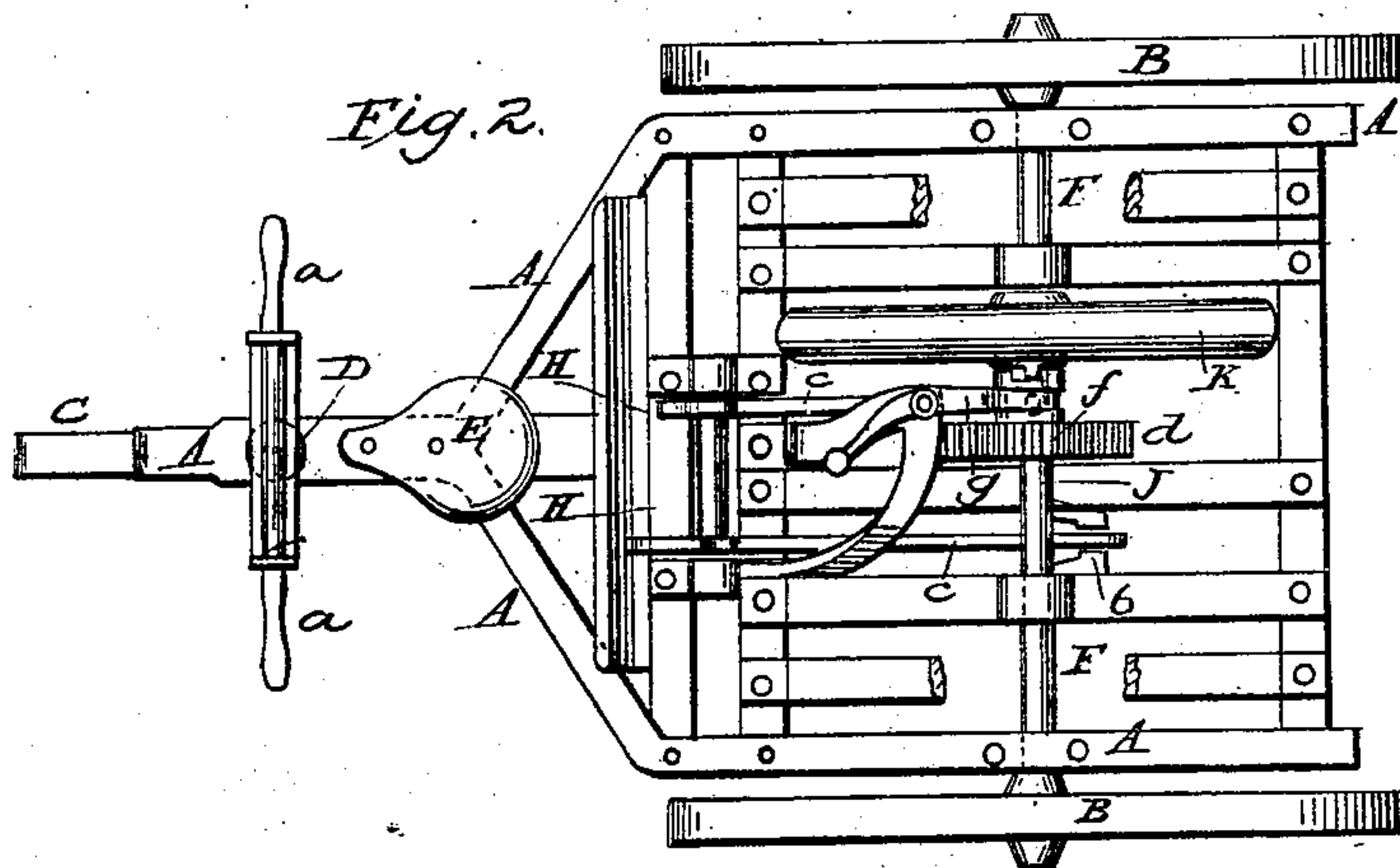
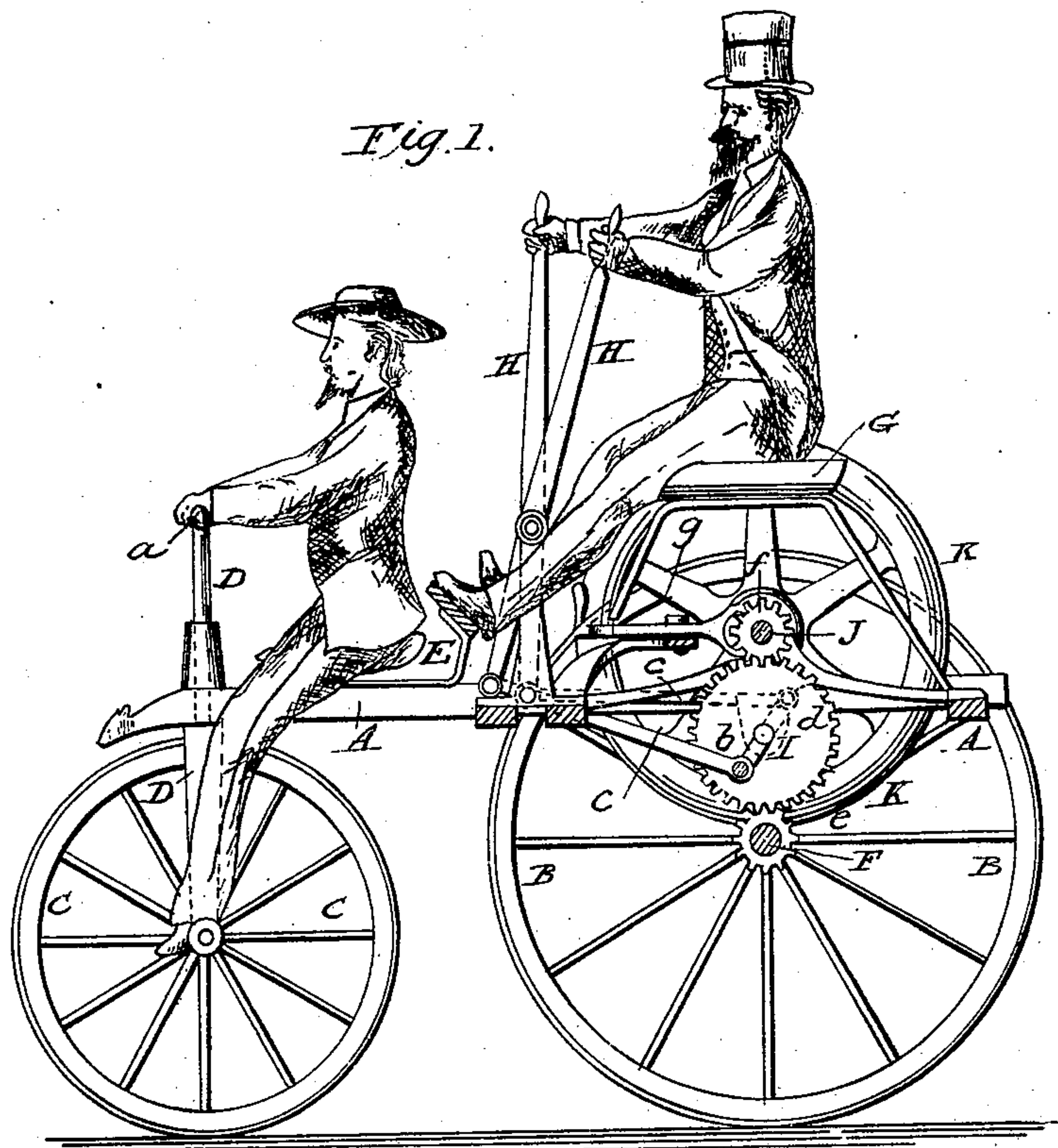


S. WORTMANN.

Velocipede.

No. 93,030.

Patented July 27, 1869.



witnesses.

Sustave Dutnick
Geo. W. Mabey

Inventor.

Simon Wortmann
per *Munich*

United States Patent Office.

SIMON WORTMANN, OF NEW YORK, N. Y.

Letters Patent No. 93,030, dated July 27, 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, SIMON WORTMANN, of New York city, in the county and State of New York, 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 a part of this specification, in which—

Figure 1 represents a side view, partly in section, of my improved tachydrome.

Figure 2 is a plan or top view of same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new vehicle, which is to be propelled by the upper or lower extremities of the person or persons which it supports, and which is provided with a fly-wheel in such a manner that the same may at will be thrown into or out of gear. This fly-wheel will gather power in going down-hill, and will then give it up in going up-hill, thereby facilitating the ascending of hills, and preventing too great rapidity while going down-hill.

The invention consists in the general combination of parts, whereby two persons may be accommodated on the vehicle, and also in the aforementioned arrangement of the fly-wheel.

A, in the drawing, represents the frame of my improved tachydrome. It is of suitable form, and is supported on three or more wheels, of which those in rear, B B, are mounted upon the driving-axle F, while that or those in front, C, should be hung in the steering-post D, which is swivelled into the front end of the frame.

There is a seat, E, arranged upon the front part of the frame, to accommodate one rider, who may apply his hands to the steering-lever *a* on D, for guiding the vehicle.

Above the axle F is arranged on the frame a single or double seat, G.

I is a horizontal crank-shaft, hung in the frame above F, and carrying a toothed wheel, *d*, which meshes into a pinion, *e*, on F.

The cranks *b* of the shaft I are, by pitmen *c*, connected with levers H, which are pivoted to the frame.

The rider or riders seated on G may, with his or their hands or feet, oscillate the levers H, thereby rotating the shaft I and axle F, and propelling the vehicle.

Rods or strings may, from the steering-lever *a*, extend backward, to allow the rider on G to steer the vehicle with the hands or feet, and without the aid of a rider on E.

J is a horizontal shaft, hung in the frame A, above or behind the shaft I. It carries a fly-wheel, K, of suitable size, and a sliding pinion, *f*, which can be moved on the shaft by means of a lever, *g*.

When the pinion *f* is, by means of the lever *g*, thrown against the wheel K, it will be locked to the same, and will also, at the same time, be thrown into gear with the wheel *d*, so that as the shaft I is revolved, the shaft J with its fly-wheel will also be turned.

When, however, the wheel *f* is withdrawn from K, it will also be thrown out of gear, to leave the shaft J stationary while the machine is propelled.

When the fly-wheel is thrown into gear, as aforesaid, it will serve to gather power, to facilitate the riding up-hill, and to steady the motion down-hill.

Having thus described my invention,

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

1. The combination, with each other, of the frame A, wheels B C, steering-post D, shafts F I J, pinions *e d f*, lever *g*, fly-wheel K, pitmen *c*, levers H, and seats E and G, all arranged and operating substantially as herein shown and described.

2. The fly-wheel K, mounted on a separate shaft, J, the sliding pinion *f*, in combination with the lever *g*, substantially as herein shown and described, for the purpose specified.

The above specification of my invention signed by me, this 9th day of June, 1869.

SIMON WORTMANN.

Witnesses:

FRANK BLOCKLEY,
ALEX. F. ROBERTS.