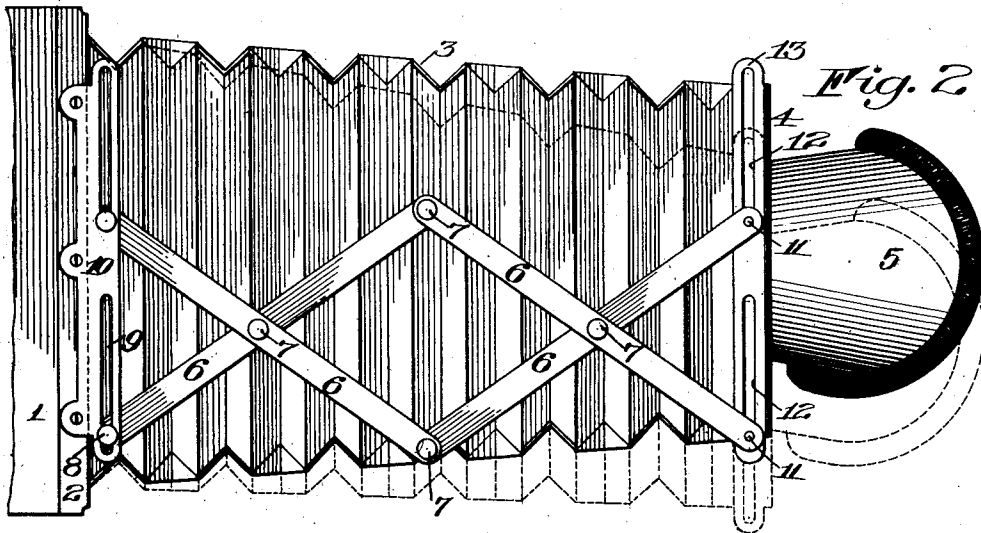
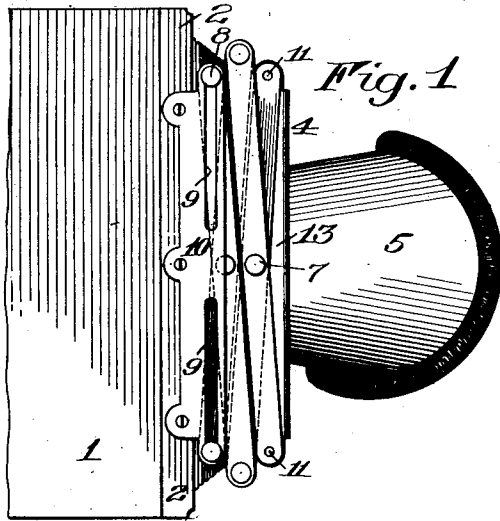


W. F. FOLMER.
FOCUSING HOOD.
APPLICATION FILED NOV. 1, 1912.

1,101,532.

Patented June 30, 1914.

2 SHEETS—SHEET 1.



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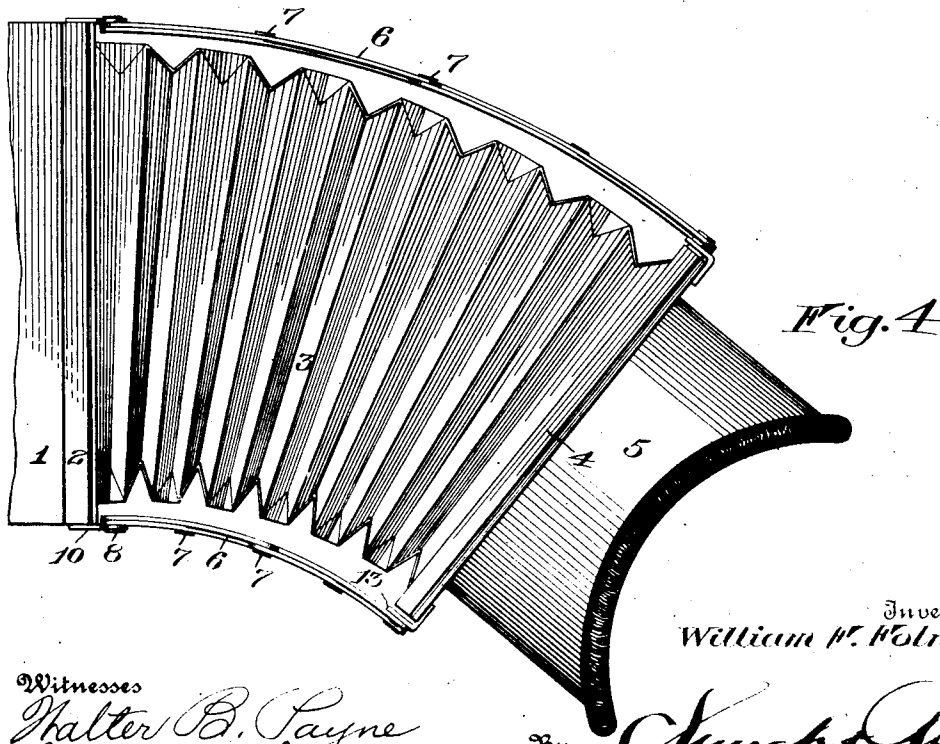
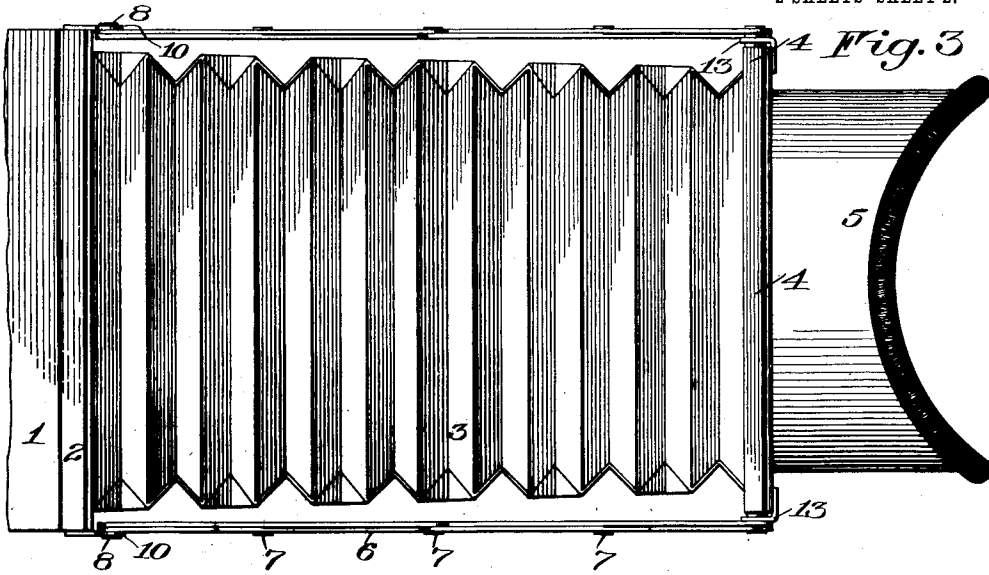
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APPLICATION FILED NOV. 1, 1912.

1,101,532.

Patented June 30, 1914.

2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

WILLIAM F. FOLMER, OF ROCHESTER, NEW YORK, ASSIGNOR TO EASTMAN KODAK COMPANY, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

FOCUSING-HOOD.

1,101,532.

Specification of Letters Patent. Patented June 30, 1914.

Application filed November 1, 1912. Serial No. 729,067.

To all whom it may concern:

Be it known that I, WILLIAM F. FOLMER, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Focusing-Hoods; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention relates to photography, and more particularly to photographic cameras, and it has for its object to provide an improved form of focusing hood of the extensible and collapsible type adapted for use in a horizontal position wherein it will be self-supporting and yet sufficiently flexible to permit a wide range of adjustment or deflection in two directions whereby the user is given great latitude when it is desired to view the screen from a number of different points or angles.

To these and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings: Figure 1 is a side elevation of a focusing hood constructed in accordance with and illustrating one embodiment of my invention, the same being shown in collapsed or folded position; Fig. 2 is a similar view of the hood in its extended or operative position; Fig. 3 is a top plan view of the hood in the position of Fig. 2, and Fig. 4 is another top plan view showing a different position to which the hood may be adjusted.

Similar reference numerals throughout the several figures indicate the same parts.

The focusing hood of the present invention illustrated in this instance, is designed particularly for a portrait or studio camera, but the camera or focusing box 1 is shown in only a conventional manner.

In the practice of my invention, an inner frame 2 is suitably but preferably detachably secured to the body 1 and this frame may carry the ground glass or other focusing screen, or the latter may be mounted in the body as desired. The body or intermediate portion of the hood proper is composed of an ordinary bellows 3 having its inner end

suitably connected to the inner frame 2, and its outer end connected to an outer frame 4 which latter may be fitted with a suitable eye-piece 5.

Extensible and collapsible means are employed for supporting the outer frame 4 and hence the outer end of the bellows on the inner frame 2, which means comprises in the present instance a pair of lazy tongs arranged in parallel planes on opposite sides of the bellows. Each lazy tong is composed of a plurality of levers 6, pivoted together at 7. The ends of the levers on the inner end of the tongs are provided with headed pins 8 that are guided and slide in slotted portions 9 of a bracket plate 10 mounted on the inner frame 2, while the outer ends of the outer levers are provided with pins 11 similarly cooperating with slots 12 in a bracket plate 13 on the outer frame 4.

With the structure thus far described, it will be seen that the hood may be collapsed to the position in Fig. 1 or extended to the position of Fig. 2 by a simple inward or outward pull, and when in the extended position a wide range of vertical adjustments is permitted the outer frame 4 and eye-piece 5. For instance, with the parts in the position of Fig. 2, if it is desired to direct the view to the lower portion of the screen or view the upper portion at an angle, the eye-piece may be dropped to the dotted line position of that figure by simply sliding the outer frame 4 by which it is carried downwardly on both of the pins 11. Or, the outer frame and the extensible supports may be moved bodily together in an upward direction whereat the pins 8 slide to upper positions in the slots 9 on the inner frame to reverse the first described adjustment and different combinations of joint inner and outer adjustments may be made to direct the gaze to the best advantage at any point on the vertical extent of the screen. It will be understood that the pins 8 and 11 may move in the slots 9 and 12, respectively, with a greater or less degree of frictional resistance, and such resistance may also be imposed upon the pivots 7, so that all of said elements will retain their positions at any point when moved thereto.

In order to permit lateral deflection of the eye-piece and hood in a horizontal plane so that a variety of view-points may be had with respect to the horizontal expanse of the

screen, I render the extensible supports or lazy tongs extremely flexible by constructing the levers 6 of thin, flat, resilient metal strips which will easily submit to an extreme lateral tilting movement of the outer frame 4 relatively to the inner frame 2, as shown in Fig. 4. When so distorted, the levers are bowed as shown and the lazy tongs on one side is collapsed while that on the other side is extended, and it will be understood that this distortion causes a further binding on the pivots 7 between the levers so that the hood will be self-maintained in these lateral positions and not inconvenience the operator by a tendency to return to a normal position.

A focusing hood constructed in accordance with my invention is simple and yet supported in a positive manner so that while the latitude of movement allowed the eye-piece is practically equal to that possible with an ordinary hood of cloth or other limp and un-reinforced construction, it holds its adjustment and requires much less manipulation.

I claim as my invention:

1. In a focusing hood, the combination with inner and outer frames and a collapsible bellows having its ends connected thereto, respectively, of extensible and collapsible means for supporting the outer frame on the inner one comprising a pair of lazy tongs adapted to remain in any extended position to which they are adjusted and arranged on opposite sides of the bellows, said lazy tongs being composed of a plurality of levers pivoted together and formed of thin, flat, resilient metal strips adapted to easily yield laterally and to assume a bowed position as the outer frame is inclined laterally with respect to the inner frame, and pivot

bearings on the respective frames for the ends of the lazy-tongs, said bearings having lateral faces permitting the end levers to turn in the plane of the tongs but tending to resist lateral movement thereof at the pivotal points.

2. In a focusing hood, the combination with inner and outer frames and a collapsible bellows having its ends connected thereto, respectively, of extensible and collapsible means for supporting the outer frame on the inner one comprising a pair of lazy tongs adapted to remain in any extended position to which they are adjusted and arranged on opposite sides of the bellows in parallel planes, said lazy tongs being composed of a plurality of levers pivoted together and formed of thin, flat, resilient metal strips adapted to easily yield laterally and to assume a bowed position as the outer frame is inclined laterally with respect to the inner frame.

3. In a focusing hood, the combination with inner and outer frames and a collapsible bellows having its ends connected thereto, respectively, of extensible and collapsible means for supporting the outer frame on the inner frame comprising a pair of floating lazy tongs arranged on opposite sides of the bellows and composed of a plurality of levers pivoted together, the inner ends of both of the inner levers and the outer ends of both of the outer levers being slidably connected to the inner and outer frames, respectively, whereby relative parallel movement of the latter is permitted.

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Witnesses:

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