

(No Model.)

A. RUGALLY.

VELOCIPÈDE.

No. 321,642.

Patented July 7, 1885.

Fig. 1

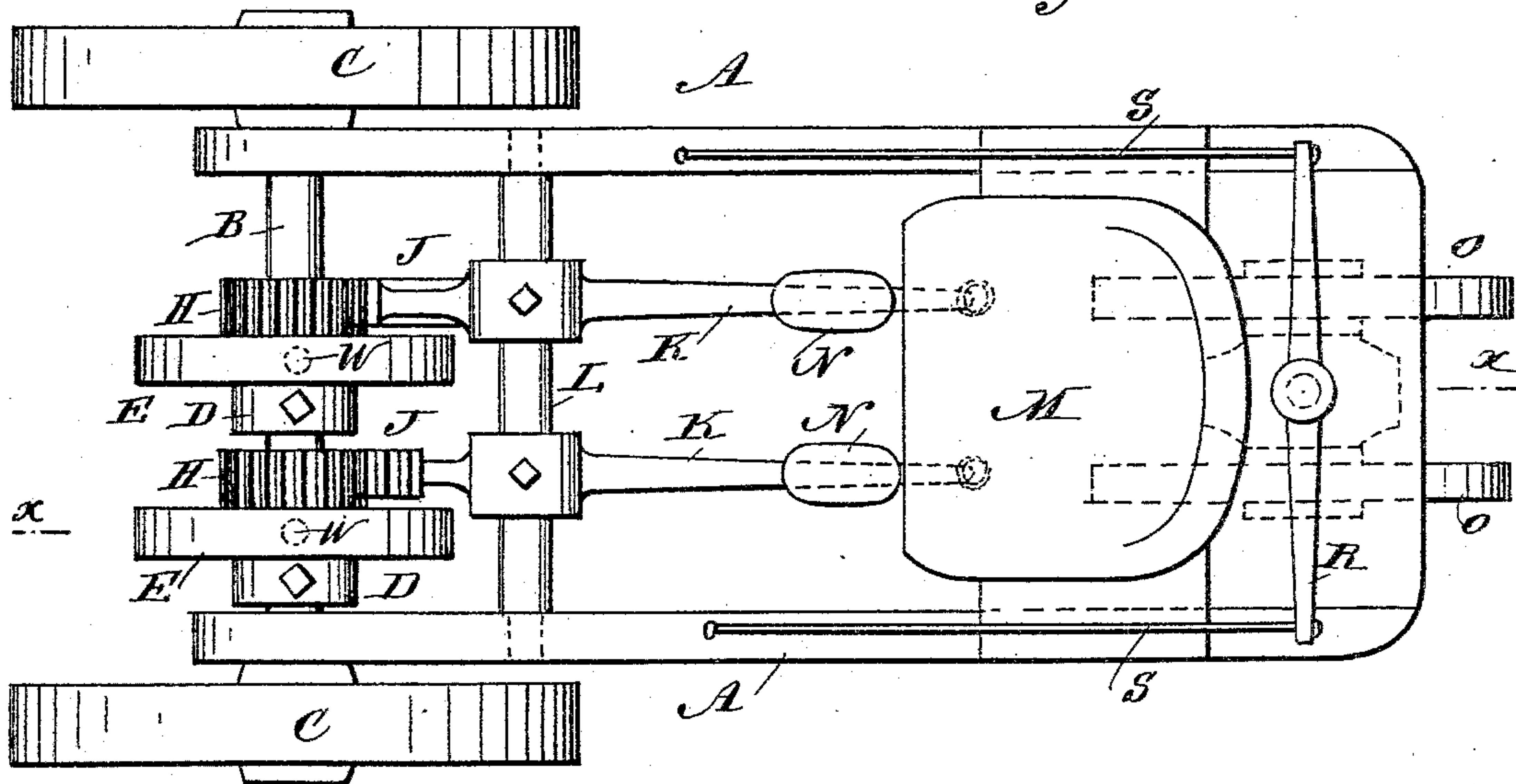
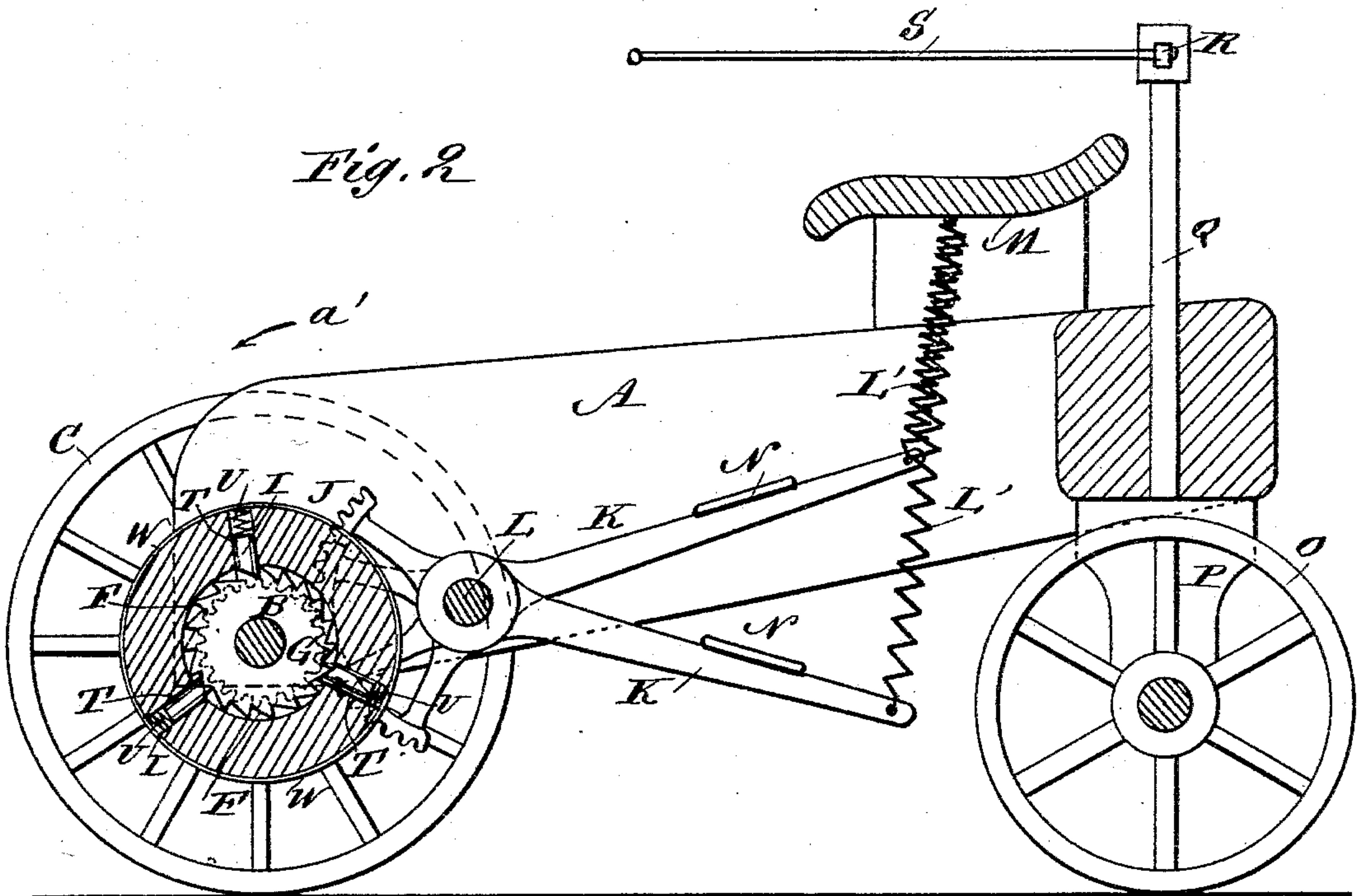


Fig. 2



WITNESSES:

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VELOCIPEDÉ.

SPECIFICATION forming part of Letters Patent No. 321,642, dated July 7, 1885.

Application filed April 8, 1885. (No model.)

To all whom it may concern:

Be it known that I, ADAM RUGALLY, of the city, county, and State of New York, have invented a new and Improved Velocipede, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved velocipede or road-wagon to be operated by foot-power.

The invention consists in the combination, with a frame, of a driving-shaft and wheels on the same, combined ratchet-wheels and pinions on the shaft-disks mounted rigidly on the shaft, and having pins engaging with the ratchet-wheels, rocking-levers having curved racks engaging with the pinions, and of springs for pulling the rear ends of the levers upward.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a plan view of my improved velocipede. Fig. 2 is a longitudinal sectional elevation of the same on the line *x x*, Fig. 1.

In the vehicle-frame A a shaft, B, is journaled, and on the ends of the same the driving-wheels C are rigidly mounted.

On the shaft B two hubs, D, are rigidly mounted, and provided with disks E, having central circular recesses, F, in which ratchet-wheels G are located, which are mounted loosely on the shaft B, and are made integral with pinions H, projecting from the disks E, and engaging with segment-racks J, formed on the front ends of levers K, mounted to rock on a transverse shaft, L, in the frame A, and a short distance behind the driving-shaft B.

The rear ends of the levers K are connected by powerful spiral springs L' with the under side of the seat M, secured transversely on the top of the frame A.

Foot-plates N are secured on the upper edges of the levers K in front of the seat.

The steering-wheels O are pivoted in a forked piece, P, formed on the lower end of a vertical shaft, Q, journaled in the rear cross-piece of the frame A, and provided at its upper end piece with a cross-piece, R, to the

ends of which rods S are secured, which project to the front at the sides of the seat.

In radial apertures I in the disks E pins T are held loosely, and their inner ends are beveled to engage with the teeth of the ratchet-wheels G. Springs U are interposed between the outer ends of the pins T and a band, W, surrounding the disk E, and press the beveled ends of the pins against the teeth of the ratchet-wheel.

The operation is as follows: By pressing down the rear ends of the levers K, the segmental racks J revolve the pinions H and ratchet-wheels G in the direction of the arrow *a'*, Fig. 2, and as the teeth of the ratchet-wheels G engage with the pins T the disks E on the shaft, and with them the said shaft and the driving-wheels C, are revolved in the direction of the arrow *a'*, and the vehicle moves forward. When the pressure is removed from either lever, the rear end of the lever is pulled upward by a spring, L', and the corresponding pinion, H, and ratchet-wheel G are moved in the inverse direction of the arrow *a'*, but do not revolve the ratchet-wheel G, which slides past the pins T, which are pushed back by the teeth of the ratchet-wheel.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a velocipede, the combination, substantially as herein described and shown, of the drive-axle B, the lever K, having a segmental rack, the pinion H, geared by said rack and having the ratchet-wheels G fixed rigidly to and located to one side of the pinion, said pinion and ratchet being sleeved loosely on the drive-axle, a disk, E, fixed on the axle alongside of the ratchet and having its side adjacent said ratchet recessed to receive the same, and having the lateral annular flange formed by said recess projected and fitting over and incasing the said ratchet, and having radial recess I, opening at their inner ends onto the said ratchet, and the spring-actuated pawls T, held in said recesses and adapted to engage the ratchet, substantially as set forth.

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Witnesses:

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