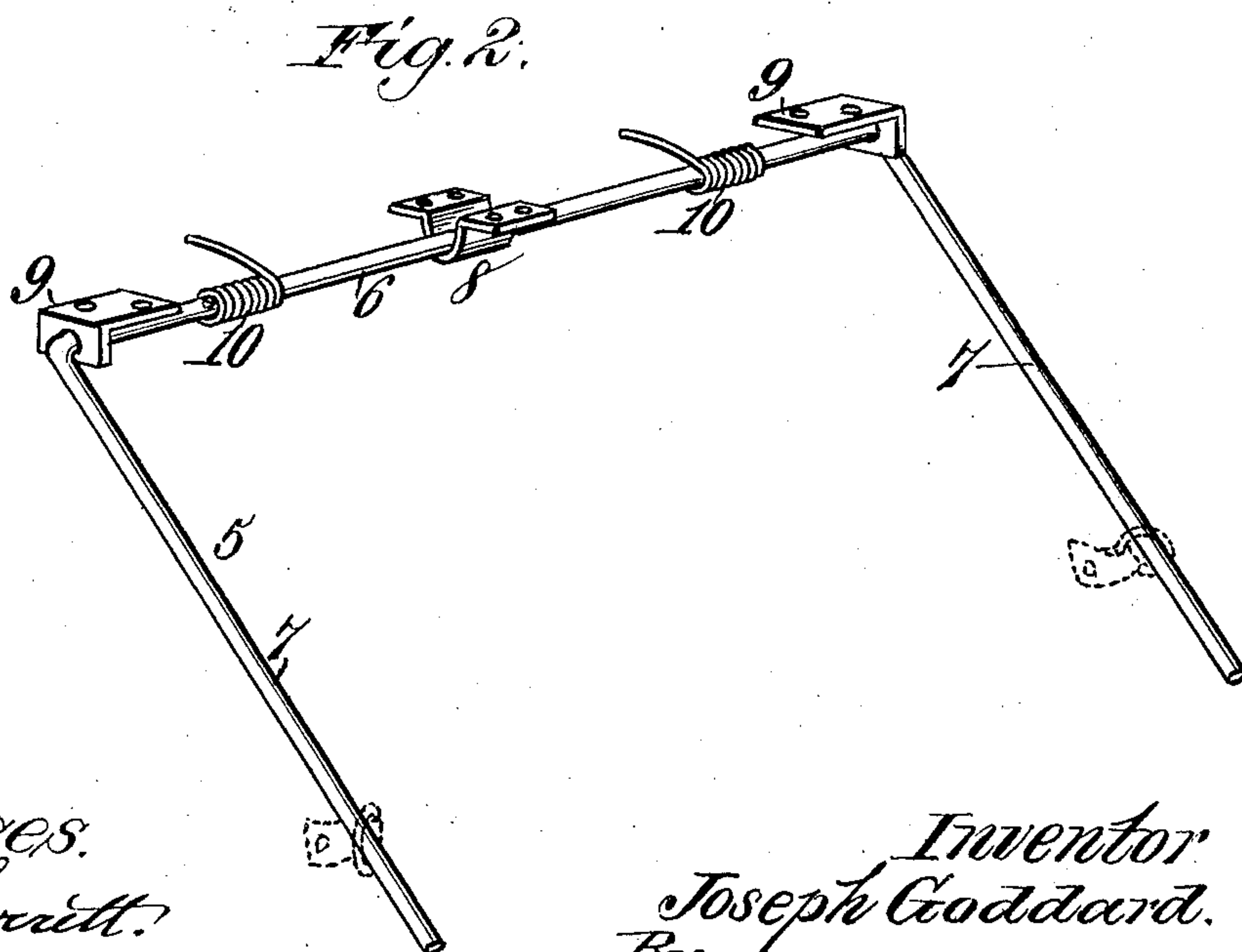
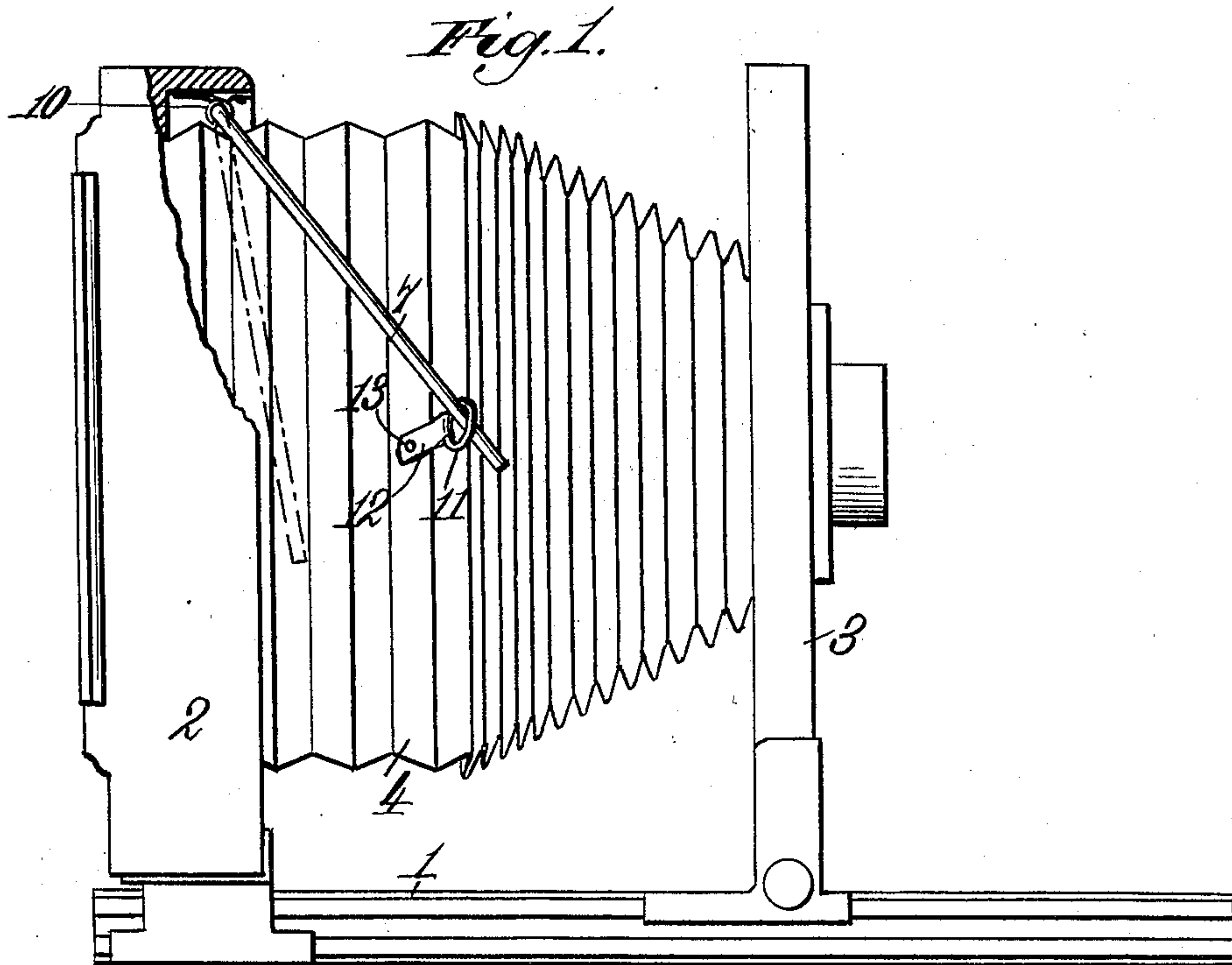


No. 828,106.

PATENTED AUG. 7, 1906.

J. GODDARD.  
BELLOWS SUPPORT FOR CAMERAS.  
APPLICATION FILED APR. 4, 1906.



Witnesses.  
Robert Curritt.  
*[Signature]*

Inventor  
Joseph Goddard.  
By  
*[Signature]*  
Atty.



# UNITED STATES PATENT OFFICE.

JOSEPH GODDARD, OF ROCHESTER, NEW YORK, ASSIGNOR TO THE  
SENECA CAMERA MANUFACTURING COMPANY, OF ROCHESTER,  
NEW YORK, A CORPORATION OF NEW YORK.

## BELLOWS-SUPPORT FOR CAMERAS.

No. 828,106.

Specification of Letters Patent.

Patented Aug. 7, 1906.

Application filed April 4, 1906. Serial No. 309,882.

*To all whom it may concern:*

Be it known that I, JOSEPH GODDARD, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented new and useful Improvements in Bellows-Supports for Cameras, of which the following is a specification.

This invention relates to cameras, and has for its object to provide a novel bellows-support.

Heretofore the bellows has been provided at suitable points on its upper and lower sides with straps having rings, and the lens-support would be provided with suitable hooks, so that by taking hold of one or the other of these straps and pulling the folds of the bellows apart and placing the ring thereof over the hook the bellows would be held in a distended position and prevented from sagging. Such devices are limited in application to the extent of distension of the bellows, and when the lens-frame has been moved along the bed away from the camera-box beyond a given point such straps cannot be used at all, because the folds of the camera cannot be farther distended to permit the rings on the strap to be placed over the hooks. Where two or more straps are provided to obviate this objection, the result will be that the forward portion of the bellows will be supported while the rear portion adjacent to the camera-box will not be supported and will be allowed to sag.

In addition to the action as a support my device in operation also operates to distend or flatten the folds of the camera, so as to prevent them from projecting across the sensitized field of the plate.

The device as illustrated is shown as adapted to support the rear portion of the bellows or that portion adjacent the camera-box; but of course it may be increased in size or otherwise modified to apply to a greater portion of the bellows.

In the accompanying drawings, illustrating the invention, Figure 1 is a sectional side elevation of a camera provided with my improvement, the bellows being distended to show the supporter in its operative position; and Fig. 2 is a perspective view of my improved bellows-supporter with a portion of the camera-box shown in dotted lines.

Referring now to the drawings, 1 indicates

generally the bed of the camera, 2 the camera-box, and 3 the lens-frame, which two latter parts are slidably mounted on the bed, as usual.

4 indicates the bellows, which is secured at one end to the camera-box 2 and at its other end to the lens-support, slidably mounted in the frame 3 in the usual manner.

5 indicates my improved bellows-supporter, which is in the form of a bail, comprising a horizontal member 6, bent at right angles at each end to afford two arms 7. This bail is rotatably mounted in the upper side of the camera-box 2 in a central bearing 8 and end bearings 9 and is controlled in its action by two coiled springs 10, which are secured at one end to the horizontal member 6 and at the other end bear against the under side of the top of the camera-box 2.

11 indicates a small ring which is mounted in the end of a tab 12, which is secured by a rivet at its inner end to one of the side folds of the bellows, as indicated at 13. It will be understood that a similar ring is secured on the opposite side of the bellows to that shown, and these rings are adapted to loosely receive the arms 7 of the bellows-supporter.

The springs 10 tend normally to throw the arms 7 outward or to the position shown in Fig. 1. As the lens-frame 3 is moved inward to nest against the camera-box the arms 7 will be carried inward by the rings 11 to a position within the camera-box, as will be understood. On the other hand, as the lens-frame 3 is moved away from the camera-box the arms 7 will automatically move outward under the action of the springs 10, and thus always support the rear portion of the bellows. In addition the strength of the springs is such that it will cause the arms 7 to exert sufficient stress upon the rings 11 to flatten the folds of the bellows between the point of attachment of said rings to the bellows and the point of attachment of the bellows to the camera-box, and thus prevent these folds from cutting across the sensitized field of the plate.

My device being automatic in operation requires no manipulation whatever of the operator, and thus the bellows will always be supported and distended at the proper time.

The arms 7 being adapted to be moved to a position within the camera-box between



the sides thereof and the bellows, are out of sight when the camera is folded together, and thus do not in any manner detract from the appearance of the camera or add thereto any external mechanism which is liable to be dis-  
5 arranged or injured.

I claim—

1. In combination with a camera-box and bellows, a member pivotally mounted on the  
10 camera-box and operatively connected to the bellows and movable to a position to resist the sag of the bellows when the latter is in its distended position.

2. In combination with a camera box and  
15 bellows, a member pivotally mounted on the camera-box and operatively associated with the bellows and movable with the bellows as the latter is distended, and adapted to support the bellows against sagging.

20 3. In combination with a camera-box and bellows, a member pivotally mounted on the camera-box and operatively associated with the bellows and automatically movable to a position to support the bellows as the latter  
25 is distended.

4. In combination with a camera-box and bellows, a member pivotally mounted on the camera-box and operatively associated with the bellows, and means for causing said mem-  
30 ber to exert normally an outward pull upon the bellows.

5. In combination with a camera-box and bellows, a bellows-support comprising a bail pivotally mounted in the camera-box and having its arms operatively associated with  
35 the bellows, and spring means tending normally to force said arms outward.

6. In combination with a camera-box and bellows, a bellows-support comprising a bail having its horizontal member pivotally  
40 mounted in the camera-box and its arms operatively associated with the bellows, and spring means tending normally to rotate said horizontal member to force the arms of the bail outward. 45

7. In combination with a camera-box and bellows, engaging devices mounted on said bellows, a bail having its horizontal member pivotally mounted in the camera-box and its arms loosely associated with said engaging  
50 devices, and spring means tending normally to rotate said horizontal member to force the said arms outward and upward whereby to automatically distend and support the bel-  
55 lows.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH GODDARD.

Witnesses:

JOHN J. SKEELY,  
GEO. GAGNIER.