

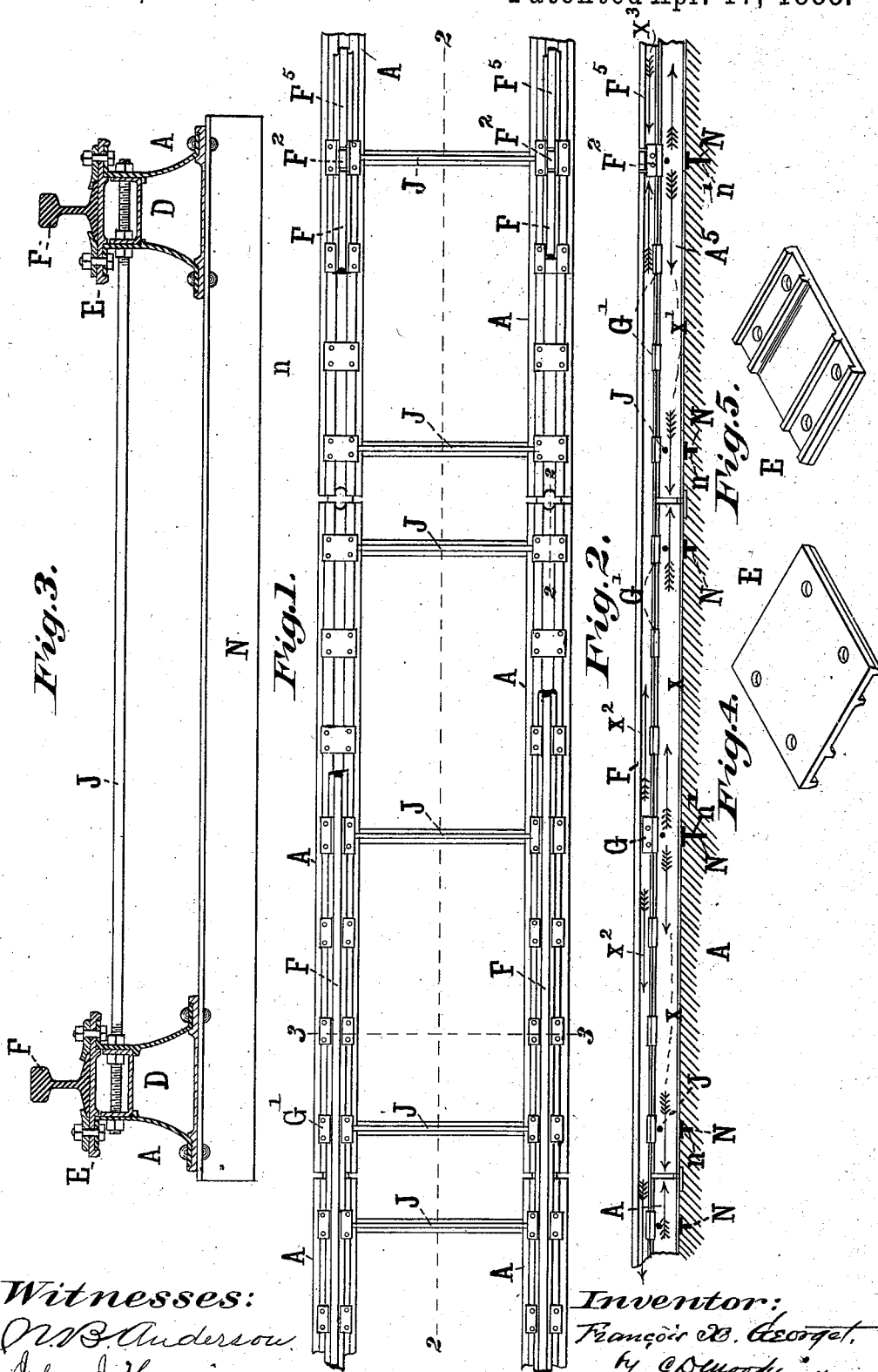
(No Model.)

2 Sheets—Sheet 1.

F. X. GEORGET.  
RAILWAY BEDDING.

No. 381,125.

Patented Apr. 17, 1888.



Witnesses:  
W. B. Anderson.  
John J. Harris.

Inventor:  
François X. Georget,  
by C. D. Moody, atty.

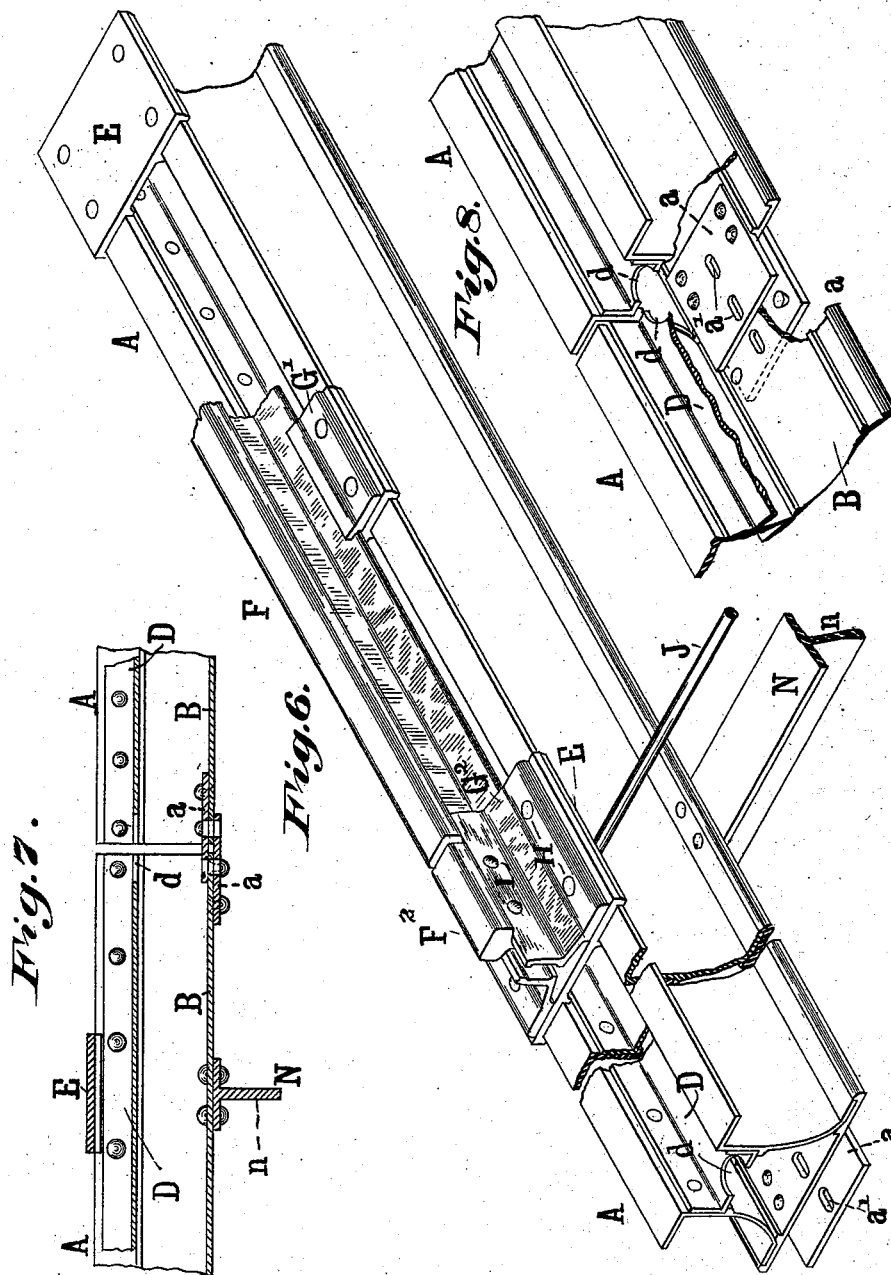
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# UNITED STATES PATENT OFFICE.

FRANÇOIS X. GEORGET, OF CAMDEN, NEW JERSEY.

## RAILWAY-BEDDING.

SPECIFICATION forming part of Letters Patent No. 381,125, dated April 17, 1888.

Application filed August 20, 1887. Serial No. 247,470. (No model.)

*To all whom it may concern:*

Be it known that I, FRANÇOIS X. GEORGET, formerly of St. Louis, Missouri, now of Camden, New Jersey, have made a new and useful  
5 Improvement in Railway-Bedding, of which the following is a full, clear, and exact description.

The improvement is related to a railway-bedding described in my application for Letters  
10 Patent of the United States therefor, filed March 10, 1886, and numbered serially 194,751, in that in both constructions the line of rail is composed usually of long rails and short rail-pieces alternately arranged, the long rails  
15 each being fixed longitudinally midway in its length with its ends free to contract and expand from and toward the abutting fixed rail-pieces, and, secondly, the stringers in cross-section are preferably similar to the ties of  
20 the first construction.

The improvement consists, partly, in the mode of combining the line of rail with the line of supporting-stringer, partly in the mode of joining abutting stringers in the line of stringer,  
25 and partly in the means for connecting the two lines of rail at the opposite sides, respectively, of the road-bed, and for more effectually staying the stringers in the road-bed, all substantially as is represented in the annexed  
30 drawings, making part of this specification, in which—

Figure 1 is a plan of a railway in which the improvement under consideration is embodied, portions of the long rails being broken away to exhibit the parts beneath. Fig. 2 is a vertical longitudinal section on the line 2 2 of  
35 Fig. 1. Fig. 3 is a vertical cross section, on an enlarged scale, on the line 3 3 of Fig. 1. Fig. 4 is a view in perspective of one of the shoes used beneath the short rail-pieces and at the middle of the long rails. Fig. 5 is a view in perspective from beneath of one of the shoes used at points between the middle and the ends of a long rail. Fig. 6 is a view  
40 in perspective upon an enlarged scale, showing the end of a long rail, a short rail-piece, the longitudinal stringer, and the shoes and fish-bars used in attaching the line of rail to the stringers and in joining the short rail-piece  
50 with the abutting long rails. The view also

includes the cross-ties, and also the interlocking plate at the end of the stringer. Fig. 7 is a vertical longitudinal section showing the abutting ends of two stringers; and Fig. 8 is a view in perspective showing the ends of two  
55 abutting stringers, portions of the stringer ends being broken away to exhibit the portions beyond.

The same letters of reference denote the same parts.

In the present construction the rails  $F^1$  rest upon longitudinal stringers A—that is, the shoes E rest upon the stringers, the rails upon the shoes, and the stringers, shoes, and rails are fastened together by means of the fish-bars G and bolts H I. The stringers upon the opposite sides, respectively, of the track are connected by the rods J, Figs. 1, 2, 3, 6, and the beams N, the rods being connected with the stringers at the upper part thereof, and the beams being fastened to the under side of  
60 the stringers and extending crosswise in the road-bed. The beams are preferably T-shaped in cross-section, and, as shown in Fig. 7, the flange  $n$  of the beam may be extended downward into the road-bed farther at some points than at others. Such extension is shown at  
65  $n'$  at the middle of the stringer A, for a feature of the improved construction is fixing the stringers, as well as the rails, longitudinally  
70 midway in the length of the stringer and leaving the two halves of the stringer free to expand and contract from and toward the middle point of the stringer. To this end the stringer A, Fig. 2, by means of the fish-bar G and bolts, is, midway in its own length, fastened  
75 to the rail F midway in the length of the rail, and directly beneath its point of connection with the rail the stringer is provided with the beam N, having the flange  $n'$ . The next  
80 stringer,  $A^5$ , Fig. 2, in the line of stringers is, midway in its length, fastened to the short rail-piece  $F^2$ .

The movement of the stringer A in expanding is indicated by the arrows  $x$ , and the movement of the stringer  $A^5$  by the arrows  $x'$ . The movement of the rail F in expanding is indicated by the arrows  $x^2$ , and of the rail  $F^5$  by the arrow  $x^3$ . Thus each rail and each stringer can expand and contract from its middle point  
95  
100

without interfering with the expansion and contraction of the other parts, and the fish-bars  $G'$ , used at points between the middle and the ends of the rail, are constructed substantially as shown in Fig. 6, to permit of the independent movement referred to. The fish-bar  $G^2$ , Fig. 6, and its shoe are similar to those used at the middle of the long rails.

In Fig. 2 the rail  $F$  is shown supported upon a middle stringer and the ends of two abutting stringers. This arrangement can be modified as follows: In the place of using a middle stringer, the two stringers, which, respectively, are arranged centrally beneath the short rail-pieces,  $F^2$ , are extended to nearly meet beneath the center of the long rail between the two short rail-pieces. In either construction a continuous support is provided for the line of rail.

The method of joining abutting stringers is shown in Figs. 6, 7, 8 more clearly. The stringer  $A$  has a plate,  $a$ , attached to the upper side of the bottom plate,  $B$ , and projecting endwise therefrom. The opposing stringer has a similar plate attached to the under side of the bottom plate,  $B$ , and projecting endwise therefrom. When the opposing stringers are placed in position, Figs. 7, 8, their respective plates  $a$  lap vertically upon each other, and they are bolted together, supporting each other, thus tying the stringers into a continuous line of stringer. The bolt-holes  $a'$  in the plates  $a$  are elongated to provide for the expansion and contraction of the metal. The channel-bar  $D$  in the stringers is perforated or cut away at  $d$ , to enable the bolts (not shown) used in fastening the plates  $a$  together to be inserted in

place. The interlocking plates  $a$  may be attached to the channel-bars  $D$  instead of to the bottom plates,  $B$ . This is desirable when the stringers are made without a bottom plate. The plates  $a$  also may be attached to the side plates of the stringers.

I claim—

1. The combination of the line of rail consisting of the long rails and the short rail-pieces alternately arranged with the supporting-stringers, said long rails and said stringers each being fastened at its middle, substantially as described.

2. The combination, in a line of rail, of the long rail-sections, the fixed rail-piece  $F^2$ , and the supporting-stringer, said stringer being fixed longitudinally at the middle to the bedding, and being free to expand and contract from its middle to its ends, substantially as described.

3. The combination, in a line of rail, of the fixed rail-piece  $F^2$ , the abutting long rails, and the supporting-stringer, said stringer being fixed longitudinally at its middle to the bedding, and being free to expand and contract from its middle to its ends, and being attached to said rail-piece and supporting the rail-piece, and also the ends of the adjoining long rails, substantially as described.

4. The longitudinal stringers fixed each midway in its length to a rail or rail-piece above, and also in the bedding beneath, substantially as described.

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Witnesses:

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