

(No Model.)

D. R. BREED.

CLAMP FOR BINDING THE EDGES OF LANTERN SLIDES.

No. 488,058.

Patented Dec. 13, 1892.

Fig. 1.

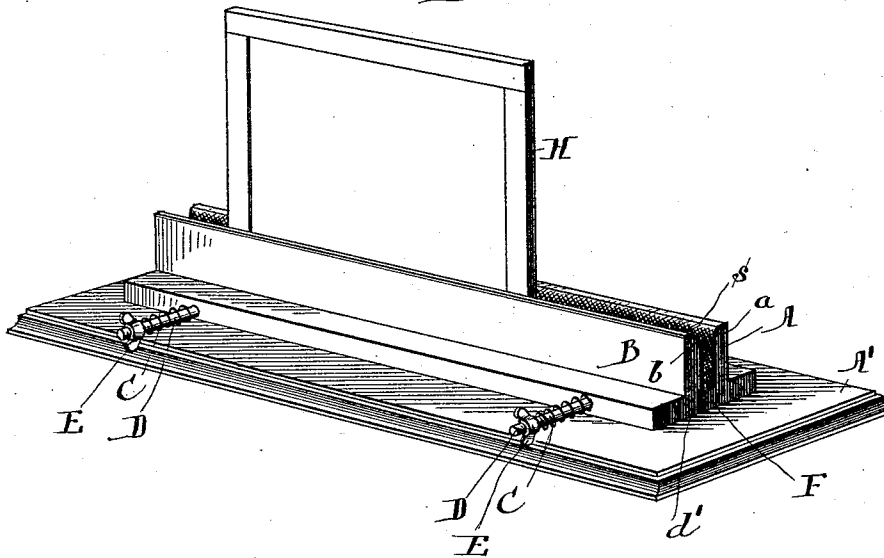


Fig. 2.

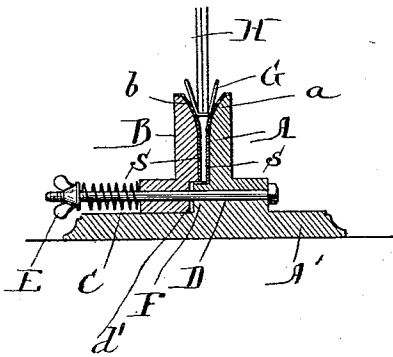
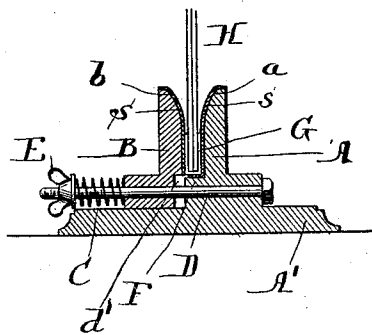


Fig. 3.



Witnesses:
Fred Gerlach
J. B. Carpenter

Inventor:
David R. Breed
By Price & Fisher
Attorneys.

UNITED STATES PATENT OFFICE.

DAVID R. BREED, OF CHICAGO, ILLINOIS.

CLAMP FOR BINDING THE EDGES OF LANTERN-SLIDES.

SPECIFICATION forming part of Letters Patent No. 488,058, dated December 13, 1892.

Application filed May 12, 1892. Serial No. 432,729. (No model.)

To all whom it may concern:

Be it known that I, DAVID R. BREED, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Clamps for Binding the Edges of Lantern-Slides, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

In forming slides for magic lanterns it is customary to bind the edges of the glass plates composing the slides with strips of adhesive paper, cloth, or the like. The usual method of binding the edges of the slides is to first moisten the adhesive face of the binding-strip, then place the edges of the plates centrally upon the adhesive strip, and finally fold the edges over onto the face of the plates. This method of binding the edges of the plates is defective notably in the following particulars: As the plates are manipulated after their edges have been placed upon the strip, there is danger of the edges getting out of exact alignment, and, moreover, when the edges of the strip are drawn down over the sides of the plates there is a tendency to cause the adhesive strip to "buckle" up or adhere irregularly to the edges of the plates and so interfere with the easy insertion and withdrawal of the slides into and from the slide-carriers of the lantern. It is important that the adhesive strips by which the edges of the plates are joined shall adhere squarely to the edges as well as to the sides of the plates, and it is important, also, that the edges of the superposed plates or cover-glasses should be in accurate alignment, in order that the slides may be easily manipulated in use.

The object of my present invention is to provide a simple, cheap, and convenient device whereby the application of binding-strips to the plates of the slides can be effected much more quickly and accurately than by the method or devices now commonly employed for such purpose.

To this end my invention consists in the novel mechanism hereinafter described, illustrated in the accompanying drawings, and

particularly pointed out in the claims at the end of this specification.

Figure 1 is a perspective view of a device embodying my invention. Fig. 2 is a view in vertical transverse section, showing the jaws in position to receive the slides. Fig. 3 is a view similar to Fig. 2, but showing the slide within the jaws, parts being omitted and parts being broken away.

In the form of my invention illustrated in the accompanying drawings there are shown two jaws A and B, the jaw A being, preferably, a fixed jaw rising from a base A', while the jaw B is a movable jaw that is forced normally toward the jaw A by means of suitable springs C. In the preferred form of the invention the springs C are coiled springs and are mounted upon rods D, that pass through the base of the jaw A and through suitable openings in the base of the jaw B, the springs being retained upon the rods D by means of set-nuts E. These set-nuts E will also be found advantageous in adjusting the tension of the springs from time to time, as desired. The jaw B is mounted upon the rods D in such manner as to permit the jaws to be freely moved back and forth with a right-line movement with respect to the stationary jaw A, and it is plain that any desired number of springs and rods may be employed. The jaws A and B are cut away at their upper edges, as at *a* and *b*, to form a flaring mouth to receive the slide-plates, and between the base of the jaws A and B extends a stop or rib F, against which the edges of the slide-plates will squarely abut after the plates have been forced completely downward within the jaws. This stop or rib F may extend slightly into a longitudinal channel or depression *d'*, formed along the base of the movable jaw B; but it is manifest that the rib might be formed upon either of the jaws or at a point between them, so long as it serves the purpose of presenting a bearing for the edges of the slide-plates after they have been forced completely downward within the jaws. The opposing faces of the jaws A and B should be covered with a layer of cloth or like material *s*, which will afford an easy bearing upon the adhesive strips as the slide-plates are forced between the jaws.

From the foregoing description it will be seen that when the adhesive strip G has been moistened and attached to the edges of the plates H, of which a slide is to be formed, the plates held in accurate alignment by the hand of the operator can be placed into the flaring mouth of the jaws A and B, as seen in Fig. 2 of the drawings, and can then be forced downward between these jaws to the position shown by Fig. 3 of the drawings. As the plates H are thus forced downward the movable jaw B will recede slightly against the force of the springs C, so as to permit the plates H to move downward, thereby causing the binding-strip G to be forced to bearing with the sides of the plates H. When the plates H are forced downward, as far as possible, the binding-strip G will contact with the top of the stop or rib F, and the binding-strip will thus be caused to squarely and firmly adhere to the edges of the plates H, so that when the plates are withdrawn from my improved device it will be found that the binding-strip not only adheres to the sides of the plates, but also squarely to the edges of the plates, so as to give a square and uniform edge that will permit the easy manipulation of the plates within the slide-carrier of the lantern.

While I have described my invention as particularly applicable for the binding of magic-lantern slides, it is manifest that it will be found of advantage for a variety of other purposes—such, for example, as binding photographic transparencies, the edges of picture-glasses and “mats,” and for analogous work.

While I prefer to employ springs for forcing the jaw B toward the jaw A, it is plain that the operator could force the movable jaw toward the stationary jaw by his hand, and so cause the binding-strip to adhere to the edges of the slide-plates. In practice, however, the use of springs will be found of material advantage. So, also, while I have shown both of the jaws with cut-away edges, it would still be within the scope of my invention to give

the jaws a flaring mouth by cutting away the edge of one of the jaws only, although I regard the construction shown as preferable.

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

1. An apparatus of the character described, comprising the separable jaws A and B, having a flaring mouth, spring mechanism for clamping articles between said jaws, and a suitable stop or rib interposed at the base of said jaws, substantially as described.

2. An apparatus of the character described, comprising the jaws A and B, having a flaring mouth, one of said jaws being mounted to slide with respect to the other, and a suitable stop or rib interposed at the base of said jaws, substantially as described.

3. An apparatus of the character described, comprising separable jaws A and B, having a flaring mouth, spring mechanism for clamping articles between said jaws, and a base whereon said jaws are mounted, said base being provided with a part extending across and closing the space at the bottom of said jaws and serving as a bearing for the edge of the article clamped between the jaws, substantially as described.

4. An apparatus of the character described, comprising two jaws A and B, spring mechanism for forcing said jaws normally toward each other, said jaws having opposing edges cut away, as at *a* and *b*, and a suitable stop or strip between said jaws, substantially as described.

5. In apparatus of the character described, the combination of a jaw A, a sliding jaw B, a stop or strip F, intermediate said jaws, rods D, whereon said jaw B is mounted, and suitable springs C for forcing said jaws normally toward each other, substantially as described.

DAVID R. BREED.

Witnesses:

GEO. P. FISHER, Jr.,
JAMES H. PEIRCE.