(No Model.)

T. O'BRIEN.

BICYCLE.

No. 413,414. Patented Oct. 22, 1889.

FIG. 1.

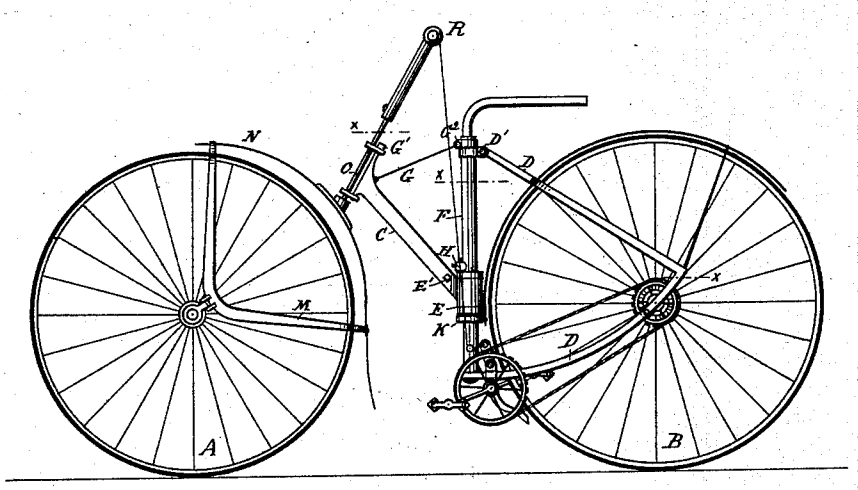
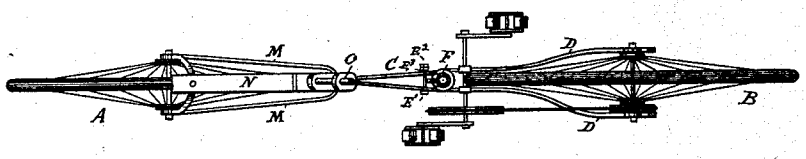


FIG. 2.



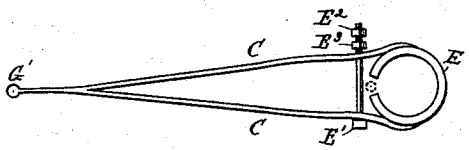


FIG. 3.

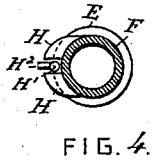


FIG. 4.

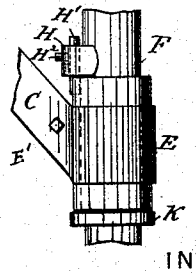


FIG. 5.

WITNESSES

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UNITED STATES PATENT OFFICE.

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

BICYCLE.

SPECIFICATION forming part of Letters Patent No. 413,414, dated October 22, 1889.

Application filed June 10, 1889. Serial No. 313,734. (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 connecting-frame of a bicycle or other velocipede, and having a mechanism for folding or placing the wheels side by side when so desired.

The objects attained by this system of construction are simplifying the folding mechanism and making the connecting-frame lighter without lessening the capacity of the machine.

In the drawings, Figure 1 is a side view of the bicycle without the saddle and handle-bars. Fig. 2 is a plan thereof below the dotted lines X X. Fig. 3 is a plan view of the folding mechanism and the connecting-spine C C. Fig. 4 is a top view of the folding mechanism, showing the slot and pin; and Fig. 5 is a side view, in a larger scale, of the standard-tube and folding combination.

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

Instead of having the folding mechanism above the forks of the wheel B as in my patent, No. 399,774, of March 19, 1889, I place the folding mechanism lower down upon the standard F, and the forks D D are carried higher upon said standard, by which greater strength is given to the connecting-frame.

The spine or reaches C C and forks D D are preferably made of sheet-steel, and the spine C C may be of two pieces, as shown in Fig. 3, or may be in one piece and carried around the split sleeve E, (see Fig. 5,) and in either case the said spine is forged or pinned, or both, to the said split sleeve, and the neck G′ and spine C are made so as to form one piece. The ring K is made secure to the standard F for the split sleeve E to rest upon, and the tapered and slotted piece H is also made secure to the said standard closely above the said split sleeve, and the slot in H is cut downwardly only sufficient to receive the stop-pin H^2, which is inserted at right angles in the bolt H′, and this bolt extends downwardly and is clutched between the jaws of the split sleeve, and when it is required to fold the machine the nuts E^2 E^3 of the bolt E′ are turned backwardly, and the bolt H′ is pulled up and turned to either side, when the machine may be folded.

The mud-guard N, carrying the steering-standard O, having been previously allowed to me and claim for the forks M being pending, these parts are shown in the drawings in combination with the parts herein claimed.

I claim as my invention—

In a bicycle or other velocipede, the combination, with the wheels A B, forks M M, mud-guard N, and steering-standard O, of the spine C C and neck G′, made in one piece, standard F, ring K, split sleeve E, bolt E′, and nuts E^2 E^3, slotted piece H, bolt H′, and stop-pin H^2, forks D D, brace G, and split ring G^2, substantially as specified.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 22d day of April, 1889.

THOMAS O'BRIEN.

Witnesses:

WM. A. LOWE,

THOMAS J. HART.