H. H. COLLINS.

RAILROAD CROSSING CONSTRUCTION.

APPLICATION FILED DEC. 27, 1917.

1,256,982.

Patented Feb. 19, 1918.

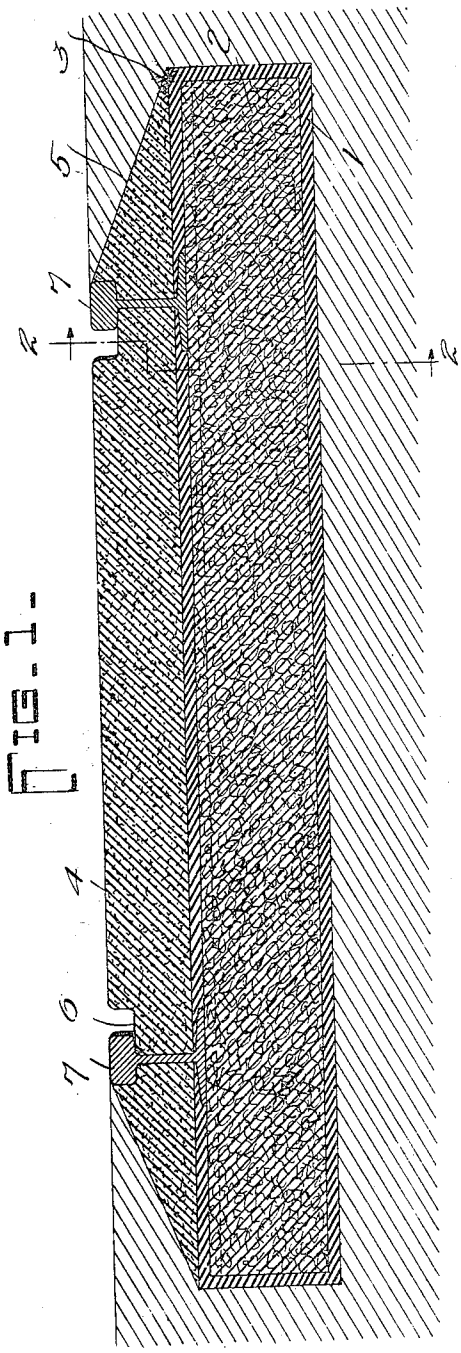


Fig. 1.

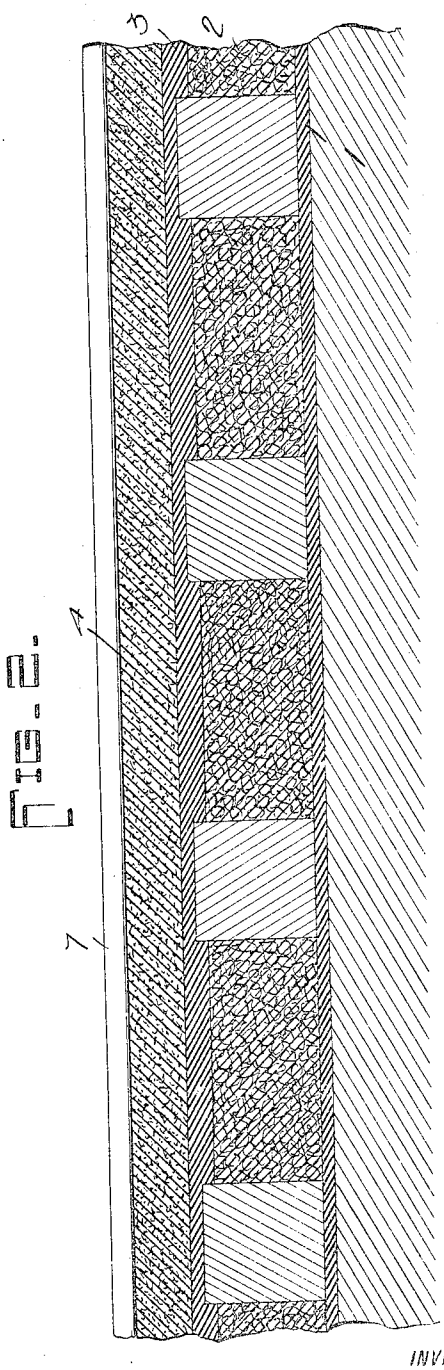


Fig. 2.

WITNESS

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HENRY HENDERSON COLLINS, OF JOHNSON CITY, TENNESSEE, ASSIGNOR OF ONE-HALF TO HARRY DAVID GUMP, OF JOHNSON CITY, TENNESSEE.

RAILROAD-CROSSING CONSTRUCTION.

1,256,982. Specification of Letters Patent. Patented Feb. 19, 1918.

Application filed December 27, 1917. Serial No. 209,169.

To all whom it may concern:

Be it known that I, HENRY HENDERSON COLLINS, a citizen of the United States, and a resident of Johnson City, in the county of Washington and State of Tennessee, have invented certain new and useful Improvements in Railroad-Crossing Constructions, of which the following is a specification.

My invention is an improvement in railroad crossing constructions, and has for its object to provide a crossing of the character specified that will not harden and crack during cold weather nor become too soft in warm weather, and will maintain approximately the same degree of elasticity at all times, with enough resiliency to overcome all shock and jar of passing trains, and will afford a waterproof cover or envelop for all the parts of the crossing, preserving the ties from decay and preventing the loosening of bolts and nuts.

In the drawings:

Figure 1 is a transverse vertical section through the crossing; and

Fig. 2 is a section on the line 2—2 of Fig. 1, looking in the direction of the arrows adjacent to the line.

In preparing the improved crossing construction, the road-bed is cut away between the ties, and below the ties for approximately a half inch, in such manner that the ties are raised approximately one-half inch from the ballast which may be of any desired character.

A form is then placed about the crossing, at the sides and ends of the excavated or cut away portion. A half inch of boiling asphalt, indicated at 1, is now poured into the excavation on top of the ballast and beneath the ties. After this, a mixture composed of boiling asphalt and fine stone is filled in between the ties and at each end of the same to the level of the bottoms of the rails, the said filling being indicated at 2. An inch of boiling asphalt, indicated at 3, is then poured upon the filling 2, and over the tops of the ties, and the said asphalt is also arranged at the ends and sides of the form, so that the filling 2 is entirely inclosed by a casing of pure asphalt and fluxing oil. It will be noticed that the filling 2 is a trifle below the upper faces of the ties, so that the coating 3 of asphalt will be slightly below the level of the upper faces of the ties between the same. The said coating also covers the rail bases of the rails. This construction forms a solid block, which, when cooled, is waterproof, excluding all water from the ties and ballast, and affording a dry, solid base, of twice the bearing surface ordinarily obtained with the pre t method of installation with dry ballast crushed stone and having the further ac ntage of being elastic and resilient.

In order to bring the surface to the level of the rails, the space between the rails and at the outer sides of the rails above the coating 3 is filled with the same mixture of stone and asphalt as is placed within the casing, the said filling being indicated at 4. This filling 4 is covered with a coating of clean, dry sand or very small crushed stone, and outside of the rails the filling is inclined downwardly as indicated at 5. Grooves 6 are also provided at the inner sides of the rails 7 for the flanges of the wheels.

A crossing put in in this manner will preserve the ties and prevent rust of the steel parts. When the rails become worn and must be renewed, the base and ties need not be disturbed, and in case new steel is put in only the top coat to the depth of the rail must be renewed.

I claim:

1. A railroad crossing comprising a casing of pure asphalt and fluxing oil filled with mixed stone and asphalt, said casing inclosing the ties and extending above the base flanges of the rails, and a filling of asphalt and stone between the rails and outside of the rails above the said casing.

2. A railroad crossing comprising a casing of pure asphalt filled with mixed stone and asphalt, said casing inclosing the ties and extending above the base flanges of the rails.

HENRY HENDERSON COLLINS.

Witnesses:
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