

N. W. CARKHUFF.  
 PHOTOGRAPHIC PRINTING MASK.  
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1,061,727.

Patented May 13, 1913.

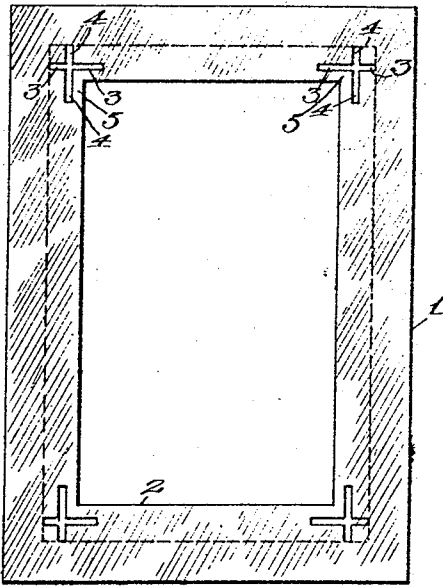


Fig. 1.

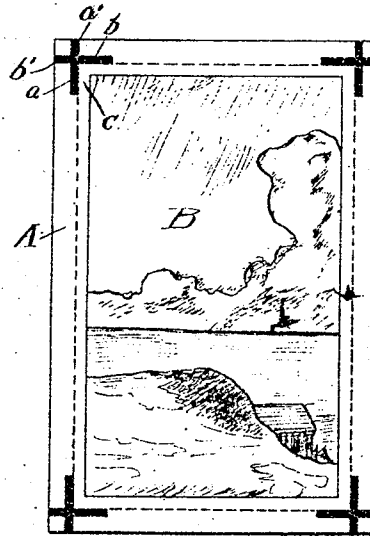


Fig. 2.

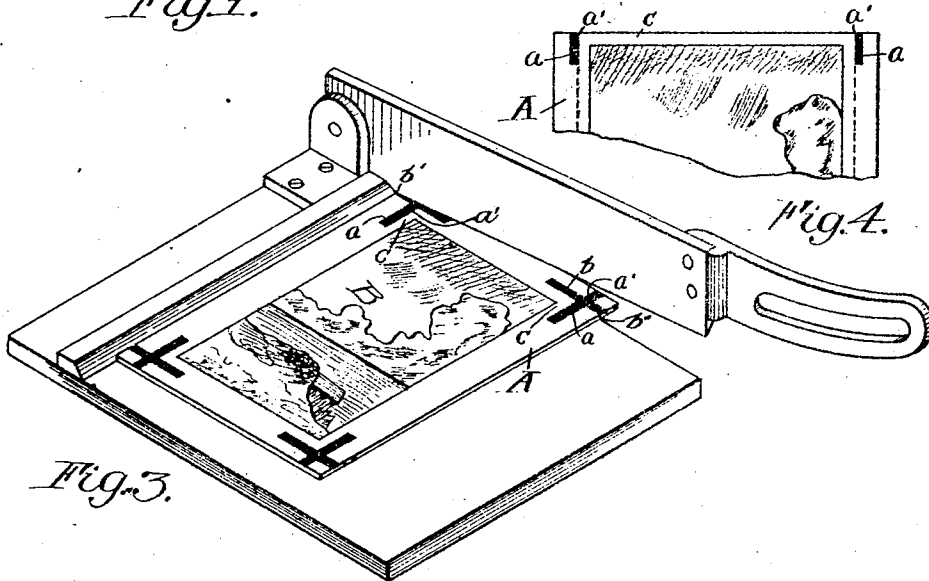


Fig. 3.

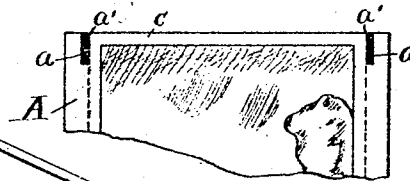


Fig. 4.

Witnesses

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# UNITED STATES PATENT OFFICE

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## PHOTOGRAPHIC-PRINTING MASK

1,061,727.

Specification of Letters Patent.

Patented May 13, 1913.

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*To all whom it may concern:*

Be it known that I, NORMAN W. CARKEHUFF, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Photographic-Printing Masks; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention relates to photography and more particularly to photographic printing, and it has for its object to provide a simple and inexpensive mask adapted to be superposed upon the sensitized surface to produce a print having a clearly defined picture and surrounded by a contrasting border.

A further object of the invention is to so constitute the mask that indicating marks will be produced upon the print for the guidance of the photographer in trimming down the print to a border of predetermined width, particularly when a so called "trimming board" is used for this purpose.

To these and other ends the invention consists of certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings: Figure 1 is a plan view of a printing mask constructed in accordance with and illustrating one embodiment of my invention, the relation between it and the sensitized surface to which it is applied being also indicated; Fig. 2 is a top plan view of a print produced with the aid of my printing mask and illustrating its appearance before being trimmed; Fig. 3 is a perspective view of a trimming board in which the print of Fig. 2 is being trimmed, and Fig. 4 shows the print of Fig. 2 with one edge trimmed.

Similar reference numerals throughout the several figures indicate the same parts.

In the preferred construction of my mask a transparent and preferably rectangular sheet 1 is provided that is adapted to be superposed upon the sheet of printing paper or other sensitized surface and which may be conveniently constructed of a cellulose

compound, such as is used in an ordinary film base. The center of the sheet has a portion 2 with straight sides that admits of the passage of rays of light and which defines the picture area on the print. This portion I prefer to form by cutting an opening of the size required.

The material of the sheet while transparent in the preferred construction, is, however, colored red or orange or otherwise fitted to resist the passage of actinic rays and preferably to totally resist them so that the print is produced with an unexposed area surrounding the picture area, as shown at A in Fig. 2, the picture area being indicated at B. But it is desired in the majority of instances to trim down this unexposed portion even if it extends from the picture area continuously to the margin of the print to form a border on the latter, one of the reasons being that it is so difficult to square the print, mask and negative during the printing operation so that this broad border or unexposed portion will be of uniform width. I further provide the sheet with means whereby indicating marks are produced on the print for the trimming knife that, if followed, reduce the border to a uniform width and properly square up the finished print. To this end, the sheet is further provided at each corner of the picture area 2, or at least at diagonally opposite corners, with intersecting elongated portions 3 and 4 running parallel respectively with the adjacent sides of the opening 2 but removed therefrom and adapted to affect the passage of actinic rays differently from immediately adjacent portions of the sheet so that corresponding marks *a* and *b* are produced on the print. Preferably these elongated portions are slots punched from the sheet to admit all rays and fully expose the portion of the print beneath.

The angular or L-shaped portion 5 of the sheet comprised within the angles 3-4, and between these slots and the opening 2, is of the width of the border intended for the trimmed and finished print and leaves a corresponding and well defined angular unexposed portion *c* on the latter. This border portion 5 on the mask, of course, completely surrounds the opening 2, in the present embodiment, but at other points than the corners its line of demarcation from the rest

of the sheet is not defined because not necessary where a trimming board is used, as hereinafter described.

In the printing operation, the sheet of print paper is preferably of the size indicated by dotted lines in Fig. 1 relatively to the size of the mask so that its edges lie coincident with the ends of the slots 3-4. Thus after the exposure is made, the marks *a-b* on the print extend to the edges of the print paper at their outer ends, and as one side of each mark which is in alinement with the trimming or outer line of the intended border width *c* of one side of the print, extends beyond the line of the outer edge of the border width *c* on the adjacent side of the print, the latter may be placed on the trimming board, as shown in Fig. 3, and the cut accurately started by bringing the knife down first along the margin or edge line *b'* of the mark *b* and then at the margin or edge line *a'* of the mark *a*, (Fig. 4), as a guide. The lines of the four trimming cuts and the size of the trimmed print are indicated by dotted lines in Fig. 2. It will be noted that on whichever side the cut is made first, the guiding marks for cutting the adjacent sides are not removed with the severed piece, though portions thereof are so severed, as shown in Fig. 4. Of course, the light openings 2, 3 and 4 may be produced by rendering such portions of the sheet colorless to admit actinic rays instead of cutting them out. Furthermore, the portions 3-4 may be rendered opaque or entirely resistive to actinic rays, while the border portion 5 is only partially resistive to produce a tinted instead of a wholly unexposed border; or the reverse, the only essential being that these portions 3-4 on the one hand, and adjacent portions of the sheet on the other, be proportioned to affect the passage of the actinic rays to different

degrees so that the resulting marks *a-b* on the print will be contrasting and distinguishable.

It is not absolutely essential to all purposes of my invention that the mask be of transparent material, but this is preferable as it makes it much easier to properly position the mask with respect to the sheet of printing paper beneath it which would otherwise be concealed.

I claim as my invention:

1. As an article of manufacture, a photographic printing mask embodying a sheet adapted to be inserted between the negative and sensitized surface and comprising a rectangular center portion open to the passage of actinic rays and defining the picture area, and a surrounding portion adapted to resist the passage of actinic rays to form an unexposed border on the print, the sheet being provided with intersecting elongated slots beyond the border parallel with adjacent sides of the picture area for producing guiding marks on the print for trimming the latter down to a border of a predetermined width.

2. As an article of manufacture, a photographic printing mask embodying a transparent flexible sheet adapted to be inserted between the negative and the sensitive surface and composed of a material adapted to resist the passage of actinic rays of light, said sheet being provided with a central rectangular opening defining the picture area and with intersecting elongated slotted portions at the corners of the opening parallel with but removed from the edges of adjacent sides of the latter for the purposes set forth.

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Witnesses:

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