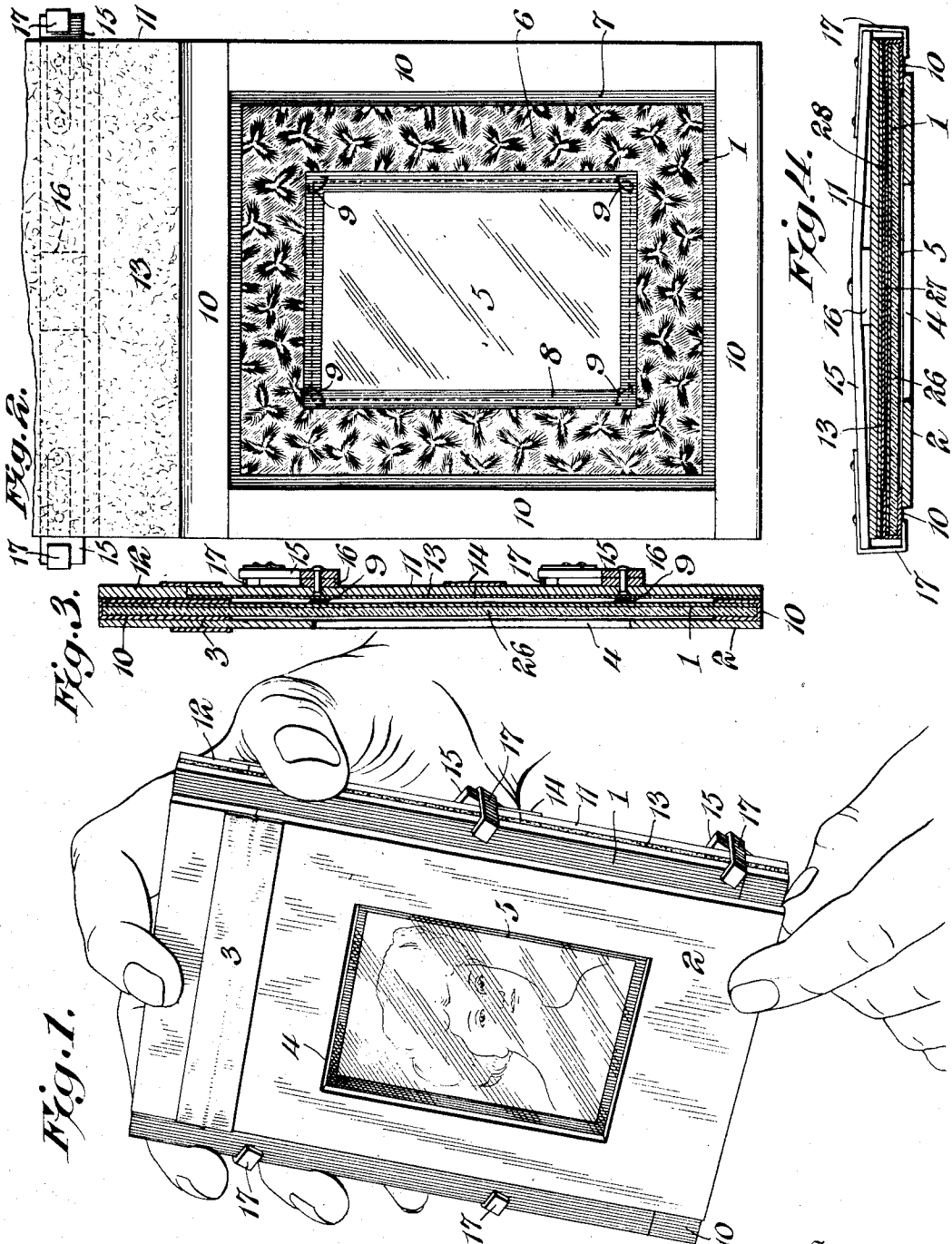


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 PHOTOGRAPH PRINTING DEVICE.  
 APPLICATION FILED FEB. 14, 1910.

983,801.

Patented Feb. 7, 1911.

2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 6.

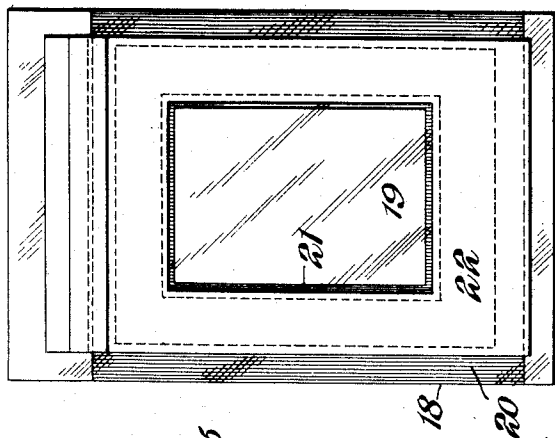


Fig. 7.

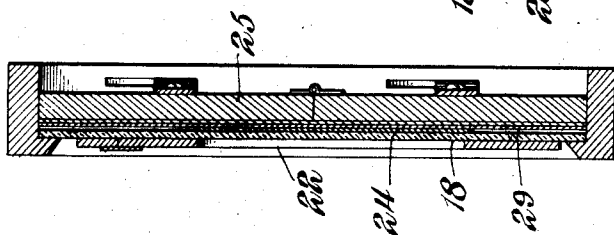


Fig. 8.

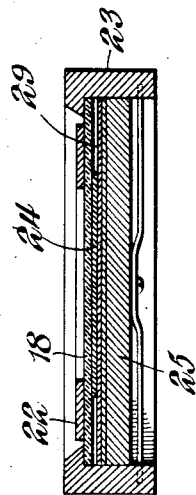
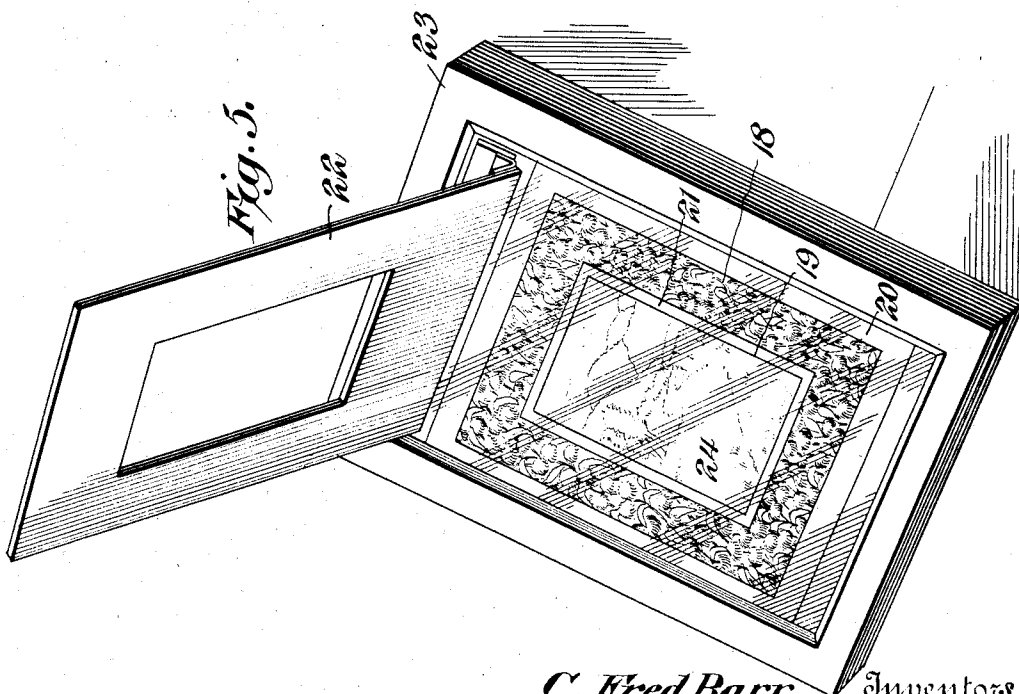


Fig. 5.



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# UNITED STATES PATENT OFFICE.

CHARLES F. BARR AND WILLIAM R. MILLER, OF WINCHESTER, VIRGINIA.

## PHOTOGRAPH-PRINTING DEVICE.

983,801.

Specification of Letters Patent.

Patented Feb. 7, 1911.

Application filed February 14, 1910. Serial No. 543,826.

*To all whom it may concern:*

Be it known that we, CHARLES F. BARR and WILLIAM R. MILLER, citizens of the United States, residing at Winchester, in the county of Frederick and State of Virginia, have invented certain new and useful improvements in Photograph-Printing Devices, of which the following is a specification.

This invention has for its object the provision of simple and efficient means whereby bordered photographs may be printed with the picture and the border without removing the print from the printing frame.

The invention also has for its object the provision of simple means whereby a film picture negative may be quickly and easily arranged in proper position upon the border negative and sensitized paper or other material accurately registered with the border negative and the picture negative.

These objects, and such other objects as will hereinafter incidentally appear, are attained in the use of the apparatus illustrated in the accompanying drawings, and the invention consists in certain novel features of the same, as will be hereinafter first fully described and then more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of the preferred form of our invention, showing the same arranged for printing the picture. Fig. 2 is a rear elevation of the same with the sensitized material removed and the clamping plate or back raised. Fig. 3 is a central longitudinal section of the device the picture negative being omitted. Fig. 4 is a central transverse section of the same the picture negative being shown in its proper position. Fig. 5 is a perspective view showing a modified form of the invention adapted for use with the ordinary printing frame. Fig. 6 is a front elevation of the device shown in Fig. 5, with the mask lowered so as to cover the bordered portion of the border negative. Fig. 7 is a central longitudinal section and Fig. 8 is a central transverse section of the modified form.

In carrying out our invention, we provide a border negative 1 which may be produced in any desired manner, and to the outer or front face of the said negative we secure a mask 2 of opaque material which is hinged at preferably the upper end, as shown at 3, so that the said mask may be readily raised to expose the bordered portion of the border

negative or held closed against the said negative in order to prevent the transmission of light to and through the said bordered portion thereof. This mask is provided with a central opening 4 which is adapted to register with the central picture opening 5 of the border negative so that when the device is arranged for printing, the light may readily pass through the picture negative to the sensitized material and print the picture. The mask will prevent the transmission of light during the printing of the picture through the bordered portion of the border negative, and in order to print the border without removing the print from the negative, the mask is momentarily raised so as to expose the bordered portion of the border negative temporarily, thereby permitting the light to pass through the said portion and print the border around the picture. It will be understood that the printing of the picture requires more time than the printing of the border, which should be somewhat lighter than the picture in order to produce an artistic effect, and consequently a very slight exposure will suffice for the printing of the border.

In the form of our invention shown in Figs. 1, 2, 3 and 4, the border 6 is produced by painting upon a celluloid sheet, and the border, of course, may be of any preferred design. The central portion of the celluloid sheet is left vacant so as to provide a picture opening 5, and around the edge of the sheet is made an opaque line 7, while between the ornamental border 6 and the picture opening 5, a similar opaque line 8 is provided in order to leave a blank or unprinted narrow portion between the picture proper and the border and around the border in the finished print, thereby setting off the picture from the border and causing the border to accentuate, rather than detract from the beauty of the picture. At the corners of the picture opening 5 defined by the line 8, small slits 9 are made in the celluloid sheet, thereby producing lips adapted to engage the corners of a photographic film negative 27, and consequently hold the negative in proper registry with the picture opening, as indicated in dotted lines in Fig. 2. The picture negative will thus be held in its proper relation to the picture opening of the border negative without liability of twisting or slipping therefrom, and any desired number of prints may be made with-

out the necessity of any attention being paid to the film by the operator, so as to maintain the proper adjustment of the same. To the edges of the border negative we secure a thin strip, 10, of heavy paper or other material, which serves as a gage to properly center a sheet of sensitized material in position upon the negatives. By means of this arrangement, the paper or other sensitized material may be cut to the dimensions desired for the finished print before being printed, and will be held against the negative in such position that the picture and the border will both be properly centered upon the print. The binding strip 10 also serves to secure the celluloid sheet to a plain glass plate 26 which is utilized to maintain the rigidity of the celluloid sheet, but is not an essential feature of the apparatus and may be omitted. In this preferred form of our invention, we employ a backing or clamping plate 11 which is secured at one end to the border negative, as shown at 12, by gluing or other preferred means, and this clamping or backing plate is provided with a suitable pad or cushion 13 to hold the print firmly against the negative without liability of cracking or breaking the negative. This clamping or backing plate is constructed of two or more members connected by a hinge 14, and each member is provided with a clamping arm 15 pivotally mounted at the center of the member and having its central portion offset from the member by a fulcrum or spacing block 16, whereby the ends of the clamp will be normally held away from the edges of the clamping plate. The ends of the clamping bars carry hooks 17 adapted to pass over the edge of the clamping plate or back and the edge of the negative and engage the front side of the negative, as shown clearly in Figs. 1 and 4, and thereby secure the parts firmly together, it being understood that the ends of the clamping bars are pressed toward the back or clamping plate and the bar is then swung on its pivot so as to carry the ends of the hooks 17 into engagement with the front side of the negative.

The manner of using this device will, it is thought, be readily understood from the foregoing description, taken in connection with the accompanying drawings. In the preferred form, the picture negative will be produced on a film and will be engaged in the slits 9, as before stated, and as indicated in Figs. 2 and 4, after which the sensitized material 28 will be placed within the gage strip 10 so as to extend over the picture negative and the border negative. The back or clamping plate is then brought down upon the sensitized material and the clamping bars turned so as to engage the face of the border negative as shown in Fig. 4 and thereby clamp the paper or other sensitized

material firmly against the negatives. Should a slow printing paper be used, the device may be set against any convenient support while exposed to the light; but if a quick printing paper is used, the device may be turned to the light while held in the hands, as indicated in Fig. 1. Sufficient exposure having been made to nearly print the picture, the mask is raised and then immediately lowered so as to finish the printing of the picture and permit the border to be printed at the same time. The print may then be removed and finished in the well known manner.

In Fig. 5, 6, 7 and 8, we have shown an adaptation of the invention by which it may be used in an ordinary printing frame. In this arrangement, the border will be formed upon an ordinary glass negative through the usual photographic processes, such a border negative being shown at 18. The central opening 19 for the picture may be produced by removing the sensitive coating from the negative, and lines 20 and 21 may be produced by the application of paint, paper or other opaque material to the back of the negative. The mask 22 is of the same construction in all respects as the mask shown in the preferred form of the invention and is secured to the negative in the same manner so as to fit within the sides of the printing frame 23, as will be readily understood. In the use of this form of the invention, the picture negative 24 will be clamped against the border negative by the clamping back 25 of the frame, which also clamps the sensitive sheet 29 to the negative, and more care must be exercised in the use of the device than in the other form, as the picture negative is more apt to be accidentally moved from its proper position in registry with the picture opening in the border negative. Professional operators, however, may prefer this form of the invention to that previously described.

It will be readily seen that our device is exceedingly simple in its construction and operation, and permits the picture and border portions of the photograph to be printed without removing the sensitized material until the entire printing operation has been completed.

Having thus described the invention, what we claim as new, and desire to secure by Letters Patent, is:—

1. A device for printing bordered photographs comprising a border negative having a picture opening, and a mask mounted on the border negative to normally cover the same and having an opening registering with the picture opening therein.

2. A device for printing bordered photographs comprising a border negative having a picture opening, and a mask hinged at one side of the picture opening to normally

cover the border negative and having an opening registering with the picture opening therein.

3. The combination with a border negative having a picture opening, of means for holding a picture negative against one side of the border negative in register with said picture opening, and means on the opposite side of the border negative for masking the border negative during the printing of the picture.

4. The combination with a border negative having a picture opening, of a picture negative registering with said opening, a gage at the side of the bordered portion of the border negative, means for holding sensitized material against the negative and said gage, and means for masking the bordered portion of the border negative.

5. The combination with a border negative having a central picture opening and provided with picture-negative engaging means at the sides of the said picture opening, gage strips secured to the edges of the border negative for centering sensitized material upon the negative, a mask hinged to the front side of the border negative and provided with a picture opening registering with the picture opening in the negative, and a clamping plate secured to the back of the border negative and provided with means for engaging the negative whereby the parts will be clamped together.

6. The combination with a border negative having a picture opening, of a picture negative registering with the said picture opening, a clamping plate hinged to the

back of the border negative and adapted to extend over the said picture negative, clamping bars pivotally mounted on the said clamping plate and provided with hooks adapted to engage the edges of the border negative, and a mask hinged to the front side of the border negative and provided with a picture opening adapted to register with the picture opening in the said negative.

7. A device for printing photographs with a border, comprising a negative having a picture opening and a border surrounding the same, and a hinged mask carried by one side of the negative and having an opening to register with the picture opening of the negative, the other portion of the mask covering the said border.

8. The combination with a border negative having a central picture opening and provided with picture negative engaging means at the sides of the said picture opening, a mask hinged to the front side of the border negative and provided with a picture opening registering with the picture opening in the negative, and a clamp secured to the back of the border negative and provided with means for engaging the negative whereby the parts will be clamped together.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES F. BARR.  
WILLIAM R. MILLER.

Witnesses:

WALTER I. COOPER,  
CARL T. CATHER.