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PAINTBRUSH

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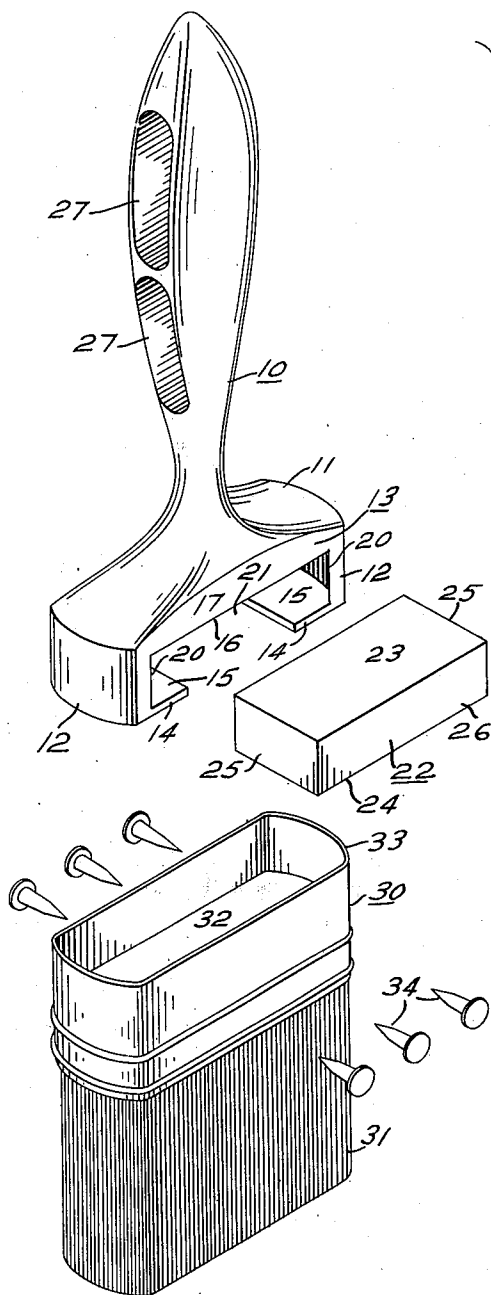


Fig. 1.

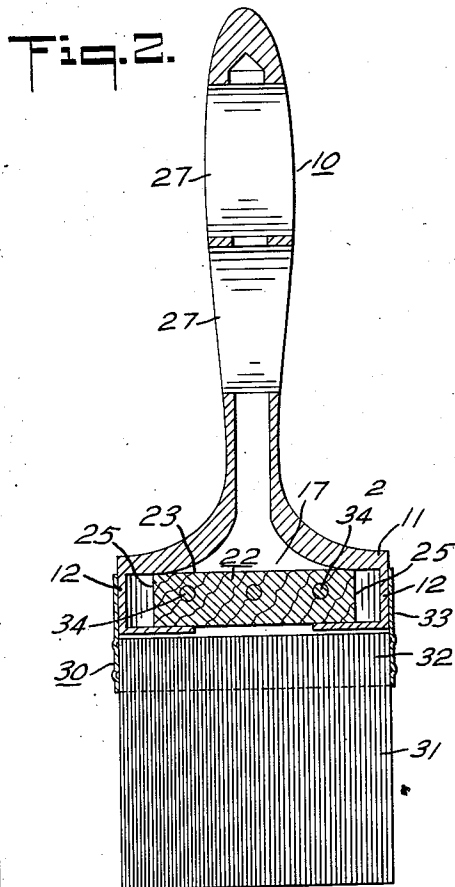
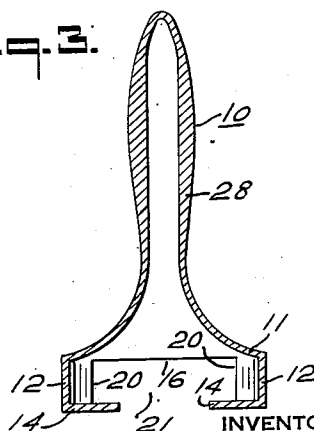


Fig. 3.



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PAINTBRUSH

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This invention relates to paint brushes, and particularly to the handles thereof.

With the scarcities now existing in properly aged wood for the purpose of handles for paint and similar brushes, the desirability of metal handles for the brushes has intensified, especially in view of the increased production of light-weight metals following on the termination of war utilizations thereof. The difficulty encountered with such substitution of metal for wood lies in the fact that, as understood, the entire brush-making industry in its established practices and machinery, is set for the attachment of the sheet metal ferrules containing the bristles to the handles by a nailing or stapling action, and this effects a complication which hitherto has precluded use of metal handles for such purposes.

It is among the objects of this invention: to improve the art of paint brushes; to improve the handles of paint brushes; to provide a handle for a paint brush or the like which is light in weight, strong, rigid, and rugged in use and with which the bristle-carrying ferrule can be attached by a nailing operation; to provide a handle for a paint brush comprising a combination of an unailable metal portion with a non-metal insert portion capable of embedding and holding a nail; and to provide other objects and advantages as will become more apparent as the description proceeds.

In the accompanying drawings forming part of this description:

Fig. 1 represents an exploded perspective of the complete brush according to this invention;

Fig. 2 represents a longitudinal transverse section through the assembled brush; and

Fig. 3 represents a transverse section through a modified form of handle.

The handle of the preferred form of the invention comprises the handle shank portion 10, merging into the enlarged generally elliptical ferrule-receiving portion 11. The latter is illustratively formed of two different diameters, namely the long diameter terminating in the short arcuate outer surfaces 12-12, and the short transverse diameter terminating in the outer parallel substantially planar faces 13-13. Obviously, the relationship of these two diameters will vary according to the size and function of the particular brush to be constructed thereon. The end or edge arcuate surfaces are preferably solid surfaces 12-12 having the axially extending edges 20-20 and each terminates at the lower end, opposite to the shank portion 10,

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in the turned short flange 14. The flanges have an upper supporting surface 15 lying in a common plane normal to the axis of the handle shank 10, and the side faces 13-13 are cut away between the flanges 14 and edge surfaces 20 to form a skirt 17, having a lower edge 16. The skirts form with the edges 20 of the end surfaces 12, the recited lateral faces 13. A compartment is formed in the handle to receive a nailable block. The edges 16 of the skirts 17, the side edges 20 of the arcuate end surfaces and the upper surfaces 15 of the flanges, all define a compartment 21, having lateral openings to receive the nailable block 22. The block 22, which obviously may be formed of any material, whether natural or synthetic, whether molded in situ or pre-formed and laterally inserted, will receive, and will frictionally retain, an inserted nail, for the purpose to be recited. Preferably, and illustratively, the block 22 is of wood, and has an upper surface 23 to slide under and remain close to the edges 16 of the skirts 17, a lower surface 24 to slide upon and remain in close contact with the surfaces 15 of the flanges 14, and end surfaces 25 arranged to slide inwardly of, but be in substantial contact with, the edge surfaces 20 of the arcuate surfaces 12. With the block disposed in the compartment 21, the lateral side surfaces 26 thereof form substantial extensions of the outer faces of the skirt 17 and lie in the plane of the sides 13-13. The block 22, when inserted, will obviously be held against any shifting movement except laterally through the sides through which it was inserted.

It will obviously make but little difference in the use of the invention whether the integral handle portion is as a result of sand casting, in which case the shank will be laterally apertured for lightness, as shown at 27, or whether it is die cast as a hollow shank cored out axially to form the externally imperforate but thin and light handle 28. Any desired form of casting may be used and preferably the handle is formed of aluminum or magnesium, or of alloys of the two, or the like. If light weight is not a first essential, the handle may be formed of other metal.

Predetermined for each handle is the bristle-assembly ferrule 30. This comprises an oval ferrule having an upper opening of such relatively long and short diameters as to have a close sliding engagement over the outer surfaces of the handle defined by the short end arcuate surfaces 12, and the parallel flat sides formed of the faces 13-13, including the side faces 26 of

the nailable block. The lower end of the ferrule is ordinarily pre-formed with the bristles 31 mounted in a suitable plastic 32 in the ferrule and forming of itself no part of this present invention. The ferrule is slid axially over the enlarged part of the handle until the upper edge 33 of the ferrule is above the block 22, overlying the skirts 17, and with the ends of the ferrule in tight embracing engagement with the arcuate surfaces 12. At this point, it will be observed that the block 22, being previously held against any bodily shift except laterally through the side openings in the compartment, is now firmly held against any movement whatever, by the continuity of the ferrule extending transversely across the line between the ends 25 of the block and the edges 20 of the short arcuate surfaces of the handle. At this point, therefore, the assembly is placed in the nailing machine, which drives suitable nails or other driven fasteners through the sheet metal ferrule into the nailable block 22, as indicated at 34. The brush is then complete.

The cheapness, rigidity, lightness, efficiency, and utility of the invention will be appreciated.

Having thus described my invention, I claim:

1. A brush handle comprising a shank terminating in a head, said head comprising side surfaces each formed of a short skirt and end arcuate surfaces extending axially of the shank beyond the edges of the skirt, said end arcuate surfaces terminating in intumed flanges having supporting surfaces spaced from the edges of the skirt, and a block mounted on the flanges and in close proximity to the edges of said skirt said block being formed of material capable of receiving and gripping driven nails.

2. A brush comprising a brush handle of metal formed of a shank and an integral enlargement, said enlargement formed of a pair of oppositely presenting arcuate end surfaces spaced by side surfaces, said side surfaces formed of short skirts, a pair of intumed flanges formed on the arcuate end surfaces spaced from the skirts, a block of nailable material having lateral edges forming substantial continuations of said side surfaces mounted on said flanges and held against shifting axially of the shank by the skirts and the flanges and against shifting in one plane transverse of the axis of the shank by said end surfaces, a ferrule axially mounted on the enlargement and enclosing said nailable block to prevent bodily shifting of the latter in a plane transverse of the shank normal to the first mentioned plane, and driven fasteners extending through the ferrule and into said block to maintain the embraced relation of the enlargement by said ferrule.

3. A brush handle comprising a shank terminating in a head, said head forming a compartment open on the sides, at least partially closed on the bottom, and closed on the top, and a block formed of material capable of receiving and gripping driven nails, said head and block being arranged to telescope together to dispose the block in the compartment by relative movements of the head and block transverse of the shank, and said head and telescoped block being arranged to fit telescopically axially of the shank within the ferrule of a brush.

4. A brush comprising a handle having a terminal enlargement, the terminal enlargement comprising laterally of the handle side surfaces and longitudinally of the enlargement arcuate extensions coextensive with the side surfaces to

delineate an oval handle enlargement, means integral with the arcuate extensions angularly divergent therefrom to form a partial bottom closure to a compartment formed of the side surfaces and the end arcuate extensions, a block of fibrous material mounted in the compartment held against motion axially of the handle by such extensions, said block being laterally of such thickness as to be substantially coextensive with the side surfaces of the enlargement, a metal ferrule of oval shape slidable over the enlargement containing the block, nails passing through the metal ferrule and into the fibrous block to simultaneously anchor the ferrule against axial motion relative to the handle and the block against transverse motion in the enlargement, and bristles mounted in the metal ferrule to form a brush having a simulation of a wooden handle processed by the conventional nailing apparatus of such wooden handles.

5. A brush handle for operative nailed association with a metal ferrule containing bristles and means anchoring the bristles in the ferrule, comprising a handle having an oval enlargement arranged for telescopic axial association with such ferrule, such enlargement being transversely cut away to form a compartment defined at the upper end by lateral surfaces of the enlargement and at the lower end by inwardly extending projections mounted on the ends of the enlargement, and a block of material having nail-receiving and gripping characteristics disposed in the compartment and held against axial motion by the said extensions and being of such dimensions as to align substantially with the lateral and end surfaces of the enlargement so as to permit sliding engagement with such ferrule, and arranged so that when such ferrule is in proper telescoping relation on said enlargement nails can be driven through the ferrule into said block to anchor such ferrule and handle together.

6. A brush comprising a non-fibrous handle having an integral enlargement having a long axis and a short axis of such outer profile as to receive a complementally shaped tubular ferrule, said enlargement having a lateral opening into a compartment defined by spaced surfaces on said enlargement presenting toward each other axially of the handle and by portions of said enlargement connecting and forming surface continuations of the said spaced surfaces which surface continuations present toward each other on the long axis of the enlargement, said opening disposed to receive a block of fibrous material inserted laterally of the handle into said compartment wherein said surfaces confine the block axially of the handle and longitudinally axially transversely of the enlargement, said block having lateral surfaces of smaller area than that defined by the lateral surfaces of the enlargement so as to be concealed by such ferrule while furnishing a nail gripping area of block into which nails passing through such ferrule can pass.

7. A brush handle comprising a shank having an axis and an integral head, said shank and head being formed of normally unnailable material, said head being cut away to form internal and external surfaces, the external surface being formed with reference to a long and a short axis of the head transverse of the shank and comprising generally parallel side surfaces merging into generally arcuate end surfaces spaced on the long axis of the head, integral extensions formed on the head axially of the shank and

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partially defining said external arcuate surfaces and also defining internal surfaces, integral flanges extending on the said long axis inwardly toward the shank axis from the extensions and beyond the internal surfaces thereof and defining internal surfaces presenting upwardly axially of the shank generally normal to said long axis of the head, said side surfaces terminating in and merging into an internal surface generally parallel with the long axis, said internal surfaces defining a compartment to receive a block inserted laterally of the head to substantially confine same against movement axially of the shank and transversely of the said long axis.

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