July 31, 1951 C. O. ROTHWEILER 2,562,821

HEATING DEVICE

Filed April 21, 1950

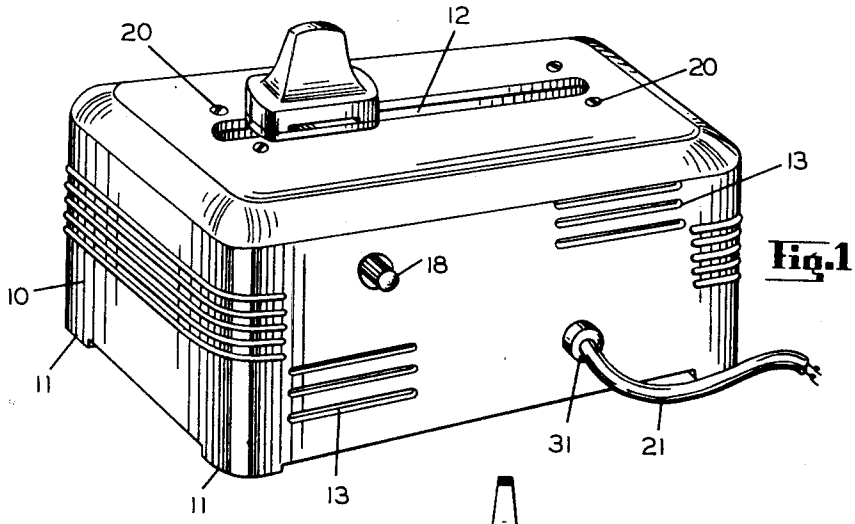


Fig. 1

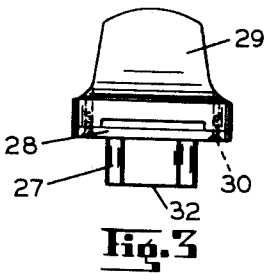


Fig. 3

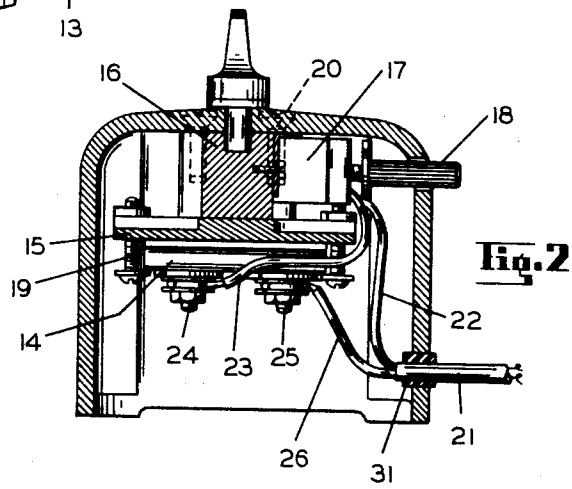


Fig. 2

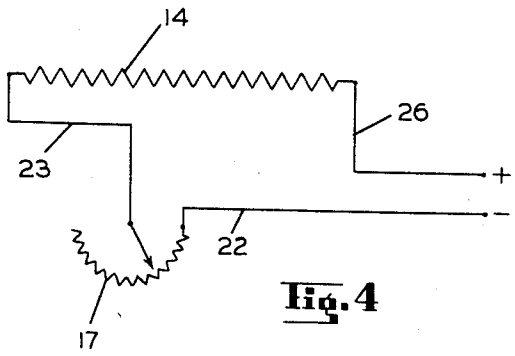


Fig. 4

INVENTOR.
CHARLES O. ROTHWEILER
BY
Christian R. Nelson
ATTORNEY

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HEATING DEVICE

Charles O. Rothweiler, Milwaukee, Wis., assignor to David White Company, Milwaukee, Wis.

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4 Claims. (Cl. 219—19)

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My invention relates to improvements in heating devices and more particularly to a device for heating the depending ends of individual portable attaching elements.

The object of my invention is to provide a device that is equipped with an adaptor slot for retaining specially designed attaching elements in proper position while heating them.

Another object of my invention is to provide a device of the character described that will accommodate a plurality of individual attaching elements, or a single holder that is equipped with properly spaced elements.

Another object of my invention is to provide a device that permits regulation of the temperature for the proper heating of the attaching elements.

A still further object of my invention is to provide a device that is portable, easily transported and accessible for use wherever electric current is available.

In the process of applying photographic film to masks or holders for projecting purposes, it is common practice to adherently attach the film to the gummed surface of the mask, and the device described herein facilitates a means of heating the depending contact surfaces of the attaching elements employed for the purposes of adherently attaching the film to the gummed surface of the mask by means of heat.

Other and further objects of my invention will become more apparent as the description proceeds and when taken in conjunction with the drawings in which

Figure 1 is a perspective view of the device with an attaching element in position within the elongated adapter slot.

Figure 2 is a cross-sectional view of the device as shown in Figure 1, showing the attaching element in position within the adapter slot.

Figure 3 is a side view of the attaching element, and

Figure 4 is a diagrammatic design of the current conveying circuit for energizing the heating element.

Similar characters of reference indicate corresponding parts throughout the several views and referring now to the same, the character 10 shows an enclosure which is shown of rectangular construction. It may be of any shape or contour and is shown provided with leg portions 11 to raise the open end of the enclosure from the surface to which it is applied.

The upper face of the enclosure 10 is shown equipped with an elongated adapter slot 12 which

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extends longitudinally along the top of the enclosure. There are ventilating slots 13 shown disposed through the wall of the enclosure to permit air circulation within the enclosure, while the heating element 14 is heated by means of electric current. There is a heating plate 15 which supports a heating block 16. This heating plate 15, and the block 16 are suspended below the adapter slot 12 and are provided with a conventional rheostat shown as 17 which has a control knob shown as 18 extending outward from the wall of the enclosure for regulating the amount of current conveyed to the heating element, thereby controlling the temperature of the heating block 16. There are bolts 19 shown supporting the heating element to the plate 15 and the screws 20 support the entire unit to the top of the enclosure 10. Obviously, the plate 15 and the block 16 are of a length corresponding with the slot 12 through the top of the enclosure.

A current supply lead shown as 21 leads from the source of current and provides a circuit by means of the cord 22 leading to the rheostat, and a cord 23 leading from the rheostat to a post 24 on the heating element 14, and from another post 25 on the heating element 14 a cord 26 extends to the current conveying means 21.

The attaching element to be heated shown in Figure 3 as 27 has a metallic plate portion 28 and a plastic grip portion 29, and the screws 30 are employed to support the plate 28 to the grip portion 29. The attaching element 27 is of a design to fit within the adapter slot 12 of the enclosure 10 and the face 32 of the element 27 rests onto the block 16, whereby the radiated heat of the block 16 is conveyed to the element 27. In the drawing, I show a single attaching element 27. This may be of a length to correspond with the slot 20, or a plurality of shorter elements 27 equipped with grip portions 29 may be inserted into the slot 20 and thereby contact the block 16 all at one time.

Obviously the cord 21 passes through the wall of the enclosure and is insulated therefrom by means of the insulator cushion shown as 31.

In the chosen embodiments of my invention there are many features not heretofore disclosed in the prior art, and although I have shown a specific arrangement of the component parts constituting the device, I am fully cognizant of the fact that many changes in their form and configuration may be made without effecting their operativeness, and I reserve the right to make such changes without departing from the spirit

of my invention or the scope of the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent in the United States is:

1. A device of the character described comprising in combination an enclosure, an elongated adapter slot disposed through the top of said enclosure, a heating block supported within said enclosure at a point below said slot, a heating element attached to said block and current conveying means to permit energizing said heating element when current is applied.

2. A device of the character described comprising in combination an enclosure, an elongated adapter slot disposed longitudinally through the top of said enclosure, ventilating apertures disposed through the side walls of said enclosure near the top and bottom thereof, a heating block supported within said enclosure at a point below said slot, a heating element attached to said block, and current conveying means to permit energizing said heating element when current is applied.

3. A device of the character described comprising in combination, an enclosure, an elongated adapter slot disposed longitudinally through the top of said enclosure, ventilating apertures through the side walls of said enclosure near the top and bottom thereof, a heating element, a heating block, said heating block disposed above said heating element, said block and heating element supported within said enclosure, said block extending longitudinally below said elongated adapter slot, and current conveying means to permit energizing said heating element when current is applied.

4. A device of the character described comprising in combination an enclosure, an elongated adapter slot disposed longitudinally through the top walls of said enclosure, apertures extending through the side walls of said enclosure near the top and bottom thereof for permitting air circulation within said enclosure, a heating element, a heating block disposed above said heating element, said block and heating element attached to one another and supported within said enclosure, said block extending below said elongated adapter slot, a current conveying means for energizing said heating element when current is applied, and a rheostat disposed within said enclosure and forming a part of the current conveying circuit for regulating the temperature of said heating element.

CHARLES O. ROTHWEILER.

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