

UNITED STATES PATENT OFFICE.

JULIUS DE LONG, OF NEW YORK, N. Y.

INSULATING MATERIAL.

SPECIFICATION forming part of Letters Patent No. 622,450, dated April 4, 1899.

Application filed July 20, 1898. Serial No. 686,395. (No specimens.)

To all whom it may concern:

Be it known that I, JULIUS DE LONG, a citizen of the United States, residing in New York, (Brooklyn,) in the county of Kings and State of New York, have invented a new and useful Improvement in Insulating Materials, of which the following is a specification.

My invention relates especially to mixtures or compositions of material employed for insulating against heat and cold and for deadening sound, and has for its object the provision of a simple, cheap, and effective insulator of this character.

To attain the desired end, my invention consists, essentially, in the use of cattle-hair in combination with ground corncob, ground cornstalk-pith, jute-waste, and mineral wool, either all together or mixed in accordance with the especial use to which the insulating material is to be put, the mixture being used in bulk or held between walls of paper or equivalent material, all of which will be hereinafter first fully described, and then pointed out in the claim.

In carrying my invention into effect the cattle-hair is thoroughly mixed or combined with ground corncob, ground pith of cornstalks, jute-waste, or mineral wool, all used conjointly, or any one or more of said mate-

rials is used in combination with another or others or with the cattle-hair.

The mixture may be used in bulk or placed and held between outer walls of paper, and such paper may be made fireproof or waterproof, or both fire and water proof, and may be stitched or quilted, or the paper may be coated upon its inner surface with adhesive material in order to keep the inclosed mixture in place.

This insulating material, while cheap and simple to produce, is very effective in use and may be employed for a great variety of purposes—as in the walls of railway-cars, ice-houses, refrigerators, or similar locations, as an insulator against heat and cold in walls and partitions, as a deadener of sound, &c.

Having now fully described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

An insulating material, consisting of a mixture of cattle-hair, ground corncob, ground cornstalk-pith, jute-waste and mineral wool, substantially as set forth and described.

Signed by me, at New York city, this 19th day of July, 1898.

JULIUS DE LONG.

Witnesses:

A. M. PIERCE,
C. A. PIERCE.