

(No Model.)

R. CONROW.
INDICATING DEVICE FOR BICYCLES, &c.

No. 574,022.

Patented Dec. 29, 1896.

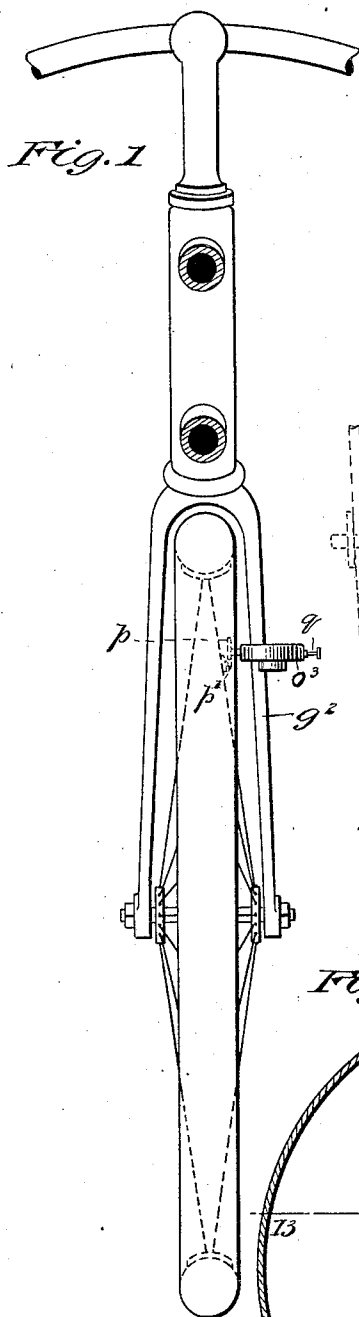


Fig. 1

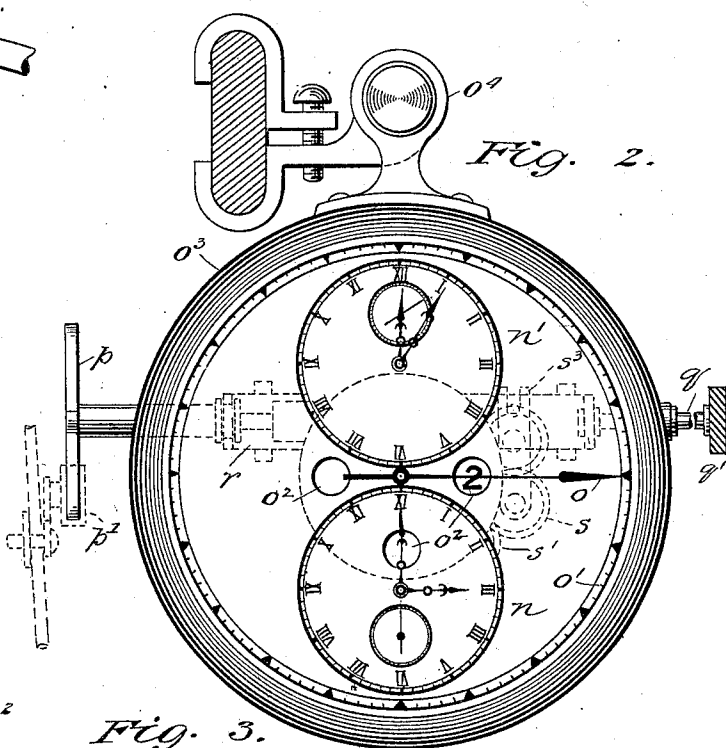


Fig. 2.

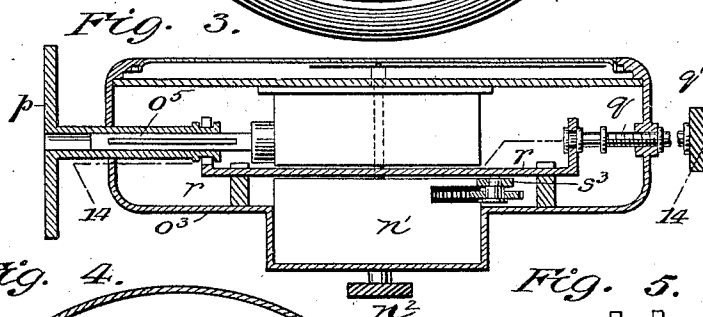


Fig. 3.

Fig. 4.

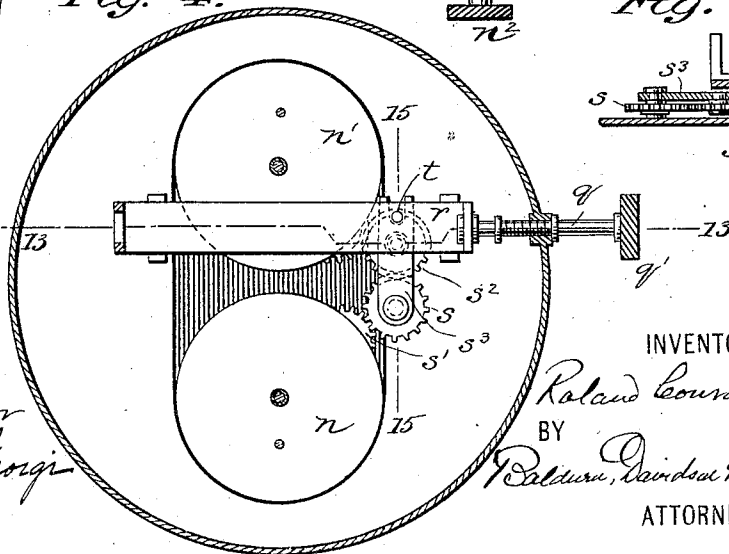
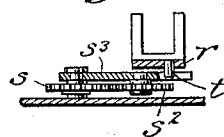


Fig. 5.



WITNESSES:

Frank S. Ober
Catharine Georgi

INVENTOR

Roland Conrow

BY

Walden, Davidson & White
ATTORNEYS

UNITED STATES PATENT OFFICE.

ROLAND CONROW, OF CINNAMINSON, NEW JERSEY.

INDICATING DEVICE FOR BICYCLES, &c.

SPECIFICATION forming part of Letters Patent No. 574,022, dated December 29, 1896.

Application filed April 9, 1895. Serial No. 545,052. (No model.)

To all whom it may concern:

Be it known that I, ROLAND CONROW, a citizen of the United States, residing in Cinnaminson, county of Burlington, State of New Jersey, have invented certain new and useful Improvements in Indicating Devices for Bicycles or other Vehicles, of which the following is a specification.

This invention relates to an indicating device for bicycles, and comprises an instrument containing a time-indicator having two sets of hands or pointers, one of which may be run continuously and the other of which may be thrown into and out of action, and a distance-indicator that may be thrown into and out of action, so that the rider may be provided with a timepiece and also an intermittently-operated time-indicator by means of which he may ascertain the time consumed in running any particular distance, all in one instrument, which may be attached to the frame of the machine.

In the accompanying drawings, Figure 1 illustrates an indicating instrument made according to my invention attached to the fork of the front wheel of a bicycle and actuated by a device attached to the spokes of the wheel. Fig. 2 is a plan view of the instrument on an enlarged scale, showing modifications in its construction. Fig. 3 is a vertical section of the same, taken on the line 13 13 of Fig. 4. Fig. 4 is a horizontal section taken on the line 14 14 of Fig. 3; and Fig. 5 is an elevation of the connecting-gear of the two time-indicators, taken on the line 15 15 of Fig. 4.

The indicating instrument shown in the drawings comprises a continuously-running time-indicator or watch n of ordinary construction, a time-indicator n' , adapted to be put into and out of gear with the watch to show the lapse of time during any particular run, and a distance-indicator, the main hand o of which points to the division of the large outer circle o' on the face, the accumulation of the revolutions of which hand being shown in the openings o^2 . The two time-indicators are arranged in the lower part of the case side by side, and the distance-indicator is placed centrally above them.

The case o^3 of this instrument is, by means

of the adjustable clamping device o^4 , secured to one side of the fork g^2 , and a star-wheel p on a shaft projecting from its side is actuated by a stud p' , clamped to the spokes of the wheel, and so imparts motion to the distance-indicator.

A feature of this instrument is that the distance-indicator and the lapse-time indicator can be put into or out of operation as desired. This is accomplished by manipulating the screw-shaft q by its knob or handle q' , the inner end of this shaft being provided with a groove or collar which embraces an upturned end of the sliding bar r , the other end of said bar being upturned and embraced by a groove or collar on the inner end of the shaft of the star-wheel p . By this means the star-wheel p may be placed in or out of range of travel of the stud p' . To provide for the longitudinal movement of the star-wheel p in relation to its imparting movement to the distance-indicator, its shaft is hollow and fits over the shaft o^5 of said indicator, a groove and spline or equivalent means being used to connect the shafts rotatably together.

As in this construction of the indicating instrument it is desired that the lapse-time indicator shall work only when the distance-indicator is in action, the connecting-gear between this time-indicator and the continuous time-indicator comprises a wheel s on a fixed pivot or shaft, which meshes into a gear s' of the continuous time-indicator, a wheel s^2 carried by the link s^3 and in gear with the wheel s , said link being pivoted to rock on the pivot or shaft of the wheel s , and controlled by a pin t on the bar r , which fits into a slot formed in the free end of the link s^3 . When the bar r is set in the position shown in the drawings, then the wheel s^2 meshes into a wheel of the indicator n' , which is then caused to run with the watch n , and at the same time the distance-indicator is in action. When the bar r is drawn back by the screw q , then the time-indicator n' is out of action. The knob n^2 at the bottom of the instrument is used to set the hands of the time-indicator n' back to a zero or starting-point.

I claim as my invention—

The combination of a bicycle or vehicle,

an instrument comprising a time-indicator
having a set of continuously-moving hands
or pointers, and a second set of hands or
pointers adapted to be moved with the con-
5 tinuously-moving hands, a distance-indica-
tor, means for imparting motion to the dis-
tance-indicator from one of the wheels or
other moving part of the machine, and means
for putting the distance-indicator and the

second set of hands of the time-indicator 10
into and out of action.

In testimony whereof I have hereunto sub-
scribed my name.

ROLAND CONROW.

Witnesses:

S. M. CONROW,

JOS. T. SULLIVAN.