UNITED STATES PATENT OFFICE.

CHRISTOPHER S. McGINN, OF ST. LOUIS, MISSOURI.

ASPHALT EXPANSION-JOINT.

950,541. Specification of Letters Patent. Patented Mar. 1, 1910.

No Drawing. Application filed May 24, 1909. Serial No. 497,896.

To all whom it may concern:

Be it known that I, CHRISTOPHER S. McGINN, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Asphalt Expansion-Joints; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to paving materials and has special reference to a paving of material of elastic character adapted to be used in the expansion joints of brick or other paving.

One object of the invention is to provide a composition for expansion joints of improved character.

With the above and other objects in view as will be hereinafter apparent the invention consists in general of a novel form of paving material adapted to be used in expansion joints.

The invention further consists in certain novel details of composition and an improved method of manufacture hereinafter fully described and specifically set forth in the claim.

The material of which these joints are made consists of sand to the extent of about 84% and this sand should be fine enough to pass through a screen from 50 to 200 mesh. To this sand is added 4% of lime in the form of a bicarbonate or hydraulic cement, the sand is then heated in a suitable pan to about 200 degrees Fahrenheit. After the sand has been thus heated there is added 12% of asphalt, cement composed of 50% of asphalt and 50% of residuum or crude petroleum oil. The mixture is then heated to 300 degrees Fahrenheit and turned until thoroughly mixed. At this degree of heat the composition is semi-fluid and may be run into light dusted molds and tamped or rolled so as to form strips about four inches wide and of convenient length to handle.

The process may be varied somewhat by the use of old asphalt which has been torn up in repaved streets. When this is desired the old asphalt has the place of a portion of the new asphalt and the sand contained in the old renders it unnecessary to add this to the mixture. In utilizing the old asphalt a suitable quantity is placed in the mixing pan and about one-half of 1% of water is added. After this has been heated to 300 degrees Fahrenheit there is added 4% bitumen composed of 60% of asphalt and 40% of residuum or petroleum oil. The heat is then run up to 300 degrees, the mixture thoroughly stirred run into molds and tamped or rolled as before. In either of these methods the whole mixture may be spread evenly over a platform and tamped or rolled to the proper thickness.

No matter which method of manufacture is used the resulting mass will consist of 84% of sand, 4% of lime, 6% of asphalt and 6% of petroleum oil or residuum.

It is found that by the specific proportions used in this composition a material is made which has the peculiar property of spreading out from the strips, when the latter are in position, as the paving blocks on either side thereof are depressed by the passage of wagons and the like thereover. In other words, the material retains a certain amount of plasticity after its manufacture and its being placed in position.

The composition is found to possess a large degree of elasticity while at the same time it is sufficiently hard to prevent too rapid wear. The composition is furthermore water proof.

By the use of an increased amount pitch may be substituted for the asphalt so that the resulting mixture consists of 82% of sand, 4% of lime, 8% of pitch and 6% of petroleum oil.

Having thus described my invention what is claimed as new, is:—

An elastic material for paving, comprising a mixture of 84% sand, 4% lime, 6% asphalt and 6% petroleum oil.

In testimony whereof, I affix my signature, in presence of two witnesses.

CHRISTOPHER S. McGINN.

Witnesses:
WM. E. FITZGERALD,
E. W. ERDMANN.