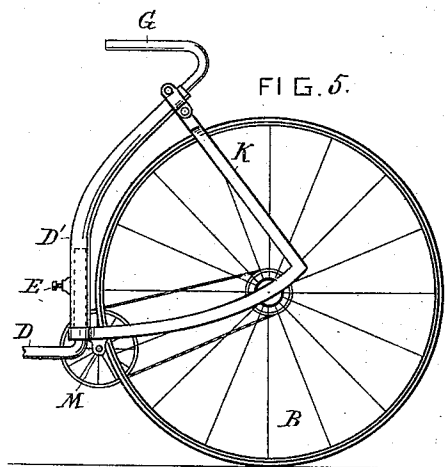
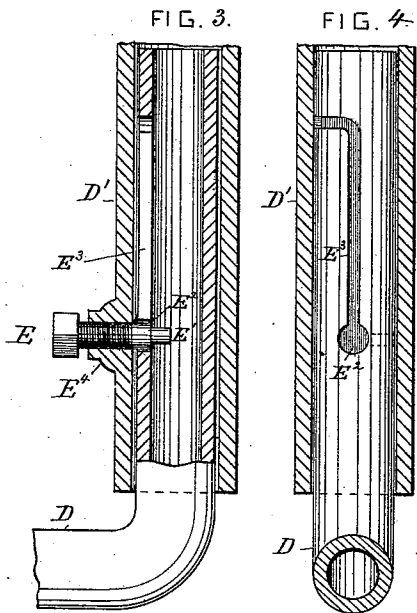
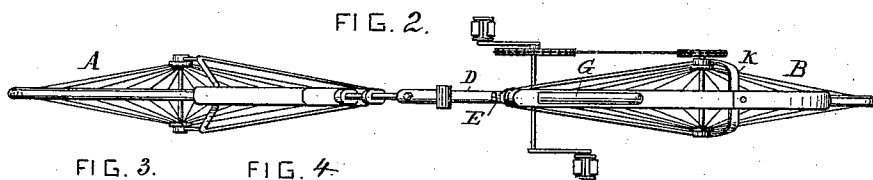
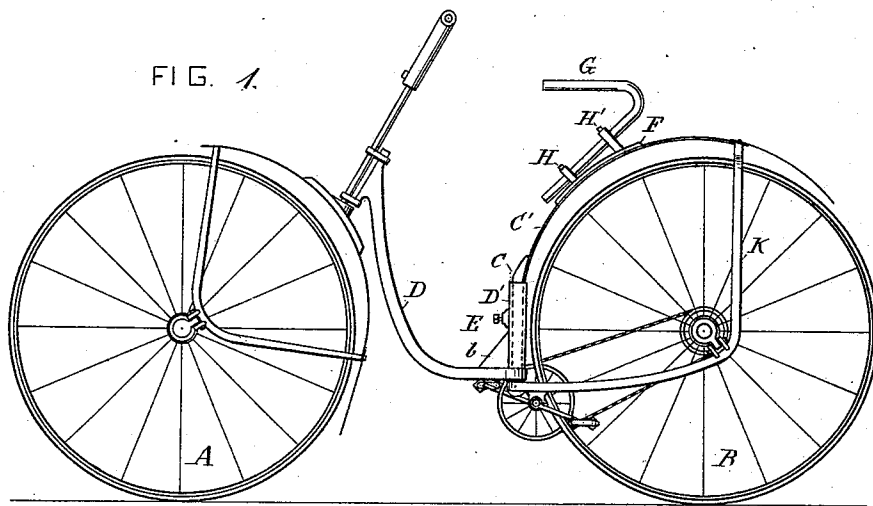


(No Model.)

T. O'BRIEN.
BICYCLE.

No. 471,651.

Patented Mar. 29, 1892.



WITNESSES
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THOMAS O'BRIEN, OF NEW YORK, N. Y.

BICYCLE.

SPECIFICATION forming part of Letters Patent No. 471,651, dated March 29, 1892.

Application filed November 29, 1889. Serial No. 331,977. (No model.)

To all whom it may concern:

Be it known that I, THOMAS O'BRIEN, a citizen of the United States of America, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Bicycles, of which the following is a specification.

My invention relates to the construction of the folding and locking mechanism and a spring-plate for sustaining the saddle-bar. The advantages of this folding and locking design is that it is equally adapted whether the front spine be within or outside of the standard-tube, and the folding may be below or above the forks of the rear wheel.

In the drawings, Figure 1 is a side elevation with the seat and handle-bars removed. Fig. 2 is a plan thereof. Fig. 3 is a sectional side view; and Fig. 4 is a front view, with half of the outside tube removed, of the locking and folding mechanism; and Fig. 5 shows the standard-tube C continued upwardly, whether inside or outside of the vertical part of the spine D, to receive the saddle-bar G.

The wheels A B and their axles and bearings, the chain and chain-wheels and pedals, and the forks and steering mechanism may be of any desired construction.

In Fig. 1 my patent forks and mud-guard, on which the steering-standard is placed, is shown that the claims for folding and locking may be more readily understood by giving the completed machine.

The standard-tube C, to which the plate C' is secured, passes within and below the tube D', where the forks K are fastened to the said tube C, or the standard-tube may be placed outside of the vertical part of D, and, if preferred, the said standard-tube may be continued upwardly to receive the saddle-bar G, as shown in Fig. 5, and the vertical part of the forks K are bent forwardly to suit, and the inclosed vertical part of the spine D has a vertical slot E³ (see Fig. 4) cut thereon to allow the said spine when folding to drop below the bearing M of the chain-wheel, as in Fig. 5, and when folding above the forks, as in Fig. 1, the slot is cut horizontal, as shown by the dotted lines from E² in Fig. 4. Thus

the folding is accomplished below or above the forks K by turning the threaded bolt E back sufficiently to clear the inside tube, and the spine D and steering-wheel A may be swung around to the left-hand side of the wheel B.

The plate C', which sustains the saddle-bar, may be a spring-plate or a plate of sheet-steel, and the step F and eye-bars H H' are riveted thereon, the saddle-bar G being adjustable through these eye-bars by the set-screws on their ends.

The swelling E⁴ in Fig. 3 is welded on the outside tube, through which is cut a screw-threaded hole to conform to the threaded bolt E, and the inclosed end of said bolt at E' is reduced, so as to slide freely in the slot E³, and the port of the bolt E is similar in size to the hole E² at the bottom of the slot E³. (See Figs. 3 and 4.) The line b in Fig. 1 is a brace to strengthen the part.

I claim as my invention—

1. In a velocipede, the combination, with the steering-standard, of the spine D, vertical tube D', tube C, and connecting spring-plate C', step F, eye-bars H H' and their set-screws, saddle-bar G, and brace b, substantially as shown and described.

2. In a velocipede, the combination, with the forks K, of a spring-plate C', a tubular extension thereof passing through the vertical tube D', forming a pivot on which the vehicle may be folded, and means for locking said tubes, substantially as shown and described.

3. In a velocipede, the combination, with the tubes C and D', of a locking mechanism consisting of the screw-threaded bolt E, hole E², slot E³, and right and left horizontal slots, by which means the tubes C and D' are held rigidly, all substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 30th day of October, 1889.

THOMAS O'BRIEN.

Witnesses:

WM. A. LOWE,
A. JONGHMANS.