June 1, 1937. R. C. CHARLTON 2,082,685

FILE AND LIKE TOOL

Filed July 16, 1935

Fig. 1.

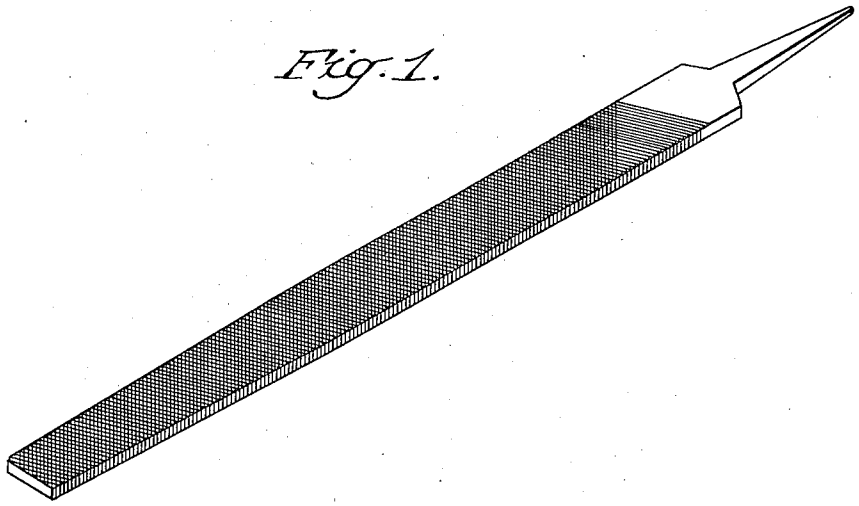
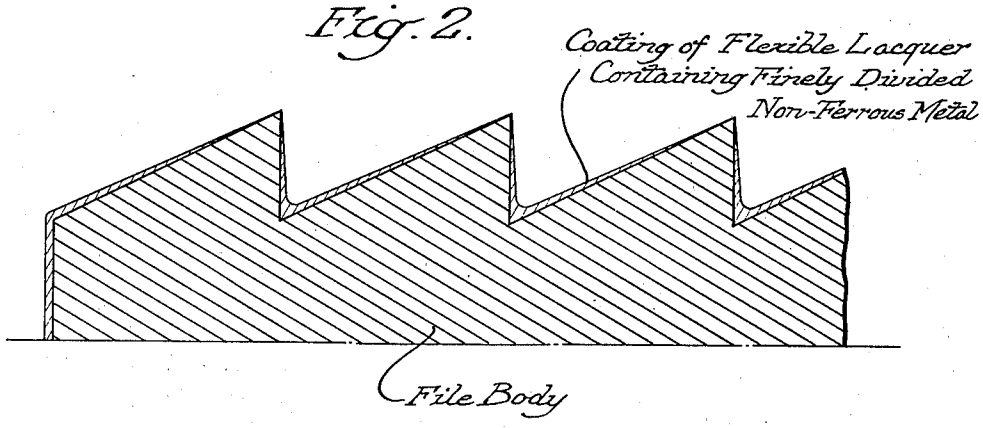


Fig. 2.



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FILE AND LIKE TOOL

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3 Claims. (Cl. 29—78)

This invention relates to improvements in files and similar tools.

It has been customary in merchandising tools of this character, and in order to retain them free from rust, to coat them with oil or grease. This utilitarian practice has interfered with merchandising, in that the tools so treated are not readily handled, the appearance of the tool as presented to the trade is unsightly, and the oil or grease, if not completely removed from the file when put into service, has a tendency to cause the tool to clog with filings.

A principal object of the present invention is to provide a tool of the stated character so treated as to obviate the aforesaid disadvantages; that may be presented to the trade in clean and sightly condition; and that shall be characterized by a pronounced tendency to resist clogging.

With these specific objects in view, the invention further contemplates the provision of a tool of the stated character possessing a relatively high functional efficiency.

In the attached drawing:

Figure 1 is a view in perspective of a file made in accordance with my invention, and

Fig. 2 is a fragmentary enlarged sectional view more specifically illustrating the invention.

It has previously been proposed to provide tools of this class with a superficial coating of a non-ferrous metal to thereby prevent or retard oxidation of the ferrous metal from which tools are made, such coating being effected by electrolytic deposition. While reasonably effective as a rust preventive, this process in addition to involving a relatively slow and expensive operation has the further definite disadvantage of interfering appreciably with the functional efficiency of the tool and has, therefore, proved impractical. I have discovered that an equally and even more effective treatment for rust prevention is obtainable by application to the tool of a non-ferrous metal in finely divided form through the medium, as a vehicle, of a flexible lacquer, and tools so treated have been found to possess other valuable characteristics not obtainable by other known means.

In treating a tool in accordance with my invention, I preferably employ finely divided metallic aluminum. The lacquer which I employ as a vehicle by means of which the metallic aluminum is made to adhere to the surfaces of the tool includes the characteristic highly volatile lacquer solvent and dries rapidly to complete dryness, but retains sufficient elasticity to insure substantially permanent adhesion of the metallic element to the surfaces to which it is applied. Such lacquers, classified in the trade as "flexible", are available in commerce. In producing the coating material, it is preferred to use the lacquer in solution of thin consistency, the metallic aluminum being added and kept in suspension by continuous agitation, if necessary, of the mixture. In this manner, a uniform distribution of the metal particles in the protective coating will be assured. The coating material may be applied to the surfaces of the tool by dipping, spraying, or by other suitable means, although dipping is the most efficient method.

The treating medium as described above being of thin consistency penetrates and tends to fill the smaller fissures of the tool but merely forms a thin protective coating on the surfaces of the larger recesses and leaves the cutting edges unobstructed. The finely divided metallic aluminum adhering to the surfaces through the medium of the lacquer affords an extremely smooth and close grained surface texture to which filings and small particles of metal will not readily adhere and which has a lubricating property which materially improves the efficiency of the tool which accordingly remains clean and unclogged after relatively long periods of continuous use.

A file treated in accordance with my invention possesses a highly ornamental and attractive appearance, is dry and clean, and may be freely exhibited and handled without danger of soiling the hands or objects with which it may come in contact. It is substantially rust-proof and in condition for immediate use, and the efficiency of the file is materially improved by reason of its substantial nonclogging characteristics.

I claim:

1. A file or like tool having a superficial coating of finely divided non-ferrous metal, the metal particles adhering to the surfaces of the tool through the medium of a flexible lacquer.

2. A file or like tool having a superficial coating of finely divided metallic aluminum, the metal particles adhering to the surfaces of the tool through the medium of a flexible lacquer.

3. A file or like tool having a protective coating consisting of flexible lacquer containing finely divided metallic aluminum, said coating material filling the smaller fissures of said tool and forming a thin film on the other exposed surfaces.

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