(No Model.)

H. F. MANN.

RAILROAD VELOCIPEDE.

No. 468,672. Patented Feb. 9, 1892.

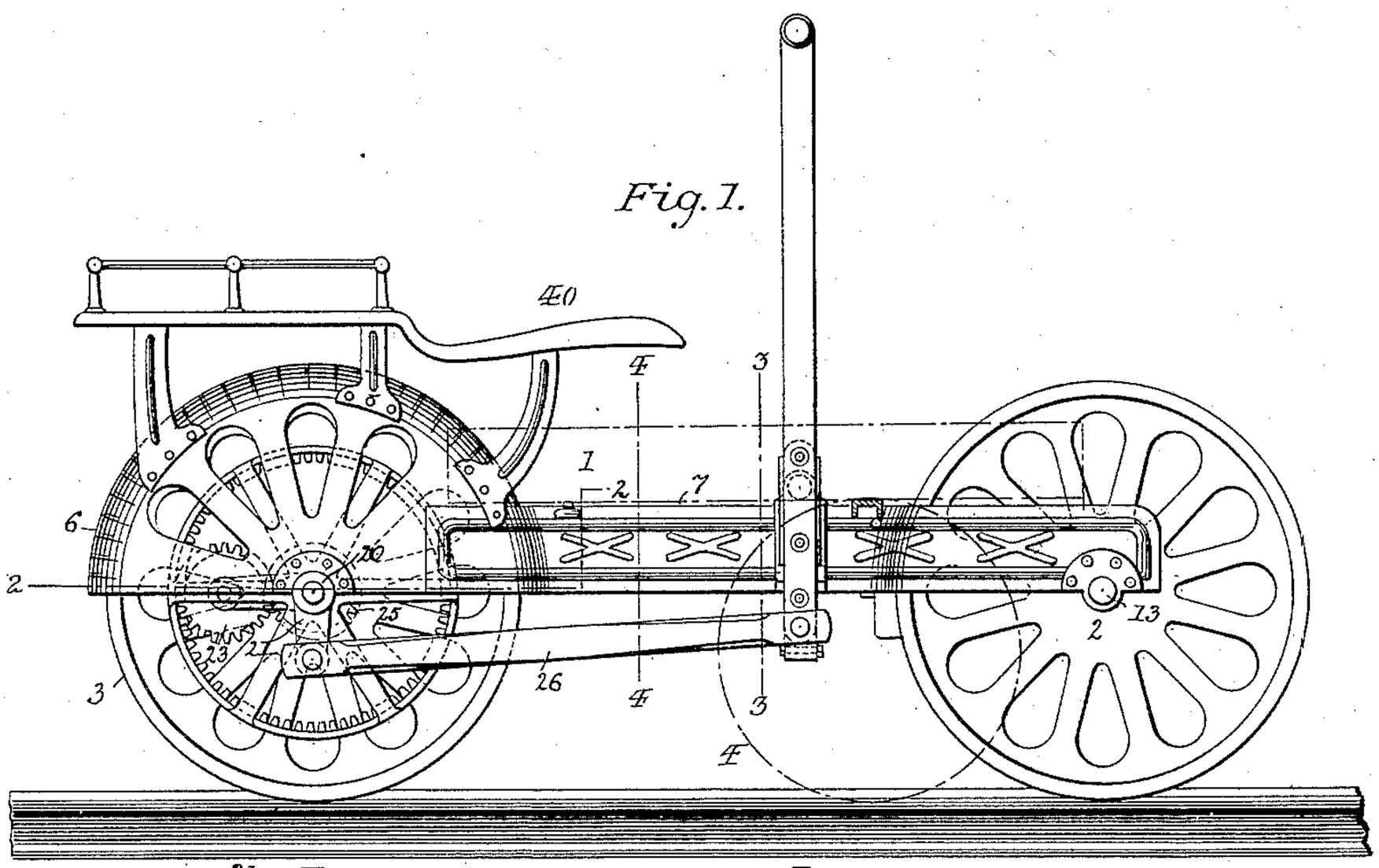


Fig. 1.

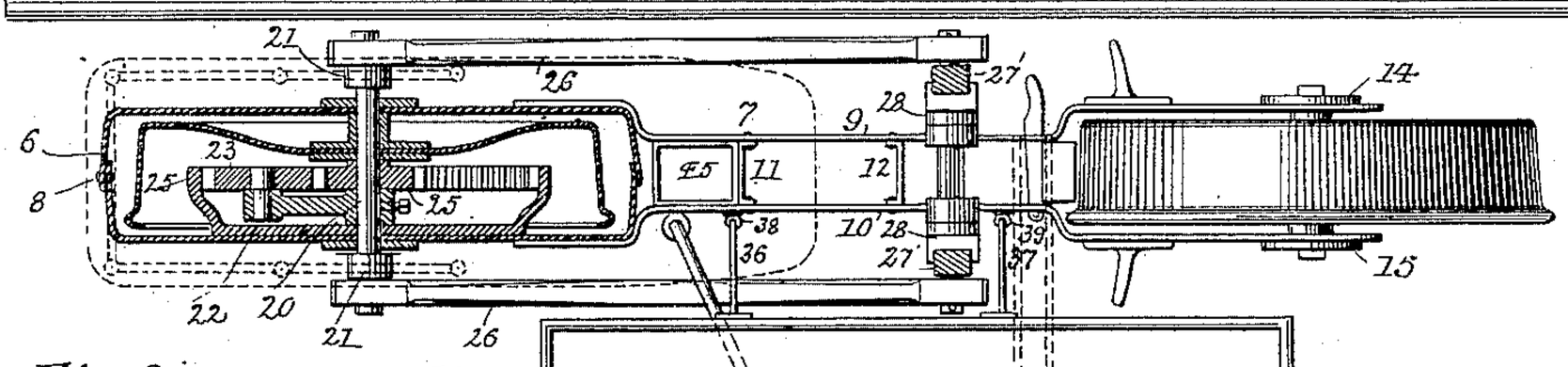


Fig. 2.

Fig. 3.
on line 3–3.

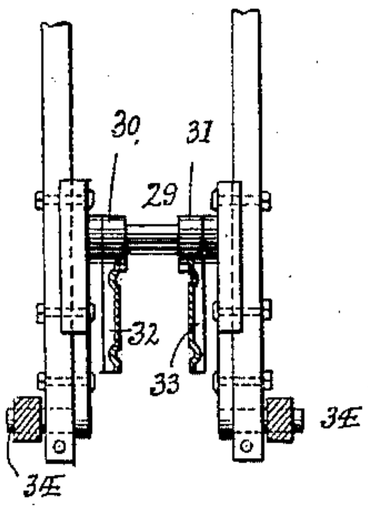


Fig. 4.
on line 4.4.

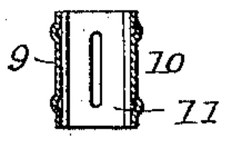


Fig. 6.

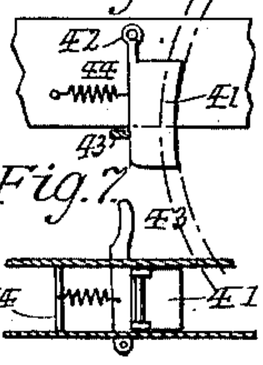
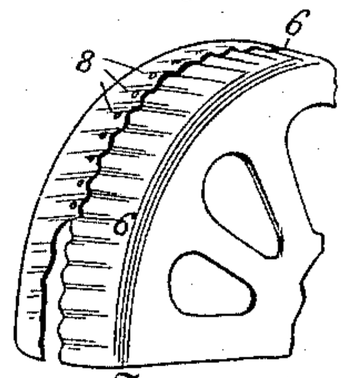


Fig. 7.

Fig. 5.



Witnesses

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HENRY F. MANN, OF ALLEGHENY, PENNSYLVANIA.

RAILROAD-VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 468,672, dated February 9, 1892.

Application filed September 4, 1891. Serial No. 404,762. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. MANN, of Allegheny, county of Allegheny, and State of Pennsylvania, have invented a new and useful Improvement in Railroad-Velocipedes, of which the following is a specification.

My invention has reference to improvements in railroad-velocipedes or hand-cars, and relates more particularly to the construction of the frame, the object being to provide a frame which will be strong, light, and durable and composed of few parts.

To this end the invention consists of a frame composed of metal, preferably sheet-steel, the parts being suitably formed and secured together to sustain the operative parts of the car.

The invention also consists in an improved manner of attaching and sustaining a receptacle for road materials, &c.

It further consists in the details of construction and combinations of parts hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation of a railroad-velocipede having my invention embodied thereon, the guide-wheel and receptacle being shown in dotted lines. Fig. 2 is a top plan view of the same with portions in section on the line *x x* of Fig. 1. Figs. 3 and 4 are vertical cross-sections on the lines 3 3 and 4 4, respectively, of Figs. 1 and 2. Fig. 5 is a perspective view, partly in section, of the rear portion of the frame. Figs. 6 and 7 are respectively a top plan view and a side elevation of the brake.

Referring to the drawings, 1 represents the frame sustained by the front wheel 2, and the rear driving-wheel 3, adapted to travel on one rail of a track, and by the guide-wheel 4, adapted to travel on the opposite rail and mounted on the outer end of an arm 5, the inner end of which is suitably secured to the frame by bolts, or otherwise. The frame is composed of the sheet-metal hood 6, partly covering the rear wheel, and the forwardly-extending reach 7, in the forward end of which the front wheel is journaled. In constructing the hood I provide two semicircular sheet-metal blanks, and by suitable means bend the curved edges laterally and form therein transverse corrugations or ribs to take up the surplus metal due to the bending of the same. These blanks are then placed so that their corrugated edges overlap, and the two are secured together by rivets 8, or otherwise. The reach 7 consists of two rectangular sheet-metal plates 9 and 10, ribbed, as shown, to strengthen them. They have their rear ends applied and riveted to the outer sides of the hood, so that they will extend edgewise in vertical planes horizontally forward. These two plates are bent inward toward each other immediately in advance of the front edge of the hood, whence they extend parallel to each other to a point in rear of the front wheel, where they are bent outward and continued forward to the axis of the wheel. This narrowing of the reach between the front and rear wheels, while possessing advantages, is not deemed essential, as the two plates could be extended parallel to each other throughout their length. In order to strengthen the reach and hold the two parts in fixed relations, I provide the braces 11 and 12, which are bent at their ends and seated between the two plates, to which they are securely attached by rivets or otherwise.

The car is provided with a seat 40, supported over the hood by standards rising therefrom. The front wheel 2 is mounted to turn loosely on a shaft 13, sustained in bearings 14 and 15, secured to the forward end of the reach. The rear wheel 3 is mounted loosely on a shaft 20, provided with crank-arms 21. This shaft carries an arm 22, having a pinion 23, journaled in its outer end and meshing with a stationary internal gear, and a pinion 25, fixed to the hub of the driving-wheel. From the crank-arms 21 pitmen 26 are extended and pivoted to the lower end of an operating-lever 27, mounted on the frame.

The operating-lever consists of two upright bars 27′, bolted to vertical plates 28, provided at their upper ends with the lateral journals 29, mounted loosely in bearings 30 and 31, formed, respectively, in the upper ends of plates 32 and 33, bolted to the opposite sides of the reach. At their lower ends the plates 28 are provided with studs 34, forming the pivots for the pitmen 26.

It is to be understood that other forms of gearing may be employed for driving the car.

The peculiar gearing herein shown and described forms in itself no part of the present

invention, it being the subject-matter of another and separate application of even date herewith, Serial No. 404,763.

In order to provide for the transportation of material for road-repairing, &c., I provide a receptacle or box 35, which is located between the front and rear wheels and the guide-wheel. This box is provided at one side with two arms 36 and 37, having their ends bent downward to enter eyes 38 and 39, attached to the side of the reach. It is sustained at its outer edge by the arm 40, upon which it rests, the box being provided with the downwardly-extending post resting on the arm. Under this construction its application and removal may be accomplished as desired.

In order to stop the motion of the car, I provide a brake 41, pivoted on a horizontal axis 42, mounted on the reach in rear of the front wheel. This brake is provided at one side with a foot-piece 43, and is held normally out of action by a spring 44, attached at its ends, respectively, to the brake and the reach.

Between the two plates composing the reach, adjacent to the rear wheel and in front of the same, is seated a tool-box 45, which is secured at its sides, by bolts or otherwise, to the two plates.

Having thus described my invention, what I claim is—

1. The improved frame for a railroad-velocipede, consisting of the metallic hood and the reach, said reach composed of two metallic plates secured at their rear ends to opposite sides of the hood and extending thence in vertical planes horizontally forward.

2. In a velocipede-frame, the reach composed of two plates extending substantially parallel and bent outward at their rear ends, in combination with the hood secured between the said outwardly-bent ends of the plates, substantially as described.

3. In a railroad-velocipede, the combination of the reach consisting of the two sheet-metal plates extending horizontally in vertical planes and bent outward at their ends, the front wheel journaled between the forward-bent ends of the reach, the metallic hood secured between the rear bent ends of the reach, and the rear wheel journaled within the hood.

4. In a velocipede-frame, the hood consisting of two metal blanks having laterally-bent corrugated edges overlapped and secured together.

5. The combination, with the reach, of the vertical plates 32 and 33 secured thereto, the bearings in the upper ends of said plates, the horizontal shaft mounted in said bearings, the operating-lever secured to said shaft, and connections from said lever to the operating parts of the car.

6. In a railroad-velocipede, a frame having the front and rear wheels, the guide-wheel, and its carrying-arm, in combination with sockets on the frame and the receptacle provided at its inner side with arms seated in said sockets and sustained at its outer side by the guide-wheel arm, substantially as described.

7. The combination, with the reach consisting of the two vertically-disposed plates, of the box seated between and secured to said plates.

8. In a velocipede-frame, the hood consisting of the metal blanks having laterally-bent corrugated edges secured together.

9. The improved frame for a railroad-velocipede, consisting of the metal hood within which the rear wheel is journaled and the forwardly-extending metal reach within which the front wheel is journaled.

In testimony whereof I hereunto set my hand, this 28th day of August, 1891, in the presence of two attesting witnesses.

HENRY F. MANN.

Witnesses:
W. R. KENNEDY,
FABIUS S. ELMORE.