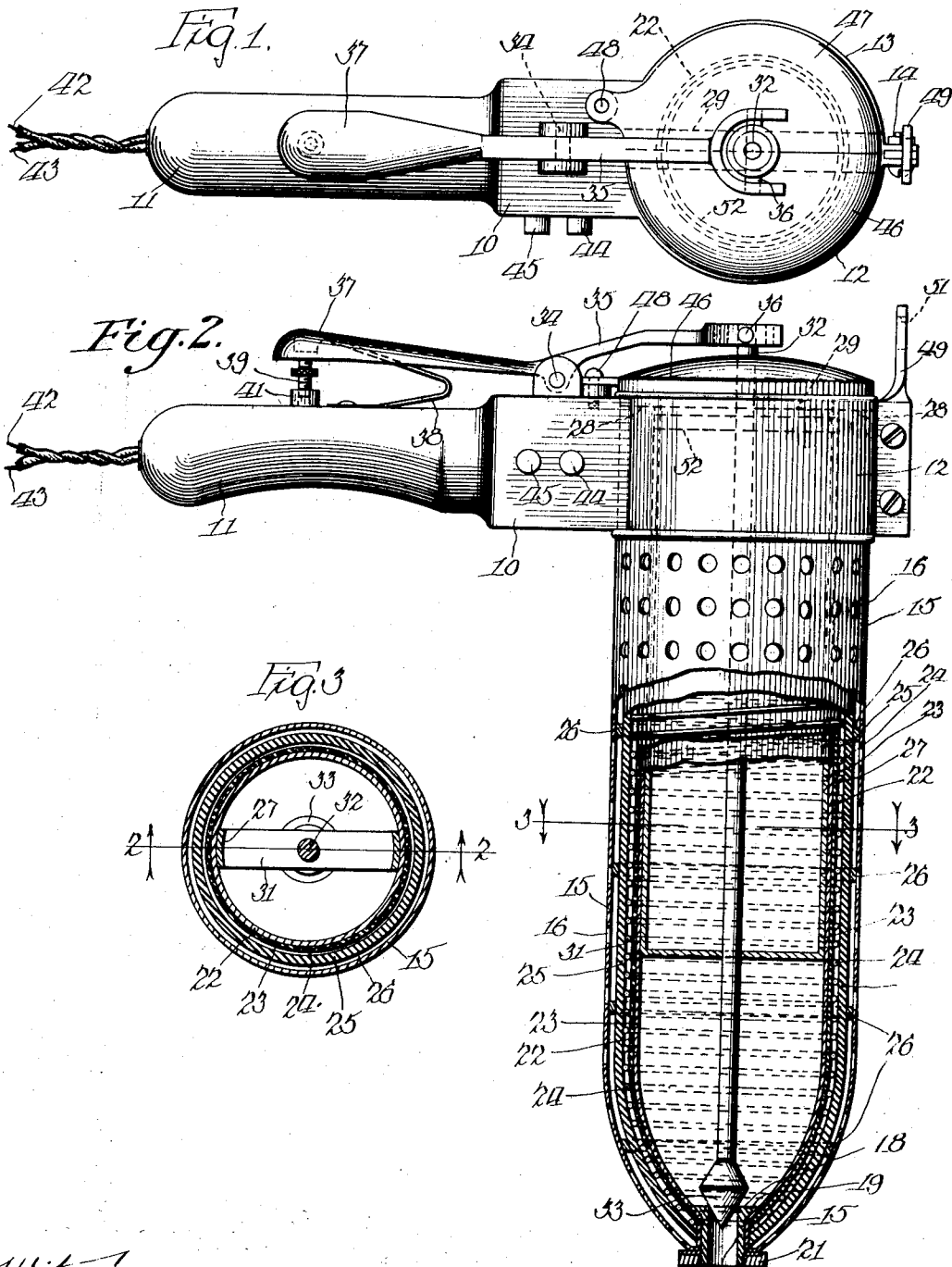


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SEALING WAX APPLIERS.
APPLICATION FILED JAN. 16, 1919.

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UNITED STATES PATENT OFFICE.

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SEALING-WAX APPLIER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CARROLL K. SPENCER, a citizen of the United States, residing at River Forest, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sealing-Wax Appliers, of which the following is a specification.

My invention relates to sealing wax ap-
10 pliers. It has for its primary object the provision of an improved device of this character which shall have improved means for holding melting and applying sealing wax. A further object is the provision of improved
15 means whereby the flow of melted sealing wax from a container may be readily and accurately controlled. A further object is the provision of an improved construction for a sealing wax applier whereby the wax
20 contained therein may be melted and applied to the object to be sealed without coming in contact with flame or being raised to a kindling temperature.

Another object is the provision of an im-
25 proved construction for sealing wax appliers which shall be conducive to convenient manipulation, cheap construction, compactness, and durability.

Other objects and advantages of my in-
30 vention will appear from the following description, taken in conjunction with the accompanying drawings, which form a part of this specification and illustrate the preferred embodiment of the invention.

35 In the drawings:

Figure 1 is a top plan view of the invention.

Fig. 2 is a side elevation thereof having the lower portion sectioned approximately
40 on line 2—2 of Fig. 3.

Fig. 3 is a section taken on line 3—3 of Fig. 2.

Reference numeral 10 indicates generally the supporting frame of the invention which
45 is preferably formed of wood or some other strong insulating material and carries a rearwardly projecting handle portion 11. A pair of semi-circular arms 12 and 13 project forwardly from frame 10 and are connected at their forward ends by a bolt 14
50 so that they form a sleeve for the support of parts about to be described.

Bound at its upper end between arms 12 and 13 is a vertically elongated outer metal
55 shell 15 preferably foraminated by means of

regularly spaced apertures 16. Shell 15 is greatly reduced at its lower end, which is preferably bullet shaped, and carries a vertically disposed tube 17 the upper end of which is sharply shouldered to provide a
60 valve seat 18. To assist in binding together the shell 15 and various parts to be described, the tube 17 is exteriorly flanged at its upper end as at 19. Below shell 15 an annular
65 foot 21 is threaded upon the lower end of tube 17. An inner metal shell 22 of the same shape as the outer shell 15 but somewhat smaller, is secured in any suitable manner within the outer shell and forms a
70 container for sealing wax. At its lower contracted end, the inner shell 22 is apertured for accommodation of tube 17 and is drawn about and below the arm 19 of the
75 tube, being held in position by rotation of foot 21 upwardly on the tube and by pressure thus communicated through the lower
extremity of outer shell 15 to the lower end of inner shell 22 and arm 19. A considerable
80 space is provided between the inner and outer shells and the outer shell is provided with a blanket 23 of insulating material. A plurality of coils of a wire shaped electrical
heating element 24 are disposed about the insulating blanket 23, these coils being covered
85 by a layer 25 of asbestos or other heat resisting material. By means of a plurality of spaced annular ribs 26 the layer 25 is
held against the electrical heating wire 24 and in spaced relation to the outer shell 15.
90 A narrow rectangularly shaped strip of metal 27 is vertically disposed within the inner shell 22 and is secured therein in any
suitable manner as for instance by means of ears 28 extending in opposite directions
95 from its upper end and brazed to or in any other manner secured within the inner shell 22. The short upper and lower reaches 29
and 31 respectively of the rectangular strip 27 are diametrically positioned within the
100 inner shell 22 and are centrally protruded to provide spaced upper and lower bearings for a valve stem 32 which at its lower end carries a conical valve 33 for coöperation
with valve seat 18 to control the passage of
105 melted sealing wax from tube 17. Medially pivoted as at 34 on the frame 10 is a valve lever 35 to the bifurcated forward end of which the upper end of the valve stem is
pivoted as at 36. A finger piece 37 forms
110 part of the valve lever 35 and extends rear-

wardly from pivot 34 substantially parallel with and above the handle 11. A spring 38 interposed between finger piece 37 and handle 11 operates to hold valve 33 normally against its seat 18. By means of a post 39 threaded into and extending upwardly from a boss 41 on handle 11, the depression of finger piece 37 is adjustably limited. At 42 and 43 are shown a pair of electric terminals by means of which electricity is conducted to the electrical heating element 24, frame 10 being preferably provided with an electric switch not shown but controlled by means of push buttons 44 and 45 for completing the circuit between terminals 42 and 43 and the heating element 24.

At its upper end the outer shell 15 is closed by means of a semi-circular cap 46 and a complementary semi-circular cover 47 pivoted as at 48 to the frame 10, the cap and cover being centrally recessed to accommodate the valve stem 32. Bound between arms 12 and 13 is an upwardly projecting plate 49 horizontally apertured as at 51. The sealing wax applicer may be readily hung upon the wall by hooking plate 49 upon a nail.

In the operation of my invention the cover 47 is opened and a quantity of cold sealing wax dropped into the inner chamber 22. The cover is now closed and the electric current applied to heating element 24 by manipulation of one of the buttons 44 and 45. The heat from element 24 melts the sealing wax, the latter flowing by gravity to the bottom of the chamber 22. The operator now supports the device by holding handle 11 in his hand and, positioning foot 21 above the point where wax is to be applied, he applies his thumb to finger piece 37 depressing the finger piece into contact with post 39 and raising valve 33 from its seat. When a sufficient amount of melted wax has passed through tube 17 on to the object to be sealed, the operator removes his thumb from the finger piece and spring 38 expands and forces valve 33 against seat 18 stopping the flow of wax. The blanket 23 of insulating material holds the heating element from direct contact with the inner metal shell 22 while the layer 25 of asbestos retards radiation of heat from the heating element. Any excess of heat imparted from the heating element to the asbestos layer 25, is dissipated by contact with the air contained in the space between layer 25 and outer shell 15, this air flowing readily through the apertures 16. The outer shell 15 is thus kept from becoming so hot as to burn the hand of the operator should he happen to touch it. The amount of heating wire 24 is apportioned to the size of the inner shell and the amount of electrical energy conveyed through terminals 42 and 43, so that the wax contained in chamber 22 may be constantly maintained

at the proper degree of fluidity without raising its temperature to the kindling point.

It will be noted that a sharp circular edge is formed by the valve seat 18 and that the conical configuration of valve 33 provides a valve seat and valve by means of which the flow of liquid wax through tube 17 is instantly and completely stopped. This particular type of valve is preferable to one wherein two relatively broad surfaces are brought into contact when the valve is closed into its seat, for in the present form of valve and seat no film of wax is caught between two broad surfaces but a conical surface is brought into contact with a knife-like circular edge so that the plastic material is completely severed when my valve closes. It will be seen that the push buttons 44 and 45 are so positioned with respect to handle 11 that the index finger of the operator may be extended to operate either of them while the base of his thumb and the remaining three fingers of his hand retain a firm grasp upon the handle 11. A very convenient arrangement is thus found for the operator may connect or disconnect the electric current from the heating element 24 and may control valve 33 as well as support and move the whole device at will, performing all these operations by the use of one hand leaving the other continually free for manipulation of the articles to be sealed.

At 52 in Figs. 1 and 2 is indicated a stiffening ring positioned in the upper end of the inner shell 22 and which, if desired, may be braced to and from a portion of the rectangular strip 27.

While I have illustrated and described the preferred embodiment of my invention it will be obvious that one skilled in the art may make modifications thereof without departing from the spirit of the invention. I wish therefore not to be restricted to the precise embodiment shown except in so far as the same is limited in the appended claims.

I claim:

1. In a sealing wax applicer, the combination with a foraminated outer shell apertured at its lower end, of a vertically positioned tube traversing the aperture of said outer shell, and exteriorly flanged at its inner end, an inner shell spaced from the outer shell and surrounding said tube below the flange thereof, and an annular foot threaded upon the lower end of said tube and exerting pressure through said outer and inner shells against the flange of the tube.

2. In a sealing wax applicer, the combination with an inner shell forming a container for sealing wax, of a blanket of insulating material surrounding said inner shell, an attenuated electrical heating element disposed about said blanket, a layer of heat resisting material covering said heating element, and

a foraminated outer shell surrounding said heat resisting material and spaced therefrom.

5 3. In a sealing wax applier, the combination with a valved container for melted sealing wax, and an electrical heating element for said container, of a frame supporting the container and element, a valve for control of the passage of liquid sealing wax
10 through a vent provided in the container, a handle projecting from the frame, a valve actuating lever mounted on the frame and having a finger piece positioned for manipulation by the thumb of the operator while

his hand grasps said handle, and an electric 15 switch mounted in the frame and comprising a push button positioned for operation by a finger of the operator while his hand grasps said handle, said push button and finger piece being both positioned in such 20 relation to said handle that they may be operated from the normal position occupied by the operator's hand in supporting the sealing wax applier.

In testimony whereof I have affixed my 25 signature.

CARROLL K. SPENCER.