

UNITED STATES PATENT OFFICE,

ARCHIBALD K. LEE, OF GALVESTON, TEXAS.

COMPOSITION FOR ROOFING AND PAVING.

SPECIFICATION forming part of Letters Patent No. 257,501, dated May 9, 1882.

Application filed February 20, 1882. (Specimens.)

To all whom it may concern :

Be it known that I, ARCHIBALD K. LEE, a citizen of the United States, residing at Galveston, in the county of Galveston and State of Texas, have invented a new and useful Composition for Roofing, Paving, and other Purposes, of which the following is a specification.

The object of my invention is to produce a compound which is strong, tenacious, and pliable, which will not be affected by climatic changes, and which will resist the corrosive action of acids and alkalis; and to this end my invention consists in a compound composed of asphaltum, pine-tar, and oxide of iron, as will more fully hereinafter appear.

In carrying out my invention I take of crude natural asphaltum two thousand pounds, (2,000 lbs.) pine-tar four hundred pounds, (400 lbs.)—preferring the tar made by the combustion of the wood known as the "*Pinus australis*," or "long-leaf pine"—and to these (the asphaltum and pine-tar) I add, when in a perfect state of solution, two hundred pounds (200 lbs.) of oxide of iron. These ingredients are combined by the action of heat until the water is entirely evaporated therefrom and a homogeneous mass is formed. The tar and the oxide of iron have a strong affinity for the asphaltum, and form a perfect composition, remarkable for its pliability, strength, and tenacity, and only excelled by rubber or gutta-percha, and which, in point of fact, can be substituted for the same in many of the arts, as it possesses merits which neither rubber nor gutta-percha has—viz., that it does not decompose when combined with oil or fatty substances.

This compound can be used to great advantage in the useful arts. I will in this connection enumerate some of the most important uses to which it can be applied. For paving

purposes it may be mixed with ground or pulverized stone, sand, or gravel, and spread on the road-bed or pressed into blocks. For roofing it may be spread on the roof-boards or applied to canvas or roofing-felt, either before or after it is put on the roof. For enameling cloth or leather it will be found unsurpassed, as it has a jet-black finish. For covering burlap or canvas for sacks used in transporting or storing valuable ores, superphosphates, chloride of lime, nitrate of soda—in fact, any and all merchandise which requires covering to resist the corrosive action of acids or alkalis or any material which is liable to melt or liquefy by exposure to the air—for insulating telegraph or telephone wires and formation of cables for submarine purposes, and as a base for an enamel for all metal work, it will be found of great value.

I do not limit myself to the precise proportions of ingredients as herein specified, as it is obvious that they may be varied to a greater or less extent without departing from the spirit of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A compound consisting of natural asphaltum, pine-tar, and oxide of iron, in about the proportions specified, and for the purposes set forth.

2. A new article of manufacture consisting of canvas or other textile felted or fibrous fabric saturated or coated, or both, with a compound of natural asphaltum, pine-tar, and oxide of iron.

ARCHIBALD K. LEE.

Witnesses:

GILBERT O. MEIGGS,
H. C. ALLER.