

ALIEN PROPERTY CUSTODIAN

MONOFILS OF SYNTHETIC RESINS

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The present invention relates to articles comprising monofilms consisting of synthetic vinyl-resins.

It is an object of the invention to provide brushes and brooms and other articles hitherto made of natural or hog's bristles. This object is accomplished by using as a substitute for such bristles thick monofil threads of polymeric hydrocarbons, their chlorinated derivatives or their mixed polymerizates made by extruding one of these materials from the nozzle of a heated press and stretching the filament to more than double its original length. The artificial bristles thus produced are preferably of the thickness of 300-6000 deniers and have the necessary stiffness and elastic flexibility to enable them to take the place of natural bristles.

The threads which are to be used for making the bristles may be stretched either directly after they have left the nozzle of the press or as a separate operation. For heating the threads preparatory to the stretching operation heated air or another gaseous medium may be used or the stretching may be performed in a hot liquid which has no solvent section. Threads which

have not been stretched are unsuitable for use as substitutes for bristles on account of their brittleness.

By polymeric hydrocarbons this invention contemplates polyethylene, polyalkylvinyl ketones and conversion products thereof, polyvinyl ethers, polyvinyl esters; by chlorine derivatives of the hydrocarbons, polyvinylchlorides, after-chlorinated polyvinylchlorides and halogen compounds of rubber; by mixed polymerizates, those which contain one or more of the said hydrocarbons or chlorine derivatives thereof, if desired together with other polymerizable substances. The bristles made of these materials are not only useful substitutes for natural bristles in all their applications, but they surpass the natural bristles in various qualities, particularly by their complete incapacity for swelling in water and in their resistance to the attack of alkali lye, acids and putrefying bacteria. The construction of brushes and the like from these artificial bristles presents no difficulty.

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