

(No Model.)

A. REINISCH & L. KRATOCHWIL.
PEDOMETER.

No. 542,107.

Patented July 2, 1895.

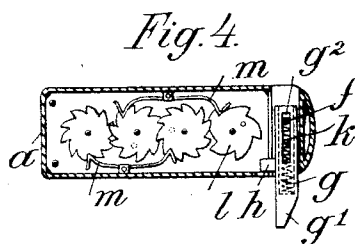
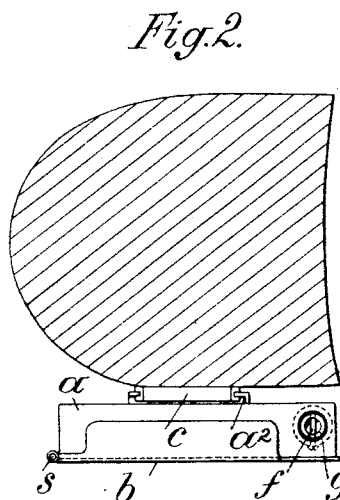
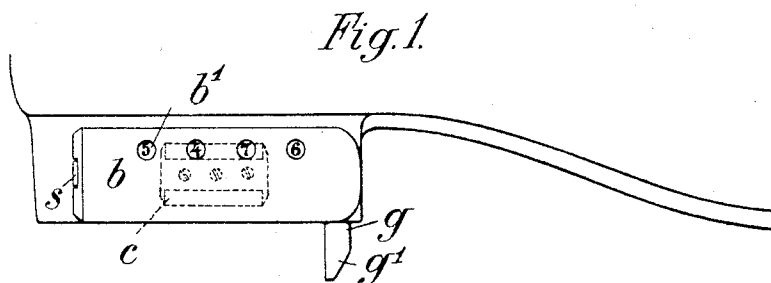
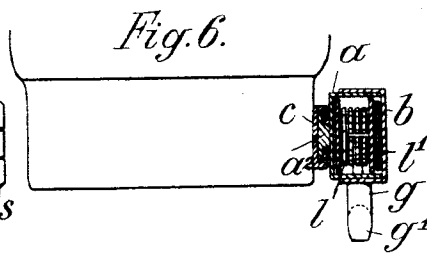
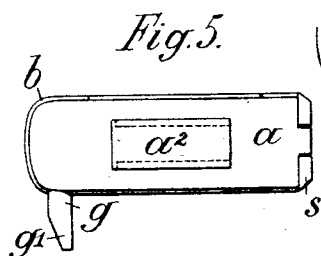
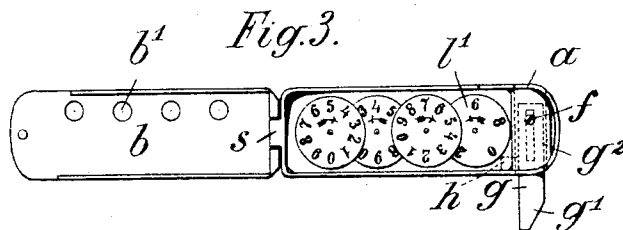
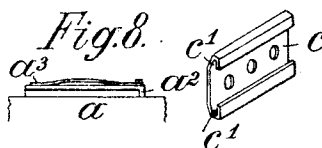


Fig. 7.



WITNESSES.

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UNITED STATES PATENT OFFICE.

ANTON REINISCH AND LORENZ KRATOCHWIL, OF VIENNA, AUSTRIA-HUNGARY.

PEDOMETER.

SPECIFICATION forming part of Letters Patent No. 542,107, dated July 2, 1895.

Application filed May 10, 1894. Serial No. 510,786. (No model.)

To all whom it may concern:

Be it known that we, ANTON REINISCH and LORENZ KRATOCHWIL, subjects of the Emperor of Austria-Hungary, residing at Vienna, in the Province of Lower Austria, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Pedometers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to a construction of pedometer capable of being attached to boots, shoes, and the like, and adapted to receive an impulse each time the foot is set down, whereby it is caused to register, by means of suitable counting mechanism, the number of steps made.

The invention consists in the particular construction and combination of parts, as hereinafter fully described, and pointed out in the claim.

In the accompanying illustrative drawings, Figures 1 and 2 show, respectively, in side elevation and plan this arrangement of pedometer attached to a shoe. Fig. 3 shows a front elevation of the pedometer with the box open. Fig. 4 shows a vertical longitudinal section, and Fig. 5 a back elevation of the pedometer. Fig. 6 shows a vertical cross-section of the pedometer as attached to a shoe, and Figs. 7 and 8 are two detail views hereinafter referred to.

Our pedometer comprises a box *a*, containing the counting mechanism and provided with a cover *b* that is hinged to a box *a* at *s*, and is provided with openings *b'*, through which the numerals of the counting mechanism can be read off, and which are glazed to protect the said mechanism from dust and dirt. To the back of the box *a* there is secured an attachment *a²*, which is inserted and held in grooves *c'* of a bent plate *c*, forming a holding device, which is preferably fastened to the side or back of the heel of the shoe. In order to prevent the pedometer from becoming accidentally separated from the heel,

there may be secured to the attachment *a²* a leaf-spring *a³*, Fig. 8, which is compressed by the insertion of the attachment *a²* between the heel and the holding device *c*.

The counting mechanism is operated by means of a spring pin or projection *g*, (hereinafter called a "spring-pin,") which projects through the box *a*, with its preferably-tapered lower end *g'*, and is capable of being moved vertically in the box in a suitable passage provided therein for that purpose.

The spring-pin, which is preferably tapered at its outer lower end, as shown, is pressed downward by a coiled spring *k*, so that its tapered lower end *g'* normally projects below the heel of the shoe. The spring *k* bears with its upper end against a pin *f*, passing through a slot *g²* in the post *g*, and is preferably arranged in a cavity in the said pin. When the foot is placed on the ground, the spring-pin *g* is forced upward, carrying with it a tooth *h*, which is attached thereto. During this upward motion the tooth *h* acts on the units-wheel *l* of the counting mechanism, and thereby rotates the said wheel one tooth forward. When the foot is raised from the ground, the spring-pin *g* and tooth *h* are moved back into their initial position by the spring *k*.

The counting apparatus is of known construction; but the units-wheel *l* has only half as many teeth as each of the other wheels, and the units-disk *l'* connected thereto is so numbered that two steps are registered at each step of the foot that carries the pedometer. The backward rotation of the wheels of the counting apparatus is prevented by spring-pawls *m*. The numeral disks are preferably provided with milled edges, so that, after opening the cover *b* of the box, they can be easily set for use. The lower end *g'* of the spring-pin may be provided with a bearing-surface of rubber, leather, or the like, in order to produce no impression or noise when used on a wooden floor.

The pedometer hereinbefore described may also be applied to the hoofs of horses or other animals for the purpose of ascertaining either the number of steps made by them or their speed, or both.

We claim—

In a pedometer, the combination with a cas-

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ing provided with an opening at one end, said casing being adapted to be secured to a boot or shoe, of a counting mechanism in the casing, a pin projecting through the opening in the casing and provided with a longitudinal slot and with a laterally projecting stud or tooth adapted to engage one of the wheels of the counting mechanism, a rod passing through the slot of the pin, and a spring between the rod and the lower end of the slot

of the pin, substantially as herein shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

ANTON REINISCH.
LORENZ KRATOCHWIL.

Witnesses:

JOSEF ZEHETNER,
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