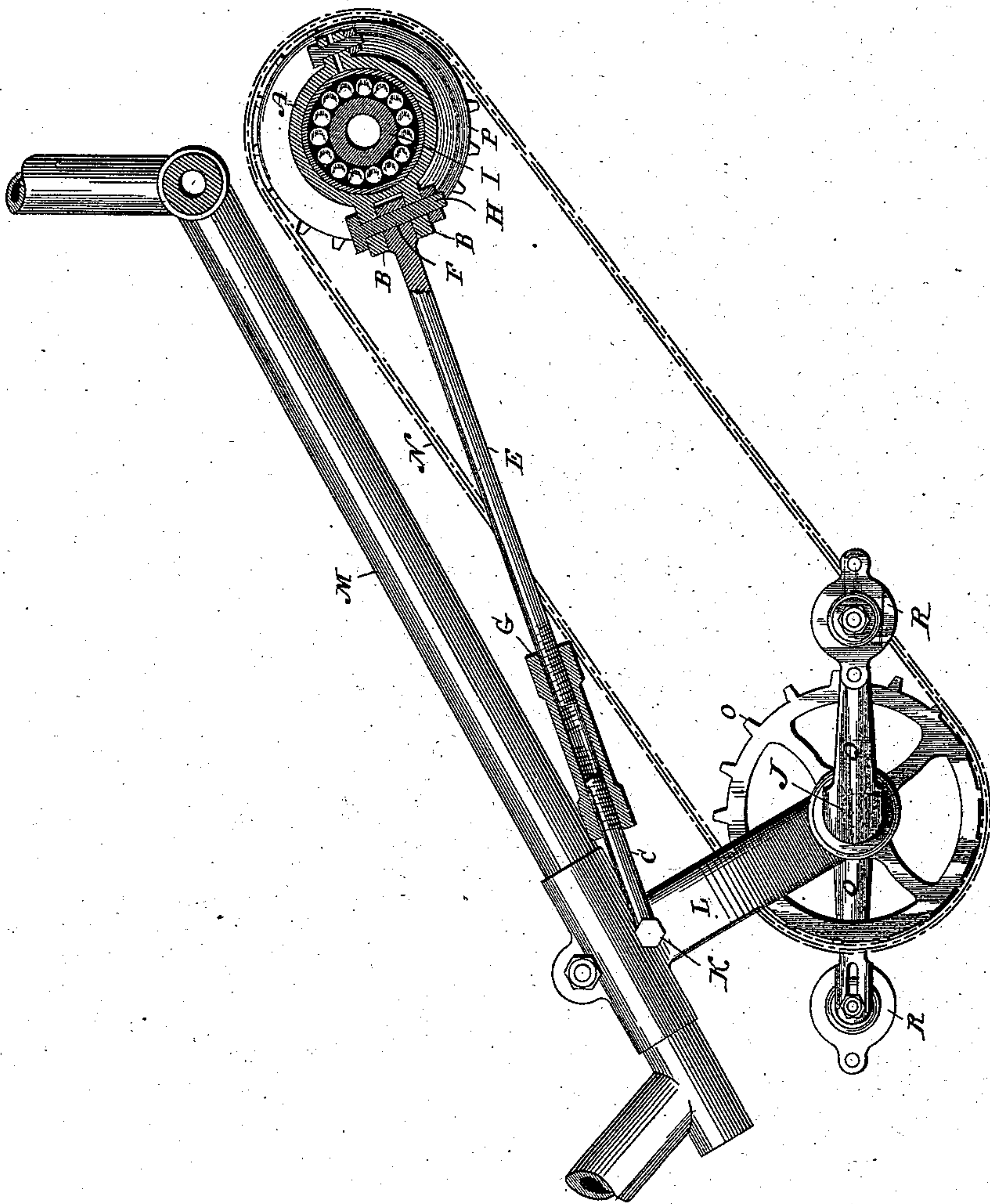


(No Model.)

A. H. OVERMAN.
VELOCIPÈDE.

No. 381,274.

Patented Apr. 17, 1888.



Witnesses:
Chas B. Chumway
Edward B. Rye

Inventor:
Albert H. Overman.
By Geo. W. Seymour
Atty

UNITED STATES PATENT OFFICE.

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

VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 381,274, dated April 17, 1888.

Application filed September 8, 1887. Serial No. 249,064. (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 Velocipede-Braces; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms a part of this specification.

My invention relates to an improvement in velocipedes, the object being to provide for the preservation of their structural integrity under the weight of the rider and under all other strains to which they are subjected in use.

With these ends in view my invention consists in a brace including a ball-bearing located at one of its ends and interposed between the crank-axle and the main axle of the vehicle.

My invention further consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

The accompanying drawing is a broken view, partly in side elevation and partly in section, showing the application to a tricycle of a brace embodying my invention.

As herein shown, the brace consists, in part, of a ball-bearing of any approved construction having a casing, A, provided at its forward edge with lugs B B, which are vertically perforated. The brace further consists of a sectional adjustable rod composed of a forward section, C, having an eye, D, at its forward end and threaded at its rear end, a rear section, E, having an eye, F, at its rear end and threaded at its forward end, and a sleeve, G, having its respective ends interiorly threaded in opposite directions to receive the ends of the said sections, which are also oppositely threaded, respectively, the said rear section of the rod being pivoted to the casing of the bearing by a bolt, H, passing through the lugs B B and eye F, as shown. Under this construction the bearing is located in the same line with the rod, and therefore takes all bracing-strains through its center.

The said brace is interposed between the driving-axle I of the machine and the crank-axle J thereof, its ball-bearing embracing the former, and its rod being pivoted by a stud, K, passing through the eye D of the forward section of such rod, to the crank-hanger L, clamped to the forward end of the main frame-piece M of the vehicle. A chain, N, running over a sprocket-wheel, O, mounted on the crank-axle, also runs over a similar sprocket-wheel, P, mounted on the driving-axle, the crank-axle carrying crank-arms Q Q, provided with pedals R R at their outer ends.

The brace prevents the main axle and the crank-axle from being drawn together by the chain when the same is under the tension imposed upon it by the heavy pressure of the rider upon the pedals, and this without any binding effect in the brace, which is relieved from that by the ball-bearing. The structural integrity of the frame is thus at all times preserved, and racking and wear are reduced to the minimum. By turning the sleeve of the brace-rod the same may be lengthened or shortened, and so conform to the exact requirements of tension at all times and to wear in the chain.

The forward end of the brace may be shifted in its attachment to any other point so long as the brace is kept in the general line of the strain between the two axles. The particular construction of the ball-bearing and rod may also vary from what is shown herein. I would therefore have it understood that I do not limit myself to the exact construction herein shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. In a velocipede, a brace consisting of a rod and a ball-bearing directly connected with one end thereof and situated between the main axle and the crank-axle of the vehicle, substantially as set forth.

2. In a velocipede, a brace consisting of an adjustable rod and a ball-bearing located at

one end thereof and situated between the main axle and the crank-axle of the vehicle, substantially as set forth.

3. In a velocipede, a brace consisting of a
5 rod and a ball-bearing pivoted to one of its ends, such brace being interposed between the main axle and the crank-axle of the vehicle, substantially as set forth.

4. In a velocipede, a brace consisting of a
10 sectional rod, including a threaded sleeve for adjusting it, and a ball-bearing located at one

end of such rod, the brace being interposed between the main axle and the driving-axle of the vehicle, substantially as set forth.

In testimony whereof I have signed this 15 specification in the presence of two subscribing witnesses.

ALBERT H. OVERMAN.

Witnesses:

LUTHER WHITE,
FLOYD HILL.