H. D. MOUZON.

PHOTOGRAPHIC PRINTING CABINET.

APPLICATION FILED JAN. 15, 1910.

976,280.

Patented Nov. 22, 1910.

2 SHEETS—SHEET 1.

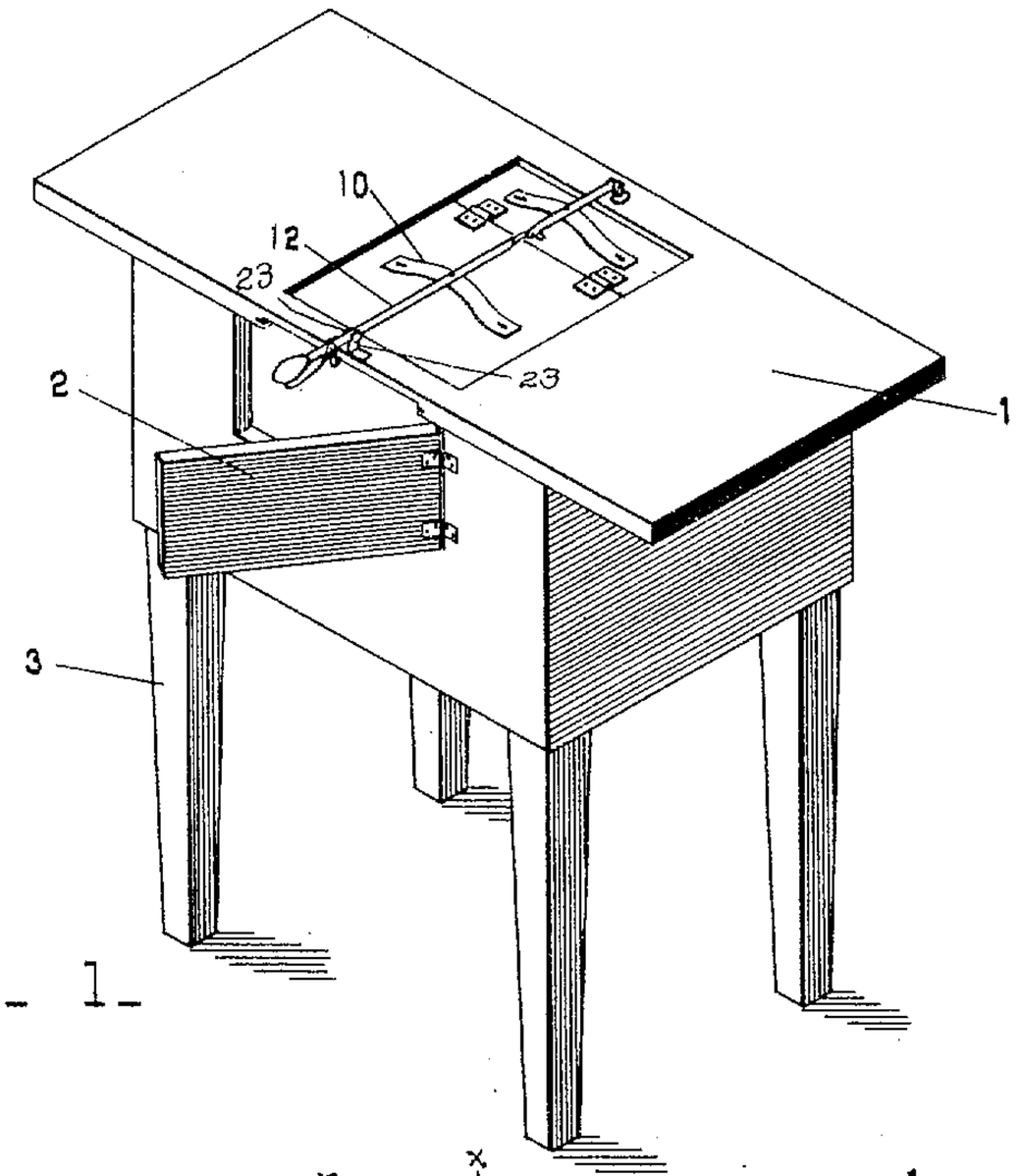

FIG. 1.

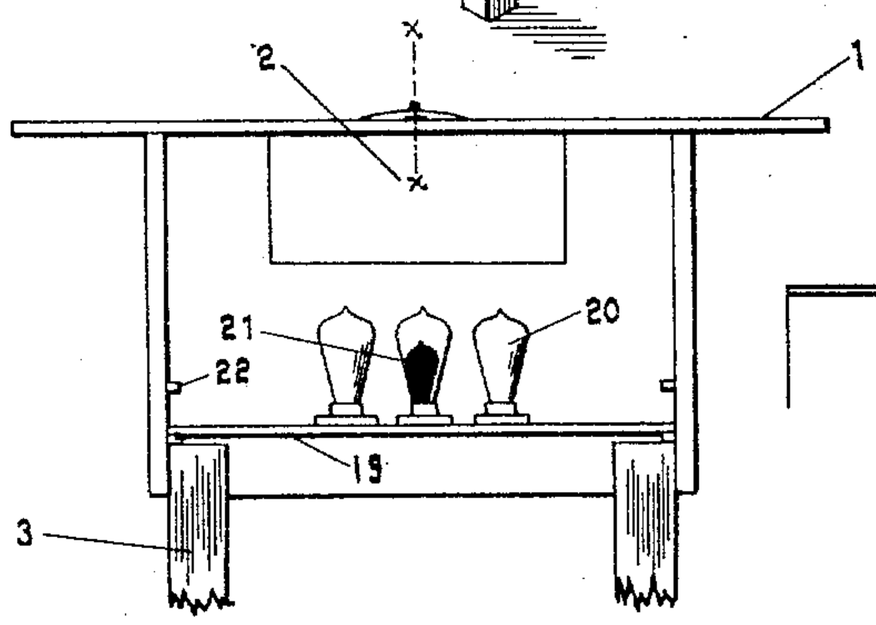

FIG. 2.

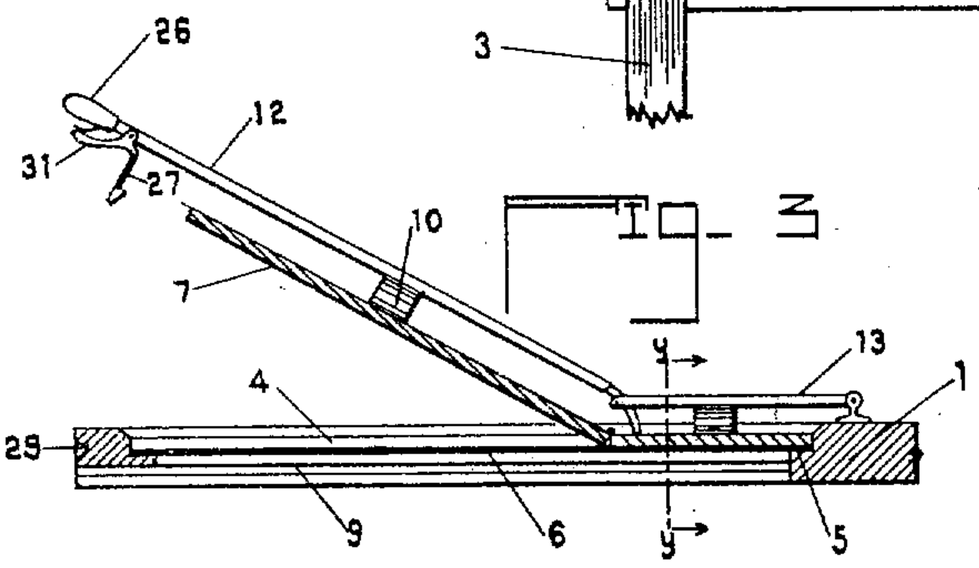

FIG. 3.

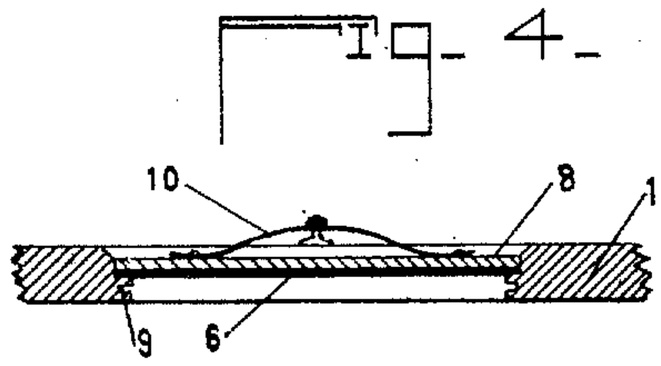

FIG. 4.

WITNESSES:

J. D. Murray

G. B. Coulson

INVENTOR

Henry D. Mouzon

BY John M. Spellman

ATTORNEY

H. D. MOUZON.

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2 SHEETS—SHEET 2.

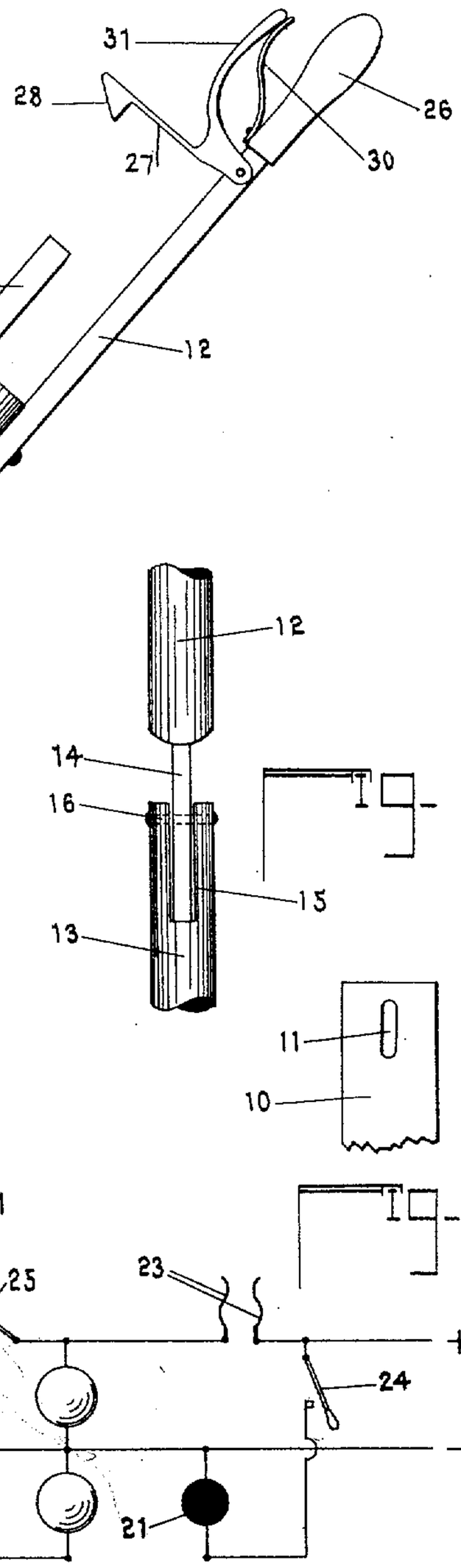

FIG. 5.

FIG. 6.

FIG. 8.

FIG. 7.

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J. S. Murray

G. B. Carlson

INVENTOR

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BY John M. Spellman

ATTORNEY

UNITED STATES PATENT OFFICE.

HENRY D. MOUZON, OF McKINNEY, TEXAS, ASSIGNOR OF ONE-THIRD TO JOHN H. FERGUSON AND ONE-THIRD TO G. M. ALSUP, BOTH OF McKINNEY, TEXAS.

PHOTOGRAPHIC-PRINTING CABINET.

976,280. Specification of Letters Patent. Patented Nov. 22, 1910.

Application filed January 15, 1910. Serial No. 538,219.

To all whom it may concern:

Be it known that I, HENRY D. MOUZON, a citizen of the United States, residing at McKinney, in the county of Collin and State of Texas, have invented certain new and useful Improvements in Photographic-Printing Cabinets, of which the following is a specification.

My invention relates to new and useful improvements in photographic printing cabinets. Its object is to provide a cabinet, containing a source of artificial light, and equipped with means for expeditiously printing photos by said light with a minimum labor.

Another object is to provide a photographic printing cabinet, having an aperture in its top, in which prints may be exposed to the light within, and having means for adjusting the distance of the source of light from the aperture, and for regulating its brilliancy.

A further object is to provide a manually operated lever for raising and lowering a pressure-back, employed to hold prints in contact with negatives in said aperture, said lever being adapted at the same time to open and close the circuit of electric lights positioned within the cabinet.

Finally the object of the invention is to provide a device of the character described, that will be strong, durable, simple and efficient, and comparatively easy to construct and also one, which will not be likely to get out of working order.

With these and various other objects in view, my invention has relation to certain novel features of construction and operation, an example of which is described in the following specification, and illustrated in the accompanying drawings, wherein:

Figure 1 is an isometric view of the cabinet, a door in the front thereof, giving access to the interior, being shown swung open, and the pressure-back being shown lowered. Fig. 2 is a rear view of the cabinet, the supports thereof being broken away. Fig. 3 is a vertical sectional view, taken on the line *x*—*x* of Fig. 2, showing the print-receiving aperture of the casing, with one section of the hinged pressure-back partially raised. Fig. 4 is a vertical sectional view taken on the line *y*—*y* of Fig. 3, the section being taken longitudinally of the cabinet. Fig. 5 is a detail side view of the hinged pressure-back and operating lever raised, showing how they are retained in this position. Fig. 6 is a detail rear view of the joint in the manipulating lever. Fig. 7 is a diagram of the electrical connections. Fig. 8 is a detail of the extremity of one of the bow shaped springs which transmit pressure from the lever to the pressure-back.

Referring now more particularly to the drawings, wherein like numerals of reference designate similar parts in all the figures, the numeral 1 denotes the top of the cabinet, which is extended somewhat beyond the sides to afford more room for prints or other accessories of photography. The back of the cabinet is open, and its front is provided with a door 2, to give the photographer access to the interior. Legs 3 support the cabinet at an elevation from the floor.

In the top of the cabinet, there is provided a rectangular aperture 4, and upon a ledge 5, extending around the edges of said aperture, a glass plate 6 is supported. Upon this glass plate, which is intended to expose the printing paper and negatives to the light there is adapted to rest a hinged pressure-back, consisting of a large section 7 and a small section 8. This pressure back is of the usual construction and fulfils the purpose of holding the printing paper and negative in close contact against the glass plate. At opposite sides of the aperture 4, are grooves 9 running transversely of the top 1 and extending to the front of said top. A portion of the underside of the top between the grooves is removed, so that the grooves may be extended to the front thereof. These grooves are adapted to receive sheets of card board such as are used in making vignettes, and special prints.

To each section of the pressure-back, bow-shaped springs 10 are secured by screws passing through slots 11 in the extremities of said springs. The slots permit the necessary outward displacement of the extremities of the springs, when pressure is applied to their centers. In order to raise the pressure-back from the aperture 4 or lower it into place, a two-part manipulating lever is provided composed of sections 12 and 13. These lever sections, one of which is secured to each of the springs 10, are connected by a joint of special construction. The lever section 12 is provided with a tongue 14,

which passes through a slot 15 in the extremity of the lever section 13. A rivet 16 passing through the extremity of the lever section 13 supports the tongue 14, and guides it when the lever sections are swung at an angle with each other. This joint permits the lever to be broken so as to raise or lower the pressure-back sections successively. When the lever is in its lowered position the two sections being in alinement, the extremity of the tongue 14 contacts with the end wall of the slot 15 and the rivet 16 forms a fulcrum so that the lever is rigid and an equal pressure is transmitted from the lever to each of the springs 10. The rear extremity of the lever is pivoted to a flat-topped standard 17. The form of the top of this standard is important as it furnishes a seat for the shoulder 18 of the lever, thus limiting the rearward rotation of the lever, and adapting the lever and pressure-back to hold the position illustrated in Fig. 5, when raised. When in this position, the extremity of the tongue 14 contacts with the section 8 of the pressure-back, preventing the section 7 thereof from swinging farther to the rear.

Upon a shelf 19, within the cabinet, are mounted a number of white incandescent lamps 20, and a red incandescent lamp 21. A plurality of supports 22 are provided for the shelf 19, so that the intensity of illumination acting upon the printing paper, may be varied by adjusting said shelf vertically. It is intended that the white lamps 20 be lit only during each separate printing operation, while the red lamp 21 will be lit as long as the operator is occupied with the work of printing. In order that the white lamps may be lit each time that the pressure-back and lever are lowered, a pair of adjacent contacts 23 are mounted upon the front of the cabinet top 1, being so positioned that the manipulating lever when lowered will pass between them. These contacts are in circuit with the lamps 20, as shown in Fig. 7, so that the lever coming between them closes the circuit of said lamps. The purpose of the red lamp is to furnish light while the operator is placing his paper and negative upon the glass plate 6, so that he may place these parts in proper contact. In Fig. 7 a switch 24 is shown controlling the circuit of the red lamp 21, and a switch 25 by which five of the lamps 20 may be cut out, when only a small amount of illumination is required for printing.

If the operator stands upon a non-conductive surface, there will be no possibility of his receiving a shock. To eliminate such possibility, under any circumstances, the manipulating lever is provided with a handle 26 composed of some insulating material such as hard rubber.

In order to retain the lever when in its lowered position and maintain the proper pressure upon the springs 10, a fastening is provided having the shape of a bell-crank pivoted upon the lever adjacent to the handle. The arm 27 of this bell-crank is provided with a projection 28 adapted to enter the pocket 29 in the front edge of the cabinet top, and a spring 30 acts upon the handle portion 31, of the bell-crank serving to retain the projection 28 in the pocket 29 when the lever is down. The handle portion 31 of the bell-crank is to be preferably covered with some insulating material, as a protection to the operator.

A most important feature of the above described invention lies in the manner in which the hinged pressure-back is raised from the aperture 4, and lowered thereinto. The smaller section 8 of the pressure-back first comes into contact with glass plate 6, as the pressure-back is being lowered, holding the printing paper and negative steady while the large section 7 is swung into place. Similarly when the pressure-back is being raised, its large section 7 is first swung up as shown in Fig. 3 exposing a portion of the printing paper and negative, and displacement of these parts is prevented until the smaller section 8 is raised from contact with the remaining portion of the paper and negative. The photographer may thus examine a print, before removing it from the frame, without changing its position relative to the negative.

Another feature of importance is the convenient position assumed by the pressure-back and its attached lever, when raised. As will be seen in Fig. 5, the pressure-back and lever are swung back sufficiently to leave the aperture 4 clear of obstruction, but are still well within arm's reach of the operator. Also the parts in question maintain this position of their own accord leaving both the operator's hands free to arrange his paper and negatives. Obviously, the negative employed may be either a film or glass plate, as desired.

It is apparent that the number of lights employed may be varied, and that the switch 25 may be arranged to cut out any desired number of these lights.

Various other changes may be made in the form and proportion of parts and details of the described device without departing from the spirit or sacrificing the advantages thereof. Therefore the right is reserved to make such changes and alterations in said device as fairly come within the scope of the following claims.

What I claim is;—

1. In a photographic printing cabinet, the combination with a casing having an aperture in its top, of a shelf within the casing adapted to be vertically adjusted, a source of white electric light carried by the shelf,

a source of red electric light carried by the shelf, a transparent plate supported in the aperture of the casing, a pressure-back superimposed upon said plate, consisting of hinged sections, a jointed lever, the sections of which are attached to the sections of the pressure-back, the adjacent extremities of the lever sections being adapted to slide upon each other when the lever is broken, circuits containing the sources of white and of red light, and contacts in the white light circuit adapted to be electrically connected when said lever is down and disconnected when the lever is up.

2. In a photographic printing cabinet, the combination with a casing, having an aperture in its top, of a door in the front of the casing, means for supporting the casing at an elevation from the floor, a source of white electric light within the casing, a source of red electric light within the casing, means by which said sources of light may be vertically adjusted, a transparent plate supported in the aperture of the casing, a pressure-back consisting of two hinged sections superimposed upon the said plate, a jointed lever, having one of its sections attached to each section of the pressure-back, and having its rear extremity pivoted upon the casing, the adjacent extremities of the lever sections being adapted to slide upon each other when the lever is broken, said lever being adapted to raise the pressure-back clear of the aperture of the casing, and contacts in the white light circuit, adapted to be electrically connected by lowering the lever.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY D. MOUZON.

Witnesses:
W. L. KEEN,
SAM NEATHERY.