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COATED NAIL

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1 Claim. (Cl. 117—132)

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This invention relates to coated nails of the type having coatings for the purpose of enhancing their frictional resistance to withdrawal after being hammered into wood.

According to the invention, nail coating material is made up consisting by weight of 86 parts Cumar of CX grade, 155 parts gilsonite, 2 to 8 parts plasticizing oil, 475 parts petroleum naphtha, 125 parts asbestine and 75 to 90 parts red oxide of iron. The plasticizing oil may be a semi-drying or slow drying oil such as fish oil or soya bean oil, a refined grade of fish oil being preferred.

In coating the nails, it is considered preferable to mix the first four of the above constituents together and to pour them into a tumbler into which the nails to be coated have been placed, and to add the asbestine and red oxide of iron separately to the tumbler, the nails then being tumbled for from 3 to 6 minutes as required. The amount of the coating material used respecting the amount of nails coated depends on the thickness of coating desired, a satisfactory proportion being 2.4 pints of the liquid consisting of the first four constituents per thousand pounds of 8a sinker nails, with the asbestine and red oxide of iron added as required to provide the proportions previously disclosed. The grade of petroleum naphtha must be selected to suit the nail coating operating conditions. Thus, mineral spirits of the turpentine substitute grade is suitable for very warm conditions, the varnish makers' and painters' grade is suitable for more temperate conditions and the dry cleaners' grade is suitable for cold conditions.

After the tumbling the nails may be removed from the tumbler and barrelled in the usual fashion. In ordinary plant practice no trouble is experienced with the nails sticking together unduly

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when the proper grade of petroleum naphtha is used.

Evaporation of the naphtha produces finished nails having coatings consisting by weight of 86 parts Cumar of CX grade, 155 parts gilsonite, 2 to 8 parts plasticizing oil, 125 parts asbestine and 75 to 90 parts red oxide of iron.

When these coated nails are driven into wood the rapid movement of the nails relative to the wood produces sufficient heat to render the coatings plastic so that they flow slightly and fill the irregularities in the wood while remaining bonded to the nails. The coatings have adequate shear strength so that they will not be torn in half too easily. In addition, the coatings are not readily knocked off during handling and shipping. Nails are frequently carried in the mouth by users and the coating described herein does not present a health hazard in this respect. In addition to all this, the constituents of the coating are available at the time of the present war emergency.

It is to be understood that the principles of the invention are applicable to any metal fastenings of the type that is hammered into wood and the like and frictionally retained therein.

The term "Cumar" as used herein is intended to designate a synthetic resin mixture of polymerized coumarone, indene, and homologous compounds. "Cumar" is made up in different grades according to specific gravity and melting point. The CX grade has a melting point from 111.2° F. to 129.2° F.

I claim:

A metal fastening of the type that is hammered into wood and frictionally retained therein, having a coating consisting by weight of about 86 parts Cumar of CX grade, 155 parts gilsonite, 2 to 8 parts plasticizing oil, 125 parts asbestine and 75 to 90 parts red oxide of iron.

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