

No. 777,859.

PATENTED DEC. 20, 1904.

F. J. NASH.

ROAD OR PAVEMENT.

APPLICATION FILED JUNE 12, 1903.

NO MODEL.

Fig. 1.

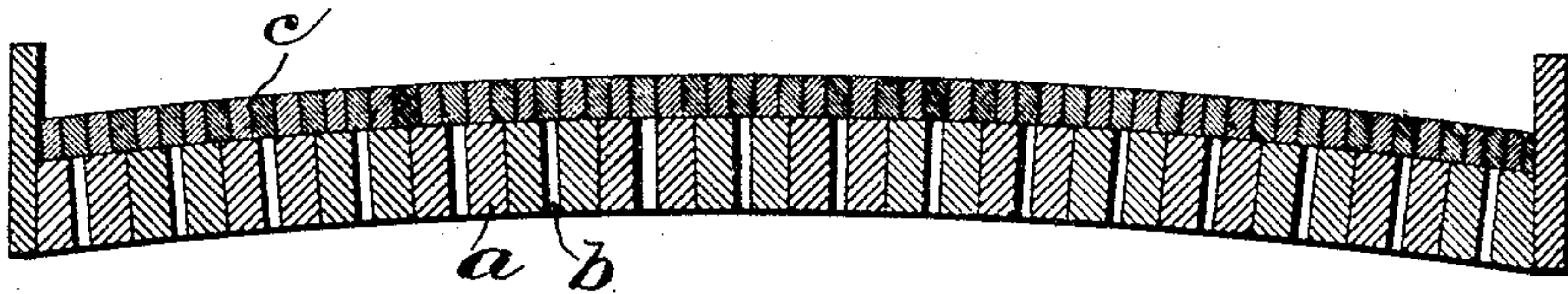


Fig. 4.

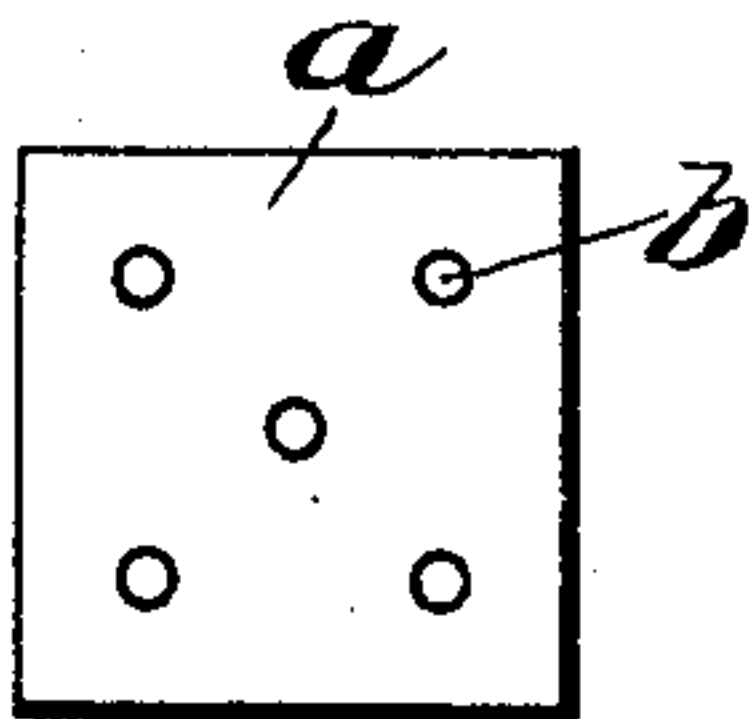


Fig. 2.

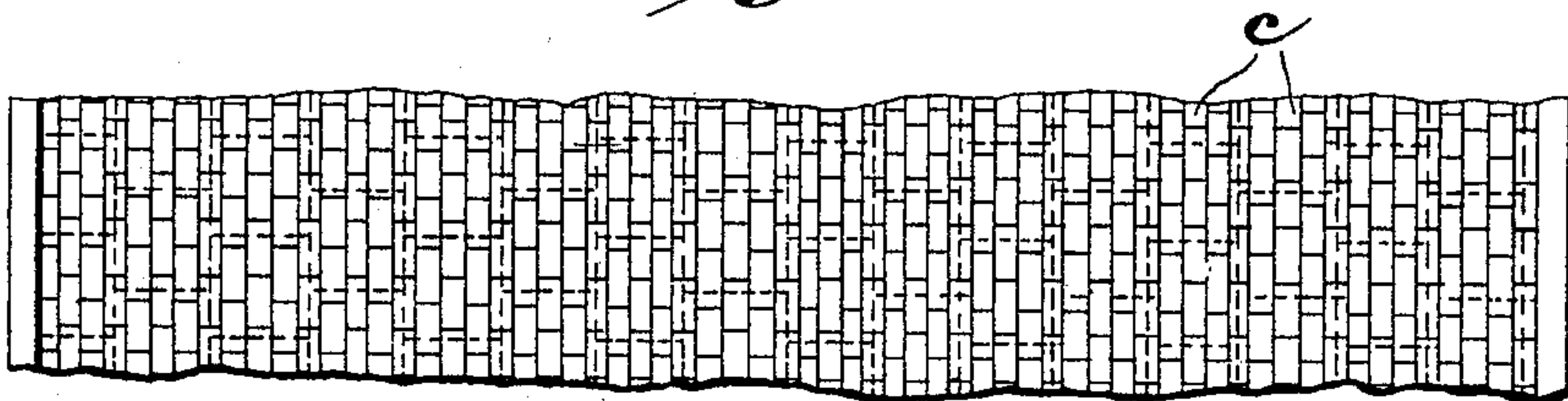


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE

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ROAD OR PAVEMENT.

SPECIFICATION forming part of Letters Patent No. 777,859, dated December 20, 1904.

Application filed June 12, 1903. Serial No. 161,172.

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 Roads or Pavements, of which the following is a specification.

The object of this invention is to provide a road or pavement which is a substitute for and is far superior to the roads or pavements which have heretofore been made of blocks, either entirely or with a suitable wearing-surface in addition to the blocks.

A further object of the invention is to provide a road or pavement composed of blocks which is durable, cheap, and efficient and in which the blocks are of hard-burned brick carefully and thoroughly burned without vitrifying any part, or, better yet, of bricks burned at a vitrifying heat, but annealed by slow cooling, forming devitrified brick, which is exceedingly tough and not readily cracked.

A further object of the invention is to provide a block road or pavement with a good, strong, and heavy or massive foundation, which is furnished with a superposed layer which may readily expand and contract under the heat of the direct rays of the sun, and which will not be cracked or damaged by frost or in any other manner, and which may be readily replaced in case it forms the wearing-surface.

Another object of the invention is to take advantage of the provisions of nature by building the road or pavement of a material which may be readily obtained in the vicinity in which the same is to be built.

To these ends my invention consists of certain features of construction, to be hereinafter described and then particularly claimed.

In the accompanying drawings, Figure 1 represents a cross-section of a road or pavement embodying the present invention. Fig. 2 is a plan view of the road or pavement, the outlines of the blocks of the lower layer being shown in dotted lines. Fig. 3 is a cross-section of the road or pavement in modified form, and Fig. 4 is a plan view of a lower block.

The road according to the present inven-

tion is in the main composed—that is to say, its mass is composed—of hard-burned brick, which is tough and supports the weight of the traffic without breaking. By reason of the fact that the mass of the road or pavement is composed of blocks derived from clay the road may be readily and economically built in those sections of the country which abound with clay.

Referring to the drawings, *a* indicates the lower or foundation layer of hard-burned or non-vitreous brick-blocks, which are preferably made of the size of foot-cubes having holes *b*. They are laid in cement upon the prepared soil of the road-bed, preferably in courses, such as shown in Fig. 2, which break joint one with the other. This foundation or lower layer *a* forms the weight-sustaining portion of the road or pavement and is hence of greater bulk than the portion of the road or pavement which is supported on it. Upon the lower or foundation layer *a* is supported a superposed layer *c* of smaller non-vitreous hard-burned brick-blocks, which desirably break joint with the lower blocks. One reason for breaking joint with the lower blocks is that the weight transmitted from a single upper block to the foundation-blocks is carried by two foundation-blocks. Another reason is that the upper surface of the superposed layer *c* will be less deformed by traffic and will wear away gradually, after which it can be replaced. The blocks of the superposed layer *c* are of less size than the blocks of the lower or foundation layer *a*. This is for the reason that these blocks are to form the renewable wear portion of the road or pavement, and therefore should not be as heavy as the foundation or lower layer. Further, the superposed blocks being smaller than the lower blocks and of devitrified or non-vitreous brick are less liable to crack from the direct contact of the traffic and may more readily expand and contract under the heat of the direct rays of the sun. There being a great number of joints between the blocks of the upper layer for a given area, water will not remain in the road or pavement, but that which is not shed off will be drained off through the joints, and as the larger blocks of the foundation layer have the

holes *b* these will drain off the water which has leaked through the upper layer.

It will be understood that the number of layers and the relative thickness of each, as well as the relative sizes of the blocks composing the pavement or road, may be varied without departing from the principle of the invention. The blocks used should be thoroughly burned with extreme care, so as to avoid vitrifying the same, as that would make the surfaces weak, slippery, noisy, and glass-like.

As shown in Fig. 3, the superposed layer *c* need not furnish the wear-surface; but a separate wear-surface, as *d*, may be provided composed of any suitable concrete. I prefer, however, the form of the invention shown in Figs. 1 and 2, in which the whole mass of the road or pavement is essentially composed of at least two layers of non-vitreous burned brick-blocks, the upper blocks being of less size in every direction than the lower blocks.

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

1. A structure for roads and the like, comprising a lower or foundation layer of blocks in which the blocks break joint with themselves and a superposed layer of blocks breaking joint with themselves and with the lower blocks, at least the lower layer of said structure being composed of devitrified brick, substantially for the purpose set forth.

2. A structure for roads and the like, comprising a lower or foundation layer consisting essentially of tough devitrified brick, and a superposed layer of smaller blocks, substantially for the purpose set forth.

3. A structure for roads and the like, comprising a lower or foundation layer consisting essentially of tough devitrified brick, and a superposed layer, consisting essentially of devitrified brick-blocks, substantially for the purpose set forth.

4. A structure for roads and the like, comprising a lower or foundation layer consisting essentially of tough devitrified brick, and a superposed layer of smaller devitrified brick-blocks, substantially for the purpose set forth.

5. A structure for roads and the like, comprising a lower layer consisting of relatively large blocks of brick provided with passages forming water-ducts, and a superposed layer of smaller brick-blocks cemented together and covering the said passages, whereby such water as leaks through the relatively more numerous joints of the superposed layer may at once run to earth.

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

FREDERIC J. NASH.

Witnesses:

E. VAN ZANDT,

GEO. L. WHEELOCK.