No. 681,834. Patented Sept. 3, 1901.

C. K. PORTER.

BRICK OR BLOCK PAVEMENT.

(Application filed Oct. 11, 1900.)

(No Model.)

Fig. 1.

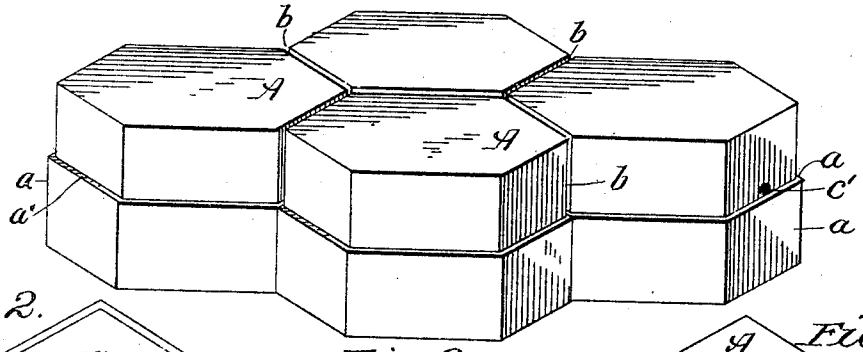


Fig. 2.

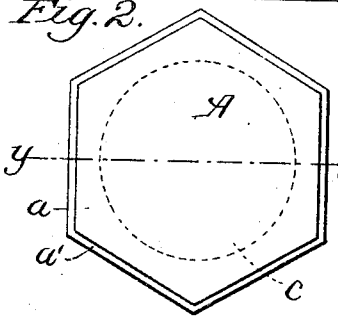


Fig. 3.

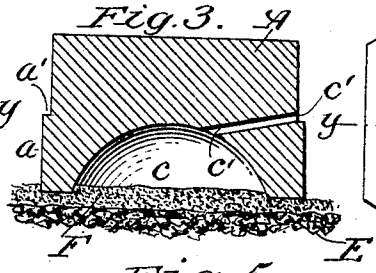


Fig. 4.

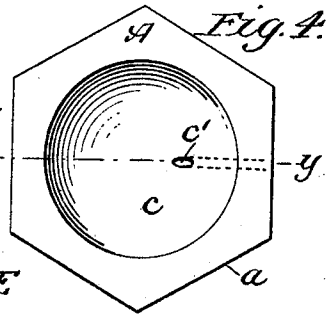


Fig. 5.

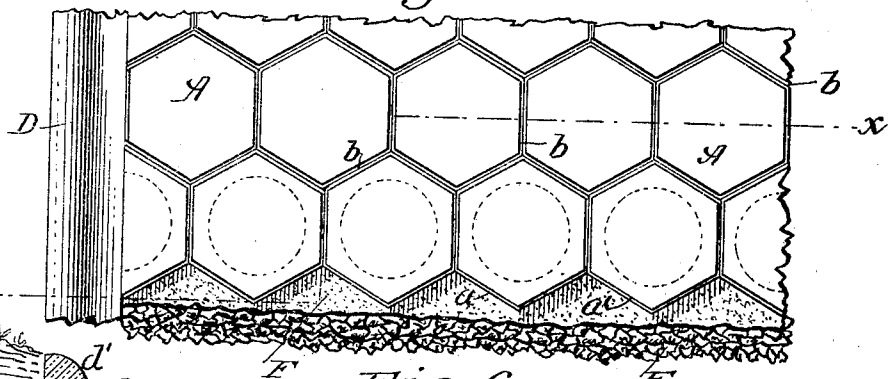
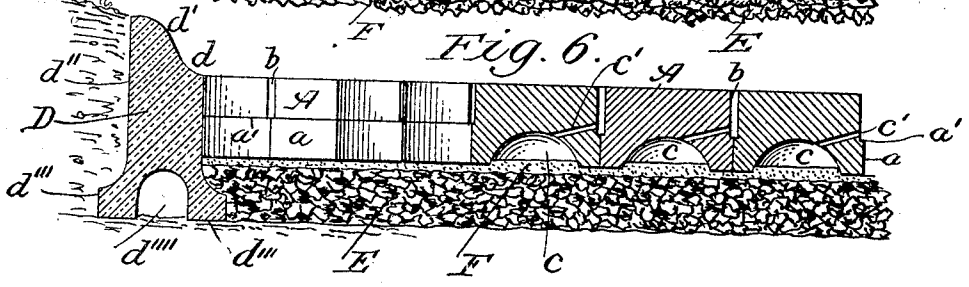


Fig. 6.



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BRICK OR BLOCK PAVEMENT.

SPECIFICATION forming part of Letters Patent No. 681,834, dated September 3, 1901.

Application filed October 11, 1900. Serial No. 32,782. (No model.)

To all whom it may concern:

Be it known that I, CYRUS K. PORTER, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Brick or Block Pavements, of which the following is a specification.

The object of this invention is to produce a smooth, firm, and durable pavement which can be easily laid and in which the expense of repairing or resurfacing is reduced to a minimum; and it consists in certain improvements in construction, which will be fully disclosed in the following specification and claims.

In the accompanying drawings, which form part of this specification, Figure 1 is a perspective of four of the paving brick or blocks, showing the manner of assembling the same; Fig. 2, a top plan view of one brick or block; Fig. 3, a vertical section on line *y y*, Fig. 2; Fig. 4, a bottom plan view; Fig. 5, a plan view of a portion of a street laid with my improved brick or block pavement, and Fig. 6 a transverse section thereof on line *x x*.

Reference being had to the drawings and letters thereon, A indicates a many-sided polygonal or, preferably, hexagonal paving brick or block, which may be made of any suitable material. The brick A are provided with an enlarged base *a*, forming a shoulder or offset *a'* at the upper end of the base and extending around the brick, so that when the brick are arranged side by side an irregular joint or channel *b* is formed between that portion of the brick above the base and the offset *a'*. The brick are provided with a bottomless air-chamber, formed in the lower portion thereof, and with a vent *c'*, extending from the air-chamber to the outside of the brick above the shoulder *a'* and upper part of the brick into a channel *b* when the brick are placed in position for forming a pavement.

D represents the curbing, made, preferably, in blocks set end to end and along both sides of the street, and which is provided with a concavo-convex upper edge or surface, as indicated at *d* and *d'*, vertical sides *d''*, a base or laterally-extending enlarged lower portion *d'''*, and a longitudinal drain-channel *d''''*, formed in the enlargement or base for carrying off the surface water, which is absorbed on either side of the street, and prevent the same from accumulating under the bed of the pavement and causing consequent damage to the pavement either from settling or by frost. The curbing will form the subject-matter of a separate application for a patent.

In constructing my pavement the curbing D is first set up, as shown in Figs. 5 and 6, and a foundation E, of broken stone and cement, is laid in the usual manner, extending over the inner enlarged portion *d'''* to secure the curb against being raised by frost. The surface of the foundation is then covered with a bed F, of cement or other suitable hard-setting plastic material, and while the bed F is still in a plastic condition the brick are set in position, with their bases close together, and pressed into the plastic material, causing a portion thereof to be forced into the air-chamber *c*, thus forming a solid bearing and securing each brick against lateral displacement. The displaced air in the chamber *c* is forced out through the vent *c'* into the open channel *b*. After the brick have been nicely bedded and leveled the channel *b* is filled with cement, asphaltum, or other plastic hard-setting material, thus closing the vents *c'*, firmly interlocking the brick, and making a practically smooth, level, impervious, and hence a perfectly sanitary pavement.

By the employment of the many-sided brick the joints between them are constantly intersected, thereby avoiding long joints in either direction, and consequently increasing the wearing quality or life of the pavement, and by providing the brick with the offsets or shoulders *a'* the laying of the pavement is expedited and a uniform width and depth of channel between the brick preserved, thus making the pavement more durable, sightly, and less expensive than pavements as ordinarily laid, with irregular spaces or channels between them and filled with cement or other hard-setting or plastic material. The air-chambers *c* form insulators, and thus greatly overcome the effects of expansion and contraction of the brick and prevent the freezing of water-pipes under the pavement in extreme cold weather.

Having thus fully described my invention, what I claim is—

1. A paving brick or block having an off-

set or shoulder on one or more of its sides, an air-chamber, and a vent leading therefrom to a point above said shoulder.

2. A polygonal paving brick or block having an offset or shoulder extending around the brick, an air-chamber, and a vent leading therefrom to a point above said shoulder.

3. A pavement composed of brick or blocks having a plurality of equal angular sides provided with offsets or shoulders forming channels of equal width around the brick, air-chambers in the brick communicating with said channels by means of vents, and a hard filling in said channels.

4. A pavement composed of polygonal brick or blocks having enlarged bases, and shoulders or offsets at the upper ends of the bases forming channels of equal width and depth around all the sides of the brick and extending to the surface of the pavement air-chambers in the brick provided with vents communicating with said channels, and a filling in said channels.

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