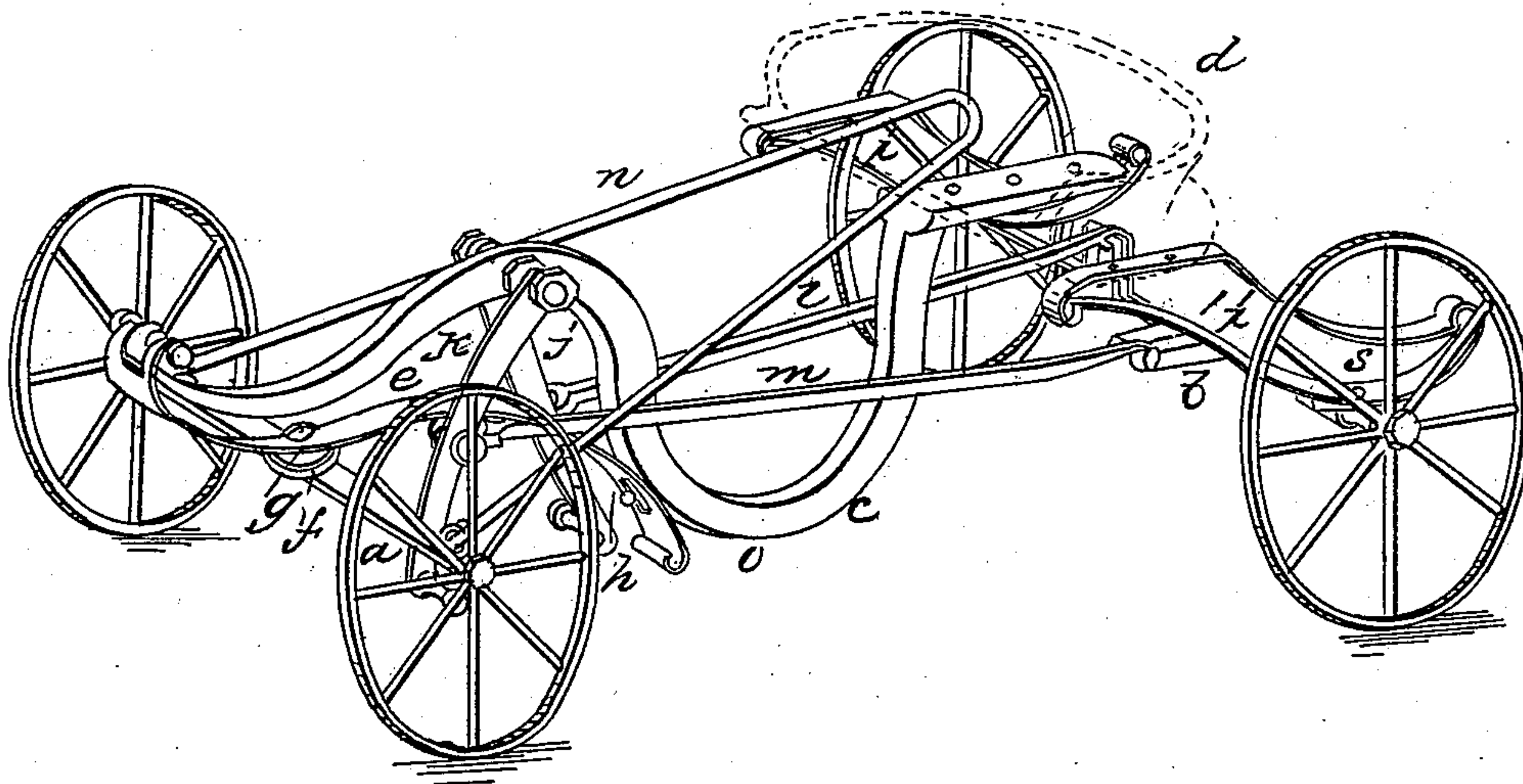


J. C. CLIME.

Velocipede.

No. 86,906.

Patented Feb. 16, 1869.



Witnesses:
W. A. McKinley
Wm J. Burns

Inventor:
John C. Clime

United States Patent Office.

JOHN C. CLIME, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
HIMSELF AND WILLIAM AUDORF, OF SAME PLACE.

Letters Patent No. 86,906, dated February 16, 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, JOHN C. CLIME, of Philadelphia, Pennsylvania, have invented certain new and useful Improvements in Velocipedes; and I do hereby declare that the following is a full and exact description of the same, reference being had to the annexed drawings, forming part hereof, which drawings represent a perspective view of the complete machine.

My improvements consist of a peculiarly-constructed spring, and the arrangement thereof, to support the seat from the hind axle; also, in a peculiarly-shaped slotted spring, and the arrangement thereof, to support the perch from the front axle.

In the drawings—

a represents the front axle.

b, the hind, or crank-axle.

c, the perch, the rear end of which is firmly screwed to the seat *d*, as shown. The front end of perch *c* is provided with a perforation or eye.

e is the front spring, the front end of which is curved, and the extremity of which is turned over and slotted, and attached to the front end of perch *c* by means of a bolt, which is inserted through the turned-over extremity of the spring *e* and the eye of the perch, as shown.

At or about the middle of the length of the spring *e*, one of the two rings *f*, which constitute the "fifth-wheel," is riveted, as shown.

The other ring *f* is fastened to the front axle *a*, and the king-bolt *g* connects these parts together.

The spring *e* is slotted near its rear end at *h*, and attached to perch *c*, through this slot, by means of a bolt, which permits the spring to act.

i i' are the hind springs, which are similar, each consisting of two steel plates, shaped as shown, the upper plate being fastened to the seat *d*, and being made gradually thinner, from the point where it leaves contact with the seat, to the rear end of said plate, the lower plate, from its point of connection with the crank-axle, being made gradually thinner to the rear end of said plate.

The object of constructing the springs in the peculiar manner set forth, is to be enabled to locate the seat forward of the rear axle, and thus to divide the supporting strain between the front and rear axles.

In action, the rear ends of springs *i i'*, from the points

of their connection with the axle, are thrown down, while the front ends of said springs, from the same point, being less elastic, act as an almost rigid support of the seat.

I prefer to make this upper plate about one-quarter of an inch thick, where it is in contact with the seat, and to taper it down toward the rear end, where it is about one-eighth of an inch in thickness.

The lower plate of each of the springs *i i'*, I prefer to make from about one-eighth to three-sixteenths of an inch thick, from the point where said springs are connected with the crank-axle to the front end of said springs, and from the same point tapering in thickness toward the rear ends of the springs, to about one-eighth of an inch in thickness.

The springs *i i'* are attached to separate strap-boxes respectively, which embrace and turn on the axle *b*, the ends of the straps being riveted as shown at *s*, or held by nuts.

j and *k* are the driving-levers.

l and *m* are rods, which connect said levers with the cranks on the hind axle *b*.

The hind wheels are rigidly fastened to their respective journals by the friction of nuts, which bind them against shoulders on the axle.

The front wheels turn on their journals, being applied in the ordinary manner.

n is the guide-rod.

The perch *c* is curved down sufficiently at *o* to be out of the way of the feet or dress of any one occupying the seat.

Having thus described my invention,

I claim, and desire to secure by Letters Patent—

1. The slotted spring *i*, in combination with the perch *c*, fifth-wheel *f*, and front running gear, all these parts being constructed and arranged substantially as set forth.

2. The springs *i i'*, constructed and arranged as set forth, in combination with the seat *d* and crank-axle *b*, with its wheels rigidly attached, substantially as shown and described.

JOHN C. CLIME.

Witnesses:

W. A. A. MCKINLEY,

WM. J. BURNS.