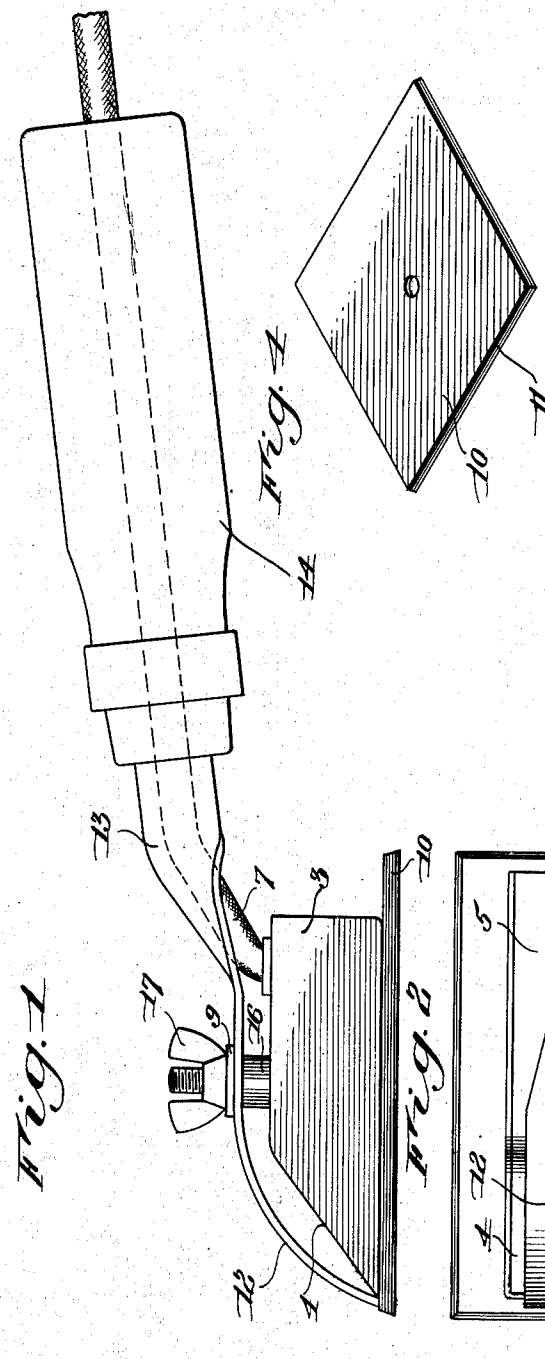
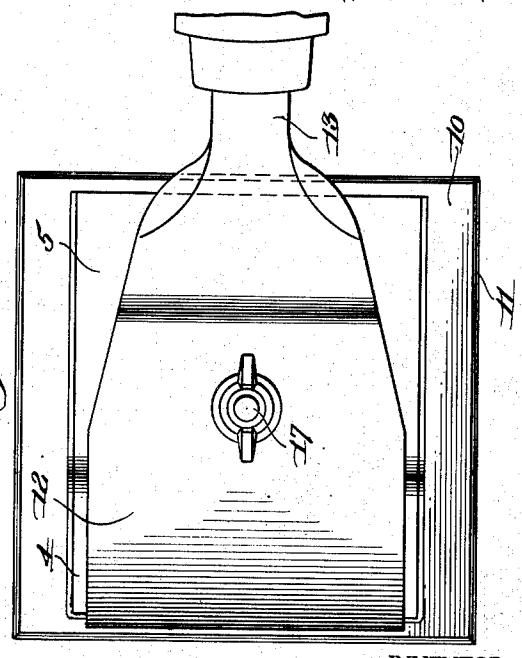
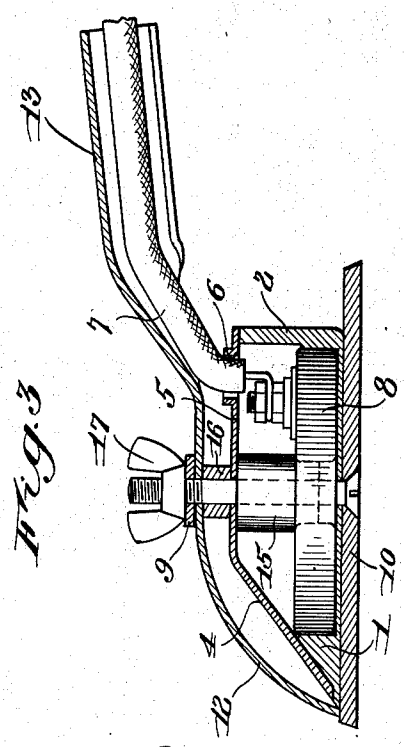
Nov. 18, 1941. G. R. MORRIS 2,263,222

DEVICE FOR REMOVING PAINT OR VARNISH

Filed Sept. 30, 1940







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Patented Nov. 18, 1941

2,263,222

UNITED STATES PATENT OFFICE

2,263,222

DEVICE FOR REMOVING PAINT OR VARNISH

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Application September 30, 1940, Serial No. 359,066

4 Claims. (Cl. 219—29)

This invention relates to a device for removing paint or varnish from a surface preliminarily to refinishing, and is in the nature of an electrically heated hand scraping tool or implement that is positionable against a painted, varnished, or otherwise coated surface to heat and soften the coating by moving the tool back and forth thereover and thereafter operates when suitable pressure is applied to remove the paint or coating by a combined softening and scraping action.

One object of the invention is to afford a hand tool or implement of simple and economical construction which can be used effectively to remove a layer of paint, varnish or other coating material quickly, easily, and without damaging the surface to which the coating is attached.

Another purpose of the invention is to afford a construction of light weight, that can be conveniently manipulated to remove a coating more readily and faster than with the blow-torch and similar systems now generally used.

Still a further object of the invention is to afford a construction having a low operating cost and which is so designed as to apply the required amount of heat to a coating to be removed, also to deflect the removed particles successfully and prevent their coming in contact with the heated portions of the tool so that the operation may be carried on effectively and speedily.

To these and other ends, the invention consists in the construction and arrangement of parts that will appear clearly from the following description when read in conjunction with the accompanying drawing, the novel features being pointed out in the claims following the specification.

In the drawing:

Fig. 1 is a view in side elevation of a hand tool or implement incorporating a preferred embodiment of the invention;

Fig. 2 is a plan view of the same partially broken away;

Fig. 3 is a vertical sectional view taken centrally, and

Fig. 4 is a perspective view of the bottom plate removed from the body of the implement.

Referring more particularly to the drawing in which like reference numerals refer to the same parts throughout the several views, there is employed a housing or body that receives an electrical heating unit, the housing including a bottom 1, an integral back wall 2, and integral side walls 3, while attached thereto is a top or cover including an inclined or tapering front portion 4 and a top wall 5 having a suitable opening 6 through which the electric conductor 7 extends. The bottom 1 is provided with a recess preferably circular to receive a similarly shaped heating element 8 to which the conductor 7 is connected, the heating element and bottom 1 having central openings to receive a securing bolt 9 which holds the parts assembled in a manner that will appear presently.

The housing containing the heating element is provided with a scraping means, preferably in the form of a ground or sharpened straight edge, and in the present embodiment, this is accomplished through the instrumentality of a separate bottom plate 10 which is square and has a ground bevelled edge 11 along each of its four sides. The plate 10 is held adjustably against the bottom of the housing by means of the aforementioned bolt 9 that has a head seated in a countersunk opening in the plate 10, as shown in Fig. 3, and with this arrangement, the four edges of the plate 10 can be suitably ground and the instrument used until all four edges have become dull, the plate being adjusted on the housing so as to present successively the different edges at the front in operative position. This arrangement also provides an operative edge at the front and rear of the instrument so that a scraping action can be had when the tool is moved either forwardly or backwardly. It will be understood that the plate is held in fixed position by the bolt 9 which can be loosened, when it is desired to adjust the plate to bring a fresh sharpened edge into operative position at the front of the tool.

The coating is softened by moving the heated plate 10 over its surface, and when sufficiently heated, it is removed by applying pressure sufficiently to force the front edge of the plate 10 slightly through the coating. Then by moving the instrument forwardly, the paint or other coating is peeled from its support. As this occurs, it is desirable to prevent the removed particles from contacting the heated housing or body, and this is accomplished by a shield or guard 12, the front bottom edge of which rests upon the front portion of the plate 10, as shown in Fig. 2. The guard is curved as shown and extends thence upwardly and rearwardly, terminating in a sleeve 13 that is secured within a handle 14 through which the conductor 9 extends, for connection with a suitable socket, as usual in the operation of electrical tools.

15 designates a spacing sleeve surrounding the

bolt 9 and located between the heating element 8 and the top wall 5 of the cover, while 16 designates a spacing collar located between the top wall 5 and the top portion of the guard 12, acting to maintain the same in substantially spaced relation to the housing, to afford an air space for free circulation and thus to maintain the guard 12 and handle cool at all times. Thus there is no tendency for the guard to soften the coating particles as they are removed from the surface.

17 designates a wing nut secured to the bolt 9 and acting to hold the parts securely in operative relationship, and to adjust the plate 10, it is necessary only to loosen the nut 17 and to turn the plate 10 to bring a freshly ground edge to the forward position, whereupon the nut 17 is again tightened and holds the parts in fixed relationship.

As the implement is moved forwardly over a coated surface in intimate contact therewith, the softened particles of paint or other coating are peeled from the supporting surface and deflected rearwardly over the guard 12, whence they fall away from the implement. The guard 12 prevents the removed particles from collecting and sticking on the heated housing and thus interfering with the proper operation of the device, and since the guard is maintained in a cool state, the removed particles as they are peeled back by the scraping action are forced over the curved surface of the guard and thence quickly fall away from the implement.

While the invention has been described with reference to the particular details of construction shown, it is not limited in this respect, and the application is intended to cover such changes or modifications as may come within the purposes of the improvement and the scope of the following claims.

I claim:

1. The combination with a housing including top, bottom, and side walls and an electric heating element located within the housing, of a square plate adjustably secured to the bottom of the housing having a scraping edge formed along its four sides, said plate being parallel and in juxtarelation to the bottom of the housing and attachable with any one of its four scraping edges in operating position at the front of the housing, and a handle carried by the housing.

2. The combination with a housing including top, bottom, and inclined front walls and an electric heating element located within the housing, of a square plate adjustably secured to the bottom of the housing and having a scraping edge formed along its four sides, said plate being parallel and in juxtarelation to the bottom of the housing and attachable with any one of its four scraping edges in operating position at the front of the housing, a deflecting guard located above the front and top walls of the housing in spaced relation thereto, said guard being curved upwardly and rearwardly from a point just above the scraping means, and a handle carried by said guard.

3. The combination with a housing including top, bottom, and inclined front walls, the bottom wall having a recess therein, of an electric heating element in said recess spaced from the top wall, a square plate adjustably secured to the bottom of the housing and having a scraping edge along its four sides, said plate being parallel and in juxtarelation to the bottom of the housing and attachable with any one of its four scraping edges in operating position at the front of the housing, a deflecting guard secured to the housing with its front edge located just above said plate and being curved thence upwardly and rearwardly in spaced relation to the top of the housing, and a handle carried by the guard.

4. The combination with a housing including top, bottom, and inclined front walls, the bottom wall having a recess therein, of an electric heating element in said recess spaced from the top wall, a square plate secured to the bottom of the housing and having a scraping edge along each of its four sides, a deflecting guard secured to the housing with its front edge located just above said plate and being curved thence upwardly and rearwardly in spaced relation to the top of the housing, said guard and the bottom of the housing having alined openings, fastening means extending through the square plate and said openings for holding the plate in adjusted position, said plate being attachable to the bottom of the housing with any one of its four scraping edges in operating position at the front of the housing, and a handle carried by the deflecting guard.

GEORGE R. MORRIS.