

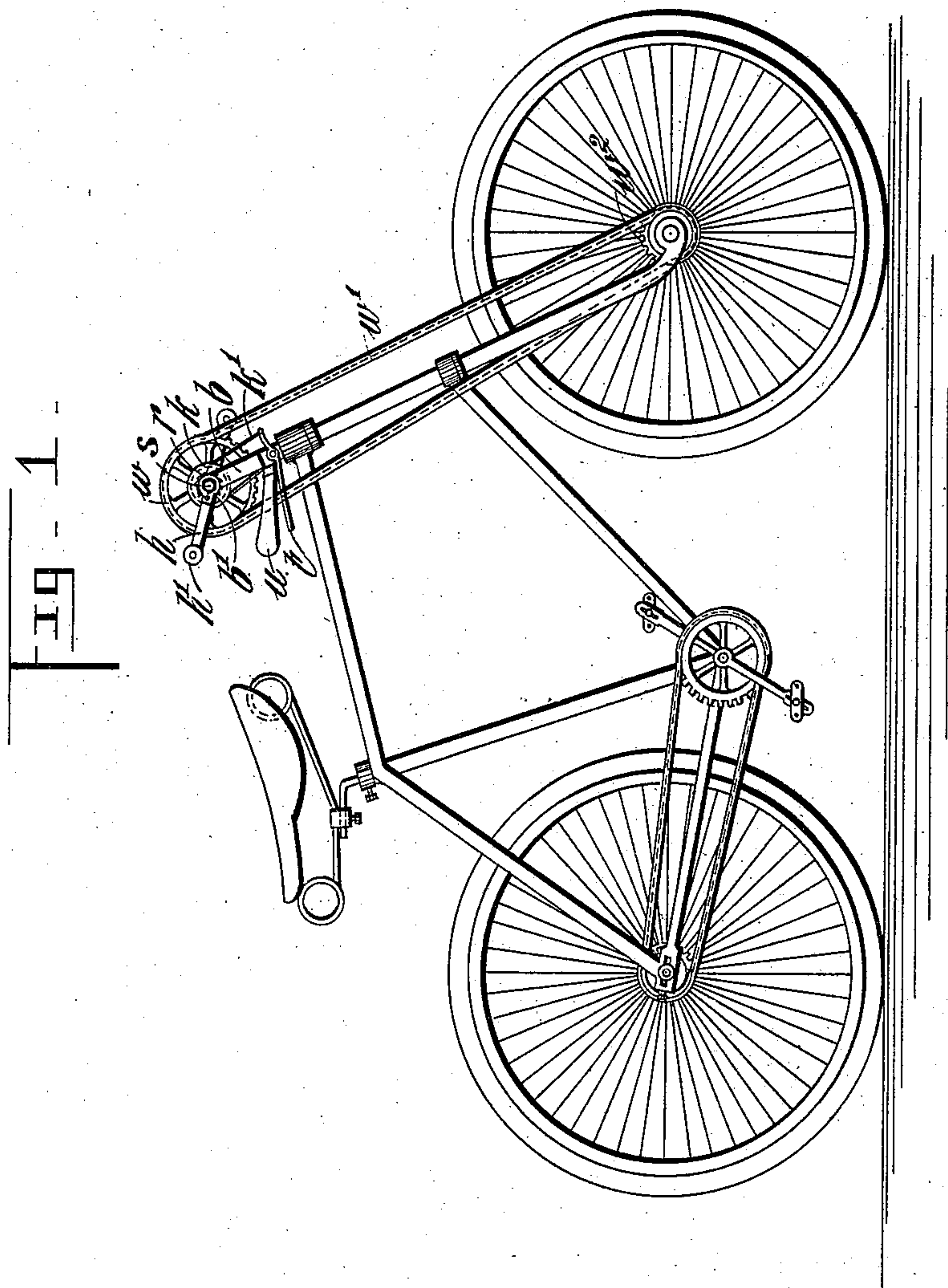
(No Model.)

3 Sheets—Sheet 1

P. H. PRITCHETT.
CYCLE OR VELOCIPEDE.

No. 564,099.

Patented July 14, 1896.



Attest
Charles D. Macdonald
James M. McLean

Inventor
Percy Hugh Pritchett
by Richard S. Co.
Attys.

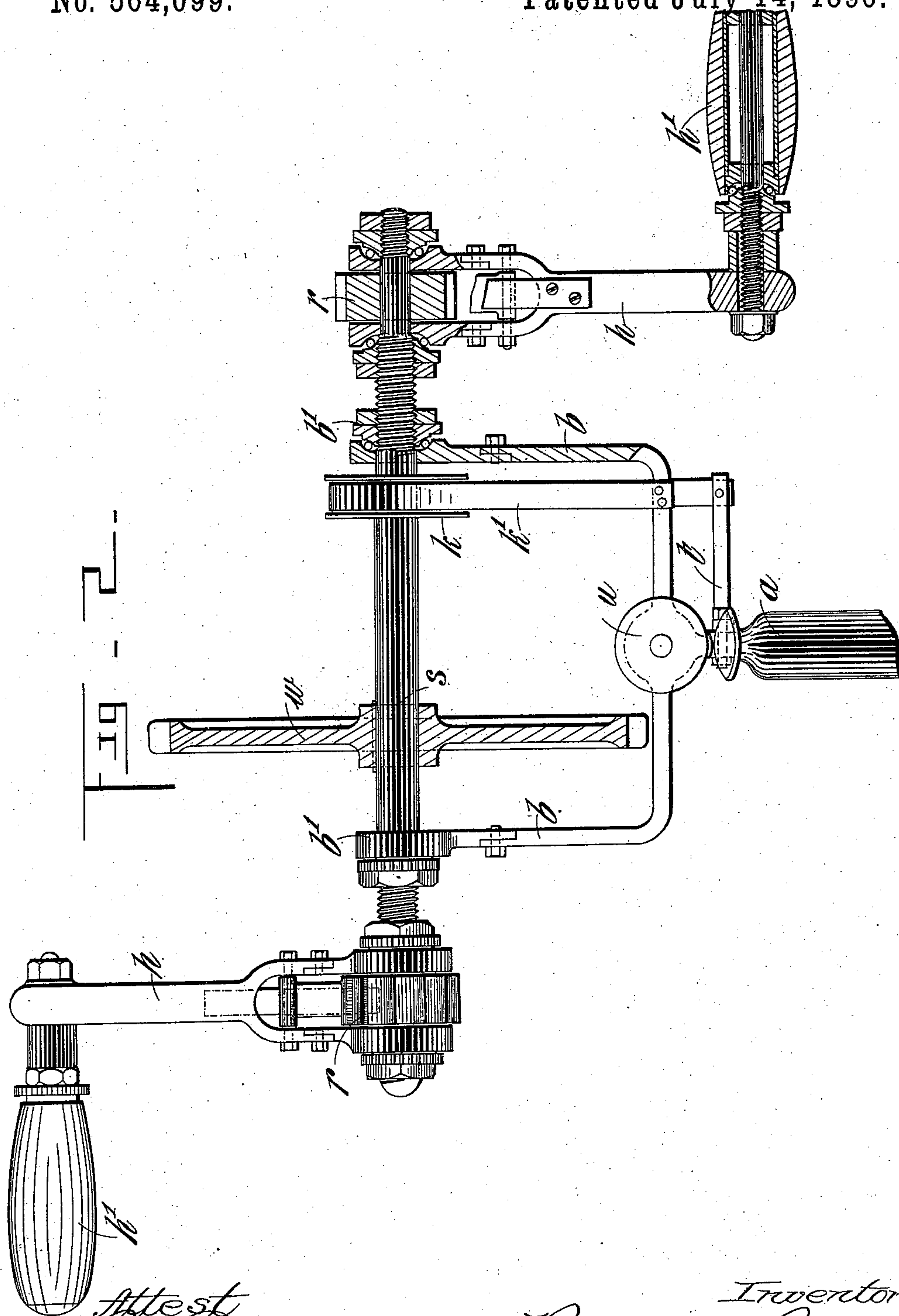
(No Model.)

3 Sheets—Sheet 2.

P. H. PRITCHETT.
CYCLE OR VELOCIPEDE.

No. 564,099.

Patented July 14, 1896.



Attest
Valerius Madsen
James M. F. H.

Inventor
Percy Hugh Pritchett
by Richards & Co.
Attys

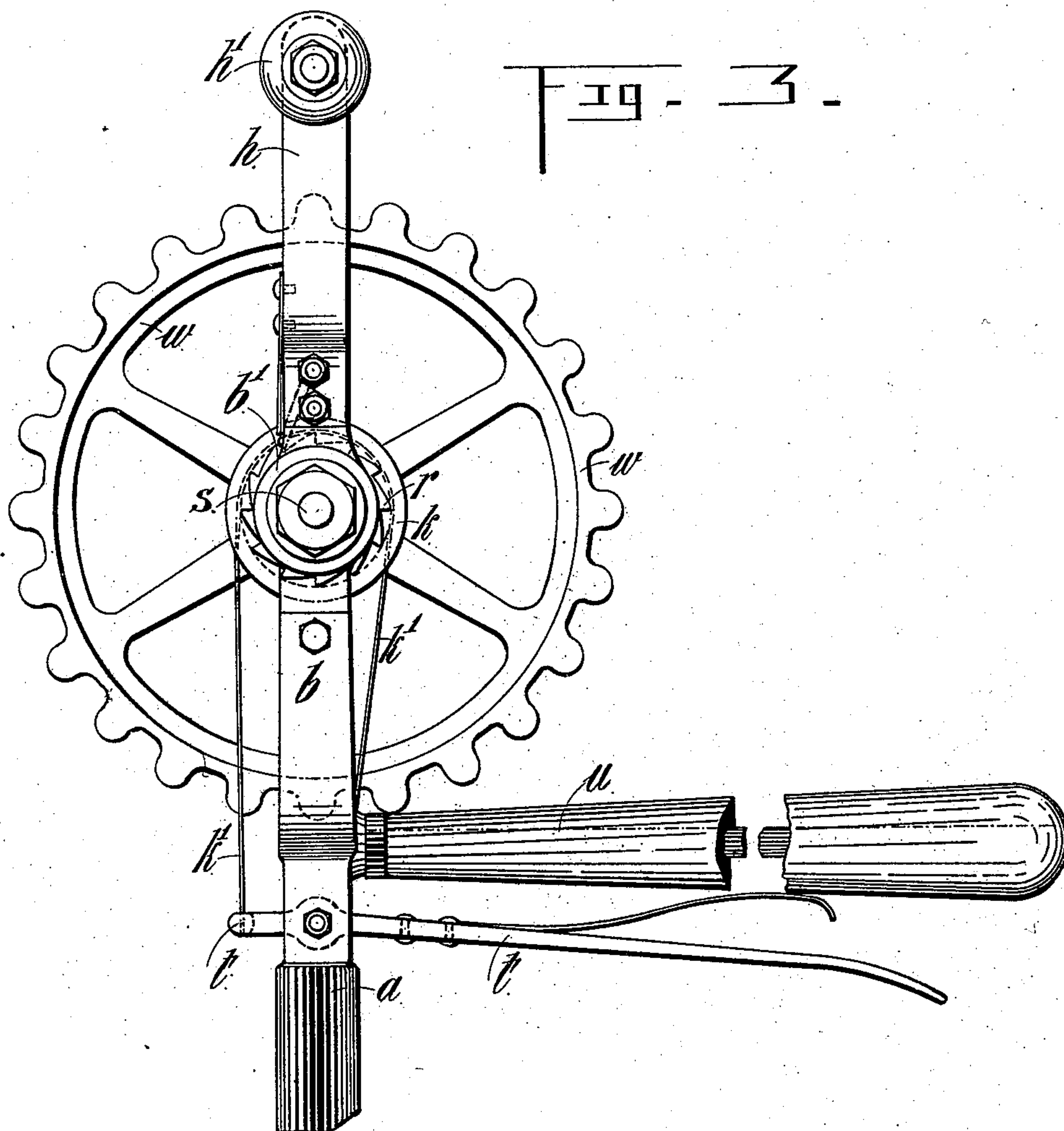
(No Model.)

3 Sheets—Sheet 3.

P. H. PRITCHETT.
CYCLE OR VELOCIPED.

No. 564,099.

Patented July 14, 1896.



Witness:
H. Van Oldenbeek
E. N. Sturtevant

Inventor:-
 Percy Hugh Fritchett
 Richard Lee
 his Attorneys

UNITED STATES PATENT OFFICE.

PERCY HUGH PRITCHETT, OF KANIERI, NEW ZEALAND.

CYCLE OR VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 564,099, dated July 14, 1896.

Application filed September 14, 1894. Serial No. 523,053. (No model.) Patented in New South Wales August 13, 1894, No. 5,244; in Victoria August 15, 1894, No. 11,596, and in South Australia August 15, 1894, No. 2,754.

To all whom it may concern:

Be it known that I, PERCY HUGH PRITCHETT, a subject of the Queen of Great Britain, and a resident of Kanieri, in the Colony of New Zealand, have invented an Improvement in Cycles or Velocipedes, of which the following is a specification.

The invention has been patented in Victoria, No. 11,596, dated August 15, 1894; in South Australia, No. 2,754, dated August 15, 1894, and in New South Wales, No. 5,244, dated August 13, 1894.

The object of my invention is to provide a ready and efficient means and apparatus by which the power of the hands of the rider of a cycle can be made use of to propel the vehicle with or without the usual pressure of the feet.

In carrying my invention into effect, I substitute for the ordinary steering bar and handle of a cycle a forked bar or bracket extending upward to a sufficient distance, so as to carry a set of ball-bearings on either side of the center of the machine, and in these bearings I fit a spindle capable of being revolved at right angles to the path of the machine. To each end of this spindle and at a convenient distance apart I fix ratchet-wheels having their teeth pointing to the opposite direction to that in which the machine is traveling, and to these ratchet-wheels I fit pawls and levers with suitable handles for actuating and revolving the levers by hand, and so actuating the ratchet-wheels that in moving the said levers forward the pawls catch into the teeth of the ratchet-wheels and propel the vehicle, but so that the said levers are free to revolve backward without moving the vehicle. These levers and handles I prefer to move on ball-bearings accurately fitted to the spindles. The motion of the hand ratchet-spindle is conveyed to the main axle of the cycle by suitable gearing, and a convenient hand-brake and steering-handle is substituted for the ordinary steering-gear. The steering may also be effected, if desired, by means of the handles upon the levers used for revolving the ratchet-spindle.

My invention is illustrated on the accompanying sheets of drawings, on which—

Figure 1 is a side elevation of an ordinary safety-bicycle fitted with my improved gear. Fig. 2 is an enlarged end view of the driving and steering mechanism and showing the construction of the ball-bearings. Fig. 3 is a side elevation of the same.

Similar letters refer to similar parts in all the figures.

a is the upright of an ordinary cycle, which usually carries the steering bar and handles, but for which I substitute a bracket *b*, carrying ball-bearings *b'*. These bearings *b'* carry a spindle *s*, which is fitted with ratchets *r* in such a manner that when the handles upon the levers *h* are moved forward the ratchets carry round the spindle *s*, but the said handles are quite free to return. *w* is a wheel which I prefer to be a sprocket-wheel fitted with a chain *w'*, so as to gear into the wheel *w*² on the forward wheel of the cycle. By these means I am enabled to work a cycle by hand or by foot power or by both combined, the wheels being properly proportioned, so as to distribute the power properly and regulate the speed.

k is a brake-wheel fitted on the spindle *s*, and having a strap *k'*, which strap is actuated by a lever *t*, pivoted to the upright *a* beneath a handle *u*, which handle may be used for the purpose of steering the cycle in addition to the handles *h'* upon the ratchet-levers *h*.

It will be evident that the ratchets might be dispensed with, and a convenient form of disengaging gear substituted, so that the spindle *s* and levers *h* could be actuated independently of the sprocket-wheel *w*; also that the spindle *s* might be locked in its bearings, if desired, and have suitable disengaging gear. Moreover, the several details can be varied without departing from the principle of my invention.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

In combination in a cycle, the steering-head, the shaft extending across its upper end, the cranks and ratchets for driving the shaft, the brake-wheel on the shaft, the brake-strap, 5 the lever *t* pivoted to move vertically for operating the strap, the steering-handle *u*, independent of the cranks attached to the steer-

ing-head and extending over the pivoted lever *t*, substantially as described.

PERCY HUGH PRITCHETT.

Witnesses:

R. W. WADE,
JOHN PEAKE, Jr.