A. A. BARBER.

PHOTOGRAPHIC PRINTING FRAME.

APPLICATION FILED NOV. 14, 1917.

1,389,615.

Patented Sept. 6, 1921.

2 SHEETS—SHEET 1.

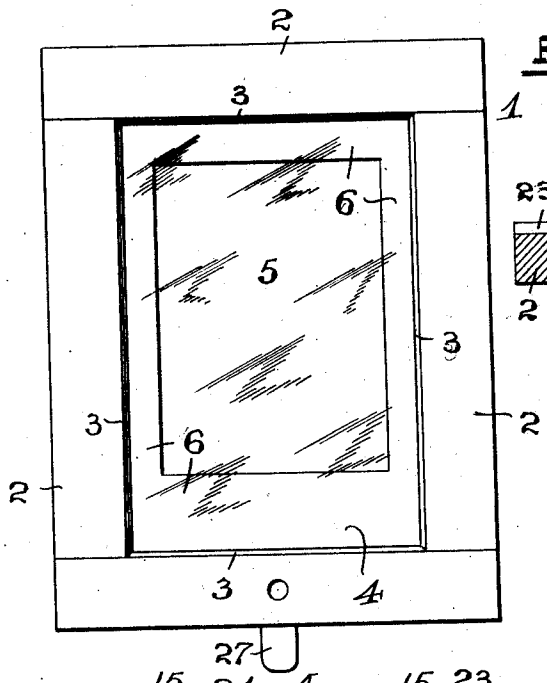


Fig. 1

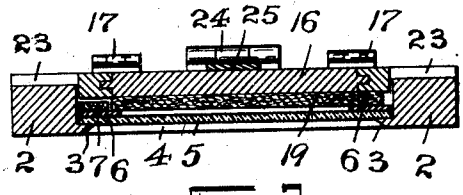
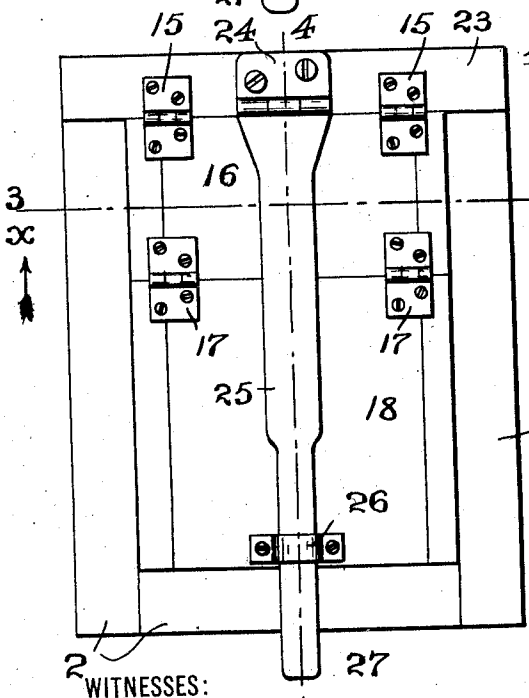


Fig. 3



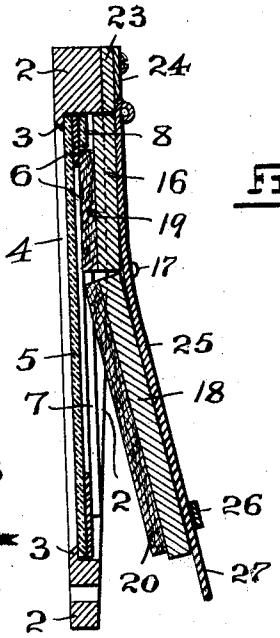


Fig. 4

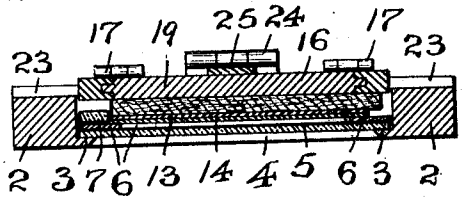


Fig. 5

Fig. 2

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A. A. BARBER.

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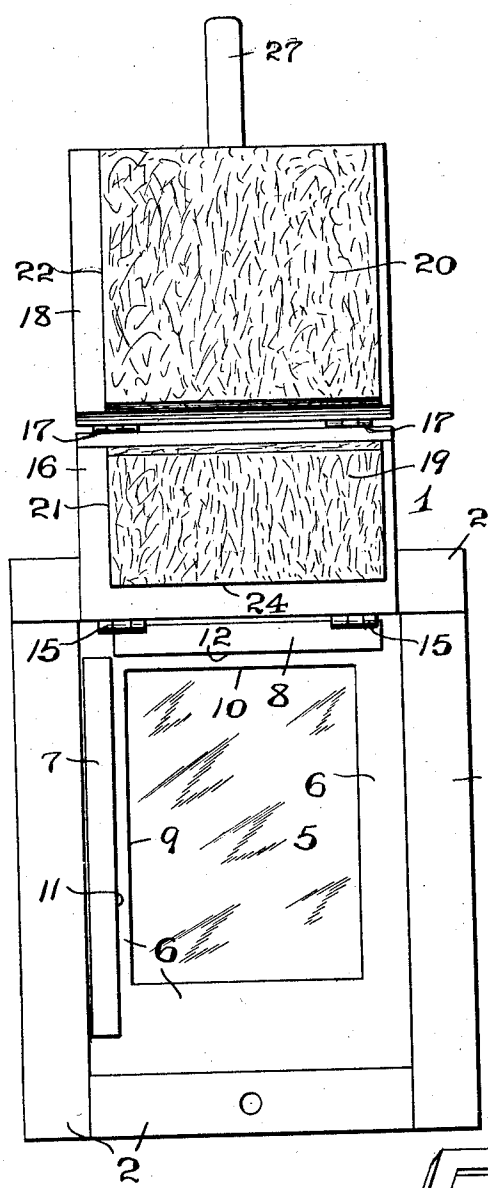


Fig. 6

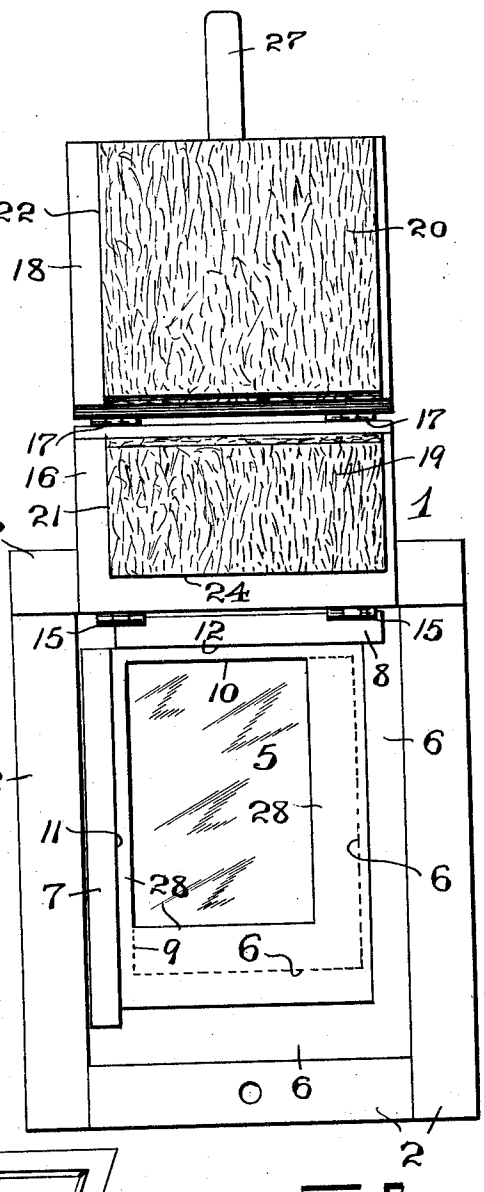


Fig. 7

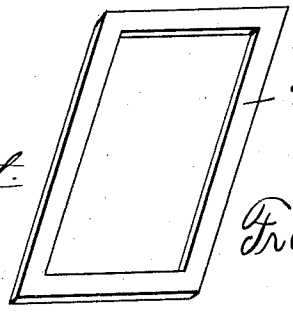


Fig. 8

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UNITED STATES PATENT OFFICE.

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PHOTOGRAPHIC-PRINTING FRAME.

1,389,615. Specification of Letters Patent. Patented Sept. 6, 1921.

Application filed November 14, 1917. Serial No. 201,924.

To all whom it may concern:

Be it known that I, ANTHONY A. BARBER, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Photographic-Printing Frames; 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 characters of reference marked thereon, which form a part of this specification.

This invention relates, generally, to improvements in photographic printing frames; and, the present invention has reference, more particularly, to a novel and simple construction of printing frame provided upon the back of the exposing element with a mask-registering means, whereby the frame is readily adapted to receive and locate various sizes of masks, so that corresponding sizes of pictures can be printed upon the emulsion paper, and each picture or print when finished, being surrounded by a perfect and uniform width of margin, without having to first cut away or trim the edges of the paper, as heretofore.

With the usual forms of photographic printing frames, which are not provided with a negative and mask-registering and located means it will be found that the finished pictures which are printed upon standard sizes of paper, have uneven or non-uniform marginal white edges, unless the negatives and masks are centered with the utmost care, all of which entails additional time, and additional labor and expense, as well as annoyance. Furthermore, after the picture or print has been finally finished, it becomes necessary to trim or cut away one or more of the marginal edge-portions, so as to provide each picture with a uniform margin, and even with great care and skill in cutting or trimming portions of the white margin will be uneven, thus rendering the finished picture unsightly.

In establishments where a great many pictures or prints are daily developed, the carefully placing of the negatives, masks, and photographic paper in the printing frame, owing to the additional time and labor necessary, and the objectional marginal trimming of each picture, means a great expense, and one of the principal objects of the present invention, therefore, is to provide a photographic printing frame, in which may be easily and quickly placed, without undue skill, the negatives, the masks, and the photographic papers, and still produce perfectly and uniformly-margined pictures, thereby overcoming all of the objections heretofore existing and hereinbefore mentioned.

Other objects of the present invention not at this time more particularly enumerated will be clearly understood from the following detail description of the present invention.

With the various objects of the present invention in view, the said invention consists, primarily, in the novel photographic printing frame hereinafter set forth; and, the invention consists, furthermore, in the novel arrangements and combinations of the various devices and parts, as well as in the details of the construction of the said parts, all of which will be more fully described in the following specification, and then finally embodied in the clauses of the claim which are appended to and which form an essential part of the said specification.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a front face view of a photographic printing frame made according to and embodying the principles of the present invention; and Fig. 2 is a rear view of the same.

Fig. 3 is a transverse vertical section of the said frame, said section being taken on line 3—3 in said Fig. 2 looking in the direction of the arrow *x;* and Fig. 4 is a longitudinal vertical section of the same, said section being taken on line 4—4 in said Fig. 2, looking in the direction of the arrow *y*, the negative as well as the paper upon which the picture is to be printed being omitted from said Figs. 3 and 4. Fig. 5 is a similar sectional representation of the printing frame, as that shown in said Fig. 2, but this view illustrating in connection therewith placed in position within the frame, a negative and the prepared paper of con-

ventional size placed upon the back of the negative.

Fig. 6 is a rear face view of the frame, with the hinged cover or back thereof shown in its opened position, and illustrating in connection therewith, a permanently fixed mask, and the registering means, for printing one-size picture with a uniform margin; and Fig. 7 is a view of the frame, similar to that represented in said Fig. 6, showing in connection therewith and with said registering means, a different sized mask for printing a smaller picture with a uniform margin, without the necessity of subsequent marginal trimming. Fig. 8 is a perspective view of a mask.

Similar characters of reference are employed in the said above described views, to indicate corresponding parts.

Referring now to the said drawings, the reference-character 1 indicates a complete photographic printing frame, made according to and embodying the principles of the present invention, the same comprising a main frame 2 formed with the usual off-set portions 3, surrounding the opening 4, and upon which off-sets rests, so as to close the opening 4, the usual glass 5. Suitably and preferably secured in its permanent position at the back of the glass 5 is a mask 6, said mask being of the largest or maximum size of which the printing frame is capable. The said mask 6 may be made of suitable dark paper, card-board, or other suitable material which is a non-transmitter of light, the purpose of the mask being to provide the printed picture when washed and finished with a margin, as will be evident. Suitably secured adjacent one of the corners at the back of this permanently fixed mask 6 is the previously-mentioned registering means, the same in the present instance consisting of a longitudinally extending narrow bar 7 and a laterally extending bar 8, said bars 7 and 8 being made of any suitable material, as glass, wood, metal, or the like.

The arrangement and fixed positions of the bars 7 and 8, with relation to the marginal edges 9 and 10 of the exposing opening with which the mask 6 is provided, are such, so that distance between the edge 11 of the bar 7 and the edge 9 will correspond to and be equal to the distance between the edge 12 of the bar 8, so that the prepared paper or card 14 which is of standard size, with the negative 13, when placed in the angle provided by the two bars 7 and 8, as indicated in the dotted outline in Fig. 5 of the drawings, will receive uniformly non-exposed and non-printed marginal portions, whereby when the exposed card has been printed and is washed in the usual manner, a perfect and uniform margin will result, without any further necessity of marginal cutting or trimming of the exposed card. As will be seen from an inspection of the several figures of the drawings, the main frame 2 is provided at its one end with an off-set member, as 23, to which is secured by means of hinges 15 the portion 16 of a closing cover. Connected with this portion or member 16 by means of another set of hinges 17 is the cover-portion or member 18, the said portions or members 16 and 18, when the cover is closed being adapted to be closed or fitted into the open portion of the photographic printing frame back of the mask 6 and the glass 5. To produce a tight contact, when the cover-members 16 and 18 are in their closed relation with the back of the frame, the said members 16 and 18 are respectively provided with the usual felt or other suitable pads 19 and 20, the said pads, however, being cut away along their edge-portions 21 and 22 so as to snugly fit along the marginal surface-portion 11 of the bar 7, and the pad 19 being also cut-away along its edge-portion 24 so as to snugly fit along the marginal surface-portion 12 of the bar 8. To hold the cover-members 16 and 18, with their pads, in their closed relation with the main frame 2, there is hinged to the said off-set member 23, by means of a hinge-member 24, an arm 25, said arm extending upon the backs of the two members 16 and 18 and through a loop 26 upon the member 18, and beyond the edge of the main frame 2 so as to provide a finger or push-portion, as 27, as will be clearly evident from an inspection of Figs. 2, 4, 6 and 7 of the drawings. The said arm 25 is preferably made of a metal having spring-like or resilient properties, so that the normal tendency, when no pressure is applied to the finger or push-piece 27, the cover-sections 16 and 18 will assure their relative positions indicated in Fig. 4 of the drawings, but the cover being readily maintained in its closed position, during printing, by suitable application of pressure upon the finger or push-piece 27, as will be clearly evident. It will be understood, however, that any other retaining means may be employed, in lieu of the said spring-arm 25, if desired.

Referring now to Fig. 7 of the drawings, it will be seen, that the same frame may be used with masks, as 28, of smaller dimensions than the fixed or permanent mask represented in Figs. 1 and 6 of the drawings, for printing with a smaller negative. This mask 28 is removable from the printing frame and is readily and quickly placed in the angle formed by the two bars or members 7 and 8, the smaller mask and corresponding negative, with the card or paper upon which the picture is to be reproduced, all being in perfect registration, so that the smaller picture will also be provided with a perfectly uniform margin, without any

further necessity of trimming or cutting away the marginal edges of the finished picture.

Of course it will be evident, that still further smaller masks, negatives and cards may be readily placed in the frame for printing, and still the same result being obtained, that is, the finished picture being always provided with a uniform margin, without any necessity of having to trim or cut away the marginal edges of the finished pictures.

I am fully aware that changes may be made in the various arrangements and combinations of the several devices and parts without departing from the scope of the present invention as set forth in the foregoing specification, and as defined in the clauses of the claim which are appended thereto. Hence, I do not limit my present invention to the exact arrangements and combinations of the several devices and parts as described in the foregoing specification, nor do I confine myself to the exact details of the construction of the said parts as illustrated in the accompanying drawings.

I claim:—

1. A photographic printing frame comprising a frame having an exposing opening, a glass mounted in said opening, and a mask, negative and card-registering means back of said glass adapted to receive and register masks of different sizes whereby the print or picture may be produced with a uniform margin, said registering means consisting of a pair of angularly disposed bars mounted in immovably fixed positions at the back of and adjacent one corner of said glass, combined with a closing cover, said cover being provided upon the back with a pad having cut-away parts in registration with the said angularly disposed registering bars.

2. A photographic printing frame comprising a frame having an exposing opening, a glass mounted in said opening, and a mask, negative and card-registering means back of said glass adapted to receive and register masks of different sizes whereby the print or picture may be produced with a uniform margin, said registering means consisting of a pair of angularly disposed bars mounted in immovably fixed positions at the back of and adjacent one corner of said glass, combined with a closing cover comprising a closing member hinged to a portion of said frame, a second closing member hinged to said first-mentioned closing member, and a pad upon the back of each closing member, said pads having cut-away parts in registration with the said registration means.

3. A photographic printing frame comprising a frame having an exposing opening, a glass mounted in said opening, and a mask, negative and card-registering means back of said glass adapted to receive and register masks of different sizes whereby the print or picture may be produced with a uniform margin, said registering means consisting of a pair of angularly disposed bars mounted in immovably fixed positions at the back of and adjacent one corner of said glass, combined with a closing cover comprising a closing member hinged to a portion of said frame, a second closing member hinged to said first-mentioned closing member, a pad upon the back of each closing member, said pads having cut-away parts in registration with said registration means, a spring-arm hinged to a portion of said frame, said spring-arm extending across the outer faces of said hinged closing members, and a finger-piece portion extending from said spring-arm for holding said closing members in their closed relation with the printing frame.

In testimony, that I claim the invention set forth above I have hereunto set my hand this 10th day of November, 1917.

ANTHONY A. BARBER.

Witnesses:

FRED K. FRAENTZEL,

FRED'K. N. W. FRAENTZEL.