June 10, 1930. H. I. SURLS ET AL 1,762,646

ELECTRICAL PAINT AND VARNISH REMOVER

Filed July 16, 1928

Fig. 1.

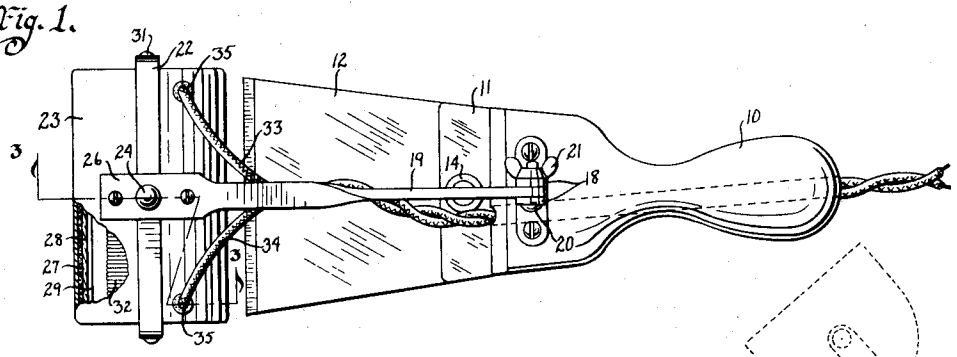


Fig. 2.

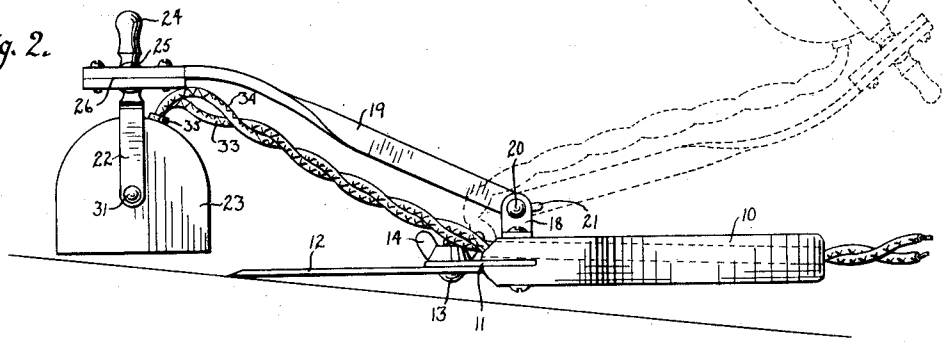


Fig. 3.

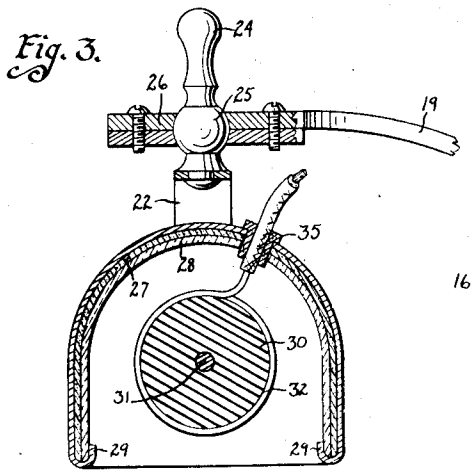
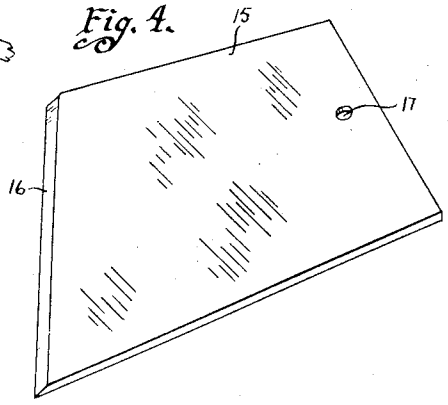


Fig. 4.



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UNITED STATES PATENT OFFICE

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ELECTRICAL PAINT AND VARNISH REMOVER

Application filed July 16, 1928. Serial No. 293,242.

The object of this invention is to provide an improved construction for a device for electrically applying heat to a painted or varnished surface immediately in advance of a scraping element for removing the paint or varnish.

A further object of this invention is to provide an improved method of mounting an electrical heating appliance in advance of a scraping element.

Still another object is to provide a paint or varnish scraper having an electrical heating device adjustably mounted thereon in such manner that it can be readily moved from operative to inoperative position or adjusted to any desired position for use.

A further object is to provide an improved heating unit for a device of the character described.

Still another object is to provide an improved construction for a casing having a lining constituting a reflector for the heat.

A further object is to provide a scraping device of the character described having a removable blade.

With these and other objects in view our invention consists in the construction, arrangement and combination of the various parts of our device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in our claim, and illustrated in the accompanying drawings, in which:

Figure 1 is a rear view of an electrical paint and varnish remover embodying our invention.

Figure 2 is a side elevation of the same, the dotted lines indicating inoperative position of the heating elements.

Figure 3 is a cross section through the heating elements on the line 3—3 of Figure 1.

Figure 4 is a perspective view of one of the blades detached from the device.

In the drawings, we have employed the numeral 10 to designate a handle which is shaped to fit the hand and which carries at one end, a shank 11, which preferably is wide and flat.

A scraping blade such as 12 is adapted to be mounted on the shank 11 as by means of a bolt 13 extending through registering holes and having a wing nut 14 mounted thereon.

We prefer to make the blades removable, as shown and just described, in order that new blades or blades of different character may be substituted from time to time, as desired.

In Figure 4, is shown a different blade 15, which has an inclined scraping edge 16 and a hole 17 to receive the attaching bolt 13.

Fixed to the forward end of the handle are spaced apertured ears 18 and an arm 19 is received between said ears and held therein by means of a bolt 20 having a wing nut 21 applied thereto. At its free end, the arm 19 carries a yoke 22 within which is rigidly mounted a casing 23.

The yoke 22 has a stem 24 extending outwardly from its central portion and said stem carries between its ends, a ball 25, which is swivelly mounted in a socket member 26 at the free end of the arm 19.

The casing 23 extends transversely and is adapted to be positioned immediately in front of the scraping edge of the blade such as 12 and has its forward face open, as shown in Figure 3.

The shell of the casing 23 is formed of metal and within said shell is mounted a lining sheet 27 of asbestos or similar material and within said lining sheet is a reflecting sheet 28 of mica or the like.

The edges of the shell 23 of the casing may be turned inwardly to form flanges 29, which embrace and hold the edges of the lining sheet 27 and reflecting sheet 28.

Mounted longitudinally within the casing 23 is an insulating core 30, which may be carried by a rod or bolt 31, which also serves to secure the casing to the yoke 22.

The core 30 carries a wrapping or coil 32 of light wire, which extends substantially from end to end of the casing. The heating coil 32 is connected at its ends to conductor wires 33 and 34, which extend through insulating bushings 35—35 mounted in the casing.

The conductor wires 33 and 34 extend rearwardly along the arm 19 and through a channel formed in the handle 10 and are provided

with suitable means, such as a screw plug (not shown) for establishing connection with an electric circuit.

In practical use, the device is employed in the manner shown in Figure 2, the electrical heating unit serving to apply heat immediately in advance of the edge of the scraping blade 12 for heating and softening a painted or varnished surface so that the paint or varnish is easily and quickly removed by the action of the blade.

Experiment has demonstrated that this makes it very easy to remove paint and varnish which will come off in long strips and thus, we have provided a means for removing paint and varnish with a minimum of time and labor expended.

The shape of the casing 23 is such as to direct all of the heat toward a relatively small surface immediately in front of and extending entirely across the blade and the reflecting surface 28 of mica is very effective in producing this result, while the insulating lining 28 is also beneficial in preventing the escape of heat in other directions.

The position of the casing may be adjusted somewhat by manual actuation of the stem 24 to cause the ball 25 to rotate in the socket member 26. If it be discovered that too much heat is being applied to the surface or if it is desired to use the blade for a time without the application of heat, the casing and heating unit may be thrown to inoperative position by moving the arm 19 rearwardly on its pivot to the dotted line position indicated in Figure 2.

We claim as our invention:

A device of the class described, comprising a handle, a scraping blade thereon, an arm pivoted on said handle, a socket member at the forward end of said arm, a yoke having a stem rising from its central portion, a ball on said stem swivelly engaging said socket member, a casing mounted between the arms of said yoke and adapted to be positioned immediately in front of the edge of said blade, a heating unit in said casing, and conductor wires connected to said unit.

Des Moines, Iowa, June 23, 1928.

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