(No Model.)

G. W. MILLER.

RAILWAY VELOCIPEDE.

No. 473,586. Patented Apr. 26, 1892.

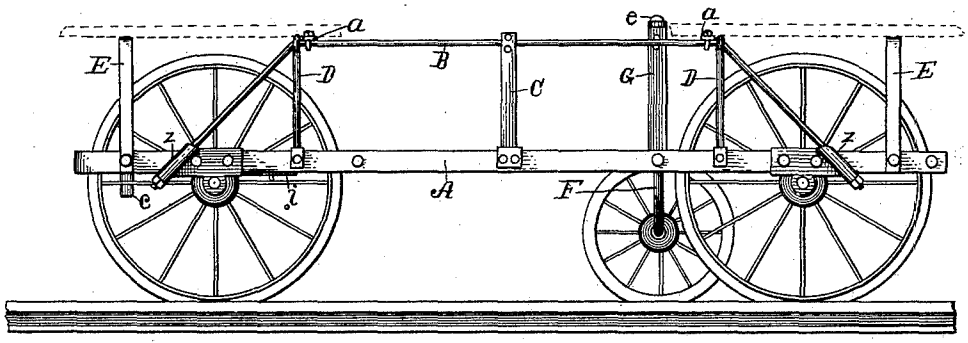

Fig. 1

Fig. 4

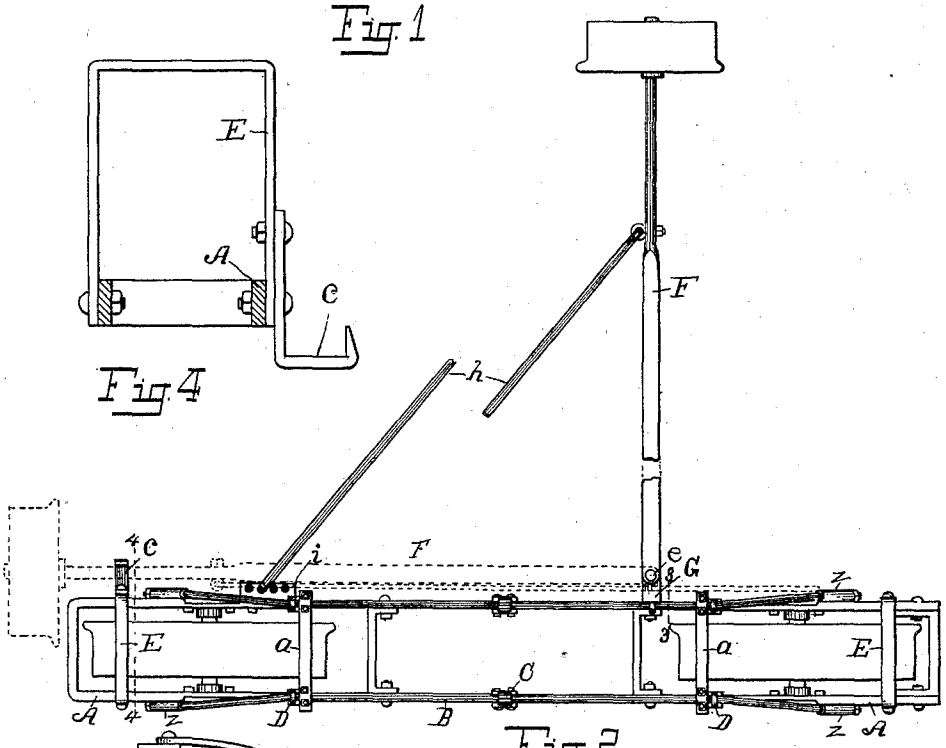

Fig 2

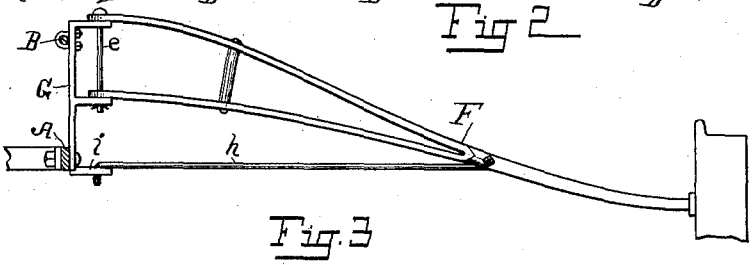

Fig. 3

Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE W. MILLER, OF KALAMAZOO, MICHIGAN.

RAILWAY-VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 473,586, dated April 26, 1892.

Application filed January 6, 1892. Serial No. 417,216. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. MILLER, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented a new and useful Railway-Velocipede, of which the following is a specification.

This invention relates to that class of railway-velocipedes or hand-cars which employ a truss-frame, two main wheels on one rail, and a hinged guide-wheel extending laterally therefrom running on the other rail.

This invention has for its object certain below described and claimed improvements in the manner of making the frame and also in the construction and adjustability of the guide-wheel arm.

In the drawings forming a part of this specification, Figure 1 is a side elevation; Fig. 2, a plan view; Fig. 3, details from Fig. 2, looking from a point at the right, parts being in section on line 3 3 in said figure; and Fig. 4, an enlarged section on line 4 4 in Fig. 2, looking from a point at the left.

Referring to the lettered parts of the drawings, A A represent parallel base-bars, in which the main wheels, which run on one rail of the track, have bearings in the ordinary manner. At each end of the frame and separated from each other are two upwardly-extending yokes E and D*a*, either lower end of which is attached to the base-bars A of the frame. These yokes usually support the seats. (Shown in dotted lines in Fig. 1.) Still the seats and their support *per se* form no part of this invention. While the yokes D*a*, as here shown, strictly speaking, consist of posts D D and the cross-bars *a*, for the purpose of this invention they might be yokes made of continuous strips of metal, like the yokes E, with the truss-rods attached to the upper corners of said yokes. Projecting upward from the longitudinal center of the base-rods A are two posts C. At each end of the frame and attached at either side thereof are tubular sockets *z*.

At B are shown truss-rods extending from the top of one yoke D*a* to the other on each side of the frame and centrally intercepting the top of the posts C, the upper end of which posts are attached to said rods. The ends of these rods B B beyond the yokes D D extend obliquely downward through the sockets *z* and are provided at the lower end with tension-nuts. When the parts D*a*, B, C, and A are put together, the nuts are thoroughly tightened on the ends of the rods B, which extend through the sockets *z*, which action tends to cause the rods B to bear down upon the yokes D*a* D*a*, to lift up on the posts C C, and to lift up on each end of the frame beyond the yokes D*a* D*a*, which action, of course, thoroughly trusses the frame. Such a construction of the frame is very desirable, considering its cheapness, lightness, and the increase of burden which it will sustain.

At a point in the rear of the front end of the railway-velocipede is an arm F, said arm being hinged by a pivot *e* to a bracket G, which bracket is firmly secured to the bars A B on one side of the velocipede-frame, said arm F extending laterally therefrom and bearing the guide-wheel referred to, which in use runs on the other rail, said rail not being here shown. The rear end of the frame at one side is provided with a series of holes *i*, with which holes the rear end of a brace-bar *h* is adjustably attached, the forward end of said bar being link-connected with the guide-wheel arm near its outer end. The advantage of this construction is, first, to throw the guide-wheel slightly forward or rearward, in accordance with the direction in which the velocipede travels, so that the guide-wheel will not cramp against the rail upon which it runs, and, as suggested, this is accomplished by detachably connecting the rear end of the brace-bar *h* with whichever one of the holes *i* it is desirable to accomplish the desired effect. A further advantage is that by detaching the rear end of the brace-bar *h* the guide-wheel arm F may be swung around to the rearward parallel with the railway-velocipede frame and the brace-bar thrown forward parallel with said frame and resting it upon the bracket G, as indicated by dotted lines in Fig. 2, thus adjusting the velocipede for conveniently handling or shipping.

To the base of the rear end of the frame, at one side, is attached a hook-support *c*, upon which the end of the guide-wheel arm F rests when thrown around parallel with the railway-velocipede. This arm being thus supported by the support *c* and the brace-bar *h* being supported by the bracket G or some equiva-

lent at the forward end of the car, the rear end can be readily raised up and run on its forward main wheel, like a wheelbarrow, either into the shipping-car or storehouse.

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

1. In a hand-car or velocipede, the combination of the base-bars of the frame, the central posts, one on each side, extending upward from said base-bars, the inverted-U-shaped yokes, one each way from the central posts, attached to and extending upward from the base-bars, sockets each way from said inverted-U-shaped yokes attached to the sides of the base-bars, the truss-rods extending from the top of one of the inverted-U-shaped yokes to the other and attached thereto and intercepting the upper ends of the central posts, to which they are also attached, the ends of said truss-rods extending downward from the yokes and through the sockets, and tension-nuts on the ends of the truss-rods, substantially as set forth.

2. In a velocipede or hand-car, the combination of the main frame, the bracket attached to said frame at one side near the forward end, the guide-wheel arm hinged to said bracket, the plate provided with a series of adjusting-holes and attached to one side of the frame near the rear end, the oblique brace-bar jointedly connected at one end to the guide-wheel arm and adapted to be detachably inserted in one of the adjusting-holes of the plate at the rear end, and the hook-rest attached to the rear end of the frame at the side, substantially as set forth.

In testimony to the foregoing I have hereunto subscribed my name in the presence of two witnesses.

GEORGE W. MILLER.

Witnesses:

H. G. HAINES,

A. J. SHAKESPEARE, Jr.