ALIEN PROPERTY CUSTODIAN

PLASTIC MATERIALS AND THE MANUFACTURING PROCESS OF SAME

Gaston Hubert Vulliet-Durand, Paris, France; vested in the Alien Property Custodian

No Drawing. Application filed March 10, 1939

The present invention concerns a sheet shaped plastic material and its manufacturing process, for which are used the various paper pulps, which are wanted to be mixed with substances, which in contact with water, become gelatinous, the 5 association of the two materials making the new one constituting the object of the invention.

It is known that in the paper and pasteboard industries, it is not possible to use, in a large proportion in order to give new properties to the 10 manufactured products, the substances which together with water are making a jelly, owing to the fact of same would retain too much water, render draining impossible in a machine and obturate the wire gauze.

This invention has for its object to eliminate the above mentioned difficulties and to allow the use, at the ambient temperature, of mannane or similar substances. The resulting product is flexible, quite strong against wear, tear and traction, and capable of a large utilisation for industrial purposes. The invention is characterised, in the principle, by the insolubilisation of the mannane, prior to the use in the paper making machines, and in the reduction of same into 25 a meal before or after the said insolubilisation.

Such an insolubilisation is got by means of any known agent: bases, carbonates, lead salts, basic copper, etc.

As a non-limitative example may be mentioned 30 the following process:

First example

- 1. One hundredweight meal of mannane, in a tight recipient, is exposed during a few hours to the ammoniacal gas.
- 2. After the treatment with ammoniac, the product is conveniently ventilated so as to remove any non-combinated part.
- 3. Battery working. Within a battery containing the wanted volume of water for mixing and 40 refining, are introduced:

Paste of various cellulosecwt_	1
Meal of insolubilised mannanecwt	1
Meal of soluble mannanelbs	56

The soluble mannane is aggregated in order to make easier the binding between the insoluble mannane and the paste.

4. The whole is duly refined and diluted in the tub, and forwarded to the machine, round form or flat table as usually.

Second example

- Two hundredweight meal of mannane are baked in a water bath (during the required time, its insolubility being indicated by taking off a sample) including:
 - 2. 45 lbs. potassium or sodium carbonate.
- Water to which is added a miscible liquid in the wanted quantity for dissolving the carbonate and covering the product.
 - 4. After baking, the whole is washed within the centrifugal drying machine and mixed, as above said, in the battery, etc.

For working the 2nd example, every precipitation or jellification agent of the pseudosolutions of mannane can be used into solution in the water instead of the miscible liquid such as, for instance, alcohol, acetone, etc. The product thus obtained into sheets or otherly shaped are dried either by a press, a centrifugal machine or any other suitable means, and kept during a certain time in a gelatinising bath for the insolubilised mannane, such as:

Water acidulated, glycerined, formoled or similar.

The wanted product is obtained after drying.

The above indications are given only as examples, and the details of realisation and working may be variated in each application without departing from the principle of the invention.

GASTON HUBERT VULLIET-DURAND.