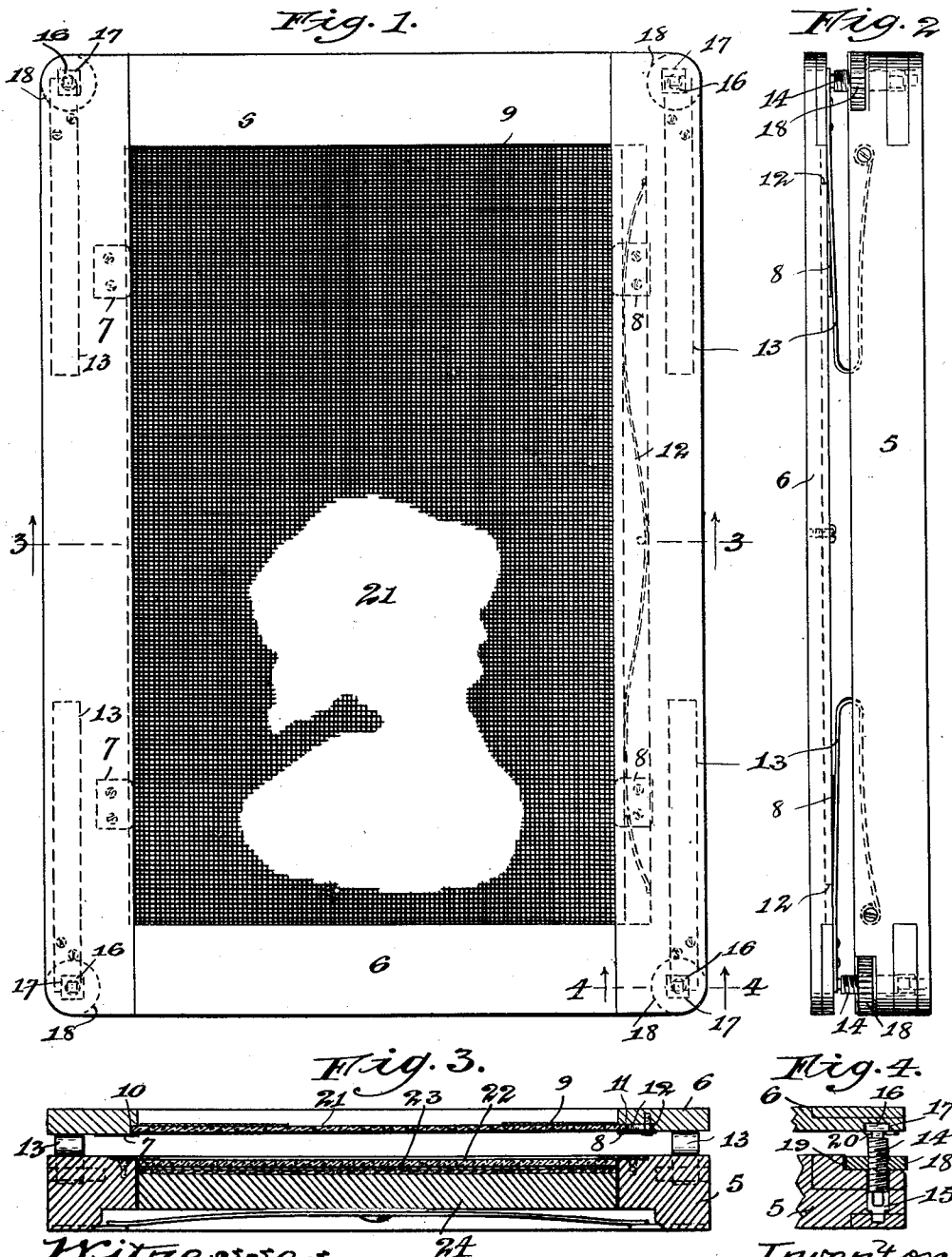


C. WEHRLE & S. OVERPECK.
 COMBINED PRINTING AND VIGNETTING FRAME.
 APPLICATION FILED MAY 8, 1913.

1,101,596.

Patented June 30, 1914.



Witnesses,

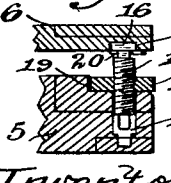
J. B. Mann

S. N. Pond

Fig. 3.



Fig. 4.



Inventor,

Charles Wehrle,

Scott Overpeck

UNITED STATES PATENT OFFICE.

CHARLES WEHRLE AND SCOTT OVERPECK, OF CHICAGO, ILLINOIS.

COMBINED PRINTING AND VIGNETTING FRAME.

1,101,596.

Specification of Letters Patent.

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Application filed May 8, 1913. Serial No. 766,324.

To all whom it may concern:

Be it known that we, CHARLES WEHRLE and SCOTT OVERPECK, both citizens of the United States, and residents of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Combined Printing and Vignetting Frames, of which the following is a specification.

This invention relates to improvements in the art of printing photographs, and has reference more particularly to an improved device in the nature of a combined printing frame and vignetter.

According to the practice at present generally prevailing in photographic studios, an individual vignetting device for each picture is made by taking a sheet of cardboard of substantially the dimensions of the printing frame, cutting an opening therein corresponding in outline to the image of the person or object on the negative, then pasting over the opening thus formed a sheet of thin translucent paper, and using the vignetter thus produced by tacking it to the face of the printing frame with the outline of the opening registering with the outline of the underlying image on the negative. This necessitates, of course, the preparation of a separate vignetter for the subject of each negative, and is both laborious and expensive.

The main object of our present invention is to provide a vignetter which is permanently attached to the printing frame and is capable of adjustment toward and from the latter to secure the desired variations in shading or vignetting effect, and which may, with slight modification of parts thereof, be made to serve for any number of negatives.

Our invention, its mode of use, and the advantages resulting therefrom will all be readily understood when considered in connection with the accompanying drawing illustrative of the same, in which—

Figure 1 is a front view of our device. Fig. 2 is an edge elevation, showing the vignetter spaced at one printing position from the printing frame. Fig. 3 is a cross-sectional view on the line 3—3 of Fig. 1. Fig. 4 is a cross-sectional detail on the line 4—4 of Fig. 1.

Referring to the drawing, 5 designates as an entirety a printing frame which may be of ordinary construction, and 6 a vignetting

frame of the same form and size as the printing frame 5. To the under sides of the longitudinal frame-bars of the vignetting frame 6 are secured rests 7 and 8 that support the opposite longitudinal edges of a vignetter plate 9; the under side of the vignetter frame being undercut or countersunk, as shown at 10 and 11 to accommodate the longitudinal edges of the vignetter plate 9, and the countersink 11 being provided with a double-bow spring 12 forming a yieldable abutment for one edge of the vignetter plate.

The vignetter frame 6 is connected to the printing frame 5 adjacent to the registering corners of said frames by four bent leaf springs 13 that normally tend to draw said frames together into face-to-face contact with each other. The frames are adjustably spaced apart by means of screw-threaded adjusting devices at the four corners thereof, consisting, in each case, of a small threaded post 14 slidably fitting a socket 15 in the corner of the printing frame and having a square head 16 engaging a similarly shaped socket 17 in the corner of the vignetting frame, and a milled nut 18 engaging said threaded post and occupying a countersink 19 in the corner of the printing frame. The head 16 of the post is conveniently secured within the socket 17 of the vignetting frame by forking the end of the spring 13 that is attached to the vignetting frame, as shown at 20 (Fig. 4), and causing its forked end to straddle the neck of the post 14 beneath the head 16. The action of the springs 13 tending to draw the frames together, acting through the vignetting frame and the threaded posts 14, keeps the milled nuts 18 in their seats in the countersinks 19 of the printing frame; and, by turning said milled nuts in one direction the vignetting frame is forced away from the printing frame, while by turning said nuts in the opposite direction, the springs 13 are permitted to draw the vignetting frame toward the printing frame. Inasmuch as the four springs 13 and the four corner adjusting devices are all independent of each other, it is readily possible to adjust the vignetting frame either into parallelism with the printing frame or at an angle thereto either lengthwise or crosswise, according to the shading effect sought to be obtained in the picture.

The vignetter plate 9 herein shown as a plate of translucent glass of such composi-

tion, or so treated, as to modify or tone the light rays transmitted therethrough so as to secure substantially the same printing effect in the printing of the image as is secured in the common tissue paper vignetter herein-
 5 above referred to; and it is produced by placing against its under surface the negative, then holding the negative against the light whereby a clear outline image of the person or object forming the subject matter
 10 of the photograph is visible through the translucent plate, and then, with a brush or other suitable instrument painting or otherwise coating the entire surface of the plate with an opaque substance indicated by the
 15 shading in Fig. 1, with the exception of a clear space 21, the outlines of which space register with the outlines of the head and bust, or other image of the subject of the photograph. The purpose of thus painting
 20 the outer surface of the glass is, of course, to render the same opaque and secure a light background in that portion of the print lying therebeneath. This vignetter plate and the method of making it constitute the subject matter of an application filed by us
 25 on the 13th day of March, 1913, Serial No. 754,066. This particular vignetter plate is not an essential part or element of the present invention, but is shown and briefly described herein as being the vignetter plate which we prefer to employ in connection
 30 with the described structure of this invention. Obviously, however, any other and different vignetter plate that will cooperate with the vignetter frame and plate-holding devices herein shown and described may be employed within the purview of this invention.
 35 Fig. 3 shows the printing frame as "loaded"; that is, as supplied with a negative 22, a sheet of printing paper 23, and the usual back plate or cover 24; and with the vignetter spaced from the face of the printing frame a suitable distance to afford the vignetting effect around the outlines of the image of the photograph. This vignetting effect is rendered sharper or more diffused
 40 by adjusting the vignetting frame closer to or farther from the printing frame; and the effect may be varied on opposite sides or ends of the print of the image by varying the adjustment of the opposite sides or ends of the vignetting frame relatively to the
 45 printing frame, this latter advantage resulting from the independent adjustability of the four corner adjusting devices.

It will be observed that by withdrawing the readily removable vignetter plate 9 and
 50 adjusting the vignetter frame 6 into contact with the printing frame 5, the device may then be used without the vignetter as an ordinary printing frame if desired, since when the two frames are closed together the
 65 complete device presents about the same

thickness and general dimensions as a standard printing frame. This obviates the necessity for a photographic studio to provide double equipment; and is a factor of practical utility and economy in view of the fact
 70 that only about one-half the portraits made in the usual photographic studio are vignettied.

It will be manifest to those skilled in this art that the specific details of the structure herein disclosed may be more or less varied
 75 without any departure from the principle involved or sacrificing any of the advantages attained. Hence, we do not limit the invention to the exact structure shown and described beyond the extent clearly indicated in specific claims.

We claim—

1. The combination with a photographic printing frame, of a vignetting frame permanently attached to, and coextensive
 85 lengthwise and widthwise with, said printing frame and having an opening of the same size as, and registering with, the opening of said printing frame, means on said vignetting frame for supporting a vignetting card or plate in the opening thereof,
 90 and means located wholly between said frames for adjustably spacing them apart.

2. The combination with a photographic printing frame, of a vignetting frame coextensive lengthwise and widthwise with said
 95 printing frame and having an opening of the same size as, and registering with, the opening of said printing frame, means on said vignetting frame for supporting a vignetting card or plate in the opening thereof,
 100 spring means located wholly between and within the external boundaries of said frames permanently connecting and normally tending to draw the latter together,
 105 and other means located wholly between and within the external boundaries of said frames for adjustably spacing them apart.

3. The combination with a photographic printing frame, of a vignetting frame overlying said printing frame and having an
 110 opening of the same size as, and registering with, the opening of the latter, means on said vignetting frame for supporting a vignetting card or plate in the opening thereof,
 115 spring connections between said frames tending to draw them into face-to-face contact, and independently operable devices located respectively between the registering
 120 corners of said frames serving to adjustably space the latter apart against the normal action of said spring connections.

4. The combination with a photographic printing frame, of a vignetting frame overlying said printing frame and having an
 125 opening of the same size as, and registering with, the opening of the latter, means on said vignetting frame for supporting a vignetting card or plate in the opening thereof, 130

bent leaf springs secured at their ends to adjacent sides of said frames permanently connecting and normally tending to draw the latter into face-to-face contact, and means located wholly between said frames for adjustably spacing them apart.

5 The combination with a photographic printing frame, of a vignetting frame overlying said printing frame and having an opening of the same size as, and registering with, the opening of the latter, means on said vignetting frame for supporting a vignetting card or plate in the opening thereof, bent leaf springs secured at their ends to adjacent sides of said frames permanently connecting and normally tending to draw the latter into face-to-face contact, and independently operable screw devices between the registering corners of said frames respectively for forcing the latter apart.

6 The combination with a photographic printing frame, of a vignetting frame overlying said printing frame and having an opening of the same size as, and registering with, the opening of the latter, means on said vignetting frame for supporting a vignetting card or plate in the opening thereof, springs permanently connecting and normally tending to draw said frames into face-to-face contact, threaded posts at the registering corners of said frame non-rotatably

secured at one end in one of said frames and slidably engaging sockets in the other, and milled nuts on said threaded posts for forcing said frames apart against the action of said springs.

7 The combination with a photographic printing frame having counter-sinks in one side at the corners thereof, of a vignetting frame overlying the counter-sunk side of said printing frame and having an opening of the same size as, and registering with, the opening of the latter, means on said vignetting frame for supporting a vignetting card or plate in the opening thereof, springs located between said frames permanently connecting and normally tending to draw the latter into face-to-face contact, threaded posts non-rotatably secured at one end in the corners of said vignetting frame and slidably engaging sockets in the counter-sunk corners of said printing frame, and milled nuts on said threaded posts located within said counter-sinks for forcing said frames apart against the action of said springs.

CHARLES WEHRLE.
SCOTT OVERPECK.

Witnesses:

SAMUEL N. POND,
MARY M. LEPPA.