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PRESS FOR MOUNTING PHOTOGRAPHS

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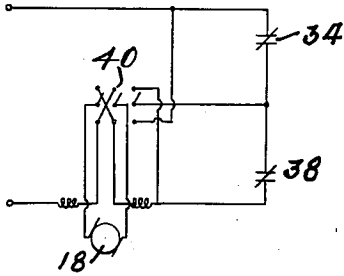


**Fig. 2**

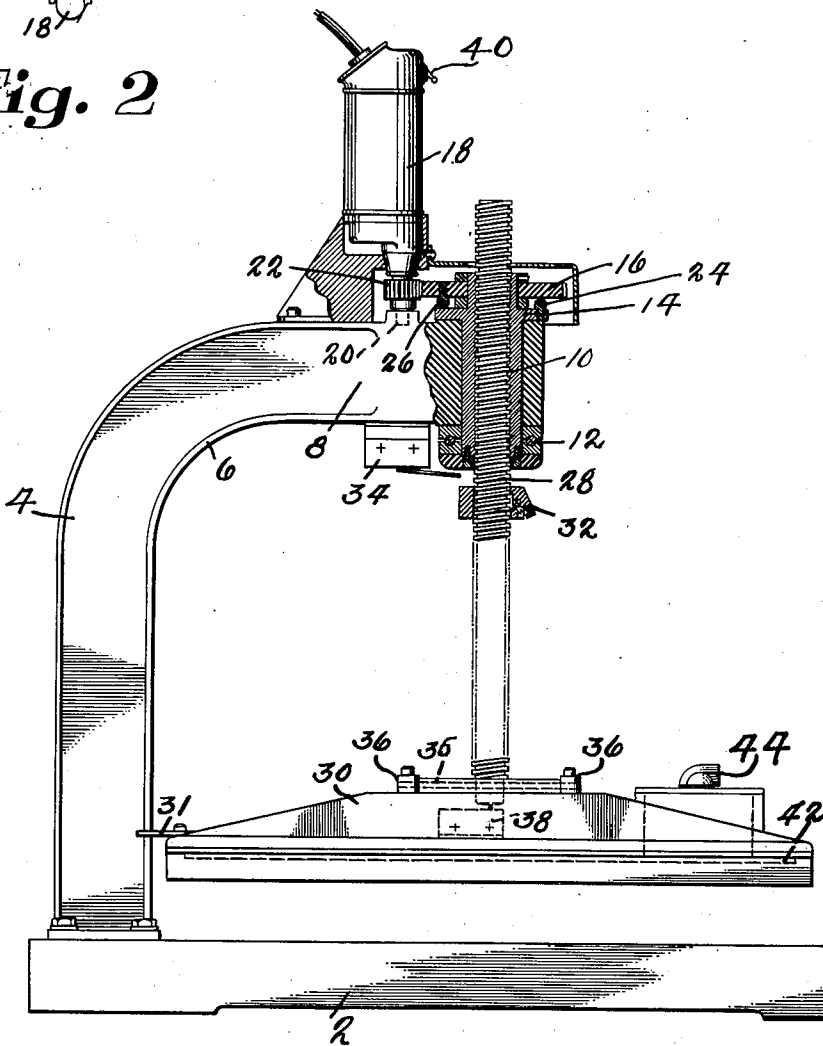


**Fig. 1**

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## PRESS FOR MOUNTING PHOTOGRAPHS

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1 Claim. (Cl. 154—1)

My invention relates to a press for mounting photographs upon suitable backings, such as cardboard, heavy paper, and the like, the press being adapted for dry mounting as well as cold glue mounting.

One of the objects of my invention is to provide a press for mounting photographs which is simple in construction, positive in operation, and electrically operated, so that it may be installed by simply plugging the press into an electric outlet.

A further object of the invention is to provide a photographic press adapted for handling photographs which may vary in size over a wide range.

A further object of the invention is to provide a photographic press in which I provide automatically operating means for limiting the pressure which may be applied to a stack of photographs and their respective backings or mounts, regardless of the height or thickness of the stack and irrespective of the size or sizes of the photographs composing the stack.

Other and further objects of my invention will be developed hereinafter.

In the accompanying drawings,

Fig. 1 is a part-sectional, elevational view of a photographic press embodying my invention; and

Fig. 2 is a wiring diagram.

Referring to the drawings in detail, 2 designates the base of my improved press, which functions as the lower platen of the press.

Rigidly secured to the upper face of the lower platen near one end thereof is a supporting column 4, which preferably has an I-beam cross-section, this member extending perpendicularly to the face of the lower platen for a substantial distance and then being curved inwardly, as shown at 6, until the upper end of the beam overlies the lower platen for a substantial distance, slightly more than half the platen width, as I have shown in the drawing. For clarity of description, this overlying or inwardly extending portion of the beam has been designated 8, and from an inspection of the drawings it will be seen that this portion of the beam is substantially parallel to the upper face of the platen or base 2.

Rotatably mounted in the upper end of the beam 4 is an elongated, vertically extending nut 10, provided at its lower end with thrust bearing 12. Adjacent its upper end this nut is flanged, as seen at 14, this flange resting upon the upper face of the inwardly extending portion of the member 4. Rotatably mounted on the nut 10 above the flange 14 is a gear 16. Rigidly mounted upon the upper face of the inwardly extending portion 8 of the supporting member 4 is a vertically disposed, reversible electric motor 18, the lower end of the armature shaft 20 of which projects into a socket or bearing in the upper face of the member 4. This end of the armature shaft carries a pinion 22, constantly meshing with the gear 16 on the nut 10.

The flange 14 on the nut 10 carries a lug 24, which projects above the upper face of the flange and cooperates

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with a lug 26, projecting from the lower face of gear 16. These two lugs provide a driving connection between the nut 10 and the gear 16 in such a manner as to permit substantially a full revolution of the gear before the lugs engage when reversing direction of operation. This provides an impact starting action, overcoming the friction of the clamping action of the press and thus permitting the use of a smaller driving motor than otherwise required.

The nut 10, which is internally threaded, receives an exteriorly threaded, vertically extending, platen-carrying member 28. As will be explained shortly, the upper platen 30 of the press is carried at the lower end of 28.

From the description so far given it will be seen that the reversible motor 18, through pinion 22, gear 16, and driving lugs 24 and 26, will rotate the nut 10 to raise or lower the platen-carrying member 28, depending upon the direction of rotation of the motor, the platen 30 and, hence, the platen-carrying member 28 being held against straddling rotation by a guide 31, carried by the platen and straddling one of the flanges of the member 4.

Threaded upon the platen-carrying member 28 is an adjustable stop 32, which cooperates with an upper limit switch 34, the function of which is to open the motor circuit when the platen-carrying member 28 has moved upwardly for a predetermined distance, which depends upon the setting of the stop 32.

The platen-carrying member is attached to the upper platen 30 through the medium of a spring metal member 35, which is secured to the upper face of the platen by lugs and bolts 36. The lower end of the platen-carrying member 28 is attached to the spring member 35 in any convenient fashion, its tip projecting below 35 so as to engage a pressure-limiting switch 38, which is set into the platen. Contact with this switch 38 is made when the press pressure reaches a predetermined maximum, as determined by a predetermined deflection of the spring member 35. It will be understood that, when the platen-carrying member 28 engages the normally closed pressure-limiting switch 38, the down-circuit of the motor 18 will be broken. The press will remain closed until the main switch 40 is closed to close the motor circuit for rotation of the motor in an up direction, the motor circuit remaining closed until the stop 32 engages the upper limit switch 34, whereupon the motor circuit will again be broken.

The platen 30 may be electrically heated by a heating element 42, set into the platen and controlled automatically by thermostatic switch 44, adapting the press for mounting photographs where an adhesive is employed which sets more rapidly if slightly heated.

From all of the foregoing it will be seen that my improved press is very simple in construction and operation and yet extremely well adapted for the mounting of photographs by both the professional and amateur. It will be appreciated also that my improved construction provides a construction requiring the minimum adjustment for adapting the press to stacked photographs of any height within the capacity of the press, my construction being such that the correct predetermined pressure will be applied to the particular job in hand, the pressure-limiting switch functioning only when the press is imposing the desired pressure.

It is to be understood that changes may be made in the details of construction and arrangement of parts hereinabove described within the purview of my invention.

What I claim is:

A press for the mounting of photographs upon suitable backings or mounts, said press comprising, in combination, a lower platen for the support of a stack of photographs

to be mounted; a supporting member affixed to the said platen and extending vertically relatively thereto, said supporting member being shaped to provide a portion which overlies and extends parallel to the face of the platen; an internally threaded nut or sleeve mounted for rotation about a vertical axis in said overlying portion of said supporting member; a gear rotatably mounted on said sleeve or nut; a vertically disposed, reversible electric motor mounted on said overlying portion of the said supporting member; a pinion on the shaft of said motor meshing with said gear; a lug on the lower face of said gear; a cooperating, upwardly extending lug carried by said sleeve or nut whereby rotation of said motor will cause said nut or sleeve to rotate; a non-rotatable but longitudinally movable, vertically extending rod threaded through said sleeve or nut; an upper platen above the lower platen; a spring metal member carried by the upper platen by which the lower end of said rod is yieldingly attached to the platen; an upper limit switch on the overlying portion of said supporting member; a stop for engagement with said limit switch adjustably mounted on said rod; and a lower limit and pressure-limiting switch

carried by the upper platen in position where it will be opened by the lower end of said rod when on the working stroke of the rod sufficient pressure has been applied to the photograph stack by the upper platen to deflect said spring metal member enough to allow the lower end of said rod to open said pressure-limiting switch, thereby opening the circuit of said motor.

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