Feb. 1, 1938. F. J. SCHULZ 2,107,220

TOOL FOR REMOVING PAINT, VARNISH, LACQUER, SHELLAC, ETC

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Fig. 1.

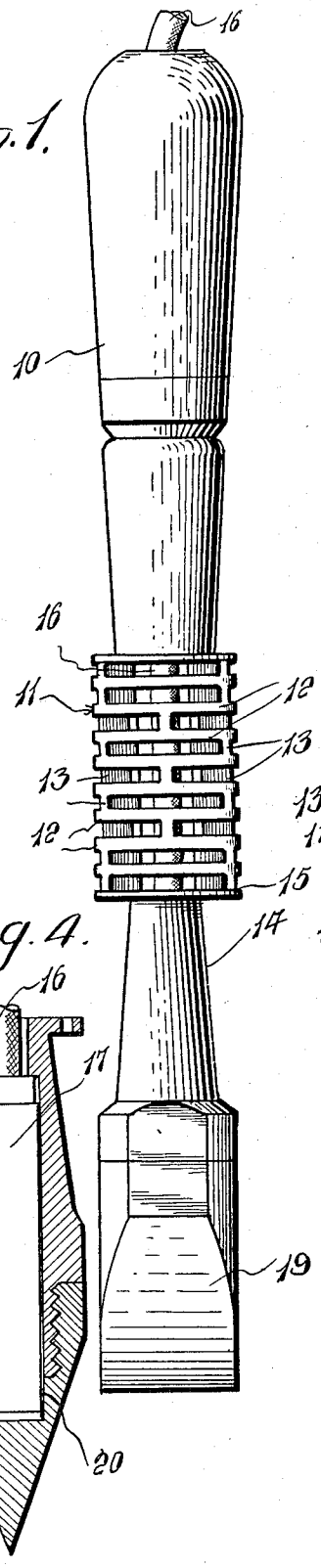

Fig. 3.

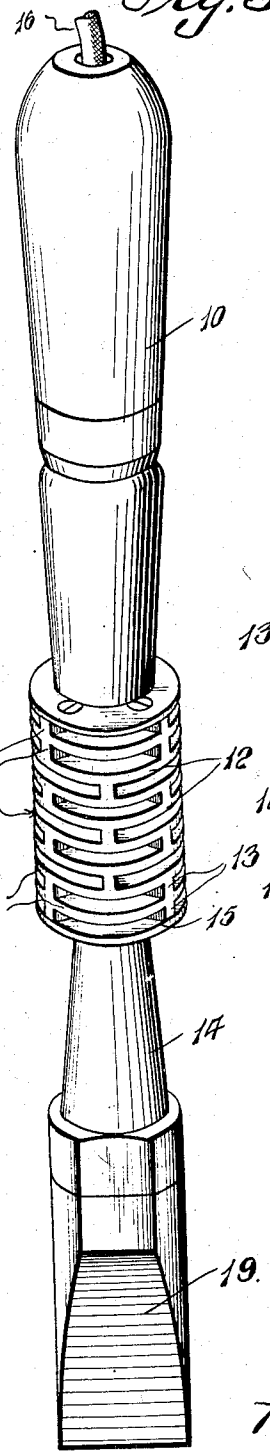

Fig. 2.

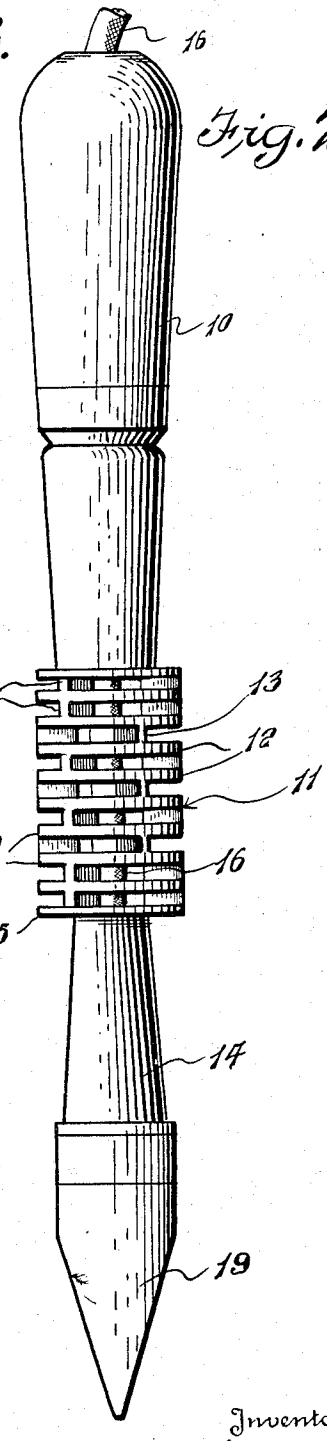

Fig. 4.

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Fig. 5.

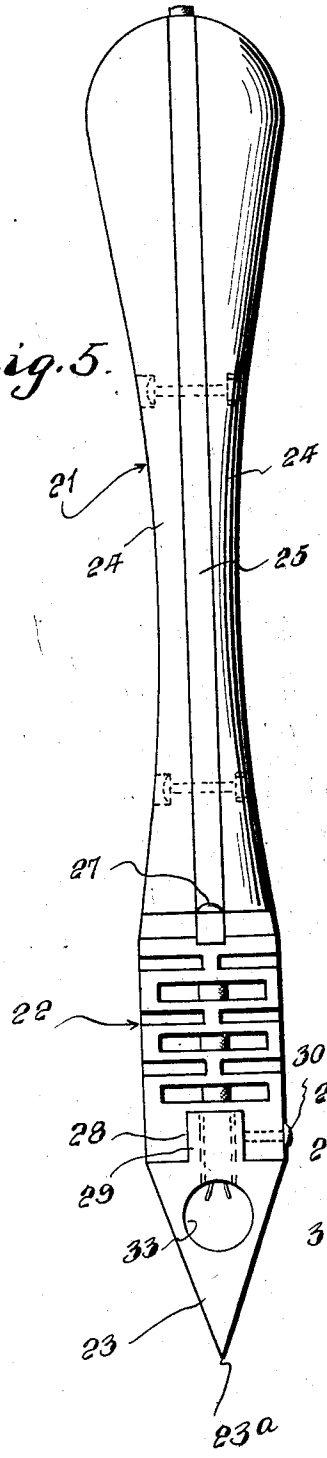


Fig. 6.

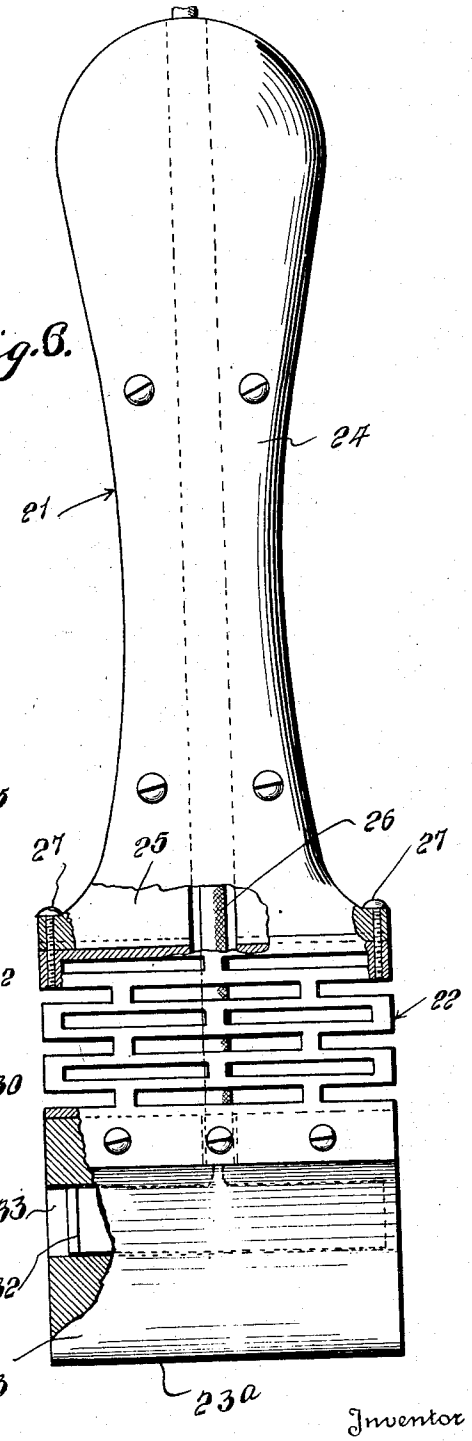
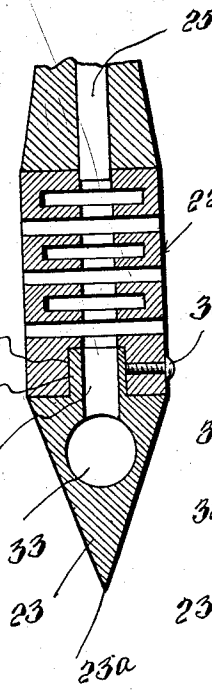


Fig. 7.



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UNITED STATES PATENT OFFICE

2,107,220

TOOL FOR REMOVING PAINT, VARNISH, LACQUER, SHELLAC, ETC.

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Application November 22, 1935, Serial No. 51,150

2 Claims. (Cl. 219—29)

This invention relates to certain new and useful improvements in tools for removing paint, varnish, lacquer, shellac, barnacles or other surface coatings or coverings.

The primary object of the invention is to provide a tool for removing paint, varnish and the like from wood or other surfaces with the head of the tool in form of a scraper blade, with the head heated in any desired manner, preferably electrically and raised to a temperature whereby the paint, varnish or the like may be easily removed.

A further object of the invention is to provide a tool of the foregoing character wherein the head or heated scraper is removably attached to the body or handle of the tool and may be of any size, shape or configuration desired for accomplishing a special purpose, the tool head having a blunt or sharp edge that is heated to a degree to effect removal of paint, varnish or the like, but which is operated without burning or marring the surface that is coated by the material to be removed.

With the above and other objects in view that will become apparent as the nature of the invention is better understood, the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawings and claimed.

In the drawings:—

Figure 1 is a front elevational view of a tool constructed in accordance with the present invention showing the blade-like form of scraper head and a heat radiating section interposed between the scraper head and handle;

Figure 2 is a side elevational view of the tool shown in Figure 1;

Figure 3 is a perspective view more clearly showing the arrangement of heat radiating fins;

Figure 4 is a detail sectional view showing the screw mounting for the removable scraper head and an electrical resistance element therein;

Figure 5 is a side elevational view of another form of heated scraper tool, showing a horizontal bore in the scraper head for reception of an electrical resistance element or cartridge;

Figure 6 is a front elevational view, partly in section of the tool shown in Figure 5; and

Figure 7 is a detail sectional view showing the heat radiating element interposed between the handle and scraper head with the latter removably attached to the heat radiating element.

Referring more in detail to the accompanying drawings, and particularly to Figures 1 to 4, there is illustrated an electrically heated tool for the removal of paint, varnish, lacquer, shellac etc., from wood or other surfaces and operative without burning or otherwise marring the surfaces from which the coatings are to be removed, the tool comprising a handle 10 through the outer end of which a heat radiating section 11 is attached and in the form of a plurality of fins comprising a series of spaced disks 12 connected by radial webs 13 arranged in staggered relations between the disks for the more effective dissipation of heat, the heat radiating section 11 being generally of cylindrical formation.

The radiator is of such construction and design that it is necessary for the heat to travel transversely across a fin or disk before coming to a cross connecting web which is purposely of such small area as to obtain optimum cooling surface on each fin as well as to transfer a minimum of heat to succeeding fins. Through the inclusion of a number of similar fins each fin joined to the one preceding it by the small connecting webs which are spaced in such a way as to continue the transverse course of the heat in each fin, it is possible to reduce the amount of heat at the handle to a negligible quantity.

A hollow shank 14 shown more clearly in Figure 4 has an apertured annular flange 15 at its inner end to facilitate attachment to the outer end of the heat radiating section 11 and the handle 10 and heat radiating section 11 having aligned axial bores therein for the passage of an electrical conductor 16 that is in electrical communication with a resistance element or cartridge 17 mounted within the longitudinal bore of the shank 14. The outer end of the shank 14 is annularly reduced to provide an externally threaded nipple 18 for threaded reception in a socket formed in the removable tool head 19 that has its outer end flattened and sharpened if desired to constitute a scraping blade. A recess 20 is formed in the tool head 19 and the resistance element 17 is of a length to extend through the nipple 18 and into the recess 20 as shown in Figure 4 for the more effective heating of the tool head 19. It will be understood that the tool head 19 may be removed from the shank 14 and a head of any desired configuration substituted therefor. The head 19 is adapted to be heated to a degree whereby the coating or the like may be easily removed and with the liability of injury to the coated surface eliminated.

In the form of invention illustrated in Figures 5 to 7, the handle 21 having a heat radiating section 22 attached to its outer end with a tool head 23 directly attached to the outer end of

the radiating section 22. The handle 21 is formed of two sections 24 having a pair of plates 25 interposed therebetween with the adjacent edges of the plates parallel and spaced from each other to provide a central passage through the handle 21 for the electrical conductor 26. As shown in Figure 6, screw devices 27 effect a connection between the outer end of the handle 21 and the inner end of the heat radiating section 22. The outer end of the heat radiating section 22 is provided with a transversely extending groove 28 that receives a similarly shaped rib 29 projecting from the inner end of the tool head 23, anchor screws 30 passing through the outer end of the heat radiating section for engagement with the rib 29 to secure the head in position. An axial bore is formed in the heat radiating section 22 for the passage of the conductor 26 which also passes through an opening 31 in the rib 29 for communication with a resistance element or cartridge 32 removably mounted in a transverse opening 33 in the tool head 23.

From the above detailed description of the invention, it is believed that the construction and use thereof will at once be apparent, and while there are herein shown and described the preferred embodiments of the invention, it is nevertheless to be understood that changes may be made therein without departing from the spirit and scope of the invention as claimed.

I claim:—

1. In a tool for removing paint, etc., from wood and other surfaces, a handle, a heat radiating element secured to the outer end of the handle, a tool head of scraper-blade formation detachably connected to the outer end of the radiator and having an opening extending completely therethrough and transversely thereof, an electric resistance element permanently mounted in said opening in the removable head in spaced relation to the heat radiating element and an electrical conductor extending through the handle and heat radiating element for direct attachment to the resistance element.

2. In a tool of the type set forth in claim 1, characterized by the heat radiating element including a plurality of spaced plates and staggered radial ribs connecting the plates.

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