April 22, 1930. A. A. KRAMER 1,755,480

ROAD PARTING STRIP

Filed Nov. 14, 1927

Fig. 1.

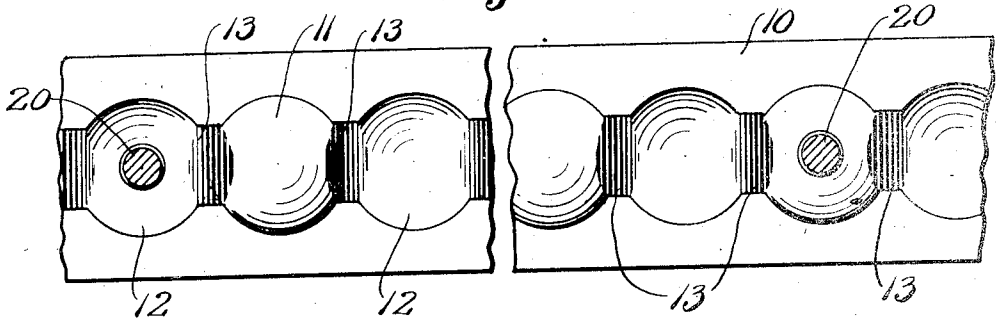


Fig. 2.

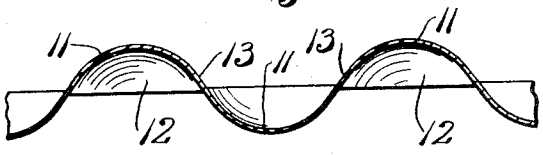


Fig. 3.

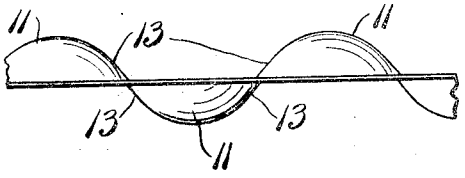


Fig. 4.

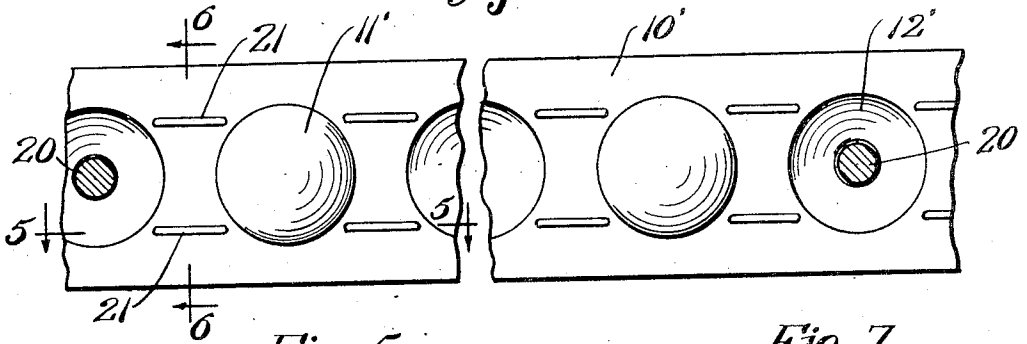


Fig. 5.

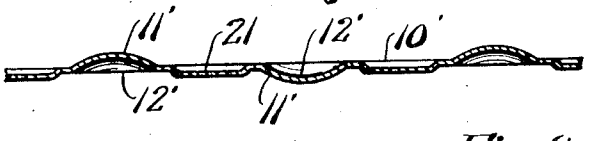


Fig. 7.

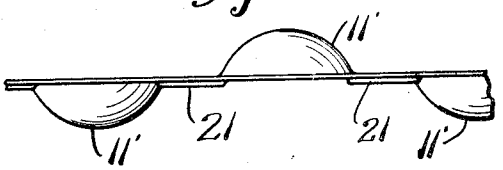


Fig. 6.

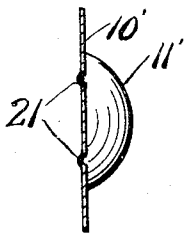
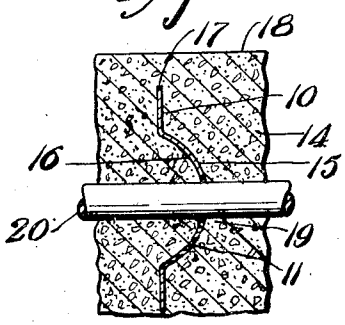


Fig. 8.



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UNITED STATES PATENT OFFICE

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ROAD PARTING STRIP

Application filed November 14, 1927. Serial No. 233,179.

My invention relates to parting strips for concrete construction and more particularly to metallic road parting strips.

In the building of concrete roadways and more particularly in building a roadway that is provided with reenforcing means, it is customary to employ a metal strip embedded in the concrete so as to have the top edge thereof located below the top surface of the concrete. The purpose of the strip is to artificially form a crack over the same and thus prevent the cracking of the concrete irregularly and also to provide means for keying the adjoining sections of concrete lying side by side together in the direction of the length of the roadway. Obviously the parting strips could be used for concrete construction of other character and also could be extended transversely or otherwise in the roadway as well as lengthwise.

It is the purpose of my invention to provide a road parting strip of sheet metal that will more thoroughly key the adjoining sections of the concrete together than has previously been the case. In the previously used road parting strips it very frequently happens that the portion of the concrete that forms a tongue is broken off, due to the weight of vehicles passing over the joint and as a result the keying of the sections by means of the parting strip is lost. I have found that by providing a plurality of relatively shallow oppositely directed offset portions in the strip, forming rounded sockets for receiving correspondingly rounded projections of the concrete and forming rounded projections receiving correspondingly rounded sockets in the concrete, the road sections are more securely keyed together and the possibility of the projections being broken off is almost entirely eliminated.

It is more particularly the purpose of my invention to provide a road parting strip with partly spherical offsets therein, adjoining offsets being oppositely directed so that each thereof forms a partly spherical socket portion on one side of the strip and partly spherical projection on the other side of the strip. These offset portions may be spaced or may overlap as may be found to be the most desirable and suitable stiffening formations for the strip are provided between the offset socket forming portions. When the concrete is poured on the opposite sides of the strip the resultant joint provides rounded spherical projections and rounded spherical socket portions receiving the projections with the projections oppositely directed in alternating relation and with the metallic parting strip interposed between the two sections of concrete. When the offset portions are spaced the projections may be partly rounded, although not quite hemispheres, thus being partly spherical, whereas if the offset portions are overlapped the stiffening portions merge with the spherical surface to break the rounded contour thereof.

Other objects and advantages of my invention will appear as the description of the drawings proceeds. I desire to have it understood, however, that I do not intend to limit myself to the exact details shown or described but that I intend to include as part of my invention all such obvious changes and modifications as will occur to a person skilled in this art and as would fall within the scope of the claims.

In the drawings:

Fig. 1 is a side elevation partly broken away of my improved road parting strip.

Fig. 2 is a central longitudinal sectional view of a portion of the strip shown in Fig. 1.

Fig. 3 is an edge view thereof.

Fig. 4 is a view similar to Fig. 1 of another form of my invention.

Fig. 5 is a longitudinal sectional view of the portion of the strip shown in Fig. 4 taken on the line 5—5 of Fig. 4.

Fig. 6 is a section taken on the line 6—6 of Fig. 4, and

Fig. 7 is an edge view of the strip shown in Fig. 4.

Fig. 8 is a vertical sectional view through a portion of the concrete showing my improved parting strip in position therein.

Referring in detail to the drawings, the road parting strip shown in Figs. 1 to 3 inclusive comprises a sheet metal body portion 10 that is normally plane faced. Said sheet metal strip is preferably run through rolls

to form the offsets thereon whereby the socket formations are formed Said offsets 11 are preferably oppositely directed as will be evident from Figs. 2 and 3 and comprise portions of surfaces of spheres less than hemispheres. Partly spherical socket portions 12 are thus formed on the inside of the offsets, the outside of the offsets forming correspondingly rounded projections. It will be noted from Figs. 2 and 3 that the offsets 11 project on opposite sides of the center line of the strip so as to alternate lengthwise of the strip, thus a socket 12 opens first on one side of the strip and then on the other side of the strip lengthwise of the same. In order to stiffen the strip between the offsets 11 said offsets are overlapped slightly as shown in Fig. 1 and plane obliquely extending stiffening portions 13 are provided between adjoining offsets 11, the stiffening portions 13 extending obliquely in opposite directions as will be noted in Fig. 2. Due to the fact that the projections 13 extend obliquely to the main body portion 10 of the strip the same will stiffen the strip between the offsets 11. Said stiffening portions 13 merge with the curved surfaces of the offsets 11 as will be clear from the drawings. A row of alternating oppositely directed sockets is thus formed lengthwise of the strip, the outer surfaces of the strip opposite the sockets forming similarly shaped projections. Due to the gradually rounding surface of the projections and sockets, thus formed, concrete, which is shown in Fig. 8 and indicated by the numeral 14 will form itself in the correspondingly shaped socket portions 15 and projections 16, the strip 10 being imbedded in the concrete with the upper edge portion 17 thereof spaced slightly below the top surface 18 of the concrete. The portions of the concrete on opposite sides of the strip will thus be keyed together by a chain of interlocking projections and socket portions, forming a continuous row or chain lengthwise of the strip. Due to the rounded nature of the formations the tendency of the same to break off will be considerably reduced and furthermore due to the tendency of the road sections to separate slightly transversely of the roadway the rounded projections will leave the socket portions in which the same are located to a less degree than would more sharply tapered projections upon separation of the opposed roadway sections. In other words there will be a larger cross-section of the projection still engaged with the socket in the rounded form than if a more angular shaped form of projection or rib were used as has previously been the custom. As reenforcing rods are commonly used in the concrete roadways, openings or perforations 19 are provided at the properly spaced intervals in the strip 10 to receive the reenforcing rods 20, said openings 19 being preferably located centrally of the offsets 11.

In the form shown in Figs. 4, 5 and 6 the offsets 11′ are spaced to provide rounded partly spherical socket portions 12′ in the strip 10′ the socket portions being oppositely directed so as to project alternately on opposite sides of the strip as previously described, the projections are furthermore perforated at intervals to accommodate the reenforcing rods 20 as previously described in connection with Figs. 1 to 3 inclusive. Instead of providing the stiffening portions 13, considerably elongated offset stiffening portions 21 are provided between the socket forming projections, said stiffening portions 21 overlapping adjoining projections 11′ slightly lengthwise of the strip so that the projections 21 and the socket forming projections 11′ together act to stiffen the strip throughout the length thereof. Obviously the offsets 11′ will operate in substantially the same manner as the offsets 11 when the strip is placed in the concrete except that the number of offsets in a given length of strip will be less than in the form shown in Figs. 1 to 3 inclusive.

It will be obvious that due to the projecting offsets on both sides of the strip and the corresponding formation of socket portions on both sides of the joint in the concrete, it will not be necessary to make the projections in a strip such as that shown in the drawings as great as is the case in a projection extending only on one side of the strip as the socket portions and projections will interlock on both sides of the joint.

Having thus described my invention, what I desire to claim and secure by United States Letters Patent is:

1. A parting strip having a plurality of closely spaced concavo-convex lateral offsets therein curved in all directions and forming a socket on one side of each thereof and a projection on the other side of each thereof opposite said socket, adjacent ones of said offsets being oppositely directed.

2. A parting strip having a row of closely spaced concavo-convex lateral offsets therein curved in all directions and forming a socket on one side of each thereof and a projection on the other side of each thereof opposite said socket, said offsets alternating to provide alternate projections and sockets on both sides of said strip.

3. A parting strip having a plurality of closely spaced concavo-convex lateral offsets therein curved in all directions and forming a socket on one side of each thereof and a projection on the other side of each thereof opposite said socket, and laterally offset connecting portions joining said socket forming offsets.

4. A parting strip having a plurality of closely spaced partly spherical lateral offsets therein forming a socket on one side of each thereof and a projection on the other side

of each thereof opposite said socket, and laterally offset connecting portions joining the partly spherical offsets.

5. A parting strip having a row of closely spaced concavo-convex lateral offsets therein curved in all directions and forming a socket on one side of each thereof and a projection on the other side of each thereof opposite said socket and relatively short stiffening formations between said offsets and overlapping the same.

6. A parting strip having a plurality of closely spaced concavo-convex lateral offsets therein curved in all directions and forming a socket on one side of each thereof and a projection on the other side of each thereof opposite said socket, adjacent ones of said offsets being oppositely directed, and relatively short laterally offset connecting portions joining said socket forming offsets.

7. A parting strip having a plurality of closely spaced concavo-convex lateral offsets therein curved in all directions and forming a socket on one side of each thereof and a projection on the other side of each thereof opposite said socket, certain of said offsets being perforated.

8. A parting strip having a plurality of closely spaced partly spherical lateral offsets therein forming a socket on one side of each thereof and a projection on the other side of each thereof opposite said socket, certain of said offsets being centrally perforated.

9. A parting strip having oppositely directed overlapping partly spherical lateral offsets therein each forming a socket on one side thereof and a projection on the other side thereof.

10. A parting strip having oppositely directed overlapping partly spherical lateral offsets therein each forming a rounded socket on one side thereof and a rounded projection on the other side thereof.

11. A parting strip having oppositely directed overlapping partly spherical lateral offsets therein each forming a socket on one side thereof and a projection on the other side thereof and inclined stiffening formations between said offsets and merging therewith.

12. A parting strip having a substantially plane top and bottom portion and a keying portion between said plane portions, said keying portion comprising a plurality of closely spaced concavo-convex lateral offsets curved in all directions, each forming a socket one one side thereof and a projection on the other side thereof opposite said socket, said offsets alternating to provide alternate projections and socket portions on both sides of said strip.

13. A parting strip having a substantially plane top and bottom portion and a keying portion between said plane portions, said keying portion comprising a plurality of closely spaced concavo-convex lateral offsets curved in all directions, each forming a socket on one side thereof and a projection on the other side thereof opposite said socket, said offsets alternating to provide alternate projections and socket portions on both sides of said strip and overlapping lengthwise of said strip to provide a longitudinally extending continuous stiffening formation.

In testimony whereof, I hereunto subscribe my name this 4th day of November, 1927.

ANDREW A. KRAMER.