No. 777,862. PATENTED DEC. 20, 1904.

F. J. NASH.

PAVEMENT FOR ROADS OR OTHER USES.

APPLICATION FILED AUG. 4, 1904.

NO MODEL.

Fig. 1.

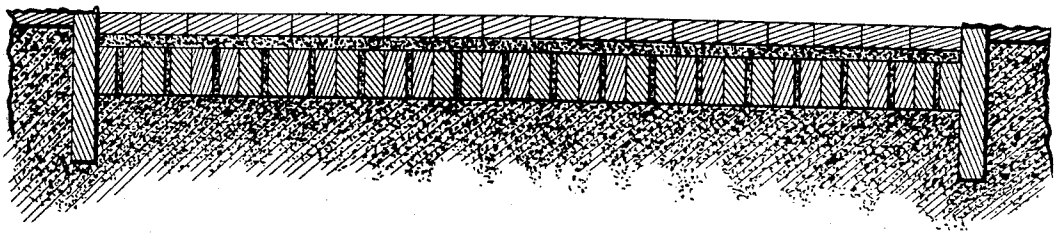


Fig. 2.

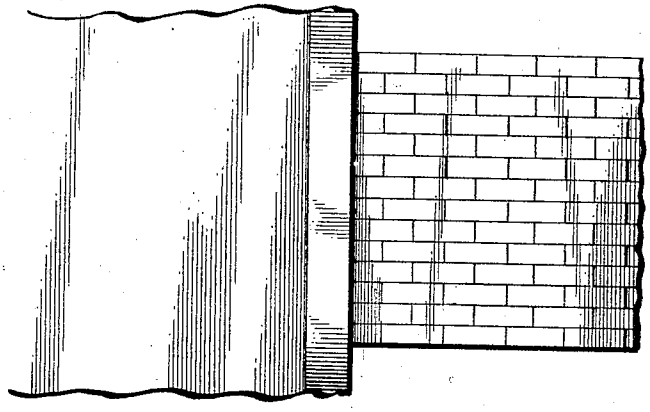
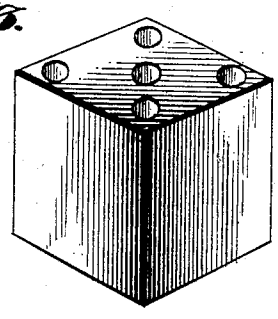


Fig. 3.



WITNESSES:

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No. 777,862. Patented December 20, 1904.

UNITED STATES PATENT OFFICE.

FREDERIC J. NASH, OF NEW YORK, N. Y.

PAVEMENT FOR ROADS OR OTHER USES.

SPECIFICATION forming part of Letters Patent No. 777,862, dated December 20, 1904.

Application filed August 4, 1904. Serial No. 219,418.

To all whom it may concern:

Be it known that I, FREDERIC J. NASH, a citizen of the United States, and a resident of the borough of Brooklyn, city and State of New York, have invented certain new and useful Improvements in Pavements for Roads or other Uses, of which the following is a specification.

The object of the invention is to provide a road structure which will be made to the highest degree attainable for providing the following advantages: resistance to wear and tear, non-slippery surface when wet or dry, resistance to disintegration and injury from moisture and various organic substances to which roads are subjected, and resistance to the action of frost and other destructive agencies.

The improved road in its simplest form consists of a foundation layer which rests upon the soil or other underlying surface and consists of sand-lime blocks fitted and preferably cemented together, upon this a layer one or two inches thick of sand, and upon this a wearing-surface of bricks or blocks, preferably of devitrified brick, or in lieu of it hard-burned but non-vitreous brick, or as an inferior substitute for the surface blocks of sand-lime brick.

By "devitrified brick" I mean brick that has been subjected to a gradual cooling off sufficient to devitrify the material after it has been vitrified, as well understood by those skilled in the art of brick-making. By "sand-lime bricks or blocks" it will be understood that I mean, for example, bricks or blocks of sand and lime pressed at a suitable temperature and steamed, so as to form a dense hard material that differs widely from natural sandstone and still more from natural limestone and which after being subjected to moisture and freezing repeatedly is apparently improved and not in the slightest degree injured thereby. Furthermore, it has the quality of absorbing a desirable degree of moisture.

In the accompanying drawings I illustrate in Figure 1 a cross-section of my improved road, in Fig. 2 a plan of the same, and in Fig. 3 a view of one of the foundation sand-lime blocks.

The form of the blocks which I prefer to use is cubical and with five or more vertical perforations extending all the way through the blocks. These blocks should be laid in rows breaking joints and cemented together with Portland, Rosendale, asphaltic, or other good cement. Upon this layer is superposed a layer of sand one or two inches thick, the sand being preferably filled into the holes in the sand-lime blocks and evenly rolled down. Upon the layer of sand is finally superposed the wearing-surface of devitrified bricks of usual brick size and form set on edge and making a layer about four inches thick. This surface layer may be laid in cement or may be laid dry and then dusted over with fine sand. In either event it forms finally a substantially rain-proof surface, as the sediment from the surface in combination with the sand between the bricks will soon render them impervious to rain. The sand layer beneath the surface also forms an elastic cushion between the wearing-surface and the sand-lime blocks at the base. The jars and pressure of traffic are transmitted diagonally as well as vertically downward from the point where the jar or load is applied. The sand acting to some extent as an elastic cushion transmits the load without excessive shock or jar to a considerable number of the underlying sand-lime blocks. These sand-lime blocks retain enough moisture to prevent the drying out of the cement between them, but, on the other hand, do not absorb or retain enough moisture to disintegrate them by frost. The devitrified-brick wearing-surface is not subject to cracking under the contraction and expansion of the different temperatures and coöperates with the underlying sand-lime bricks at all temperatures. Where sand-lime surface blocks are used, these of course act homoge-

neously with the sand-lime bricks beneath. It will of course be understood that additional layers may be introduced in my road so long as they do not interfere with the coöperation and integrity of the road described.

What I claim as new, and desire to patent, is the following:

1. A road comprising at least the following three layers: a layer of sand-lime blocks with vertical perforations filled with sand, the blocks being cemented together, a cushion layer of sand and a superposed layer of devitrified bricks.

2. A road comprising at least the following three layers: a layer of sand-lime blocks with vertical perforations filled with sand, the blocks being cemented together, a cushion layer of sand, and a superposed layer of bricks.

3. A road comprising a foundation layer of sand-lime blocks cemented together, a cushion layer of sand, and a superposed layer of brick blocks.

4. A road comprising a foundation layer of sand-lime blocks, a cushion layer of sand and a superposed layer of blocks.

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

FREDERIC J. NASH.

Witnesses:
EUGENE N. ROBINSON,
A. L. O'BRIEN.