G. W. WARMOTH.

ROADWAY REINFORCEMENT.

APPLICATION FILED MAY 27, 1915. RENEWED DEC. 11, 1918.

1,358,042. **Patented Nov. 9, 1920.**

Fig. 1.

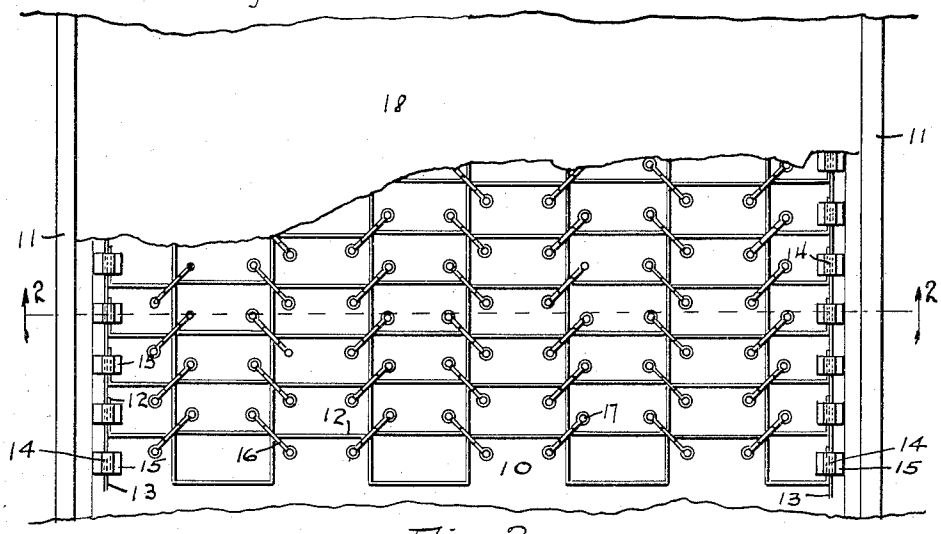


Fig. 2.

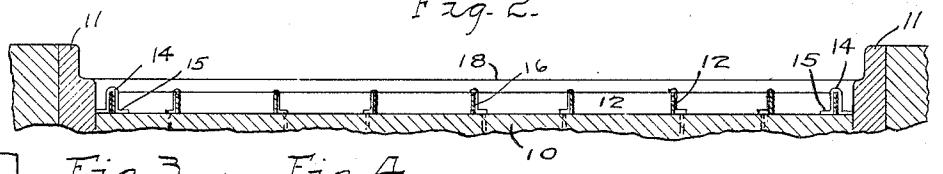


Fig. 3.

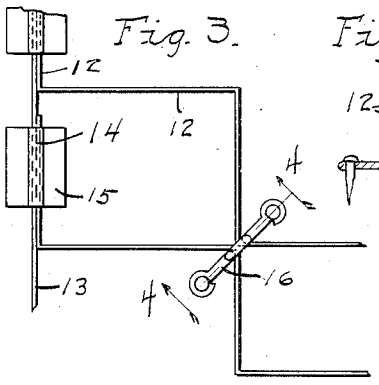


Fig. 4.

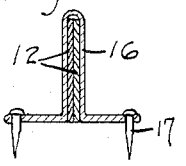
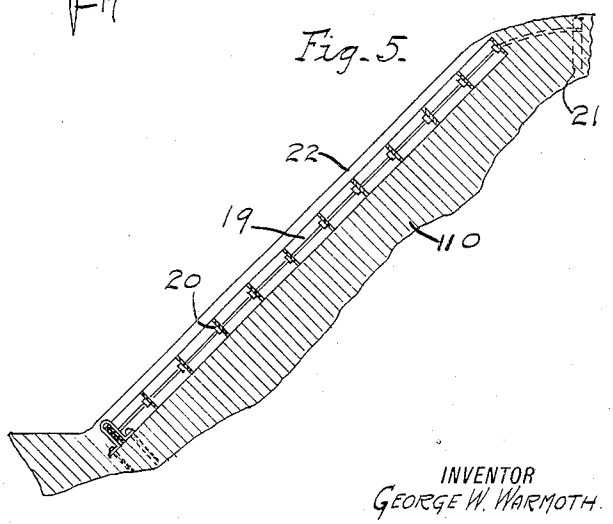


Fig. 5.



WITNESSES:

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ROADWAY REINFORCEMENT.

1,358,042. Specification of Letters Patent. Patented Nov. 9, 1920.

Application filed May 27, 1915, Serial No. 30,783. Renewed December 11, 1918. Serial No. 266,311.

To all whom it may concern:

Be it known that I, GEORGE W. WARMOTH, a citizen of the United States, and a resident of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Roadway Reinforcement; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings in which like letters refer to like parts.

The object of this invention is to provide a practical means of reinforcing a roadbed or an embankment to keep the gravel or other filler put on a roadbed from being washed away or chuck holes being formed in it by traffic.

It may be used on embankments as a reinforcement for the dirt and sod and also may be used to prevent washouts and keep the embankment intact. Heretofore it has been necessary to put stakes in the embankment with boards running from stake to stake for holding the sod and soil in place, which has never been satisfactory.

The construction of this reinforcement is such that it will prevent lateral or longitudinal displacement of the road material, thereby preserving an even and smooth contour of the wearing surface of the roadway. Also a uniform depression can be made in a roadway for the purpose of containing and running water to a given point, which cannot be done under the present practice in road building.

This construction is especially adapted for use in concrete roadbeds as it prevents the longitudinal cracking in the wearing surface which is experienced in the present methods of building concrete and cement roads.

In the drawings Figure 1 is a plan view of a roadbed with a portion broken away, showing the formation of the reinforcing means. Fig. 2 is a cross section on line 2—2 of Fig. 1. Fig. 3 is a plan view of an enlarged portion of the reinforcement showing the means of fastening the members together. Fig. 4 is a cross section on line 4—4 of Fig. 3. Fig. 5 is a vertical cross section through an embankment showing the reinforcement therefor.

In Fig. 1 of the drawings there is a roadbed 10 having sides or curbs 11. There are members 12 formed from sheets of metal preferably several inches in width bent at right angles as shown in the drawings so as to form oblong recesses at equal intervals across the roadbed. There are a plurality of said members each similarly formed and adapted to fit together adjacent each other so as to form inclosed oblong spaces substantially as shown. However, it is not material that the inclosures be oblong but of any shape desired.

Running along parallel with the curb on each side of the roadbed there is a metal strip 13 at which the ends of the strips 12 are secured by staples 14 having flanges 15 extending at right angles on the bottom thereof and resting on the roadbed adapted to be secured thereto by the filler. At each adjacent angle of the members 12 there is a staple 16 for securing said members together and holding them rigidly in place. Said staples 16 are anchored to the roadbed by spikes 17, or the staple itself may be driven in the ground.

Each member, before being placed in position, is independent of each other member and therefore the reinforcement is built on the roadbed, as the construction progresses. After the reinforcement is properly laid and secured, the filler 18 is placed over it and rolled and treated in the usual manner. The filling material extends slightly above the upper surface of the reinforcement so as to form a smooth roadway.

The invention may be applied to reinforcing an embankment and building up the members as described, but in using this reinforcement for embankments 110, there is an anchor line 19 extending through said members and having adjustable stops 20 on the under side of each member for retaining them in a parallel position, said anchor line being secured to an anchor 21.

After the reinforcement is laid, dirt and sod 22 may be placed over it to form the surface so that the roots of sod forming around the reinforcement will prevent it from being washed away, which is a great difficulty found in the present means of securing embankments.

The invention claimed is:

A reinforcing means for roadways and the like including single metal strips having laterally bent portions, removable staples

for securing said strips in assembled formation, bars at the ends of said assembled strips, right angular extensions at each end of the strips abutting said end bars and staples for removably securing the extensions to the bars.

In witness whereof I have hereunto affixed my signature in the presence of the witnesses herein named.

GEORGE W. WARMOTH.

Witnesses:
J. H. WELLS,
MABEL HEINOLD.