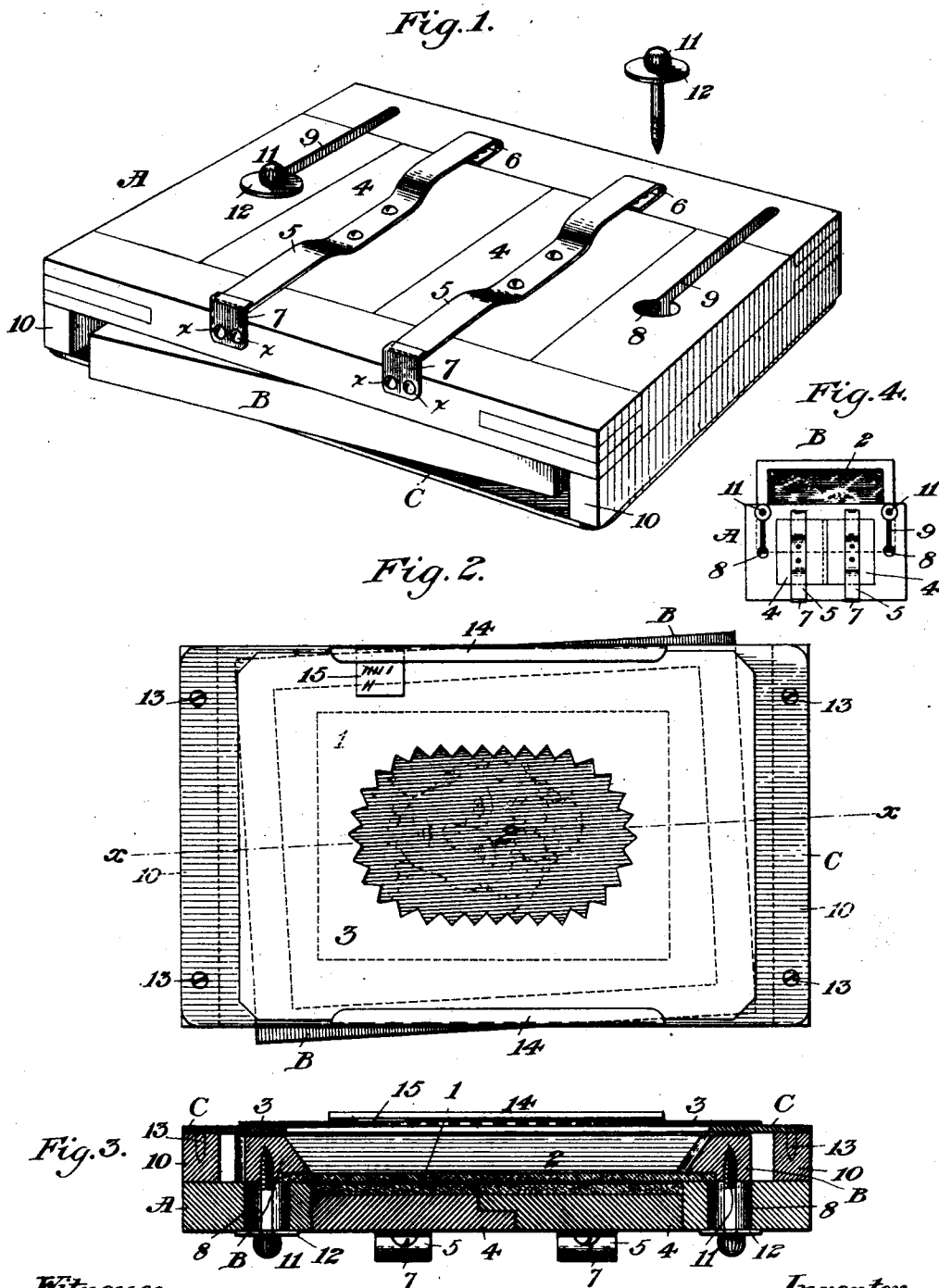


(No Model.)

C. E. LEWIS.
PHOTOGRAPHIC PRINTING FRAME.

No. 513,517.

Patented Jan. 30, 1894.



Witnesses
T. A. Commey
Geo. M. Whitney.

Inventor
Charles E. Lewis
by his attorney
W. L. Ewin.

UNITED STATES PATENT OFFICE.

CHARLES E. LEWIS, OF ALMA, MICHIGAN.

PHOTOGRAPHIC-PRINTING FRAME.

SPECIFICATION forming part of Letters Patent No. 513,517, dated January 30, 1894.

Application filed June 28, 1893. Serial No. 479,051. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. LEWIS, a citizen of the United States of America, and a resident of Alma, Gratiot county, in the State of Michigan, have invented a new and useful Improvement in Photographic-Printing Frames, of which the following is a specification.

This invention relates to the means employed by photographers for introducing negatives into their "printing-frames," and removing them therefrom, and for adjusting the negative and sensitive paper relatively to each other, so as to correctly locate the picture in the print.

The objects of the invention are to facilitate the above operations respectively, so as to adapt the frame to be rapidly handled, and to attach a simple and effective vignetter-holder, for use when vignetting is desired, without complicating the manipulation of the printing-frame proper.

The invention consists in certain novel combinations of parts as hereinafter set forth and claimed.

A sheet of drawings accompanies this specification as part thereof.

Figure 1 of the drawings is a perspective back view of a printing-frame with vignetting attachment, illustrating the invention. Fig. 2 is a face view of the same. Fig. 3 represents a longitudinal section on the line $x-x$ Fig. 2; and Fig. 4 is a small-scale back view illustrating the introduction and removal of negatives.

Like letters and numbers refer to like parts in all the figures.

The printing-frame proper is composed of two distinct parts, A, B, which are constructed mainly of wood, and of suitable internal dimensions respectively to receive and hold sensitive paper 1 and negatives 2 of definite or standard sizes, and may be termed respectively the "back-frame" and the "negative-frame;" and the "vignetter-holder" C, of sheet-metal, is fixedly attached to end-cleats on the frame A so as to overlie the negative-frame B, and serves to hold a paper "vignetter," 3.

The paper-holding opening of the back-frame A, extends entirely through this frame,

from back to front, and the frame is provided with the customary back-boards 4. Springs 5, fixedly attached to the back-boards at mid-length, are attached to the back-frame itself near one long edge by hinges 6, and engaged at the opposite edge of the frame by catches 7. The screws x which attach the catches 7 are not turned up so tight but that sufficient play is allowed the catches behind the heads of said screws to provide for disconnecting the springs 5 therefrom. Large adjusting openings 8 in both end-pieces of the back-frame, perpendicular to its back, and at or about mid-width, and slots 9, Figs. 1 and 4, extending from said openings 8 nearly to one edge of the frame, complete the back-frame, apart from its said cleats for supporting the vignetter-holder C, which cleats are represented at 10, and may be glued fast or otherwise attached to the front of the back-frame at its extreme ends.

The negative-frame B is a simple rectangular frame, somewhat shorter than said back-frame, and movable edgewise on the latter between said cleats 10, having a shallow rabbet in its back, adapted to hold negatives 2 of minimum thickness, and provided in its end-pieces with screw-holes which receive a pair of clamping screws 11, the heads of which coact with washer-plates 12, which washer-plates are adapted to bridge said openings 8 in every position of said screws within them, as at the left in Fig. 1, and in Fig. 3.

The vignetter-holder C is attached to said cleats 10 of the back-frame A by screws 13, and is constructed with lateral lips 14 to hold the vignetter 3, which is conveniently fastened therein by a pasteboard card 15, pressed under one of said lips, and serving also as a tally-card. See Fig. 2.

With the printing-frame back upward, as in Fig. 1, the springs 5 disconnected from the catches 7, and the screws 11 loosened, the negative-frame B is readily projected at one edge, as in Fig. 4, for the insertion of a negative, film upward. The negative-frame is then slid inward until the clamping screws 11 occupy the adjusting openings 8, and the screws are then tightened to a sufficient extent to prevent accidental displacement. With the back-boards 4 thrown back, the negative is now

adjusted by edgewise movements, relatively to the paper-holding opening of the back-frame A, until a correct appearance of the picture is obtained. Tightening the screws 11 is then completed, which fastens the negative in place; after which it is simply necessary to drop the successive sheets of sensitive paper, face downward, into said paper-holding opening, of the back-frame, pressing each upon the adjusted negative by means of the back-boards 4 and their fastenings, and then exposing the face of the negative, as in Figs. 2 and 3, to the sunlight.

If vignettes are desired, a suitable vignetter 3 is first of all fastened in place in the holder C. Otherwise it is simply omitted; and in either case the permanently attached vignetter-holder facilities rather than complicates handling the printing-frame proper as above.

Different known or improved fastenings for the back-boards 4 may be substituted for the springs 5 with their hinges 6 and catches 7; the negative-frame may be provided with metallic bushings or nuts to coact with the screws 11; and other like modifications will suggest themselves to those skilled in the art.

Having thus described the said improvement, I claim as my invention and desire to patent under this specification—

1. A photograph printing-frame comprising a back-frame having an opening of suitable dimensions to hold sensitive paper of a standard or definite size, and provided with the customary back-boards and fastening devices, a negative-frame, movable edgewise relatively to said back-frame, and having a shallow rabbet in its back to hold the negative, and means for clamping said frames together, and thereby fastening the adjusted negative, preparatory to the printing operation, substantially as hereinbefore specified.

2. The combination, in a photograph printing-frame, of a back-frame having an opening, perpendicular to its back, to hold the sensitive paper, and adjusting openings lengthwise perpendicular to its back, a negative-frame having a shallow rabbet in its back to hold the negative, and clamping screws, passing through said adjusting openings of the back-frame into said negative-frame, and provided with washer-plates to bridge said adjusting openings, substantially as hereinbefore specified.

3. The combination, in a photograph printing-frame, of a back-frame having an opening to hold the sensitive paper, adjusting-openings on opposite sides of the paper-holding opening, and slots extending from said adjusting-openings toward a given edge of the frame, a negative-frame having a shallow rabbet in its back to hold the negative, and clamping screws passing through said adjusting-openings into said negative-frame, and provided with washer-plates to bridge said adjusting-openings, substantially as hereinbefore specified.

4. A photograph printing-frame composed of a rectangular back-frame provided with means for holding the sensitive paper and provided with cleats on its front at opposite edges, a negative-frame which holds the negative against the front of said back-frame and is adjustable by edgewise movements between said cleats, means for clamping said frames together, and a vignetter-holder, permanently attached to said cleats, in front of said negative-frame, substantially as hereinbefore specified.

CHARLES E. LEWIS.

Witnesses:

W. A. BAHLKE,
R. D. LEMEN.