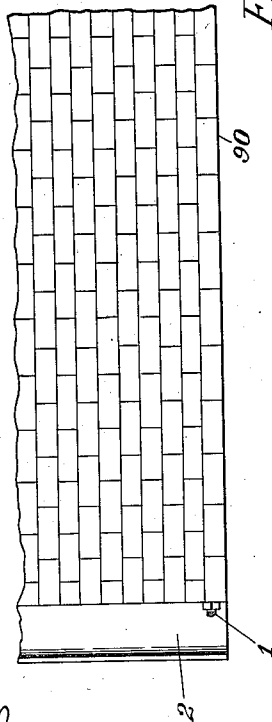


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Fig. 2.



WITNESSES:

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H. M. Bayles

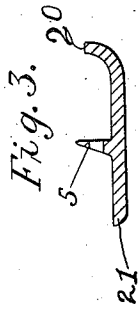


Fig. 1.

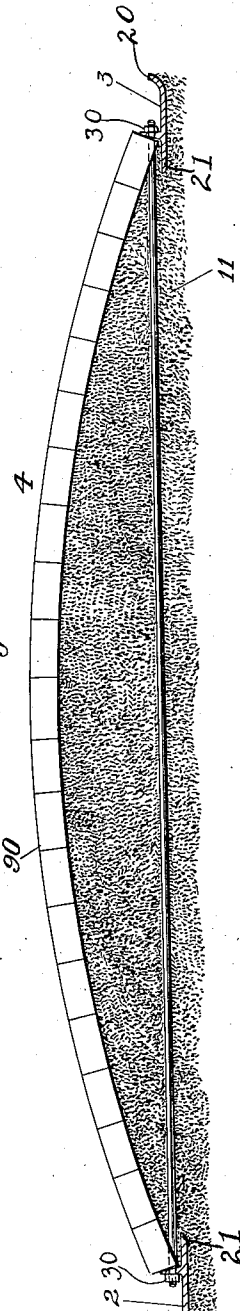


Fig. 4.

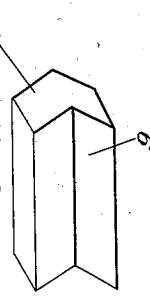


Fig. 5.

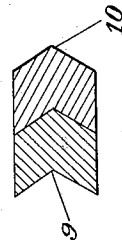
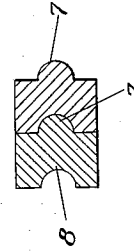


Fig. 6.



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ROBERT P. SCOTT, OF CADIZ, OHIO.

ROAD.

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Specification of Letters Patent.

Patented May 11, 1915.

Application filed April 19, 1913. Serial No. 762,191.

To all whom it may concern:

Be it known that I, ROBERT P. SCOTT, a citizen of the United States, residing at Cadiz, Harrison county, Ohio, have invented certain new and useful Improvements in Roads, of which the following is a specification.

My invention relates to the construction of roads.

10 The object of my invention is to make a stronger road of cheaper construction.

My invention applies more particularly to roads in which bricks are used as a surface but the same principle can be used with cement or other continuous material for the surface of the roadway. There are usually three expensive component parts of a paved road in practical use. The first is the foundation upon which the road is laid, 15 which has generally consisted of gravel or broken stone. The second part is the curbing which has been generally made of stone or of late of concrete. The third part, namely the covering, consists of a continuous solid surface such as concrete or metal, but has also been made of bricks of wood or of clay.

In accordance with my invention I dispense with the foundation of gravel or stone and with the stone or concrete curb. To 30 accomplish this end, I secure the arch of the road against crushing mainly by a steel rod which forms a chord for the arch and joins the two curbs from side to side. I also use a steel angle or channel iron in place of stone or concrete.

In the drawing, Figure 1 is a cross section of my road. Fig. 2 is a plan view of the surface of the road. Fig. 3 is a cross 40 section of the curb. Fig. 4 is a perspective view of a single brick. Fig. 5 is a cross section of a pair of adjoining bricks. Fig. 6 is a cross section showing a modified form of the bricks.

45 Suitable means are provided for supporting the arch and joining together the curbs. As shown in the drawings, the tie-rod 1 connects the channel curbs 2 and 3 underneath the arch 4. The curbs are identical in shape but on opposite sides of the road. The separate and removable tie rod 1 having threaded ends carrying nuts 30 and the curbs 2, 3 hold the arch 4 of the road and are constructed so as to sustain the same. 55 The curb 2 has an upwardly extending flange 5 which is perforated at intervals

and which supports the outer row of bricks at the side of the road. The curb is also provided with an outward and upwardly extending projection 20 to form a gutter. 60 The inwardly extending lip 21 of the gutter insures stability by the prevention of rocking of the gutter. This lip is embedded in the foundation of the road. It may also help to support the arch. The perforations in the 65 flange 5 receive the tie rods.

While the arch, as a whole, is supported as indicated, suitable means are provided so that pressure upon a single brick is transferred to the other bricks so as not to dislocate the brick and break the arch. In 70 order to distribute any such local pressure, I make use of interlocking means for the bricks along their vertical sides and I break joints in the bricks. The particular kind 75 of interlocking means employed may be varied. As illustrated, I make use of a special shape or cross section of brick as shown in Figs. 4, 5, and 6. For convenience of manufacture I may make use of the 80 modified form of interlocking brick shown in Fig. 6 with projections and recesses, namely tongues 7 and grooves 8. In Figs. 4 and 5 the bricks 90 are made with angular recess 9 and projections 10 which inter- 85 lock. The joints between the ends of the bricks, as shown in Fig. 2, come opposite the body portions of the bricks of the next row. In other words the bricks break joints at their ends.

90 Since the introduction of the automobile upon our highways, a difficulty has arisen which cannot be ignored in modern road-building. This is the tendency to side-slip or skid. In order to take account of this 95 difficulty, I construct my curbs 2, 3, in channel form into which the automobile will drop and be checked in its side movement. The channel furthermore indicates to the driver just when he has given as much of 100 the road as possible in passing another vehicle and has the further advantage of acting as a side gutter to carry water to points along the road where it may be drained off.

A filling of cement or tar between the 105 bricks is generally necessary to make the surface waterproof and more firm. It is also quite an advantage to cover the ground under the bricks with a thin layer of cement particularly if the road bed be of 110 sand.

In making ready to build my road, it is

only necessary to round up the dirt 11 as usual. Very hard rolling is of an advantage when a great weight is to be sustained by the arch.

5 I am aware that it has been proposed to use an arch in many kinds of roofs and bridges, but it is evident that a wide road or highway presents problems not common to such structures.

10 What I claim is:

1. The combination of an arched road built up of bricks or blocks, channel irons forming curbs at opposite sides supporting the arch, each having an upwardly extending flange to receive a tie rod and an outer and upwardly extending projection to form a gutter, and separate and removable tie rods with threaded ends carrying nuts, said rods passing through said upwardly extending flanges and connecting said channel irons.

2. The combination of an arched road surface built up of bricks or blocks, channel irons at opposite sides supporting the arch and forming guttered curbs, said channel irons having upward-projecting inner flanges against which the ends of the arch bear and also flanges projecting inward beneath the ends of the arch, and tie rods connected to said upward-projecting flanges.

3. The combination of an arched road surface built up of bricks or blocks, channel irons, arranged at opposite sides there-

of so as to form curbs and extended abutments supporting said arch, said irons having upwardly projecting flanges against which the ends of the arch bear, as well as lips projecting inwardly beneath the ends of the arch and also having outer upwardly extending projections to form gutters, and threaded tie rods removably connected to said upwardly projecting flanges as and for the purpose described.

4. The combination of an arched road surface built up of interlocking bricks or blocks, channel irons at opposite sides thereof, extending lengthwise of the road, so as to form extended abutments to support said arch, said bricks or blocks having interlocked joints along their sides and breaking joints at their ends, said channel irons supporting the arch and having upwardly extending flanges to receive tie rods and also outer and upwardly extending projections to form gutters, together with separate and removable tie rods having threaded ends provided with nuts joining said channel irons.

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

ROBERT P. SCOTT.

Witnesses:

LOUELLA F. LITTLE,
FREDERICK KUNZ.