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OUTLINING IMPLEMENT FOR SURFACE ORNAMENTING PROCESSES

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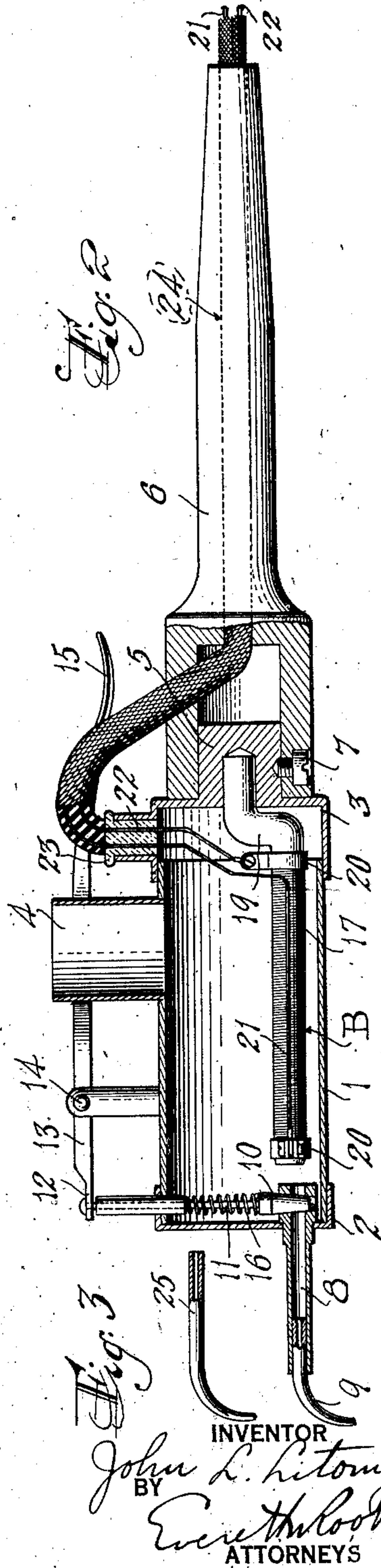
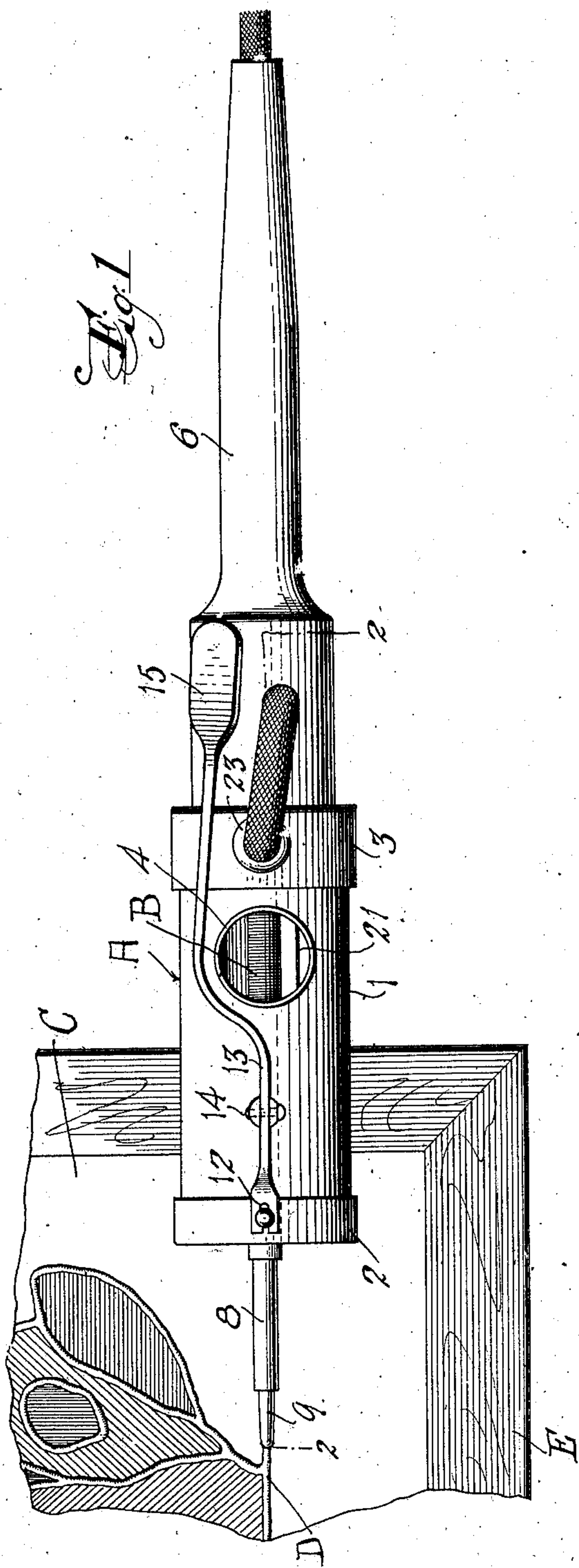


Fig. 3

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OUTLINING IMPLEMENT FOR SURFACE-ORNAMENTING PROCESSES

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This invention relates particularly to an implement, tool or apparatus for drawing melted wax outlines on silk in the known processes of ornamenting silk by hand-painting colored designs thereon.

One object of my invention is to provide a novel and improved implement or device of the character described which shall both reduce the expense and eliminate the danger attending the known methods of applying wax outlines in the process of painting silk.

Another object is to provide such an implement or apparatus comprising a novel and improved combination of an electrically heated reservoir for the wax and means communicating therewith for conducting the wax therefrom and applying it to the silk.

Further objects are to provide an implement of this character having novel and improved features of construction whereby the reservoir and said means can be held in and manipulated by the hand of the operator; to provide such an implement wherein said means conducting and applying the wax is a nozzle or nib attached to said reservoir so that the melted wax may flow by gravity through said nozzle and spread thereby upon the silk; to provide an outlining implement of the character described including means for regulating the flow of melted wax therefrom; to provide in such a device a plurality of nozzles whereby lines of different widths or thicknesses can be drawn; to provide a simple, inexpensive and reliable construction, and to obtain other advantages and results as will be brought out by the following description.

Referring to the accompanying drawing, in which corresponding and like parts are designated throughout the several views by the same reference character.

Figure 1 is a top plan view of an implement or machine embodying my invention, for applying wax outlines to silk.

Figure 2 is a transverse vertical sectional view taken on the line 2—2 of Figure 1, and

Figure 3 is a sectional elevation of one of the nozzles.

Specifically describing the illustrated em-

bodiment of the invention, the implement comprises a reservoir or fountain A for containing the melted wax, said reservoir being shown as comprising a cylindrical tube 1 having caps 2 and 3 secured to opposite ends thereof with liquid tight joints. A filling opening 4 is provided at one side of the reservoir for receiving the lumps of wax to be melted or melted wax which may have been previously heated for example on a gas stove as usual. One of the caps, in the present instance the cap 3 has an integral axial boss 5 upon which is fitted a heat insulated handle 6 formed of suitable material such as wood or fiber. Any suitable means may be provided for securing the handle to the boss, for example set screw 7. The other cap 2 has an outlet tube 8 projecting therefrom adjacent one side of the tube 1 in the outer end of which is removably fitted with a tapered friction engagement a nozzle or nib 9. Communication through the outlet tube 8 and the interior of the reservoir is controlled by a frusto-conical valve head 10 formed with a stem 11 projecting outwardly through the reservoir and having a pin and slot connection 12 with one end of a lever 13 pivotally mounted intermediate its ends at 14 and having a finger-piece 15 at its other end in convenient relation to the handle 6. The valve 10 is normally influenced into closed position by a compression spring 16, and may be opened by pressure of the finger of the operator on the finger piece 15.

Within the reservoir A is arranged an electric heating coil B of any suitable construction. As shown this coil consists of a helical winding 17 of high resistance wire upon a suitable rod 18 of insulating material such as glass. Preferably one end of the rod 18 is bent or offset as at 19 and fitted into the cap 3 so that the coil is located closely adjacent the bottom of the reservoir, that is the portion thereof nearest the outlet tube 8. This coil 17 is connected in an electric circuit by binding clips 20 to which are connected the respective circuit wires 21 and 22 which pass outwardly at the top side of the reservoir through an insulating plug 23 and then downwardly into the handle 6 and outwardly

through an axial opening 24 therein. The outer ends of the wires may be connected to a suitable known type of electric connector for connecting the wires to a source of electricity.

5 In operation of the implement, lumps of wax are placed in the reservoir through the filling opening 4 and the coil 17 is connected in an electric circuit. The heat from the coil quickly melts the lumps of wax into a thin liquid. When the wax has been sufficiently melted, the operator grasps the handle 6 in a manner similar to that in which a fountain pen is grasped, and opens the valve 10 by exerting pressure with the index finger on the finger-piece 15. The implement is slightly tilted and the wax flows by gravity outwardly through the outlet tube 8 and the nozzle 9. The nozzle is applied to the silk C (Figure 1) and drawn thereon in the desired direction according to the design to be produced so that the wax is spread upon the silk as indicated at D.

The width or thickness of line D to be drawn may be varied by changing the nozzle 9 for a larger nozzle 25 which projects into the outlet tube 8 farther than the nozzle 9. It takes longer for the wax to flow through the relatively longer passage in the nozzle 25, and as the nozzle is drawn over the silk at about the same speed for all operations, less wax will be supplied for any given time at the nozzle outlet of the nozzle 25 than at the outlet of the nozzle 9. Other nozzles of different length may be utilized for obtaining other variations in line thickness.

Should it be desired to remove or repair the coil 17 or the valve 10, the cap 3 is disconnected from the tube 1 so that when the cap 3 is pulled away from the cylinder, the coil 17 being mounted on the cap is bodily withdrawn from the cylinder. Access to the valve may be had through the then open end of the tube.

With this construction it will be observed that the wax will be maintained at a uniform temperature and consequently a uniform consistency, and will constantly freely flow by action of gravity through the nozzle 9 so that the operator may continuously perform without any attention being given to the consistency or supply of the wax. Furthermore the unyielding nib or nozzle 9 overcomes the difficulties resulting from varying pressures upon the brushes now used, so that lines of uniform thickness may be drawn.

Another advantage of my device is that the wax is such a thin liquid that several pieces of silk may be outlined at the same time by arranging the pieces in superposed relation on the frame E, the wax freely flowing through the several thicknesses whereby time and labor are saved. This is not possible with a brush as now used, only one thickness of silk being outlined at one time. Also the hand and arm of the operator

are entirely free in all directions which greatly facilitates in the production of the artistic designs, especially those involving complex curves; and where it is desired to draw a perfectly straight line, a ruler may be used and the nozzle 9 moved along the edge of the ruler as is a pencil. This also is not possible with the brush now used.

It should be understood that the specific details of construction herein illustrated and described are primarily for the purpose of illustrating the principles of the invention, and that many modifications and changes may be made in said details without departing from the spirit or scope of the invention.

Having thus described my invention, what I claim is:

1. A machine of the character described comprising a substantially cylindrical reservoir to receive lumps of wax, a tubular coaxial heat insulating handle secured to one end thereof of a size and shape to be gripped like a fountain pen, an outlet nozzle projecting longitudinally from the other end adjacent one side thereof an electric heater within said reservoir for heating the contents thereof and disposed at one side of the reservoir adjacent said nozzle, and electrical wires connected to said heater and passing through said handle.

2. A machine of the character described comprising a substantially cylindrical reservoir, a tubular coaxial heat-insulated handle secured to one end thereof and of a size and shape to be gripped like a fountain pen, an outlet nozzle projecting longitudinally from the other end adjacent one side thereof, a valve for controlling communication between said nozzle and said reservoir, an electric heater within said reservoir for heating the contents thereof and disposed at one side of the reservoir adjacent said valve, means including a finger-piece adjacent said handle at the side of said reservoir opposite said nozzle outlet for actuating said valve, and electrical wires connected to said heater and passing through said handle, whereby said machine can be held and manipulated like a fountain pen and said finger-piece can be operated by the index finger to control the valve.

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