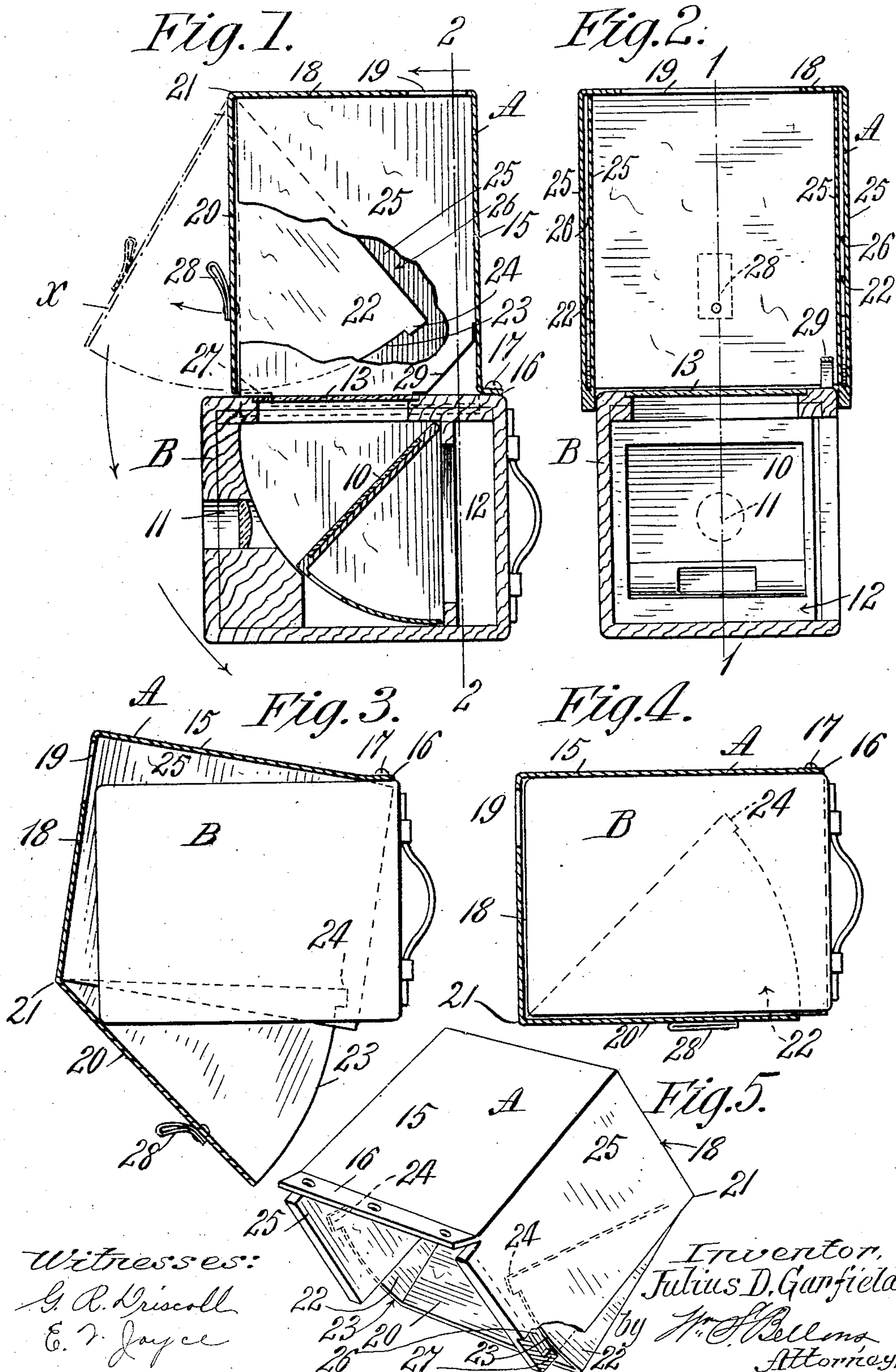


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PATENTED FEB. 5, 1907.

J. D. GARFIELD.
SHADING HOOD FOR CAMERAS.
APPLICATION FILED JULY 16, 1906.



UNITED STATES PATENT OFFICE.

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SHADING-HOOD FOR CAMERAS.

No. 843,449.

Specification of Letters Patent.

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To all whom it may concern.

Be it known that I, JULIUS D. GARFIELD, a citizen of the United States of America, and a resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Shading-Hoods for Cameras, of which the following is a full, clear, and exact description.

This invention relates to shading-hoods for reflecting-cameras, the principal object being to provide a hood for this purpose which may be quickly and easily operated and which may be inexpensive to manufacture.

Another object is to provide a combined shading-hood and carrying-case for reflecting-cameras.

The provision of such a combination hood and carrying-case avoids the necessity of hinged doors for covering the lens-opening, plate-holder opening, and ground-glass screen, as commonly supplied on such cameras.

The invention consists in the combinations and arrangements of parts and the construction of certain of the parts, all substantially as hereinafter fully described, and set forth in the claims.

The improved shading-hood for reflecting-cameras is illustrated in the accompanying drawings, in which—

Figure 1 is a sectional side elevation of a reflecting-camera and shading-hood as taken on the line 1 1, Fig. 2, the shading-hood being represented as in its raised or operative position. Fig. 2 is a cross-sectional elevation as taken on line 2 2, Fig. 1, the shading-hood being shown in its raised position, the same is an Fig. 1. Fig. 3 is a side elevation of a camera, the shading-hood thereof being shown in section and in a partially-folded position. Fig. 4 is a similar side elevation of a camera, its shading-hood being shown as completely folded or closed. Fig. 5 is a perspective view of the shading-hood as removed from the camera and as in a partially-folded position.

Similar characters of reference indicate corresponding parts in all of the views.

In the drawings, the shading-hood A is shown in Figs. 1 to 4, inclusive, as applied to a reflecting-camera B. This well-known type of camera, which is to be understood as forming no part of the present invention, comprises the usual swinging mirror 10 lo-

eated behind the lens-opening 11 in the front end portion of the camera and in front of the plate-holder opening 12 in the rear end portion thereof. The horizontally-disposed ground-glass screen 13, forming an essential part of this type of camera, is located above the swinging mirror 10 in the top portion of the camera, all of which is clearly shown in Fig. 1.

The shading-hood A, which is of box-like form, is preferably made of a thin, but stiff and inflexible, cardboard or the like and may be externally covered with leather to match the usual leather finish of the camera-box.

The preferred form of the shading-hood as I have constructed it is that of a rectangular-shaped box of a size to closely fit (in its folded or closed position) around the top, bottom, two sides, and front end of the camera B.

The top wall 15 of the hood A has a hinged portion 16 formed thereon, which is attached to the camera-box by screws 17, the combined length of the top 15 and its hinge 16 being equal to the length of the camera B.

The end wall 18 of the hood is of an area equal to that of the front end of the camera B and has formed therein the sight-opening 19.

The bottom wall 20 of the hood is of a length slightly less than the length of the camera B and is hinge-connected by one end to the end wall 18 at 21. This hinged and free-swinging bottom wall 20 is provided with angular-shaped side wings 22, the edge portions 23 thereof being curved on an arc, the center of which is the hinge 21. Stop-lugs 24 are provided on the curved edge portions 23 for limiting the degree of movement or outward swinging of the bottom hood-wall 20 relative to the end wall 18, as will later be more fully described.

The side walls 25 of the shading-hood A, which are joined to the end wall 18 and the top wall 15 and which are of an area equal to the sides of the camera B, are preferably made of double walls with a space 26 between said separated walls equal to the thickness of the cardboard or other stock used, the space 26 forming a sheath or pocket, within which the wings 22 of the bottom wall 20 may swing.

An abutment or stop-lug 27, formed at the closed end of the pocket 26 adjacent the curved edge 23 of wings 22, engages the stop-lugs 24 on said edges 23 and prevents the complete withdrawal of the said wings from the sheath or space 26.

A suitable handle-loop 28, attached to the bottom wall 20, forms a convenient means for swinging said wall 20 and its wings 22 relative to the body portion of the hood comprised in the walls 15 18 and 25 25.

A limiting-stop 29 for preventing the upward swinging of the hinged body portion of the hood to a position beyond that shown in Fig. 1 consists of a short flexible strap or tape 10 secured by one end to the wall 15 and by its other end to the top portion of the camera B, all as clearly shown in Figs. 1 and 2.

The operation of the shading-hood is as follows: Referring to Fig. 1, which illustrates the 15 raised position of the hood for operative use, it is apparent that an efficient shading of or shutting out of light from around the ground-glass screen 13 is effected and that a brilliantly-illuminated reflection of the picture 20 as formed by the photographic lens may be readily viewed through the sight-opening 19.

The operation of closing down or folding the shading-hood to the position shown in Fig. 4 consists in first swinging outwardly the 25 bottom wall 20, as indicated by the dotted lines x in Fig. 1, and then following this movement by a downward swinging of the entire hood-body to a position, as in Fig. 3, and continuing until the top wall 15 lies flat 30 against the top of the camera B, the last part of the operation being the swinging inward of the bottom wall 20 and its side wings 22.

The operation of bringing the folded hood, as shown in Fig. 4, to its open position, as 35 shown in Fig. 1, is obviously but a reversal of the movements of closing as above described.

I claim—

1. In a shading-hood for cameras, a box-like casing comprising a top wall which is 40 adapted to be hinge-connected to the camera-box, opposite side walls, an end wall provided with a sight-opening, and a bottom wall hinge-connected to the end wall, and light-excluding means connected with the 45 opposite edges of the bottom wall, movable therewith when said bottom wall is swung relatively to the end wall, and operable to exclude light from opposite side spaces between the side walls and said bottom wall.

50 2. In a shading-hood for cameras, a box-like casing comprising a top wall which is

adapted to be hinge-connected to the camera-box, opposite side walls, an end wall provided with a sight-opening, and a bottom wall hinge-connected to the end wall, and 55 having oppositely-located side wings extending from, and at right angles to, the bottom wall, which wings are slidable closely relatively to the said side walls.

3. In a shading-hood for cameras, a box-like casing comprising a top wall which is 60 adapted to be hinge-connected to the camera-box, an end wall provided with a sight-opening, a bottom wall hinge-connected to the end wall, and having angular side wings 65 formed thereon, and two side walls, each comprising double slightly-separated sections, the intervening space between said separated sections forming pockets for the reception 70 of the bottom wall side wings.

4. The combination with a camera-box, of a shading-hood constructed in the form of a box-like casing comprising a top wall which is 75 hinge-connected to the camera-box, opposite side walls, an end wall provided with a sight-opening, a bottom wall hinge-connected to the end wall, and having oppositely-located side wings extending from, and at right angles to, the bottom wall, and means for limiting 80 the extent of swinging movement of said box-like casing relatively to the camera-box.

5. In a shading-hood for a camera, a box-like casing comprising a top wall which is 85 adapted to be hinge-connected to the camera-box, opposite side walls, an end wall provided with a sight-opening, a bottom wall hinge-connected to the end wall, having oppositely-located side wings extending from, and at right angles to, the bottom wall, which 90 wings are slidable closely relatively to the said side walls, and means for limiting the extent of the outward swinging movement of the said bottom wall relatively to the side walls.

Signed by me at Springfield, Massachusetts, in presence of two subscribing witnesses. 95

JULIUS D. GARFIELD.

Witnesses:

WM. S. BELLWS,
G. R. DRISCOLL.