

(No Model.)

G. S. WRIGHT & H. P. TERRY.
SPEED MEASURE.

No. 557,245.

Patented Mar. 31, 1896.

Fig. 1.

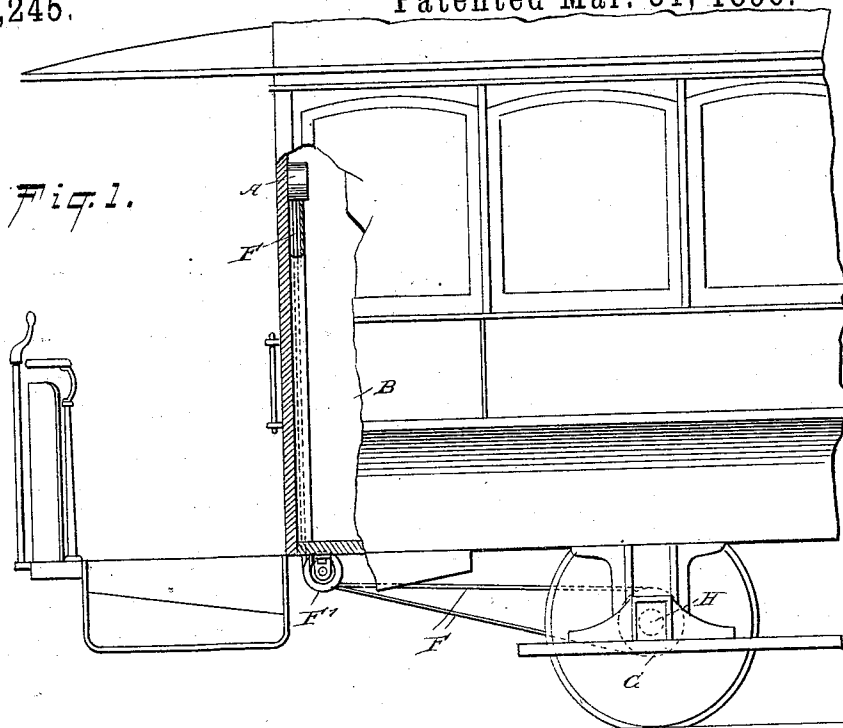
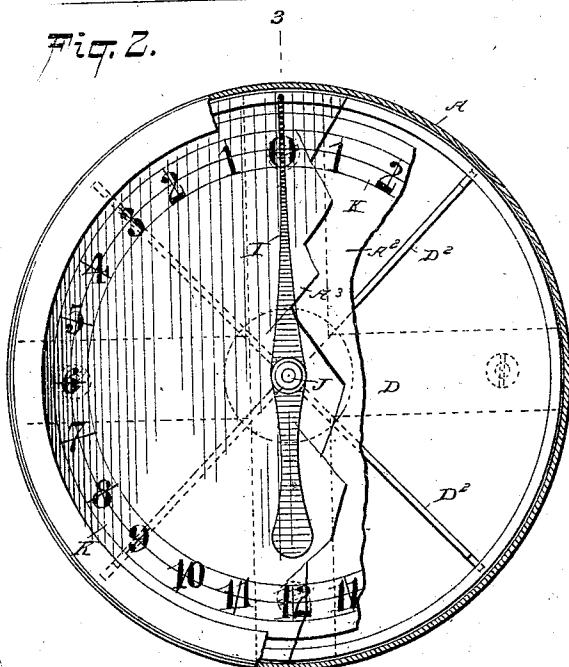


Fig. 2.

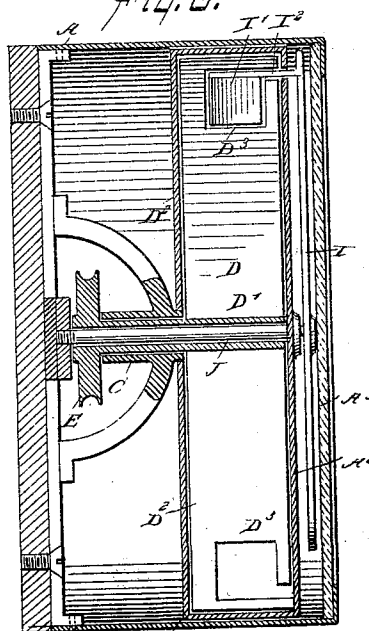


WITNESSES:

William P. Goebel.

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Fig. 3.



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GEORGE S. WRIGHT AND HOWELL P. TERRY, OF BROOKLYN, NEW YORK.

SPEED-MEASURE.

SPECIFICATION forming part of Letters Patent No. 557,245, dated March 31, 1896.

Application filed June 12, 1895. Serial No. 552,557. (No model.)

To all whom it may concern:

Be it known that we, GEORGE S. WRIGHT and HOWELL P. TERRY, of Brooklyn, in the county of Kings and State of New York, have
5 invented a new and Improved Speed-Indicator, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved speed-indicator which is
10 simple and durable in construction, very effective in operation, and more especially designed for use on cars and on other vehicles and devices.

The invention consists principally of a
15 driven wind-wheel and a pointer indicating on a dial and provided with a wing subjected to the force of the current generated by the revolution of said wind-wheel.

The invention also consists of certain parts
20 and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claim.

Reference is to be had to the accompanying
25 drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the
improvement as applied on a car. Fig. 2 is an enlarged face view of the improvement,
30 partly broken away and in section; and Fig. 3 is a transverse section of the same on the line 3 3 of Fig. 2.

The improved speed-indicator is provided
35 with a casing A, secured to a suitable support on a car B or other device on which the indicator is to be used. In the casing A is arranged a bearing C for a hollow shaft D', carrying at its forward end a wind-wheel D, provided with the usual wings D², formed in their
40 outer ends with cut-out portions D³, all in circular alinement with each other. On the rear end of the hollow shaft D' is secured or formed a pulley E, over which passes a belt or chain F, likewise passing over guide-pulleys F' on
45 the car and over a pulley G secured to an axle H or other revolving part of the car the speed of which is to be indicated. The wings D² of the wind-wheel D are arranged within the circular casing A', secured to the bearing C within the casing A, the said casing A' being provided with a front or cover plate A² supported

on a rod J attached to the back of the casing A and passing loosely through the hollow shaft D'. On the forward end of this rod J is mounted to turn loosely a gravity-pointer I, 55 adapted to indicate on a graduation K formed on the face of the cover A², as is plainly illustrated in Figs. 1 and 2, the said graduation preferably indicating miles and subdivisions, and, starting from zero at the top both to the 60 right and to the left, indicating, say, up to twelve miles at the bottom of the dial.

On the upper end of the pointer I is secured a transversely-extending rod I² passing 65 through the annular space between the cover-plate A² and the rim of the casing A', so that the said pointer I is free to oscillate in either direction. On the inner end of this rod I² is formed or secured a wing I', extending radi- 70 ally and into the cut-out portions D³ of the wind-wheel wings D², so that when the latter is rotated its wings do not touch or strike the wing I'.

Now it will be seen that when the car is in motion the pulley G is rotated, and by means 75 of the belt F and pulley E causes a rotary motion of the shaft D', so that the wind-wheel D is revolved within the casing A'. The current of air thus generated within the casing A' acts on the wing I' in one direction, according to 80 that in which the car is moving, and consequently the force of the current of air generated and pressing on the wing I' causes a swinging of the pointer I, so that the latter indicates on the dial K the speed of the car. 85 When the car travels in an opposite direction, the wind-wheel D is rotated in an opposite direction, and consequently the wing I' is forced in a like direction, so that the pointer I swings in a corresponding direction to again 90 indicate the number of miles the car is traveling. It is understood that the faster the car is running the stronger the current of air generated by the wheel D, and consequently the pointer I is deflected or oscillated to a 95 higher degree than when the car is running to a lower rate of speed.

The front end of the casing A is preferably provided with a glass cover A³ to protect the 100 working parts from dust.

It is understood that the device, as shown in Fig. 1, is located within the car and the

pointer and dial are visible to the passengers; but the device may be applied on the outside of the car at any convenient place.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

The combination with a car, of a speed-indicator attached to the car and comprising a casing, a rotary tubular shaft, a band-wheel on the shaft within the casing, a wind-wheel on said tubular shaft within the casing, a fixed rod extended through said tubular shaft, a pointer having a loose pivotal connection intermediate of its ends with said

fixed rod, the said pointer being weighted at one end, a wing extended from the other end of the pointer into the casing to be operated upon by a current of air generated by the revolving wind-wheel, a dial over which the pointer moves, and a connection between the band-wheel and a rotary part of the car, for rotating the wind-wheel, substantially as specified.

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Witnesses:

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