

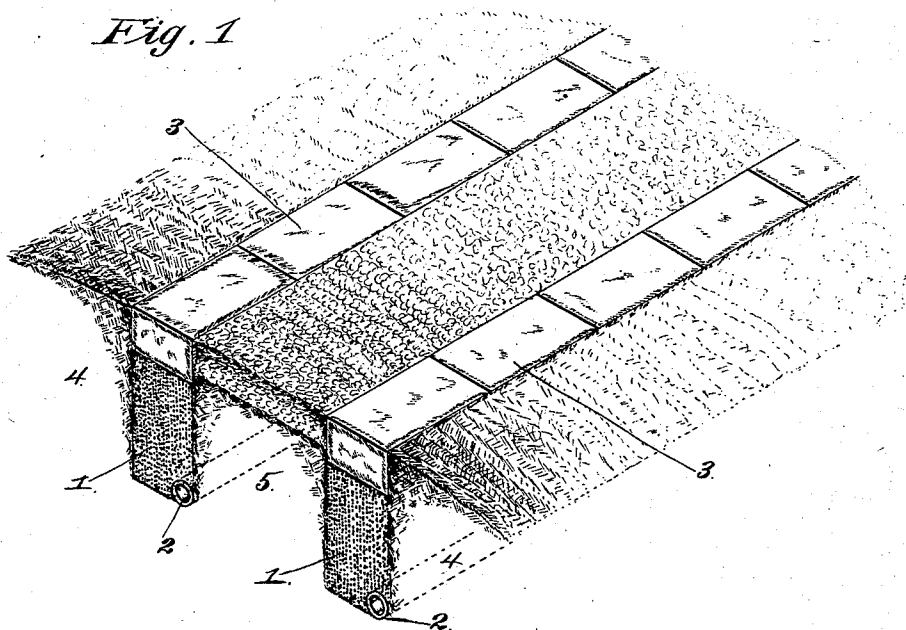
(No Model.)

H. B. PAIN.  
ROAD BED.

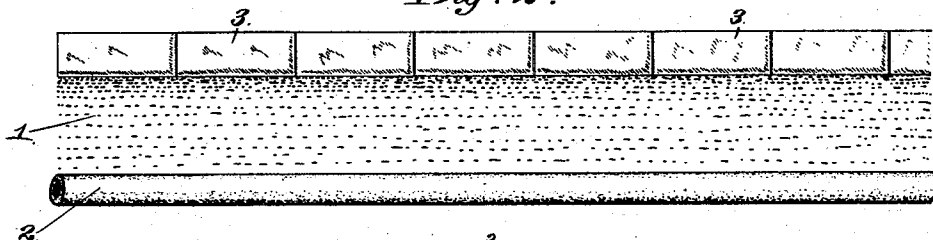
No. 539,821.

Patented May 28, 1895.

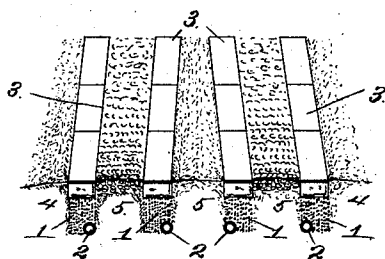
*Fig. 1.*



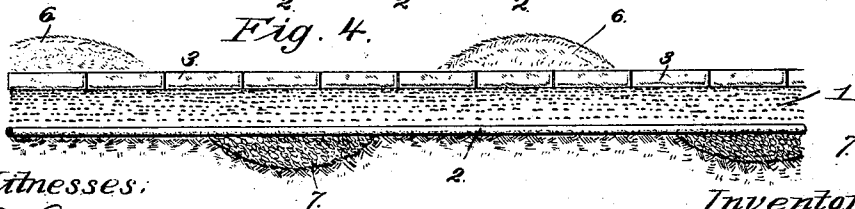
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses:

*H. G. Fisher*  
*W. B. Kopp*

Inventor:

*Henry B. Pain*

By *Higdon & Higdon* Attys.

# UNITED STATES PATENT OFFICE.

HENRY B. PAIN, OF KANSAS CITY, MISSOURI.

## ROAD-BED.

SPECIFICATION forming part of Letters Patent No. 539,821, dated May 28, 1895.

Application filed April 23, 1894. Serial No. 508,625. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY B. PAIN, of Kansas City, Jackson county, Missouri, have invented certain new and useful Improvements in Road-Beds, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to road beds, and more particularly to roads extending from one town to another, and the object of the invention is to construct a road having solid or substantial trails of stone for the wheels of vehicles, which is cheap, and durable, and will not require skilled labor to build.

A further object is to provide a road bed which tunneling, for various purposes, such as the laying of gas-pipes, water-pipes, &c., cannot weaken or injure, and also to provide a thorough drainage for said road.

With these objects in view, the invention consists in its peculiar construction and arrangement of parts, as will be hereinafter described and claimed.

In order that the invention may be fully understood, I will now proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 represents a sectional perspective view of a road-bed constructed in accordance with my invention. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a sectional perspective view of a road-bed constructed in accordance with my invention and provided with a double set of trails to receive the vehicle-wheels. Fig. 4 is a vertical longitudinal sectional view of a road constructed in accordance with my invention, which extends through a country the surface of which is irregular or is a succession of hills and hollows.

In the said drawings, 1 designates the concrete foundations, which are arranged so that their vertical and longitudinally parallel centers correspond approximately to the distance between the side wheels of a vehicle, and these concrete foundations 1 extend downward a suitable distance, say from two to four feet, and extending longitudinally of each foundation and at a lower corner thereof, is a drain-pipe 2, of the usual or any preferred construc-

tion. Located upon and supported by the said concrete foundations, are the stones 3, which may be of granite or any other suitable stone which will resist successfully the weather and the action of the vehicle wheels thereupon for an indefinite period. The portion 4, at the outer side of each foundation, is composed of ordinary earth, as is also that portion 5 between each pair of concrete foundations, and upon this portion 5 a surface of macadam is laid, upon which the horses or other draft animals travel, while the wheels of the vehicle move upon the stone slabs 3, which preferably correspond in width with the concrete foundations.

Should it be necessary at any time to lay a system of water-pipes or gas-pipes, or an underground conduit of any kind, it will only be necessary to dig a trench to a suitable depth at each side of the road and connect these trenches by tunneling beneath the concrete foundations. It will therefore be understood that these pipes may be placed in position without interrupting the traffic upon the road, or injuring or weakening the road in the slightest degree, as would be the case were it necessary to lay said pipes across an asphalt or surface paved road of any other description. It will also be apparent that the road would not be injured perceptibly by the action of the wheels of vehicles, no matter how heavily the vehicles might be loaded, and that with such a road-bed vehicles could compete successfully with the railroads in carrying produce to market.

In Fig. 3, I have shown a road provided with a double trail, so that vehicles may be accommodated when traveling in opposite directions.

Referring to Fig. 4, I show a stretch of country which has an irregular surface, and in order to build my improved road over these irregular surfaced stretches of country, I will cut through the hills for a suitable distance, as shown at 6, and will fill the hollows with ordinary rubble-work 7, and the foundation 1, extending longitudinally of said road, and the drains will be supported upon said rubble and the interposed portions of natural earth.

From the above description, it will be seen that I have produced a road-bed which is sub-

stantial and cheap, which may be easily and expeditiously constructed, and which will wear indefinitely.

5 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

10 1. An improvement in the construction of road-beds, the same consisting, first, in laying longitudinal and parallel series of concrete foundations at a suitable distance apart, and secondly, in laying upon said foundations slabs of hard stone, substantially as set forth.

15 2. An improvement in the construction of road-beds, consisting, first, in laying longitudinal and parallel series of concrete foundations at a suitable distance apart, secondly, in laying upon said foundations slabs of hard stone, and thirdly, in laying drain-pipes in longitudinal series at the lower end or bottom

of said concrete foundations, substantially as 20 set forth.

3. An improvement in the construction of road-beds, consisting, first, in filling hollow places in a road with rubble-work, second, in laying longitudinal and parallel series of concrete foundations at a suitable distance apart, 25 third, in laying upon said foundations paving-blocks of hard stone, and fourth, in laying drain-pipes in longitudinal series at the lower end or bottom of said concrete foundations, 30 substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY B. PAIN.

Witnesses:

G. Y. THORPE,  
M. R. REMLEY.