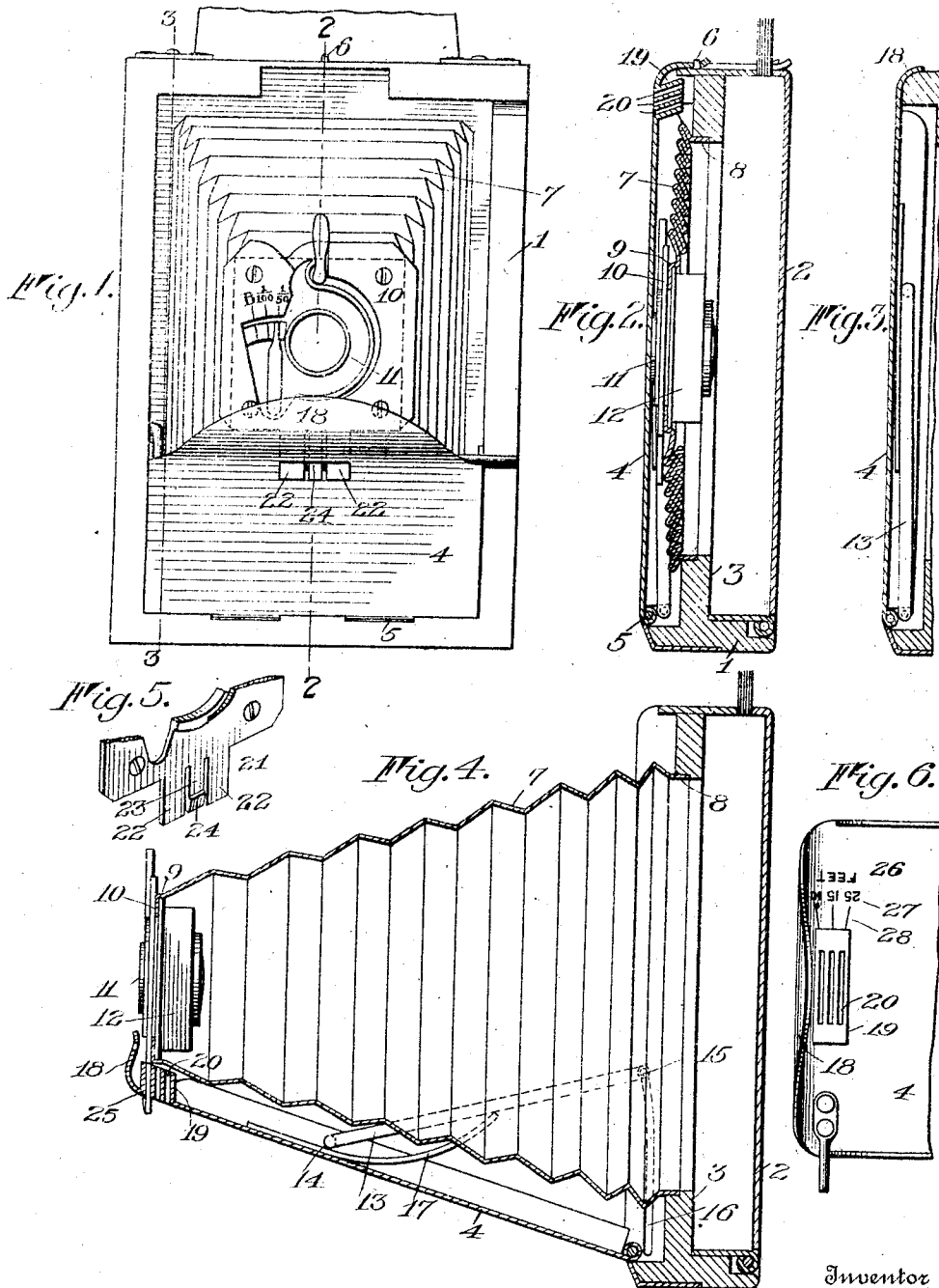


J. LINDER.
 PHOTOGRAPHIC CAMERA.
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1,060,610.

Patented May 6, 1913.



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PHOTOGRAPHIC CAMERA.

1,060,610.

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To all whom it may concern:

Be it known that I, JOHN LINDER, of Deer Park, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Photographic Cameras; 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.

The present invention relates to photography and more particularly to photographic cameras and it has for its object to provide a simple, cheap and convenient instrument of this character which will be light and compact, the improvements being of such a nature as to commend themselves for use more particularly in folding and pocket cameras.

Another specific object of the invention is to provide a construction offering improved means for adjusting the camera front on the bed for photographing at different focal distances.

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 front elevation of a folding pocket camera constructed in accordance with and illustrating one embodiment of my invention, the same being shown in extended position; Fig. 2 is a central vertical section taken there-through substantially on the line 2—2 of Fig. 1 from front to rear, but with the parts in folded position taken on the same line 2—2 of Fig. 1. Fig. 3 is a detail section taken substantially on the line 3—3 of Fig. 1 showing the bed supporting arrangements; Fig. 4 is a section corresponding to Fig. 2 but with the parts in extended position; Fig. 5 is a detail perspective view of the stem for supporting the front on the bed, and Fig. 6 is a detail plan view of a portion of the bed showing the focusing scale.

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

As before indicated, the camera of the present embodiment of the invention is of the folding type and comprises a box or body portion 1, a back 2, through which access is obtained to a chamber 3 for the sensitized material and a door or cover 4 at the front, hinged at 5, and serving, when extended, as the camera bed, this part being held in closed position by a suitable catch 6. A tapered, collapsible bellows 7 is connected at its rear or larger end 8 to the body 1 to fold within the latter, as shown in Fig. 2, when the camera is shut and connected at its outer or reduced end, as at 9, to a front that folds against the bellows, as shown in the same figure, in a manner to allow the lens barrel 11, together with its associated shutter casing 12, when used, to be nicely housed within the body partly in rear of the folded bellows.

The bed 4 is maintained in extended position in the present embodiment by a link 13 pivoted thereto at 14 and having its free end provided with a projection 15 traveling in a slot 16 in a wall of the body. When the bed or cover is closed the projection 15 occupies the lower extremity of the slot, as shown in Fig. 3, but when the bed is extended the projection is moved to the head of the slot, as shown in Fig. 4, with the link in a braced position under the influence of a leaf spring 17 carried on the bed and engaging the link. The link is arranged to support the bed in a forwardly inclined position relatively to the general vertical plane of extent of the body for a purpose that will be hereinafter explained.

At its forward end, just in rear of the lip 18, which coöperates with the catch 6, the thickness of the bed (that can be otherwise made of relatively thin material) is increased, as by the superposition of a block 19, and this thickened portion is pierced by a plurality of slots or transversely extending openings 20 forming sockets extending through the bed from side to side. The front 10 is preferably composed of a relatively thin metal plate that of itself con-

stitutes a lens board to which the lens may be conveniently fitted and which has an extension 21 lying in the same plane and forming a stem adapted to fit the sockets 20, selectively, and to thus support the front in an erect position on the bed substantially parallel or in its usual position with regard to the body 1. Inasmuch as the bed has an inclined position, it lies parallel with an adjacent face of the bellows 7 when the parts are thus assembled and this feature is of great utility both because of the fact that it reduces the bulk of the camera as a whole and because it considerably reduces the height of the front, or at least the distance from the bed to the axis of the lens. For instance, the same front may be used no matter how extreme the taper of the bellows or the taper of the cone of light projected from the lens which latter governs the shape of the bellows in this respect.

In the present instance, the extension or stem 21 is divided into a pair of relatively rigid tongues 22 and an intermediate resilient tongue 23 slightly less in thickness and provided with a locking shoulder 24. The stem projects all the way through the bed and when thus inserted in one of the sockets 20, the shoulder 24 on the tongue 23 automatically snaps into cooperation with a locking shoulder 25 formed, in the present instance, by the edge of the socket but may be released by the fingers of the operator for detaching the front as the tongue is readily accessible for this purpose from the under side of the bed.

The purpose in providing a plurality of sockets is, of course, to permit changes in the position of the front for altering the focus of the camera according to the distance of the object from the lens. The sockets 20 are necessarily rather close together and I therefore provide a focusing scale for indicating the particular socket into which the stem should be inserted for an object at a given distance in which scale, indicated by numeral 26 in Fig. 6, the characters 27 may be spaced a greater distance apart than the sockets to which they refer, such reference being established by a plurality of converging leader lines 28, one of which is extended from each character to its respective socket, as shown. This is of advantage both in laying out and manufacturing the scale and in rendering the reading thereof more convenient.

It is pointed out that by constructing the front in the manner shown and described the supporting stem 21 thereof may be made substantially flat to lie in a general plane with the front as a whole and thus when the camera is folded, very little space between the folded bellows and the bed or closure 4

is required to accommodate it thereby considerably reducing the depth of the camera from front to rear.

I claim as my invention:

1. The combination with a camera body, of a tapered bellows connected thereto at one end, a bed hinged to the body, supporting means for maintaining the bed in an inclined outwardly extending and rigid position relatively to the body in which position it lies substantially parallel with a face of the bellows when the latter is extended, a front independent of said supporting means connected to the other end of the bellows and cooperating devices for detachably mounting the front in any of a plurality of upright positions on the bed substantially parallel with the body, comprising a plurality of sockets extending diagonally through the bed and a stem on the front adapted to be inserted within the sockets, selectively.

2. In a camera, the combination with a body, a bellows and a bed provided with an opening forming a socket having a shouldered portion, of a front connected to the bellows and provided with a stem adapted to be received within the socket to detachably mount the front on the bed and having a locking shoulder cooperating with the shouldered portion of the socket, one of said shoulders being spring actuated.

3. In a camera, the combination with a body, a bellows and a bed provided with an opening forming a socket having a shouldered portion, of a front connected to the bellows and provided with a supporting stem adapted to be received within the socket to detachably mount the front on the bed and composed of a pair of substantially rigid tongues associated with an intermediate resilient tongue having a locking shoulder cooperating with the shouldered portion of the socket.

4. In a camera, the combination with a body, a bellows and a bed provided with an opening forming a socket extending through the same from side to side, a front connected to the bellows and provided with a stem adapted to be received within the socket from the top side of the bed to detachably mount the front on the latter and having a spring actuated locking shoulder engaging the shoulder formed by the edge of the socket opening on the under side of the bed.

5. In a camera, the combination with a body, a bellows and a bed provided with an opening forming a socket extending through the same from side to side, of a front connected to the bellows and comprising a plate forming a lens board and having an extension thereon forming a supporting stem adapted to be received within the socket

from the top side of the bed to detachably
mount the front on the latter, said stem be-
ing composed of a pair of substantially rigid
tongues associated with an intermediate re-
5 silient tongue having a locking shoulder co-
operating with the shoulder formed by the
edge of the socket opening on the under side

of the bed and accessible to the fingers of the
operator from such side for releasing pur-
poses.

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Witnesses:

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