

No. 895,484.

PATENTED AUG. 11. 1908.

C. J. MILLIS.  
SPEED MEASURE.

APPLICATION FILED MAR. 27, 1908.

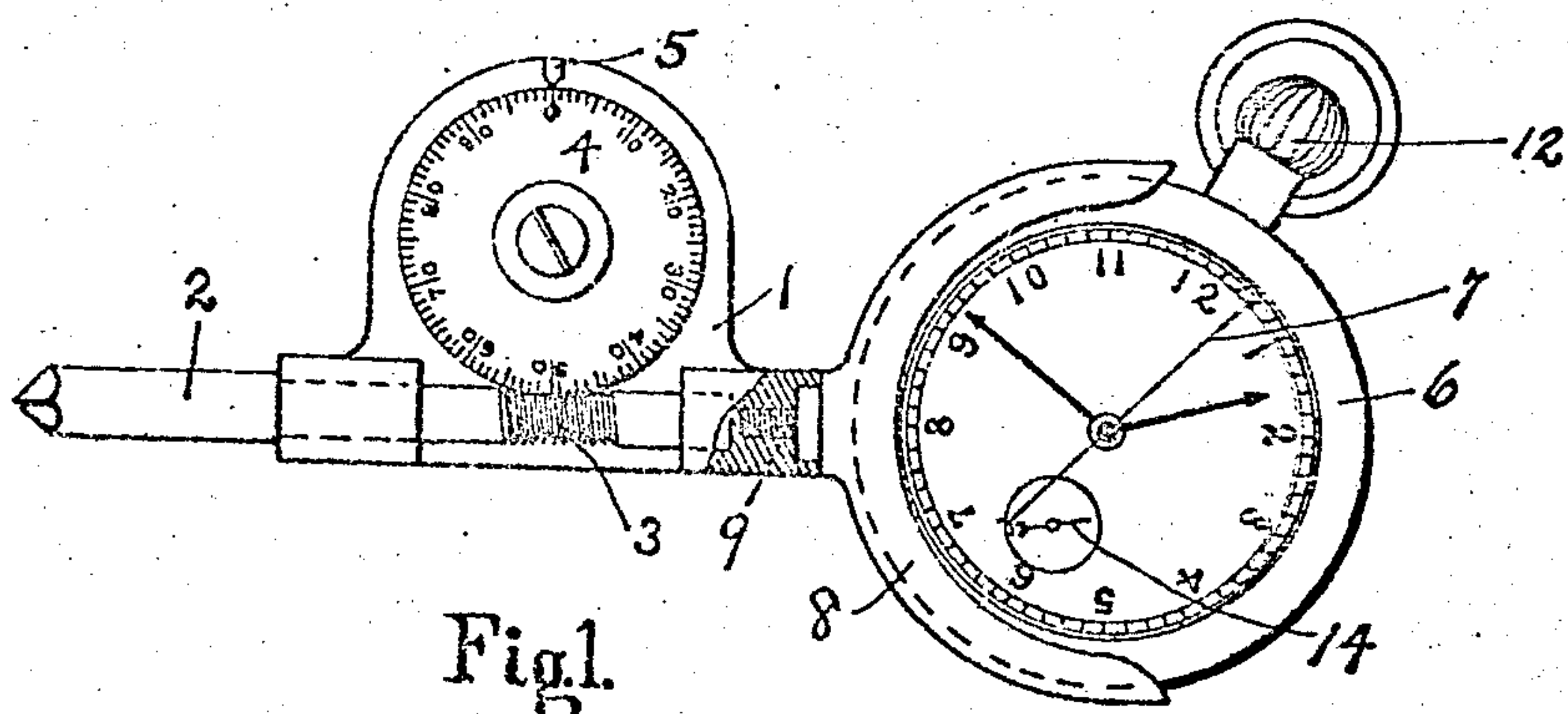


Fig. 1.

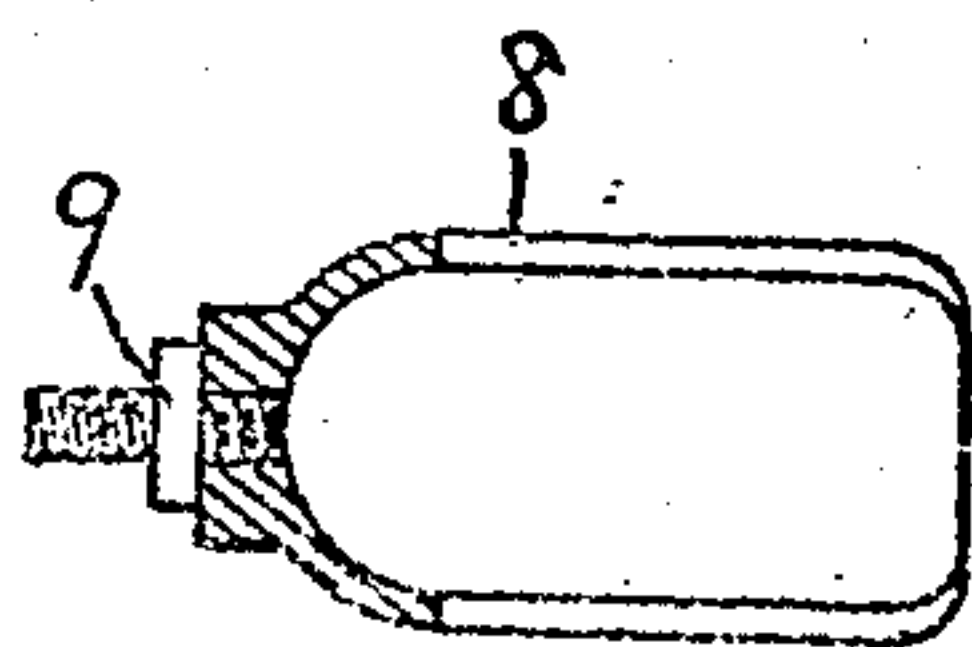


Fig. 2.

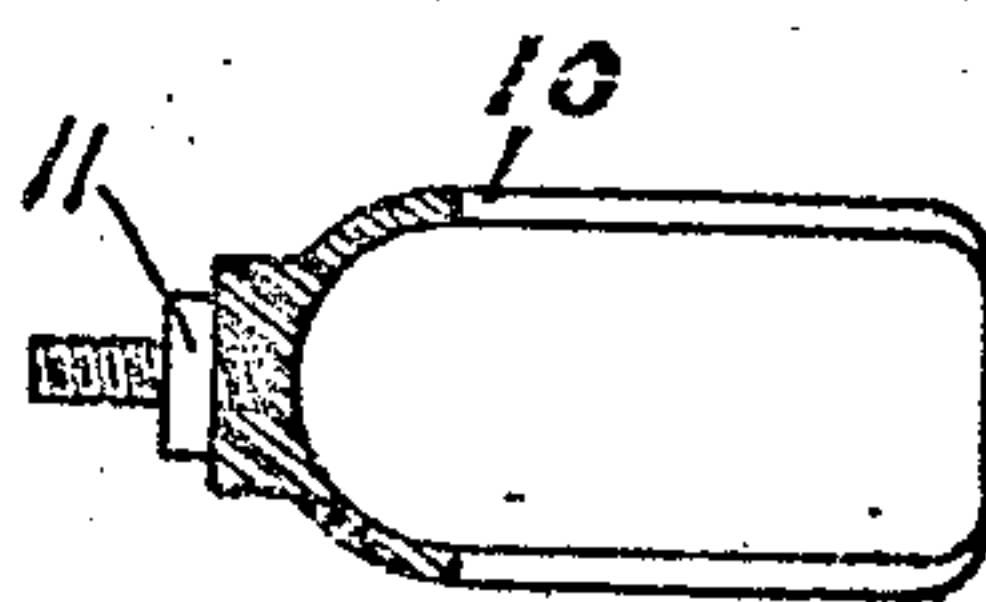


Fig. 3.

Witnesses.  
William J. Hewitt  
Elizabeth M. Brown.

Inventor.  
C. J. Millis.  
by Edward N. Pagelsen.  
his attorney.



# UNITED STATES PATENT OFFICE.

CHARLIE J. MILLIS, OF PONTIAC, MICHIGAN, ASSIGNOR OF ONE-HALF TO WILLIAM J. HARTWIG, OF DETROIT, MICHIGAN.

## SPEED-MEASURE.

No. 895,484

Specification of Letters Patent.

Patented Aug. 11, 1908.

Application filed March 27, 1908. Serial No. 423,504.

*To all whom it may concern:*

Be it known that I, CHARLIE J. MILLIS, a citizen of the United States, residing at Pontiac, in the county of Oakland and State of Michigan, have invented a new and useful Speed-Measure, of which the following is a specification.

My invention relates to means for facilitating the use and increasing the accuracy of speed measures, and its object is to provide a device whereby a watch may be held in juxtaposition to a revolution counter so that the speed of revolving shafts may be easily determined.

This invention consists in a forked shaped device which is adapted to be secured to the frame of a revolution counter for the purpose of holding a watch in such position that its face can easily be read by the operator.

It further consists in forming this device of a non-conductor so that the speed of a rotating body charged with electricity can be taken without endangering the operator.

In the accompanying drawings Figure 1 is a view of a revolution counter provided with my improvement and a watch held in position by the same. Fig. 2 is a central transverse cross section of the watch holder taken on a plane at right angles to Fig. 1. Fig. 3 is a similar cross section showing the holder formed on a non-conductor.

Similar reference characters refer to like parts throughout the several views.

It is often difficult to measure the speed of revolving shafts by means of an ordinary revolution counter, because the location of the shaft renders it difficult to carefully note the position of the hands of the watch employed, at the instant the revolution counter begins to run, and also at the instant that it stops.

My improved construction renders it possible to accurately determine the time during which the revolution counter is operating and thereby renders it possible to correctly measure the speed of the revolving body.

In the accompanying drawings the frame 1, the stem 2 having a worm 3, the graduated worm wheel 4 and the pointer 5 of the revolution counter are of any well known or desirable construction. The watch 6 is preferably provided with a split-seconds hand 7. A fork 8, usually of spring-metal has secured to it a stud 9 which engages the frame 1 of the revolution counter. This

fork is semi-circular in cross-section, and preferably forms a half-ring. Instead of this fork 8 of spring metal, a fork 10 of gutta-percha, indurated-fiber or other non-conductor may be employed, which may be secured to the frame 1 by means of the stud 11. The watch 6 is so constructed that upon pressing down the crown 12 the split seconds hand 7 will be released, or will be stopped, or will be snapped back to normal position which is at "12". The fork 8 should be of such a size and so formed to snugly hold the watch.

The hand 7 being at "12", the operation is as follows: The operator holds the watch in the palm of his hand his first and second fingers extending around the fork 8 on each side of the center, his thumb resting on the crown 12. He then pushes the point of the stem 2 into the center of the shaft, at the same time pressing down the crown 12, releasing the split seconds hand, which will then begin to indicate elapsed time. After the desired length of time has passed, usually about a minute, the operator presses down the crown 12, at the same instant withdrawing the stem 2 from contact with the revolving shaft. As the hand 7 stops at this instant, the operator having before him the number of revolutions and the elapsed time, can easily determine the speed of the shaft.

While this arrangement is especially adapted for measuring speed where it is difficult or impossible to read the time, an ordinary watch provided merely with the usual seconds hand 14 may be employed where it is possible to watch the same, it being only necessary to note the position of the seconds hand 14 at the beginning and at the end of the time the stem 2 is in contact with the revolving shaft and then calculate the speed as before indicated. It will be noted that this watch holder may be employed in connection with any style of speed measure to which it can be attached. As but one hand is employed, the operator is enabled to hold himself in position with the other, which is often of the greatest necessity.

Having now explained my improvements, what I claim as my invention and desire to secure by Letters Patent is:

1. A device for attaching a watch to a rotation counter, comprising a holder in the form of a trough-shaped segment of a circle having means at a point intermediate its ends



to rigidly attach the same to a part of the rotation counter, whereby when a watch is placed in the holder, said holder and watch form a handle to manipulate the rotation counter.

2. A device for attaching a watch to a rotation counter, comprising a non-conducting trough-shaped part-ring having means projecting from the same intermediate its ends  
10 to rigidly attach the same to a part of the rotation counter, whereby when a watch is

placed in the holder, said holder and watch form a handle to manipulate the rotation counter.

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

CHARLIE J. MILLIS.

Witnesses:

W. J. HARTWIG,  
E. M. BROWN.