

No. 711,115.

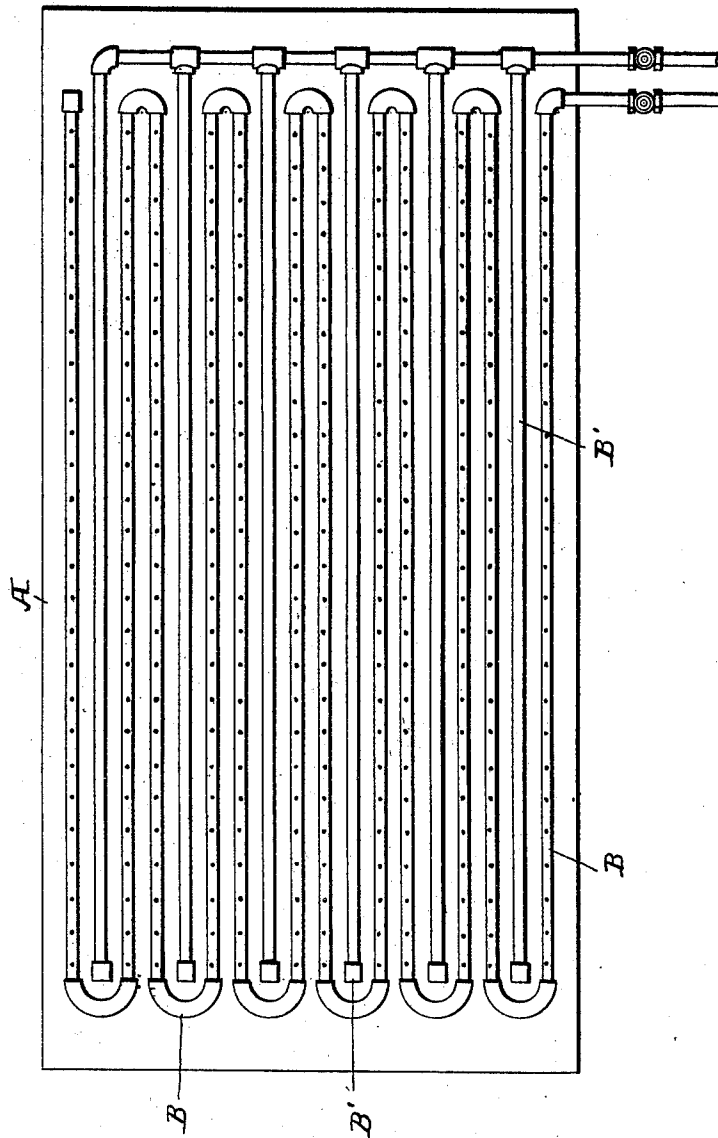
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W. H. LOBER.

METHOD OF UTILIZING OLD PAVING MATERIAL.

(Application filed July 6, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM H. LOBER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE BARBER ASPHALT PAVING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF WEST VIRGINIA.

METHOD OF UTILIZING OLD PAVING MATERIAL.

SPECIFICATION forming part of Letters Patent No. 711,115, dated October 14, 1902.

Application filed July 6, 1899. Serial No. 722,964. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. LOBER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Methods of Utilizing Old Paving Materials, of which the following is a specification.

My invention has for its object to make effective use of old paving material—that is, the blocks of hardened asphalt mixture which result from breaking up asphalt pavements after being laid. Such old material may be the broken portions of pavements that have been in use for years or parts of recent pavements taken up in laying street-mains or for other reasons. This material, whether of old or recently-laid pavements, I term “old material,” and to prepare it for reuse I first heat the same until it is plastic and then combine it with heated asphaltic paving mixture, working the two together, forming a new mixture, which is laid as usual. If the old paving material is from a pavement that has been long in use and from which the volatile portions have evaporated, I add to the heated mixture such proportion of petroleum residuum, asphalt cement, or equivalent material as may be required to impart to it the characteristics of ordinary paving mixtures.

While the old material may be heated in different ways, I have found that it can be most readily and rapidly reduced to a plastic condition by the use of hot air or preferably steam. One effective and inexpensive form of apparatus is shown in the accompanying drawing, and consists of a plank platform A, on which lie a perforated pipe-coil B and an unperforated coil B', both communicating with a hot-air blower or steam-generator. The blocks of old paving material are thrown onto the coil and the material is covered with a canvas and hot air or steam is passed into the coil, when the material will soon be thoroughly softened and reduced to a proper condition for admixture with other materials. The steam is now turned off from the perforated pipes, but remains in the unperforated pipes, so as to further heat and expel the moisture from the material. The

ordinary heated pavement mixture of asphaltic cement, sand, and stone-dust is prepared as usual, but is heated to a greater degree than usual, and the hot plastic old material and hot new material are together thrown into the usual mixer and there ground and mixed together and discharged as pavement mixture, which is carried in a heated state to the street and laid as usual by applying it to and consolidating it on the road-bed. It is not readily practicable to heat the material upon the platform to over about 200° Fahrenheit; but this is sufficient to render it plastic, and by so heating it I am enabled to avoid heating the regular mixture to the degree otherwise necessary.

By the means described I am enabled to secure a pavement mixture a large proportion of which is of old material, but which is fully equal to a mixture wholly of new material.

In many pavements a binding layer consisting of stones of comparatively large size is laid upon the foundation and is covered by and incorporated with the paving mixture. As a result in such cases the blocks of old paving material have adhering to them particles from the binder course, which it is necessary to remove. By heating the old material as aforesaid the removal of the stones of the binder course is greatly facilitated. In practice I lay the blocks face downward and scrape off the stones after the blocks become softened.

I claim as my invention—

In the utilizing of old pavement material first heating broken blocks of said material by the direct application of jets of hot steam, then turning off the steam and applying heat until the moisture is expelled and then adding to and mixing with it new pavement composition, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM H. LOBER.

Witnesses:

CHAS. FRANCIS GUMMEY,
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