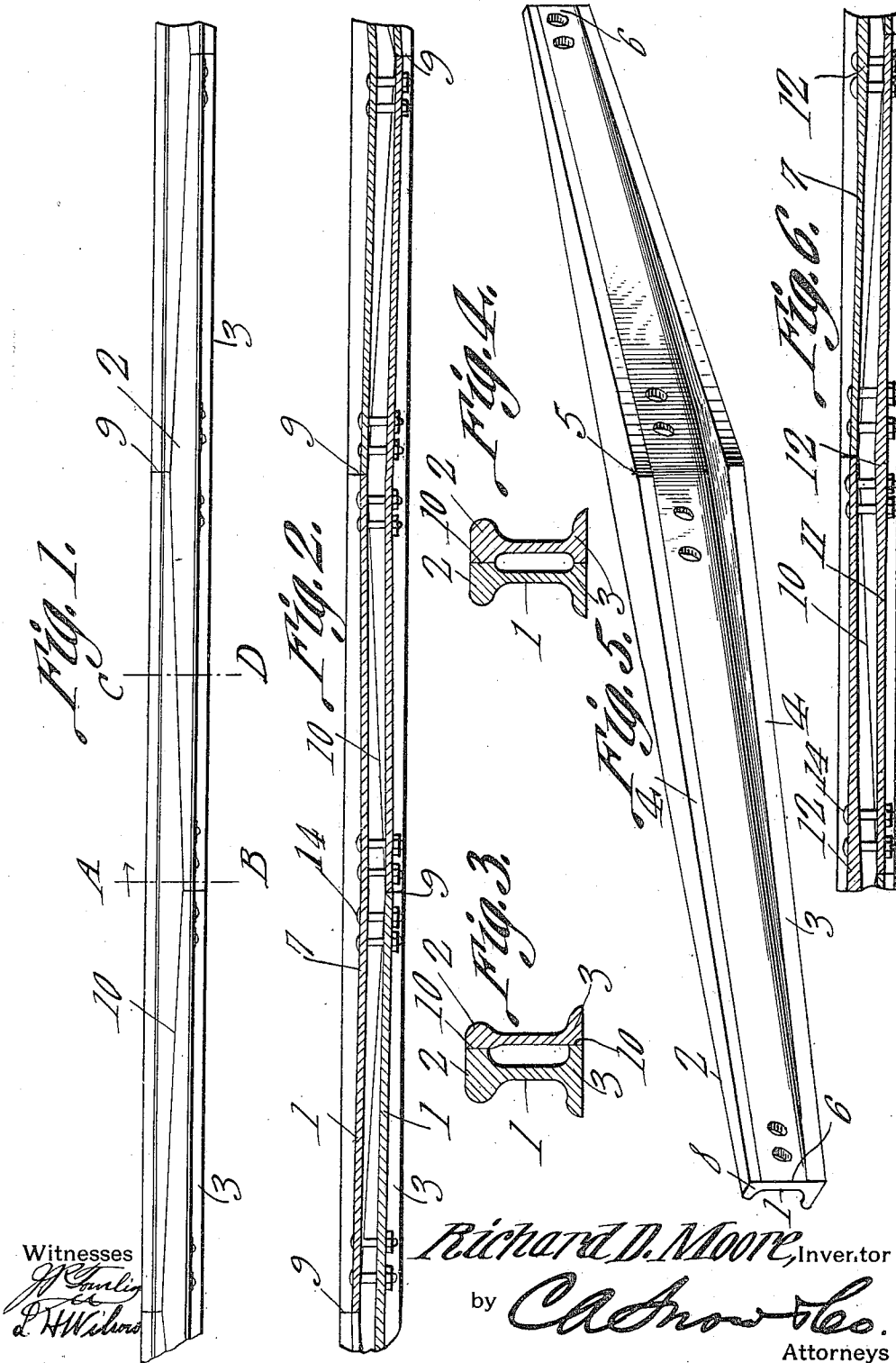


994,185.

Patented June 6, 1911.



Witnesses

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UNITED STATES PATENT OFFICE.

RICHARD D. MOORE, OF GALESBURG, ILLINOIS.

RAILROAD-RAIL.

994,185.

Specification of Letters Patent.

Patented June 6, 1911.

Application filed February 23, 1911. Serial No. 610,276.

To all whom it may concern:

Be it known that I, RICHARD D. MOORE, a citizen of the United States, residing at Galesburg, in the county of Knox and State of Illinois, have invented a new and useful Railroad-Rail, of which the following is a specification.

One object of this invention, is to provide a railroad rail which will be strongest at the joints, thereby preventing sagging at these points.

Another object of the invention is to provide a two-part rail, one portion of which may be broken, without interfering with the continuity of the rail.

Another object of the invention is to provide a rail which may readily be laid in place and removed.

A further object of the invention is to provide a railroad rail having a double web, the strength of the rail being thereby increased, without increasing the weight of the rail.

A further object of the invention is to provide a railroad rail, the constituent elements of which may be united to form a continuous length of track, without the use of fish plates or angle bars.

A further object of the invention is to provide as an article of manufacture, a railroad rail, adapted to be assembled with another, like rail, to form a two-part structure, transversely considered, there being no rights nor lefts in the structure, but a single form of rail element being employed.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings,—Figure 1 is a top plan of a stretch of railway track fashioned from the rail elements of my invention; Fig. 2 is a horizontal longitudinal section of the structure shown in Fig. 1; Fig. 3 is an enlarged transverse section on the line A—B of Fig. 1; Fig. 4 is an enlarged section on the line C—D of Fig. 1; Fig. 5 is a perspective of the rail element which is duplicated to fashion the continuous length of track; and Fig. 6 is a fragmental longitudinal sec-

tion showing a modified form of the invention.

Referring particularly to Fig. 5, it will be seen that the element which is duplicated to fashion the length of track, consists of a web 1, a ball 2, and a flange 3. The ball 2 and the flange 3 are cut through upon lines diverging from the middle portion of the rail toward the ends of the rail so that, as denoted by the numeral 4, the ball 2 and the flange 3 decrease in width from an intermediate point 5 in the rail, to the ends 6 of the rail. Moreover, as most clearly discernible in Fig. 2, the web 1 slants toward the longitudinal center of the rail, from both ends of the rail toward the point 5, which is the point of greatest width in the ball 2 and in the flange 3.

The track consists of two lines of rails, each line consisting of a plurality of elements such as is shown in Fig. 5, in terminal abutment as shown at 9, the ends of the elements which go to make up the length of track being cut-off rectangularly with respect to the longer dimension, as shown at 8. The elements of these two lines of rails abut laterally against each other, as shown at 10, in their balls 2, and in their flanges 3 only, the webs 1 being spaced apart, as clearly shown in Figs. 3 and 4. Moreover, the joints in one of these lines of rails alternate with the joints in the other line of rails, the joints in one line being disposed opposite to the widest portions 5 of the ball 2 and of the flange 3 of the adjoining line. The elements which go to make up one line of rails, may be united with the elements which go to make up the other line of rails, by bolts 14, or other elements adapted to a like end, the use of fish plates or angle bars being rendered unnecessary.

If desired, as shown in Fig. 6, the webs 11 may be thickened as shown at 12, adjacent the intermediate point 5 of the rail.

It is to be noted that before the wheel of the car has passed off the end of one rail section, the wheel will have begun to traverse the intermediate portion of an oppositely disposed section, and since the joints in one line are disposed opposite to the widest portions of the rails in the adjoining line, the track line will be strengthened at the points where the elements of one line abut. Any sagging, or battering at this point will therefore be avoided. Since the ball 2 and the flange 3 increase in width from the ends

of the rail section to the intermediate point thereof, the rail will be strongest at a point between its ends, this point of greatest strength being disposed opposite to the joints in the adjoining line of elements which go to make up the continuous length of track.

By reason of the fact that as shown at 7, the web 1 slants toward the longitudinal center of each rail section, from both ends of the rail, toward the point 5 of greatest width in the ball 2 and in the flange 3, the ball 1 will be strengthened and reinforced, adjacent its longitudinal center, at a point opposite the abutting ends of the sections of the adjoining line. This construction obviously tends to increase the strength of the rail at the joints in the rail line.

A single rail element may at any time be removed from the track, and replaced by a new element, there being no rights and lefts in the structure, and it being entirely immaterial to which side of the track line, the rail element is applied.

In the form of the invention shown in Fig. 6, the web 11 is thickened, as shown at 12. The construction shown in Fig. 6, furnishes an auxiliary means for strengthening the track line at its weakest point, namely where the ends of two rail sections abut, it being noted that this point is the only point in the rail line which is not reinforced by a continuous double web, as shown in Figs. 3 and 4.

The rail herein disclosed may be made in relatively short lengths, say fifteen feet, and thus a small gang may relay rapidly a stretch of track, the handling of the rails being readily accomplished by two men. No fixed length is, however, insisted upon as essential.

Having thus described my invention, what is claimed is:—

1. As an article of manufacture, a railroad rail consisting of a web, a ball and a flange, the ball and the flange decreasing continuously in width from a single intermediate point upon the rail to the opposite ends of the rail.

2. As an article of manufacture, a railroad rail consisting of a web, a ball and a flange, the ball and the flange decreasing continuously in width from a single intermediate point upon the rail to the opposite ends of the rail, the web being thickened at the point of greatest width of the ball and the flange.

3. As an article of manufacture, a rail-

road rail consisting of a web, a ball and a flange, the ball and the flange decreasing continuously in width from a single intermediate point upon the rail to the opposite ends of the rail, the web consisting of two portions slanting toward the longitudinal center of the rail from both extreme ends of the rail to the point of greatest width of the ball and the flange.

4. As an article of manufacture, a railroad rail consisting of a web, a ball and a flange, the ball and the flange decreasing continuously in width from a single intermediate point upon the rail to the opposite ends of the rail, the ball having a straight edge extended the full length of the rail.

5. A track consisting of two lines of terminally adjoining rails, engaging laterally in their balls and flanges only, to space their webs apart, the joints in one line alternating with the joints of the other line, the ball and the flange of each rail decreasing in width from a point opposite the joints in the adjoining lines, toward the ends of said rail.

6. A track consisting of two lines of terminally adjoining rails, engaging laterally in their balls and flanges only, to space their webs apart, the joints in one line alternating with the joints of the other line, the web of each rail slanting toward the longitudinal center of said rail, from both ends of said rail.

7. A track consisting of two lines of terminally adjoining rails, engaging laterally in their balls and flanges only, to space their webs apart, the joints in one line alternating with the joints of the other line, the ball and the flange of each rail increasing in width from a point opposite the joints in the adjacent line, toward the middle of said rail, the web of each rail slanting toward the longitudinal center of said rail from both ends of said rail.

8. As an article of manufacture, a railroad rail consisting of a web, a ball and a flange, the ball and the flange decreasing continuously in width, from a single intermediate point upon the rail to the opposite ends of the rail, the ball and the flange having a straight edge, extended the full length of the rail.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

RICHARD D. MOORE.

Witnesses:

ROBERT D. ROBINSON,
WEBB A. HERLOCKER.