

H. B. HANSBURY.

VIGNETTING SCREEN.

No. 393,642.

Patented Nov. 27, 1888.

FIG. 1

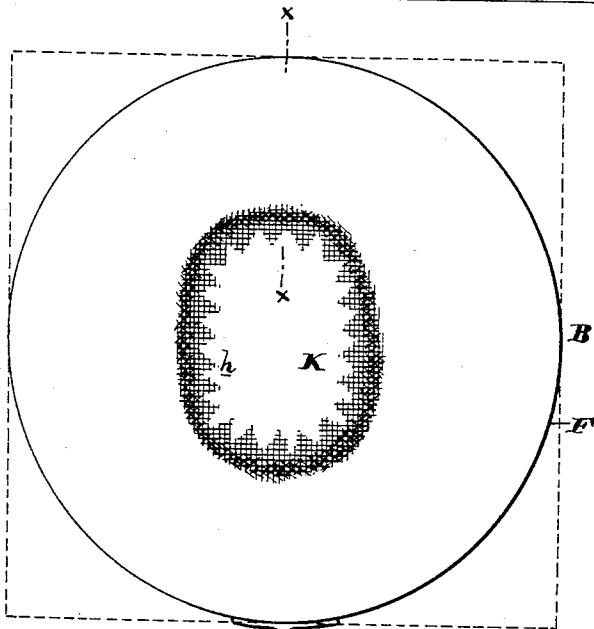
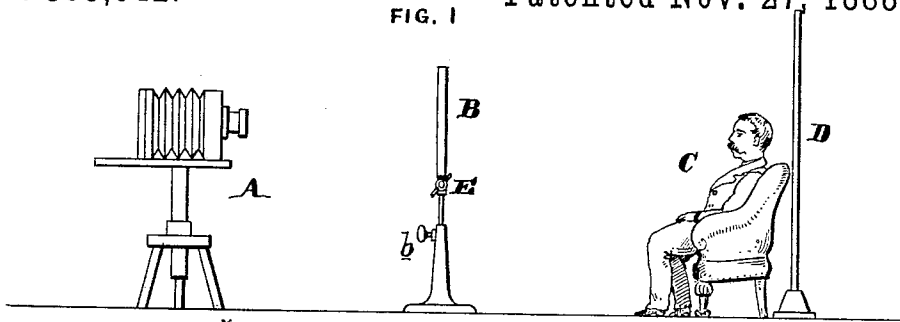


FIG. 2

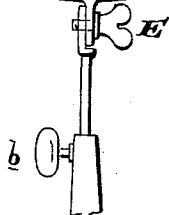


FIG. 3

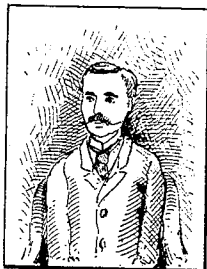


FIG. 4

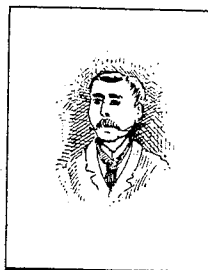


FIG. 5

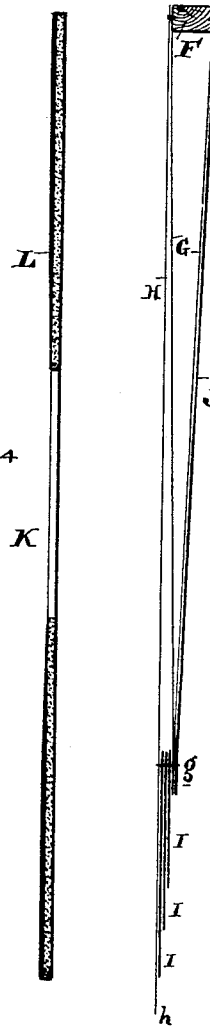


FIG. 6

Attest:
Harry B. Hansbury
Inventor

Inventor:
Harry B. Hansbury.
By *Wm. H. Smith*

(No Model.)

H. B. HANSBURY.

2 Sheets—Sheet 2.

VIGNETTING SCREEN.

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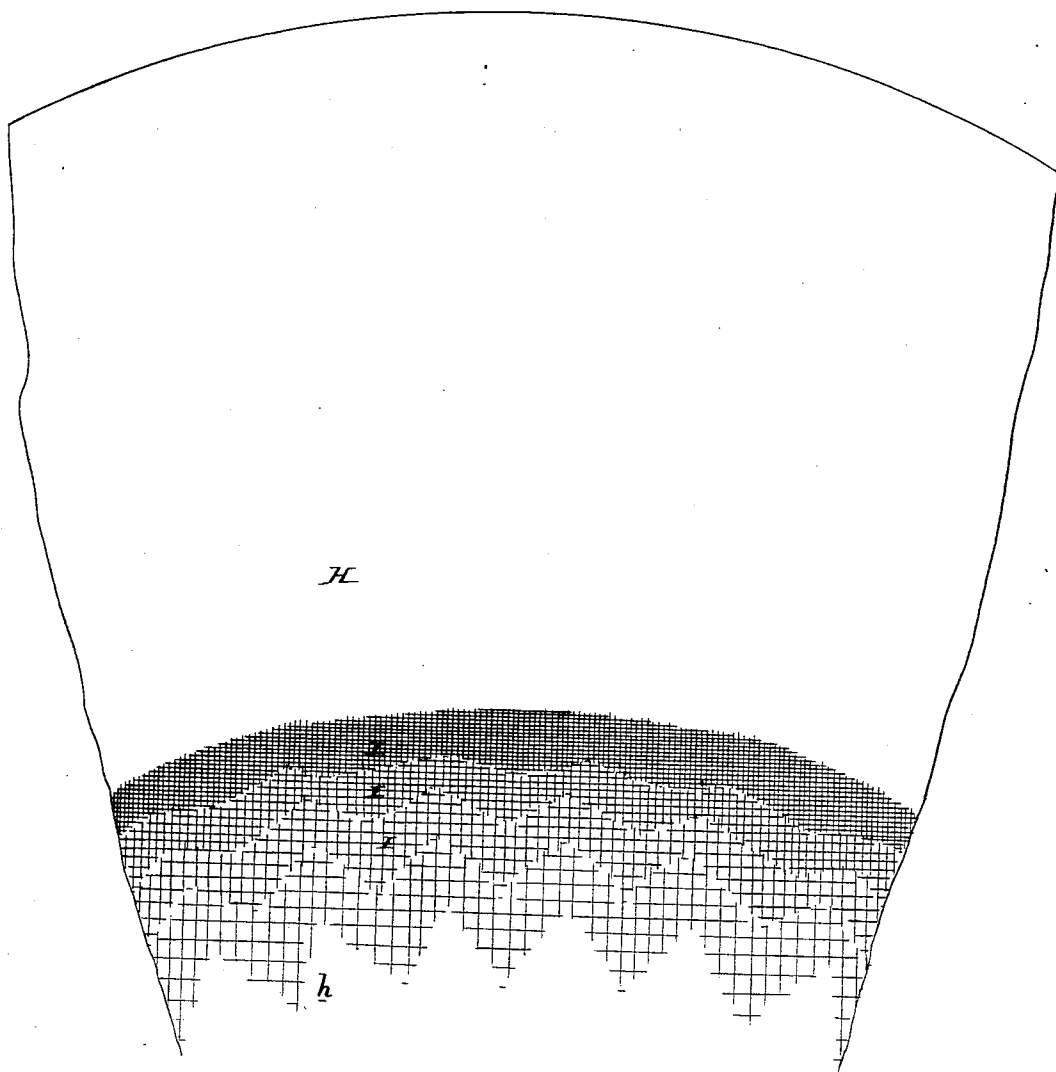


FIG. 7

Attest:

Henry D. Dury
Notary Public

Inventor:

Harry B. Hansbury
By his atty
[Signature]

UNITED STATES PATENT OFFICE.

HARRY B. HANSBURY, OF PHILADELPHIA, PENNSYLVANIA.

VIGNETTING-SCREEN.

SPECIFICATION forming part of Letters Patent No. 393,642, dated November 27, 1888.

Application filed February 28, 1888. Serial No. 263,603. (No model.)

To all whom it may concern:

Be it known that I, HARRY B. HANSBURY, of the city and county of Philadelphia and State of Pennsylvania, have invented an Improvement in Vignetting-Screens, of which the following is a specification.

My invention relates to photographers' screens for producing vignetted negatives; and it consists of certain improvements, which are fully set forth in the following specification, and shown in the accompanying drawings, which form part thereof.

More particularly my invention relates to screens used to produce that class of photographs known as "vignettes," in which the background is shaded off, leaving the dark picture in the middle and gradually fading toward the edges of the card. This class of photographs is much desired on account of the softer and more attractive appearance of the picture; but the production of this vignetted effect is attended with considerable trouble in the present state of the art, and it is to simplify and cheapen the production of these photographs that my invention is intended. Heretofore the negatives have been taken in the ordinary manner, and the appearance of the vignette has been produced during the printing by the interposition of a peculiarly-formed and perforated wooden board between the sun and the negative, which prevented the sun's rays from passing freely through the outer edges of the negative, and thereby produced the desired effect. This wooden board or shield is so placed that when the sun's rays pass through the aperture they strike the negative on that part corresponding to the face and the light is diffused over the other part of the negative, where it passes between the board and negative. This arrangement of parts requires considerable care in handling and particular care in placing the albumen or sensitized paper in position in the frame for printing, and in view therefore of these requirements and uncertain results this method is both tedious and expensive.

In my invention the vignette effect is produced directly on the negative by the interposition of a screen, with an aperture between the object and the camera, so that the nega-

tive itself is made with the softened or vanishing edges, and the printing is accomplished directly and without the intermediation of the additional wooden board.

The principle of the invention is new in the art as far as I am aware, and in the production of a vignetted negative direct I greatly cheapen and facilitate the production of printed pictures to be subsequently mounted on cards. The effect required necessitates in most instances that the screen shall present a white or light color with a dark or non-reflective back, yet I do not limit my invention to any particular form or construction of apparatus.

Referring to the drawings for greater particularity, Figure 1 is a side elevation of my screen with a camera and the object to be photographed, showing the manner in which it is used. Fig. 2 is a front elevation of a screen embodying the preferred construction of my invention. Fig. 3 is a sectional view of a portion of the same through the line *x x* of Fig. 2. Fig. 4 is a sectional view of a modification of my screen. Figs. 5 and 6 are views of negatives, showing the difference between the ordinary photographs and those having the vignette effect; and Fig. 7 is an enlarged front elevation of a portion of my screen.

A is an ordinary camera in position for use. B is the vignetting-screen. C is the object to be photographed, and D is any suitable background-screen. The vignetting-screen B is mounted in a stand, *b*, having an adjusting-screw, *b'*, by which it may be raised or lowered to the desired height.

E is a universal joint connecting the screen B to the upright of the stand *b*, by which the screen may be put in any desired position or angle. Of course this stand and the universal joint E are merely illustrative constructions, and are not to be taken as limitations of the invention, as any other suitable adjusting devices may be used.

F is the frame of the vignetting-screen B, which I prefer to construct in circular or hoop shape, as shown, though of course it may be square, as shown in the dotted lines in Fig. 2, or in any other shape desired. I prefer to construct this frame F of wood, on account of

its lightness, but it is apparent that any other suitable material—such as wire—may be used.

G is an annular covering of any opaque material, preferably of white or other light color. It is provided with a central opening or aperture, K. This covering G should be constructed of a material having a sufficient amount of firmness to keep it in position. I prefer to secure this material in two layers upon each side of the frame F, and to unite the edges about the opening or aperture K by stitches or paste *g*. This tends to give the covering a stiffer or firmer effect.

H is a transparent textile covering, which is pasted, sewed, or otherwise secured to the covering G or frame, and annular layers I may also be secured in a like manner to the edge of the aperture K and upon the face or that side of the screen which is presented toward the camera. I prefer to make the openings of the annular coverings H I of increasing sizes, so that each textile annular transparent boundary I extends slightly beyond the other. Thus presenting about the opening K an annular rim of material of diminishing transparency. Any desired number of layers I may be used to graduate the effect of this shading. I prefer to construct this annular rim, made by these coverings I, with serrated edges *h*, which may, if desired, be tipped with a darker shade than that of the coverings, to produce a less hazy appearance on the subject portion of the negative.

The textile material H I is preferably open netting or lace or other transparent or semi-transparent woven material.

The textile or woven material may be of any substance, and of course is not limited to vegetable or animal fiber, as woven wire, plain or colored, is properly a textile or woven material in the sense these terms are used in this application, and likewise it is evident that a perforated material is in effect the equivalent of the woven material, though not so desirable.

In Fig. 7 I have shown the effect of the gradual opaqueness, though it is difficult to increase the appearance of whiteness with increasing opaqueness; hence the drawing is only illustrative in its character. All of the edges of the annular layers I may be serrated, if so desired; or serrations may be entirely dispensed with, if desired.

The back of the annular covering G, I prefer to cover with some dark material, J, to prevent reflection on the person being photographed.

In Fig. 4 is shown a modification, in which the screen B is constructed of glass, having the opening or aperture K and some material of diminishing transparency, L, upon its face.

In practice the vignetting-screen B is placed between the object to be photographed and adjusted to the proper angle and position. In consequence of the decreasing transparency of

the rim about the opening K it is apparent that the rays of light passing through this rim will decrease in intensity, and the negative will have the vignette effect shown in Fig. 6. A portion only of the screen B might be used, or only one layer of the transparent textile covering H; or the screen might be constructed simply with the serrated edges *h*; but I prefer the constructions shown in the drawings, as they have been found to more efficiently accomplish the desired result.

My invention is not limited to the details of construction here shown, as it is evident that they may be varied in many ways and that many other modifications of the vignetting-screen are possible without departing from the principles of my invention.

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

1. A device for producing vignetted negatives, consisting of a screen having an opening or perforation, the bounding edges of which opening are made of a transparent or semi-transparent medium, and which becomes more opaque as we recede from the edge of the aperture, said transparent or semi-transparent medium being formed of textile material.

2. A device for producing vignetted negatives, consisting of a screen having an opening or perforation, the bounding edges of which opening are made of a transparent or semi-transparent medium, and which becomes more opaque as we recede from the edge of the aperture, said transparent or semi-transparent medium being formed of textile material and of a light color.

3. A device for producing vignetted negatives, consisting of a frame, an annular covering of opaque material presenting a light-colored face, and a covering of transparent textile material projecting beyond the inner edges of the annular covering to present a shadowy border.

4. A device for producing vignetted negatives, consisting of a frame, an annular covering of opaque material presenting a light-colored face and a dark-colored back, and a covering of transparent textile material projecting beyond the inner edges of the annular covering to present a shadowy border.

5. A device for producing vignetted negatives, consisting of a frame, an annular covering of opaque material presenting a light-colored face, and a covering of transparent textile material projecting beyond the inner edges of the annular covering to present a shadowy border, but of greater opaqueness as we approach the outer edge of the said annular covering.

6. The vignetting-screen consisting of the frame F, covering G, having perforation K, and semi-transparent annular coverings H I, of open-mesh or transparent textile material.

7. A device for producing vignetted negatives, consisting of a screen having an opening or perforation, the bounding edges of which opening are made of a transparent or
5 semi-transparent medium, the tips or inner edges or parts of the serrated portions being tipped or colored with a dark medium.

In testimony of which invention I hereunto set my hand.

HARRY B. HANSBURY.

Witnesses:

R. M. HUNTER,

E. M. BRECKINREED.