P. A. SIMON.

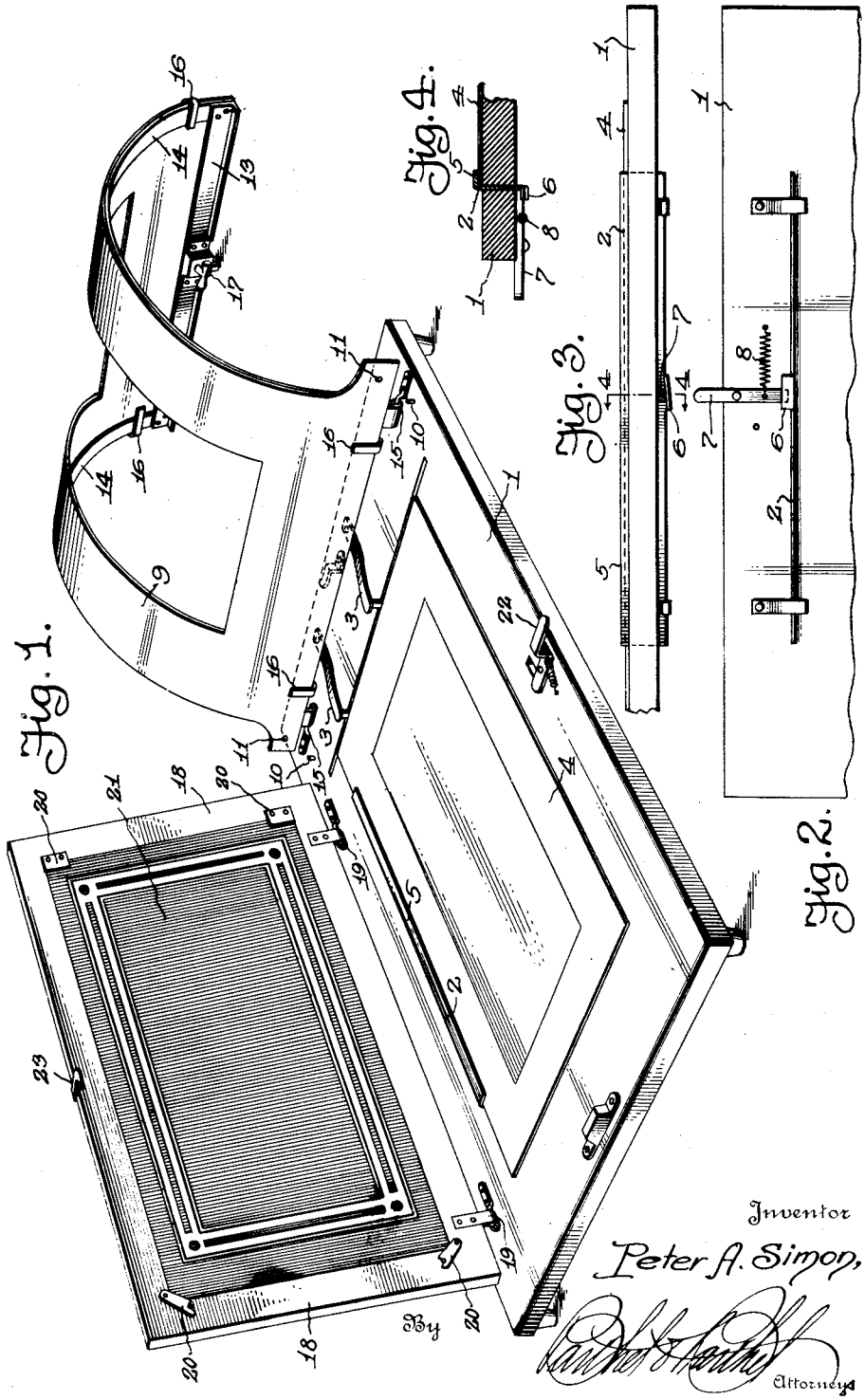
PHOTOGRAPHIC PRINTING FRAME.

APPLICATION FILED JUNE 14, 1920.

1,434,455.

Patented Nov. 7, 1922.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 6.

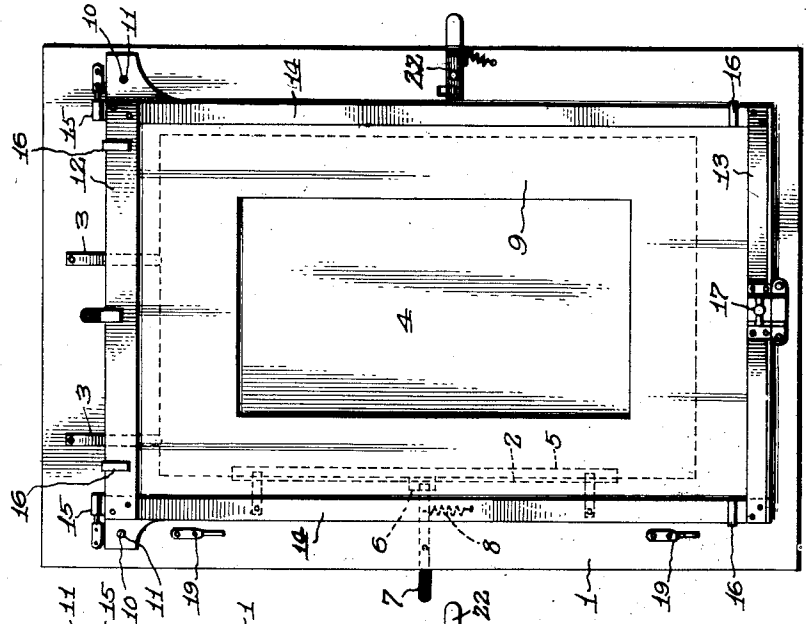
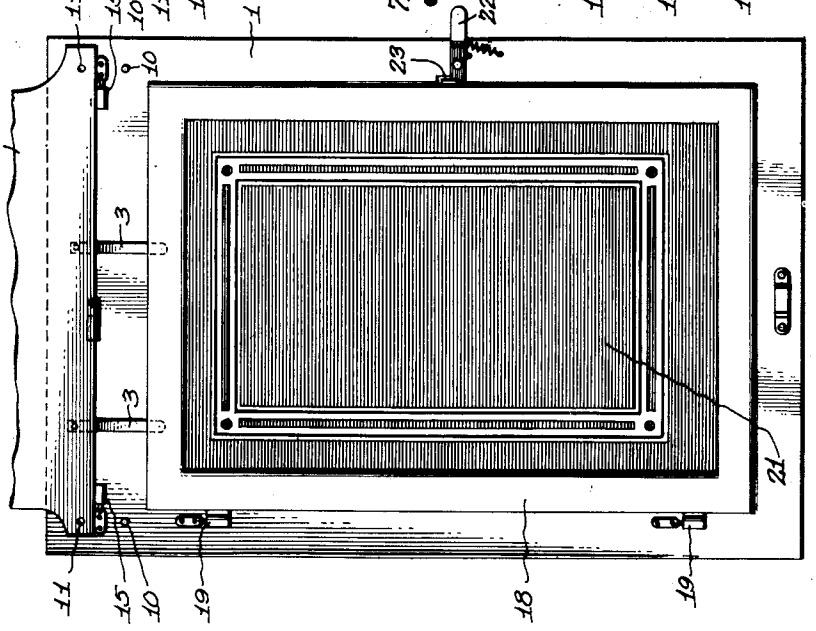


Fig. 5.



Inventor

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By

Attorneys

Patented Nov. 7, 1922. 1,434,455

UNITED STATES PATENT OFFICE.

PETER A. SIMON, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF TO FRANK DAUBNER, OF DETROIT, MICHIGAN.

PHOTOGRAPHIC-PRINTING FRAME.

Application filed June 14, 1920. Serial No. 388,933.

To all whom it may concern:

Be it known that I, PETER A. SIMON, a citizen of the present domain of Hungary, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Photographic-Printing Frames, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to photographic printing frames for use in making enlargements. Its object is to provide a device whereby an ornamental border design may be made by photographic means upon the same sheet with the print.

In the drawings,

Figure 1 is a perspective view of a printing frame illustrating one embodiment of my invention, the mask and the border negative holder being shown in inoperative position;

Fig. 2 is a plan view of a portion of the under side of the frame showing details of the clamping device;

Fig. 3 is an edge view of the same parts;

Fig. 4 is a section on the line 4—4 of Fig. 3;

Fig. 5 is a plan view showing the border negative holder in operative position; and

Fig. 6 is a plan view showing the mask in operative position.

A table or base 1, provided with clamping means 2 and gage members 3, 3, serves as a support for a sheet of bromide paper 4, or other suitable material sensitive to light. The clamping member 2 may conveniently be formed of a strip of sheet metal extending through a slot in the table 1, and bent to form a flange 5 adapted to engage the edge of the sheet 4 and provided with a cam surface 6 beneath the table. A pivoted latch 7 held in contact with the cam surface 6 by means of a spring 8 operates to draw the flange 5 down upon the edge of the sheet 4 in an obvious manner.

As a means of shielding all of the sensitized surface of the sheet 4 except that portion which is to receive the desired image, I provide a mask 9 mounted so that it may be positioned with accuracy in exactly the predetermined location. The mask may conveniently be made of cardboard in which an opening of the proper size is cut by any suitable tool. Positioning pins 10, 10, engaging openings 11, 11, in the cardboard mask are used to set the mask with its opening in proper relation to the sheet 4.

A hinged frame comprising end pieces 12, 13, and side bars 14, 14, is mounted on hinges 15, 15 on the base 1. This frame is swung across the mask 9 and is attached thereto by spring clips 16. In this manner, the mask may be swung away from in front of the sheet 4 and returned at will to the exact position previously occupied. The side bars 14, 14, are preferably made of curved strips of sheet metal which act as springs to hold the mask closely in contact with the sheet 4. The end member 13 is provided with a suitable spring latch 17 to hold the frame in operative position.

A frame 18, mounted on separable hinges 19, 19 in such manner as not to interfere with the movement of the mask 9, is provided with suitable keepers 20, located in the present instance in the corners. These keepers removably secure a pane of glass on which is mounted in any suitable manner a plurality of opaque or partially opaque members constituting what I have termed a border negative. A central panel 21 is made of the same shape and size as the opening in the mask 9, and is so mounted on the glass that when it is in operative position it will exactly cover the portion of the sheet 4 left exposed by the opening in the mask 9.

In practice, this panel 21 is conveniently made by gluing or pasting a sheet of black paper on the glass. A border section of any approved design surrounds this central panel 21, and this border may be made in any of various ways. The lines may be ruled with india ink or other pigment on the surface of the glass after using the ordinary retouching fluid to provide a suitable surface, or the pane of glass may be a photographic negative of a design produced by any well known means, or the photographic negative of a picture frame. It will readily be seen that the nature of the border may vary within wide limits without departing from the scope of my invention.

Surrounding the border design, the rest of the surface of the glass is made opaque, as by the use of black paper, paint, or other material. When the frame 18 is swung into position over the sheet 4, it is held by a spring latch 22, engaging a keeper 23.

The operation of my device will be evident from the description. A sheet of sensitized

paper is placed upon the base 1 with its edge beneath the flange 5 and another edge in contact with the gage members 3, 3. The mask 9 is swung into position and held by the latch 17. An image cast by an ordinary enlarging camera is allowed to fall upon the exposed portion of the sheet 4. After a sufficient exposure, the mask is swung into inoperative position and the border negative placed in front of the sheet 4. The central panel 21 covers the portion of the sheet 4 just exposed and when light from the camera is again allowed to fall upon the sheet 4, only the portions surrounding the panel 21 are acted upon by the light. When the sheet 4 is developed in the usual manner, the border appears accurately positioned around the central image.

It will be understood that for each size, shape, and position of the mask opening, there will be provided a border negative constructed to register accurately when the mask and border negatives are secured to their respective frames, and it is also obvious that for any size and shape of mask opening, there may be a plurality of borders of different designs.

By the mechanism described herein, a large number of prints may be made rapidly and accurately with a great saving of time and labor over the methods formerly in general use.

The clamping and gaging means may of course be used without the mask, or without the border, and they provide a rapid and efficient device for holding sheets in position while being printed.

What I claim is:—

1. A photographic printing device consisting of a base, a mask and a border negative, and means determining the operative position of the mask and the border negative with respect to a sensitized surface on said base.

2. A mask for screening a portion of a photographic surface, means for determining its operative position with respect to said surface, a hinged frame, and means securing the mask to the frame to permit it to be removed from and returned to the same position.

3. A mask for screening a portion of a photographic surface, a hinged frame to which the mask is detachably secured, and resilient members forming a portion of the frame and adapted to hold the mask in contact with the photographic surface.

4. A photographic device comprising a base, a mask and a border negative, and means permitting and guiding movement of the mask and the border negative into and out of predetermined operative positions with respect to the base.

5. A photographic printing device comprising a base, a mask detachably secured to a frame hinged to the base, and provided with means determining its operative position, and a border negative detachably secured in a frame hinged to the base and so arranged that when the negative is swung on its hinges to operative position, portions of the border negative will reach a predetermined position.

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

PETER A. SIMON.

Witnesses:
OTTO F. BARTHEL,
ANNA M. DORR.