

# ALIEN PROPERTY CUSTODIAN

## PROCESS FOR MANUFACTURING HOMOGENOUS PLASTIC MATERIAL BY IMPREGNATION

Gaston Hubert Vulliet-Durand, Paris, France;  
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The invention relates to the manufacture of plastic material by impregnating paper, cardboard and other permeable bases, with suitable impregnating materials, in such manner that the mass should be impregnated with the impregnating material to the inmost of the base, after evaporation of the solvent, so as to provide a homogenous plastic material.

The homogenous plastic material thus obtained are valuable products which may be used for many purposes such as artificial leather, artificial hides, etc.

The products as hitherto manufactured by impregnation for various purposes all present the same defect: a cross section of an article thus manufactured shows that the impregnating material is concentrated near the surface, whereas the deeper portions of the base are either deprived of impregnating material or the latter is only present as traces.

The process according to the invention has more specifically for its object to remedy this defect and for this purpose, it consists in solidifying the impregnating material within the permeable base so as to prevent the transfer of impregnating material toward the surface when evaporating the solvents. This solidification of the impregnating material before evaporation of the solvent secures uniform distribution of the impregnating material throughout the mass, whereby the latter possesses the desired properties to the maximum extent.

The process according to the invention broadly comprises coagulation, gellification or precipitation by any suitable means of the impregnating material in solution or in dispersion prior to evaporation of the liquid medium.

The coagulation, gellification or precipitation may be carried out in the usual manner by the action of chemicals, electrolytes, physical factors, etc. . . .

*Example 1.*—For manufacturing artificial leather, a permeable paper, preferably with long fibres, is impregnated in a tepid bath of the following composition:

	Parts
Dissolved extract of rabbit hide or the like (dry material)-----	225
Water (amount varying according to the weight of the product which should remain in the paper after drying)-----	12
Acetic acid-----	12
Formaldehyde-----	30

Usual plastifiers may be added to the composition.

The amounts of acetic acid and formaldehyde will obviously vary according to the nature of the colloid used, but they should be such that the impregnating material is gellified upon removing the base from the liquid composition, before drying.

*Example 2.*—Coagulation by a physical action.

Valuable homogenous plastic material may be obtained by using a solution of albumine, which is coagulated upon removing the material from the base and before drying by an abrupt heating above 75° C.; the impregnating material thus remains within the mass before evaporation of the solvents, and is thus uniformly distributed throughout the permeable base.

*Example 3.*—Precipitation by electrolytes.

The permeable base may be soaked with a casein solution (ammonium caseinate) and then immersed into a slurry of calcium hydroxide before drying, in order to precipitate casein in the form of insoluble calcium caseinate.

Obviously the above examples are only given as an illustration of the manner of carrying out the invention and it will be understood that they do not limit the scope of the invention.

GASTON HUBERT VULLIET-DURAND.