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FASTENING

Frank H. Ellsworth and George A. Gleason,
Worcester, Mass., assignors to The American
Steel and Wire Company of New Jersey, a
corporation of New Jersey

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This invention relates to metal fasteners of the type intended for frictional insertion in wood. Such fastenings may be in the form of nails, screws, etc., all of which depend upon frictional engagement with wood for their holding power. In an effort to increase the security of such fastenings, cement coatings of various sorts are sometimes applied to their surfaces. Although these coatings provide an increased frictional coefficient they generally fail in their intended purpose for the reason that the coatings themselves do not firmly adhere to the fastenings.

A fastening embodying the features of the present invention is characterized by having a coating consisting of any of the resins of glycerol-phthalic acid, this coating adhering firmly and tenaciously to the fastening and having a high coefficient of friction with wood.

A wire nail has an unusually shiny and smooth surface and consequently does not always provide sufficient holding power when driven into wood. According to the present invention, the wire nail has a coating consisting of any of the above mentioned resins, this coating being consequently characterized by the above named characteristics.

A superior product may result when the wire nail has a coating consisting of a resin made by reacting glycerol with a phthalic and an aliphatic acid, this coating also being characterized in the described manner and, in addition, having a superior toughness.

One method of making a resin of the character described is by slowly heating glycerol and phthalic anhydride together. Experimentation will show that when this is conducted in the proper manner a resilient resin of the character

desired will result. This resin may be dissolved in a suitable solvent for the purpose of effecting its application to the fastenings. The heating together of phthalic acid and any of the aliphatic acids with the glycerol results in a resin having a toughness not possessed by the single acid product. The resulting resin may be applied to the fastenings through the medium of a suitable solvent, and will produce a product having a tougher coating.

The solvent mentioned above should be of a highly volatile nature. A solution of the resin and solvent is applied to the fastenings without baking, ordinary nail tumblers being a practical apparatus for effecting the application. No drying or semi-drying oils can be used.

We claim:

1. A metal fastening constructed for frictional insertion in wood and characterized by having a coating consisting of any of the resins of glycerol-phthalic acid, said coating adhering firmly and tenaciously to said fastening and having a high coefficient of friction with wood.

2. A wire nail having a coating consisting of any of the resins of glycerol-phthalic acid, said coating adhering firmly and tenaciously to said fastening and having a high coefficient of friction with wood.

3. A wire nail having a coating consisting of a resin made by reacting glycerol with a phthalic and an aliphatic acid, said coating adhering firmly and tenaciously to said fastening and having a high coefficient of friction with wood.

FRANK H. ELLSWORTH.
GEORGE A. GLEASON.