

G. L. COURSEN.  
 PHOTOGRAPHER'S PRINTING FRAME.  
 APPLICATION FILED JAN. 17, 1910.

973,629.

Patented Oct. 25, 1910.

3 SHEETS-SHEET 1.

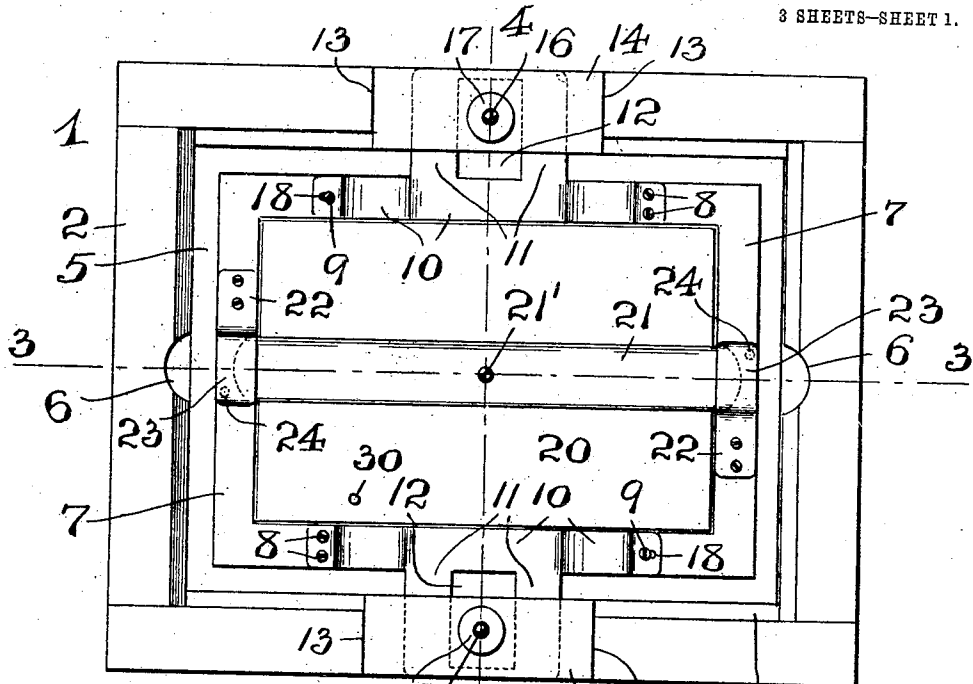


Fig. 1

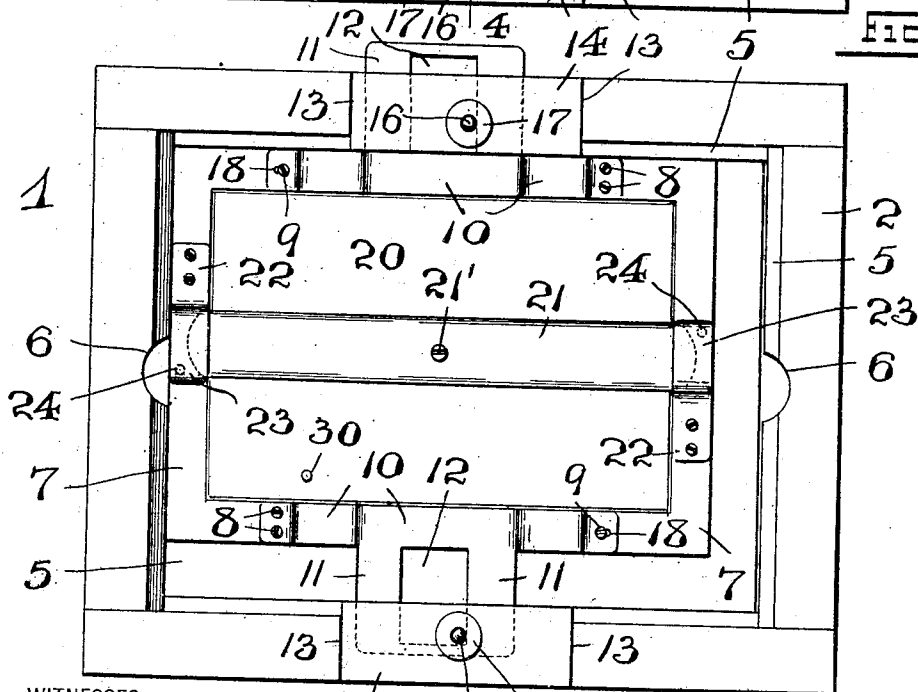


Fig. 2

WITNESSES:

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INVENTOR:

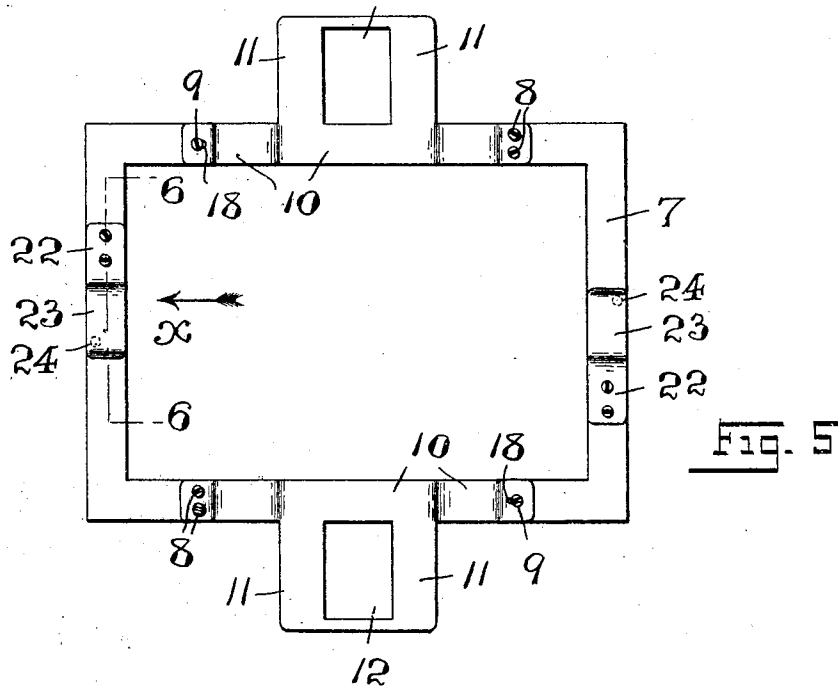
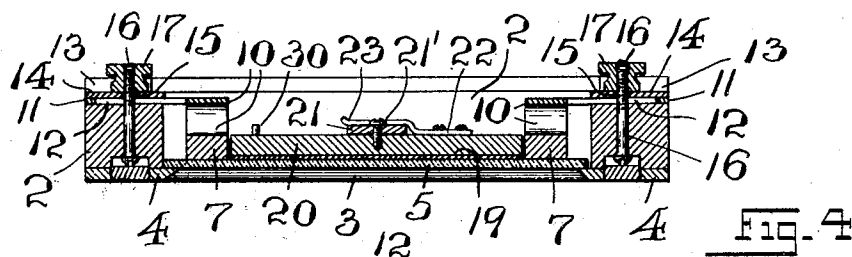
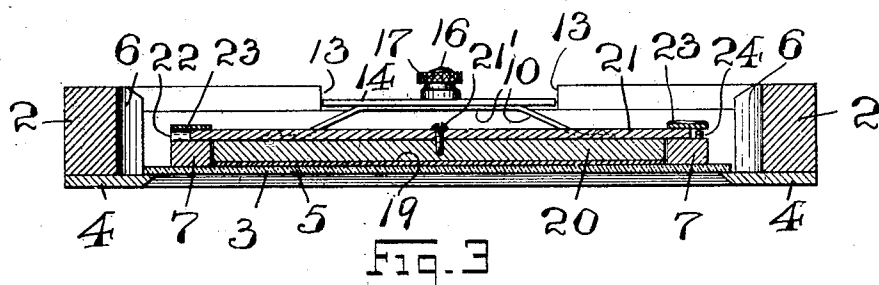
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973,629.

3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

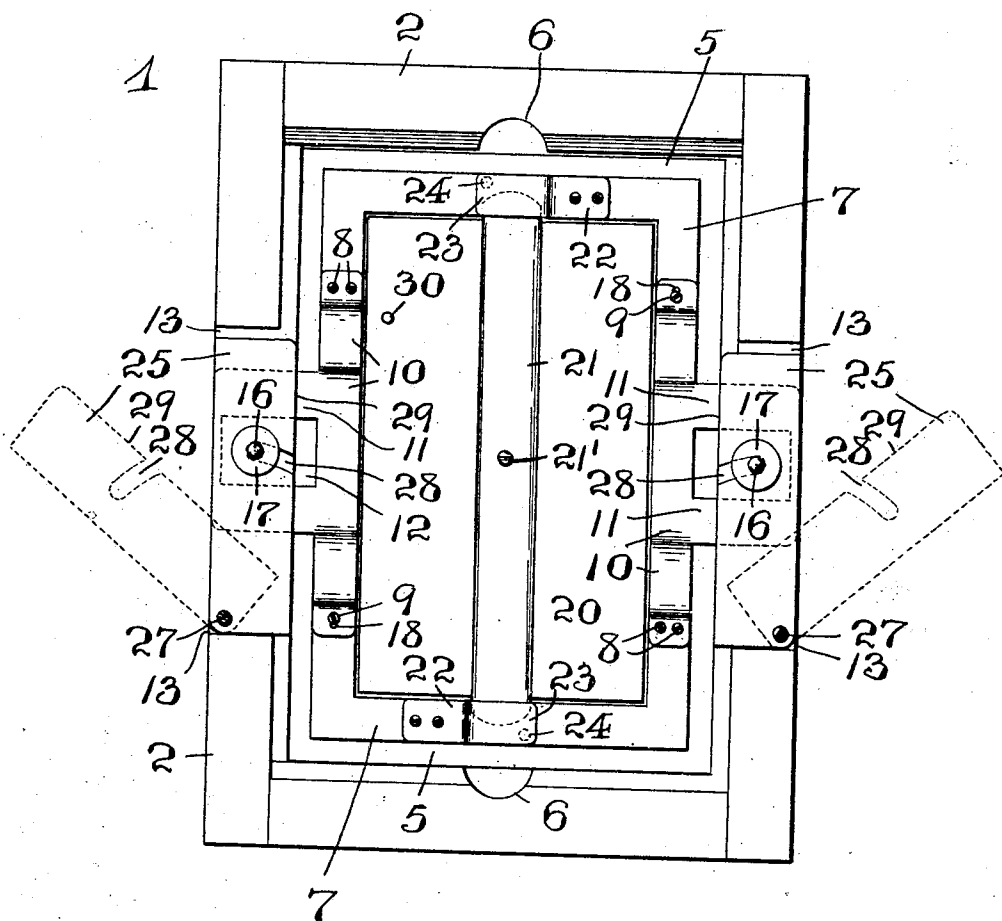
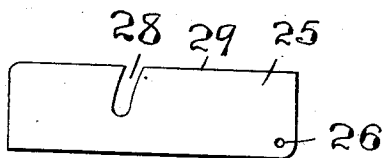


FIG. 7

FIG. 8



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# UNITED STATES PATENT OFFICE.

GEORGE L. COURSEN, OF NEWARK, NEW JERSEY.

PHOTOGRAPHER'S PRINTING-FRAME.

973,629.

Specification of Letters Patent.

Patented Oct. 25, 1910.

Application filed January 17, 1910. Serial No. 538,336.

*To all whom it may concern:*

Be it known that I, GEORGE L. COURSEN, 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 Photographers' 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 has reference, generally, to improvements in printing frames for the use of photographers; and, the invention relates, more especially, to a novel printing frame of the general character hereinafter more particularly set forth, and which is especially adapted for use in the printing of pictures upon the backs of post cards, but which may also be used in the printing of photographic pictures of the various kinds.

The present invention has for its principal object to provide a simply constructed and easily operated printing frame for the use of photographers and of the general character hereinafter more particularly set forth; and, furthermore, to provide a printing frame comprising a main printing-plate receiving frame and an auxiliary card-holding and centering clamping frame movably arranged within said main frame, and capable of a variety of easy and quick adjustment within said main frame, for centering purposes, before finally clamping the sensitized card by means of said auxiliary frame in its proper position against the back of the printing frame.

The invention has for its further object to provide a photographer's printing frame in which the adjustable auxiliary frame after it has been properly centered with relation to the main frame is clamped fast in its centered position, so that after the picture has been produced upon the card, the latter can be removed from the auxiliary frame without disturbing the position of the said frame, and other cards successively arranged in the said auxiliary frame for printing.

Other objects of this invention not at this time more particularly enumerated will

be clearly understood from the following detailed description of my present invention.

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

Figures 1 and 2 are two rear views, in plan, of a photographer's printing frame embodying the principles of the present invention, and comprising an auxiliary card-holding centering clamping frame which is shown in two of its adjusted positions with relation to the main printing-plate holding frame. Fig. 3 is a central longitudinal vertical section of the device, said section being taken on line 3—3 in said Fig. 1; and Fig. 4 is a transverse section of the printing frame, the said section being taken on line 4—4 in said Fig. 1. Fig. 5 is a plan view of the auxiliary frame when removed from the main printing plate holding frame, and Fig. 6 is a detail vertical section, taken on line 6—6 in said Fig. 5, looking in the direction of the arrow *x*. Fig. 7 is a plan view of the back of a slightly modified form of printing frame made according to and embodying the leading features of the present invention; and Fig. 8 is a plan view of one of the movable frame-clamps or securing devices used with the construction of printing frame represented in said Fig. 7 of the drawings.

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

Referring now to the several figures of the drawings, the reference-character 1 indicates one embodiment of a complete photographer's printing frame made according to the principles of the present invention, the said device comprising a main frame-like body 2 which is formed with a suitably shaped exposing opening, as 3, see Figs. 3 and 4 of the drawings, the said opening 3 being surrounded by the marginal face-members 4, portions of which extend beyond the inner surface-portions of the parts which comprise the main frame-like body 2, so as to provide suitable rests for the printing-plate 5 within said body 2 and over the said exposing opening 3, substantially as shown. In its end-members, the said frame-like body may be cut-away, as at 6, so as to provide a means for the insertion of a finger or fingers, for ease and greater rapidity in removing the auxiliary card-holding centering frame

and the printing frame from the said main frame-like body 2, when necessary. Removably arranged within the said main frame-like body 2, and adjustably disposed upon the back of the printing-plate 5, by being slidably arranged thereon, in many different directions, is an auxiliary card-clamping and centering frame, which is made smaller than the interior space of the frame-like body 2, as shown, the said card-clamping and centering frame consisting of a suitably shaped frame-like body 7. Suitably secured by means of screws 8 and 9, or other suitable fastening means, to the two opposite side-members of said body 7 are suitably formed fastening or holding elements or members, each element or member comprising a body-portion 10 made from suitable spring-metal, each body-portion 10 having extending therefrom suitably shaped ears or lugs, as 11, each ear or lug being provided with a suitably shaped open portion, as 12, preferably of the shape shown in the several figures of the drawings. When the said auxiliary frame is placed within said main frame-like body 2, portions of the said ears or lugs 11 extend into recessed or depressed portions, as 13, with which the longer opposite sides of the main frame-like body 1 are provided, and in which the said ears or lugs are slidably disposed, and may be immovably fixed, after adjustment has been made, by suitable binding or clamping plates 14, each plate in the construction shown in Figs. 1 to 4 inclusive being provided with a suitably disposed hole or perforation 15. Suitably connected with and extending upwardly from the side-members of the said main frame-like body 2, as shown more particularly in Fig. 4 of the drawings, are suitable screws 16 having their screw-threaded portions projecting above the recessed or depressed portions 13 of the said sides, and said portions of the screws extending also through the open portions 12 of the ears or lugs 11, and through the holes or perforations 15 of the clamping plates 14. Suitably shaped binding or tightening nuts, as 17, are screwed down upon the projecting screw-threaded end-portions of said screws 16, and are adapted to be firmly screwed down upon the said plates 14, after the frame-like body 7 has been adjusted, for securely and immovably securing and clamping the said frame-like body 7 in its operative position within the frame-like body 2 and against the back of the printing plate 5 in said body 2. To permit the said spring-metal body-portions 10 to accommodate themselves to the binding conditions of the plates 14 when the binding or tightening nuts or fingerpieces 17 are screwed down upon said plates, the holes 18 in said body-portions 10 through which the fastening screws 9 are passed, are preferably elongated

as shown, the purposes of which will be evident from an inspection of Figs. 1, 2 and 5 of the drawings.

To remove the auxiliary frame-like body 7 from within the frame-like body 2, all that is necessary is to unscrew the nuts or fingerpieces 17, so as to remove them from the screws 16, whereby the plates 14 can be lifted off and the said frame-like body 7 may be lifted out of the frame-like body 2, as will be clearly evident. The said frame-like body 7, however, having been arranged in the main frame-like body 2, when it is desired to make an adjustment of said body 7 for properly centering it with relation to the negative upon the plate 5, all that is necessary is to slightly unscrew the nuts or fingerpieces 17, whereby said body may be variously moved over the back of the plate 5, and when properly centered is securely clamped fast in its adjusted position by again screwing the nuts or fingerpieces 17 into their binding engagement with the said plates 14. This having been accomplished, a sensitized card 19 is placed in the frame-like body 7, and a clamping element or board 20 is placed in said body 7 and upon the card 19. To secure said element or board in its clamped position, a bar 21 is pivotally secured upon said element or board, by means of a suitable pivot, as 21', and the end-portions of said bar which extend beyond the marginal edges of the ends of said element or board 20, are moved directly beneath the clamping tongues or portions 23 of suitably formed holding members 22 which are suitably secured upon said frame-like body 7 and are preferably made of spring-metal. The said spring-tongues are made in such a manner that their normal tendency is to move toward the surface-portions of the frame-like body 7, whereby the end-portions of the bar 21 when moved beneath said tongues 23 will enter into frictional holding engagement with the said tongues, so that the element or board 20 will be properly clamped in its operative position within said frame-like body 7. To guard against any inoperativeness of the said spring-tongues 23, due to excessive pressure being brought on top of said tongues 23, suitably formed lugs or posts, as 24, may be placed directly beneath said spring-tongues, substantially in the manner represented in Figs. 1, 2, 3, 5, 6 and 7 of the drawings, whereby any downward movement of the said spring-tongues is limited and is arrested so as to prevent any inoperativeness of the said spring-tongues, as will be clearly evident. The said lugs or post 24, as will be evident, may be small screws which may be lowered or raised, so as to adjust the height of the spring-tongue 23.

In lieu of the form of clamping plates 14 shown in Figs. 1 to 4 inclusive, which re-

quire the nuts or fingerpieces 17 to be entirely removed from the screws 16, when it is desired to lift the frame-like body 7 from within the frame-like body 2, clamping plates 25, such as are shown in Figs. 7 and 8 may be used. Each plate 25 is made with a hole or perforation 26, and is pivotally secured in the depressed or recessed portion 13 of the main frame-like body 2, by means of a suitable pivot-pin or screw, as 27, so that the two plates 25 can be swung outwardly, away from the body 2, into the positions indicated in dotted outline in said Fig. 7 of the drawings. The said plates are also provided with arc-shaped slots 28 which extend from the marginal edges 29 of said plates, said slots being adapted to be moved upon the shanks of the screws 16, as shown, when the nuts or fingerpieces 17 have been slightly unscrewed, so as to bring all the parts into their rigidly clamped relations when the nuts or screws are again tightened, all of which will be clearly understood from an inspection of said Fig. 7 of the drawings. In all other respects, the general arrangement and construction of the remaining parts of the printing frame is the same as that shown in connection with the frame represented in Figs. 1 to 6 inclusive.

If desired, the said herein-above described clamping element or board 20, may be provided with a small post, stud or screw, as 30, which acts as a stop to limit the lateral swinging movement of the bar or button 21, so that the latter when disengaged from the holding members 22 will always be in the most convenient position for bringing its end-portions directly into their clamping or holding engagement with the spring-tongues 23 of said members 22.

Of course I am aware that changes may be made in the arrangements and combinations of the various devices and parts, as well as in the details of the construction of the same, without departing from the scope of my present invention as set forth in the foregoing specification, and as defined in the claims which are appended thereto. Hence, I do not limit my present invention to the exact arrangements and combinations of the various devices and parts as described in the said 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 main frame-like body provided with an exposing opening and formed with a negative-receiving space adapted to receive a negative, an auxiliary card-holding adjusting frame-like body movably and adjustably disposed in said negative-receiving space of said main frame-like body for adjusting said auxiliary frame-like body,

spring-like body-portions mounted upon said auxiliary frame-like body, and lugs extending from said spring-like bodies, said lugs being formed with open portions and being movably disposed upon portions of the said main frame-like body.

2. A photographic printing frame comprising a main frame-like body provided with an exposing opening and formed with a negative-receiving space adapted to receive a negative, an auxiliary card-holding adjusting frame-like body movably and adjustably disposed in said negative-receiving space of said main frame-like body for adjusting said auxiliary frame-like body, spring-like body-portions mounted upon said auxiliary frame-like body, lugs extending from said spring-like bodies, said lugs being formed with open portions and being movably disposed upon portions of the said main frame-like body, and means connected with said main frame-like body in binding engagement with said lugs for immovably securing said auxiliary frame-like body in its adjusted position with said main frame-like body.

3. A photographic printing frame comprising a main frame-like body provided with an exposing opening and formed with a negative-receiving space adapted to receive a negative, an auxiliary card-holding adjusting frame-like body movably and adjustably disposed in said negative-receiving space of said main frame-like body for adjusting said auxiliary frame-like body, spring-like body-portions mounted upon said auxiliary frame-like body, lugs extending from said spring-like bodies, said lugs being formed with open portions and being movably disposed upon portions of the said main frame-like body, means connected with said main frame-like body in binding engagement with said lugs for immovably securing said auxiliary frame-like body in its centered position with said main frame-like body, a card-clamping element in said auxiliary frame-like body, holding members provided with spring-tongues secured upon said auxiliary frame-like body, and a bar pivoted to said clamping element, said bar having its end-portions in separable and frictional holding engagement with the spring-tongues of said holding-members, screw-threaded posts extending upwardly from said main frame-like body and through the open portions of the lugs of said spring-like body-portions, clamping plates mounted upon said posts, and nuts serving as fingerpieces screwed upon said posts, and in separable binding engagement with said clamping plates.

4. A photographic printing frame comprising a main frame-like body provided with an exposing opening and formed with a negative-receiving space adapted to re-

ceive a negative, an auxiliary card-holding adjusting frame-like body movably and adjustably disposed in said negative-receiving space of said main frame-like body for adjusting said auxiliary frame-like body, spring-like body-portions mounted upon said auxiliary frame-like body, lugs extending from said spring-like bodies, said lugs being formed with open portions and being movably disposed upon portions of the said main frame-like body, screw-threaded posts extending upwardly from said main frame-like body and through the open portions of the lugs of said spring-like body-portions, clamping plates mounted upon said posts, and nuts serving as fingerpieces screwed upon said posts, and in separable binding engagement with said clamping plates.

5. A photographic printing frame comprising a main frame-like body provided with an exposing opening and formed with a negative-receiving space adapted to receive a negative, an auxiliary card-holding adjusting frame-like body movably and adjustably disposed in said negative-receiving space of said main frame-like body for adjusting said auxiliary frame-like body, spring-like body-portions mounted upon said auxiliary frame-like body, lugs extending from said spring-like bodies, said lugs being formed with open portions and being movably disposed upon portions of the said main frame-like body, screw-threaded posts extending upwardly from said main frame-like body and through the open portions of the lugs of said spring-like body-portions, clamping plates mounted upon said posts, nuts serving as fingerpieces screwed upon said posts, and in separable binding engagement with said clamping plates, a card-clamping element in said auxiliary frame-like body, holding members provided with spring-tongues secured upon said auxiliary frame-like body, and a bar pivoted to said clamping element, said bar having its end-portions in separable and frictional holding engagement with the spring-tongues of said holding members.

6. A photographic printing frame comprising a main frame-like body provided with an exposing opening and formed with a negative-receiving space adapted to receive a negative, an auxiliary card-holding adjusting frame-like body movably and adjustably disposed in said negative-receiving space of said main frame-like body for adjusting said auxiliary frame-like body, spring-like body-portions mounted upon said auxiliary frame-like body, lugs extending from said spring-like bodies, said lugs being formed with open portions and being movably disposed upon portions of the said main frame-like body, screw-threaded posts extending upwardly from said main frame-like body and through the open portions of

the lugs of said spring-like body-portions, clamping plates pivotally secured upon said main frame-like body, said clamping plates being provided with marginal slots adapted to enter upon said posts, and nuts serving as fingerpieces screwed upon said parts and in separable binding engagement with said clamping plates.

7. A photographic printing frame comprising a main frame-like body provided with an exposing opening and formed with a negative-receiving space adapted to receive a negative, an auxiliary card-holding adjusting frame-like body movably and adjustably disposed in said negative-receiving space of said main frame-like body for adjusting said auxiliary frame-like body, spring-like body-portions mounted upon said auxiliary frame-like body, lugs extending from said spring-like bodies, said lugs being formed with open portions and being movably disposed upon portions of the said main frame-like body, screw-threaded posts extending upwardly from said main frame-like body and through the open portions of the lugs of said spring-like body-portions, clamping plates pivotally secured upon said main frame-like body, said clamping plates being provided with marginal slots adapted to enter upon said posts, nuts serving as fingerpieces screwed upon said posts and in separable binding engagement with said clamping plates, a card-clamping element in said auxiliary frame-like body, holding members provided with spring-tongues secured upon said auxiliary frame-like body, and a bar pivoted to said clamping element, said bar having its end-portions in separable and frictional holding engagement with the spring-tongues of said holding-members.

8. A printing frame comprising a main frame-like body formed with a negative-receiving space, a smaller frame arranged in said space, a plurality of spring-like plates mounted upon said smaller frame, and lugs extending from said plates for clamping said smaller frame in variously adjusted positions in said main frame-like body, said lugs being made with enlarged open portions, posts on said main frame, said posts extending through said open portions, and means connected with said posts for clamping said lugs to said main frame-like body.

9. A printing frame comprising a main frame-like body formed with a negative-receiving space, a smaller frame arranged in said space, a plurality of spring-like plates mounted upon said smaller frame, lugs extending from said plates for clamping said smaller frame in variously adjusted positions in said main frame-like body, said lugs being made with enlarged open portions, posts on said main frame, said posts extending through said open portions, and nuts upon said posts serving as fingerpieces

for clamping said lugs to said main frame-like body.

10. In a printing frame, the combination  
with a frame-like body, of a clamping ele-  
5 ment removably arranged within said  
frame-like body, a bar pivoted upon said  
element, holding members upon said frame-  
like body provided with spring-tongues with  
which the end-portions of said bar are  
10 adapted to be brought in separable frictional

holding engagement, and an adjusting post  
beneath the spring-tongue of each holding  
member.

In testimony, that I claim the invention  
set forth above I have hereunto set my hand 15  
this 10th day of January, 1910.

GEORGE L. COURSEN.

Witnesses:

FREDK. C. FRAENTZEL,

FREDK. H. W. FRAENTZEL.