April 21, 1925. 1,534,953

C. J. HOHMAN

ELECTRIC PAINT AND VARNISH SCRAPER

Filed Oct. 31, 1923 2 Sheets-Sheet 1

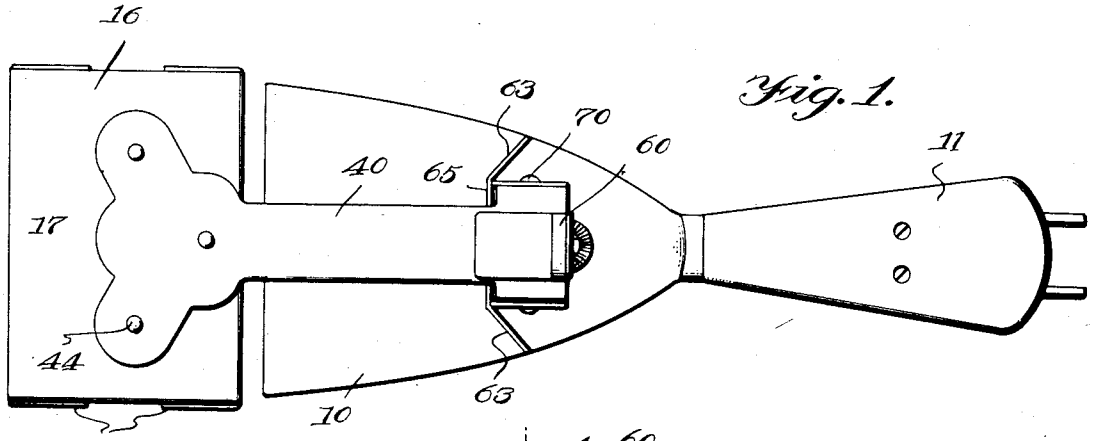


Fig. 1.

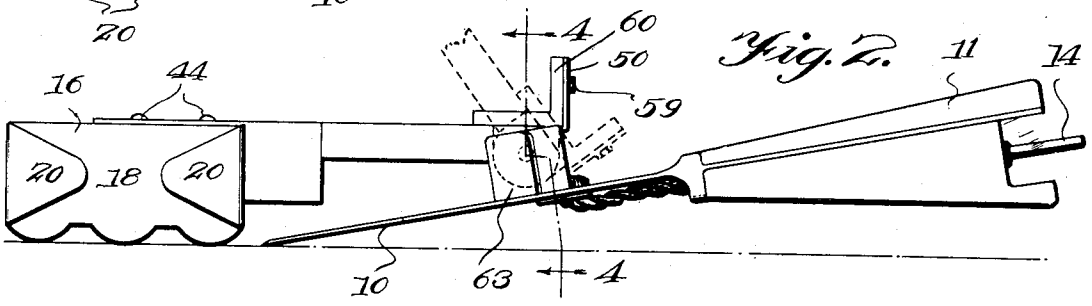


Fig. 2.

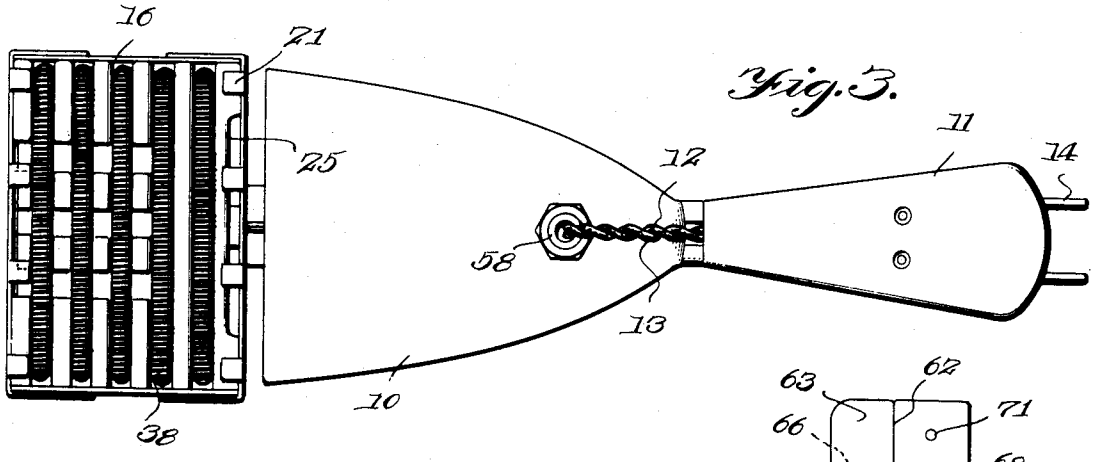


Fig. 3.

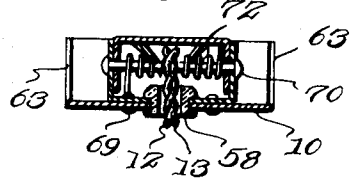


Fig. 4.

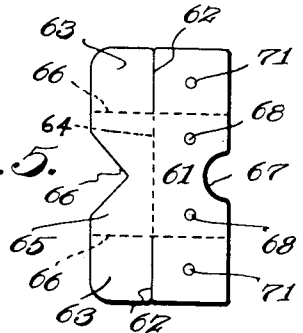


Fig. 5.

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WITNESS.

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Fig. 6.

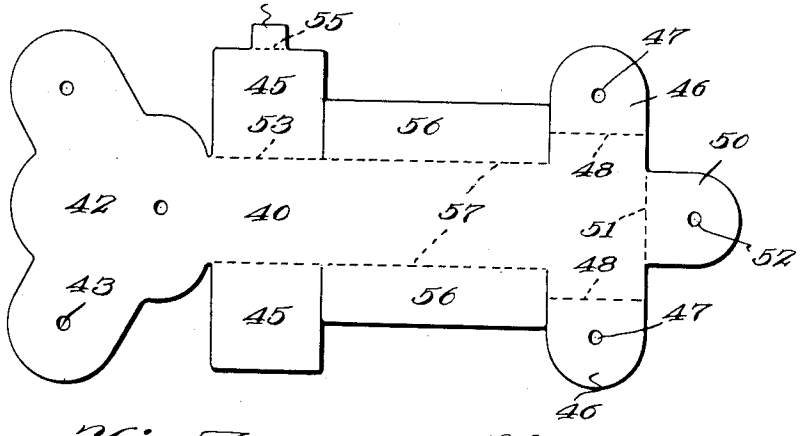


Fig. 7.

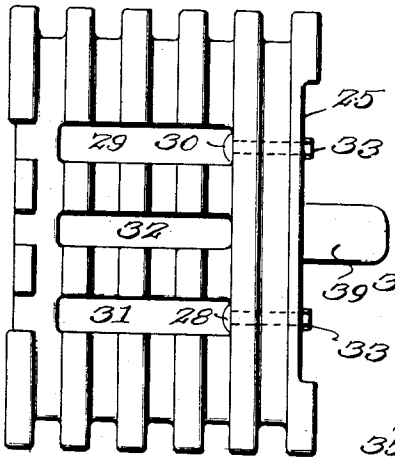
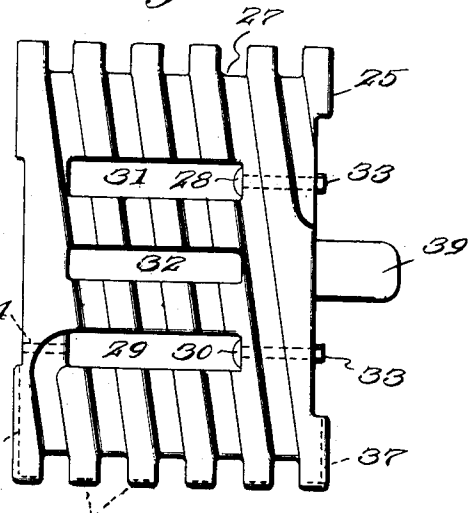


Fig. 8.



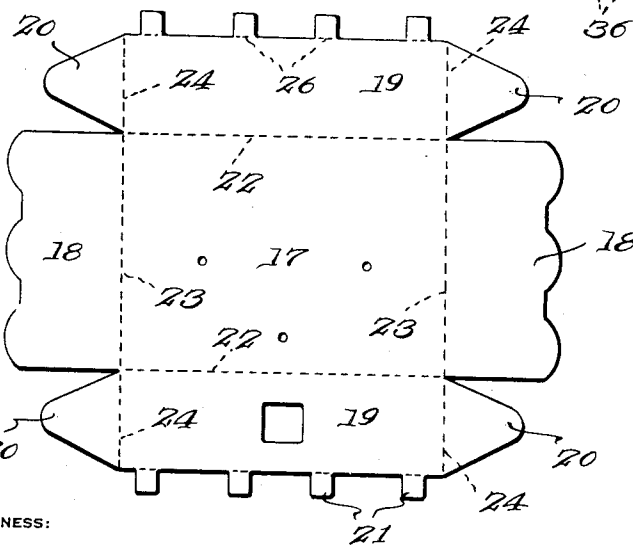


Fig. 9.

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Patented Apr. 21, 1925. 1,534,953

UNITED STATES PATENT OFFICE.

CHARLES J. HOHMAN, OF ROCKAWAY PARK, NEW YORK.

ELECTRIC PAINT AND VARNISH SCRAPER.

Application filed October 31, 1923. Serial No. 672,012.

To all whom it may concern:

Be it known that I, CHARLES J. HOHMAN, a citizen of the United States, residing at Rockaway Park, in the county of Queens and State of New York, have invented new and useful Improvements in Electric Paint and Varnish Scrapers, of which the following is a specification.

This invention relates to tools for removing paint and varnish and has for its object the provision of a novel device for this purpose which includes electrically operated means for heating the surface to be scraped so as to soften or loosen the paint and varnish thereon, the device being more advantageous and easier to handle as well as safer and more efficient than the well known gasoline torch which is commonly used for applying the necessary heat.

An important object is the provision of a device of this character in which the heating member is movably mounted with respect to the scraper blade so that it may be swung up out of the way when scraping corners.

Another object is the provision of a device of this character in which the various supporting parts and structural elements may be constructed of sheet metal cut and bent to shape.

An additional object is the provision of a device of this character which will be simple and inexpensive, positive in action, durable in service and a general improvement in the art.

With the above and other objects and advantages in view the invention consists in the details of construction to be hereinafter more fully described and claimed and illustrated in the accompanying drawings, in which:

Figure 1 is a plan view of the device,

Figure 2 is a side elevation thereof showing the heater in normal position by full lines and in swung position by dotted lines,

Figure 3 is a bottom plan view,

Figure 4 is a cross section on the line 4—4 of Figure 2,

Figure 5 is a view of the blank from which the guard is formed,

Figure 6 is a view of the blank from which the supporting arm for the heater is formed,

Figure 7 is an elevation of one side of the heat unit core,

Figure 8 is an elevation of the opposite side and

Figure 9 is a view of the blank from which the heating element frame or casing is constructed.

Referring more particularly to the drawings the numeral 10 designates a scraper blade of conventional size and shape and equipped at one end with a handle 11 through which extend the wires 12 and 13 which lead to the heater to be described, and at the rear end of this handle are terminals 14 with which these wires are connected and to which may be connected the usual plug for supplying current to the heater.

In connection with the scraper blade I have described, I provide an electric heater including a supporting frame or casing 16 of a box like nature formed from a sheet metal blank illustrated in Figure 9. This blank comprises a sheet 17 at the ends of which are end members 18 and at the side edges of which are wide members 19 terminating in tongues 20 and formed at their free edges with lugs 21. The sheet 17 is bent along the longitudinal dotted lines 22 and the transverse dotted lines 23 so that the ends and slides 18 and 19 will extend at right angles to the central portion, and the tongues 20 are bent onto the dotted lines 24 so as to lie against the outside of the end members 18. Held within the box like frame or casing thus formed, is a core 25 of heat resisting insulating material which core is held in place by bending the lugs 21 at right angles on the dotted lines 26 so that they will extend over the lower side of the core. This core is formed with a spiral groove 27 at one end of which is a binding screw 28 and the other end of which leads into an opening 29 at the opposite end of which is a binding screw 30. The head of the screw 30 is within the opening 29 and the head of the screw 28 is within a similar opening 31. Between these two openings 29 and 31 is a similar opening 32. These binding screws carry nuts 33 for securing the conducting wires thereto. A small hole 34 leads from the end of the opening 29 opposite the screw 30, and this small hole leads to a groove 35 in one edge of one corner of

the core, which grooves aligns with a plurality of other grooves 36 in the end of the core at the ridges between the convolutions of the spiral groove 27. The adjacent corner is formed with a groove 37 which is L-shaped and which has one edge registering or aligning with the grooves 36 and which has its other end leading toward the binding screw 30.

The resistance element 38 consists of a wire initially tightly coiled and wound throughout the spiral groove 27. One end of this wire is anchored to the binding screw 28 by the nut 33 thereon and the other end of the coil terminates at the point where the opposite end of the spiral groove communicates with the opening 29. From this point, the resistance wire is not coiled but is simply a single strand which is threaded through the hole 34 and brought along within the grooves 35, 36 and 37 with its free end connected with the binding screw 30 by the nut 33 thereon. The core is formed with an extension 39 for a purpose to be described.

For mounting this heater upon the scraper, I provide an elongated arm designated broadly by the numeral 40 and formed preferably from the single blank illustrated in Figure 6. This blank includes a central elongated portion which terminates at one end in a widened portion 42 formed with holes 43 to facilitate its attachment to the back or main portion 17 of the heater frame or casing 16, rivets 44 or the like being provided for effecting the holding action. At opposite sides of the main or longitudinal portion 41 of the blank near the wide portion 42 are defined ears 45 while at the opposite end are ears 46 having holes 47. The ears 46 are bent downwardly upon the dotted lines 48 so as to extend in parallel relation. This same end of the body member 41 is formed with an ear 50 which is intended to be bent upwardly at right angles on the dotted line 51 and this ear is formed with a hole 52. It is intended that the ears 45 be bent downwardly on the dotted lines 53 so as to extend in spaced parallel relation so as to engage against the opposite sides of the extension 39 on the core, one ear 45 having its free end formed with a lug 54 intended to be bent on the dotted line 55 so as to engage beneath the extension 39. The side portions 56 of the handle forming blank, which side portions lie between the ears 45 and 46, are bent downwardly on the dotted lines 57 so as to extend in spaced parallel relation and form a housing for the wires 12 and 13 which are connected with the binding screws 28 and 30 and held thereto by the nuts 33.

Where the wires pass through the blade I provide an insulating bushing 58 of conventional type to prevent short circuiting on account of chafing of the wire. Secured upon the upturned ear 50 and held by a fastener 59 passing through the hole 52 is a thumb piece 30 formed preferably of some material which is a poor conductor of heat.

For mounting the arm 40 upon the blade I provide a combined hinge device and guard. This structure is formed preferably from the single blank shown in Figure 5, which blank 61 is cut at its opposite ends at 62 to define ears 63. This blank is bent into right angular shape along the dotted line 64 which extends between the cuts 62 so as to define an upstanding guard portion 65, and the ears 63 are bent rearwardly along the dotted lines 66 so as to define inclined wings. The upper edge of the guard flange or portion 65 is formed with a V-shaped notch 66 for the accommodation of the wires 12 and 13. The body portion 61 of this guard structure lies upon the blade and is formed with a notch 67 for the accommodation of the bushing 58 and is also formed with holes 68 for the passage of suitable securing rivets 69 for holding this member on the blade. This main portion constitutes a U-shaped bracket between the arms of which are engaged the ears 46 of the arm 40. A pivot pin 70 passes through the holes 47 and through holes 71 in the member 61 for pivoting the arm 40 and the heater upon the blade. It is also preferable to provide a coil spring 72 which encircles the pin 70 and which has one end engaged with the arm 40 and the other end engaged with the member 61, the purpose being to resiliently urge the heater into engagement with the surface being treated.

In the use of the device, an attaching plug is engaged with the terminals 14. The device is placed upon the surface to be scraped and the heat generated in the heat unit will soften and loosen the paint or varnish so that when the operator pushes the device along the free edge of the blade 10 will scrape up the paint. The guard flange 65 and the wings 62 thereon will prevent the paint or varnish from gaining access to the pivotal connection and causing clogging. For scraping in close quarters such as in corners or the like, it is intended that the operator place his thumb upon the member 60 and lift the heater as shown by dotted lines in Figure 2 so that the blade 10 may be brought up close in the corner. For scraping fret work and the like, the device is held in one hand so that the heater may soften the paint or varnish and a small scraper of ordinary type is taken in the other hand for scraping off the loosened substance, the blade 10 in such an instance being inactive.

From the foregoing description and a

study of the drawings it will be apparent that I have thus provided a simply constructed and easily handled device which will efficiently operate for scraping off paint, varnish and the like in a very rapid manner and with the utmost ease and safety and furthermore without danger of burning the surface.

While I have shown and described the preferred embodiment of my invention it is of course to be understood that I reserve the right to make such changes in the form, construction and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention I claim:

1. A paint and varnish scraper comprising a blade carrying a handle, and an electric heater pivotally supported from the blade in advance thereof and movable into a selected position.

2. A paint and varnish scraper comprising a blade carrying a handle, and an electric heater pivotally supported from the blade in advance thereof and movable into a selected position, and a spring engaging the blade and the heater for normally urging the heater into engagement with the surface traveled over.

3. A device of the character described comprising a blade equipped with a handle, an arm hingedly mounted on the blade, and an electric heater carried by the free end of said arm and located slightly in advance of the free end of the blade.

4. A device of the character described comprising a blade equipped with a handle, an arm hingedly mounted on the blade, and an electric heater carried by the free end of said arm and located slightly in advance of the free end of the blade, and an upstanding guard flange rising from the blade in advance of said hinge connection and having outwardly inclined deflecting wings.

5. A device of the character described comprising a scraper blade equipped with a handle, a combined bracket and guard flange secured upon the blade, an electric heater including a resistance wire wound core mounted within a frame, an arm secured to said frame and pivotally connected with said bracket, spring means urging the heater into engagement with the surface traveled over, and a thumb piece on said arm near its pivot for swinging the same against the resistance of said spring.

In testimony whereof I affix my signature.

CHARLES J. HOHMAN.