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UNITED STATES PATENT OFFICE

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PLASTIC COMPOSITION

No Drawing. Application filed July 31, 1928. Serial No. 296,607.

My invention relates to the production of an article of manufacture having heat insulating properties and possessing great lightness, is soft and porous and suitable for linings or fillers in buildings as well as many other uses.

It is produced in a similar manner to paper or cardboard to form large sheets which are subsequently cut up into pads of suitable size and contour in accordance with its intended use. For this reason it is preferably of uniform thickness. It is well suited for foundation for other objects that are hard and heavy or any sort of padding where heat-insulation is needed or sound-proof walls are required.

In the following the preferred method of manufacture of this porous, sound- and heat-insulating material which forms the subject matter of the present invention is described, but it is evident that many modifications may be made and particularly as regards the ingredients selected, the latter depending mainly on the locality where the articles are manufactured, so that in the South, where cotton stalks are abundant, these would form the basic ingredient; while in the other places, where cornstalks, wood shavings or the like abound, they would form the base as being the cheapest and easiest to obtain.

The ingredients for the mix are principally fibre, as from cotton stalks and waste paper, preferable old newpapers. Of these ingredients approximately 75% in weight of fibre is taken with 25% of paper waste, finely comminuted and placed in a mechanical mixer together with sufficient water to produce a flowing substance or mix of creamy consistency. The water should be heated sufficiently, say to 250 or 300 degrees Fahrenheit, in order to act in the binder contained in the waste paper. In case more binder is found necessary, finely comminuted rosin may be dissolved in the hot water before added to the other ingredients in the mechanical mixer. When rosin is used the weight proportions would be approximately 67 to 73% cotton stalk or other vegetable fibre, 25% waste paper and 8 to 2% rosin.

The creamy mix is then pumped from the mechanical mixer and passed through rolls, which should be heated, and on to and endless belt, as in paper making, forming long sheets which are subsequently cut or in any suitable manner divided and shaped into pads of required size and form.

This pad is very suitable for use in combination with a hard, waterproof object, such for instance, as is described in my co-pending application, Serial No. 296,606 for "plastic compound", filed simultaneously herewith. In that case the plastic compound may be cast and pressed over one of said pads to form a permanent unit therewith as for shingles, tiles or the like.

It is to be understood that the invention as here disclosed is not limited to the details of composition and steps in the process but that these may be varied widely without departing from the spirit of the invention, as defined by the claim.

What I claim is:

As an article of manufacture a heat-insulating material comprising finely comminuted cotton stalk fibre, 67 to 73% (by weight); finely comminuted paper waste, 25% by weight; and dissolved rosin, 2 to 8% by weight.

In witness whereof, I have hereunto set my hand at Washington, District of Columbia, this twenty-seventh day of July, A. D. nineteen hundred and twenty-eight.

GEORGE B. STRYKER, JR.