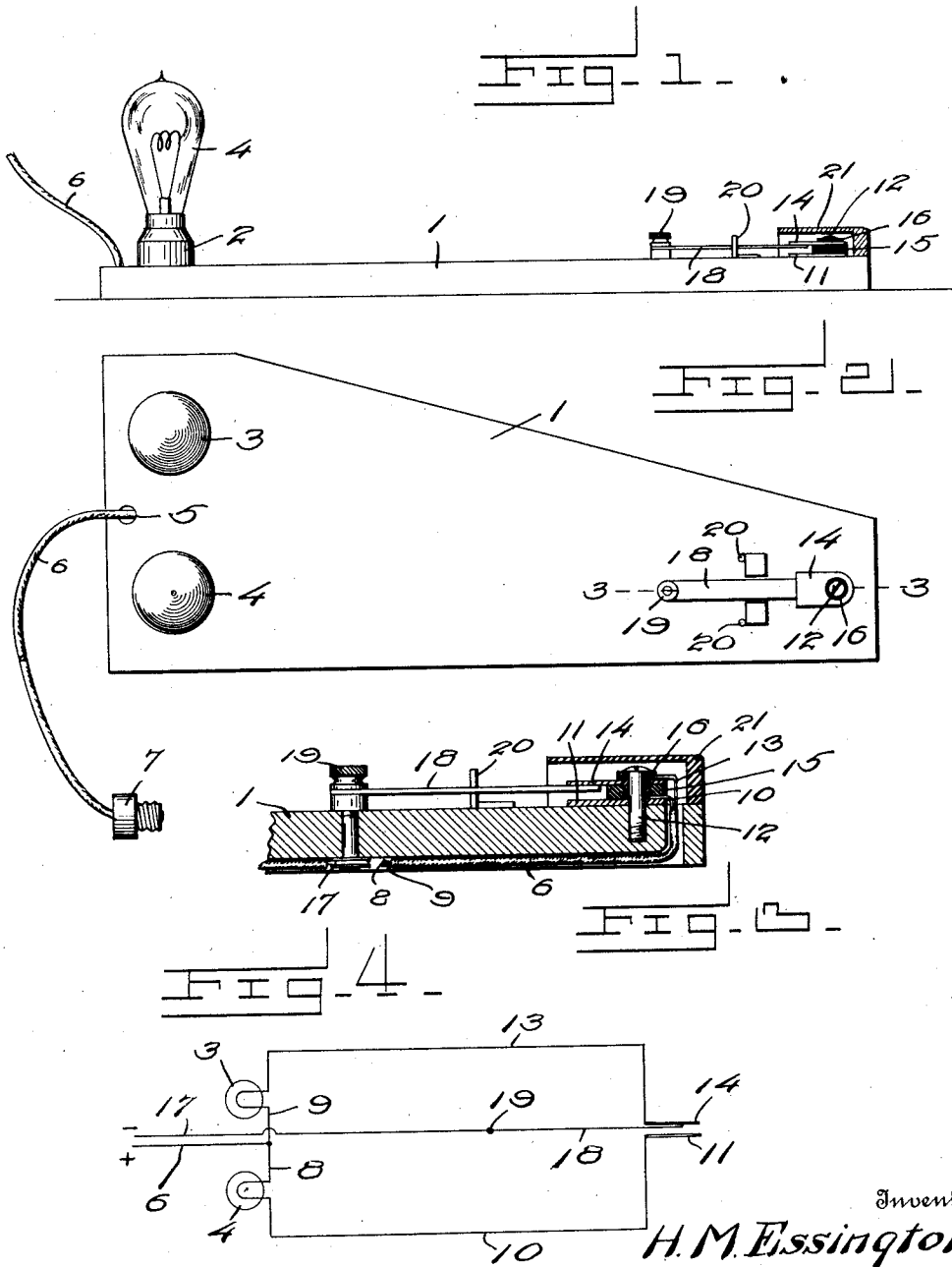


H. M. ESSINGTON.
 PHOTOGRAPHIC PRINTING DEVICE.
 APPLICATION FILED MAY 18, 1911.

1,034,771.

Patented Aug. 6, 1912.



Witnesses
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UNITED STATES PATENT OFFICE.

HARRY M. ESSINGTON, OF WELLS, MICHIGAN.

PHOTOGRAPHIC-PRINTING DEVICE.

1,034,771.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HARRY M. ESSINGTON, a citizen of the United States, residing at Wells, in the county of Delta and State of Michigan, have invented certain new and useful Improvements in Photographic-Printing Devices, of which the following is a specification.

My invention relates to improvements in photographic printing apparatus, and has for its leading object the provision of an automatically operating electrical device by which the turning on and off of the red and white lamps employed in making the photo prints will be automatically controlled by the movement of the printing frame.

A further object of my invention is the provision of an improved electric photographic printing apparatus embodying red and white electric light bulbs in which the switching of the current from the red lamp series to the white lamp series will be automatically effected by the placing of the printing frame upon my apparatus, while the removal of the printing frame will serve to cause the current to be again thrown into the red lamp circuit.

Other objects and advantages of my improved photographic printing apparatus will be readily understood by reference to the following description taken in connection with the accompanying drawings, and it will be further understood that I may make any modifications in the specific structure shown and described within the scope of my claims without departing from or exceeding the spirit of the invention.

Figure 1 represents a side elevation of my complete apparatus. Fig. 2 represents a top plan view thereof with the stationary insulated casing removed. Fig. 3 represents a sectional view on the line 3—3 of Fig. 2, and Fig. 4 represents a diagrammatic view of the wiring.

In the drawings, the numeral 1 designates the wooden frame or base of my improved printing apparatus, said base having secured thereon the ordinary porcelain sockets or bases 2 for the red lamp bulb 3 and the white or ordinary electric light bulb 4.

Passing downward through the passage 5 at the end of the base between the pair of sockets 2 is the double conducting wire 6 having on one end the plug 7 for fitting in an electric light socket, said plug being of any ordinary construction.

The wiring of my improved printing apparatus will be best understood by reference to Fig. 4, from which it will be seen that one of the wires of the double wire 6 extends on the under side of the base and has a branch 8 connected to the socket 2 of the bulb 4 and has a second branch 9 connected to one of the electrical terminals of the socket of the bulb 3. Secured to the other terminal of the socket of the bulb 4 is a wire 10 which extends forwardly along the base and has its other end electrically connected to the lower plate 11 mounted upon the screw 12, while extending forwardly from the other electrical terminal socket of the bulb 3 is a wire 13 having its other end connected to the plate 14 which is also secured in position by the screw 12, a block of insulating material 15 being interposed between the outer ends of the plates to hold them in spaced relation, and an insulating sleeve provided with a flared head 16 fitting around the screw to prevent a circuit being established between the plates 11 and 14 by the said screw. It will thus be seen that the bulb 3 and the bulb 4 are each mounted in series in a circuit leading from one of the double wires 6 and including either the plate 11 or the plate 14, the two lamps being in different circuits. To complete the electrical circuit through one of the lamps, I pass the other wire 17 of the double wire along the base and electrically connect the same with the spring blade switch 18 by the binding screw 19, the wire 17 being secured to the lower end of the binding screw and the blade switch to the upper end thereof. Said blade switch 18 extends outwardly on the base and has its outer end disposed between the inner ends of the plates 11 and 14, the resilient force of the spring member 18 normally holding the same upward against the plate 14 to complete the circuit through the red lamp.

Rising from the base 1 on each side of the member 18 are the guide posts 20.

In the use of my printing apparatus, it is merely necessary to rest the printing frame against the guides 20 and push the same downwardly forcing the member 18 downwardly to first break the circuit of the red lamp and then to make a contact between the switch member 18 and the plate 11 to light the white lamp. To shut off the white lamp it is merely necessary to lift the printing frame when the member 18 will spring

upward and close the circuit of the red bulb.

To protect the user of my apparatus from electrocution, I place over the plates the protecting casing 21 as shown in Figs 1 and 3.

From the foregoing description taken in connection with the accompanying drawings the construction of my improved printing apparatus will be readily understood, and it will be seen that I have provided an efficient apparatus of this character which will readily commend itself to either professional or amateur photographers, in that my apparatus may be readily placed on an ordinary table and connected with an electric light socket to secure the current, and by the use of the said apparatus the various printing papers may be spread out over the table and worked with by the light given by the red bulb which will not damage the said papers, while, when the film and sensitized paper have been placed in the printing frame and the other papers disposed out of range of the light, it is merely necessary to place the printing frame in position on edge on my apparatus placed with its glass facing the light bulbs, when the weight of said printing frame will depress the switch member 18 and shut off the red light and turn on the white light. The printing frame is left in this position until the correct length of exposure is made and the frame is then raised, the switch automatically shutting off the white light and turning on the red.

To prevent undue amount of red light and thus the possibility of the white rays from the bulb 3 affecting the paper, I preferably employ a low candle power bulb 3 and a high candle power bulb 4.

I claim:—

1. A photographic printing apparatus, comprising a frame, a pair of lamp sockets secured on said frame, a current conducting

wire having a branch secured to one of the electrical terminals of each socket, spaced contact plates secured to the other end of the frame and electrically insulated, a wire connecting one of the sockets with one of the plates, a wire connecting the other socket with the other plate, a spring switch member having an end projecting between the plates and normally in engagement with one of the plates, a return current wire electrically connected to said spring switch member, and printing frame guides rising from the frame adjacent said spring switch member, whereby the placing of the printing frame against said guides will move the switch member into engagement with the other contact plate to break the circuit of the normally lighted lamp and cause the lighting of the other lamp.

2. A photographic printing apparatus, comprising a frame, a pair of lamp sockets secured on the frame in different circuits, a return current wire for the said circuits, a spring switch member secured to the ground wire, a pair of contact plates supported one above the other on the frame, said plates being electrically insulated from each other, the circuit of one of the lamp sockets including the upper plate and the circuit of the other lamp socket including the lower plate, the switch member being normally in engagement with the upper plate to complete and ground the circuit of its socket, and the weight of a printing frame resting on the switch member serving to depress the switch member and cut out this circuit and complete the circuit of the socket including the lower contact plate.

In testimony whereof I affix my signature, in the presence of two witnesses.

HARRY M. ESSINGTON.

Witnesses:

H. H. ALLYN,
W. W. OLIVER.