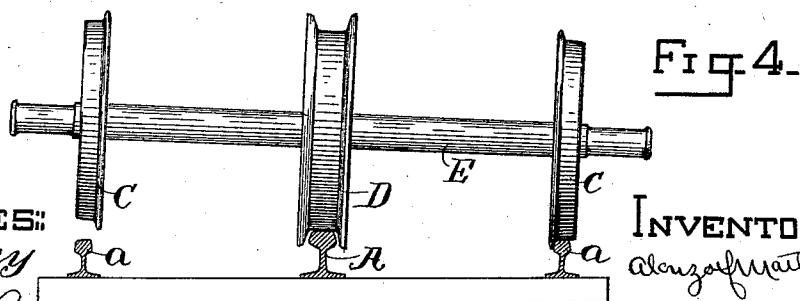
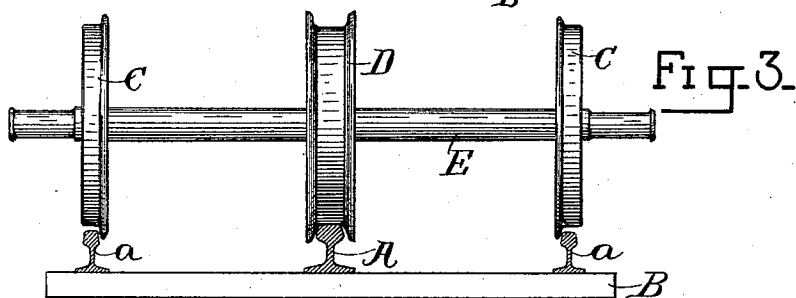
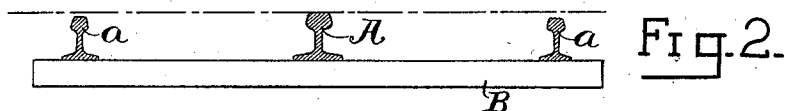
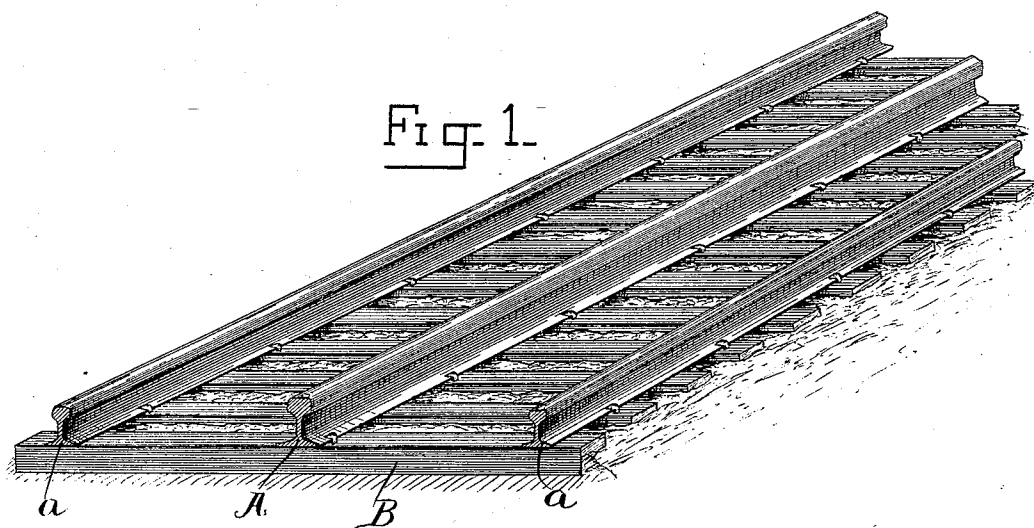


(No Model.)

A. C. MATHER.
RAILROAD TRACK.

No. 530,113.

Patented Dec. 4, 1894.



WITNESSES:

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ALONZO C. MATHER, OF CHICAGO, ILLINOIS.

RAILROAD-TRACK.

SPECIFICATION forming part of Letters Patent No. 530,113, dated December 4, 1894.

Application filed January 23, 1893. Serial No. 459,376. (No model.)

To all whom it may concern:

Be it known that I, ALONZO C. MATHER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railroad-Tracks, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which the invention appertains to make use of the same.

My invention consists of an improvement in a railroad track by which friction is reduced to a minimum and the highest possible adhesion for the driving wheels obtained; also greater stiffness given to the rail which is to carry the load on account of its unusual heft and its position in the center of the cross ties.

In the accompanying drawings, Figure 1 represents my railroad track in perspective; Fig. 2, in cross section, and Figs. 3 and 4 illustrate the position of the wheels under various circumstances—Fig. 3 when under full speed and Fig. 4 when at slow speed, standing or on a curve.

In the drawings "A" represents the large rail, which is made extra heavy. "a" represents the two outer rails, which may be made light.

"B" represents the cross ties, which are intended to be the ordinary wood ties.

"C" represents the two outside wheels and "D" the large center or driving wheel. These three wheels are fixed to the axle "E" which is to run in a truck of appropriate design.

As will be readily seen by reference to the drawings, the large stiff rail "A" in the center, is constructed slightly higher, is much heavier and consequently much stiffer than the two smaller rails "a" on the outside, but the aggregate weight of the three rails is not greater than two ordinary rails.

For illustration, in practice I would use what is termed a one hundred pound rail for the center rail and a fifty pound rail for the two outside rails, making two hundred pounds of rail to the yard of track, which would be equivalent to the ordinary track built from the two hundred pound rails and I would get

much greater stiffness by one rail in the center of the ties.

In operating on a railroad by use of three rails and three wheels fixed to the same axle, which are to run on said rails, it is intended that, when running at a speed, the full weight which will come to the axle would be borne by the center wheel alone and thus be carried on the center track. This is accomplished in the following manner: It will be noticed by reference to Fig. 2 of the drawings, that the center rail is higher than the two lighter outside rails. The working surfaces of the three wheels are all of the same diameter. Thus when in a horizontal position the two outside wheels will not rest upon the rails and when running at full speed, the truck holding the axle will come to a horizontal position by the laws of motion. When moving on a curve, the wheel on the outside of the curve will strike and ride upon the outside rail. When going at a slow speed or remaining still, one of the outside wheels will rest upon one of the outside rails, but the distance between the outside wheel and its corresponding rail is small and not enough to be noticed when running slow or when at a standstill.

It is intended that this improvement is to be used upon a high speed road, the invention being to reach a speed greater than any now attained by the use of this improvement in construction of tracks in combination with certain new electrical appliances. In attaining such high speed, it is necessary to have the greatest amount of weight at the most effective points and this it is claimed is done by this arrangement, in which the weight is carried on a single rail.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A railroad track consisting of three rails, the center one of which is made heavier and with its traction surface slightly higher than that of the two side rails, while the feet or lower heads of said rails are all on the same general level, in combination with three wheels to run on said rails, said wheels being

the same diameter and fixed to one and the same axle, all as shown and described.

2. The combination of the railroad ties "B," the three rails resting thereon, the traction
5 surface of the side rails being slightly lower than that of the center rail, and three wheels to run thereon on said rails, said wheels be-

ing the same diameter and fixed to one and the same axle, all as set forth and described.

ALONZO C. MATHER.

Witnesses:

FRED W. HERSEY,
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