J. GODDARD.

PHOTOGRAPHIC PRINTING FRAME.

APPLICATION FILED JULY 22, 1908.

907,592.

Patented Dec. 22, 1908.

Fig. 1.

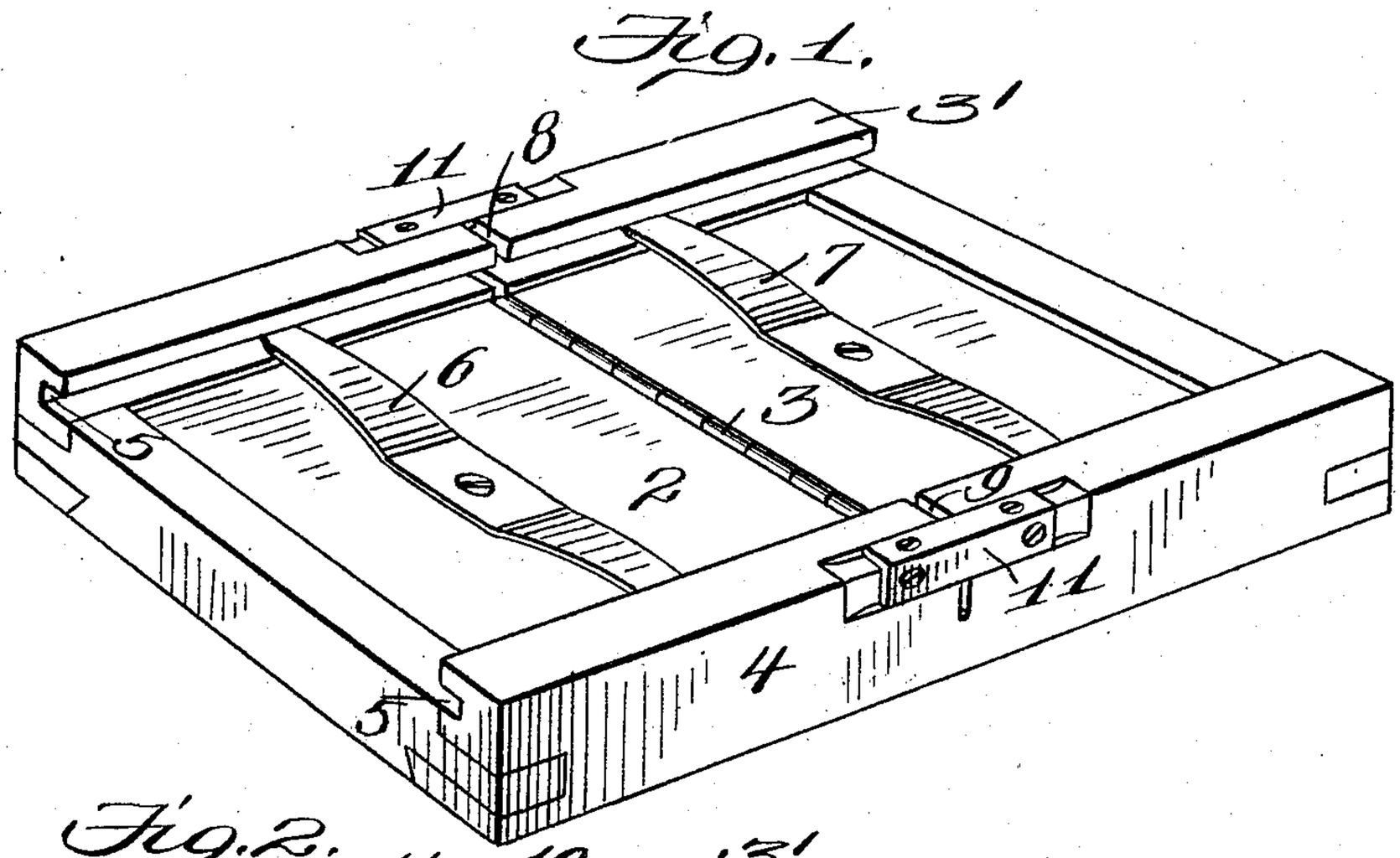


Fig. 2.

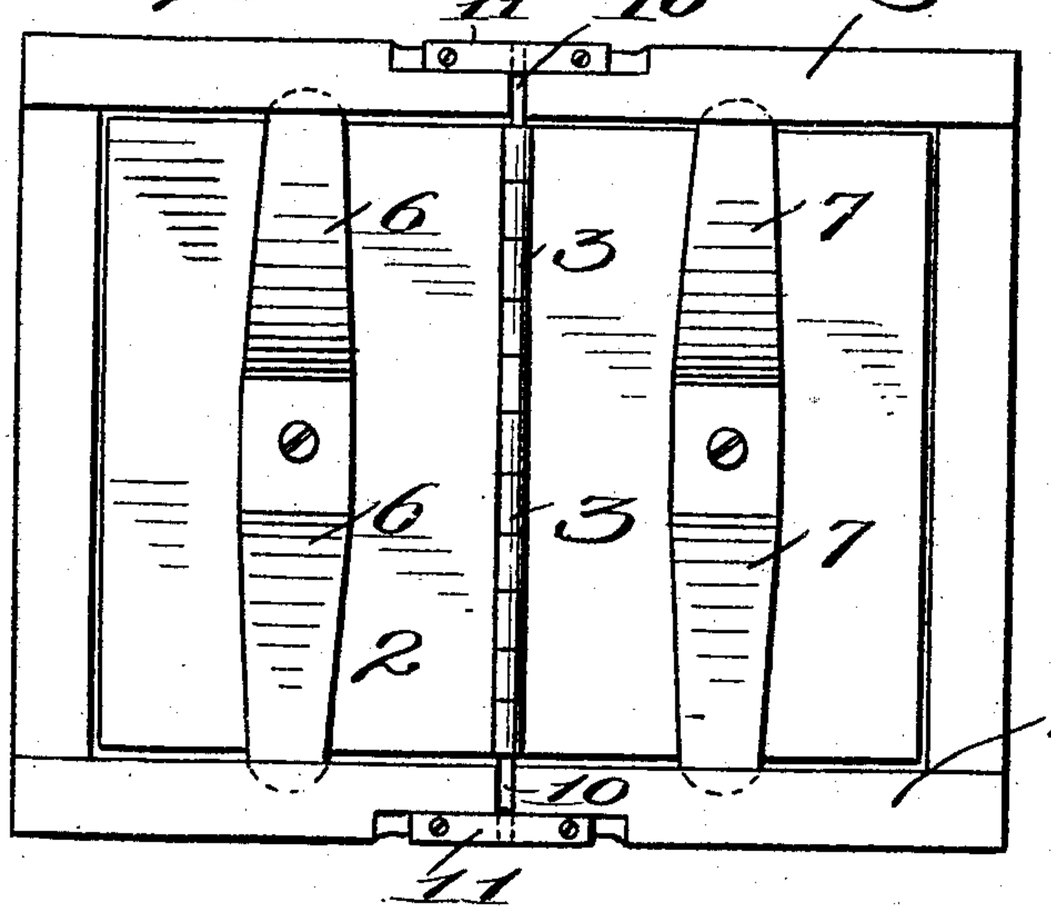


Fig. 3.

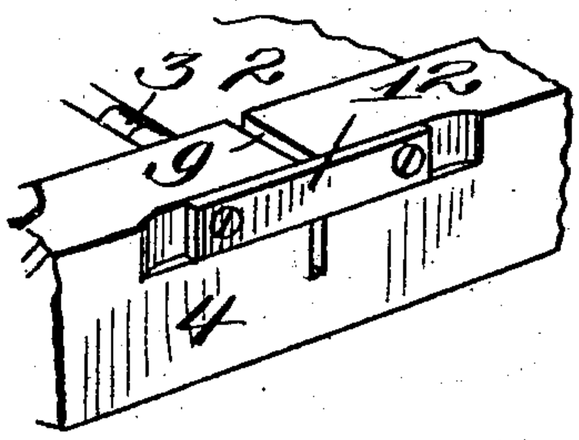
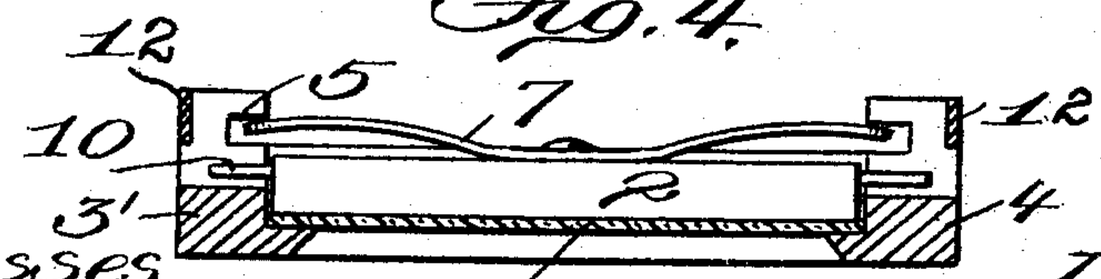


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

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PHOTOGRAPHIC-PRINTING FRAME.

No. 907,592. Specification of Letters Patent. Patented Dec. 22, 1903.

Application filed July 22, 1903. Serial No. 444,795.

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.

My present invention relates to improvements in photographic printing frames, and it has for its object to provide simple, improved and cheaply constructed means to coöperate with the hinge pintle or other appropriate part of the back sections of the frame for preventing shifting or displacement thereof when such parts are opened to enable the print contained in the frame to be examined so that registration between the print and negative is not destroyed even though the print may be examined frequently before the printing operation has been completed, the side members of the frame being slotted through from their inner to their outer sides by an inexpensive operation which provides a relatively large or extensive bearing surface for the hinge pintle, thus avoiding the necessity of using a metal facing or bushing to engage the pintle, and the parts of the side members which are partially severed by the slotting operation are reinforced or stayed in firm and rigid relation by cleats which are fastened to the respective parts of the side member and span the slot between them, the construction being such that the operations necessary in manufacturing the frames are so simple and inexpensive that the improved frames may be made to sell at practically the same cost as the ordinary printing frames.

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 printing frame constructed in accordance with one embodiment of my invention; Fig. 2 is a rear view of the frame shown in Fig. 1; Fig. 3 is a perspective view of a portion of one of the side members of the frame showing a slightly differently constructed cleat for reinforcing and staying the partially severed sections of the side member; and Fig. 4 is a transverse section through a frame showing the position occupied by the hinge pintle in the respective slots of the side members.

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

My present invention is capable of use in connection with printing frames of various constructions, the frame shown in the present instance being of an ordinary form having a rabbeted opening formed to receive the negative 1 against the rear side of which the sensitized printing medium is placed and is held in close relation to the negative by means of the usual sectional back 2, the sections of the back being connected at their adjacent edges by a hinge 3 which permits either of these sections to be unfastened and opened so as to permit an inspection of the print before the same is removed from the frame. The inner sides of the side members 3′ and 4 of the frame are provided in the present instance with longitudinal grooves or channels 5 in which the ends of the spring clamps 6 and 7 on the respective sections of the back engage when in fastened relation.

The present invention provides a simple and inexpensive means for preventing longitudinal shifting movement of the back sections when one or both of these sections has been unfastened and opened to permit an inspection of the print contained in the frame, and this result is attained by providing a pair of transverse kerfs or slots 8 and 9 in the side members of the frame. These kerfs may be quickly and cheaply formed at a single operation by means of a saw or slotting cutter, the frame being positioned by gages so that the saw will first pass through one side member of the frame and then through the other side member thereof as the frame is fed relatively to the saw, these kerfs or slots being thereby positioned accurately and precisely upon all the frames so that the backs may be interchangeably applied thereto without subsequent fitting. Any suitable part of the back section of the frame may engage in these slots, but it is preferable for the sake of convenience to utilize the pintle 10 of the hinge which connects the back sections for this purpose. This pintle is therefore made longer than the length of the hinge so as to cause its ends to project for a considerable distance into the slots of the side members, these portions of the pintle extending at least beyond the longitudinal grooves 5 at the in-

ner sides of these members so that the pintle will not catch in either of these grooves when the back sections are wholly removed from the frame. By forming these kerfs or slots so as to extend through the side members, a relatively extensive surface is provided by the walls of these kerfs to engage the ends of the hinge pintle so that it is unnecessary to line the walls of these slots with metal facings to prevent wear.

The slotting through of the side members of the frame has, of course, a tendency to weaken such members, but in order to reinforce the partially severed portions of the side members so as to restore them practically to their original strength and rigidity, I provide a pair of cleats which span the respective kerfs or slots and are fastened at their opposite ends to the respective portions of the side member. The cleats 11 shown in Fig. 1 are of angle form in transverse section and may be composed of sheet brass or other material of appropriate strength, the wings of each of these cleats being firmly secured by screws or other fastening devices, respectively, to the outer and rear sides of the respective side member of the frame. These cleats are preferably countersunk so that their outer sides will lie flush with the corresponding surfaces of the frame and thereby avoid forming projections upon the frame which might prove objectionable in the stacking or handling thereof, it being possible to countersink or inlay these cleats by milling depressions in the respective surfaces of the side member to which the cleat is applied, this milling operation being a simple and inexpensive one.

In that form of the invention shown in Figs. 3 and 4, a cleat 12 is shown which may be made more cheaply than that shown in Figs. 1 and 2, the cleat shown in this instance being composed of a short length of sheet metal which is inlaid in the outer surface of the side member and is firmly secured by means of screws or other fastening devices to the partially severed portions thereof. In that form of the invention shown in Fig. 3, any stresses imposed upon the frame tending to bend the side member so as to open or close the kerf or slot will be resisted by the cleats as the metal of these cleats is presented edgewise to such strains and is therefore amply capable of resisting them, while the cleats shown in Fig. 1 are not only capable of withstanding any strains tending to open or close the kerfs or slots, but they are also capable of withstanding any strains tending to collapse or expand the side members of the frame relatively to one another.

The present invention provides a cheap and efficient means for preventing shifting or displacement of the back sections of the frame during the inspection of the print, as it is only necessary to run a saw or slotting cutter transversely through the side members of the frame so as to receive the axially prolonged ends of the hinge pintle and to groove and apply the inlaid cleats so as to bridge or span these kerfs or slots, the relatively extensive bearing surface provided by the walls of the slots or kerfs providing a sufficient bearing for the hinge pintle so as to avoid wear without the additional expense and difficulty of applying metallic wearing faces for the pintle, and the cleats or reinforcing stays which may be cheaply applied to the frame serve to amply reinforce these side members so as to afford the necessary rigidity.

I claim as my invention:—

1. A photographic printing frame comprising a pair of side members having saw kerfs extending forwardly and outwardly relatively to the opening in the frame, a back to fit the opening of the frame and having portions attached thereto which project outwardly between and engage the walls of the respective kerfs, and reinforcing cleats spanning the kerfs and having their ends fastened to the partially severed portions of the respective side members to stiffen the same.

2. A photographic printing frame comprising a pair of side members having kerfs which extend transversely therethrough, a back for pressing the sensitized medium against the negative and composed of sec tions, and a hinge connecting them, the pintle of said hinge having its ends prolonged axially and arranged to project outwardly between and to engage the walls of the respective kerfs, a pair of cleats arranged at the outer sides of said members and spanning the kerfs, and means for securing the ends of said cleats to those portions of the respective side members which are divided by said kerfs.

3. A photographic printing frame comprising a pair of side members having saw kerfs extending therethrough from their inner to their outer sides, a back for pressing the sensitized medium into engagement with the negative, portions projecting outwardly from said back and engaging the walls of the respective kerfs, and reinforcing cleats applied to the corners adjacent to the outer and rear sides of the respective members, said cleats being of angle form in cross section, and spanning the respective kerfs, and means for securing the ends of the cleats to those portions of the respective members which are divided by the kerfs.

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

JOSEPH GODDARD

Witnesses:
GEO. GAGMIER,
J. A. DYER.