No. 753,124. PATENTED FEB. 23, 1904.

W. H. COOLEY.

CAMERA.

APPLICATION FILED SEPT. 3, 1903.

NO MODEL.

Fig 1

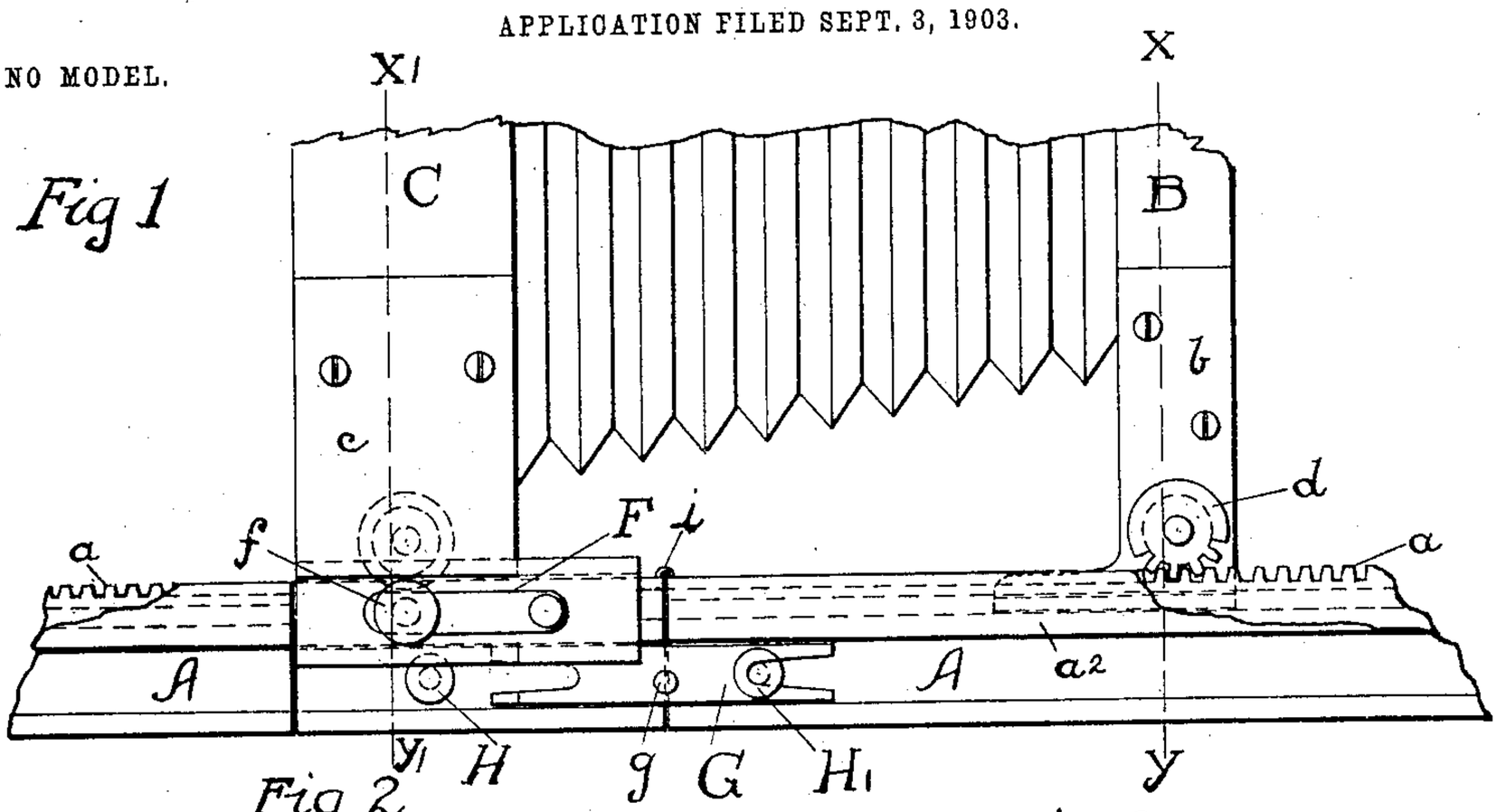


Fig 2

Fig 3

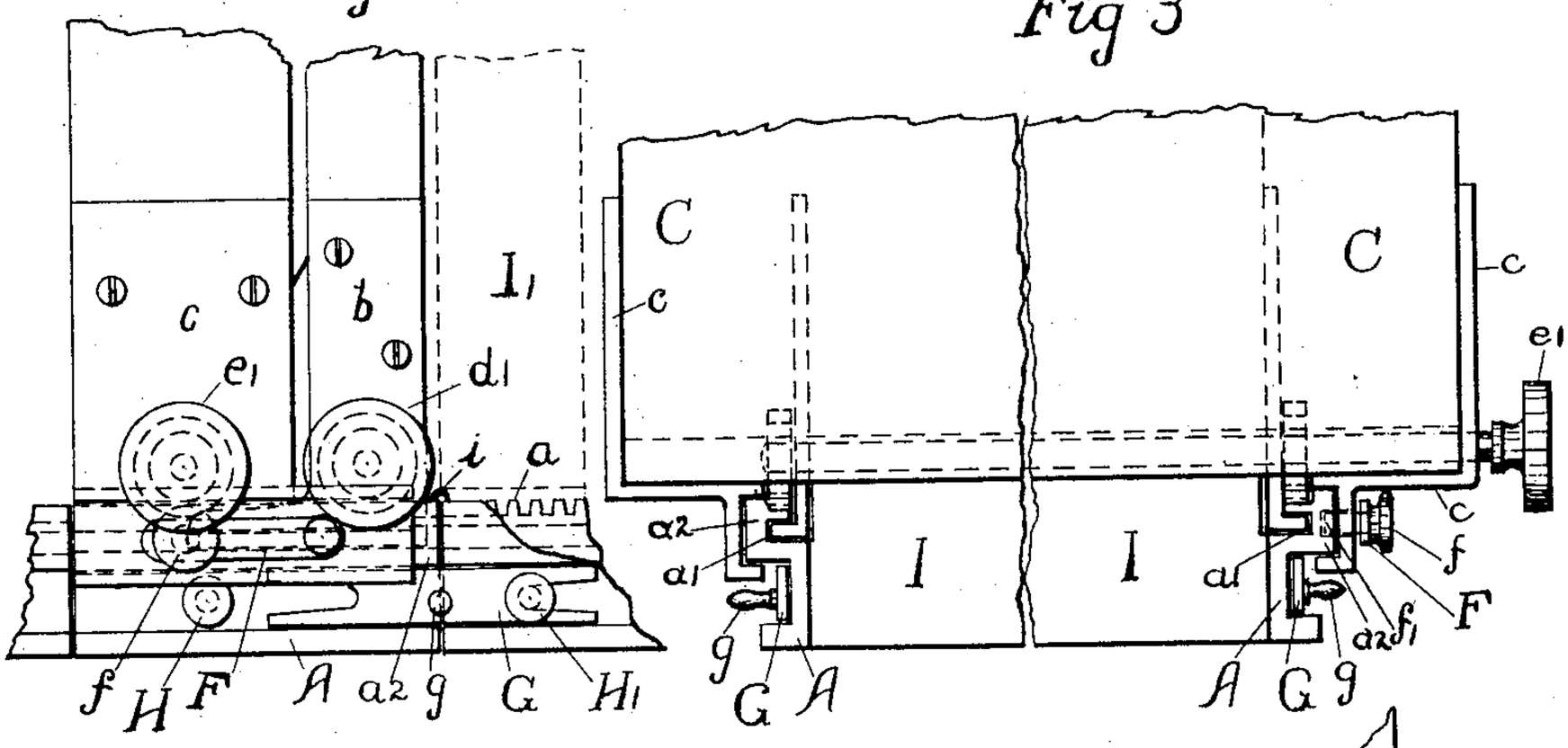


Fig 4

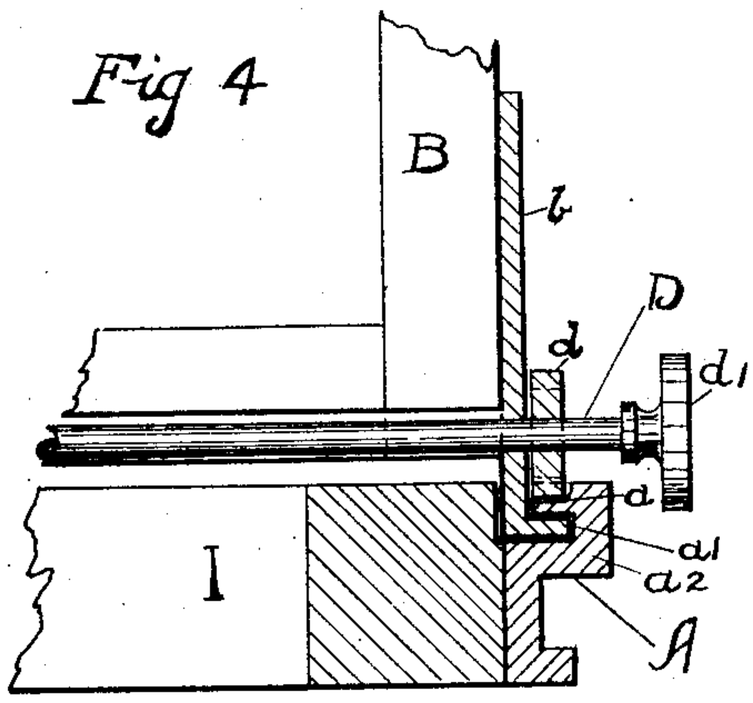
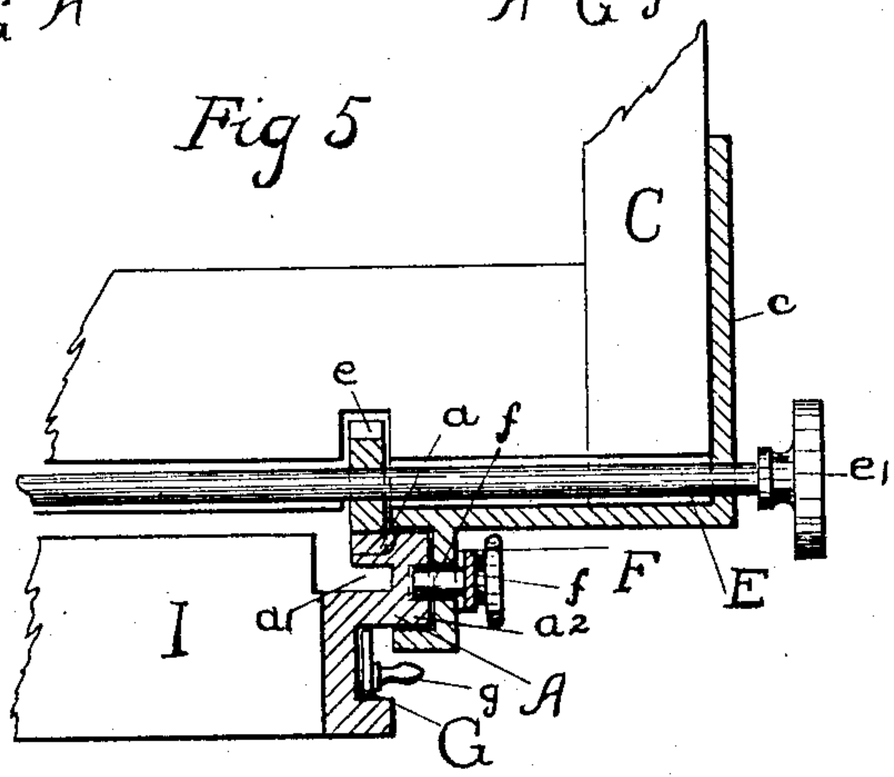


Fig 5



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No. 753,124. Patented February 23, 1904.

UNITED STATES PATENT OFFICE.

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CAMERA.

SPECIFICATION forming part of Letters Patent No. 753,124, dated February 23, 1904.

Application filed September 3, 1903. Serial No. 171,769. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. COOLEY, a citizen of the United States, residing at Brockport, in the county of Monroe and State of New York, have invented a new and useful Improvement in Cameras, of which the following is a specification.

This invention relates to photographic cameras of that class in which one portion of the camera-bed is hinged to another portion of such bed in order that when the camera-back and the camera-front are brought closely together one section of such bed may be folded up against one of such camera elements in such a way as to occupy but little space and be contained within a small case or box.

The object of my invention is to reduce the number of parts necessary in such construction and to add to the rigidity of the apparatus when opened out and ready for use.

With these objects in view my invention consists in the conformation, arrangement, and coöperation of parts hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a portion of a camera embodying my invention with the camera-front and camera-back separated somewhat from each other and with the two portions of the bed opened out to form a continuous bed for such elements. Fig. 2 is a similar side elevation of a portion of a camera, but with the camera-front and camera-back brought close together, so as to permit the folding up of the front section of the bed and showing in dotted lines the position for such front section of the bed when folded up. Fig. 3 is a rear elevation of the camera. Fig. 4 is a sectional view of the parts as seen along the dotted line $x\ y$ of Fig. 1 with all parts to the left of such line removed. Fig. 5 is a similar sectional view taken along the dotted line $x'\ y'$ of Fig. 1 with all parts to the left of such line removed.

Similar letters refer to similar parts throughout the several views.

Referring to the drawings, I represents the usual camera-bed, formed in two sections hinged together at i, as indicated in Figs. 1 and 2.

A represents double-grooved plates, preferably of brass, one of which is secured to each side of each section of the camera-bed I. These plates A are so secured to the body I as to form a continuous plate, in effect, when the camera-bed is opened out. Within the external groove in these plates A there is arranged to slide a locking-bolt G, operated by means of the handle g thereon. This bolt G when moved to the rear, as seen in Fig. 1, engages, by means of the slot in the rear end thereof, the headed stud H in such a way as to hold it firmly in place, and when in this position the front section of the camera-bed I may be folded up vertically, as indicated in dotted lines at I′ in Fig. 2. When this bolt G is moved to its forward position, the slot in its forward end engages the headed stud H′, so as to hold it firmly in this position, in which it securely locks the coöperating front and rear plates A in alinement and also thus firmly holds the camera-bed pieces in their opened-out position. Of these bolts G there are two, one on each side of the camera-bed. But one of such bolts is shown in Figs. 1 and 2. These plates A are grooved also on their inner sides and near the upper edge a' to form a guiding-slot for the plates b, secured to the camera-front B in the usual manner. These plates A have formed on their upper and inner edges a rack a, the teeth of which are arranged to be engaged by the pinion d, secured on the rod D, journaled in the plates b and operable by means of the milled head thereon, d', by means of which mechanism the camera-front B is moved back and forth in the usual way by turning this milled head d' on rod D.

To the camera-back C are secured plates c, so conformed, as indicated, as to slide freely on the projection a^2, formed at the upper and outer edge of the plates A. A rod E, journaled in the plates c and operable by means of the milled head e' thereon, carries pinions e, engaging the teeth a of the rack on the plates A, whereby the camera-back C may be moved back and forth by turning the milled head e'.

The plate b, it will be noticed, extends to the rear from the camera-front B, so as to secure a longer guiding-surface and bearing

within the groove a' in the plates A. Similarly, also, the plates c where they engage the projection a^2 on these plates A and slide thereon are elongated or extended toward the camera-front, so as to increase their operating and guiding surface. Secured to this plate c is seen a spring-catch F, having an operating-handle f at its rear end, as seen in Fig. 1, and also a pin f', extending inward from the head f and passing through a suitable hole therefor in the plate c and arranged to enter a hole therefor in the plate A so located as to hold the camera-back C in such a position longitudinally of the bed of the camera that when the camera-front is moved to the rear against such back, as seen in Fig. 2, the front or forward section of the camera-bed may be folded up against the camera-front.

When not in use, the front section of the camera-bed is folded upward in a vertical position and against the camera-front in the usual way, as indicated in dotted lines at i' in Fig. 2. When the camera is to be used, however, the front section of the camera-bed is turned down, so that the two sections form a continuous bed, and the locking-bolts G, of which there are two, one on each side, are moved to the position such as indicated for the one seen in Fig. 1, thus securely locking the sections of the camera-bed in their opened-out positions. Then by turning the milled head d' the camera-front is moved outwardly and forwardly upon the forward section of the camera-bed to the desired position, and also when desired the camera-back C may be similarly moved either forwardly or rearwardly by operating the milled head e' after first, however, disengaging the spring-catch F by pulling outwardly upon the handle f thereon. In folding up the camera again the milled head e' is turned in the right direction, so as to move the camera-back C to the right position, at which point the spring-catch F, operating in the way already described, securely locks the camera-back C. Then the milled head d' is operated so as to return the camera-front B to the rear and against the back C, as indicated in Fig. 2. Then the bolts G are forced to the rear by means of the handles g thereon until such bolts G engage studs H, at which time the forward section of the camera-bed may be folded up vertically against the camera-front in the usual way.

I claim—

1. In a camera having a bed formed in two sections hinged together and two elements independently slidable thereon, bed-plates secured upon the sections of such bed comprising continuous independent guiding and supporting surfaces coöperating with suitable supporting and guiding plates on each of such camera elements to support and guide such camera elements independently in different longitudinal adjustments on such bed when opened out, such bed-plates having thereon a rack arranged to be engaged by pinions carried by shafts revolubly supported in suitable bearings carried upon such camera elements, a suitable bolt cooperating with guiding and locking surfaces therefor in such bed-plates and arranged, when in its operative position, to hold the sections of such camera-bed in their opened-out position, one of the supporting and guiding plates on one of such camera elements carrying a spring-catch arranged to engage a coöperating locking-surface on one of such bed-plates when the element carrying such supporting and guiding plate is in its normal position for folding up the sections of such camera-bed.

2. In a camera having a bed formed in two sections hinged together and two elements independently slidable thereon, bed-plates secured upon the sections of such bed comprising continuous independent guiding and supporting surfaces coöperating with suitable supporting and guiding plates on each of such camera elements to support and guide such camera elements independently in different longitudinal adjustments on such bed when opened out.

3. In a camera having a bed formed in two sections hinged together and two elements independently slidable thereon, bed-plates secured upon the sections of such bed comprising continuous independent guiding and supporting surface coöperating with suitable supporting and guiding plates on each of such camera elements to support and guide such camera elements independently in different longitudinal adjustments on such bed when opened out, such bed-plate having thereon a rack arranged to be engaged by pinions carried by shafts revolubly supported in suitable bearings carried upon such camera elements.

4. In a camera having a bed formed in two sections hinged together and two elements independently slidable thereon, bed-plates secured upon the sections of such bed comprising continuous independent guiding and supporting surfaces coöperating with suitable supporting and guiding plates on each of such camera elements to support and guide such camera elements independently in different longitudinal adjustments on such bed when opened out, such bed-plate having thereon a rack arranged to be engaged by pinions carried by shafts revolubly supported in suitable bearings carried upon such camera elements, a suitable bolt coöperating with guiding and locking surfaces therefor in such bed-plates and arranged, when in its operative position, to hold the sections of such camera-bed in their opened-out position.

5. In a camera having a bed formed in two sections hinged together and two elements independently slidable thereon, bed-plates secured upon the sections of such bed comprising continuous independent guiding and supporting surfaces coöperating with suitable supporting and guiding plates on each of such

camera elements to support and guide such camera elements independently in different longitudinal adjustments on such bed when opened out, a suitable bolt coöperating with guiding and locking surfaces therefor in such bed-plates and arranged, when in its operative position, to hold the sections of such camera-bed in their opened-out position, one of the supporting and guiding plates on one of such camera elements carrying a spring-catch arranged to engage a coöperating locking-surface on one of such bed-plates when the element carrying such supporting and guiding plate is in its normal position for folding up the sections of such camera-bed.

6. In a camera having a bed formed in two sections hinged together and two elements independently slidable thereon, bed-plates secured upon the sections of such bed comprising continuous independent guiding and supporting surfaces coöperating with suitable supporting and guiding plates on each of such camera elements to support and guide such camera elements independently in different longitudinal adjustments on such bed when opened out, such bed-plate having thereon a rack arranged to be engaged by pinions carried by shafts revolubly supported in suitable bearings carried upon such camera elements, one of the supporting and guiding plates on one of such camera elements carrying a spring-catch arranged to engage a coöperating locking-surface on one of such bed-plates when the element carrying such supporting and guiding plate is in its normal position for folding up the sections of such camera-bed.

7. In a camera having a bed formed in two sections hinged together and two elements independently slidable thereon, bed-plates secured upon the sections of such bed comprising continuous independent guiding and supporting surfaces coöperating with suitable supporting and guiding plates on each of such camera elements to support and guide such camera elements independently in different longitudinal adjustments on such bed when opened out, one of the supporting and guiding plates on one of such camera elements carrying a spring-catch arranged to engage a coöperating locking-surface on one of such bed-plates when the element carrying such supporting and guiding plate is in its normal position for folding up the sections of such camera-bed.

8. In a camera having a bed formed in two sections hinged together and two elements independently slidable thereon, bed-plates secured upon the sections of such bed comprising continuous independent guiding and supporting surfaces coöperating with suitable supporting and guiding plates on each of such camera elements to support and guide such camera elements independently in different longitudinal adjustments on such bed when opened out, a suitable bolt coöperating with guiding and locking surfaces therefor in such bed-plate and arranged, when in its operative position, to hold the sections of such camera-bed in their opened-out position.

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