Jan. 17, 1950 C. S. HANSON 2,495,061

PHOTOGRAPHIC PRINT PAPER HOLDER

Fil June 16, 1947. 2 Sheets-Sheet 1

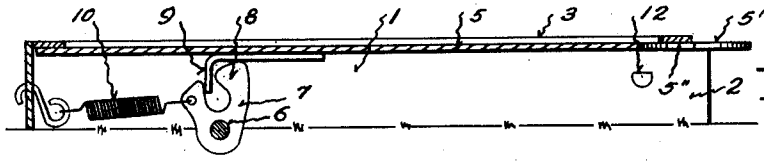



Fig. 1.

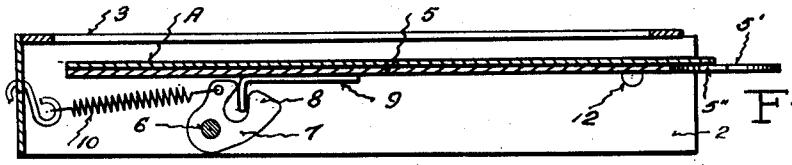



Fig. 2.

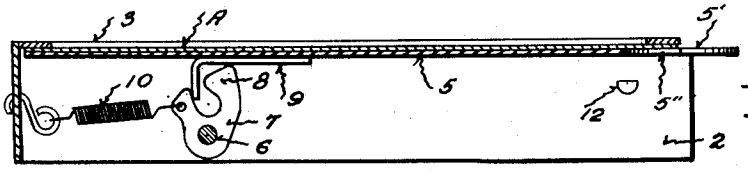



Fig. 3.

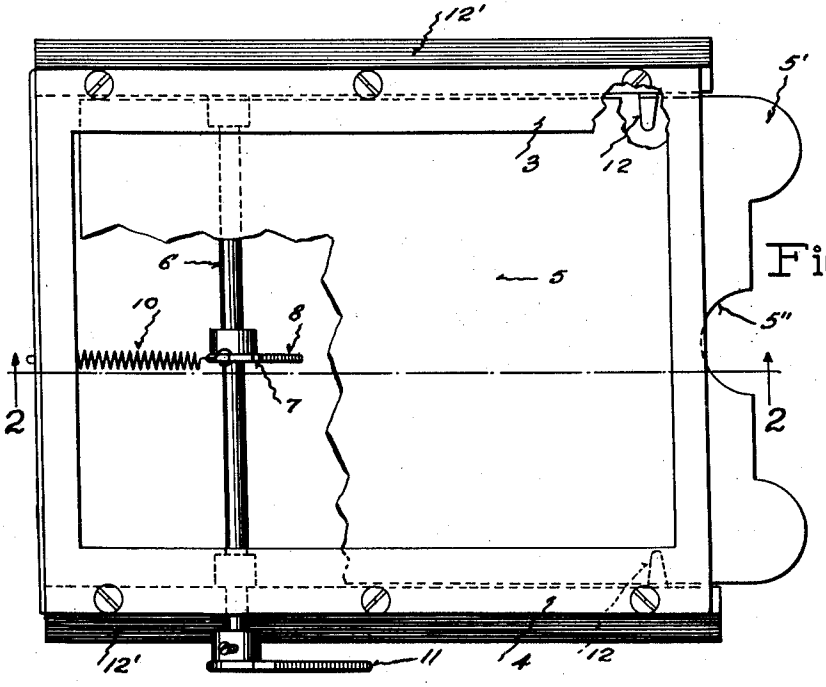



Fig. 5.

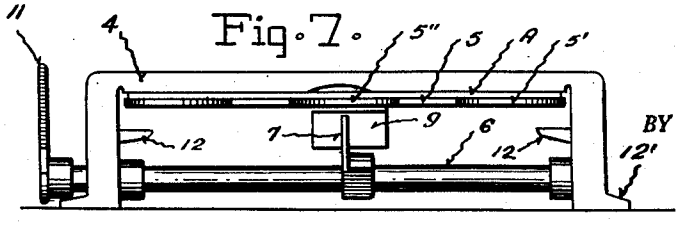



Fig. 7.

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Fig. 6.

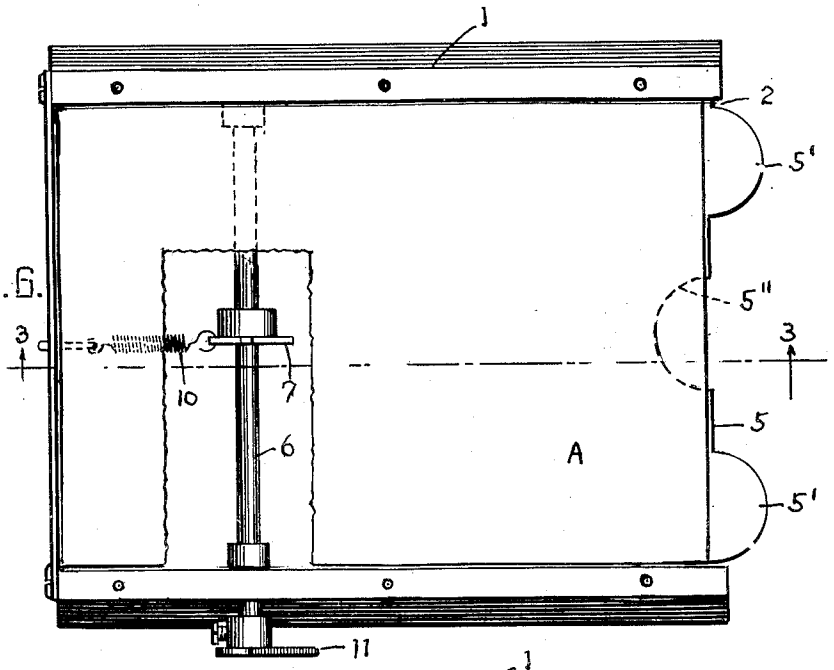
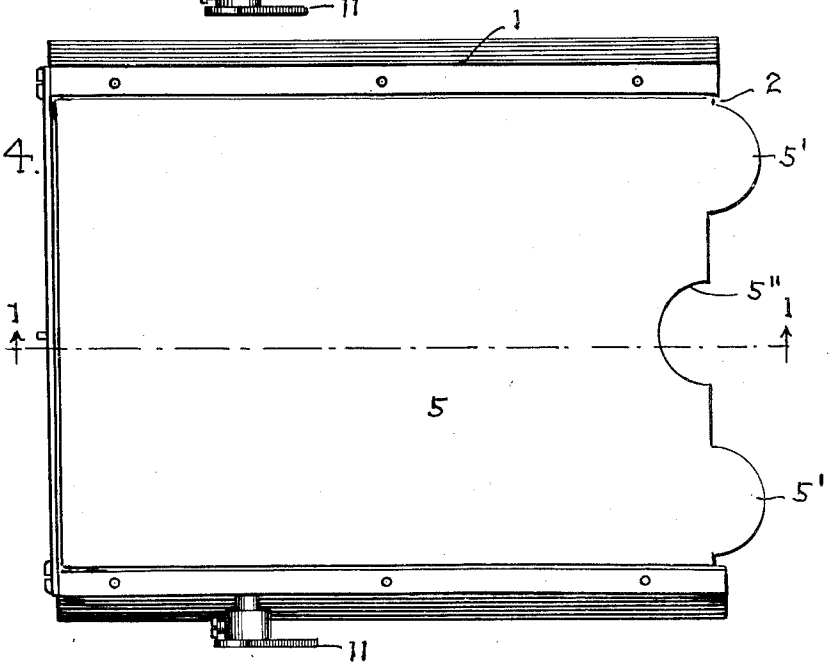



Fig. 4.




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## PHOTOGRAPHIC PRINT PAPER HOLDER

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Application June 16, 1947, Serial No. 754,904

3 Claims. (Cl. 88—24)

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The invention relates to photographic print paper holders, for use mainly in taking photographic enlargements, an object of the invention being to provide such a holder of improved simplified construction and operation. Other objects and advantages will appear hereinafter or will be obvious.

The invention consists in the novel construction and combinations of parts as hereinafter set forth in the claims.

In the accompanying drawings,

Figure 1 is a longitudinal vertical section of the print paper holder, on the line 1—1, Fig. 4, with the spring-urged plate in high level position with its white-colored top surface in position to have the image focused thereon.

Figure 2 is a view similar to Fig. 1, the section being taken on the line 2—2, Fig. 5, with the spring-urged plate in low level position for insertion of the print paper thereon.

Figure 3 is a view similar to Fig. 1, the section being taken on the line 3—3, Fig. 6, with the spring-urged plate in intermediate level position to bring the sensitized surface of the print paper in the same plane precisely as that formerly occupied by the top surface of the spring-urged plate.

Figure 4 is a plan view of the print paper holder, with the spring-urged plate in high level position, as in Fig. 1, the rim top section of said holder being removed.

Figure 5 is a view similar to Fig. 4, with the spring-urged plate in the low level position of Fig. 2, for insertion of the print paper, the rim top section of said holder being in place.

Figure 6 is a view similar to Fig. 4, with the print paper inserted in the holder upon the spring-urged plate and said plate raised to intermediate level position to bring the sensitized surface of the print paper in precisely the same plane as that formerly occupied by the top surface of the spring-urged plate.

Figure 7 is a rear end view of the print paper holder of somewhat modified form, being made of plastic material, with a thicker top, and integral or in one piece, the parts being in the position of Fig. 3, said top being provided with a marginal groove to receive the marginal portion of shim paper.

In these drawings, the numeral 1 designates a rectangular box frame, having an open end 2, and a top provided with an opening 3 and a rim flange 4 surrounding said opening. This rim flange 4 is technically known as a paper margin mask or rim top section of the print paper

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holder. Located within and of approximately the same dimensions as those of the interior of said frame is a bed plate 5, spring-urged means being provided for adjusting said bed plate upwardly against said rim flange to accomplish automatic leveling of said plate in high level position, (Fig. 1) comprising a transverse rotatable rod 6 having end bearings in the side walls of said frame, said rod having an upstanding crank arm 7 provided with forward and rear spaced bifurcations 8 loosely embracing a downturned lug 9 of said plate, and a coiled spring 10 connecting said crank arm with the front wall of said frame. The rod 6 is provided with a crank handle 11.

In operation, the image is first focused upon the white-colored top surface of the bed plate 5 in the high level position of Fig. 1. Upon manipulation of handle 11, the rod 6 and its crank arm 7 will be rotated forwardly against the tension of spring 10 to accomplish forward and simultaneously lowering movement of said plate by gravity to the low level position of Fig. 2 for insertion of the print paper through the open end of said frame upon said plate, the fall of the plate being limited by the rear bifurcation 8 and opposite lateral pins 12 of the side walls of said frame. Upon release of handle 11, the plate 5 will be raised by said spring-urged means through the medium of a cam upper edge 8' of the forward bifurcation 8 engaging said plate to cause the print paper to contact said rim flange and accomplish automatic leveling of said plate and the print paper thereon in the intermediate level position of said plate shown in Fig. 3 and bring the sensitized surface of the print paper in precisely the same plane as that wherein the white-colored top surface of said plate was previously located. The automatic leveling of said plate and consequently of the print paper thereon is due to the fact that said rod 6 through the medium the slotted upper end of its crank arm 7 engaging depending lug 9 has loose operating connection with said plate, and said plate under the influence of spring 10 connecting crank arm 7 with said frame will continue to rise until leveled by said rim flange.

In the raising of the plate 5 with the print paper thereon, automatic leveling of the print paper and the plate 5 whereon it rests is accomplished due to contact thereof with said rim flange 4 between which and said plate 5 the paper is spring clamped.

The insertion of the print paper in frame 1 through its open end 2 is facilitated by semi-circular end extensions 5' of said plate one at

each side thereof and a central semi-circular notch 5'' between said end extensions, the rim flange 4 immediately above said notch being provided with a cut-away portion 4' to permit the thumb of the hand of the operator used in inserting the paper to grasp the upper surface of the print paper.

The frame 1 may be made of any suitable material, either metal or plastic and in the case of the latter material, the side walls and top and end wall of the frame will be thicker than in the case of metal. The top of the frame 1 as shown is constituted by said rim flange 4. As shown this rim flange 4 of the frame 1 is secured to the side walls of the frame by means of screws, but may be integral therewith, as in Fig. 7.

The lower surface of the rim top section or flange 4 of the frame 1 may be provided with a groove 4'' (Fig. 7) at the junction of top 4 and side wall of the frame 1, this groove extending around the two sides and the closed end wall of the frame 1 and being about one thirty-second of an inch wide and three sixty-fourths of an inch in depth. This groove is for the purpose of receiving the marginal portion of shim paper, should such be needed, to reduce the dimensions of the frame 1 in case the print paper used is cut slightly under size.

The frame 1 may be made in varying sizes, to fit standard print paper sizes, or a large frame may be provided with suitable means for contracting the size of the top opening 3. A stop lug may be provided on the lower side of the plate 5 to prevent said plate from sliding out of the frame 1 should it be operated in upside down position.

The side walls of the frame 1 are shown as provided with a base flange 12' for a better footing.

Obviously the plate 5 may be provided with spring-urged means having manipulable means for depressing it directly downwardly against the tension of its spring, without departure from the spirit of the invention.

I claim:

1. A print paper holder for use in taking photographic enlargements, comprising a frame having an open end and a rim flange around its top defining an opening, a bed plate fitting within said frame and having a white top surface adapted to have the image focused thereon, and means for adjusting said bed plate to three levels each parallel to said rim flange, namely against said rim flange for image focusing purposes, to a low level to provide room for insertion of the print paper through said open end upon said plate, and to an intermediate level to locate the sensitized top surface of the print paper in precisely the same plane as that wherein the top surface of the bed plate was previously located, said means for adjusting said plate comprising spring-urged means for raising said plate, said spring-urged means comprising a depending lug of said plate, a transverse rotatable rod having a crank arm provided with a slotted upper end loosely embracing said lug, and a coiled spring connection with said frame, said rod having a crank handle for rotating said rod and its crank arm to accomplish forward and simultaneously lowering movement of said plate against the tension of said spring connection, said plate upon release of said handle being raised by said spring-urged means to accomplish automatic leveling of said plate and the print paper thereon against said rim flange.

2. A photographic print paper holder, comprising a rectangular box frame having an open end and an open top provided with a rim flange, a bed plate working within said frame and having a white-colored top surface adapted to have the image focused thereon, and means for adjusting said plate to three levels, namely against said rim flange for image focusing, to a low level for insertion of the print paper through said open end upon said plate, and to an intermediate level to contact the print paper with said rim flange and locate the sensitized surface of the print paper in precisely the same plane as that wherein the white-colored top surface of said plate was previously located, said means for adjusting said plate comprising spring-urged means for raising said plate, said spring urged means comprising a transverse rotatable rod having a crank arm provided with loose operating connection with said plate and a coiled spring connection with said frame, said rod having a crank handle for rotating said rod and said crank arm to accomplish forward and simultaneous lowering movement of said plate against the tension of said spring connection, said plate upon release of said handle being raised by said spring-urged means to accomplish automatic leveling of said plate and the print paper thereon against said rim flange.

3. A photographic print paper holder, comprising a rectangular box frame having an open end and an open top provided with a rim flange, a bed plate working within said frame and having a white-colored top surface adapted to have the image focused thereon, and means for adjusting said plate to three levels, namely against said rim flange for image focusing, to a low level for insertion of the print paper through said open end upon said plate, and to an intermediate level to contact the print paper with said rim flange and locate the sensitized surface of the print paper in precisely the same plane as that wherein the white-colored top surface of said plate was previously located, said means for adjusting said plate comprising spring-urged means for raising said plate, said spring-urged means comprising a depending lug of said plate, a transverse rotatable rod having a crank arm provided with forward and rear spaced bifurcations loosely embracing said lug, and a coiled spring connection with said frame, said forward bifurcation having a cam upper edge, said frame having a fixed stop, said rod having a crank handle for rotating said rod and said crank arm to accomplish forward and simultaneous lowering movement of said plate by gravity against the tension of said spring connection, said rear bifurcation and said fixed stop limiting the fall of said plate, said plate upon release of said handle being raised by said spring-urged means through the medium of said cam upper edge engaging said plate to accomplish automatic leveling of said plate and the print paper thereon against said rim flange.

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