Nov. 2, 1926. 1,604,991

R. D. GREGG ET AL

CONCRETE PAVEMENT

Filed Dec. 31, 1925

Fig. 1.

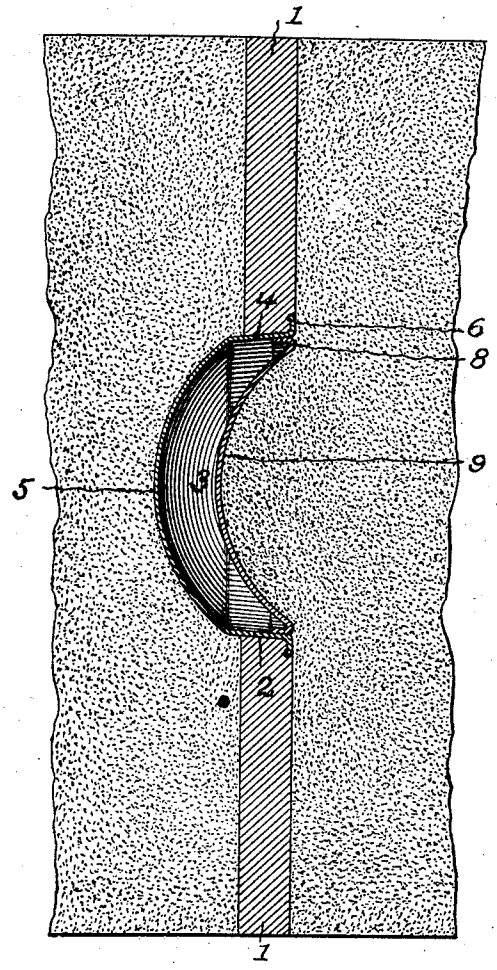


Fig. 2.

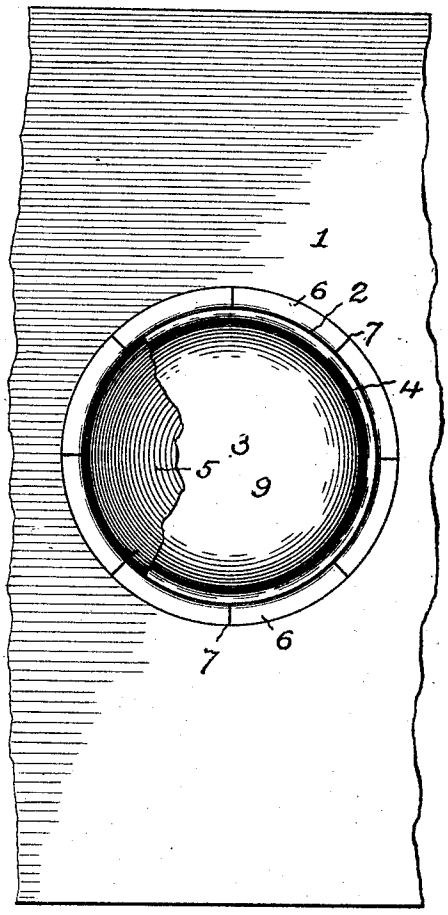


Fig. 3.

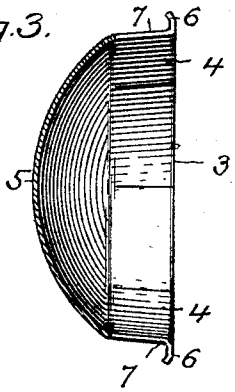
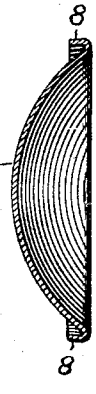


Fig. 4.



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UNITED STATES PATENT OFFICE.

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CONCRETE PAVEMENT.

Application filed December 31, 1925. Serial No. 78,574.

This invention relates to that type of concrete pavements in which the concrete mass forming the pavement is separated by parting plates or strips, properly positioned before the unset mass of concrete material is deposited in place, such parting strips remaining in place when the pavement is completed, and in most cases, are formed of compressible material so as to yield under the expansion stress of the finished pavement slabs. And the present improvement has for its object:

To provide a structural formation and combination of parts in a parting strip of the type described, by means of which a substantial and effective bond or connection between the adjoining ends of the concrete paving slabs is attained with provision to provide for the expansion of the slabs after the same has set into a pavement body, all as will hereinafter more fully appear.

In the accompanying drawing:

Fig. 1 is a detail vertical section illustrating the invention in place between the adjoining ends of a pair of concrete pavement slabs.

Fig. 2 is a side view of a parting strip with a compressible plug or insert in place.

Fig. 3 is an axial section of the outer shell of the preferred form of plug.

Fig. 4 is a similar view of the inner shell of the same.

Like reference numerals indicate like parts in the different views.

Parting strips or plates for concrete pavements and the like as generally used, are formed from sheets of bituminous felt or other equivalent substance capable of compression under a stress that would tend to split or crack the material forming a concrete pavement slab, and the present improvement relates to means in connection with such type of parting strip whereby the adjoining ends of the slabs are interconnected and held from independent vertical shift in relation one to the other, and to such end consists as follows.

At or about the mid-width, and along the length of the parting strip or plate 1, a plurality of orifices 2 are formed in spaced relation, and in such orifices are inserted plugs or inserts 3, capable of longitudinal compression under the same compression strain as that to which the parting strip 1 may be exposed.

In the preferred construction shown in the drawing, each plug or insert consists of an outer and an inner shell of plate metal adapted to slide together and having a detail formation as follows:

The outer or main shell comprises a border wall or web 4, preferably of a circular shape, and having at one end a closure head 5, that is preferably of a convex or sphero-convex shape, and at the other end a marginal stop flange 6 adapted to position the outer shell in an orifice 2 of the parting strip aforesaid. The flange 6 is preferably formed with radial slits 7 to permit a ready crumpling of the flange 6 into the material of the parting strip 1 under a compressive action of the pavement slabs in actual use.

The inner shell consists of a border wall or web 8 adapted to have a sliding fit in the border wall 4 of the outer shell and is provided at its outer end with a closure head 9, preferably of a concave or a sphero-concave form as shown.

With the described construction, and with a sectional plug or insert 3 in place in a transverse orifice 2 of the parting strip 1, the convex or other like projecting end of the plug 3 is adapted to form and occupy a corresponding form of recess in the end of the pavement slab to resist independent vertical movement between said slab end and the parting strip 1. In like manner the other concave or like receding end of the plug 3 is adapted to form and embrace a corresponding form of projection on the end of an adjoining pavement slab, to prevent a similar independent vertical movement between said slab end and the parting strip 1.

With the usual expansion of the pavement slabs, the usual compression of the compressible parting strip 1 takes place, and with the present improvement applied, the shells or sections of the longitudinally compressible plugs 3 are adapted, under the described compressive strain, to move together while maintaining the interlocking engagement intended in the present improvement.

Having thus fully described our invention, what we claim and desire to secure by Letters Patent, is:

1. A compressible parting strip for concrete pavements, formed with a series of orifices along its length and midway its height, and compressible inserts of lengths approximating the thickness of said parting strips arranged in such orifices with their respective ends formed for engagement with the

end of the pavement slabs to hold the same against independent vertical shift.

2. A compressible parting strip for concrete pavements, formed with a series of orifices along its length and midway its height, and compressible inserts arranged in such orifices and having their ends of convex and concave forms respectively, and adapted for engagement with the ends of the pavement slabs to hold the same against independent vertical shift.

3. A compressible parting strip for concrete pavements, formed with a series of orifices along its length and midway its height, and compressible inserts arranged in such orifices and having their ends of sphero-convex and sphero-concave forms respectively, and adapted for engagement with the ends of the pavement slabs to hold the same against independent vertical shift.

4. A compressible parting strip for concrete pavements, formed with a series of orifices along its length and midway its height, and compressible inserts aranged in such orifices, each plug comprising a pair of shells slidable together with the ends of the shells formed for interlocking engagement with the ends of the pavement slabs.

5. A compressible parting strip for concrete pavements, formed with a series of orifices along its length and midway its height, and compressible inserts arranged in such orifices, each plug comprising a pair of shells slidable together with the ends of the shells having convex and concave forms respectively for engagement with the ends of the pavement slabs.

6. A compressible parting strip for concrete pavements, formed with a series of orifices along its length and midway its height, and compressible inserts arranged in such orifices, each plug comprising a pair of shells slidable together with the ends of the shells having sphero-convex and sphero-concave forms respectively, for engagement with the ends of the pavement slabs.

7. A compressible parting strip for concrete pavements, formed with a series of orifices along the length and midway its height, and compressible inserts arranged in such orifices, each plug comprising a pair of shells slidable together with the ends of the shells formed for interlocking engagement with the ends of the pavement slabs, one of said shells having a marginal stop flange.

8. In a compressible parting strip for concrete pavements, formed with a series of orifices along its length and midway its height, and compressible inserts arranged in such orifices, each plug comprising a pair of shells slidable together with the ends of the shells formed for interlocking engagement with the ends of the pavement slabs, one of said shells having a marginal stop flange formed with a plurality of radial slits.

Signed at Kankakee, Illinois, this 29th day of December, 1925.

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