No. 811,800. PATENTED FEB. 6, 1906.

W. A. SMALL.

ROLLER FOR TYPE WRITERS.

APPLICATION FILED AUG. 15, 1904.

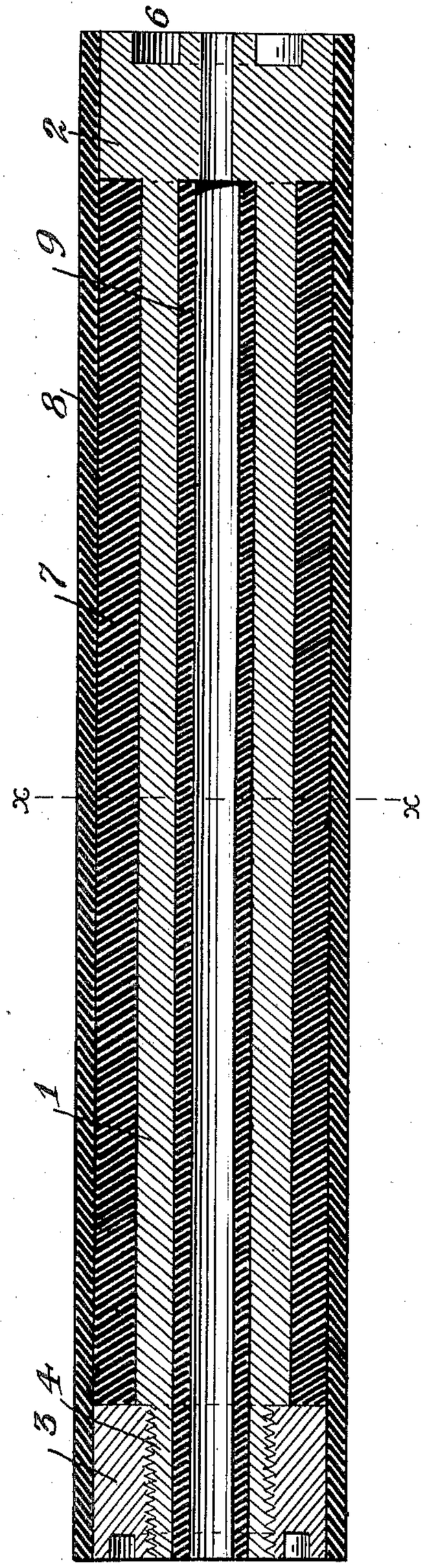

FIG. 1

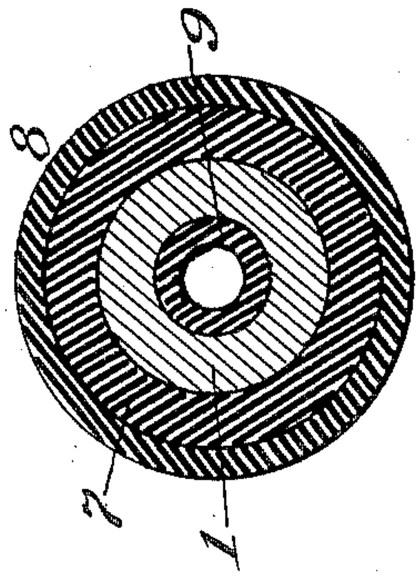

FIG. 2

WITNESSES:

M. Seely
H. B. Churchill

INVENTOR:

William A. Small,
by Spear & Seely Attys.

UNITED STATES PATENT OFFICE.

WILLIAM A. SMALL, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO NOISELESS TYPEWRITER COMPANY, A CORPORATION OF CALIFORNIA.

ROLLER FOR TYPE-WRITERS.

No. 811,800. Specification of Letters Patent. Patented Feb. 6, 1906.

Application filed August 15, 1904. Serial No. 220,850.

To all whom it may concern:

Be it known that I, WILLIAM A. SMALL, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Rollers for Type-Writers, of which the following is a specification.

My invention relates to rollers or platens for type-writers; and the objects of my invention are to provide a roller which shall render the operation of type-writing machines more nearly noiseless than heretofore, to make a more durable roller, and to reduce the wear on the type, especially when hard or hard-surfaced sheaths are employed to receive their impact. I accomplish these objects by means of one or more soft-rubber cushions inclosed within the outside sheath and which cannot harden, because they are entirely inclosed, covered, and protected.

An embodiment of my invention is shown in the accompanying drawings, in which—

Figure 1 is a longitudinal section of my roller. Fig. 2 is a cross-section of the same, taken on the line *x x* of Fig. 1.

The supporting structure of the roller is a hollow tube 1, preferably of wood and having at one end an integral enlarged head 2, as shown in Fig. 1. At the other end is a similar enlarged head 3, which is detachable, preferably by means of screw-threads such as shown, between the head 3 and the reduced end 4 of the wooden tube. The wooden heads are shown as having recesses 5 6 to receive the metallic end plate and also the ratchet-plate, which are ordinarily associated with such rollers. In the space surrounding the wooden center and between the enlarged heads is a packing or cushion 7, which is made of soft rubber, preferably Para rubber of good quality. This packing may be a hollow tube or cylinder of rubber separately manufactured and of a size to properly fit the space and lie flush with the heads, or it may be molded of rubber upon and around the wooden tube in the same position. Then the exterior sheath 8, of hard, soft, or medium rubber, is placed in position so as to cover and inclose the cushion and both heads.

In addition to the cushion heretofore described I consider it desirable to employ a second and interior cushion 9 in order to insulate the wooden tube from the metal rod which passes through the center and forms the journals of the roller. I have therefore illustrated such an interior cushion, which is a soft-rubber tube which makes a substantially close fit between the inner surface of the wood and the longitudinal rod.

By the construction described the entire working surface of the sheath is underlaid by a soft elastic cushion which is not exposed, and hence retains its soft elastic qualities during long use. In addition the central cushion acts as an elastic backing for the wood, which ordinarily is in contact with the metal rod and forms an additional factor in the comparative noiselessness of machines equipped with my rollers.

Rollers or platens constructed according to my invention possess all the advantages of hard, soft, or medium surfaced platens, according to which of these kinds of sheath is used, and have their own special advantages in that noise is to a great extent overcome, while at the same time the durability of the platen is greatly increased, hardening of the surface in use is prevented, danger of injury to the type reduced, and the life of such type lengthened. In obtaining these advantages I in no way detract from the alinement, clearness of impression, or manifolding qualities possessed by various kinds of type-writers equipped with ordinary rollers or platens.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A roller for type-writers comprising a hollow wooden body having an enlarged head at one end thereof, a wooden sleeve having a threaded engagement with the other end thereof, a soft-rubber tube encircling the wooden body between the head and sleeve, and an external sheath encircling the tube and head and sleeve, substantially as described.

In testimony whereof I have affixed my signature, in presence of two witnesses, this 19th day of July, 1904.

WILLIAM A. SMALL.

Witnesses:
L. W. SEELY,
M. R. SEELY.