

No. 758,405.

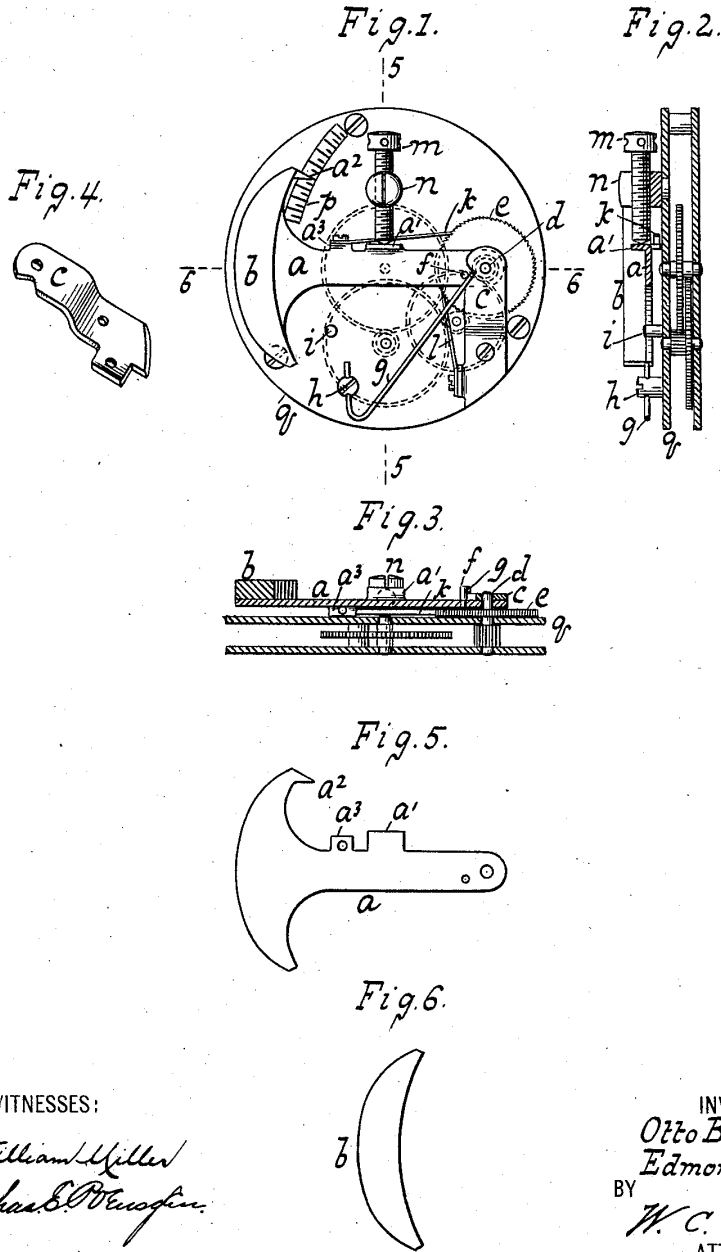
PATENTED APR. 26, 1904.

O. BARTEL & E. KUHN.

PEDOMETER.

APPLICATION FILED AUG. 20, 1903.

NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

OTTO BARTEL, OF NEW YORK, N. Y., AND EDMOND KUHN, OF EAST ORANGE, NEW JERSEY, ASSIGNORS TO GUSTAV BUNZL AND ERNEST BUNZL, OF NEW YORK, N. Y.

## PEDOMETER.

SPECIFICATION forming part of Letters Patent No. 758,405, dated April 26, 1904.

Application filed August 20, 1903. Serial No. 170,215. (No model.)

*To all whom it may concern:*

Be it known that we, OTTO BARTEL, residing at Manhattan borough, New York city, in the county of New York and State of New York, and EDMOND KUHN, residing at East Orange, in the county of Essex and State of New Jersey, both citizens of the United States, have invented new and useful Improvements in Pedometers, of which the following is a specification.

The object of this invention is to provide a pedometer of simple construction, its setting being accurate, with means to show the amount of setting required for the various sizes of steps. Furthermore, it has simple means of adjusting the tension of the spring which lifts the pendulum, which is of importance in adjusting the correct working of the pendulum, being adapted to overcome the variation of the parts referred to when manufactured.

This invention is set forth in the following specification and claims, and illustrated in the annexed drawings, in which—

Figure 1 shows the pendulum of the pedometer with adjacent parts. Fig. 2 is a section along 5 5, Fig. 1. Fig. 3 is a section along 6 6, Fig. 1. Fig. 4 shows a bridge. Fig. 5 shows a pendulum-arm partly finished. Fig. 6 shows a pendulum-weight.

In the drawings is shown a base or frame plate *g*, with bridge *c*, bearing a pivot *d* for pendulum *a*. This pendulum is readily formed from a sheet-metal blank, Fig. 5, with flange *a'* and point or index-finger *a''*. The flange *a'* is bent over to serve for the set-screw *m* to bear thereagainst or limit the play or swing of the pendulum between such screw *m* and stop or fixed stud *i*. The function of pointer *a''* will be presently explained. The pendulum carries a spring or pawl *k* for ratchet-wheel *e*. A suitably cut and bent part *a'''* of the pendulum forms a flange or attaching part for the spring *k*. As the pendulum vibrates this pawl gives a step-by-step rotation to wheel *e* and thence to the pedometer-train.

(Not shown.) The spring *l* prevents retrograde rotation of the ratchet-wheel. The pendulum has a stud or pin *f*, against which bears spring *g*, which lifts or holds the pendulum or its flange *a'* to screw *m*. This spring is braced or secured in a stud *h*, which is seated what may be called "friction-tight" in plate *q*—that is, the stud *h* can be rotated by a tool, such as a screw-driver or other means, but is so tight in its seat as not to turn under any tension of spring *g*. By setting or turning friction or rotary stud *h* one way or another the tension or action of spring *g* on the pendulum or pin *f* is regulated. The screw *m* can be set or adjusted in the tap or stud *n*. The scale *p*, in connection with the index or pointer *a''*, already named, and the screw *m*, serve for the setting of the device or pendulum, according to the size of the steps made by the person carrying or wearing the device.

The pendulum *a* has the weight *b* secured thereto in any suitable way. As the pendulum is vibrated by the march or movement of the user the ratchet *e* and other parts are actuated.

The friction-stud *h* is adapted to be engaged by a tool for setting the spring *g*, and the pointer *a''* with scale *p* enables accurate setting or regulation of the pendulum, or rather its vibration or arc of oscillation. The spring *g* sits against the cylindrical stud *f* with but slight if any friction, so that the pendulum is sensitive or responds readily to each step.

The bridge, as seen in Fig. 4, can also be cut and bent from a single piece of sheet metal to form a bearing for wheel *e* and attaching-flange for stop or spring *l*.

What we claim as new, and desire to secure by Letters Patent, is—

1. A pedometer comprising a pendulum provided with a pointer and a flange, a scale for the pointer, and a micrometer or set-screw for the flange.

2. A pedometer having a pendulum the arm of which is stamped or formed from sheet

metal with a pointer and a flange, the flange being bent to coact with a stop or set-screw.

3. A pedometer having a pendulum the arm of which is stamped or formed from sheet metal with a pointer and flanges, the latter being bent to form a stop and a pawl or spring attachment respectively.

In testimony whereof we have hereunto set

our hands in the presence of two subscribing witnesses.

OTTO BARTEL.  
EDMOND KUHN.

Witnesses:

E. F. KASTENHUBER,  
CHAS. E. POENSGEN.