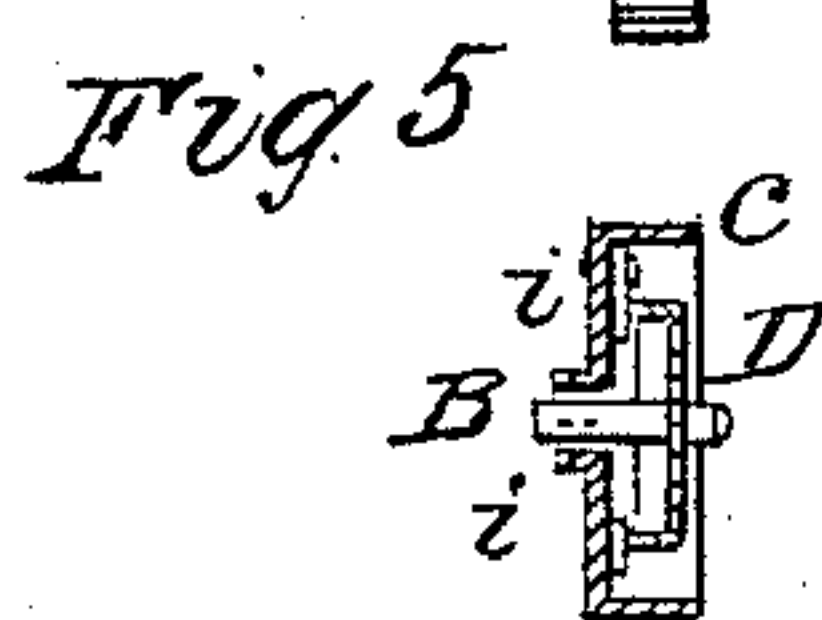
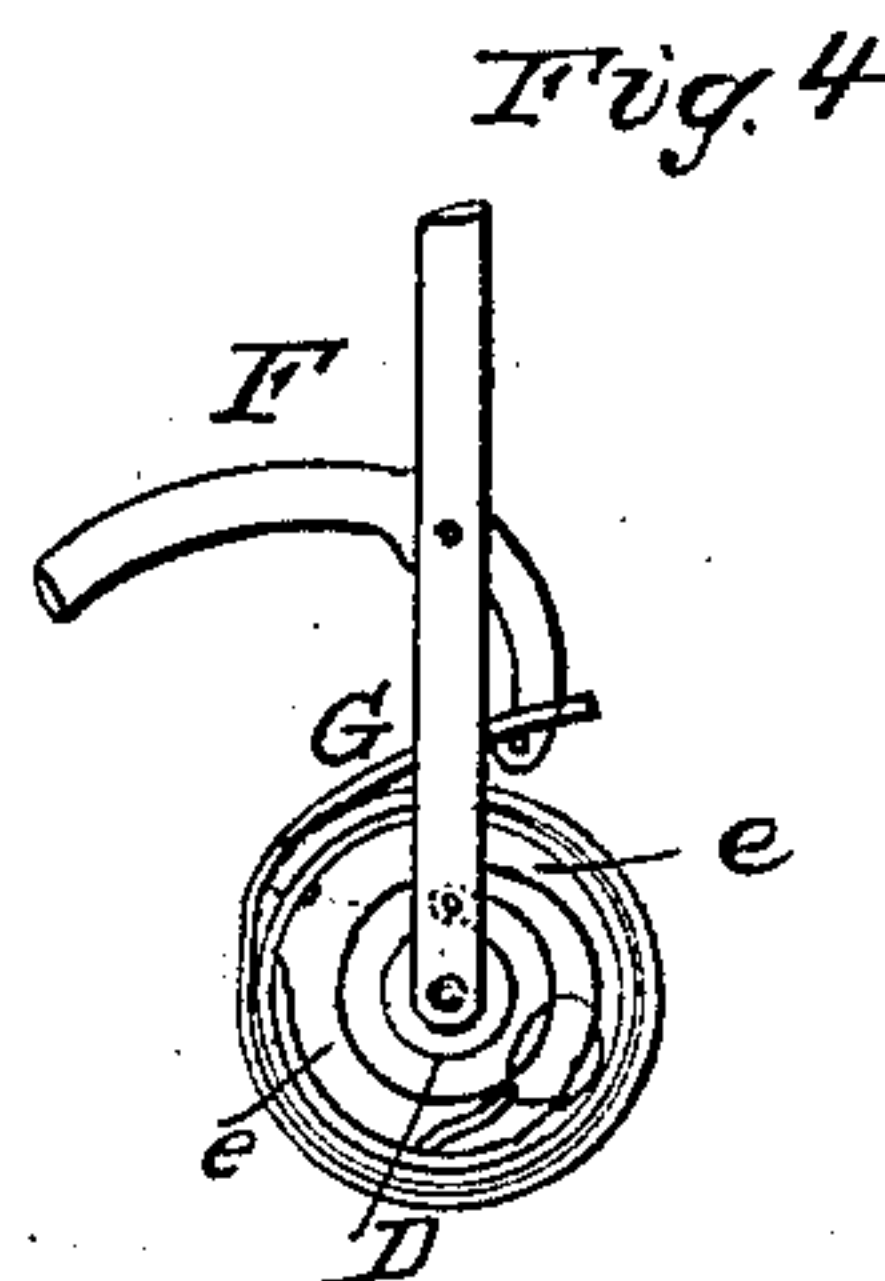
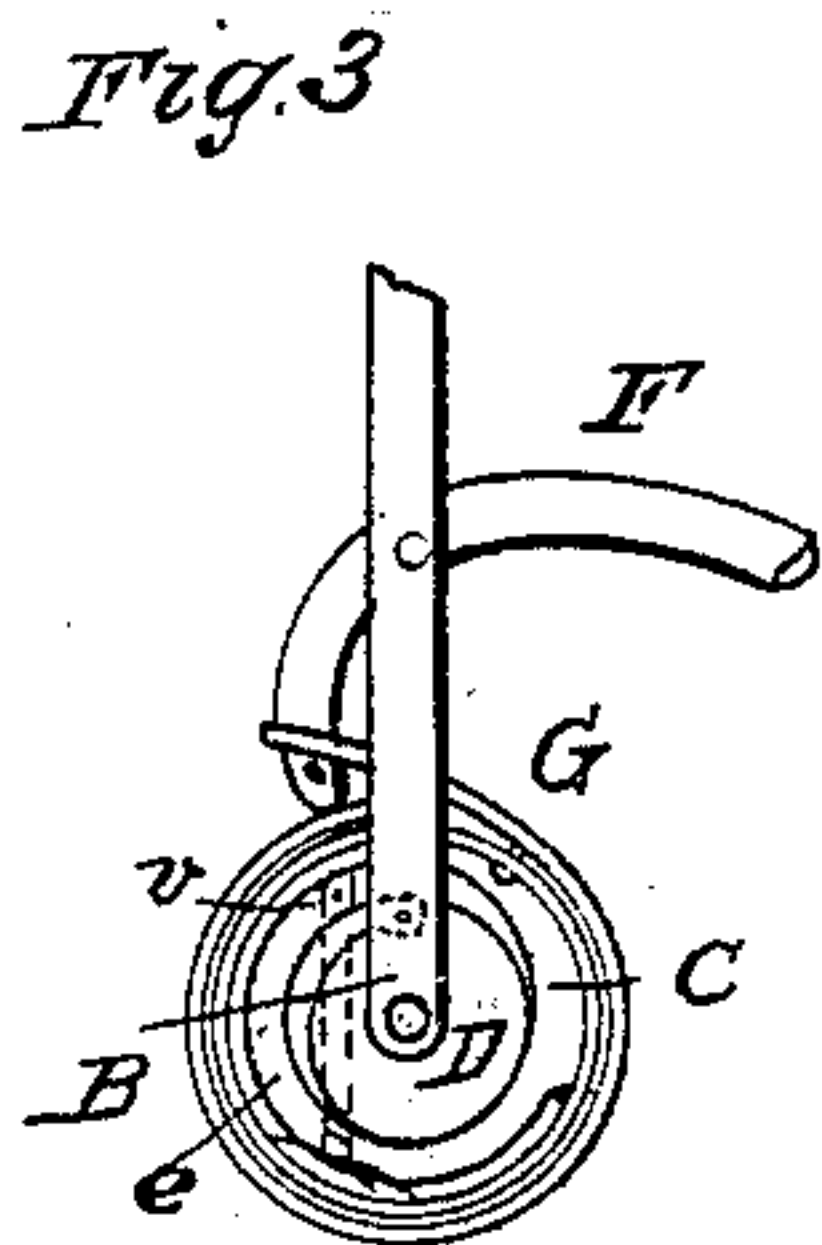
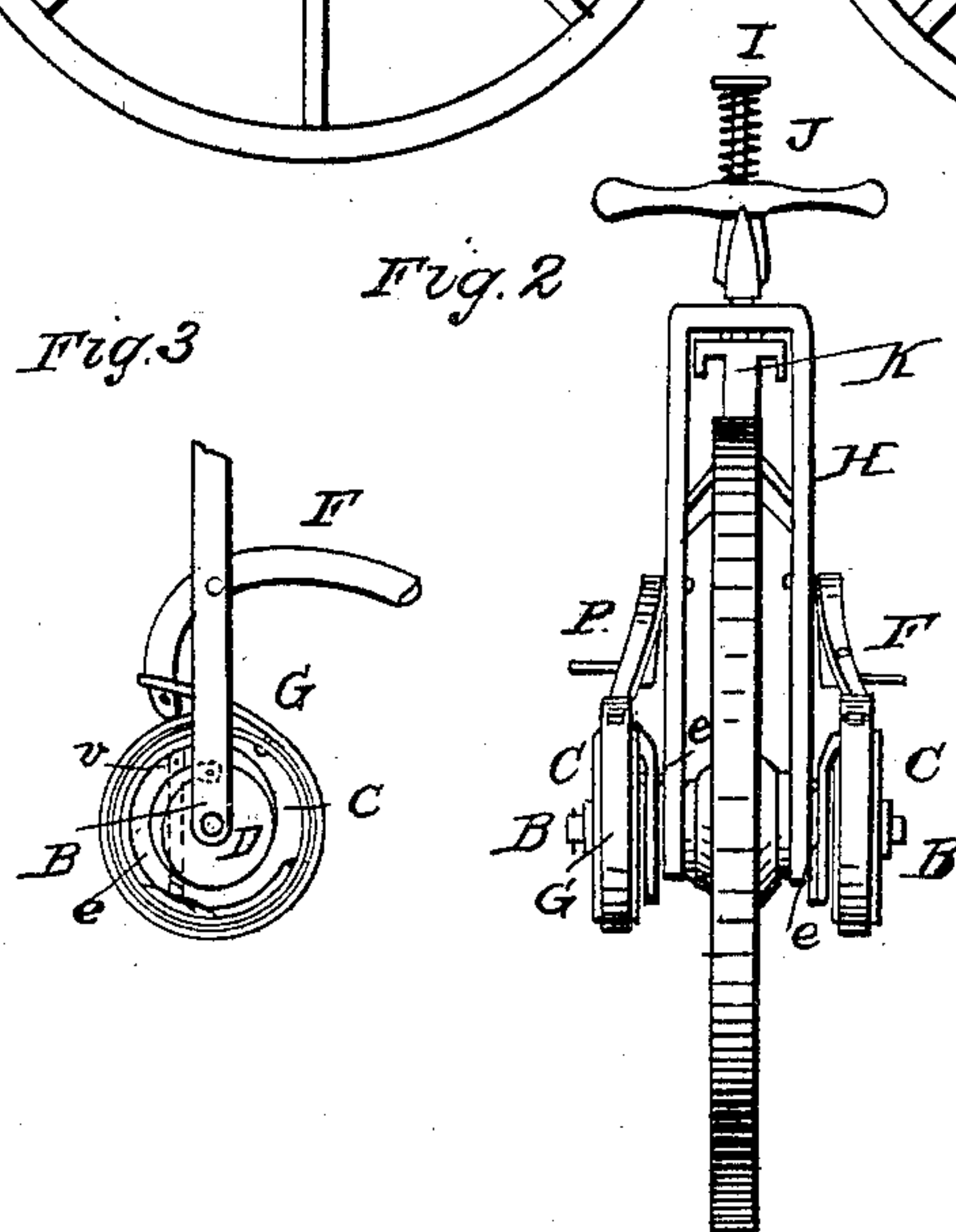
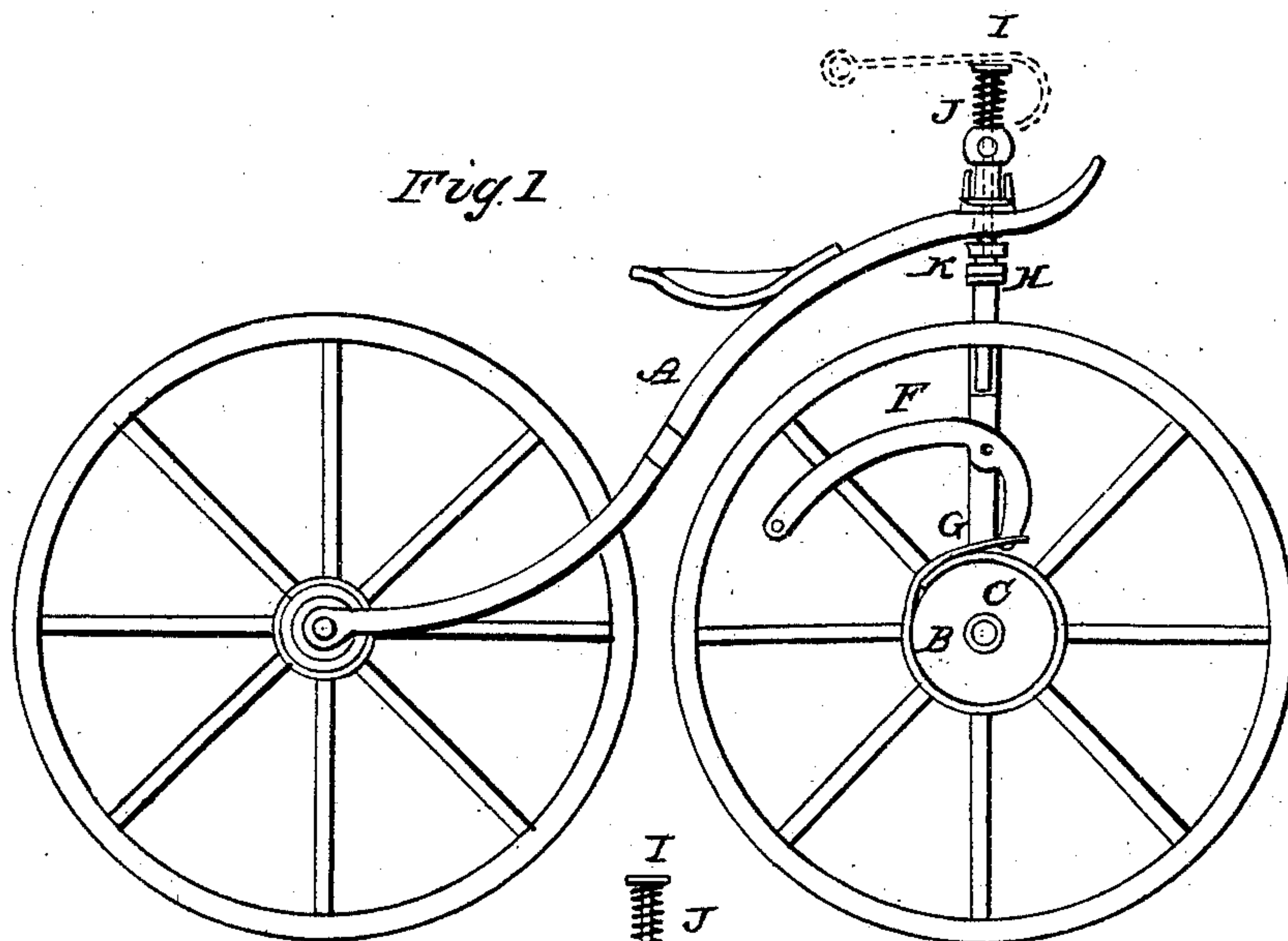


J. SIMPSON.

Velocipede.

No. 90,595.

Patented May 25, 1869.



Witnesses

*Harry King*  
*Leopold Over*

Inventor

*Joseph Simpson*  
per *Alexander K. Benson*  
*Atty*

# United States Patent Office.

JOSEPH SIMPSON, OF NEWARK, OHIO.

Letters Patent No. 90,595, dated May 25, 1869.

## IMPROVED VELOCIPED.

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, JOSEPH SIMPSON, of Newark, in the county of Licking, and in the State of Ohio, have invented certain new and useful Improvements in Velocipedes; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is to provide a velocipede that will not only facilitate the ease of riding, but will also give a greater speed with a less amount of exertion on the part of the rider.

Figure 1 is a side elevation of my invention.

Figure 2 is an end view of the same.

Figures 3 and 4 represent the arrangement of the springs and pawls, inside of the driving-pulleys.

Figure 5 is a section of the driving-pulley and flange.

Letter A represents an ordinary two-wheeled velocipede, to which my invention is attached.

The axle B of the front driving-wheel is provided with a flange upon each end, and the two are placed inside of the driving-pulleys C.

Attached to these pulleys, and wound around the shaft, are flat springs. The other end of the said springs is made fast to the lower end of guiding-pillar H.

These springs are intended to draw the driving-pulleys back to their first position, after they have been moved around by the action of the treadles F, the springs being attached to the wheels for this purpose.

Secured to the periphery of these pulleys C there are straps G, which pass around them, and then are secured by the other end to the treadles F, the said treadles being pivoted to the sides of guiding-pillar H.

Inside of the driving-pulley C, as seen in fig. 3, there is a notched friction-pawl, *i*, which is so formed that it will clutch with the flange when the pulley is driven around, but when reversed it will slip along without any obstruction, there being a spring placed there for that purpose; or this same thing may be accomplished by another device, as shown in fig. 4, where an eccentric is used instead of the pawl *i*, and which I also desire to use.

In riding upon one of my velocipedes, when only an ordinary speed is desired, it is operated by sitting and working it in an easy and natural position; but as soon as it is desirable to increase the speed the rider may, by pulling or lifting on the guiding-arms, apply more than the weight of himself, according to the strength so applied.

It is designed that the speed of this velocipede shall be in accordance with the pressure applied. The treadles work independently of each other.

Attached to the axle B is the guiding-pillar H, by means of which the machine is balanced and guided. The upper part of this pillar has an opening made through it, so that the rod I can slide up and down.

Around the upper part of this rod is placed the coiled spring J, so as to keep the brake K up from the wheel.

This brake is attached to the lower end of the rod I, so that, by pressing down the rod, the velocipede can at once be stopped.

This may be operated in the manner shown, or there can be a curved arm attached, as shown by red lines in fig. 1, by means of which the brake can be readily used.

The two treadles can be used as foot-rests while the machine is in motion, thus serving to guide the machine, and freeing the hands.

Instead of the two devices, as shown in figs. 3 and 4, I can also use a ratchet and pawl; but I do not desire to restrict myself to any one of them.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent, is—

The treadles F, pivoted near their centres to the guide-pillar H, and connected to the straps G, in combination with the pulleys C, flanges D, axle B, and springs E, of a two-wheeled velocipede, substantially as set forth.

In testimony that I claim the foregoing, I have hereunto set my hand, this 5th day of March, 1869.

JOSEPH SIMPSON.

Witnesses:

LEOPOLD EVERT,  
A. N. MARR.