J. McDERMOTT.

ROAD BED.

APPLICATION FILED DEC. 15, 1909.

988,483.

Patented Apr. 4, 1911.

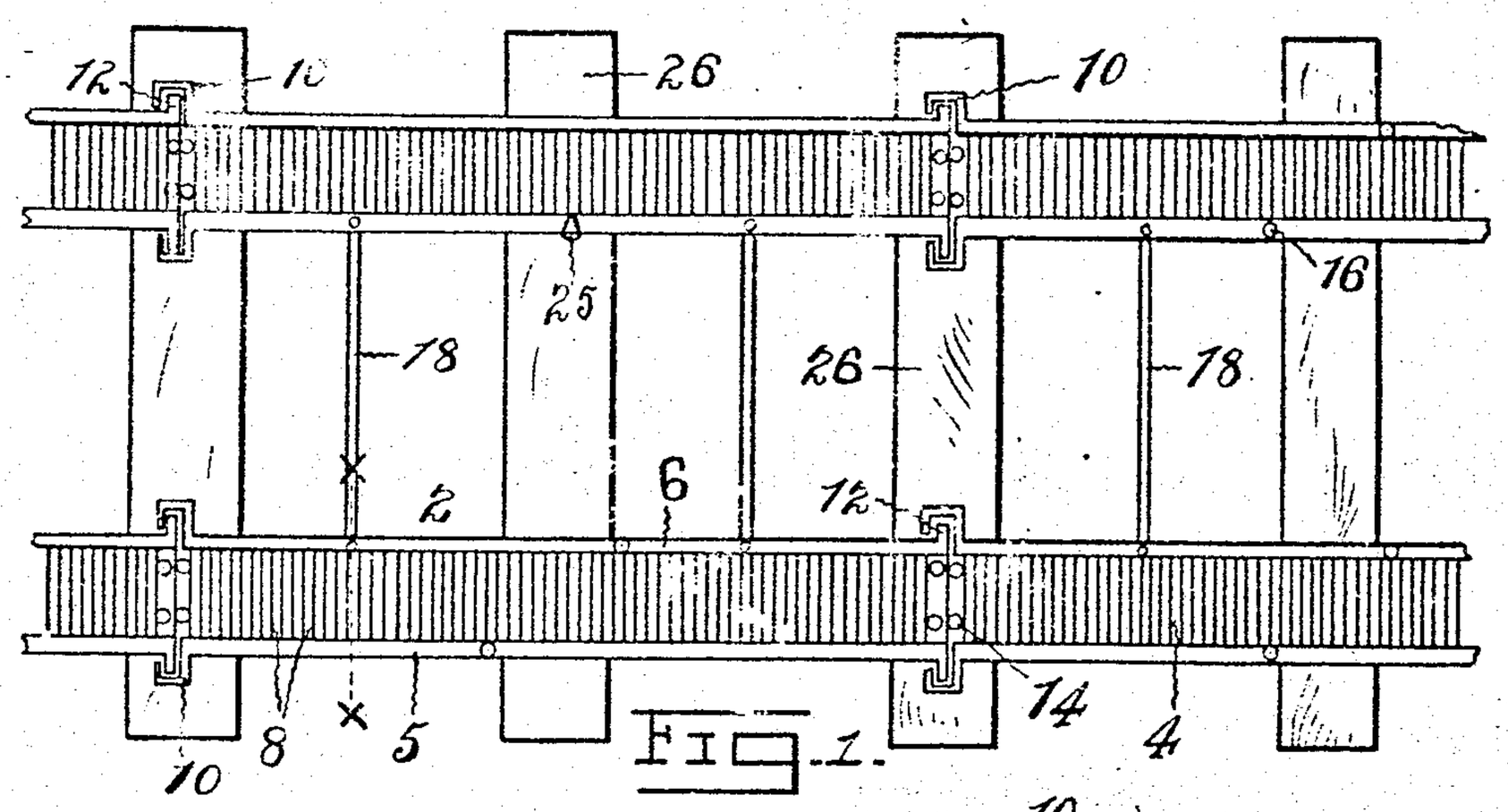


Fig. 1.

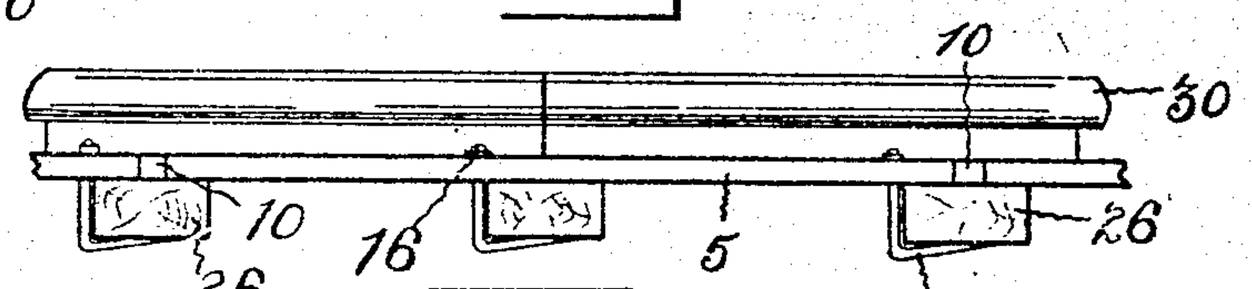


Fig. 2.

Fig. 3.

Fig. 5.

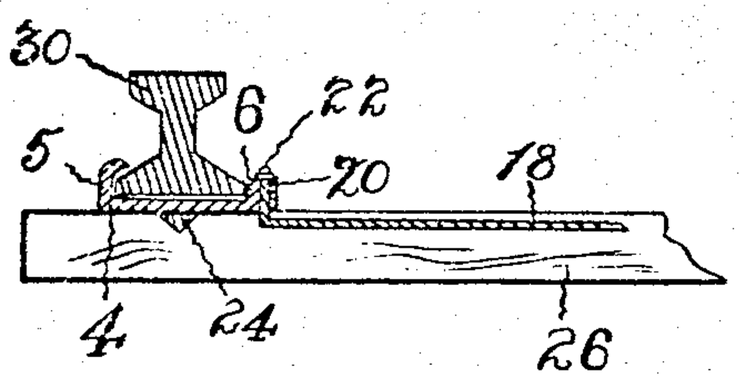
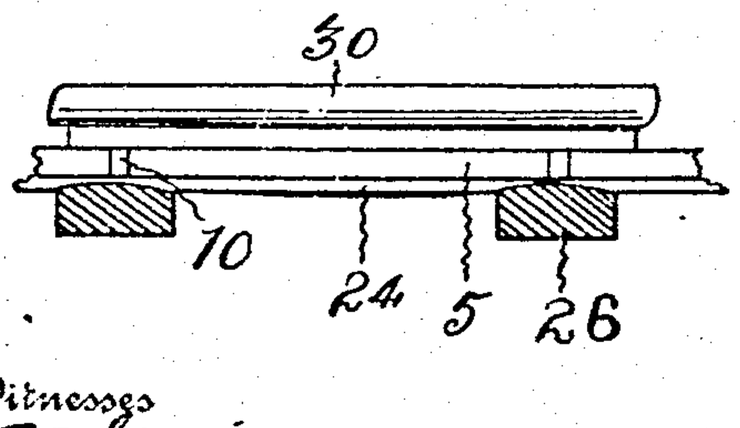
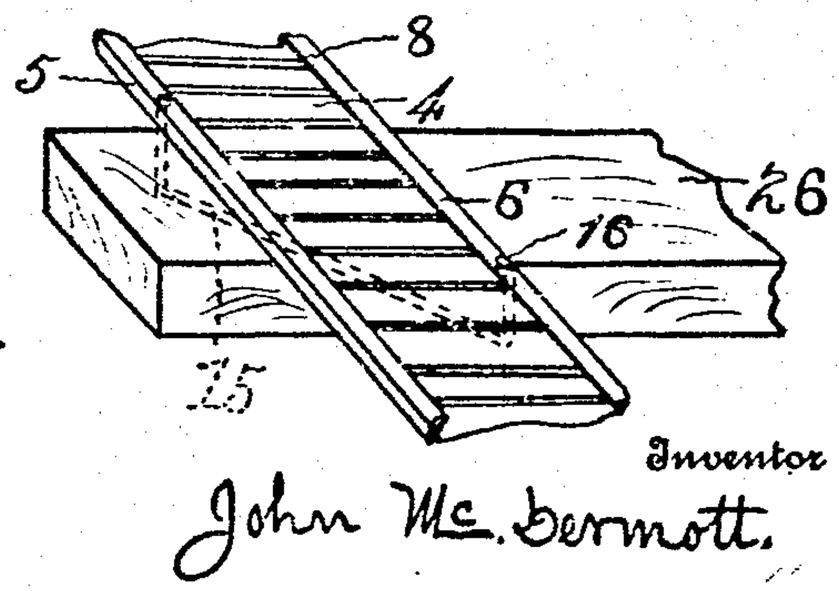


Fig. 6.

Fig. 4.





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ROAD-BED.

988,483. Specification of Letters Patent. Patented Apr. 4, 1911.

Application filed December 15, 1909. Serial No. 533,298.

To all whom it may concern:

Be it known that I, JOHN MCDERMOTT, citizen of the United States, residing at Dubuque, in the county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Road-Beds, of which the following is a specification.

My invention has relation to railways, with special reference to the beds of railways and the object is to provide a bed that will sustain the rails in the same horizontal plane and furnish a smooth surface for the travel of the cars.

Another object is to furnish means whereby the expansion and contraction of the rails and rail bed will be provided for and still maintain a smooth surface for the rail, also to do away with a portion of the usual ties and still maintain a substantial road bed.

Another object is to so anchor the bed that there will be no danger of spreading of the rails or displacement of the track, and still another object is to provide a rail bed with which any kind of ties may be used.

In what it consists, the mode of construction and the manner of operation will be fully set out in the following specification when taken in connection with the drawings accompanying the same and forming a part hereof.

Figure 1 is a plan view of the bed. Fig. 2 is a cross section on line *x*—*x* of Fig. 1 and showing a rail secured on the bed. Fig. 3 is a side elevation with a rail thereon. Fig. 4 is a perspective view showing one mode of attaching the bed to a tie. Fig. 5 is a perspective view of a loop for holding the bed to a tie. Fig. 6 is a side view of a detail.

Like characters of reference denote corresponding parts in each of the figures.

Referring to the drawings, 2 represents a section of the rail bed which consists of a metal plate 4 a trifle wider than the base of a railroad rail. Along one upper and outer edge runs a hooked or bent flange 5 and along the opposite edge is another flange or rib 6. For the purpose of strengthening the plate 4 and providing for circulation of air between the plate and rail and thereby preventing rust, the plate 4 between the flange 5 and the rib 6 is provided with corrugations or ribs 8. One end of each section is formed into a rectangular shaped interlocking hook 10, the other end of the section is formed into a lug or catch 12 adapted to be engaged by interlocking hook 10 and hold two sections together. These sections thus united together are fastened upon the ties. This may be done by spikes 14 driven through the plate into the ties or by a loop 15 shown in Fig. 5 passing diagonally underneath the tie and held by nuts 16. The spikes 14 may not be used especially where this rail plate is to be used in repairing a rail bed.

For the purpose of preventing the plates from spreading apart and the rails thereon there are provided stays 18 which consist of a metal bar provided with a lug 20 which pin projects up through a hole through the plate and the rib 6 and is secured by a nut 22. The rail may be spiked down through the plate into the tie in the ordinary way or by crowding the rail under the hook 5 and fastening the opposite side by spikes 25.

For the purpose of strengthening the rail and also preventing any side movement of the road bed the rail bed 4 may have a rib 24 running along on the under side of each section between the ties or over the ties, but much thinner or nothing where the tie is placed.

The manner of assembling and operating the rail bed is substantially as follows. The end of a section having the interlocking hook 10 is placed upon the tie 26 and fastened by the spikes 14. Then the other end of the section having the lug or catch 12 is brought into engagement with the interlocking hook 10 and is spiked to the tie, and in this manner the entire rail bed is laid on one side. Then the other side of the rail bed is placed upon the ties and the stays 18 are inserted in the rail bed first laid and secured thereto, and since the stay 18 is of exact distance between the plates that it is desired to have the rail separated, the stay is also secured to the other section, and the sections are then laid in the same manner that the first sections were laid. This quickly completes the laying of the rail bed, but if the plates are to be held by the loop 15 then these may be attached as shown in Fig. 4, with the loop down be-

neath the tie and provided with the nuts 16 rigidly holding the plate on the ties.

In order to lay the rail 30 upon the plate it is raised up at one edge and is inserted under the hooked flange 5 and the other is pressed down and just engages the rib 6. Then the spikes are driven into the ties on the side 6 or there may be holes through the hooked flange 5 and the staples driven through those engaging the base of the rail. It will be seen by this mode of constructing the rail bed that there need be far less number of ties as the plate sections are made of metal and are exceedingly strong. Another feature is that if a tie should become loosened and ineffective there would be no danger of the displacement of the car from the track as the rail bed plate would be sufficient to carry the train successfully over. There would be a strain all along the entire track which would distribute the weight of the cars uniformly and sufficiently yielding to always hold the rail in a horizontal plane, and hence the car would travel upon the track very smoothly without much jar. It will also be seen that it would require very little to keep the rail bed in repair after it is once constructed, and the laying of the rails would be comparatively of small expense, and a great saving in ties.

Having now described my invention what I claim and desire to secure by Letters Patent is:—

1. In a device of the class described and in combination with railroad ties and car rails, a rail bed formed in sections, means for uniting the sections together including lugs on the end of one section adapted to be engaged by interlocking hooks on a contiguous end of another section to form a continuous rail bed, and means connected with the rail bed for securing the rails upon the rail bed.

2. In a device of the class described and in combination with road ties and car rails, a rail bed formed in sections and provided with a flange along one edge and a rib along the opposite edge, means for uniting said sections together consisting of lugs upon one end of the section adapted to be engaged by interlocking hooks on the ends of the contiguous section to form a continuous and unbroken rail bed, means for securing said rail bed to the ties, and means for securing the rails upon the rail bed between the flange and the rib.

3. In a device of the class described and in combination with ties and rails, a rail bed formed in sections and each section corrugated or ribbed crosswise, means including lugs on one section adapted to be engaged by interlocking hooks on the other section to form a continuous bed, a hooked flange along one edge of the rail bed, means for securing the rail bed upon the ties including spikes passing through the plates near the ends into the ties, and means including the hooked flange of the rail bed and spikes for securing the rails upon the rail bed.

4. In a device of the class described and in combination with road ties and rails, a rail bed formed in sections and each section provided at one end with an interlocking hook and the other with a lug adapted to engage the interlocking hook of another section for uniting the sections together, means for securing the sections upon the ties, and means for securing the rail upon the rail bed.

5. In a device of the class described and in combination with road ties and rails, a rail bed formed in sections and each section provided with an interlocking hook at one end and a lug at the other adapted to engage the interlocking hook of an adjoining section, a hooked flange along the edge of each section, means for securing the rail bed upon the ties, and means for securing the rails upon the rail bed including said hooked flange adapted to engage the base of the rail, and spikes driven into the ties and engaging the opposite base of the rail.

6. In a device of the class described and in combination with road ties and rails, a rail bed formed in sections and each section provided with an interlocking hook at one end and a lug at the other end adapted to engage the interlocking hook of an adjoining section and unite the sections together, a hooked flange along one edge of the sections, a rib along the opposite edges of the sections, means for securing the rail bed to the ties, and means including the hooked flange and rib together with spikes driven into the ties for holding the rails upon the rail bed.

7. In a device of the class described and in combination with road ties and rails, a rail bed formed in sections and consisting of a metal plate corrugated crosswise of said plate, a hooked flange along one longitudinal edge of the plate with interlocking hooks on one end of each section adapted to engage lugs on the opposite ends of the sections, in combination with means including spikes engaging the rail bed and ties for securing the rail bed to the ties, and means including said hooked flange and spikes for securing the rails on the rail bed plates.

8. In a device of the class described and in combination with road ties and rails, two rail beds each formed in sections corrugated crosswise, means for uniting the sections together to form a continuous rail bed consisting of lugs on one end of each section adapted to be engaged by interlocking hooks secured to the opposite ends of the contiguous sections, a hooked flange along one edge of each section, stays removably secured to

the sides of each rail bed and connecting the rail beds together and holding them parallel to each other, means including spikes for securing the sections upon the ties, and means including the hooked flange and spikes for securing the rail upon the rail bed.

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

JOHN McDERMOTT.

Witnesses:
M. M. CADY,
E. M. NOONAN.