

A. M. ALLEN.

Velocipede.

No. 91,061.

Patented June 8, 1869.

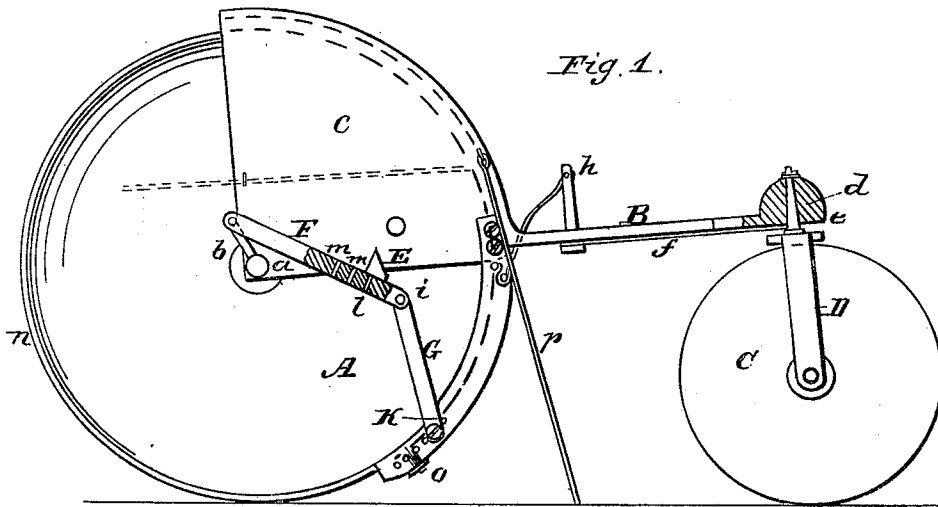


Fig. 1.

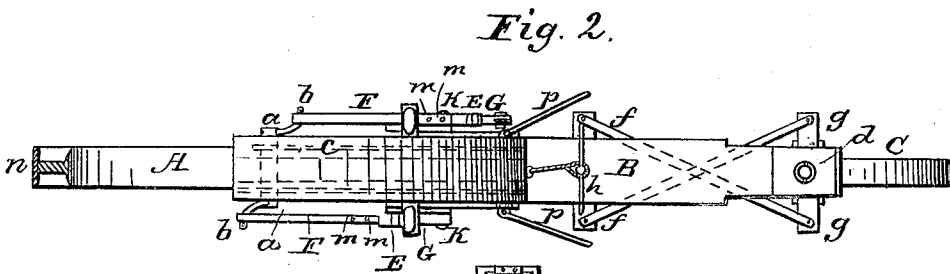
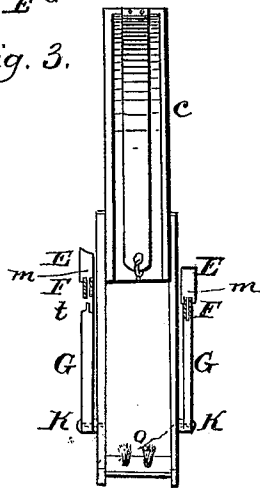


Fig. 2.

Fig. 3.



witnesses.

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# United States Patent Office.

ARTHUR M. ALLEN, OF NEW YORK, N. Y.

Letters Patent No. 91,061, dated June 8, 1869.

## IMPROVEMENT IN VELOCIPEDES.

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, ARTHUR M. ALLEN, of the city, county, 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 represents a side elevation of this invention, partly in section.

Figure 2 is a plan or top view of the same, partly in section.

Figure 3 is a transverse section of the frame which encloses the front or leading-wheel, the wheel itself being omitted to expose the parts behind.

Similar letters indicate corresponding parts.

My invention relates to improvements in velocipedes hereinafter more fully set forth.

In the drawing—

The letter A designates the leading-wheel, which is mounted on the double crank-shaft *a*.

On this crank-shaft, and inside of the cranks *b*, is secured a bracket, *c*, which is firmly attached to the reach B, forming the connection between the leading-wheel A and the steering-wheel C, and also the support for the saddle, which I have not represented in the drawing.

The connection between the steering-wheel C and the reach B is effected by means of a standard, D, from the upper end of which extends a tapering pivot, *d*, into a correspondingly-tapering socket, *e*, in the reach, so that said socket is always kept in close contact with its pivot by the weight of the rider, and all rattling in the parts forming the connection is prevented.

The standard D is made slanting in the direction in which the machine goes, so that the wheel C is capable of taking care of itself, or of preserving its direction without the aid of the rider, and said standard connects, by cross-levers *g* and rods *f*, or by any other suitable means, with the steering-lever *h*, best seen in fig. 2.

The power of the feet is applied to foot-rests E, which are supported by levers F, which extend from the cranks *b* to pivots *i*, in the ends of levers G, that are connected at their opposite ends by means of pivots *k*, to the brackets *e*, or to arms extending from said brackets.

The levers G and F form toggle-levers, so that the power of the feet is applied to the best possible advantage, and the pivots *k* of the levers G are adjustable for the purpose of adapting the position of the foot-rests to persons of different stature.

The foot-rests E are provided with shanks *l*, which drop into sockets *m*, in the levers F, and each of these levers is provided with a series of such sockets, so that the position of the foot-rests can be readily changed to suit the stature of the rider, nothing being required but to take the said rests out of one socket and drop them into another.

Suitable flanges, projecting from the foot-rests over the edges of the levers F, prevent said foot-rests from turning in their sockets. (See fig. 3.)

By this arrangement, the foot-rests can be brought as close to the periphery of the leading-wheel as may be desired, and the diameter of said wheel can be increased to any desired extent.

The upper surfaces of the foot-rests which form the bearings for the feet, are made to slope down toward the wheel A, so that the feet are not liable to slip off, and the rider is enabled to apply his power to the cranks, without throwing his feet in an awkward position.

The wheels A and C, either or both, are provided with broad curved rims *n*, best seen in fig. 2, which project beyond the sides of the wheels, so that the steadiness of the machine is increased; and, furthermore, the wheels are prevented from sinking in when travelling over soft ground.

By making the rims *n* curved, I am enabled to travel over a hard or uneven road with the same facility as I can with the ordinary narrow wheel.

To the lower ends of the brackets *b*, I have secured a brush, *o*, which extends close to the periphery of the wheel A, and serves to scrape off the dirt which would otherwise be carried up and be liable to soil the rider.

A similar brush may be applied to the hind wheel, if desired.

In order to steady the mechanism when at rest, and to enable the rider to get on and off without danger of upsetting, I have applied to the sides of the reach two hinged braces, *p*. When the machine is under way these braces are turned up to the position shown in dotted lines in fig. 1.

Having thus described my invention,

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

The shaft *a*, provided with the cranks *b b*, wheel A, and bracket C, in combination with the toggles F G, and sloping foot-rests E E, all constructed, arranged, and operated in the manner and for the purpose set forth.

ARTHUR M. ALLEN.

Witnesses:

W. HAUFF,  
C. WAHLERS.