

# ALIEN PROPERTY CUSTODIAN

## POROUS BUILDING ELEMENT

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My invention relates to porous building elements of that class in which a skeleton of grains is formed, and the grains are coated with, and connected by, a binder. Such elements are produced by mixing the binder with a quantity of water which is just sufficient for making the binder coat and connect the grains of the skeleton, but not for embedding the grains in the binder, for in this case the element would lack porosity.

By way of example, filter bodies are made in this manner by mixing concrete with the aforesaid low percentage of water.

It is an object of my invention to provide a wider range of usefulness for such porous elements by making them mechanically stronger, and at the same time more resistant to corrosion, atmospheric and other detrimental influences, than the filter bodies or other elements produced heretofore.

To this end, I impregnate the porous mixture of grains and binder which constitutes the element aforesaid, with a plastic protective substance by which the pores, or interstices in the skeleton, are filled, and a solid element is produced.

A "plastic protective substance" is one which is liquid in one condition, so that it readily penetrates into the pores of the element, and solid in the other condition, so that it braces the element and protects it against chemical action.

Such a substance is tar.

The element according to my invention can be used for a great variety of purposes. It may be spread on a road or street as a covering, or molded into paving stones, curb stones or the like, or

insulating slabs or plates, drain pipes, and many other objects. It may also be combined with bodies of other materials, for instance, attached to a slab of stone or concrete to which its binder sticks firmly, or sandwiched between two slabs as an insulating layer.

When it is desired to use the element according to my invention as a road bed, a porous mixture, for instance, of sand and cement, or of some other material, such as ballast, crushed fire-clay, or the like, and some other binder, such as waterglass or the like, with or without a froth-forming agent, for instance, soap, is spread on the moistened road bed of ballast, concrete, or the like. The mixture is allowed to set and is then impregnated with a plastic protective substance, preferably coal tar, in liquid condition. The tar flows into the pores of the mixture by gravity, or it may be forced into them by pressure or suction.

A road covering of this kind is vastly superior to the usual coverings, and particular to the coverings of split and tar. When such coverings are heated by the sun, the tar becomes plastic or even liquid and rises to the surface of the covering which becomes soft and is rapidly worn to destruction. In a covering made according to my invention, on the other hand, the tar, being uniformly distributed in the pores of the mixture, is restrained even in hot weather, and the covering remains firm and elastic. Another advantage is that the binder in the element, usually cement, adheres firmly to the bed and prevents the formation of cavities which are so detrimental in road coverings of the old type.

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