

W. H. SMITH.

Velocipede.

No. 89,443.

Patented April 27, 1869.

Fig. 1.

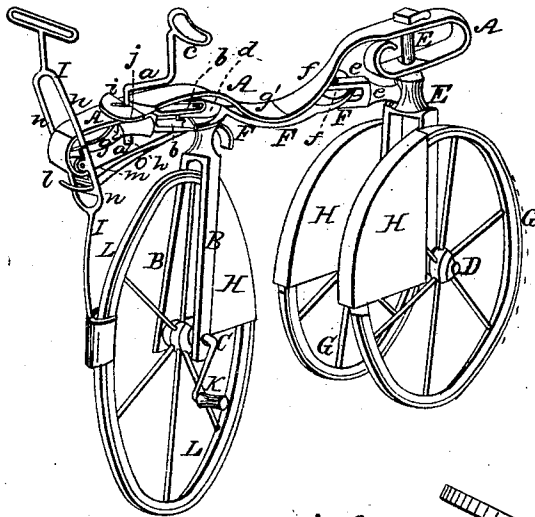
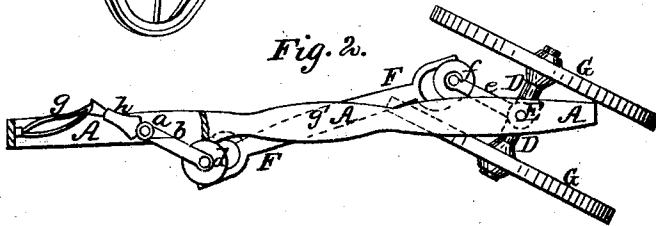


Fig. 2.



Witnesses:

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WILLIAM H. SMITH, OF NEWPORT, RHODE ISLAND.

Letters Patent No. 89,443, dated April 27, 1869.

IMPROVED 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, WILLIAM H. SMITH, of Newport, Newport county, Rhode Island, have invented a new and improved Velocipede; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a perspective view of my improved velocipede.

Figure 2 is a plan or top view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new velocipede, which is provided with a steering-apparatus, of novel construction, and also with a new brake-attachment, its object being to simplify the construction of the parts, and to obtain lighter and steadier motion.

The invention consists chiefly in connecting the rear steering-wheel, or wheels, by a novel system of leverage, with a steering-handle in front of the frame, and also in pivoting to the front of the frame an up-and-down sliding brake and starter, as hereinafter more fully described.

A, in the drawing, represents the frame, or reach of the velocipede, to which the post, or arm B, carrying the front axle, C, is rigidly secured.

The rear axle, D, has its bearings in a post, or frame, E, which is pivoted to the rear end of the reach, as is clearly shown in the drawing.

In the front part of the reach A, is pivoted a vertical pin, *a*, having a backward-projecting arm, *b*, under the reach, and a handle, *c*, above the reach, as shown.

The arm *b* has a friction-roller, *d*, at its forked end.

From the swivel-post E projects forward a horizontal arm, *e*, which has a friction-roller, *f*, at its front end.

F represents a lever, pivoted near its middle, by a vertical pin, *g*, to the under side of the reach.

Its ends are both forked, and straddle the edges of the rollers *d* and *f*, as shown.

It will be seen that, by turning the pin *a*, the arm *b* will be swung to one side, carrying the front end of the lever F with it, while the rear end of F is swung to the opposite side, carrying the arm *e* with it.

The arms *b* and *e* will, therefore, remain parallel, and the rear wheel, or wheels G, on the axle D, will also stand with the faces parallel to the said arms, as shown in fig. 2. Convenient steering-action is thus obtained.

A spring, *g*, acting on the front end of an arm, *h*,

that projects forward from the pin *a*, tends to retain the arms *b e* in line with each other, and the wheel, or wheels G in line with the front wheel, or wheels L.

An index-hand, *i*, may be secured to the pin *a*, to show the direction in which the rear wheel, or wheels are swung, on a plate, *j*, of the reach, indicated in fig. 1.

The front axle, not swinging to steer, will retain its cranks, *k k*, always equally far from the seat.

The wheels may be protected by means of suitable fenders, H H, attached to their frames, as shown.

To the front end of the reach are pivoted, by a pin, *l*, to each side of the reach, tubes *m m*, which receive the side bars *n n*, of the slotted brake-lever I.

The said lever is held up by a spring, *o*, attached to the frame, and can, by pressure applied, be forced down, and can also be swung on the pivot *l*.

To the lower end of the lever I is secured a suitable brake-shoe, J, which I prefer to let overlap the sides of the front wheel L.

By swinging the lever I, the brake-shoe can be simply applied, by pressure, to stop the further motion of the wheel.

The device may also be used for starting the velocipede.

By holding the shoe against the edge of the wheel, and forcing it down, the front wheel will be carried around, and the velocipede will be started.

The spring *o* throws the shoe up, and away from the wheel, as soon as pressure upon the upper end of the lever I is released.

Having thus described my invention,

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

1. The steering-apparatus, consisting of the pin *a*, index-hand *i*, and the arm *b*, of the pivoted lever F, and of the steering-pivot E, having the arm *e*, all combined and operating substantially as herein shown and described.

2. The spring *g*, when arranged as described, in combination with the pin *a*, arm *b*, lever F, and arm *e*, of the steering-post, substantially as herein shown and described.

3. The combined brake and starting-lever I, when arranged to swing and slide, as herein shown and described, for the purpose specified.

The above specification of my invention signed by me, this day of , 1869.

WM. H. SMITH.

Witnesses:

DANIEL B. HAZARD,
STEPHEN GOULD.