W. H. SHERWOOD.

VIBRATION ABSORBING FOOT.

APPLICATION FILED JULY 20, 1909.

943,709.

Patented Dec. 21, 1909

Fig. 1

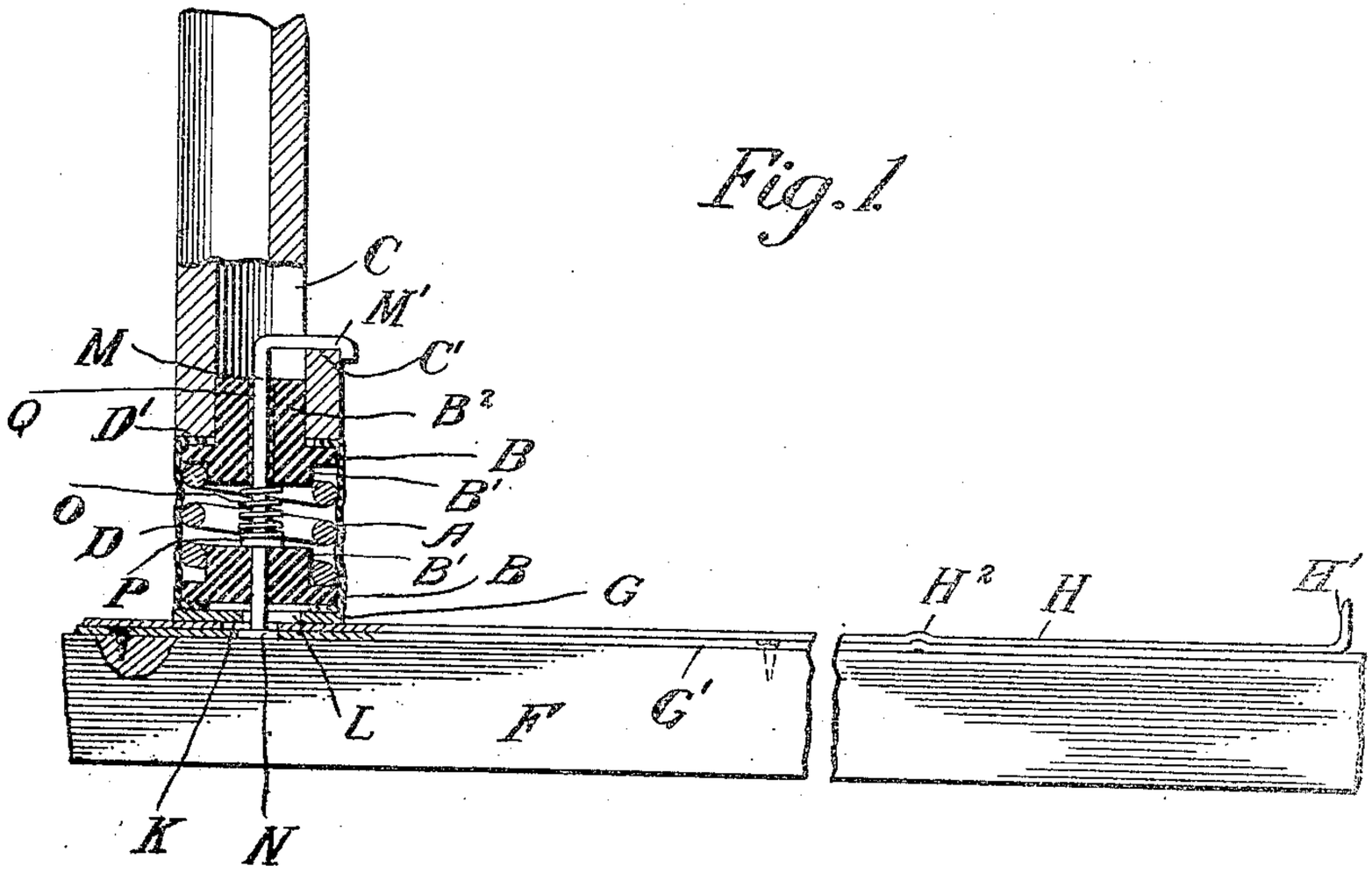

Fig. 2.

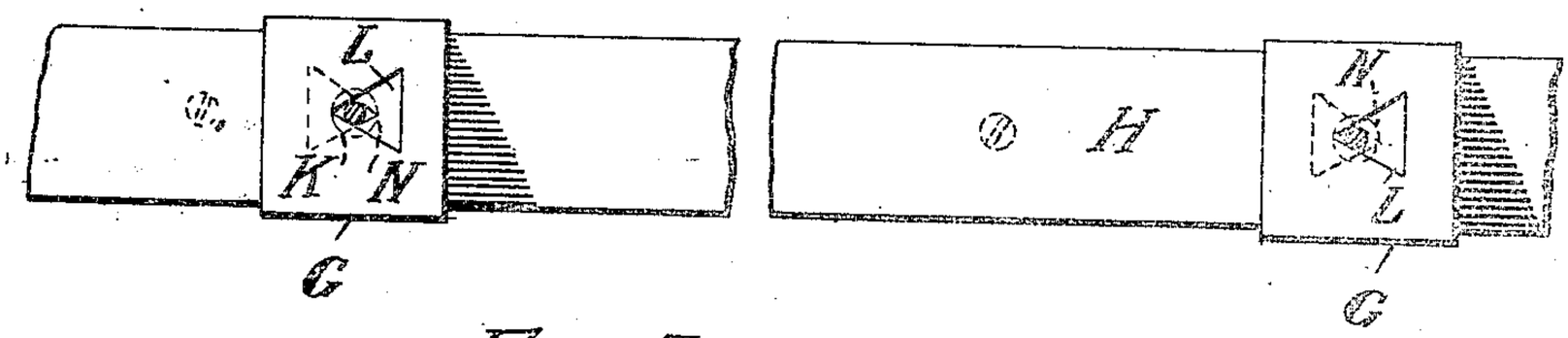

Fig. 3.

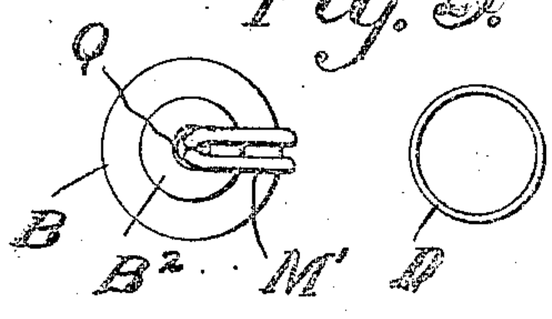

Fig. 4.

Witnesses

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VIBRATION-ABSORBING FOOT.

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To all whom it may concern:

Be it known that I, WILLIAM H. SHERWOOD, citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Vibration-Absorbing Feet, of which the following is a specification, reference being had therein to the accompanying drawing.

The object of this invention is to provide typewriting machines with vibration-destroying pads or feet which shall also serve for detachably securing the machine to its table or like support.

In the accompanying drawings, Figure 1 shows the novel foot in vertical axial section as used in attaching the machine to the table, portions of both the machine and table being shown with the attaching devices, all partly in section. Fig. 2 is a plan view of the devices carried by the table, for securing the foot thereto. Fig. 3 is a top plan view of the body of the foot, a certain inclosing sleeve being omitted. Fig. 4 is a plan view of the sleeve when detached.

The main portion of the foot consists of a heavy cylindrical spring wire coil A the ends of which abut rubber pads B of like diameter, each having a boss B^1 to enter the end of the coil, and the upper pad further having a boss B^2 fitting in the usual tubular passage in the frame C of the machine. Over the spring and pads is stretched a tube D, of soft rubber, which is normally of much shorter diameter than the coil, and is also of materially greater length than the coil and pads, so that its end portions are drawn in over the pads as shown at D^1, to form a sort of annular flange which receives the weight of the machine above and which transmits below that weight to the table or other surface on which the foot may rest. Obviously this soft rubber is not adapted to transmit vibrations, but is adapted to deaden vibrations of any part against which it rests. It is also evident that when it deteriorates it may be readily and cheaply replaced. This foot does not ordinarily rest directly upon the surface of the table F but upon a loop G of a strip G^1 which is secured to the table, and in this loop slides a somewhat closely fitting strip H provided with a projection H^1 by which it may be moved longitudinally, and with a recess at H^2 to engage a projection on the strip G^1 at certain times and prevent accidental relative displacement. The loop and the body of the strip G^1 beneath are cut away to form a converging opening L in the loop, and the strip H is provided with a corresponding but oppositely turned aperture K.

Through the axis of the foot passes a rod M the upper portion of which is preferably bifurcated at M^1 and carried into hooked engagement with the portion C^1 of the frame C. At its lower end the rod is provided with an enlargement or disk N which is normally held below the foot by a light spring O coiled about the rod between the rubber pads, pressing a collar or stop P on the rod and reacting against the boss B^1 above it. The disk is of such size and is projected so far by the spring O that when the strip or bar H is moved to the right until its aperture has its larger portion in registry with the corresponding part of the aperture in the loop, the disk may be passed down through both apertures and into the plane of the strip G^1. If the strip H be then moved to the left until the rod M is held in the narrower portions of the two apertures, as shown in Fig. 2, the disk will be caught beneath the upper strip and securely held, and as the hook at the upper end of the rod is at the same time drawn down upon the part C^1 of the frame, the machine is securely held, it being of course understood that the like foot is used at each point of support of the machine.

Although the machine is locked to the table, it really rests freely upon the spring feet and is free to move downward from the hooks which however resist its increasing its distance from the table. If the machine be detached from the table and be placed upon a plane surface, the light spring O yields and the disk rises into a recess in the bottom of the foot, so that the machine again rests upon and is supported wholly by its spring feet.

Any suitable bushing Q may be provided for the rod M, if desired.

It is to be noted that the foot may be used with structures other than typewriters, and that for certain purposes, such as supporting certain kinds of musical instruments, for example, the sliding rod with its hooks and disk may be omitted, together with the devices for securing the foot to the table.

What I claim is:

1. In apparatus of the class described, the

combination with a metallic spring coil, of yielding non-metallic pads abutting the ends of the coil, respectively, and an elastic non-metallic sleeve inclosing the coil and pads.

2. The combination with a metallic spring coil, of rubber pads covering the ends, respectively, of the coil and provided with bosses fitting therein, and a longer and normally smaller soft rubber sleeve stretched over the coil and pads and forming annular bearing flanges upon the outer faces of the latter.

3. The combination with a vibration-absorbing foot, of a longer rod sliding in the axis of the foot, having its upper end adapted to engage the structure to be supported, and its normally projecting lower end adapted to be engaged and held by devices secured to a table or the like.

4. The combination with a table, of a vibration-absorbing foot, devices projecting above the foot to engage the structure to be supported and below the foot to be engaged by retaining devices, and retaining devices carried by the table and adapted to be moved into and out of engagement with the devices projecting from the foot.

5. The combination with a vibration-absorbing foot, of an axial rod sliding longitudinally in the foot and provided at its upper end with a hook for engaging the structure to be supported and at its projecting lower end with a disk to be engaged by devices carried by a table, and a light spring yieldingly holding said disk below the body of the foot.

6. The combination with a table of a raised loop secured to the same and provided with a V-like aperture, a slide movable in the loop and provided with an analogous but oppositely turned aperture, and means for locking the slide.

7. The combination with a table and foot engaging devices secured thereto, of a vibration-absorbing foot adapted to support a structure above the table and provided with a central recess in its lower end, a rod sliding in the axis of the foot and having a disk at its lower end to be engaged by said devices, and a spring yieldingly resisting the rising of the disk into said recess.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM H. SHERWOOD.

Witnesses:
H. QUEEN,
E. E. FORD.