

(No Model.)

T. H. BLAIR.
ROLL HOLDER FOR CAMERAS.

No. 461,306.

Patented Oct. 13, 1891.

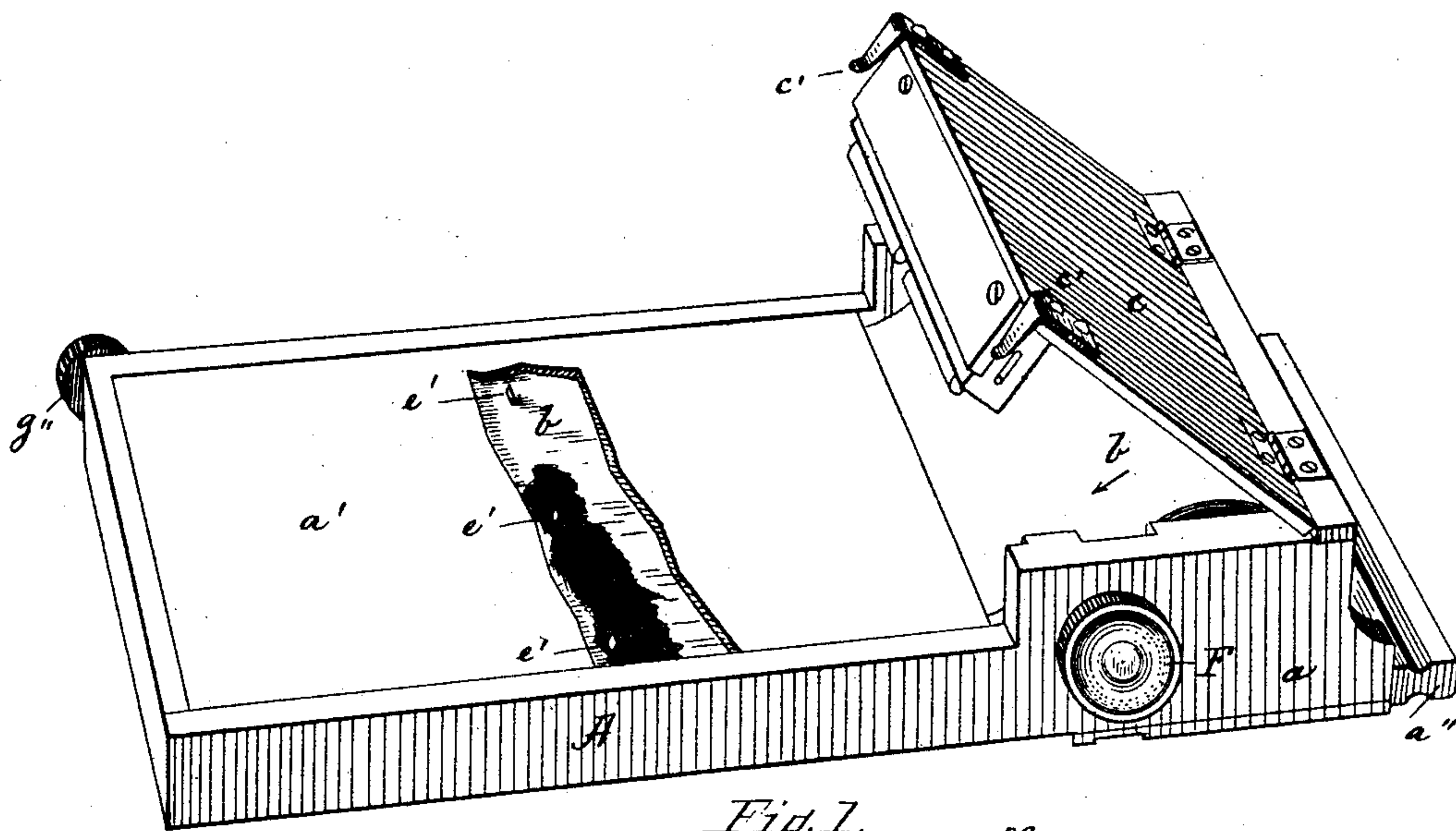


Fig. 1.

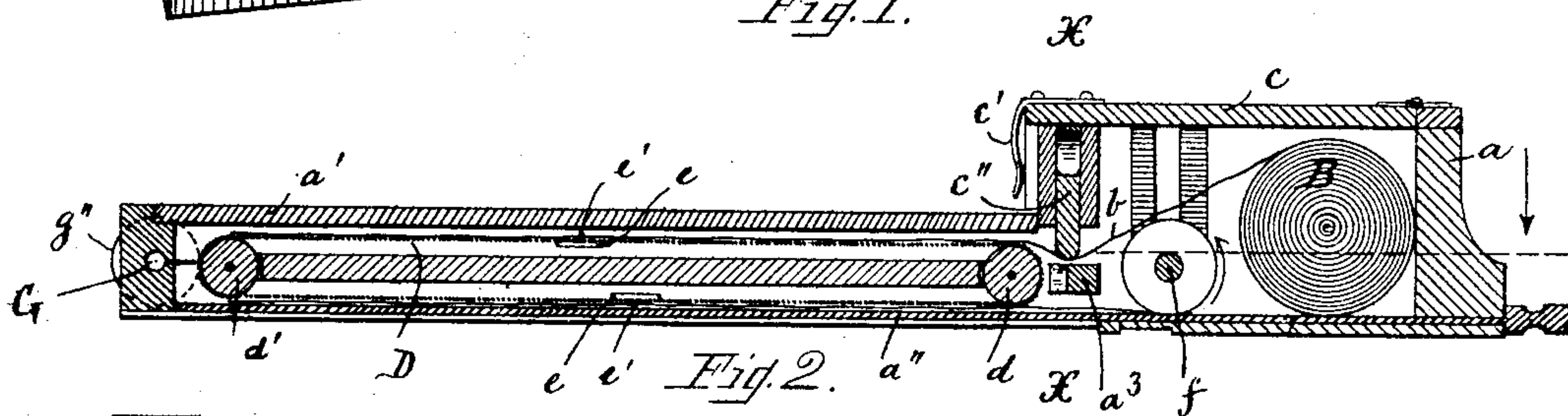


Fig. 2.

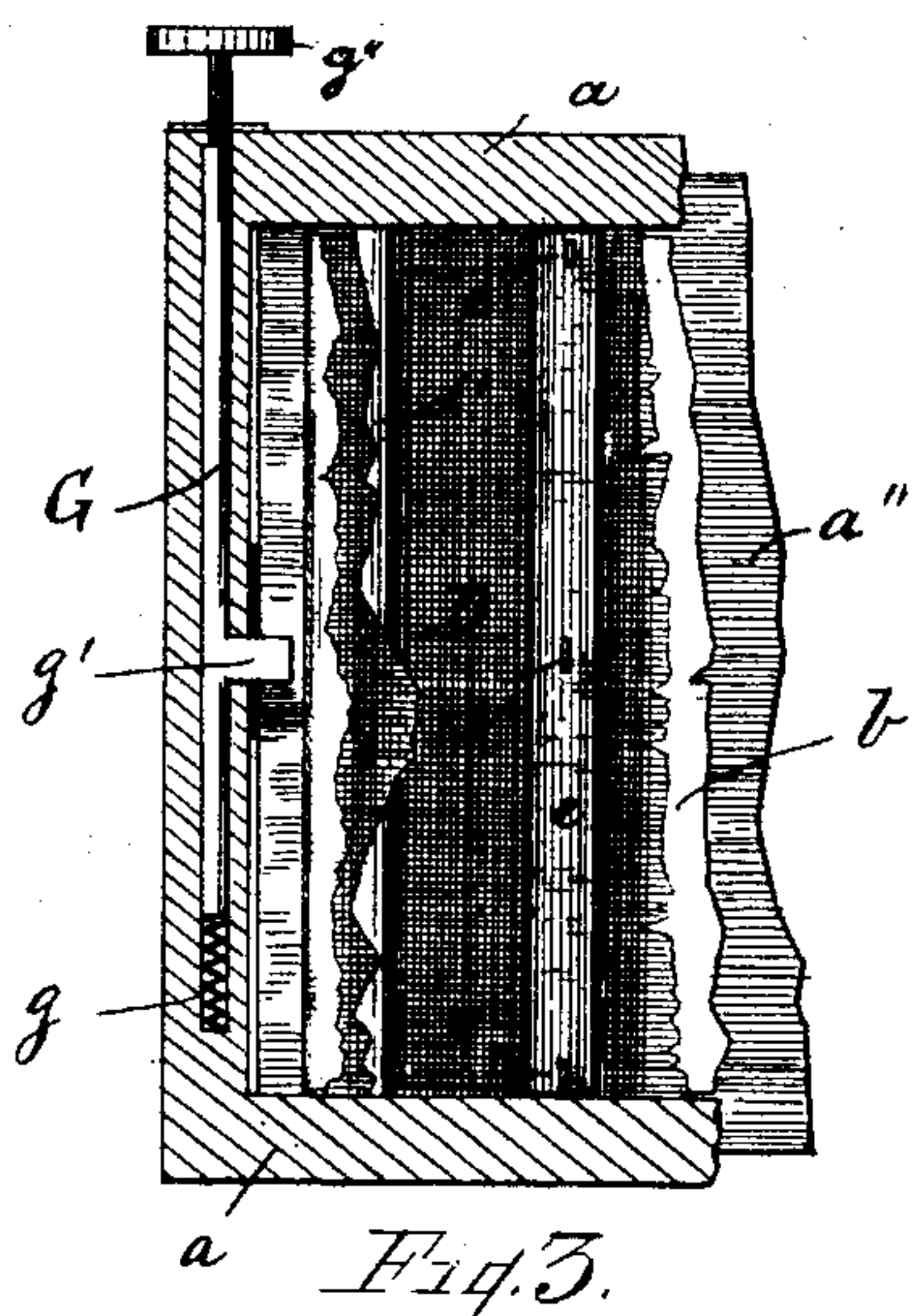


Fig. 3.

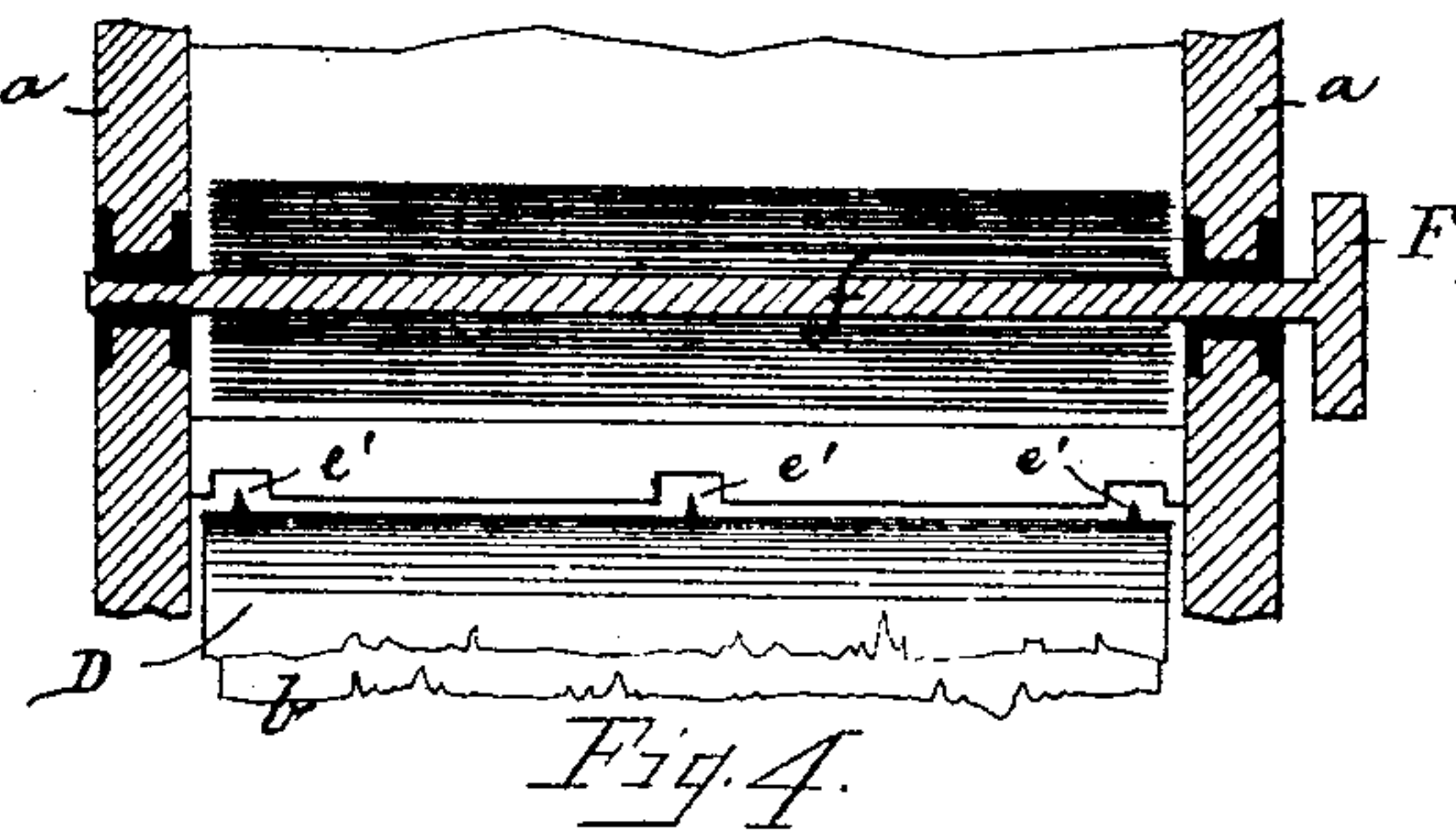


Fig. 4.

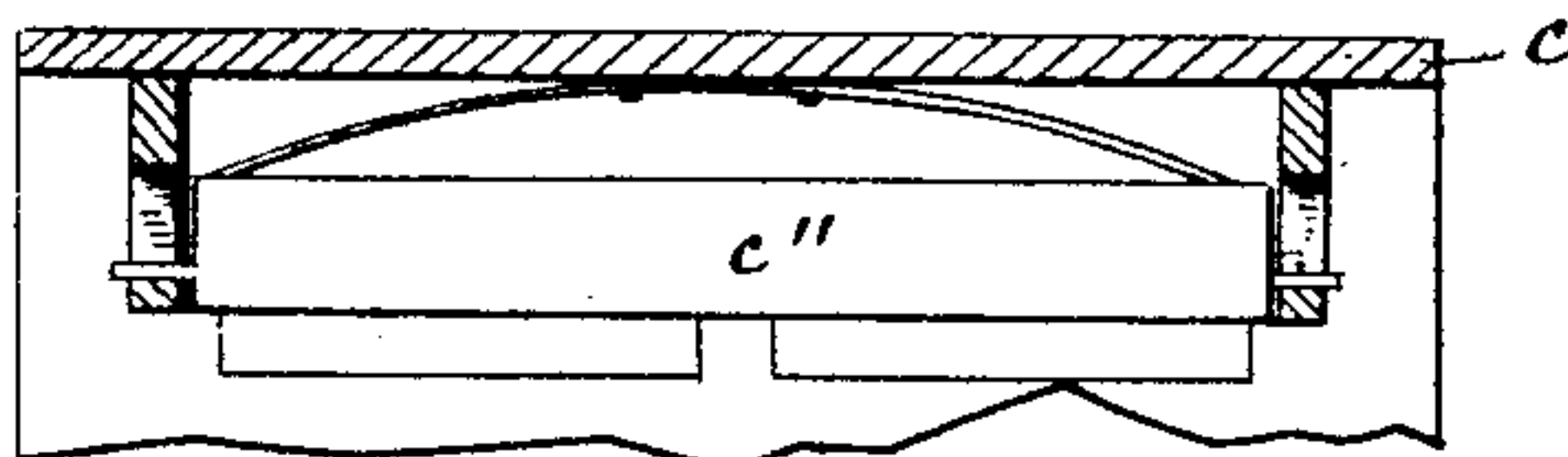


Fig. 5.

Witnesses.
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by Wm. Audre' his atty.

UNITED STATES PATENT OFFICE.

THOMAS H. BLAIR, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE BLAIR CAMERA COMPANY.

ROLL-HOLDER FOR CAMERAS.

SPECIFICATION forming part of Letters Patent No. 461,306, dated October 13, 1891.

Application filed July 11, 1889. Serial No. 317,142. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. BLAIR, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Roll-Holders for Cameras, of which the following, taken in connection with the accompanying drawings, is a specification.

10 This invention has for its object to provide a novel roll-holder for a camera; and it consists in the features of construction and the combination or arrangement of parts hereinafter described and claimed, reference being
15 made to the accompanying drawings, in which—

Figure 1 represents a perspective view of the improved roll-holder, showing the hinged tension-cover as swung open and a portion of
20 the back of the holder as broken away. Fig. 2 represents a longitudinal section of the improved roll-holder. Fig. 3 represents a detail sectional view showing the spring-pressed stop for limiting the feed of the sensitive paper. Fig. 4 represents a detail longitudinal
25 section of the feed-roller on which the sensitive paper is wound after being exposed; and Fig. 5 represents a cross-section on the line X X, as shown in Fig. 2.

30 Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

A represents the case or frame of the holder, having in one end a box *a*, in which is loosely
35 arranged or fixed on bearings the sensitive-paper reel B, as shown in Fig. 2.

a' represents the removable back of the holder, and *a''* represents the slide at the front of it, as usual.

40 To the back of the reel-box *a* is hinged the cover *c*, provided in its free end with suitable spring-catches or equivalent locking devices *c' c'*, by means of which the cover *c* is locked to the box *a* after the reel B of sensitive paper has been introduced into said box, as
45 shown in Fig. 2.

c'' is a spring-pressed tension bar located in a recess in the under side of the hinged cover *c* and adapted to bear against the sensitive
50 paper *b*, where it passes by the stationary bar

a³, that is located in box *a* below the yielding tension-bar *c''*, as shown in Fig. 2, so as to aid in holding said paper ribbon *b* smooth and taut within the holder.

Within the holder, at or near the ends 55 thereof, are loosely journaled the guide-rollers *d* and *d'*, on which is supported the endless belt or cloth D, as shown in Figs. 1 and 2. To said endless belt or cloth is secured a pair of cross bars or plates *e e*, having a series of outwardly-projecting teeth or points
60 *e' e' e'*, which are adapted to penetrate the paper *b* and lock it to the endless cloth D, while the paper is guided on said cloth from the reel B to the roller *f*, on which it is wound
65 after being exposed. These projecting teeth or points *e' e' e'* also serve to puncture the sensitive paper, and as the circumference of the endless belt D is made double the length
70 of the sensitive paper desired to be exposed to the rays from the lens in the camera, and as there are two sets of these projecting points, it will be seen that they will puncture the sensitive paper at each end of the exposure. The roller *f* is located in journals in
75 the sides of the box *a*, and provided in one end with a knob or thumb-wheel F, by means of which it can easily be turned in the direction shown by the arrow in Fig. 2, when it is desired to feed the paper onto the said roll
80 from the reel B. As the paper is thus fed forward the prongs or projections *e' e'* on the endless band D penetrate it, causing the paper and band to be locked together, by which the band is caused to partake of the move-
85 ment of the paper.

In combination with the endless band D and its prongs *e'* I use an adjustable stop device for the purpose of stopping the paper after it has been moved to the proper position
90 for exposure, and this device consists of a rod G, arranged to slide longitudinally in a recess or bore in the end of the holder A, as shown in Figs. 2 and 3, said rod being normally held in a locked position relative to the
95 middle one of the prongs *e'* by the influence of a suitable spring *g*, as shown in Fig. 3.

g' is a tooth or projection on the rod G, which serves as a stop for the middle ones of the prongs *e'* on the band D when the paper
100

is moved to its proper position for exposure. The rod G has in its outer end a knob or handle g'' . (Shown in Figs. 1, 2, and 3.)

The operation of the device is as follows:
 5 We will suppose that the paper b has been fed forward until one of the middle prongs e' on the endless band D has been brought to a stop against the locking projection g' on the bar or rod G. Said paper while in such position is ready for exposure in a camera, as
 10 usual, by the removal of the slide a'' . After exposure the said slide a'' is replaced, as shown in Fig. 2. Previous to making another exposure the rod G is pressed longitudinally against the yielding spring g until its locking projection g' is moved to one side of the middle prong e' , thus liberating the latter
 15 and allowing the paper to be fed forward by turning the knob F on the roller f . As soon, however, as the middle projection e' has passed by the locking projection g' the operator relieves the pressure on the knob g'' , causing the rod G and its locking projection g' to be automatically returned to its normal
 20 locked position by the influence of the spring g , and thus automatically stopping the feed of the paper when the next middle prong e' reaches the stop projection g' on said rod G, and so on, thus always moving the paper to

its proper position within the holder for exposure.

What I wish to secure by Letters Patent, and claim, is—

The combination, with a case or frame having a box at one end, a movable back, and a front slide, of a horizontal box-cover carrying a spring-pressed tension-bar, a sensitive-paper reel arranged in the box, guide-rolls at the ends of the frame, an endless belt extending round the guide-rollers and having
 35 teeth or points to engage the sensitive paper, a rewinding-reel journaled in the box in juxtaposition to the paper-reel, a stop-rod arranged to slide longitudinally in one end of the frame and having a tooth or projection to
 40 act on the teeth or points of the belt, and a spring which normally presses the stop-rod in an outward direction, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 28th day of June, A. D. 1889.

THOMAS H. BLAIR.

Witnesses:

ALBAN ANDRÉN,
 MATTIE J. JACKSON.