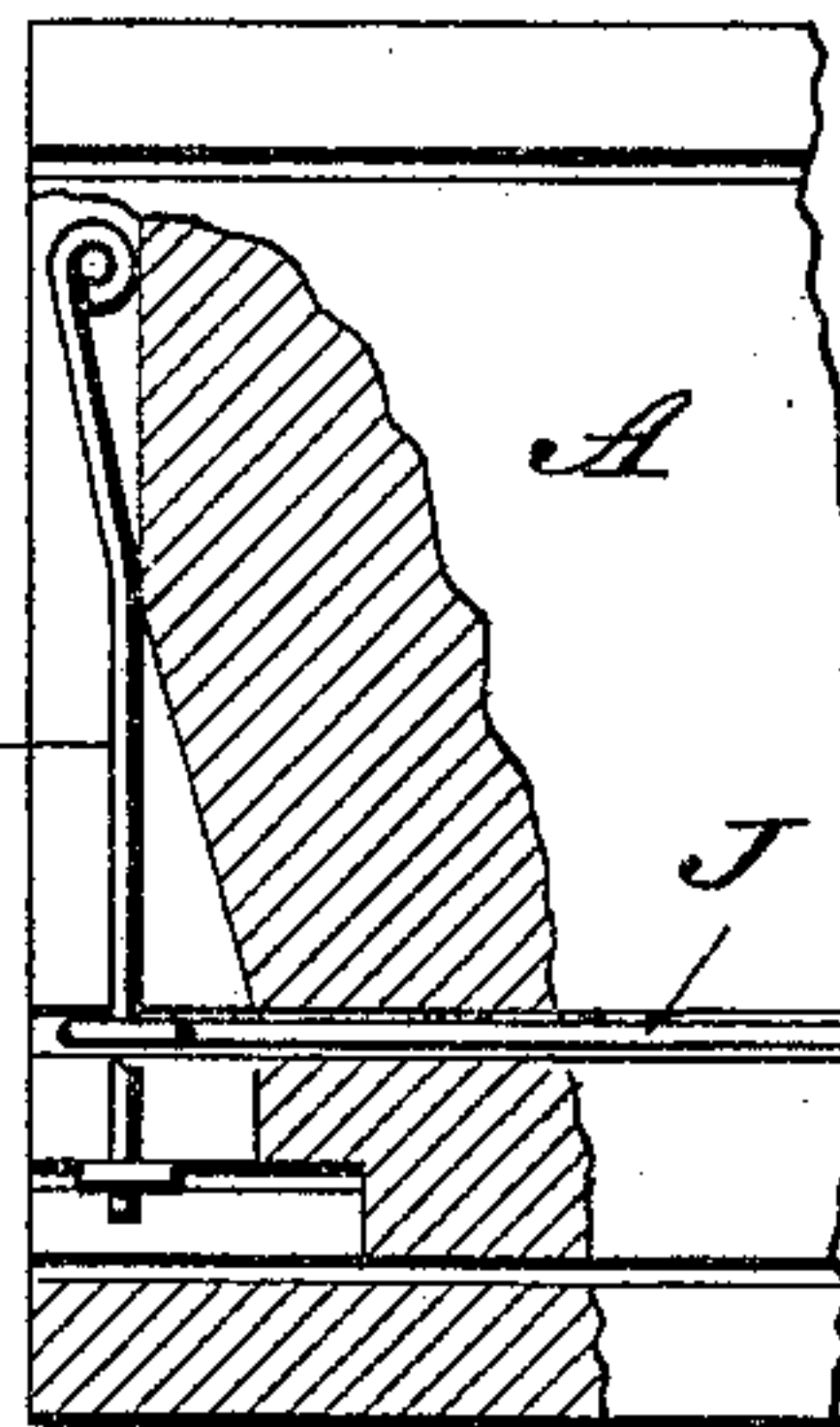
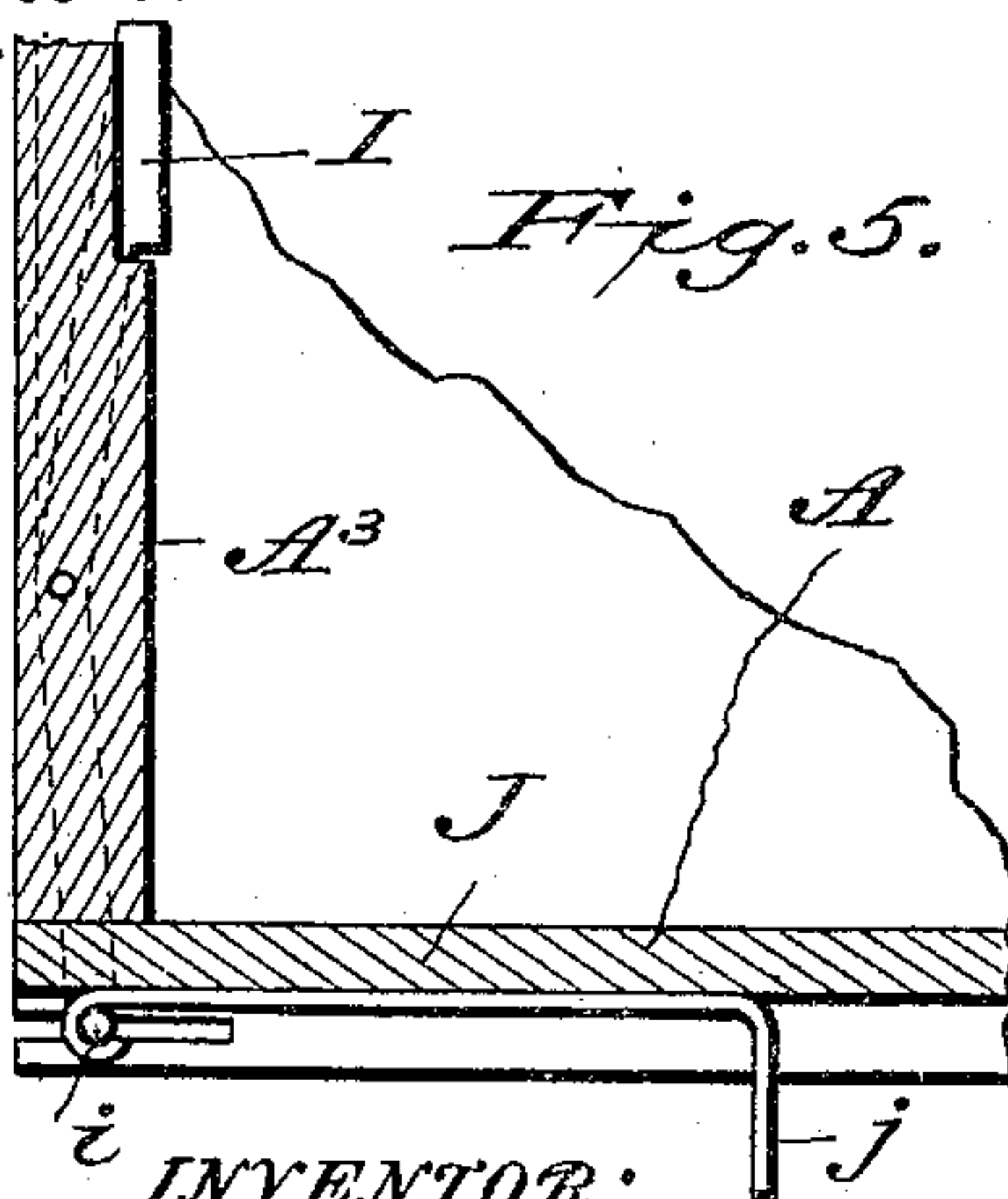


Fig. 5.



Witnesses: *Fig. 3.*

G. S. Smith
J. M. Miller

INVENTOR:
James C. Kimsey,
by *John Thomas Co.*
Attorneys

UNITED STATES PATENT OFFICE.

JAMES C. KIMSEY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE PHILADELPHIA CAMERA COMPANY, LIMITED, OF SAME PLACE.

PHOTOGRAPHIC-PLATE MAGAZINE.

SPECIFICATION forming part of Letters Patent No. 607,053, dated July 12, 1898.

Application filed March 24, 1898. Serial No. 675,008. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. KIMSEY, a citizen of the United States of America, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Carrying and Transferring Cases for Photographic Dry-Plates; 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 is an improvement in carrying and transferring cases for photographic dry-plates, the objects of the same being to provide an apparatus of this character which shall be of compact form and will serve to readily accomplish the loading and unloading of a plate-holder which is to be used in connection with an ordinary camera-box.

With the above objects in view the present invention is an improvement upon the apparatus shown and described in my application for patent filed September 2, 1897, and bearing Serial No. 650,373, being designed with a view of dropping two plates at a time in loading and unloading the plate-holder, the devices for connecting the plates and particular style of plate-holder to receive them forming the subject-matter of a separate application filed March 24, 1898, and bearing Serial No. 675,009.

The invention consists in the construction and combination of parts, as hereinafter fully described, and particularly set forth in the appended claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a perspective view of a carrying and transferring case constructed in accordance with my invention, the near side of the inclosing box being partly broken away to show certain features of construction. Fig. 2 is a longitudinal section through the apparatus, the plate-holder shown in Fig. 1 being removed. Fig. 3 is a transverse sectional view. Fig. 4 is a detail sectional view illustrating the devices for dropping the plates. Fig. 5 is a similar view further illustrating said devices.

With reference to the drawings, A and A' designate the front and rear walls, respectively, of a box which forms the storage-com-

partment for the photographic plates, the sides of said box being designated by the letters A² and A³, while the top and bottom are left open to permit the plates to be dropped into and out of the compartment through the intervention of certain devices hereinafter described. In the outer sides of the side pieces of this box are formed longitudinal recesses *a*, in which are located wire springs B, which bear upon the intumed ends *c* of frames C, that embrace the sides and rear wall of the box, the said frames carrying plates D, which serve to close the top and bottom of the said box. The tendency of the wire springs is to bring the covering-plates normally against the box, while permitting a plate-holder to be inserted between said covering-plates and box, and in order that the covering-plates may be readily removed to facilitate the operation of loading and unloading the apparatus they are removably connected to the spring-actuated frames. To this end the frames C are provided with inwardly-projecting flanges *c'* and the side and rear edges of the plates grooved to receive the flanges, the said plates being slid into engagement with the flanges, and thereby supported in connection with the movable frames.

The four sides of the box hereinbefore described are covered by an outer box comprising the front and back pieces E and side pieces E', the said outer box being covered with black cloth, while the edges and interior of the apparatus are painted black.

The side and back walls of the inner box are provided near their upper and lower ends with horizontal grooves or saw-kerfs *f*, forming guideways for slides F, which are passed through transverse slits *f'* in the front of the apparatus. The slides form in connection with the box a light-tight storage-compartment for the plates, and the slits through which said slides pass are provided with flexible strips or shutters G, seated in recesses opening into the slit and actuated by helical springs *g*, let into the front wall of the inner box, as shown, the said shutters or strips entering grooves or recesses *g'* to effectually close the slit or opening when the slide is removed. The shutters and actuating-springs therefor are placed in position before the

strips a' , forming the upper and lower portions of the front wall A, are attached, the said strips being provided with grooves a^2 to receive the ridges h at the forward end of the plate-holder H.

Interiorly the box or case is provided in its side walls with vertical recesses a^3 , and above the lower slide, at a distance hereinafter specified, the said side walls are each provided with a horizontal groove or recess a^4 , passing through the front wall and at its inner end terminating beyond the vertical recesses a^3 . In these horizontal recesses are pivoted plates I, the inner ends of which are adapted to be projected into the vertical recesses, and the said plates are operated by rods J, sliding in recesses in the front of the inner box and provided with bent ends j , which extend through a slot e in the front wall of the outer or inclosing box and are located close together in order that they can be manipulated by the thumb and finger of one hand to operate both plates. The operating-rods are not connected directly to the outer ends of the pivoted plates, but to spring-wires i , located in vertical recesses in the ends of the front wall of the inner box and attached to said plates to serve to project their inner ends normally into the recesses a^3 , and the operating-rods, being connected to said springs, are also actuated thereby.

In filling the box or case the upper covering-plate D and slide F are removed and the photographic dry-plates are stacked in the box resting upon the projecting ends of the pivoted plates I, after which the slide and cover are replaced. This operation is of course performed in a dark room, but after the slide and cover have been replaced the apparatus is ready for use and the subsequent operation of loading and unloading the plate-holder can take place in daylight without any risk of the slightest exposure to the plates. In the operation of loading a plate-holder the same is slipped into the apparatus between the lower covering-plate D and bottom of the box, the spring-pressure upon the said plate, through the intervention of its carrying-frame, causing the plate-holder to fit snugly against the box and exclude the entrance of light, which is further prevented by the said carrying-frame C. The pivoted plates I are now operated to drop the plates upon the lower slide F and released to again engage the stack and leave one or two plates supported only by the said slide, the pivoted plates being located a distance above the slide, according to the number of plates it is desired to feed at a time. Then by withdrawing the lower slide F the plates supported thereby are dropped into the plate-holder, the upper slide thereof having been previously withdrawn, and after both slides have been replaced the plate-holder can be removed for use in connection with a camera. In unloading the plate-holder it is inserted beneath the upper covering-plate D to rest upon the box or case, and upon the with-

drawal of the lower slide of said plate-holder the plates will drop upon the upper slide of the transferring-case, and upon the withdrawal of said slide will be deposited upon the unexposed plates. The exposed and unexposed plates are separated by a plate K, having lips k of the same width as the recesses a^3 in the box and adapted to engage studs l , projecting into said recesses below the pivoted plates, and thereby prevent the unexposed plates being fed into the plate-holder.

It is my intention to feed two plates at a time, the said plates being separated by a septum M and connected by strips N, the latter having projecting lips n , which enter the recesses a^3 and are engaged by the pivoted supporting-plates I, and in order to receive and properly hold and handle the photographic plates so connected in pairs I have devised a plate-holder of particular construction, which forms the subject-matter of a separate application filed on even date herewith.

It will be noted that the springs B bear upon the forward portion of the frame that holds the plate-holder in the apparatus, in order that the unprotected end of said plate-holder will be brought in close contact with the box, the rear portion thereof being protected by the carrying-frame. It will also be noted that the said frame practically forms aprons around three sides of the plate-holder to effectually exclude the entrance of light into the apparatus when the slides F are withdrawn in the operation of loading and unloading the plate-holder.

The apparatus herein shown and described is very compact, being but very little larger than the bulk of plates stored therein, and by providing movable covering-plates with protecting-aprons the plate-holder can be readily slipped into place and light prevented from entering between said plate-holder and the box, and when the plate-holder is removed the covering-plates return to their normal position, reducing the size of the apparatus and making the same dust-proof.

Having thus described my invention, I desire to secure by Letters Patent—

1. In a carrying and transferring case for photographic dry-plates, the combination, of a box open at the lower end, a plate adapted to cover said lower end and drawn against the box by springs which permit a movement of the covering-plate away from the box, a horizontal slide forming a partition in the box near the lower end thereof, movable plates or supports in the sides of the box located a slight distance above the slide, and means for operating said plates or supports, substantially as shown and for the purpose set forth.

2. In a carrying and transferring case for photographic dry-plates, the combination, of a box open at its lower end, a plate adapted to cover said lower end and drawn against the box by springs which permit a movement of the covering-plate away from the box, a horizontal slide forming a partition in the box

near the lower end thereof, plates pivoted in the sides of the box with their inner ends projected normally into the box, springs acting upon said plates, and operating-rods for the plates provided with bent ends projecting through a slot in the front of the box, substantially as shown and for the purpose set forth.

3. In a carrying and transferring case for photographic dry-plates, the combination, of a box open at its lower end, a plate adapted to cover said lower end and drawn against the box by springs which permit a movement of the covering-plate away from the box, an apron attached to the covering-plate and extending from the sides and back thereof, a slide forming a partition in the box near the lower end thereof, movable plates or supports in the sides of the box a slight distance above the slide, and means for operating said plates or supports, substantially as shown, and for the purpose set forth.

4. In a carrying and transferring case for photographic dry-plates, the combination, of a box open at its upper and lower ends, frames or aprons extending around three sides of the box, covering-plates attached to said frames or aprons, and springs serving to draw the plates normally against the open ends of the box; together with slides forming upper and lower partitions, plates or supports located in the sides of the box a slight distance above the lower slide, and means for operating said plates or supports, substantially as shown and for the purpose set forth.

5. In a carrying and transferring case for photographic dry-plates, the combination, of a box open at its upper and lower ends, frames or aprons extending around three sides of the box and provided with inwardly-projecting flanges, covering-plates having channels or recesses in their edges to receive said flanges, and springs serving to draw the covering-plates normally against the open ends of the box; together with slides forming upper and lower partitions, plates or supports located in the sides of the box a slight distance above the lower slide, and means for operating said plates or supports, substantially as shown and for the purpose set forth.

6. In a carrying and transferring case for photographic dry-plates, the combination, of a box open at its upper and lower ends and provided with vertical recesses in its side walls, slides forming upper and lower partitions, plates or supports adapted to project into the aforesaid recesses, and means for operating said plates or supports; together with devices connecting two photographic plates and provided with projecting flanges or lips that extend into the vertical recesses of the box, the supports being located a distance above the lower slide equal to the combined thickness of the photographic plates and connecting means thereof, substantially as shown and for the purpose set forth.

7. In a carrying and transferring case for

photographic dry-plates, the combination, of a box open at its upper and lower ends and provided with vertical recesses in its side walls, slides forming upper and lower horizontal partitions, plates or supports adapted to project into the aforesaid recesses, and means for operating said plates or supports, lugs projecting into the sides of the recesses below the supports, devices connecting two photographic plates and having projecting flanges or lips of less width than the aforesaid recesses, and a division-plate having flanges wider than the aforesaid flanges, substantially as shown and for the purpose set forth.

8. In a carrying and transferring case for photographic dry-plates, the combination, of a box open at its upper and lower ends, frames extending around the sides and back of said box and vertically movable with respect thereto, springs bearing upon the forward ends of the frames, covering-plates attached to said frames and adapted to bear normally against the open ends of the box; together with slides forming upper and lower horizontal partitions, plates or supports in the sides of the box a slight distance above the lower slide, and means for operating said plates or supports, substantially as shown and for the purpose set forth.

9. In a carrying and transferring case for photographic dry-plates, the combination, of a box open at its upper and lower ends, frames extending around the sides and back of said box and vertically movable with respect thereto, flanges at the upper and lower edges of said frames, plates having recessed edges engaging one set of flanges, and springs bearing against the opposite set; together with slides forming upper and lower partitions in the box, plates or supports a slight distance above the lower slide, and means for operating said plates or supports, substantially as shown and for the purpose set forth.

10. In a carrying and transferring case for photographic dry-plates, the combination, of a box open at its upper and lower ends, plates adapted to cover the open ends of the box and provided with aprons extending into the same, springs acting against the movement of the covering-plates away from the box, and slides forming upper and lower horizontal partitions; together with plates pivoted in recesses in the sides of the box, wire springs let into the forward end of the box and attached to the outer ends of said plates to project their inner ends into the box, and operating-rods let into horizontal recesses in the front of the box and provided with bent ends extending outward through a slot in the center of the front of the box, said rods being connected to the wire springs and their outer ends located adjoining each other, substantially as shown and for the purpose set forth.

11. A carrying and transferring case for photographic dry-plates, comprising an inner box having horizontal recesses in its sides

and open at its top and bottom, frames embracing three sides of the box and having flanges extending into the recesses, springs located in the recesses and bearing upon the
5 flanges, covering-plates removably connected to the frames, and an outer box inclosing the four sides of said inner box; together with slides forming upper and lower horizontal partitions, plates or supports located above

the lower slide, and means for operating said supports, substantially as shown and for the purpose set forth.

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

JAMES C. KIMSEY.

Witnesses:

MAURICE G. BELKNAP,
WM. P. ROWLAND.