April 28, 1936. E. EIDSCHUN 2,038,555

PAINT REMOVING IMPLEMENT

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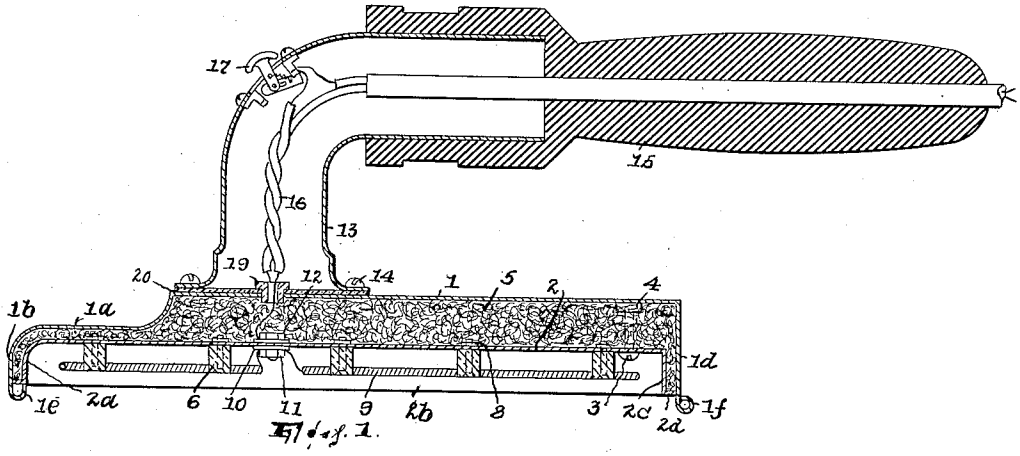


Fig. 1.

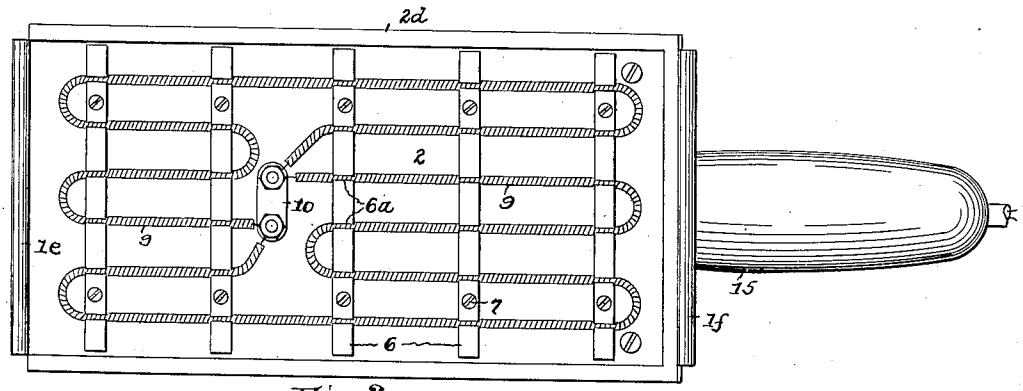


Fig. 2.

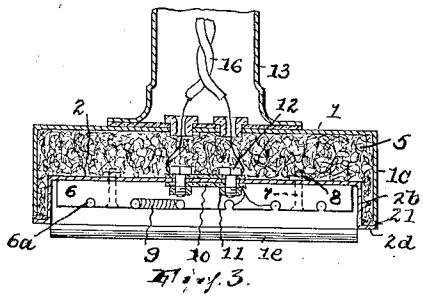


Fig. 3.

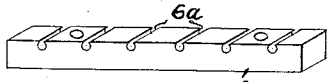


Fig. 4.

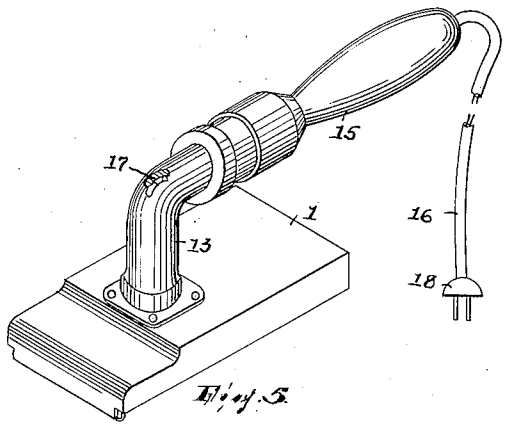


Fig. 5.

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PAINT REMOVING IMPLEMENT

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2 Claims. (Cl. 219—29)

This invention relates to electric paint removers.

My principal object is to provide a paint remover of this class which shall act to emit the maximum amount of heat for the given extent of the resistance or electric heating medium, whereby the implement may be used without actual contact with the work and consequent fouling thereof with the removed paint, and which shall be inexpensive and simple in construction and readily assembled and also disassembled as when repairs are necessary.

In the drawing,

Fig. 1 is a sectional view of the improved paint-remover taken in a plane generally extending centrally and longitudinally thereof;

Fig. 2 is an underneath plane;

Fig. 3 is a transverse section in a plane substantially central of stem 13;

Fig. 4 shows one of the insulating cleats; and

Fig. 5 is a perspective view of the implement.

The body of the implement includes a housing formed by two sheet metal housing members 1 and 2 each rectangular in plan and open at the bottom, member 2 being adapted to be received and held as will appear in member 1. The top or back wall of member 1 has its forward portion depressed, as at 1a, and then bent downwardly to form the front depending wall 1b, and depending from said top wall are the side walls 1c and the rear wall 1d, the walls 1b, 1c forming a depending space-encompassing rim on the top wall. The lower edge of wall 1b is returned to form a seat 1e which faces oppositely to the direction in which the member 1 opens and the lower edge of wall 1d is returned outwardly, as at 1f, the returns 1e and 1f serving as rests when the implement is placed when not in use on some supporting surface. The top or back wall of member 2 is flat, the material thereof being bent down to form a front depending wall 2a, its depending side walls and rear wall being indicated at 2b and 2c respectively the walls 2a, 2b and 2c forming a depending space-encompassing rim on the top wall; all of these walls have their lower edge portions bent outwardly, as at 2d, as flanges in a horizontal plane. The area and depth of member 2 are appreciably less than those of member 1 so that when member 2 is within member 1 as shown there is appreciable space between their top walls and their said rims. Member 2 is held in member 1 by inserting its forward end into the latter so that its flange 2d rests on the seat 1e, whereupon screws 3 are entered through holes in the top wall of member 2 and screwed into member 1, as into nuts 4 which may be soldered to and thus form in effect portions of the latter. Occupying the space existing between the two members is a mass of some heat-insulating material as asbestos 5.

At 6 are shown electric insulating anchorages or cleats in the form of parallel transverse bars having each a series of parallel transverse bores 6a open at one face of the cleat but so as to form them with slightly restricted mouths. The cleats are held in place against the underneath face of the top wall of member 2 by bolts 7 having their nuts 8 bearing against the top face of said wall. In these cleats is held the resistance 9 in the form of a grid composed of coiled metal wires which are sprung into the bores or sockets 6a and there held due to the restricted form of their mouths. The bores or sockets are in the lower face of each cleat whereby the resistance is spaced from the metal top wall of member 2, or as I otherwise term it, from the bottom of the recess which it forms. This spacing throughout is substantially uniform and the grid is substantially uniformly distributed throughout the area of such bottom. The resistance and cleats are completely housed in the recess of member 2 so that they are in effect sheathed.

At 10 is shown a plate of insulation clamped to the under face of the top wall of member 2 by the nuts 11 of bolts 12. One end of each wire 9 is clamped by one of the means 11—12 and the other end of each such wire by the other means 11—12 with plate 10 intervening between such ends and the member 2. A metal tubular stem 13 having its lower end secured to the top wall of member 1 by screws 14 and its upper end bent off and equipped with a rubber grip 15 forms a handle through which extend insulated wires 16 one of which is equipped with a snap-switch 17, said wires having a fitting 18 for connection with any supply line and reaching through an insulative guide 19 in the top of member 1 and being respectively secured to the two clamping means 11—12. For heat insulating the handle from member 1 there may be a plate of mica or equivalent 20 intervening between them.

Member 2, which is the heat-reflecting medium, may be heat-insulated from member 1 by strips of mica 21 clamped between the flanges 2d and the free edges of the side walls of shell 1.

As indicated, the implement is intended especially to be used with little contact with the work, wherefore it is designed to have the maximum heat-reflecting power. That is to say, instead of more or less burying the resistance or

placing it in contact with a heat diffusing medium, such as the bottom of the recess of member 1, I place said resistance in spaced relation to said medium whereby not only is heat derived directly from said resistance but by reflection and at full efficiency from the reflecting medium.

By forming each of bores 6a with a mouth which is open at the side of the bar remote from said medium and is of only slightly less width than the maximum diameter of the bore the bar does not appreciably obstruct heat directly given off by the resistance; where, as in the example, there are several bars each penetrated several times by the resistance this construction results in appreciable heat-economy.

The manner of connecting the two shell members (one comprising member 2 and the contained resistance and insulating means and the other comprising the member 1), to wit, by seating the received member as at 1e and securing it at a remote point, as by the means 3—4, is such as to facilitate the assembling and also the disassembling if required.

By forming the top wall of shell member 1 depressed, as at 1a, the implement is adapted to enter spaces not otherwise accessible.

A feature of the invention is the fact that there are two box-like shell members both formed open in the same direction and arranged one within the other and spaced therefrom at substantially all points, and heat-insulating material substantialy completely filling the space between them. Thus the inner shell member is useful to confine and reflect the heat more or less in a manner to focus or concentrate it on the work, making contact of the implement with the work unnecessary, while the outer shell member forms a supporting housing therefor which is heat-insulated therefrom by said material.

Having thus fully described my invention what I claim is:

1. In an implement of the class described, the combination, with a body including a shell member open in one direction and having an internal seat at one side facing in the opposite direction, another shell member open in the first direction and housed in the first shell member and resting on said seat, heat-insulating means between the two members, and means, remote from the seat, for detachably connecting said members, of an electric resistance forming a heating medium supported in and by the second shell member.

2. An implement for the purpose described including two metal housing members secured together and each including a back wall formed substantially planiform and a space-encompassing rim depending therefrom and one member being received in, and surrounded by the rim of, the other member and arranged with its back wall and rim spaced substantially at all points from the back wall and rim, respectively, of the other member, heat-insulating material substantially completely filling the space between said back walls and rims of said members, electric insulating means mounted within the received member, said received member being open opposite its back wall, and an electric resistance forming a heating medium and carried by said electric insulating means.

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