

No. 677,501.

Patented July 2, 1901.

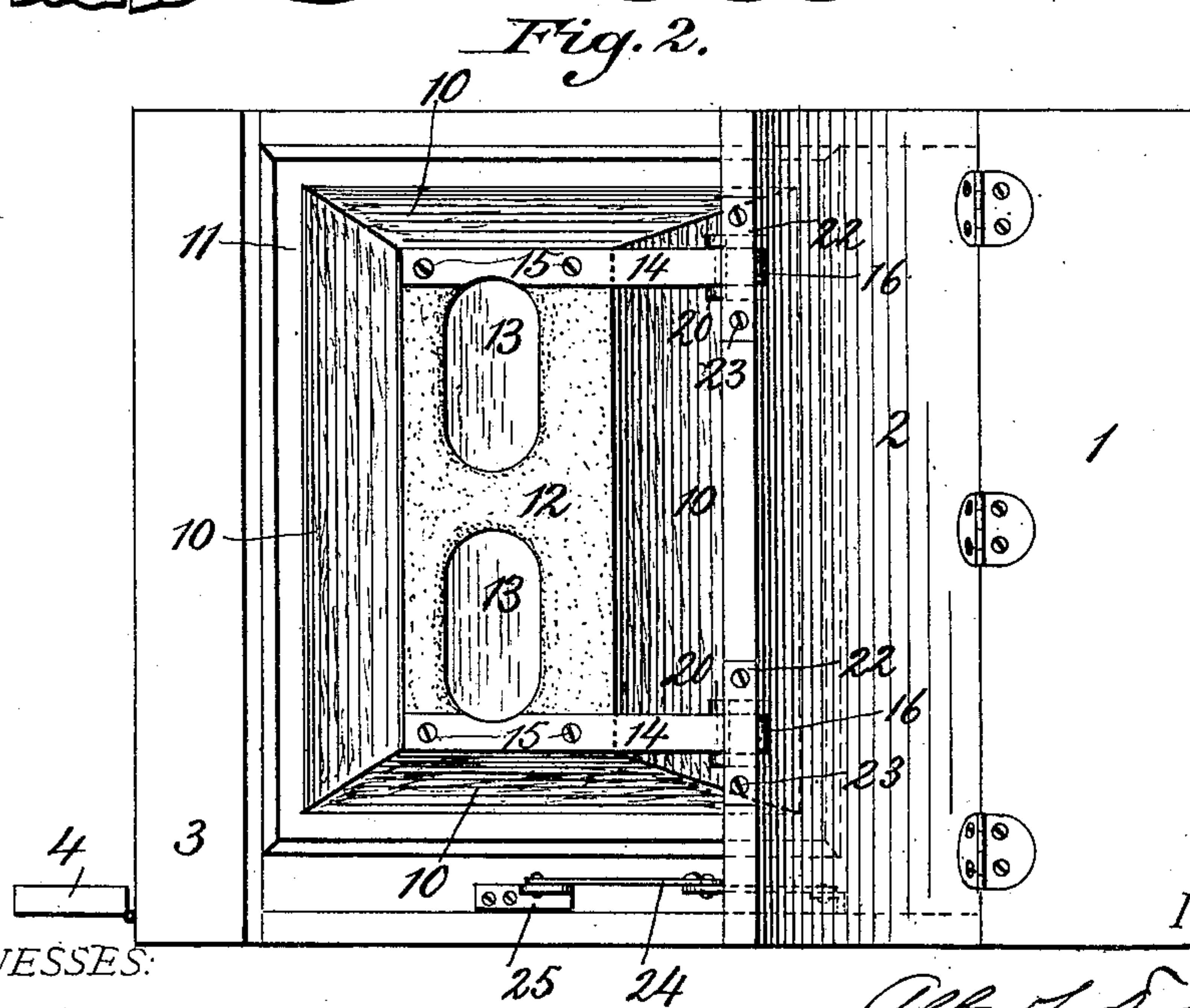
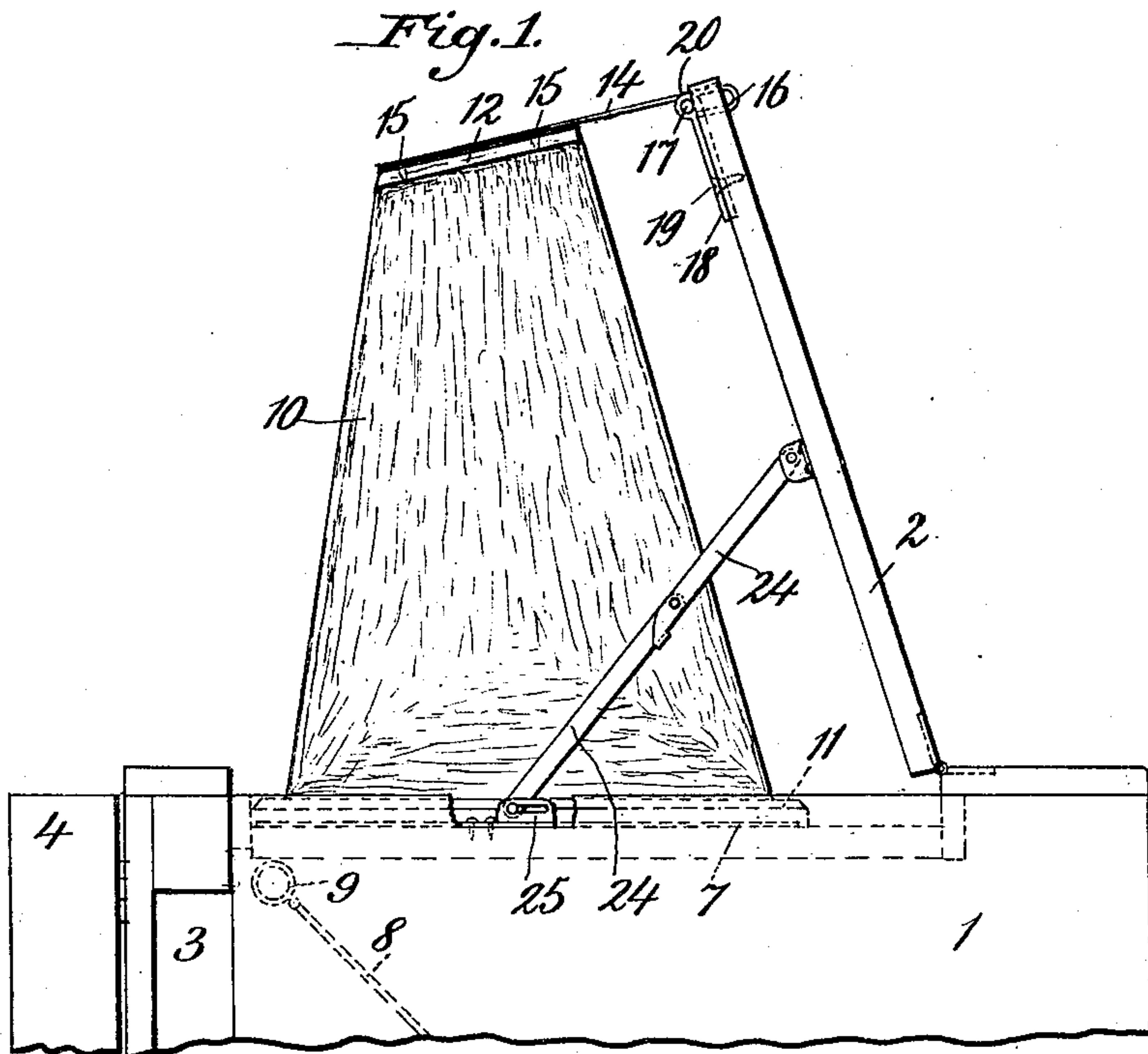
A. D. DAVIS.

FOCUSING HOOD FOR CAMERAS.

(Application filed Apr. 11, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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INVENTOR

No. 677,501.

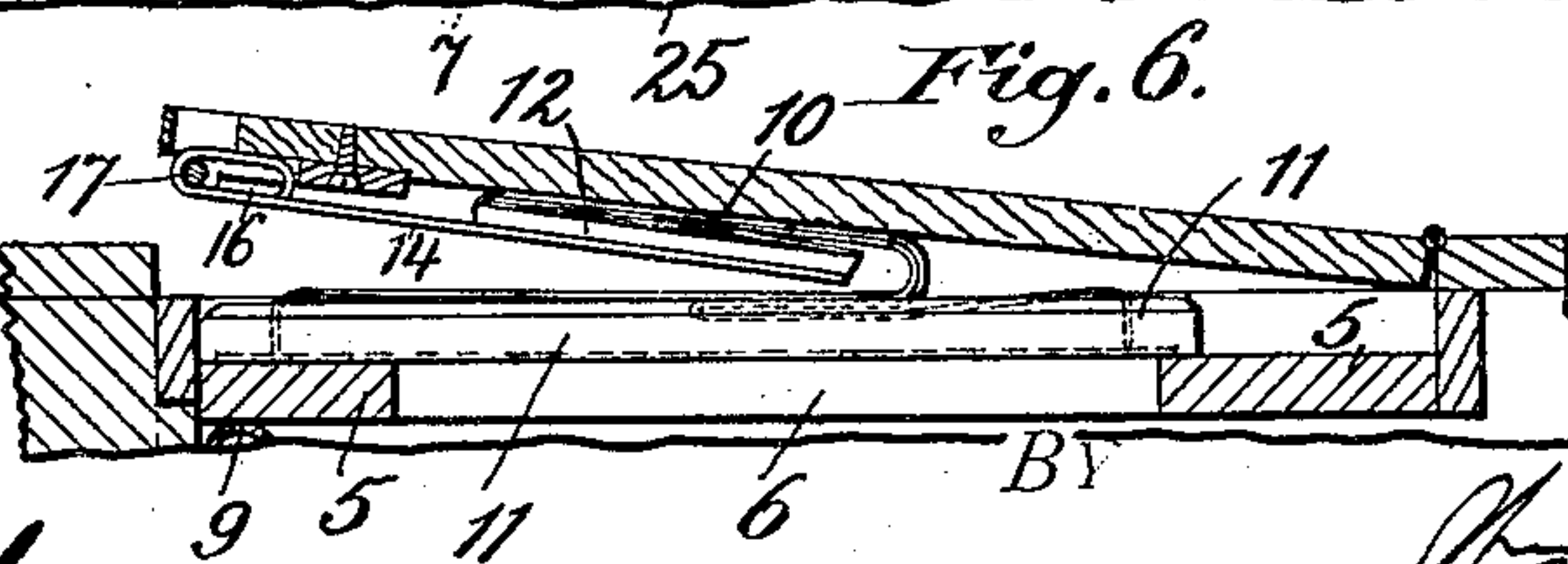
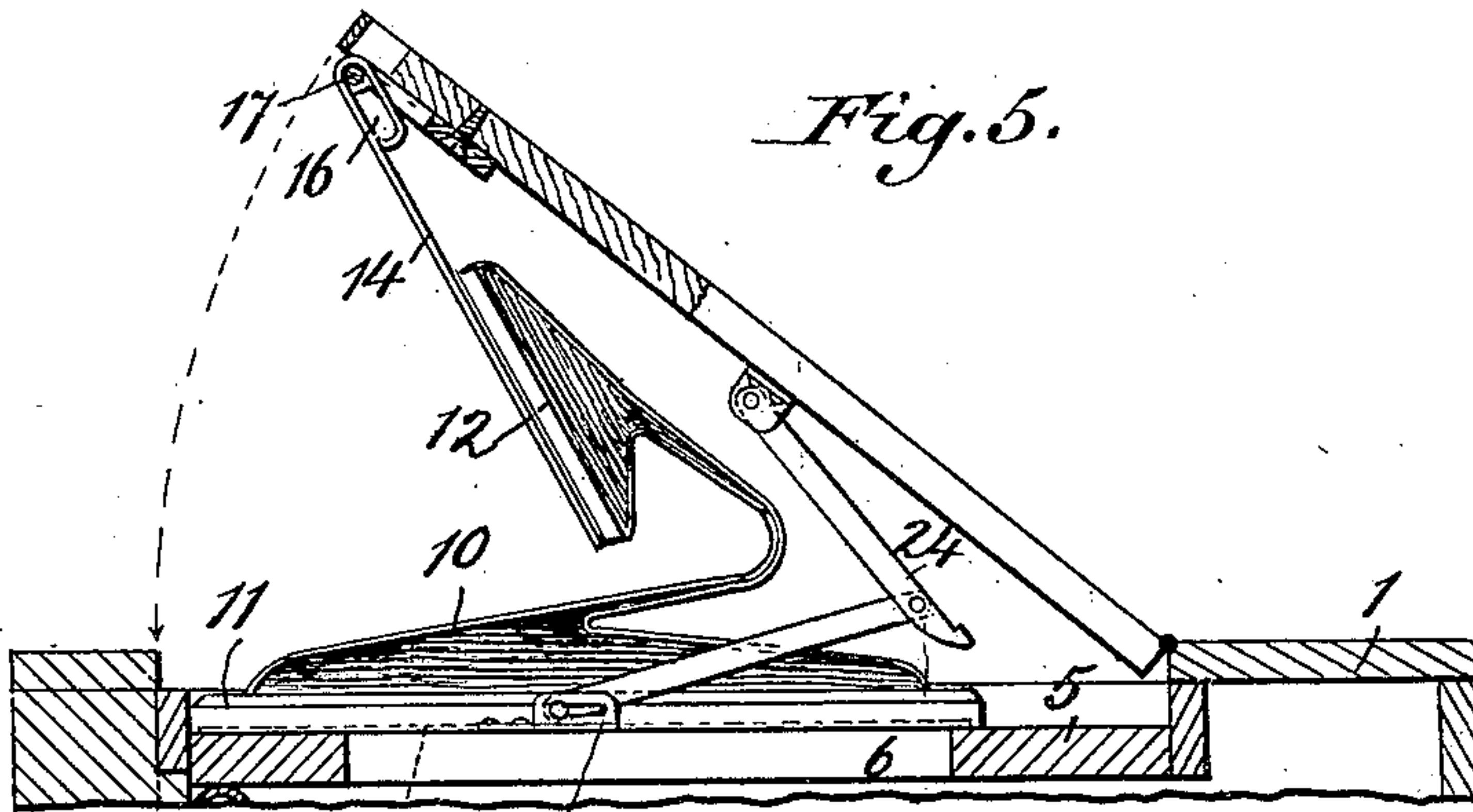
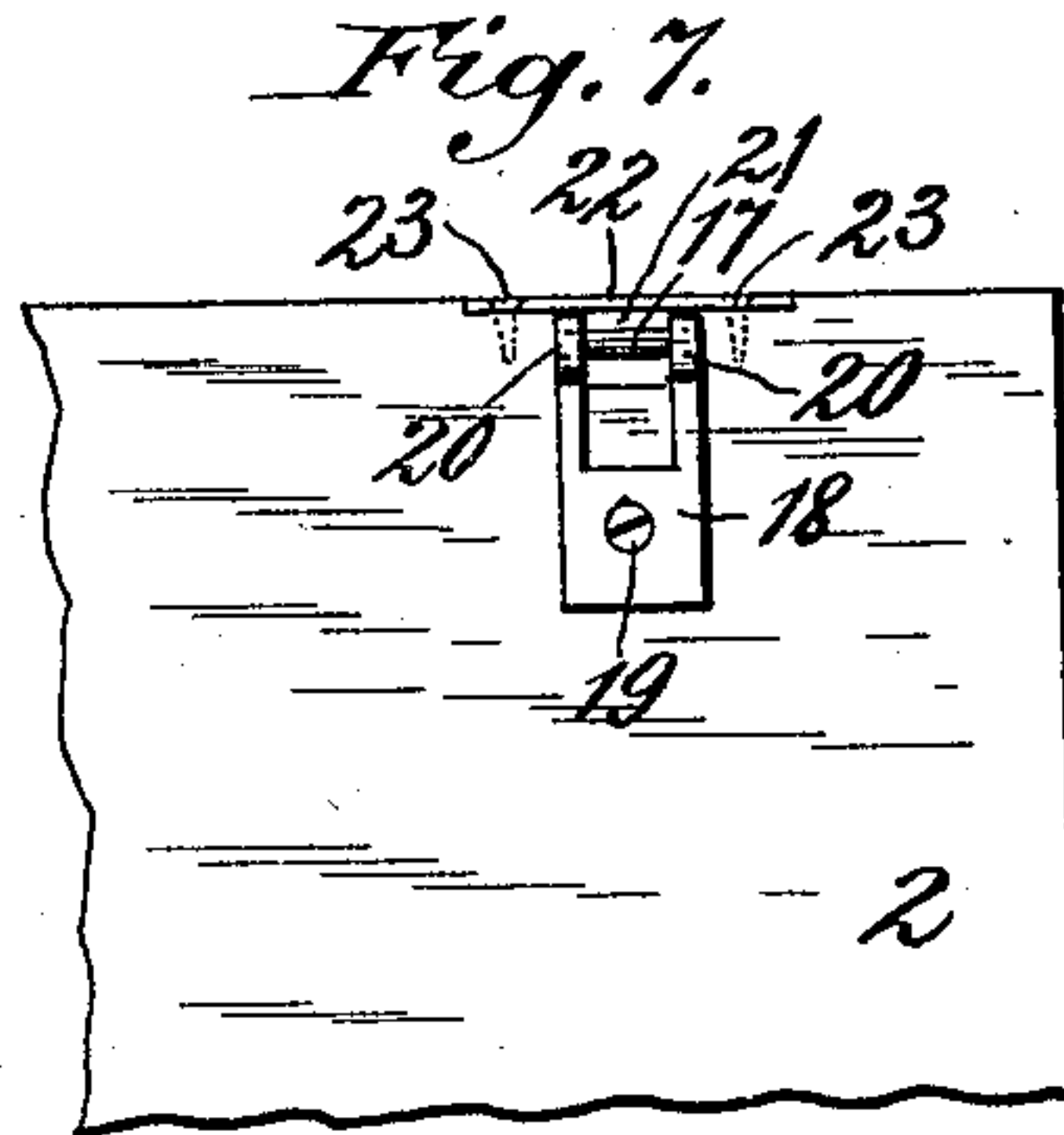
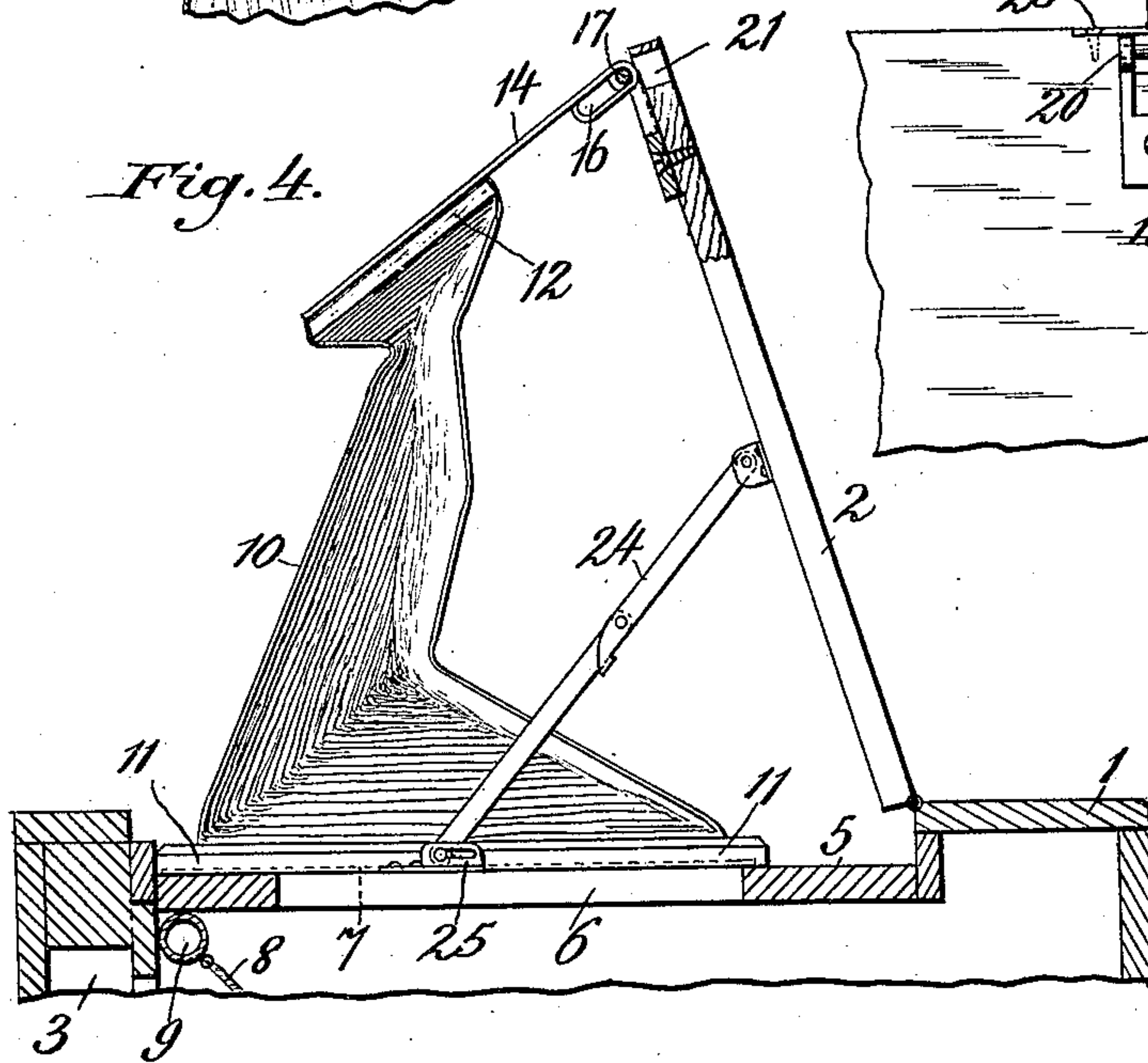
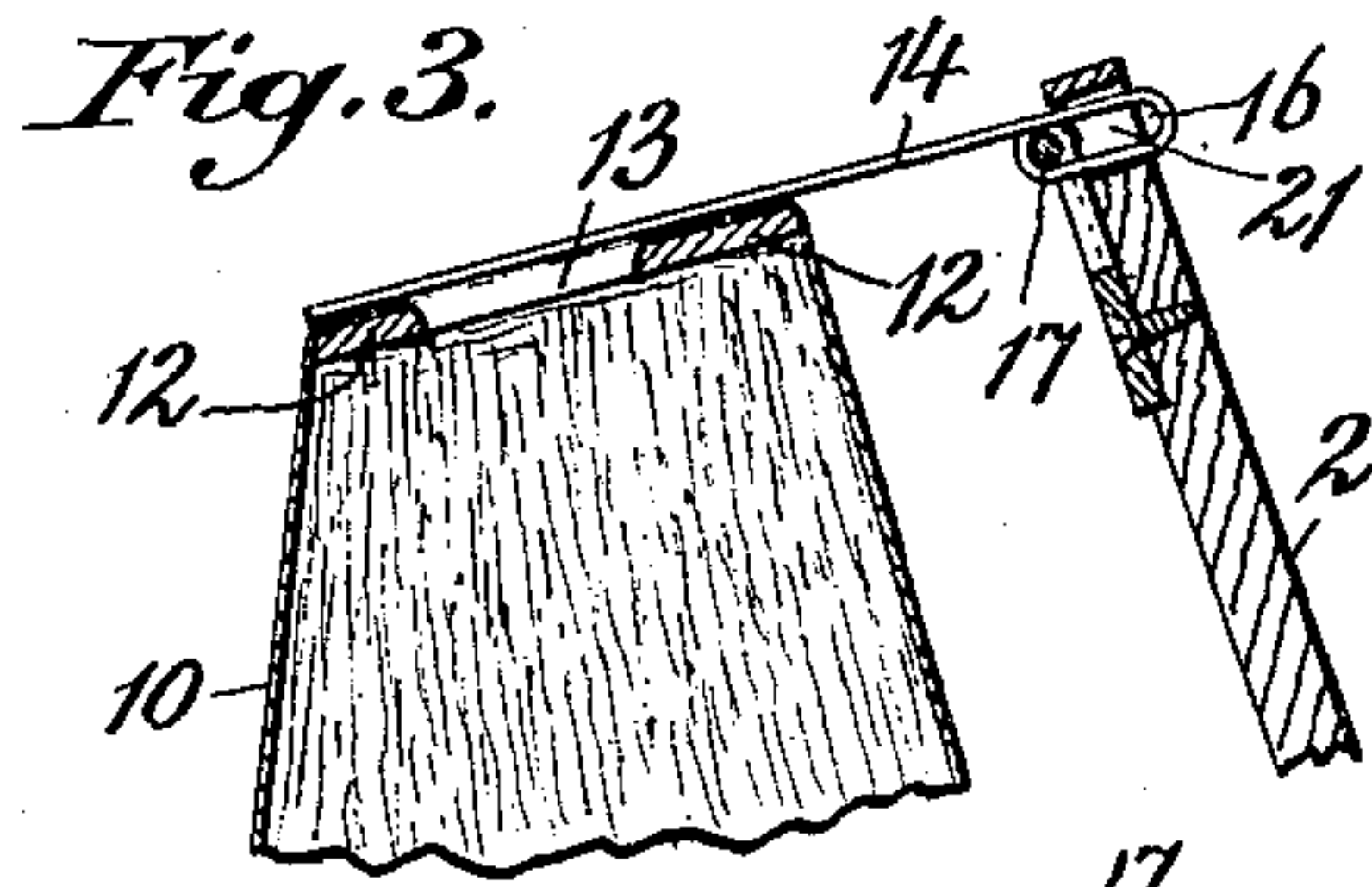
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2 Sheets—Sheet 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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FOCUSING-HOOD FOR CAMERAS.

SPECIFICATION forming part of Letters Patent No. 677,501, dated July 2, 1901.

Application filed April 11, 1901. Serial No. 55,355. (No model.)

To all whom it may concern:

Be it known that I, ALBERT D. DAVIS, a citizen of the United States, residing at Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Focusing-Hoods for Cameras; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates generally to photographic cameras, and more particularly to that class of cameras which employ a ground-glass focusing medium and a mirror standing at forty-five degrees (more or less) to such focusing medium, and also a folding hood or flexible folding light-shield in connection with said focusing medium; and the invention has for its object to provide a construction whereby when the folding hood is distended it will have its outer end supported from a lid or cover of the camera case or box by means of a member attached to the outer end of the hood and engaging the cover or lid or a part of the same, the connection between the outer end of said member and the lid or cover being such that it will be under tension when the hood is distended and released from tension when the hood is collapsed or folded.

Heretofore folding hoods or flexible folding light-shields have been hinged to the lid of the camera and held open or distended either by jointed braces having one member thereof pivoted or hinged to the hood and the other member pivoted or hinged to the camera lid or cover or by means of springs connecting the hood and the lid or cover, which springs, however, when the hood is closed or folded and out of use are at their greatest tension, which tension weakens and soon impairs their usefulness. My invention seeks to dispense with the use of such springs which are under constant tension when the hood is closed and out of use and to provide such a construction as that hereinbefore indicated, wherein the tension between the lid or cover and the member connecting the outer end of

the hood thereto exists when the hood is distended or in use and is relieved when the hood is collapsed or folded.

To the accomplishment of the foregoing and such other objects as may hereinafter appear the invention consists, primarily, in providing a connection between a lid or cover of the camera-box and the member which connects the outer end of the hood or light-shield thereto in which the joint of such connection is under tension when the hood is distended, so as to sustain or support the hood in its distended position, and said tension is relieved when the hood is folded or collapsed, thus insuring greater life or durability to and maintaining the original efficiency and degree of perfection in the working of the several parts.

It further consists in general features of construction and arrangement of parts, all as hereinafter particularly described and then sought to be clearly defined by the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of so much of the camera as is sufficient to illustrate my invention. Fig. 2 is a plan view of the same. Fig. 3 is a sectional view illustrating the position of the hood and camera lid or cover and connection between the two when the hood is in its distended position. Fig. 4 is a side view with parts in section illustrating the position of the parts when the joint is released for folding the hood. Figs. 5 and 6 are similar views showing the position of the parts at their different stages in the folding of the hood; and Fig. 7 is a side view of a portion of a camera lid or cover, illustrating the preferred construction for connecting the hood-supporting member to the lid.

In the drawings the numeral 1 designates a camera-box provided with a hinged lid 2, a plate-receiving chamber 3, having a door 4, a part 5, having an opening 6, above which is placed a ground-glass focusing medium 7, a mirror 8 at an angle of forty-five degrees (more or less) to the ground glass 7, and a curtain-roller 9, all of which parts may be of any of the well-known constructions in use and therefore not necessary to more fully illustrate, nor is it necessary to illustrate other usual features of construction in camera-

boxes, as the same do not constitute any part of my present invention.

The numeral 10 designates a folding hood or flexible folding light-shield, the lower part 5 of which is suitably attached to the frame 11, which rests upon the part 5 of the camera-box and within which lies the usual ground glass 7, which covers the opening 6 in the part 5 and serves as the focusing medium. The hood or light-shield 10 is formed of leather or other suitable flexible material and has all its sides formed of such material instead of having one side, as usual, formed by the lid or cover of the box. The hood, as illustrated, 15 converges from its bottom upwardly and at the top has a head or cap-piece 12, in which are formed the usual openings 13. The hood when the camera is not in use is adapted to fold or collapse, so as to permit the lid or cover 2 of the box to close, the several positions assumed by the hood in folding being indicated in Figs. 4, 5, and 6 of the drawings up to the point just previous to the lid assuming its final resting position. For the 25 purpose of sustaining or supporting the hood or light-shield in its distended position and at the same time permitting the hood to readily fold into the positions indicated in closing the lid or cover I provide a member for connecting the outer end of the hood to the lid or cover in such manner that when the hood is distended said member at its junction with the lid or cover or with a part of the lid or cover will be under tension at such junction or joint, so as to rigidly and firmly sustain the hood in its distended position, and when such joint is broken for the purpose of 35 lowering the lid and permitting the hood to collapse or fold the tension at the joint between said supporting member and lid or cover will be relieved, so that the parts may readily lower and collapse or fold without the joint being under tension during the time that the parts are closed and the camera not 45 in use. This can be effected in divers ways, and for purposes of illustration I have selected a form which I consider best for the purpose of carrying out the invention and which I will now describe. It consists of an arm 50 14, of which two are illustrated in the drawings, which arm is attached by screws 15 or otherwise to the head 12 of the folding hood, said arm at its opposite end being formed with an elongated slot or eye 16, designed to receive a pin or pintle 17, which is connected with the lid or cover 2 of the camera-box in any suitable manner, preferably by having it formed as a part of a plate 18, secured by a screw 19 or otherwise to the lid, the pintle 60 being supported in ears 20 on the plate and a portion of the plate between the ears being cut away, as illustrated, so that the cut-away portion will receive the eye portion of the arm when the latter turns in closing the hood, 65 thus permitting the arm to lie in a flat position when the box-lid is closed. The pintle which thus passes through the eye of the arm

registers with a slot 21, formed in or near the upper edge of the lid 2, so that when the hood or light-shield is in its distended position the 70 elongated eye portion of the arm may fit within said slot and have its upper face bear against the top wall of the slot, which wall may be formed by means of a metal plate 22, lying across the top of the slot and secured 75 by screws 23 to the face edge of the lid or otherwise formed, as desired. When the hood is distended and the elongated eye portion is in the slot with its face bearing against the top wall of the slot, sufficient tension is created 80 at the joint between the arm 14 and the lid to hold the arm in its elevated position, so as to sustain the hood in its distended position, such tension in this particular form being created by the weight of the hood pulling 85 down on the supporting-arm, so as to cause the arm to bear against the wall of the slot with sufficient pressure to hold the parts in position by the tension thus produced at the joint between the supporting-arm 14 and the 90 lid or cover of the box. When the hood or light-shield is to be folded and the lid closed, the arm 14 is moved forward, so as to take its elongated eye portion from within the slot 21 or from under its top wall or plate 22, and 95 when that is done the arm 14 is free to turn on its pintle 17, so that the arm may swing downward and the hood may collapse or fold, as indicated in Figs. 4 to 6 of the drawings. When the joint between the lid and the arm 100 which sustains the outer end of the hood is thus broken, the tension which previously existed between said arm and lid at the joint between the two is relieved and the arm can be swung down or turned in without working 105 against any resistance or tension whereby strain is taken from off the parts, and the arm will always serve to hold the hood in its proper distended position when the supporting-arm is thrown upward and tension created be- 110 tween it and the lid at the joint between the two when the hood is distended. Heretofore it has been usual to employ a spring for holding the hood in its distended position, said spring being kept under tension at all times 115 and under an increased tension when the hood has been folded and the lid lowered, and such constant tension weakens the spring and in time prevents the hood being held in its proper distended position; but by my im- 120 provement, whereby the tension at the joint between the supporting-arm and the lid is created or exists only when the hood is distended and said tension relieved when the hood is folded and the lid lowered, the disadvantage mentioned is obviated and over- 125 come. This improvement, therefore, insures the hood always being held in its proper distended position when the camera is in use, and while I do not restrict myself to the par- 130 ticular construction just described for accomplishing said object, yet when such construction is employed a very simple and efficient and easy-operating device for the purpose

specified is afforded. It will also be observed that all sides of the flexible folding hood or light-shield are formed independently of the lid or cover 2 of the camera-box, which is of
5 advantage in that it obviates certain difficulties and objections found to exist at the point of union between the lower portion of the hood and the lower hinged portion of the lid, as well as at other points, when one side
10 of the folding hood or light-shield is formed by the lid or cover of the camera-box.

The numeral 24 designates a jointed arm, of ordinary construction, which may be employed for connecting the lid or cover 2 with
15 the camera-box next to the base of the folding hood or light-shield, as illustrated, the lower member of said brace having a sliding connection with the bracket 25, which connects it to the camera-box.

20 Having described my invention and set forth its merits, what I claim is—

1. In a focusing-hood for cameras, a folding hood, a hinged lid, and a member connecting the outer end of the hood with the lid, a joint
25 being provided at the junction of said member with the lid which is under tension when

the hood is distended and relieved of the tension when the hood is collapsed, substantially as described.

2. In a focusing-hood for cameras, a folding hood, and a hinged lid, the side of the hood toward the lid being formed independently of said lid, and a member connecting the outer end of the hood with the lid, a joint being provided at the junction of said member with
35 the lid which is under tension when the hood is distended and relieved of its tension when the hood is collapsed, substantially as described.

3. In a focusing-hood for cameras, a folding hood, a hinged lid formed with a recess, a member attached to the outer end of the hood and provided at one end with an elongated eye adapted to enter the recess in the lid, and a pintle for hinging the eye end of said member to the lid, substantially as described.
45

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT D. DAVIS.

Witnesses:

W. B. SCHLEY,
GEO. W. REA.