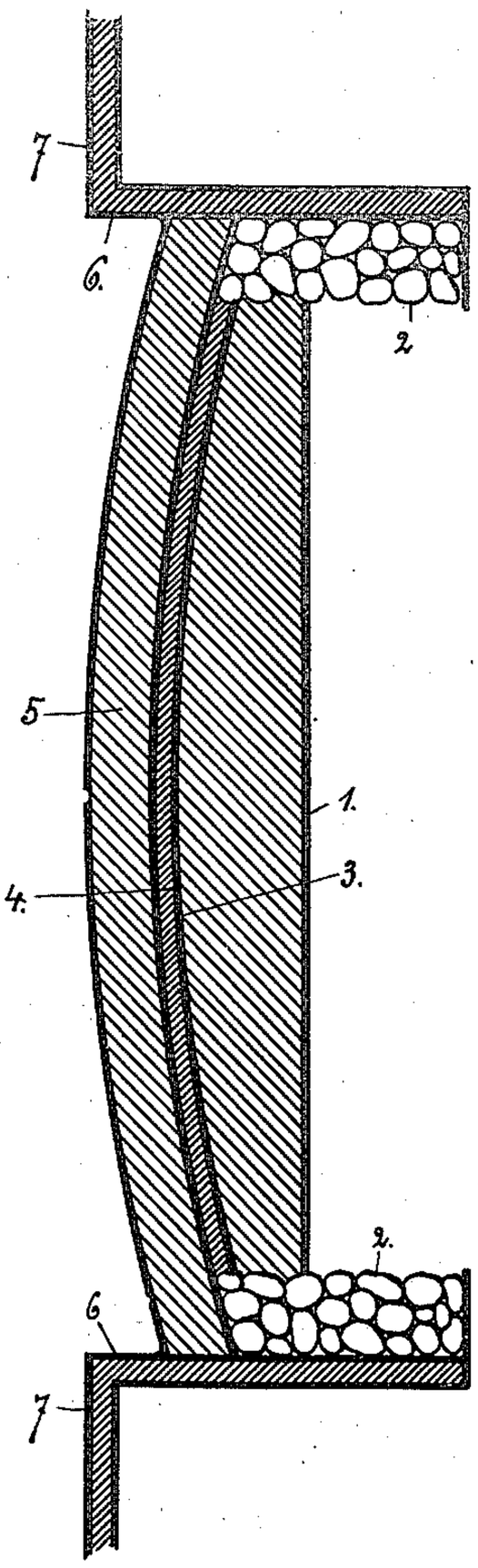
(No Model.)

P. GRIFFIN.

METHOD OF PAVING STREETS AND ROADS.

No. 382,153. Patented May 1, 1888.



WITNESSES.
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METHOD OF PAVING STREETS AND ROADS.

SPECIFICATION forming part of Letters Patent No. 382,153, dated May 1, 1888.

Application filed October 3, 1887. Serial No. 251,377. (No model.)

To all whom it may concern:

Be it known that I, PATRICK GRIFFIN, a citizen of the United States, and a resident of the city of Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Methods of Paving Streets and Roads; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters of reference marked thereon, which forms part of this specification.

My invention relates to an improvement in paving streets and roads; and it consists in the method hereinafter pointed out and claimed.

The figure shows a cross-section of a road or street paved in conformity with my improved method.

In order to enable others skilled in the art to pave roads and streets, I will now proceed and describe the various steps employed.

I first remove the earth from the road-bed by excavation to the depth of from six to eighteen inches, depending upon the character of pavement required. I then bring the bottom of the excavation to substantially an even surface, when the same is preferably saturated with water and compressed by passing a heavy roller over the surface. I then provide drains on each side of the road-bed, which are filled with stone, in order to take out the surplus water from the road-bed, and thus prevent the road heaving by frost.

In the drawing, 1 represents the depth of the excavation, which may be varied, and 2 2 represent the drains filled with stone. I replace or refill the excavation with earth put on in layers, saturated with water, and thoroughly compressed by rolling. This is repeated until the contour of the road-bed 3 is formed. The whole mass of earth replaced in the excavation is thoroughly compressed in layers by the means heretofore referred to. Over the surface of compressed earth, compressed into suitable shape, I preferably place a covering of felt. (Represented in the drawing in cross-section at 4.) This, however, may be omitted. Any other substantially water-proof material may be used in place of it. Over the covering of the compressed road-bed I provide and place a coat of grouting composed of cement, sand, or gravel in plastic shape, or the same may be covered with a coating of coal-tar, sand, and gravel applied in a plastic state, so that when the same hardens a complete water-tight layer is formed, as indicated at 5 in the drawing, whereby a solid compact road-bed is formed free from the tendency in cold climates to heave and otherwise crack the coating or layer 5 of the road-bed.

By sinking the blind-drain on either side of the roadway, as shown at 2 2, the water is prevented from interfering with the compressed foundation of the road-bed.

In the drawing, 6 6 represent the curbing, and 7 7 the sidewalk, and in constructing a road on my improved plan I preferably curb the outer wall of the ditches below the cement with boards or plank to more effectually shut out the water.

It is quite obvious here that the order of performing the various steps in the operation is unimportant, so long as the several steps are taken to compress the earth, remove the surplus water by the blind-drain, and cover the compressed earth forming the road-bed with a water-tight wearing surface, substantially as set forth.

What I claim as new, and desire to secure by Letters Patent, is—

1. A roadway constructed by moistening and compressing the earth or clay into a convex surface, covering the same with a layer of water-tight felt or covering, and having a depressed ditch filled with loose stones at each side and the whole covered with a layer of hard wearing-surface.

2. A roadway consisting of successive layers of moistened and compressed earth, clay, or sand covered with a layer of felt, having a depressed ditch filled with loose stones at each side, and the whole covered with a layer of water-tight wearing cement.

In witness whereof I have affixed my signature in presence of two witnesses.

PATRICK GRIFFIN.

Witnesses:

JOSIAH PERRY,

MILTON E. ROBINSON.