(No Model.)

C. SEAVER, Jr.

APPARATUS FOR VIGNETTING PHOTOGRAPHS.

No. 254,845. Patented Mar. 14, 1882.

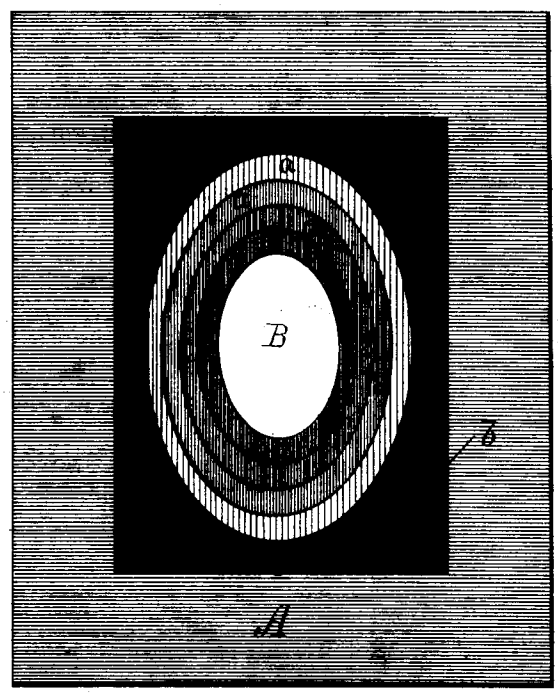


Fig. 1.

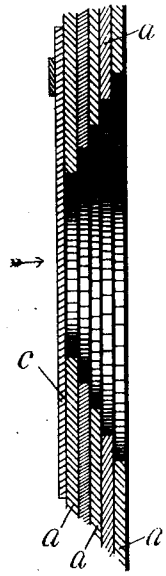


Fig. 2.

Witnesses.
H. E. Lodge
F. G. Simpson

Inventor.
Chandler Seaver, Jr.
F. Curtis. Atty.

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

UNITED STATES PATENT OFFICE.

CHANDLER SEAVER, JR., OF NEWTON, MASSACHUSETTS.

APPARATUS FOR VIGNETTING PHOTOGRAPHS.

SPECIFICATION forming part of Letters Patent No. 254,845, dated March 14, 1882.

Application filed January 9, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHANDLER SEAVER, Jr., a citizen of the United States, residing at Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in an Apparatus for Vignetting Photographs; and I do hereby 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 letters or figures of reference marked thereon, which form a part of this specification.

The device embracing my present invention is designed to vignette photographic pictures when being printed—that is to say, to cast a gradually-diminishing elliptic or other shadow about the prominent object of the picture.

My invention consists in a plate of card-board, metal, or other suitable material to be secured to the front of the printing-frame, this plate having an opening (to admit of rays of light to the negative) of a size equal to or larger than the extreme boundary of the shadow to be cast, and the application to or combination with such opening of a series of sheets of tracing-cloth, thin paper, or other semi-transparent material laid together, and having each an opening of the desired outline of the vignette, and the series of openings of the various sheets being concentric, and gradually increasing in size as the margin of the vignette is approached, thereby gradually shutting off the rays of light and producing the desired vignette or annular halo.

The drawings accompanying this specification represent, in Figure 1, a front view, and Fig. 2 a section through the series of sheets, which are very much enlarged.

A in the above-named drawings represents a thin plate of card-board, metal, wood, or other suitable material, which, when this apparatus is used for printing vignettes from a photographic negative, is to be secured to the front of the printing-frame by pins or tacks, or by turn-buttons, or other devices carried by the said frame, this plate A having a central opening, B, of a size equal to or larger than the extreme outer margin of the vignette or halo to be produced.

Over the opening B, I place together a series of sheets, *a a a a*, &c., of tracing-muslin, thin paper, or other semi-transparent or slightly-opaque material, and secure these sheets at their margins to the plate A in a suitable manner, to retain them in place and prevent slipping one upon the other. Each sheet *a* has a central opening, which is of an elliptical, oval, or other outline, according to the desired form of the vignette. These openings are, as before stated, concentric with each other, or substantially so, and gradually increase in size in order to gradually increase the opacity of the entire series from the smallest one outward, and in so doing gradually stop off or deaden the rays of light passing through the negative, thereby as the margin of the picture is approached diminishing the depth of the shadow cast by the combined sheets. The opacity of each sheet *a* is so slight that the gradual increase in opacity as each sheet adds its quota to the others is not perceptible in the printed picture, and the dark center vanishes in the light margin with uniform gradation.

To complete the outer margin of the vignette I prefer to add to one or both sides of the plate A a sheet, *b*, of dark or black paper, cloth, or other material, this sheet *b* extending to the entire margin of the picture, and serving to entirely stop off or exclude the rays of light from the negative, and the sensitized paper from being printed upon. Moreover, I prefer to add to the outside of the plate A a movable or changeable screen, *c*, adapted to be placed in front of the openings of the combined sheets *a a*, &c., to be used at times when printing in a very strong sunlight, in order to intercept to some extent the rays of light. In printing in diffused light the screen *c* will not be needed.

I do not confine myself to the precise number of sheets *a* employed, or to any special material of which they are composed, nor to the form of opening in each; neither do I confine myself to any arbitrary means for securing them to the plate A.

I claim as my invention, and desire to secure by Letters Patent of the United States, as follows:

1. The device for vignetting photographic pictures, substantially as herein described,

consisting of a plate with an opening to admit rays of light to the negative, and the combination, with said plate having such opening, of a series of semi-transparent sheets, each having an opening to permit of the unobstructed passage of light, the series of openings gradually increasing in size outward to proportionately increase the opacity of the combined sheets about the lesser opening and stop off the rays of light with regular gradations, as the margin of the negative is approached.

2. In a printing and vignetting device, the removable or changeable shield or screen *c*, in combination with the plate A and sheets *a a*, substantially as and for purposes stated.

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

CHANDLER SEAVER, JR.

Witnesses:
H. E. LODGE,
F. CURTIS.