

(No Model.)

A. H. OVERMAN.
VELOCIPÈDE.

No. 406,461.

Patented July 9, 1889.

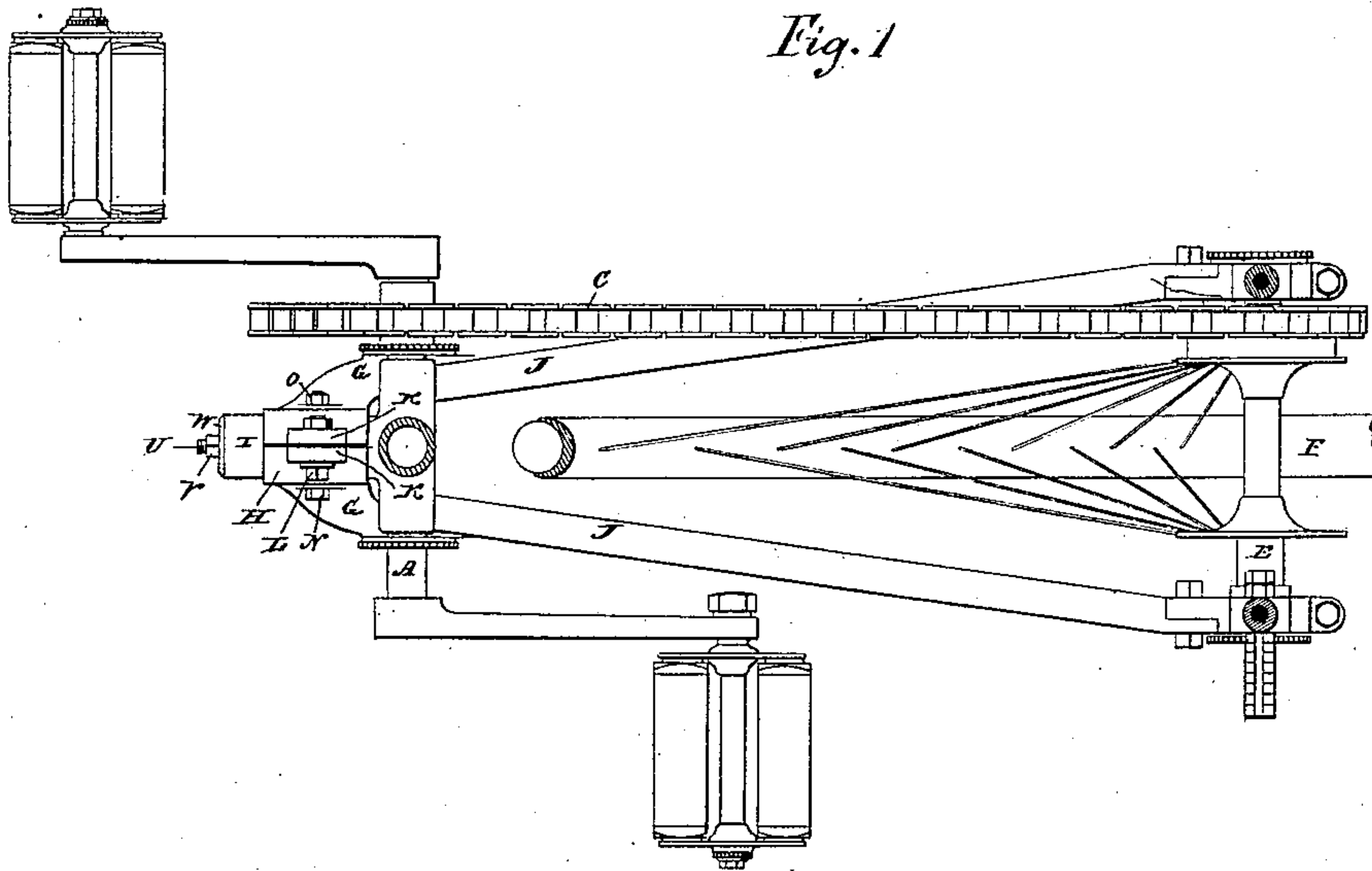


Fig. 2

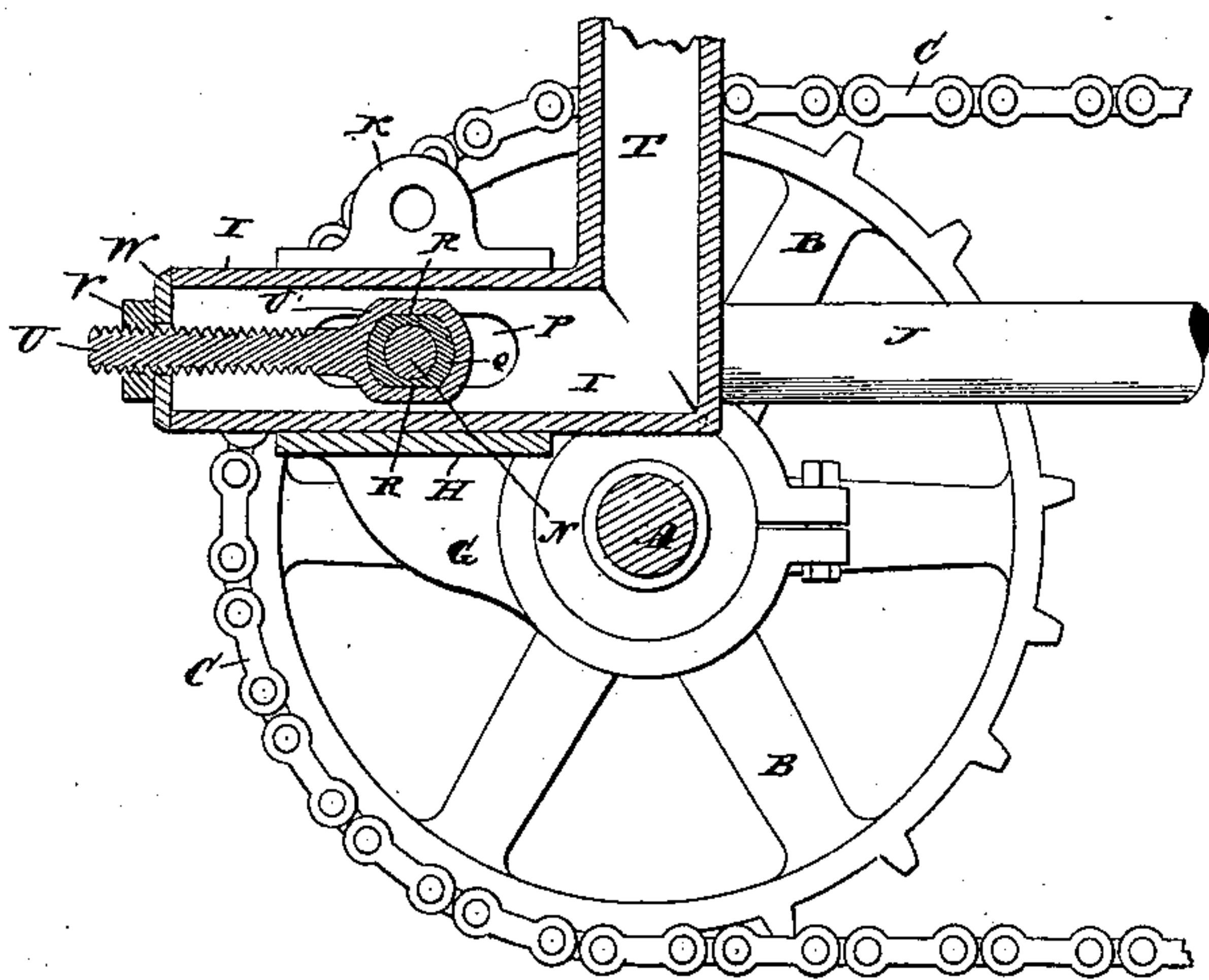


Fig. 4

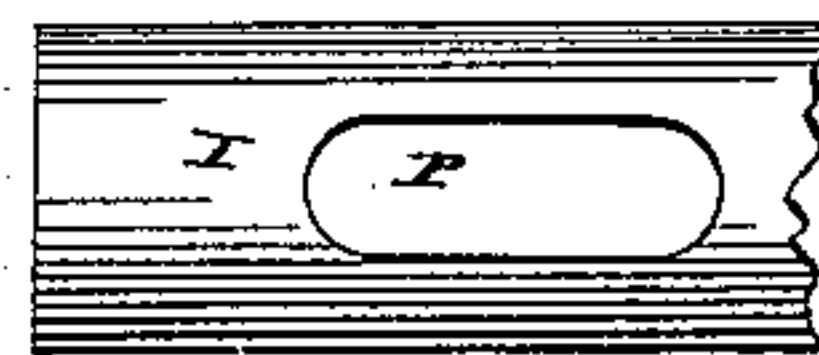


Fig. 5

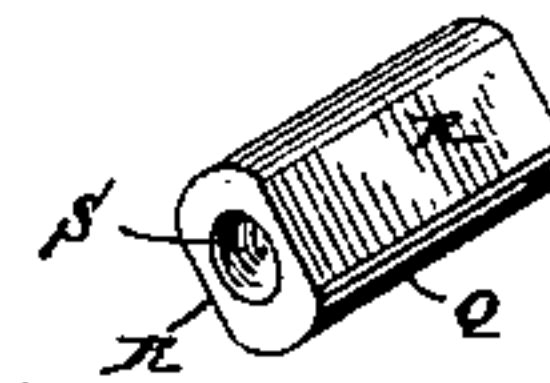


Fig. 6

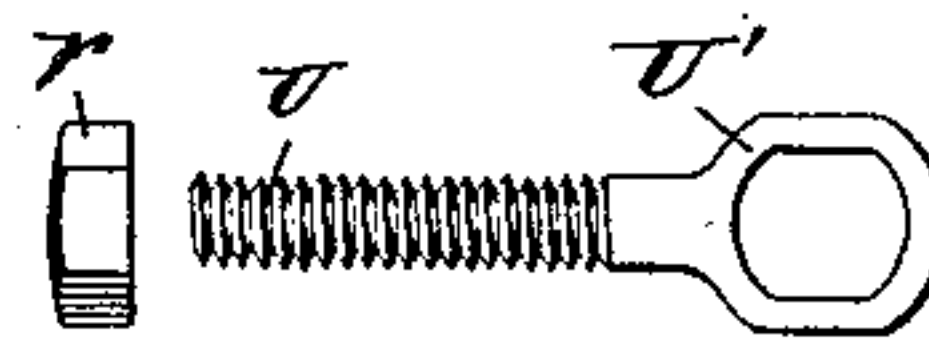
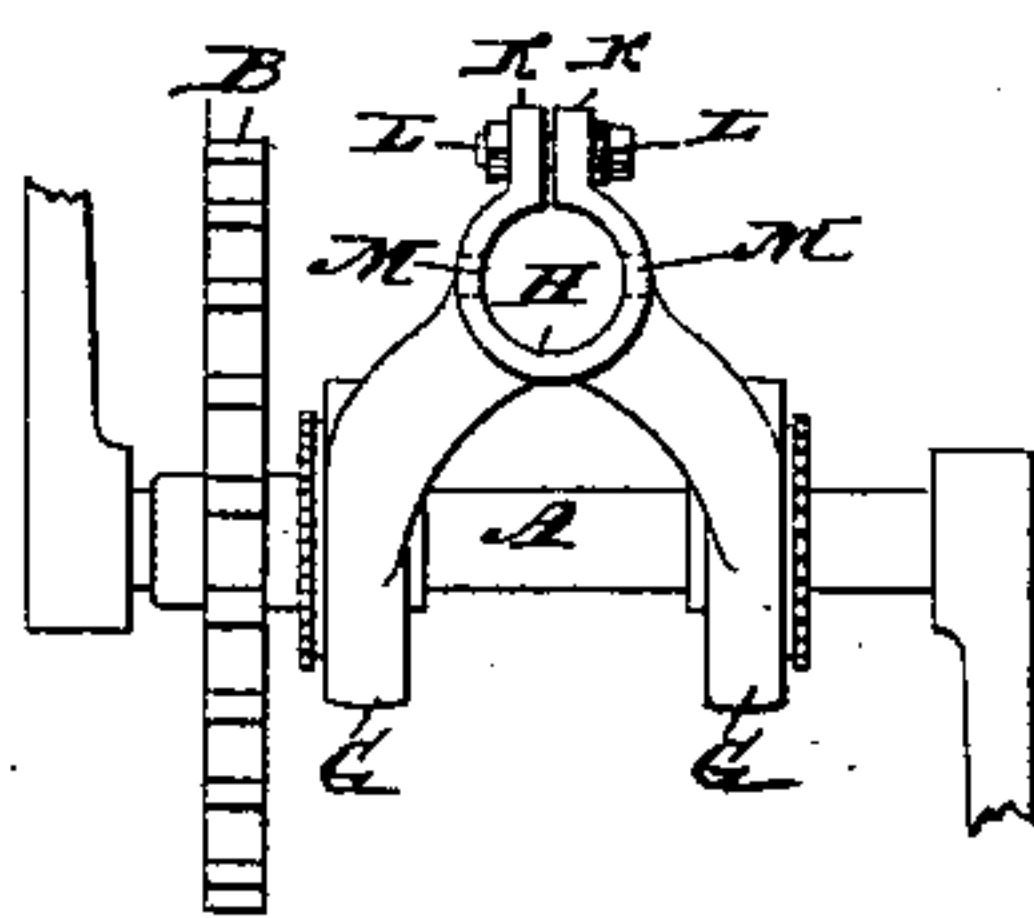


Fig. 7



Fig. 3



Witnesses:

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UNITED STATES PATENT OFFICE.

ALBERT H. OVERMAN, OF NEWTON, ASSIGNOR TO THE OVERMAN WHEEL COMPANY, OF BOSTON, MASSACHUSETTS.

VELOCIPEDÉ.

SPECIFICATION forming part of Letters Patent No. 406,461, dated July 9, 1889.

Application filed May 17, 1889. Serial No. 311,171. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. OVERMAN, residing at Newton, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Velocipedes; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in velocipedes of that class which employ a chain for transmitting the power from the crank-shaft to the driving-wheel, the object being to provide improved means for regulating the tension of the chain.

With these ends in view my invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a broken plan view showing the rear fork of the vehicle-frame, the crank-shaft, the hanger therefor, and the driving-chain of a rear-driving bicycle embodying my invention. Fig. 2 is an enlarged view of the tension-regulating mechanism, the same being shown partly in vertical section on the line *a b* of Fig. 1 and partly in elevation. Fig. 3 is a detached view, on the scale of Fig. 1, in front elevation, of the crank-shank hanger, the crank-shaft, and the sprocket-wheel. Fig. 4 is a detached broken view in side elevation of the slotted tube which carries the shaft-hanger. Fig. 5 is a detached perspective view of the sliding block. Fig. 6 is a detached view in side elevation of the adjusting screw and nut, and Fig. 7 is a similar view of the coupling-bolt and its nut.

As herein shown, the crank-shaft A is provided with a sprocket-wheel B, carrying a driving-chain C, also running over a smaller sprocket-wheel (concealed by the chain) mounted upon the axle E of the driving-wheel F, a portion whereof is broken away, the tension of the said chain being regulated by moving the crank-shaft and its sprocket-wheel toward and away from the axle E and its sprocket-wheel. To this end the crank-shaft is mounted in the arms G G of a hanger having a sleeve H, adapting it to be adjustably mounted upon a

short tube I, forming a carrier for it, and rigidly connected with the forward end of the fork J of the wheel F and located in the same horizontal plane therewith. The said sleeve is split and provided with lugs K K, carrying a clamping-bolt L, whereby it is clamped upon the tube after being brought into right position thereupon. The stem is also provided with holes M M, (see Fig. 3,) to receive a coupling-bolt N, having a nut O, (see Fig. 7,) and passing transversely through the tube, which is provided with elongated horizontal slots P P (see Figs. 2 and 4) to receive it. These slots receive the opposite ends of a sliding block Q, located within the tube, having two wearing-faces R R, respectively, playing against the upper and lower or side walls of the elongated slots, and a longitudinal opening S to receive the bolt N, which couples the hanger to the tube, and hence to the fork J, forming a part of the frame of the vehicle, with which it is joined by the upright post T, as shown. The hanger is drawn forward upon the tube to tighten the chain by means of an adjusting-bolt U, located within the carrying-tube, and provided at its rear end with an eye U', conforming in its internal profile to the external profile of the sliding block which passes through it. The forward and threaded end of this bolt projects beyond the outer end of the tube and carries an adjusting-nut V, which works against a disk W, forming a point of purchase for it placed against the outer end of the tube and centrally perforated for the passage of the bolt through it.

When the driving-chain, through wear or from any other cause, departs from that tension at which it is desirable to keep it, the clamping-bolt is loosened and the adjusting-nut turned to move the hanger on the tube and away from the driving-axle, whereby the chain is restored to its right tension, after which the sleeve is clamped on the tube again. The sliding block takes the strain which would otherwise be thrown on the coupling-bolt, and by preventing the wear of this bolt and the walls of the slot in the tube preserves the integrity of the machine for the purposes of regulating the tension of the chain.

Having fully described my invention, what I

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

1. In a velocipede, the combination, with the crank-shaft and a driving-chain, of a hanger
5 in which the shaft is mounted, a slotted carrier rigidly connected with the frame of the vehicle and having the hanger movably mounted upon it, a sliding block extending transversely through the carrier and located
10 in the slots thereof, a coupling-bolt extending through the hanger, block, and carrier, and an adjusting-bolt connected with the said block and operated for moving the hanger on the
15 carrier to regulate the tension of the chain, substantially as set forth.

2. In a velocipede, the combination, with the crank-shaft and a driving-chain, of a crank-shaft hanger provided with a split sleeve furnished with a clamping-bolt, a carrier rigidly

connected with the frame of the machine and 20 having two elongated horizontal slots, a sliding block located in the said slots and having flat bearing-faces engaging with the side walls thereof, a coupling-bolt passing transversely through the hanger, the carrier, and the block, 25 an adjusting-bolt connected with the sliding block and projecting out of the carrier, a nut located on the outer end of the bolt, and a perforated disk placed over the end of the carrier and forming a point of purchase for 30 the nut, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ALBERT H. OVERMAN.

Witnesses:

LUTHER WHITE,
W. L. BLACKMER.