(Model.) 2 Sheets—Sheet 1.

E. B. BARKER.

PHOTOGRAPHIC SHIELD.

No. 267,821. Patented Nov. 21, 1882.

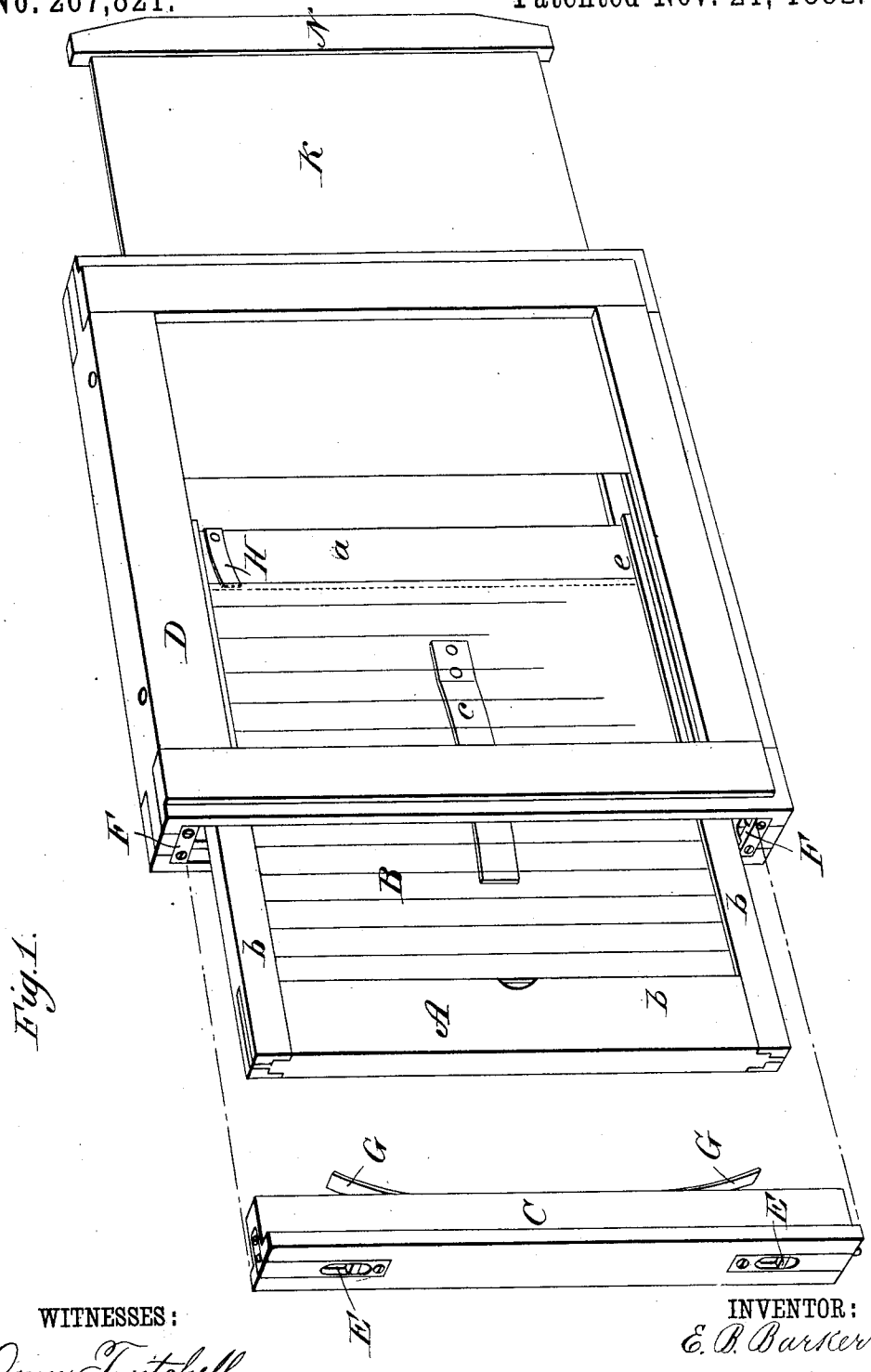


Fig. 1.

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C. Sedgwick

INVENTOR:

E. B. Barker

BY Munn & Co

ATTORNEYS.

N. PETERS. Photo-Lithographer, Washington, D. C.

(Model.)

2 Sheets—Sheet 2.

E. B. BARKER.

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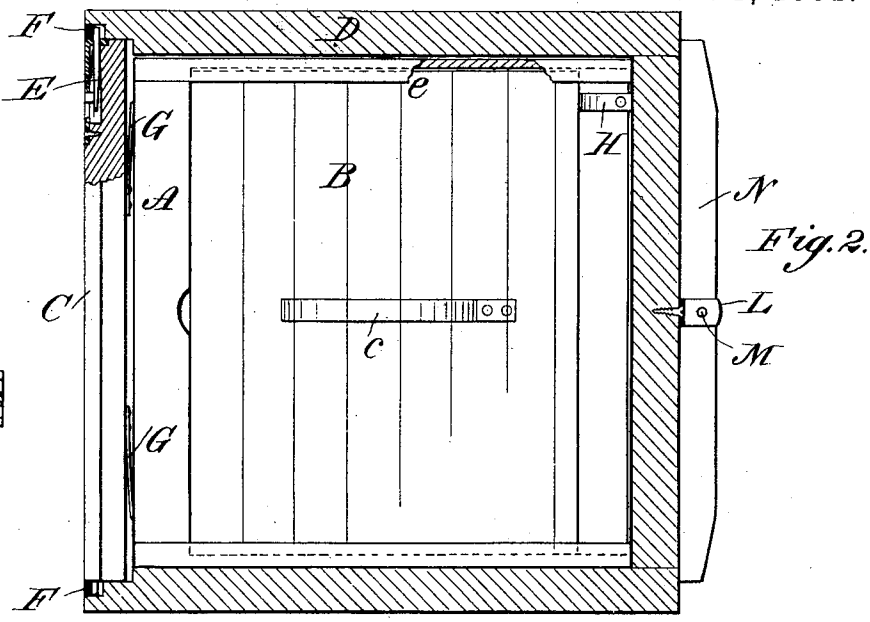
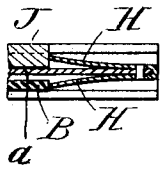


Fig. 2.

Fig. 6.



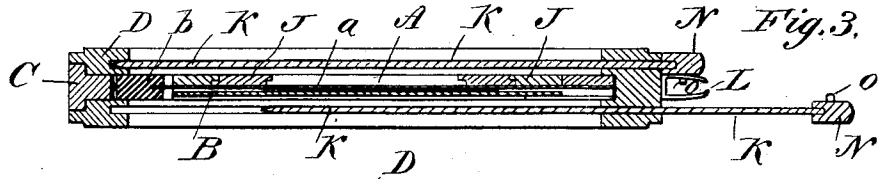
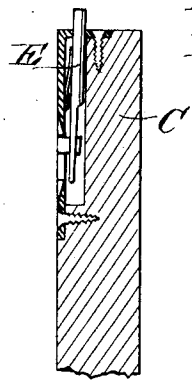


Fig. 3.

Fig. 5.



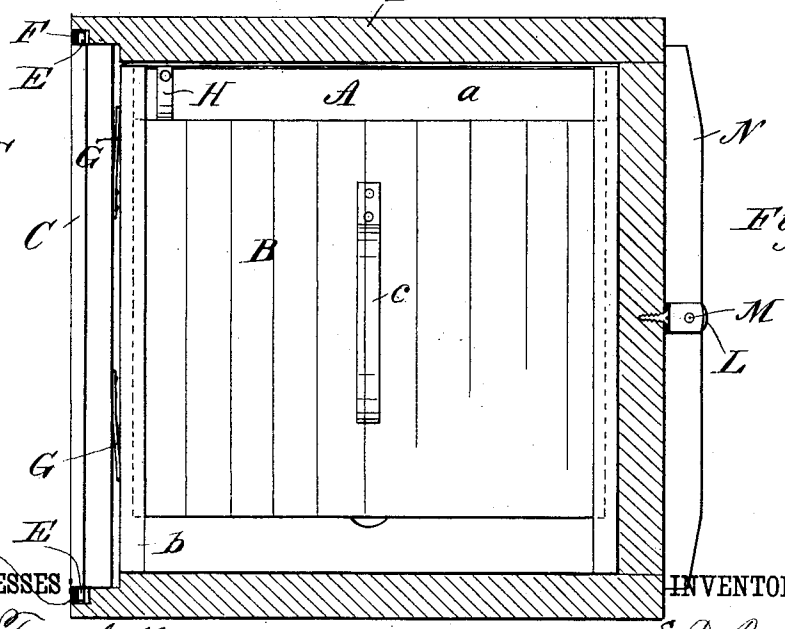


Fig. 4.

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UNITED STATES PATENT OFFICE.

ERASTUS B. BARKER, OF NEW YORK, N. Y., ASSIGNOR TO E. & H. T. ANTHONY & CO., OF SAME PLACE.

PHOTOGRAPHIC SHIELD.

SPECIFICATION forming part of Letters Patent No. 267,821, dated November 21, 1882.

Application filed December 31, 1881. (Model.)

To all whom it may concern:

Be it known that I, ERASTUS B. BARKER, of the city, county, and State of New York, have invented a new and Improved Photographic Shield, of which the following is a full, clear, and exact description.

The object of my invention is to facilitate the taking of either horizontal or vertical pictures without changing the position of the camera-box.

A further object of my invention is to lock the slides or covers of the shields automatically, thereby preventing them from slipping out accidentally; and another object of my invention is to lock the sensitive plate within the grooves of the septum.

The invention consists in a photographic shield constructed with a removable plate-septum that is adapted to be inserted within the shield either side up, whereby either horizontal or vertical pictures can be taken by simply changing the position of the septum.

The invention further consists in a removable cover for excluding light and holding the septum in the shield, which door fits in a slot in one edge of the shield, and is provided with locking devices and with springs on the inner edge for holding the septum in the shield and throwing the cover open automatically when the same is unfastened.

The invention further consists in a self-acting spring attached to the septum for the purpose of automatically locking and holding the sensitive plates in the septum.

The invention also consists in a self-acting spring-lock for automatically locking the slides or covers in the shield when the covers are pushed home.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my improved photographic shield, the septum and one of the slides or covers being shown partially withdrawn and the movable cover removed. Fig. 2 is a longitudinal sectional elevation of the shield, showing the septum in place for taking a vertical picture. Fig. 3 is a horizontal cross sectional view of the same, showing one of the slides or covers partially withdrawn. Fig. 4 is a longitudinal sectional elevation of the same, showing the septum in place for taking a horizontal picture. Fig. 5 is a longitudinal sectional elevation of the upper end of the removable cover, showing the fastening device of this cover. Fig. 6 is a detail sectional elevation of the septum-partition and the spring-strips attached thereto for holding the glass plates.

My invention is herein shown as applied to a double shield—that is, a shield carrying two sensitive plates, and provided with two covers or slides. The shield is in general of the customary construction, and is provided at one end with a slot, through which the septum A is inserted into the shield. This septum consists of a partition, *a*, surrounded by a frame, *b*, in which are the usual grooves, *e*, for the insertion of the sensitive plates, or for the insertion of frames to hold the sensitive plates. The partition *a* is provided on each side with the usual springs, *c*, pressing against the back of the plate and holding it in position.

The septum may be constructed to hold a sensitive plate, B, on each side of the partition *a;* or it may be constructed to hold only a single plate.

The usual series of plate-frames, J, fitting into each other may be used in the ordinary manner in the septum, whereby sensitive plates of different sizes may be readily introduced within the shield.

In ordinary shields the sliding septum is made with an end stop, which presses against the end of the shield and excludes the light; but it will be observed that in this improvement the septum A has no end stop, but is made of square form, so that it can be wholly inserted, either side up, within the shield, the light being excluded by the removable cover C, which is applied after the septum has been placed within the shield. In this way square pictures can be taken or horizontal pictures—that is, pictures that are longer than they are high—or vertical pictures—that is, pictures that are higher than they are long—all these different forms and sizes being taken without

changing the position of the camera-box upon its tripod, the desired changes of form and size being effected by withdrawing the septum and changing the position of the same within the shield.

Another advantage of my improvement is that these various changes of the form and size of the picture may be effected, as desired, by changing the position of the septum, and yet always retain the shield in position for withdrawing and inserting the shield covers or slides at the end of the shield.

Heretofore it has been necessary in taking vertical pictures—that is, pictures that are higher than they are long—to turn the camera and its attached shield on one side, which brings the slide of the shield uppermost and requires that the slide shall be withdrawn or inserted vertically. In the use of a large camera in the field it is difficult to accomplish this vertical operation of the shield-slides. By the use of my improvement no change of the position of the shield or camera is required for taking vertical pictures, and consequently the slides of the shields can always be withdrawn or inserted longitudinally from the end of the shield, which is the best and most convenient position.

For the purpose of holding the septum A in the shield and excluding the light, I have provided a removable cover, C, fitting in a slot or longitudinal recess in the edge of the shield where the septum enters. The said cover is provided at the ends with sliding bolts E E, or equivalent devices, which can be operated from the exterior of the cover. The bolts E E enter suitable recesses, F F, in the frame of the shield. The inner edge of the cover C is provided with springs G, which rest against the adjoining edge of the frame *b* of the septum A. When the cover is locked the springs hold the septum and its attached plates or frames in place in the shield, and when the bolts E of the cover C are withdrawn the springs G press the cover out of its recess or slot in the edge of the shield, thus opening the cover automatically. The septum and its plates can then be removed from the shield by slightly inclining the latter, so that the septum will slide out of the shield.

For the purpose of securely holding the sensitive plates or plate-frames in the grooves of the septum, I attach an automatic spring-lock, H, to each surface of the septum-partition *a*, at the outer end of the same. When a plate or frame is passed into either of the grooves of the septum it will slide over the spring H, pressing the free end of the same downward. As soon as the plate or frame has passed completely into its place in the septum and the outer or rear edge of the frame or plate has passed the inner or free end of the spring-strip H this end of the spring snaps upward and against the edge of the plate or frame, thus holding the same in place in the septum, as shown in Fig. 6. When the plate or frame is to be removed the end of the spring H must be depressed. For the purpose of automatically locking the slides or covers K in the shield, I have attached a spring-lock, L, provided in each shank with an aperture, M, to that side or edge of the shield against which the stops N of the slides or covers K rest, as shown in Figs. 2, 3, and 4. The stops N are each provided with a projecting stud, O, corresponding in position with the apertures M of the spring-lock L. If the shields or covers K are pushed into the shields the spring-lock L will snap over the stud O of each cover, whereby the slides or covers will be automatically locked in place. In order to release any one of the covers or slides K the corresponding lock, L, must be pressed so as to release the stud O.

I do not wish to claim broadly the combination, with the frame and dark slide of a photographic-plate holder, of a self-acting spring catch or lock, whereby the slide will be automatically locked when inserted in the frame.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A photographic shield, made substantially as herein shown and described, with a removable plate carrying the septum, adapted to be inserted, either side up, within the shield, whereby horizontal or vertical pictures on plates of different sizes may be taken at will by simply changing the position of the septum, as set forth.

2. The removable cover C, provided with fastening devices and springs on its inner edge, in combination with the frame of the shield and the septum A, substantially as herein shown and described, and for the purpose set forth.

3. The combination, with the cover C and septum A, of the springs G, substantially as herein shown and described, whereby the septum will be held in place when the cover is closed, and the door will be automatically thrown open when unfastened, as set forth.

4. In combination with the cover C and the shield D, the fastening devices E E, or their equivalents, substantially as herein shown and described, for the purpose of holding the cover and septum in place, as set forth.

5. The combination, with the shield and its slide, of a self-acting spring-lock on the shield, having an aperture in its shank to engage with a projecting stud on the slide, substantially as herein shown and described, whereby the slide will be automatically locked when pushed home.

6. The self-acting spring H, in combination with the septum A, substantially as herein shown and described, whereby the plate will be automatically held and locked upon the septum, as set forth.

ERASTUS B. BARKER.

Witnesses:
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J. H. SCARBOROUGH.