

H. BOGEL.

Velocipede.

No. 35,583.

Patented June 17, 1862.

Fig. 2.

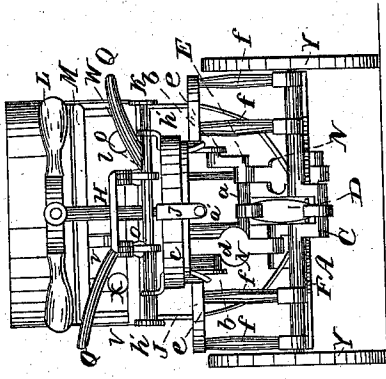


Fig. 4.

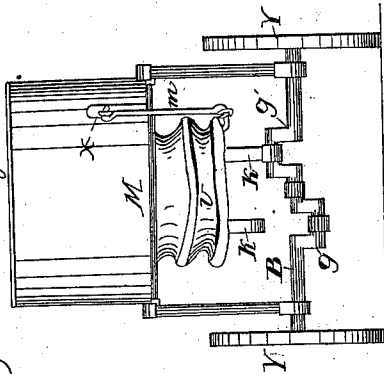


Fig. 1.

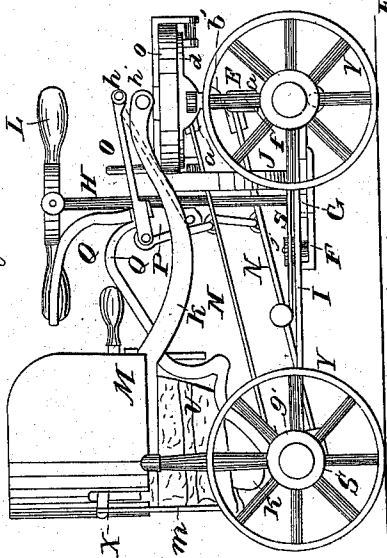


Fig. 5.

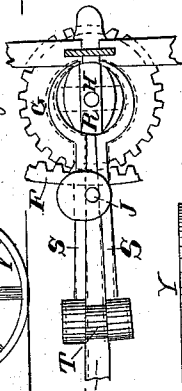
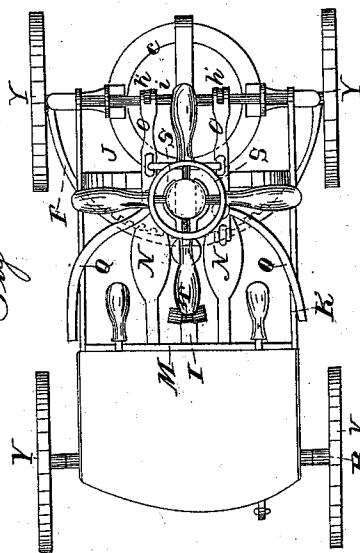


Fig. 3.



Witnesses:
J. W. Coombs
J. W. Reed

Inventor:
Henry Bogel
per Munn & Co
Attorneys

UNITED STATES PATENT OFFICE.

HENRY BÖGEL, OF WATERTOWN, WISCONSIN.

IMPROVEMENT IN VELOCIPED-VEHICLES.

Specification forming part of Letters Patent No. 35,583, dated June 17, 1862.

To all whom it may concern:

Be it known that I, HENRY BÖGEL, of Watertown, in the county of Jefferson and State of Wisconsin, have invented a new and Improved Velocipede-Vehicle; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of my invention. Fig. 2 is a front view of the same. Fig. 3 is a plan or top view of the same. Fig. 4 is a back view of the same. Fig. 5 is a detached plan or top view of a portion of the same, taken in the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in arranging treadles and levers with connecting-rods and the running-gear of a wheel-vehicle in such a manner that the vehicle may be propelled along by the occupant with facility, and the vehicle at the same time rendered capable of being readily turned or guided by the occupant, and, in fact, be under the perfect control of the same.

The invention also consists in using, in connection with the parts aforesaid, a bellows and whistle so arranged as to be operated by the running-gear of the vehicle during the movement of the same, and an alarm sounded at the will of the occupant.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the front, and B the back, axle of a wheel-vehicle. The front axle, A, is provided with a crank, C, at its center, which crank is connected by a rod, D, with a double-crank shaft, E, immediately above the axle A, the two cranks *a a'* of the shaft E having reversed positions, as shown in Fig. 2. The crank-shaft E has its bearings in pendants *b b*, attached to the stationary part *c* of the fifth-wheel of the vehicle, and the front axle, A, of the vehicle is connected to the movable or turning part *d* of the fifth-wheel by means of horizontal bars *e e*, connected to the axle by supports *f*, all of which are shown in Fig. 2.

To the back of the front axle, A, there is attached a semicircular rack-bar, F, into which a wheel, G, on the lower end of a vertical

shaft, H, gears. The lower end of the shaft H is stepped in the perch or rack I, in the back end of which the back axle, B, is fitted loosely, so that it may turn freely therein. The front end of the perch or reach is connected to the lower part of a pendent and inverted arched bar, J, attached to the framing K of the vehicle, and the upper end of the shaft H is provided with a hand-wheel, L, which is directly in front of a seat, M, on the back part of the framing K.

The back axle, B, is provided with two cranks, *g g'*, having reverse positions, as shown in Fig. 4, and corresponding with the cranks *a a'* of the shaft E. The cranks of the two axles A B are connected by treadles N N, and each treadle has a lever, O, connected to it by a link, P. The levers O have their fulcrum-pins *h* passing through arms *h' h'* on a bar, *i*, at the front part of the framing K, and to the back end of each lever O there is attached a handle, Q.

On the lower part of the vertical shaft H, just above the wheel G, there is secured a horizontal bar, R, which is between two clamps or levers, S S. These clamps or levers have a common fulcrum-pin, *j*, which passes into or through the perch or reach I, and have a spring, T, between their back ends, which spring has a tendency to keep the front ends of the clamps or levers S S pressed against the bar K, and thereby prevent the casual turning of the wheel G and the consequent movement of the semicircular reach-bar F and the turning of the front axle, A. (See Fig. 1.)

Underneath the seat M of the vehicle there is placed a bellows, U, which is operated, when the vehicle is in motion, by the cranks *g g'* of the back axle, B, coming in contact with pendants *k k*, attached to the under side of the bellows.

V is a whistle which communicates with the bellows, and W is a valve in the top of the bellows, having a lever, *l*, attached, by which the valve may be adjusted by the occupant of the seat and the wind allowed to escape from the bellows when the whistle is not required to be sounded.

X is a lever on the upper part of the bellows, connected at its back end to the lower part thereof by means of a rod, *m*, as shown

in Figs. 1 and 4. By actuating this lever the lower part of the bellows may be elevated at any time beyond the action of the cranks *g g'*.

From the above description it will be seen that the occupant of the seat *M*, by working the treadles *N N* with his feet and the handles *Q Q* with his hands, will rotate the axles *A B* of the vehicle, and consequently propel it along, the wheels *Y* being permanently attached to the axles, and in order to turn the vehicle the occupant simply turns the hand-wheel *L*, and the wheel *G* will move the semicircular rack-bar *F*, and the front axle, *A*, will consequently turn. When the front axle is brought back to its original position parallel with the back axle, *B*, the pressure of the clamps or levers *S S* on the bar *K* of the shaft *H* will, as previously explained, prevent the casual turning of the front axle.

The invention is well adapted for railroads, all the modification required being flanged wheels.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. The arrangement and combination of the treadles *N N*, levers and handles *O O Q Q*, and crank-axles *A B*, in connection with the semicircular rack-bar *F* and wheel *G*, all arranged for joint operation as and for the purpose set forth.

2. The clamps or levers *S S* and spring *T*, in connection with the bar *R* on the shaft *H*, arranged, substantially as shown, to prevent the casual turning of the front axle, *A*, as specified.

3. The bellows *U*, provided with the whistle *V*, when used in combination with the treadles *N N* and levers *Q Q*, and operated by the crank-axle *B*, substantially as and for the purpose set forth.

HENRY BÖGEL.

Witnesses:

CHS. M. DUCASSI,
AUGUST DORICH.