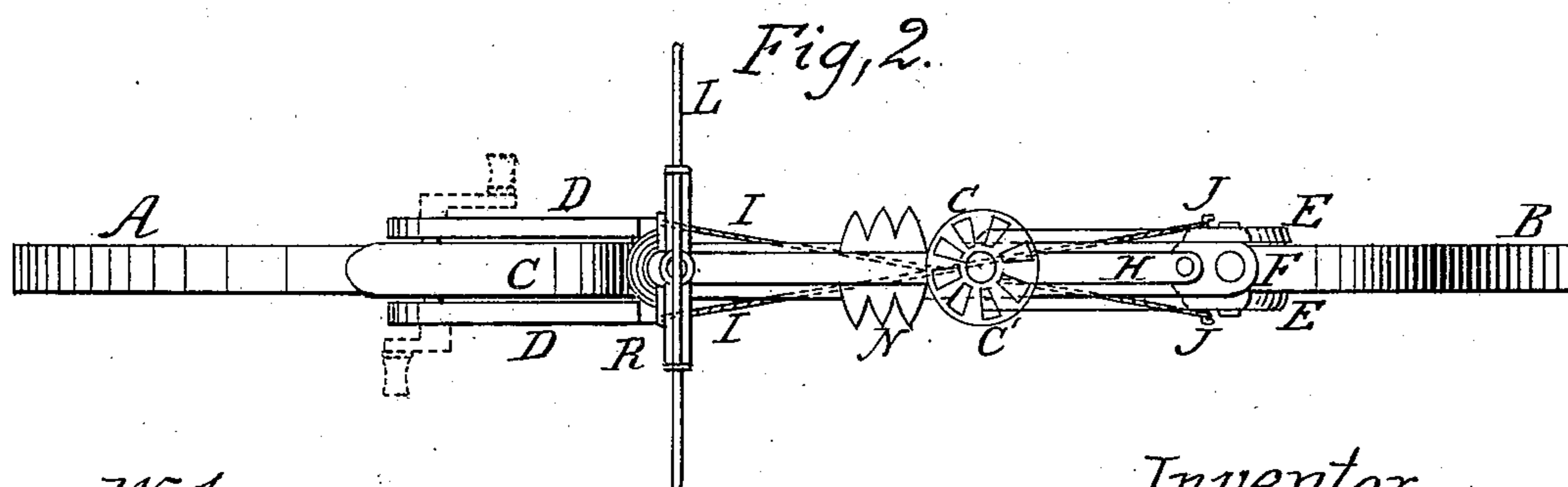
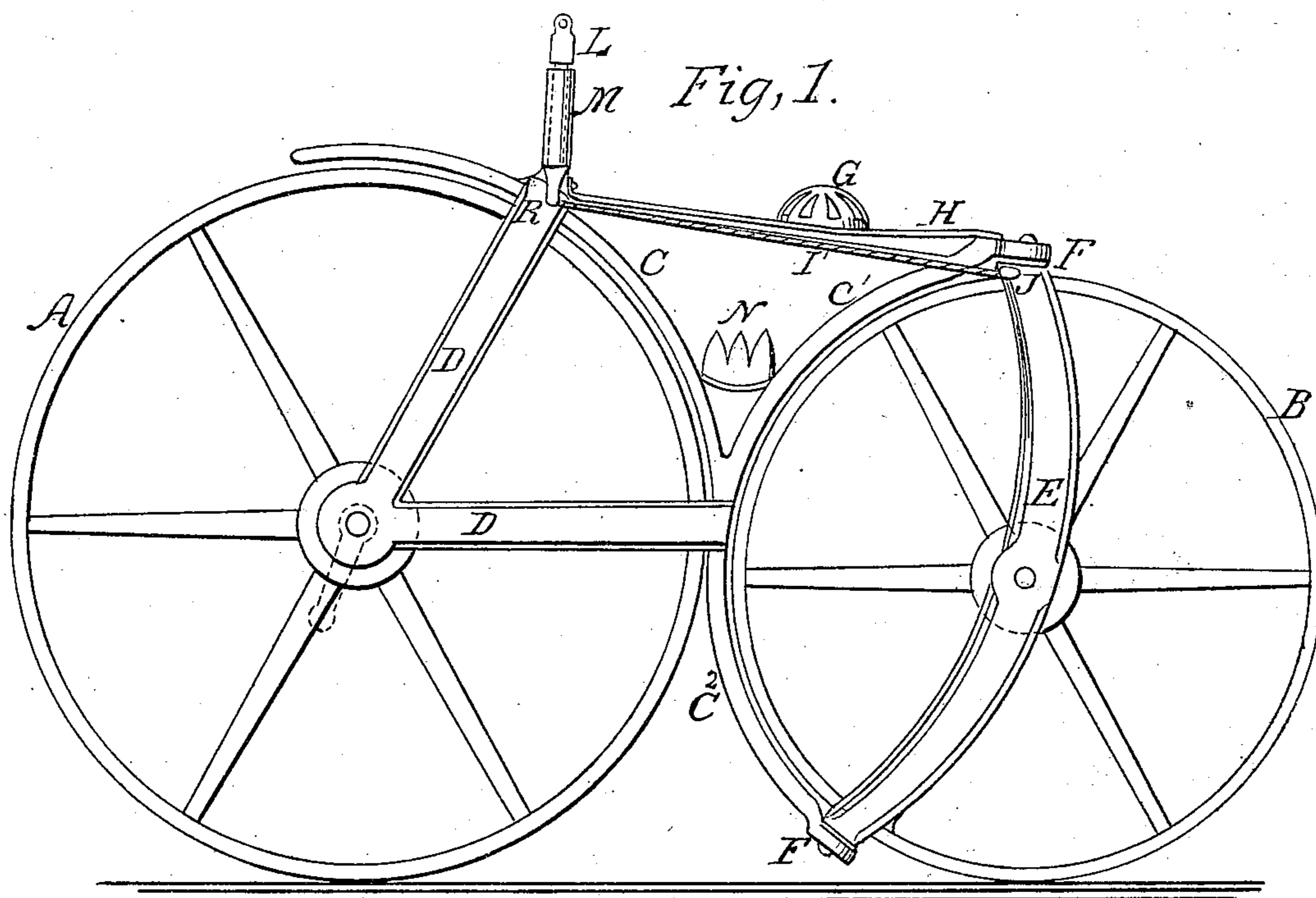


A. O. WILLCOX, Jr.

Velocipede.

No. 92,412.

Patented July 6, 1869.



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# United States Patent Office.

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Letters Patent No. 92,412, dated July 6, 1869.

## IMPROVEMENT IN VELOCIPEDE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ALBERT OLIVER WILLCOX, Jr., of Port Richmond, in the county of Richmond, and State of New York, have invented a new and useful Improvement in Velocipedes; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which drawing—

Figure 1 is a side elevation of my invention.

Figure 2 is a top view.

Similar letters indicate corresponding parts.

My invention is here shown in connection with a bicycular velocipede; and

It consists—

First, in a peculiar construction of the perch, which is so made, as, with its connections, to form a frame, enclosing the adjacent portions of both wheels.

Second, in connecting that portion of the frame in which the rear wheel is mounted to the perch, by means of pivots or swivel-joints, in such a manner that the same can swing in the perch, being turned to the right or left by the tiller.

Third, in providing a receptacle on the perch, beneath the saddle, for stowing baggage or articles to be transported.

Fourth, in arranging and combining with the perch a spring-saddle.

The letter A designates the leading-wheel, and B, the rear wheel, which, in my invention, constitutes the steering, or guiding-wheel; but my velocipede can be driven in either direction.

The perch consists of the parts C C' C<sup>2</sup>, firmly connected to each other and to the angular frame D D, in whose angle the front wheel A has its axle.

The part C of the perch extends over a portion of the front wheel, and upon it is placed the tiller, consisting of horizontal arms L, extending from a sleeve, M, which is mounted, so as to be capable of turning upon a vertical pin, seen in dotted outline in fig. 1, which rises from the perch.

From the edges of the bottom part of the sleeve M, extend ears K K, to which are fastened the tiller-rods I I, which extend backward, crossing each other beneath the saddle, to the swinging frame E, in which the rear wheel is mounted, to which frame E the tiller-rods are fastened, by means of ears J J, that extend horizontally outward from said frame, as is shown in the drawing.

The parts C' C<sup>2</sup> of the perch extend around a portion of the periphery of the steering-wheel B, the higher end of the part C' of the perch being extended to a point over the axle of wheel B, where the swivelling-frame E is pivoted to it, so as to be free to turn on the perch, either to the right or left, in obedience to the tiller.

The swivelling-frame E consists of two bars, arranged on either side of wheel B, connected to each other at top and bottom, so as to enclose the wheel between them, and carrying the axle of said wheel.

The swivel-joints by which the frame E is connected to the perch are designated F F', that one which connects the frame E to the part C<sup>2</sup> of the perch, being arranged in a position forward of a vertical line passing through the axle of wheel B, and high enough from the ground to be out of the way of any objects in the road, while the swivel-joint that connects said frame to the higher part C' of the perch is vertically above the axle of wheel B, or nearly so.

The swivelled portion of the frame, that is to say, the parts E E, which enclose the wheel B, is bent to a curved shape, but it may be of any other suitable form.

The frame which embraces the wheel A is composed of bars D D, two on each side of the wheel, their outer ends being rigidly connected to the perch at the parts where the greatest strength is required, to wit, at the place where the tiller is situated, and at the place where the parts C C' C<sup>2</sup> of the perch are joined together.

The bars D D meet at their inner ends, where they support the axle of the wheel A, from whose centre said bars extend like radii toward the perch.

The device for carrying baggage or articles is shown at N, consisting of a receptacle mounted on the perch, in the angle formed by the parts C C', below and out of the way of the rider's seat.

The saddle, or rider's seat G is elastic, so as to yield to the weight and movements of the rider, being made of elastic bars or plates, bent to a convex form, and arranged in such a manner that their ends are secured in a rim-plate, which forms the edge or side of the seat.

The elastic saddle is mounted on the bar H, and it can be made in any suitable form, the object being to avoid a rigid surface on the saddle-seat.

It will be observed, that by means of my construction, the wheels A and B are enclosed together in a combined frame, which prevents the wheels from wobbling, and which steadies them while in motion, and that this end is accomplished, also, in connection with the capability of turning the rear wheel B at an angle with the direction of motion of the leading wheel A, by swivelling the part E E of the combined frame on the perch, as described.

It will be also observed, that by so arranging the swivel-joints, or places of connection of the frame-bars E E with the perch, as to bring them on the same side of a vertical line going through the axle of the wheel B, the wheel B is operated on by the tiller with advantage, and by only a small exertion of force, and the wheel B will be thrown on one edge, or tilted, and made to stand obliquely to the plane of

the leading-wheel, when operated on by the tiller, so as to alter the course of the vehicle with facility.

Having thus described my invention,

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

1. The frame, consisting of the perch and bars D and E, combined and arranged substantially as described and shown.

2. Connecting the part E of the frame which encloses the wheel B to the perch by swivel-joints, so that it can turn on the perch, substantially as set forth.

3. The baggage-receptacle N, combined with the perch of a velocipede, substantially as shown.

4. Combining with a velocipede, a saddle-seat, whose surface is elastic and yielding, substantially as set forth.

This specification signed by me, this 4th day of June, 1869.

ALBERT OLIVER WILLCOX, JR.

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.