Jan. 13, 1931. C. H. BEACH 1,789,269

ELECTRIC PAINT BURNER

Filed June 21, 1928

FIG. 1.

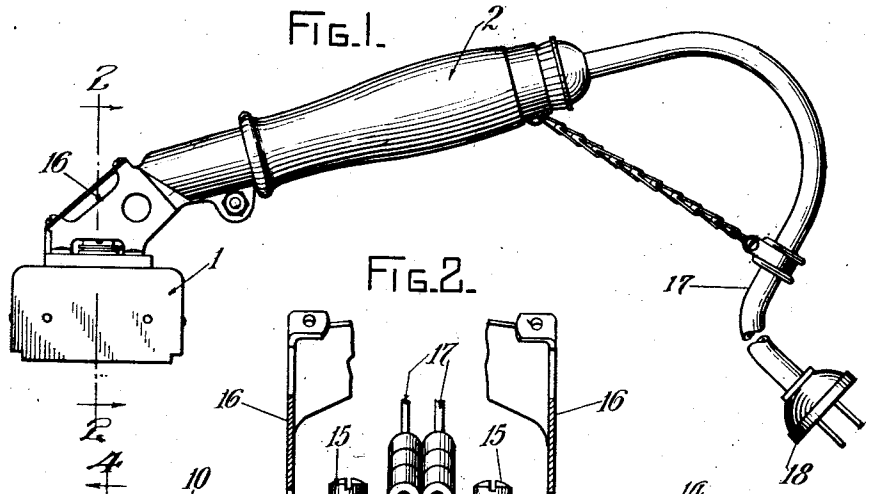


FIG. 2.

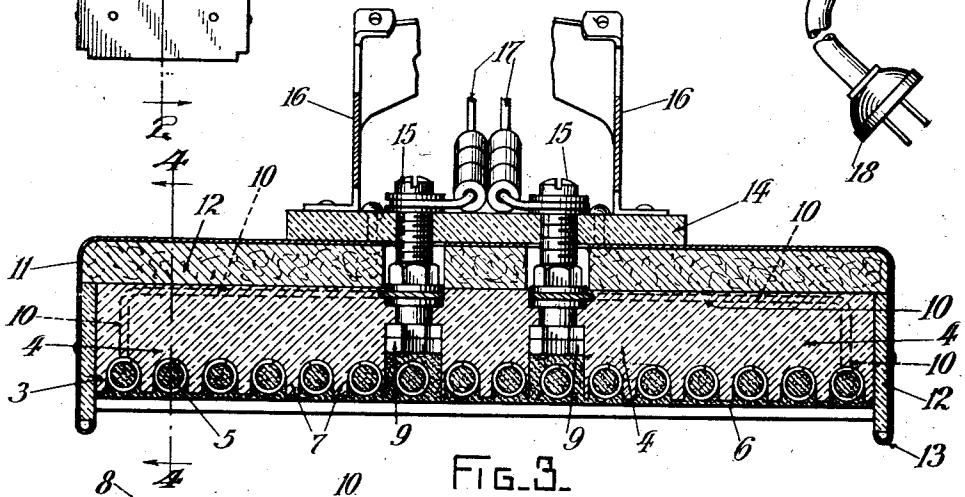


FIG. 3.

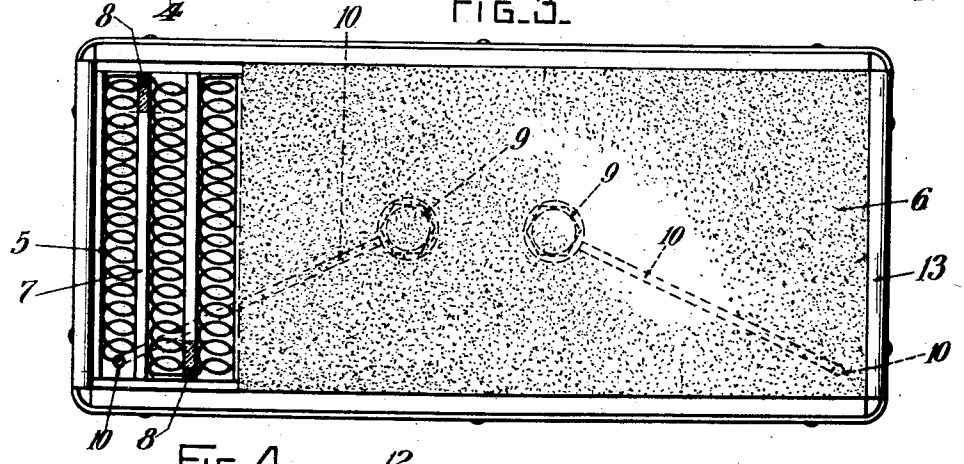
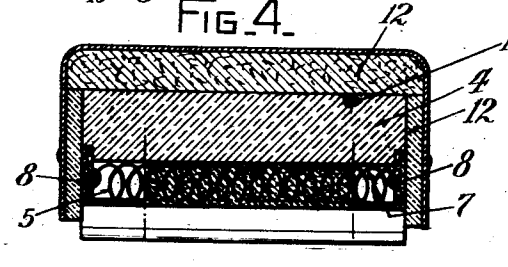


FIG. 4.



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ELECTRIC PAINT BURNER

Application filed June 21, 1928. Serial No. 287,145.

This invention relates to electric paint burners.

The paint burner to which the invention applies in particular has a heater arranged in a portable casing and a handle for moving the casing over the surface to be burned.

An object of the invention is to provide an electric paint burner which is compact and efficient.

Another object is to provide a paint burner from which the heater may be readily and easily removed.

Another object is to provide a paint burner which is sturdy and durable.

Another object is to provide a paint burner which may be readily and economically manufactured.

According to the invention as ordinarily practised, a portable casing carried by a handle has arranged therein a removable heater having a resistor embedded and enclosed within an insulating base, and the heater is held in place by bolts carried thereby and passing through the casing.

The invention is exemplified in the accompanying drawings in which the views are as follows:

Fig. 1 is an end view of a paint burner embodying the invention.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 3 is a view of the face of the paint burner with parts broken away to show certain details of construction.

Fig. 4 is a section on the line 4—4 of Fig. 2.

The paint burner comprises in general, a casing 1 having an open front, a handle 2 therefor, and an electric heater 3 removably carried by the frame.

The heater is provided with a refractory base 4, a resistor 5 arranged on the front thereof, and a heat conducting face 6 arranged over the resistor.

The base may be of porcelain or other suitable material.

The resistor 5 has helical coils arranged on the front of the base and separated by parallel ridges or partitions 7.

The partitions have recesses 8 in their ends through which the coils are connected in series.

The face 6 is of a heat conducting and electrical insulating composition, such as carborundum and a binder or other suitable substance of high thermal conductivity.

The insulating composition is applied while in plastic form after the resistor is in place, and is then dried to form a permanent face integral with the base and embedding the resistor.

The resistor is thus protected from being broken by contact with extraneous objects and from excessive oxidation by exposure to the air.

The face 6 conducts the heat away from the resistor rapidly to prevent overheating, and it provides a large radiating surface for the heater.

The resistor is connected in circuit by terminal bolts 9 which are fastened in the base 4 and secure the heater 3 in position within the casing 1.

The resistor coils are connected to the terminal bolts by wires 10.

The casing 1 has a metal outer shell 11 which is open at its front to receive the heater 3 and provided with a lining 12 of insulating material, such as asbestos or magnesia, to space the heater 3 from the shell 11.

The casing 1 has its ends extended downward beyond the heater 3 to form guides 13 for engaging the surface to be burned and spacing the heater 3 a predetermined distance therefrom.

An insulating plate 14 is arranged on the top of the shell 11, and the terminal bolts 9 are secured thereto by binding screws 15 to hold the heater in the casing.

The handle 2 is fastened to the frame by a bracket 16 arranged on the insulating plate.

Electrical conductors 17 attached to the terminal bolts by the screws 15 extend through the handle and terminate in a connecting plug 18 to connect the resistor to a source of electrical energy.

The paint burner set forth herein is susceptible of various modifications without departing from the scope of the invention as hereafter claimed.

The invention is hereby claimed as follows:

1. A paint burner, comprising a portable casing having an open front and guides to engage the surface to be heated, a handle carrying said casing and connected to the back thereof, a removable insulating base arranged within said casing, a resistor carried by said base upon the front thereof, a heat conducting substance embedding said resistor and forming a heat radiating face, and bolts arranged upon the back of said base and passing through said casing to hold said base in place.

2. A paint burner, comprising a portable casing having an open front and guides to engage the surface to be heated, a handle carrying said casing and connected to the back thereof, a removable insulating base arranged within said casing and having parallel grooves upon the front thereof, resistors arranged in said grooves, a heat conducting substance embedding said resistors and forming a heat radiating face, and bolts arranged upon the back of said base and passing through said casing to hold said base in place and connect said resistors in circuit.

3. A paint burner, comprising a portable casing having an open front and guides to engage the surface to be heated, a handle carrying said casing and connected to the back thereof, a removable insulating base arranged within said casing and having parallel grooves upon the front thereof, a heat insulating block arranged between said handle and said casing, resistors arranged in said grooves, a heat conducting substance embedding said resistors and forming a heat radiating face, and bolts arranged upon the back of said base and passing through said casing to hold said base in place and connect said resistors in circuit.

In witness whereof, I have hereunto subscribed my name.

CHESTER H. BEACH.