Oct. 13, 1959 H. TORINO ET AL 2,908,791

DISPENSING HEATING CABINET

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Fig. 5

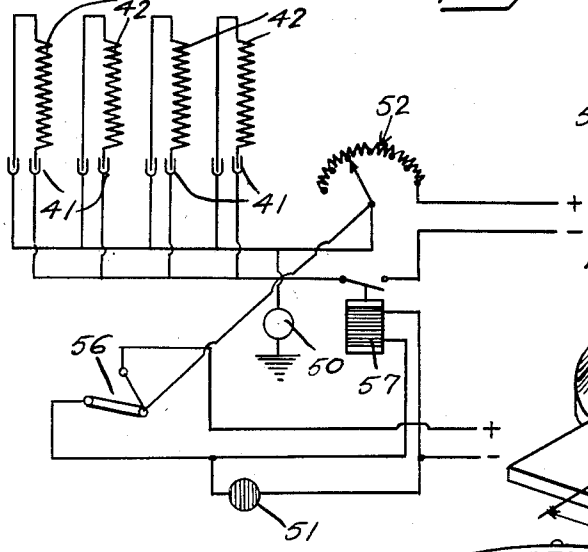
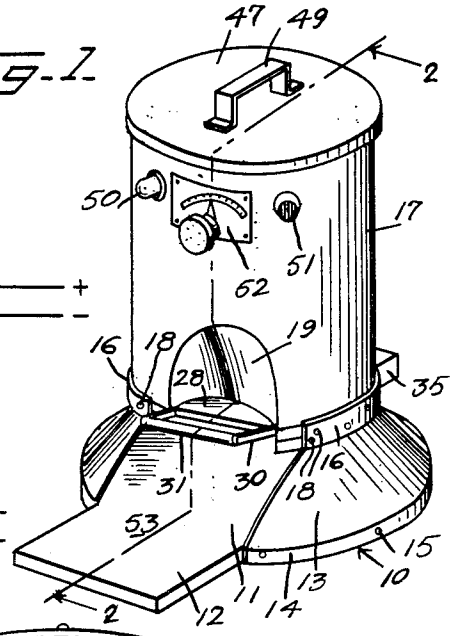


Fig. 1



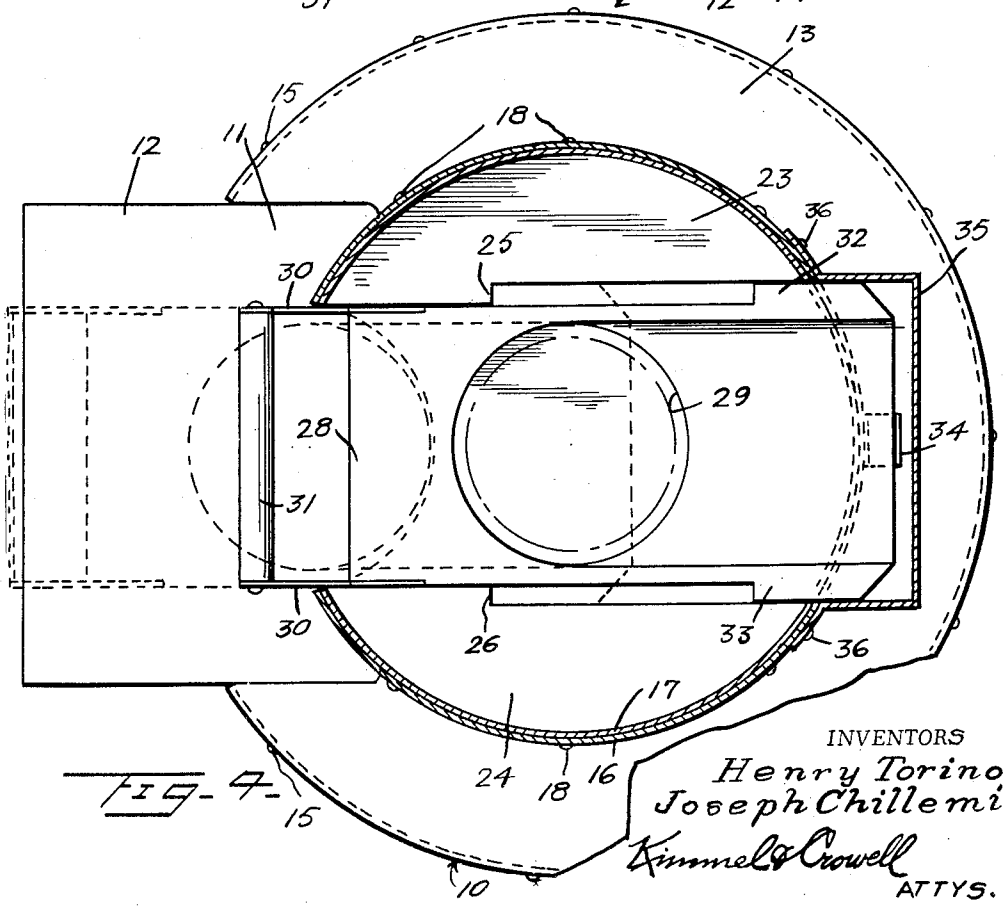


Fig. 4

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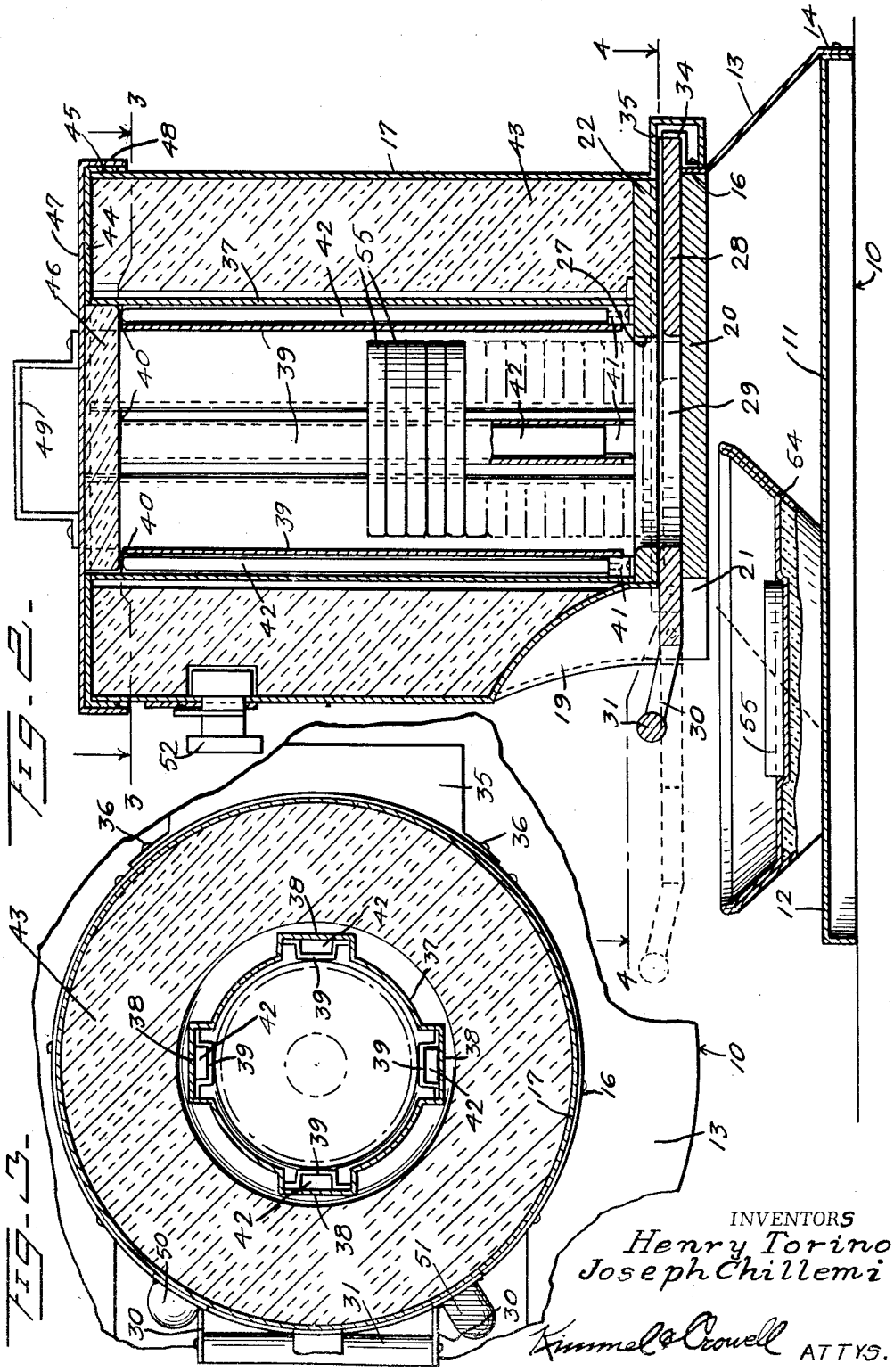


FIG. 2.

FIG. 3.

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DISPENSING HEATING CABINET

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2 Claims. (Cl. 219—19)

The present invention relates to dispensing heating cabinets, and more particularly to such a device for heating thermal elements for plate warmers.

The primary object of the invention is to provide an electrically heated cabinet arranged to support a stack of plate warming thermal elements and having means to dispense, individually, the thermal elements from the bottom of the stack.

Another object of the invention is to provide a cabinet of the class described above having automatic means for controlling the heat within the cabinet.

A further object of the invention is to provide a heating cabinet of the class described above having means to adjust the heat range to which the thermal elements are heated.

Other objects and advantages will become apparent in the following specification when considered in the light of the attached drawings, in which:

Figure 1 is a perspective view of the invention.

Figure 2 is an enlarged fragmentary vertical cross-section taken along the line 2—2 of Figure 1, looking in the direction of the arrows.

Figure 3 is a fragmentary horizontal cross-section taken along the line 3—3 of Figure 2, looking in the direction of the arrows.

Figure 4 is a fragmentary horizontal cross-section taken along the line 4—4 of Figure 2, looking in the direction of the arrows.

Figure 5 is a wiring diagram illustrating the circuits involved in the invention.

Referring now to the drawings in detail wherein like reference characters indicate like parts throughout the several figures, the reference numeral 10 indicates generally a dispensing heating cabinet constructed in accordance with the invention.

The cabinet 10 includes a generally circular base 11 having a rectangular extension 12 formed integrally therewith. An inwardly sloping wall 13 extends from one side of the rectangular extension 12 to the other side thereof peripherally of the base 11. A cylindrical flange 14 is formed on the lower edge of the wall 13 and is secured to the base 11 by securing elements 15.

The wall 13 is provided with a cylindrical upstanding flange 16 along its upper edge parallel to the flange 14 and having a substantially smaller diameter. A cylindrical housing 17 is positioned within the flange 16 and is secured thereto by securing elements 18. The cylindrical housing 17 is provided with an arcuate recess 19 adjacent the lower edge thereof and arranged in vertically aligned relation with the rectangular extension 12.

A circular bottom wall 20 is arranged in vertically spaced parallel relation to the base 11 and is secured in the lower end of the housing 17 by securing elements 18. The bottom wall 20 is arcuately recessed at 21 in vertically aligned relation with the recess 19 in the housing 17.

A generally circular wall 22 is positioned in spaced relation to the wall 20 lying thereabove in parallel relation thereto. A spacer block 23 is positioned between the walls 20 and 22 on one side, and a second spacer block 24 is positioned between the walls 20, 22 on the opposite side so as to maintain the walls 20, 22 in spaced parallel relation. The spacer block 23 has an offset end portion 25 and the spacer block 24 has an offset end portion 26, as best seen in Figure 4. The wall 22 has an axial bore 27 formed therein concentric with the housing 17.

A flat slide plate 28 is positioned between the spacer blocks 23, 24 and the walls 20, 22 for horizontal sliding movement therebetween. The plate 28 has a bore 29 formed therein with the same diameter as the bore 27 and adapted to align therewith.

The slide plate 28 has a pair of arms 30 extending in parallel relation from one end thereof mounting the handle 31 therebetween. The end of the slide plate 28 opposite the handle 31 is provided with laterally and oppositely extending stop members 32, 33 respectively arranged for engagement with the offset portions 25, 26 of the spacer blocks 23, 24 respectively, as shown in Figure 4.

A clip 34 is secured to the flange 16 in aligned relation with the slide plate 28 at the end thereof opposite the handle 31 to limit the inward movement of the slide plate 28 with respect to the housing 17. A generally rectangular housing 35 is secured to the flange 16 by securing elements 36 and the housing 35 encloses the end of the slide plate 28 opposite the handle 31 when the slide plate 28 is in its innermost position.

A generally cylindrical tube 37 is positioned concentrically of the housing 17 and is provided with a plurality of upright outwardly offset channel ways 38. Each of the channel ways 38 has a channel member 39 secured therein in upright relation and terminating at a point 40 spaced below the upper end of the tube 37.

An outlet plug 41 is positioned at the bottom of the tube 37 in the channel ways 38 and secured to the wall 22 so that an upright Calrod heating element 42 may be plugged therein to complete a circuit thereto.

The area between the housing 17 and tube 37 is filled with insulation 43 and a cover 44 is positioned over the housing 17 and supported thereon by means of a depending annular flange 45 engaging over the outer upper edge of the housing 17.

The cover 44 has an opening therein aligned with the tube 37 and the channel ways 38 so that an insulation block 46 secured to a second cover 47 may be engaged in the tube 37 and channel ways 38 to prevent loss of heat upwardly therefrom. The second cover 47 has an annular flange 48 depending therefrom and engaging over the annular flange 45 of the cover 44. A handle 49 is secured to the cover 47 to permit access to the tube 37.

A pilot light 50 is mounted on the housing 17 and a signal light 51 is also mounted on the housing 17 in spaced relation to the pilot light 50. A heat control mechanism 52 is secured to the housing 17 intermediate the pilot light 50 and signal light 51.

The sloping wall 13 extending from opposite sides of the rectangular extension 12 provides an opening indicated generally at 53 beneath the handle 31 and slide 28. An insulated plate 54 is positioned on the base 11 within the opening 53 so as to be centered under the bore 29 of the slide 28 when the slide 28 is in its outermost position, as shown in dotted lines in Figure 2.

A stack of plate warming thermal element discs 55 are positioned in the tubing 37 for vertical movement through the bore 27 into the bore 29 engaging against the wall 20. By sliding the slide plate forwardly, using the handle 31, the lowermost disc 55 can be slid from the bottom of the stack of discs and permitted to drop into the insulated plate 54, as shown in Figure 2.

Referring to the wiring diagram of Figure 5, the Calrod elements **42** are wired through their sockets **41** to an adjustable heat control device **52**. A switch **56** mechanically coupled to the heat control device **52** is wired through a magnetic circuit breaker **57** so that when the desired temperature is reached in the tubing **37**, the magnetic switch **57** will break the circuit to the Calrod elements **42**, and simultaneously the signal light **51** will be lit indicating that the desired heat has been reached.

Having thus described the preferred embodiment of the invention, it should be understood that numerous structural modifications and adaptations may be resorted to without departing from the scope of the appended claims.

What is claimed is:

1. A heating cabinet and dispenser for thermal discs comprising an upright cylindrical housing, a generally cylindrical tubular member positioned concentrically in said housing for storing thermal discs therein, a generally horizontal circular wall fixedly secured to the bottom of said housing, said circular wall having an axial bore extending therethrough, said bore having a diameter equal to that of said tubular member and being axially aligned therewith, a second circular wall spaced from said first wall, means interposed between said first and said second walls maintaining said walls in spaced parallel relation, said first and said second walls and said spacing means defining an elongated rectangular opening extending inwardly from one face of said housing, an elongated substantially rectangular plate disposed in said opening defined by said first and said second walls and said spacing means, a handle member fixedly secured to one end of said plate for moving said plate reciprocally in said opening, said plate having a bore extending therethrough adjacent said one end of said plate, said bore having the same diameter as said bore in said first wall, said plate being slidably engaged between said first and said second walls so that said bore in said plate may be aligned with said bore in said first wall to receive said thermal discs from said tubular member for dispensing upon reciprocal movement of said plate, said tubular member having a plurality of outwardly extending inwardly opening upright channel members located at spaced intervals around the circumference thereof, an exposed upright heating element secured in each of said channel members in said tubular member and extending the length thereof, a cover member engaged over said housing and said tubular member, a base member, means connecting said base member and said housing and suspending said housing in vertically spaced relation above said base member whereby a plate warmer may be inserted therebetween for receiving discs dispensed therefrom, means for connecting said heating elements to a power source, and adjustable heat control means disposed in said housing for controlling said heating elements.

2. A heating cabinet and dispenser for thermal discs comprising an upright cylindrical housing, a generally cylindrical tubular member positioned concentrically in said housing for storing thermal discs therein, a generally horizontal circular wall fixedly secured to the bottom of said housing, said circular wall having an axial bore extending therethrough, said bore having a diameter equal to that of said tubular member and being axially aligned therewith, a second circular wall spaced from said first wall, means interposed between said first and said second walls maintaining said walls in spaced parallel relation, said first and said second walls and said spacing means defining an elongated rectangular opening extending inwardly from one face of said housing, an elongated substantially rectangular plate disposed in said opening defined by said first and said second walls and said spacing means, a handle member fixedly secured to one end of said plate for moving said plate reciprocally in said opening, said plate having a bore extending therethrough adjacent said one end of said plate, said bore having the same diameter as said bore in said first wall, said plate being slidably engaged between said first and said second walls so that said bore in said plate may be aligned with said bore in said first wall to receive said thermal discs from said tubular member for dispensing upon reciprocal movement of said plate, said tubular member having a plurality of outwardly extending inwardly opening upright channel members located at spaced intervals around the circumference thereof, heating elements attached to said tubular member, a cover member engaged over said housing and said tubular member, a base member, means connecting said base member and said housing and suspending said housing in vertically spaced relation above said base member whereby a plate warmer may be inserted therebetween for receiving discs dispensed therefrom, means for connecting said heating elements to a power source, and adjustable heat control means disposed in said housing for controlling said heating elements.

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