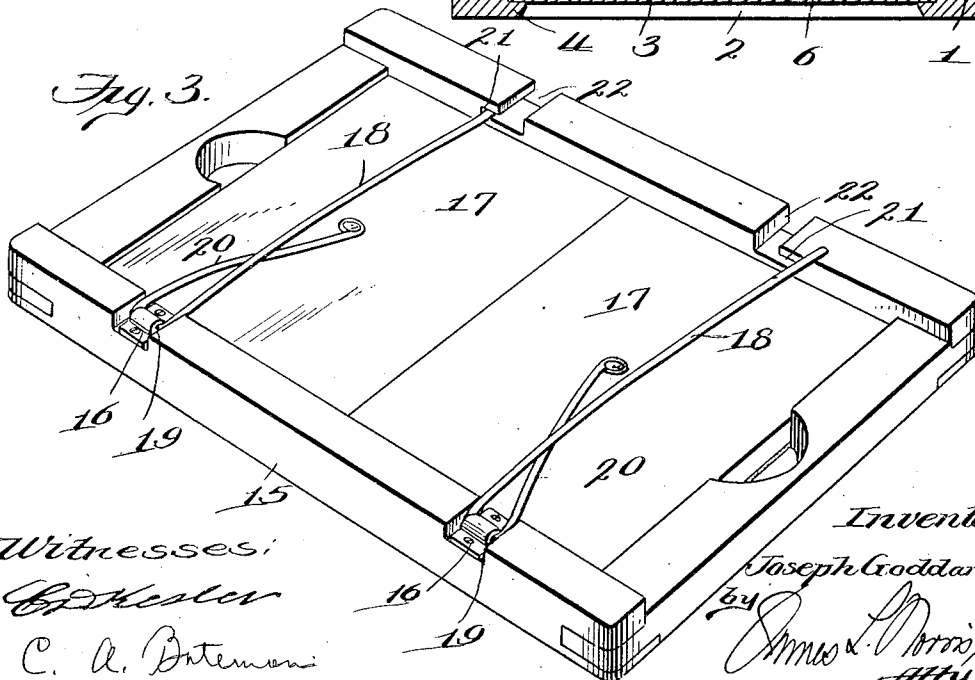
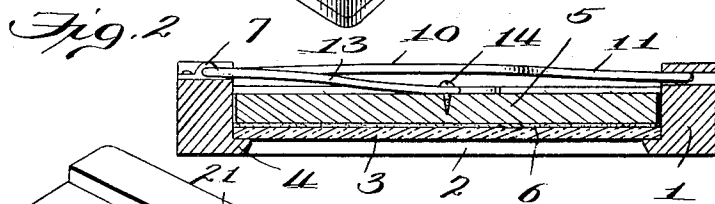
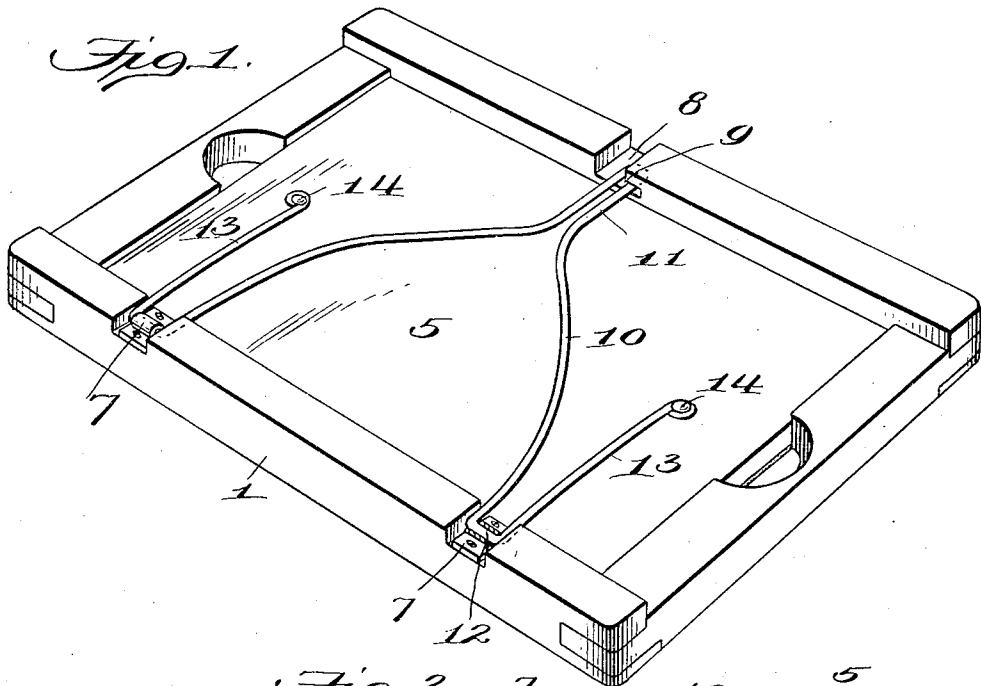


J. GODDARD.
 PHOTOGRAPHIC PRINTING FRAME.
 APPLICATION FILED NOV. 25, 1912.

1,064,637.

Patented June 10, 1913.



Witnesses:
C. A. Bateman

Inventor
Joseph Goddard
 by *James L. Norris*
 Atty.

UNITED STATES PATENT OFFICE.

JOSEPH GODDARD, OF ROCHESTER, NEW YORK, ASSIGNOR TO SENECA CAMERA
MANUFACTURING COMPANY, OF ROCHESTER, NEW YORK, A CORPORATION
OF NEW YORK.

PHOTOGRAPHIC-PRINTING FRAME.

1,064,637.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed November 25, 1912. Serial No. 733,559.

To all whom it may concern:

Be it known that I, JOSEPH GODDARD, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented new and useful Improvements in Photographic-Printing Frames, of which the following is a specification.

This invention relates to printing frames of the type in which the back member, by which the negative and the printing paper are held in position within the frame, is connected with the body of the frame by means of a resilient connecting member, hinged or pivoted to the body.

One object of the present invention is to provide a connecting member of simple and inexpensive construction, which shall have a greater resilience than that secured by constructions as heretofore proposed, and to this end, I employ a connecting member comprising two arms projecting in the same general direction from an intermediate portion, the intermediate portion and the ends of the two arms constituting three points of engagement with the back member and the opposite sides of the body, respectively, and the two arms of the connecting member providing a length by which increased resilience is secured. A connecting member of this form may be readily formed of a single length of wire, and the form in question lends itself to a construction in which the intermediate portion of the connecting member may constitute a hinge pintle or pivotal member coöperating with a hinge member on the body of the frame, whereby the construction is further simplified and improved.

A further object of the invention is to provide a simple and convenient arrangement whereby the connecting member is detachably connected with one side of the body of the frame, and to this end I provide an overhanging catch or abutment on the frame which is normally engaged by a portion of the connecting member, this abutment being so arranged that the connecting member may be disengaged from it by bending said member in a direction parallel with the plane of the frame, such bending being permitted by the resilience of the longer arm extending from side to side of the frame.

To these and other ends, the invention

consists in certain improvements, and combinations and arrangements of parts, all as will be hereinafter more fully described, the novel features being pointed out particularly in the claims at the end of the specification.

In the accompanying drawing:—Figure 1 is a perspective view of a photographic printing frame constructed in accordance with one embodiment of the invention; Fig. 2 represents a transverse section of the device as shown in Fig. 1; Fig. 3 is a perspective view showing the invention adapted to a printing frame having a sectional back.

Similar parts are designated by the same reference characters in the several views.

The present invention is applicable generally to photographic printing frames and analogous devices of various types, it being shown in the present instance as applied to an ordinary printing frame adapted to be operated by hand, and the preferred embodiments of the invention are shown. It is to be understood, however, that these constructions are shown essentially as examples of the invention, as other embodiments of the invention will suggest themselves to those skilled in the art, and equivalent constructions will be included within the scope of the claims at the end of the specification.

In the present instance, the printing frame 1 comprises a body provided, as usual, with an opening 2 through which light is admitted to expose the sensitized material through the negative which is, as usual, behind or attached to a glass plate 3, the latter being supported in the body of the frame by an internal shoulder 4 which surrounds the exposure opening 2. In that embodiment of the invention shown in Figs. 1 and 2, a back member 5 is employed which is made in one piece, the back member being removable from the body of the frame to permit insertion of the sensitized paper or material 6 and being adapted when in position to press the sensitized paper or material against the negative behind the glass plate 3. According to this form of the invention, a pair of hinge members 7 are provided at one side of the body and a suitable catch is provided at the opposite side of the body, this catch in the construction shown embodying

a notch 8 having an undercut recess 9. A member 10 is also provided which is preferably composed of resilient or spring wire, the same being doubled at the center to form an arm 11 which serves not only as a handle for opening and closing the back member, but also constitutes means to cooperate with the catch on the body of the frame to retain the back member in closed operative position. The end portions of the wire are extended to the hinge members 7, portions of the wire being then bent into alinement to form hinge pintles 12 which turn in or cooperate with said hinge members, and the ends 13 of the wire are then extended inwardly behind the back member and are preferably secured at suitable points thereto by the screws or other devices 14. In operating a photographic printing frame constructed in accordance with this embodiment of the invention, the back member of the frame may be opened by simply deflecting the arm 11 of the resilient connecting member sufficiently to disengage it from the recess 9, it being understood that the connecting member is so formed as to produce pressure on the arms 13 thereof in a direction to force the back member 5 forwardly or against the sensitized paper or material when the arm 11 is fastened by the catch. When the arm 11 has been disengaged from the catch in the manner stated, the back member may be readily swung into an open position about the hinge pintles 12 as an axis, the arm 11 of the connecting member serving as a handle in opening the back member, and the connecting member connects and maintains a correct operative relation between the back member and the body of the frame. When the negative and sensitized paper or material has been properly arranged in the frame, the back member may be swung into closed position about the hinge pintles 12 as an axis, the arm 11 of the spring member serving as a handle, and when this arm of the spring member is engaged with the catch on the frame, the back member is pressed yieldably against the sensitized material and the negative.

In that embodiment of the invention shown in Fig. 3, the body 15 is provided at one side with hinge members 16, and the back member is composed of two sections 17. A pair of separate spring connecting members 18 are also used in this construction, each spring member having an intermediate portion 19 which rotatably engages the respective hinge member 16 to form a hinge pintle, and one end 20 of the spring member is attached to the respective back section while the opposite end thereof is adapted to cooperate with an undercut recess 21 of a notch 22, these recesses and notches being provided in the body of the

frame. In this construction, either back section may be opened to permit inspection of the sensitized material to determine the extent to which the same has been printed or to remove the sensitized material, by disengaging the respective end of the spring member from its corresponding recess 21, and the back section may be then swung readily into an open position about the corresponding hinge pintle 19 as an axis, the projecting end of the spring member being utilized, if desired, as a handle and the back section may be returned to the body of the frame by a reverse motion and maintained in operative position therein by reengaging its free end with the corresponding catch.

I claim as my invention:—

1. A printing frame comprising a body, a back member cooperative therewith, and a resilient member having an intermediate part and arms arranged in doubled relation thereto, said arms and intermediate part forming engaging portions, one of which is pivoted to the body, another detachably connected to the body, and the third cooperative with the back member to press the same into operative position.

2. A printing frame having, in combination, a body, a back member cooperating with the body, and a resilient connecting member comprising an intermediate part and two arms extending in the same general direction from the intermediate part, the intermediate part and the arms providing three engaging portions, one of which is pivoted to the body, a second is detachably secured to the body, and the third engages the back member and normally presses it into operative position.

3. A printing frame having, in combination, a body provided at one side with a pivotal bearing and at the opposite side with an abutment, a back member cooperating with the body, and a connecting member having an intermediate portion pivoted to the body in said bearing and having two arms extending in the same general direction from the pivotal point and normally engaging, respectively, said abutment and the back member, whereby the connecting member is normally fixed against pivotal movement and the back member is retained in cooperative relation with the body.

4. A photographic printing frame having a body, a back member cooperative therewith, a catch on the body, and a resilient connecting member having one end attached to the back member, another end cooperative with said catch, and an intermediate portion pivotally connected to the body, said connecting member being operative to yieldingly hold the back member in operative position.

5. A device of the character described comprising a body, a back member coopera-

tive therewith, the body having a hinge member at one side and a catch member opposite thereto, and a resilient connecting member having a portion bent to form a pintle coöperative with said hinge member and having a portion coöperative with said catch member, said connecting member being attached to the back member to hold the latter in operative position in the body and to carry the back member into inoperative position. 10

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH GODDARD.

Witnesses:

J. A. DYER,

N. C. FISHELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."