

A. G. HUG.
TYPE WRITER ROLLER.
APPLICATION FILED AUG. 11, 1911.

1,053,180.

Patented Feb. 18, 1913.

2 SHEETS—SHEET 1.

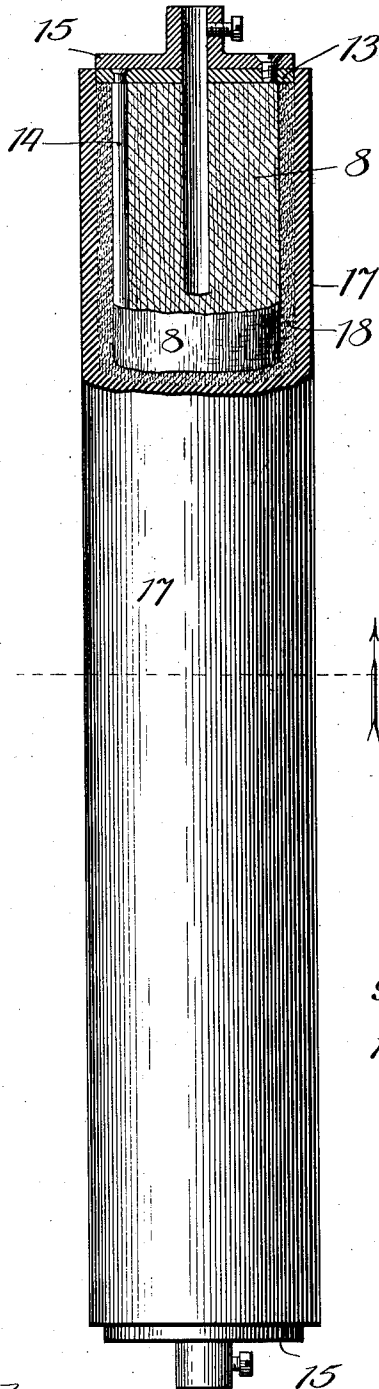


Fig. 1.

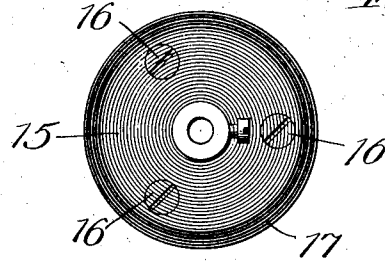


Fig. 2.

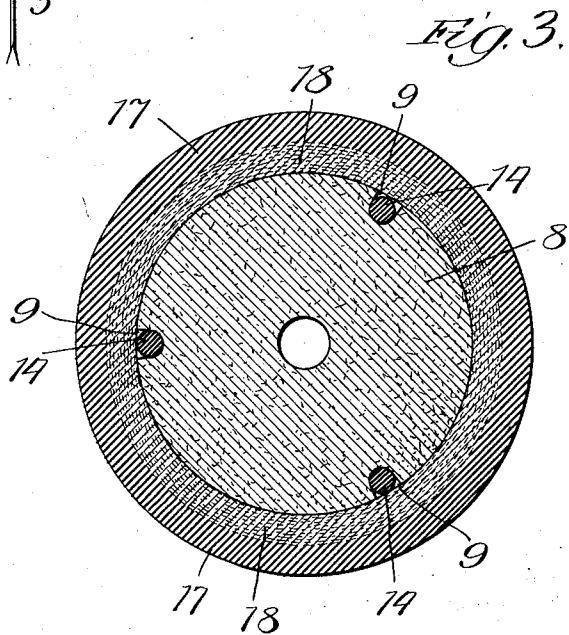


Fig. 3.

Witnesses:
E. S. Chayles,
Chas. A. Buell.

Inventor:
Alexander G. Hug,
By Dymally, Le, Chittori & Wilco,
Attys.

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2 SHEETS—SHEET 2.

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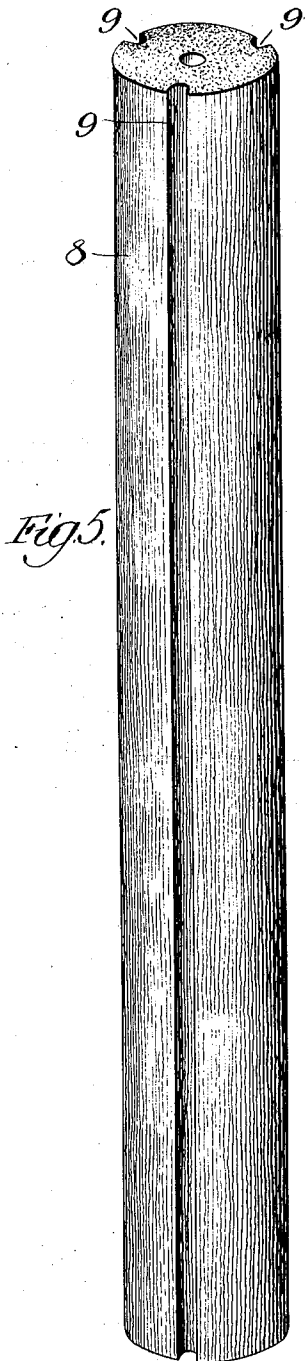


Fig. 5.

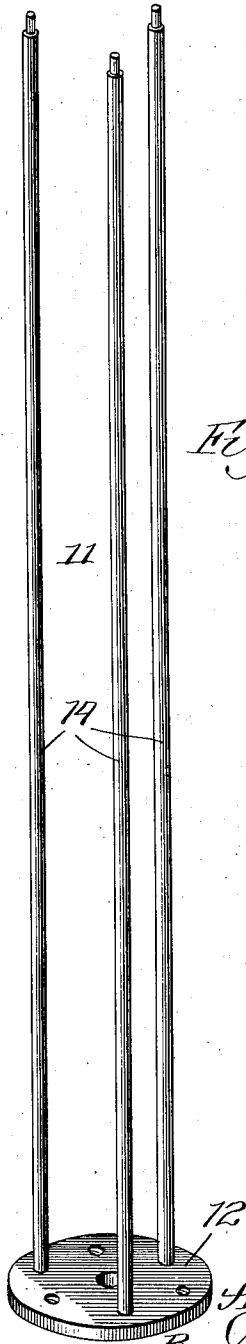
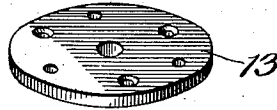


Fig. 4.

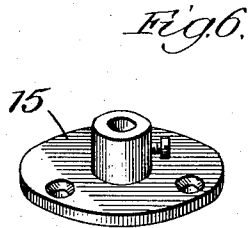


Fig. 6.

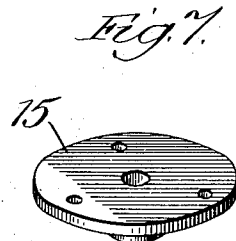


Fig. 7.

Witnesses:
Edw. J. Gaylord,
Chas. H. Buell.

Inventor:
Alexander G. Hug,
By Dyrnforth, Lee, Christian & Miles,
Attys.

UNITED STATES PATENT OFFICE.

ALEXANDER G. HUG, OF CHICAGO, ILLINOIS.

TYPE-WRITER ROLLER.

1,053,180.

Specification of Letters Patent.

Patented Feb. 18, 1913.

Application filed August 11, 1911. Serial No. 643,563.

To all whom it may concern:

Be it known that I, ALEXANDER G. HUG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Type-Writer Rollers, of which the following is a specification.

My invention relates to an improvement in the class of platens for typewriting-machines, the construction of which is designed to reduce to the minimum the noise of the type in striking.

The object of my improvement is to provide a novel construction of roller in the class referred to which shall greatly enhance its quality of noiselessness in the particular referred to.

In the accompanying drawings, Figure 1 is a view in elevation, partly broken and sectional, of my improved platen; Fig. 2 is an end view of the same; Fig. 3 is an enlarged section on line 3, Fig. 1; Fig. 4 is a perspective view of a skeleton-frame for reinforcing the platen-core, with one core-head shown in unassembled relation to the remainder of the frame; Fig. 5 is a perspective view of the core, and Figs. 6 and 7 are perspective views of the bearing-heads of the roller, which are secured to the core-heads.

The core 8, which is preferably of cylindrical shape and which forms the salient feature of my invention, is composed of a wood of pith-like consistency possessing, in a very high degree, the qualities of fibrousness, lightness, softness and non-resilient yieldingness to pressure exerted against the surface of the core. As the preferred wood for my purpose I use that of the yucca palm, as being extremely fibrous and light, and soft and yielding without elasticity, whereby it is peculiarly adapted for deadening noise. The cylinder 8 is formed by cutting this wood into proper shape and providing it, or not, with a plurality of longitudinal grooves 9 at uniform intervals in its surface, and with a central bore 10 for a sustaining-rod (not shown). This cylinder is reinforced by a skeleton-frame 11, consisting of disk-shaped metal heads 12 and 13, with metal rods 14 connecting them, preferably by being riveted at their shouldered ends in holes provided for them in the head 12, and riveting their similar opposite ends in holes provided to admit them in the head 13, but after the frame, minus

the last-named head, has been applied to the core. To so apply the frame the rods 14 may be introduced into the grooves 9 or, if no grooves be provided (and there is no material need of providing them) the rods may be passed lengthwise through the substance of the cylinder, which is easily penetrable by them because of the light, fibrous and soft quality of the wood, when the head 13 may be permanently fastened to the protruding rod-ends. Similar bearing-heads 15, 15 are secured to the core-heads, as by means of screws 16 (Fig. 2). The core is inclosed in an external cylindrical sheath 17 of rubber vulcanized to any desired degree of hardness; and between this sheath and the core is interposed about the latter a suitably thick layer or filling 18 of rubber of the character known in the art as "sponge" rubber, which is light in weight, soft and at the same time resilient, and very durable by reason of its property of resisting the hardening effect on rubber of oxidation. It is preferred to form the resilient filling 18 integral with the inner surface of the platen-sheath 17, as indicated, which may be done by cementing and vulcanizing it thereon.

The impact of the type of a type-writing machine against the sheath, as usual, is opposed by the resilient action of the lining 18, with the effect of causing the type to rebound and thus attack the roller with a light stroke, much like that of the rebounding hammer in a piano-action, whereby the type engagement with the ribbon of the machine is rendered comparatively light and the life of the ribbon is prolonged, since less of its ink-content is thereby expended. The soft, yielding and non-resilient qualities of the core tend to deaden the noise of the type-stroke and thus to render the operation of the machine noiseless; and the core, by reason of the peculiar character of the wood composing it, is so light in weight that, even with the metal of its frame 11 added, my improved roller remains adequately light to avoid overweighting the reciprocating carriage of a machine equipped with it.

The cylinder 8 of pith-like fibrous wood is an important feature of my improved roller, but the lining 18 of spongy rubber, or rubber that is soft and of light weight relatively to that of the sheath 17 and which is preferably integral therewith,

is an equally important feature and adapts the sheath, composed of the two varieties of rubber, to be used, with the advantages referred to, with a core of ordinary solid
5 wood, which should, by preference, be of a soft and light-weight variety; and I intend to be understood as including such construction within my invention. When this last-described construction is employed, the
10 frame 11 may be dispensed with, since the core does not require to be reinforced by any frame.

What I claim as new and desire to secure by Letters Patent, is—
15 A type-writer roller comprising, in com-

bination, a cylindrical core composed of wood and provided with a central longitudinal bore, a skeleton-frame consisting of rods extending lengthwise through the core and disk-shaped heads at the core-ends connected by the rods, disk-shaped bearing-heads secured to the core-heads, a rubber sheath about the core and a filling of sponge-rubber between the sheath and core, for the purpose set forth. 20

ALEXANDER G. HUG.

In presence of—

J. G. ANDERSON,
R. A. SCHAEFER.