April 27, 1926. 1,582,638

R. B. CRABBS

EXPANSION JOINT

Filed Oct. 3, 1921

Fig. 1.

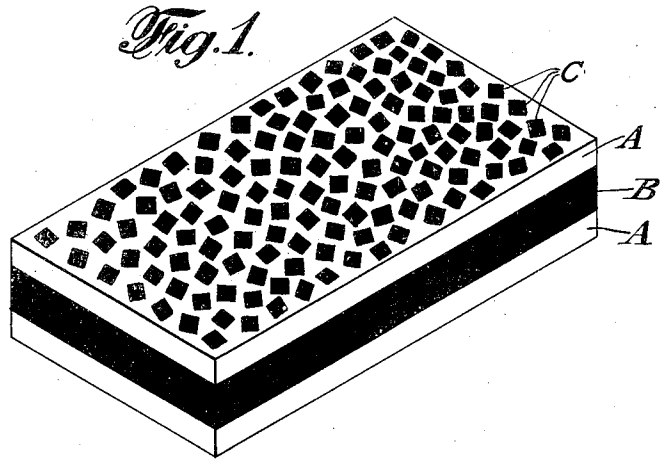
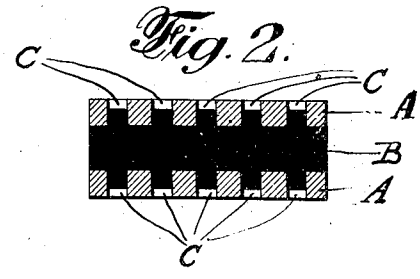


Fig. 2.



Inventor

Roscoe B. Crabbs

By his Attorney

Jos. W. Miller Jr.

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UNITED STATES PATENT OFFICE.

ROSCOE B. CRABBS, OF CINCINNATI, OHIO, ASSIGNOR TO THE PHILIP CAREY MANUFACTURING COMPANY, A CORPORATION OF OHIO.

EXPANSION JOINT.

Application filed October 3, 1921. Serial No. 504,958.

To all whom it may concern:

Be it known that I, ROSCOE B. CRABBS, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton, State of Ohio (whose post-office address is Lockland, Cincinnati, Ohio), have invented new and useful Improvements in Expansion Joints, of which the following is a specification.

My invention relates to expansion joints for use wherever such a joint is suitably adapted to compensate for the expansion and contraction due to climatic changes in temperature. It is especially adapted for use in pavements or roadways and more especially concrete roadways. It may be used wherever there is need for such a joint in concrete work. I have found that in the form shown in Fig. 2 when the expansion joint is placed in position and the concrete poured, it, the concrete, flows into the holes CC forming in the concrete little lugs which locks the joint in place.

I have found that by use of a layer of felt or paper on either or both of the surfaces of an expansion joint that, while it facilitates shipment and handling generally, it sometimes prevents satisfactory locking or anchoring of the joint in position. To overcome this I arrange a series of holes of any desired form in the felt or paper and have the bituminous compound pass into or extend through these holes so that when the joint is installed the bituminous compound by its adhesive qualities firmly locks the joint to adjacent blocks of concrete or other material.

I have found that by the use of a layer of asbestos paper in combination with a body of bituminous compound a more lasting and satisfactory joint is formed.

In the drawing Fig. 1 is a perspective view of my joint, Fig. 2 is a cross section of a modification. In the drawing I have shown my expansion joint having a piece of asbestos paper or felt A on each side of a body of bituminous compound B. The asbestos paper or felt may be either saturated with a bituminous saturant or may be unsaturated as desired. If desired any felt other than asbestos or any other paper could be used. I perfer however to use a felt which is in its nature elastic as are wool and asbestos felts. I also prefer to have the holes C in the paper or felt A in staggered arrangement so that when the joints are packed upon each other there is less liability for the same to adhere as the lugs of bituminous material in the holes are less liable to be brought into alignment.

In the manufacture of my joint I preferably compress same so that the bituminous compound fills the holes and gives a substantially level surface, as in Fig. 1, but if a felt, or paper of substantial thickness, is used I may only partially fill the holes as shown in Fig. 2 so as to further prevent adherence of the joints when packed upon each other. In the later case the compression of the felt when the joint is in place will cause the bituminous material to extend to or beyond the exterior surface of the paper or felt and the consequent adhesion with adjacent pavement take place.

Claims:

1. In an expansion joint a mass of bituminous material, elastic flexible bituminous saturated surface layer thereon and openings in said layer to permit contact of the bituminous material with adjacent material.

2. In an expansion joint a mass of bituminous material, a flexible asbestos surface layer thereon and openings in said layer to permit contact of the bituminous material with adjacent material.

In testimony whereof, I have signed my name to this specification.

ROSCOE B. CRABBS.

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