

No. 860,559.

PATENTED JULY 16, 1907.

E. NOGUERA.
TYPE WRITER CYLINDER.
APPLICATION FILED JUNE 13, 1906.

Fig. 1.

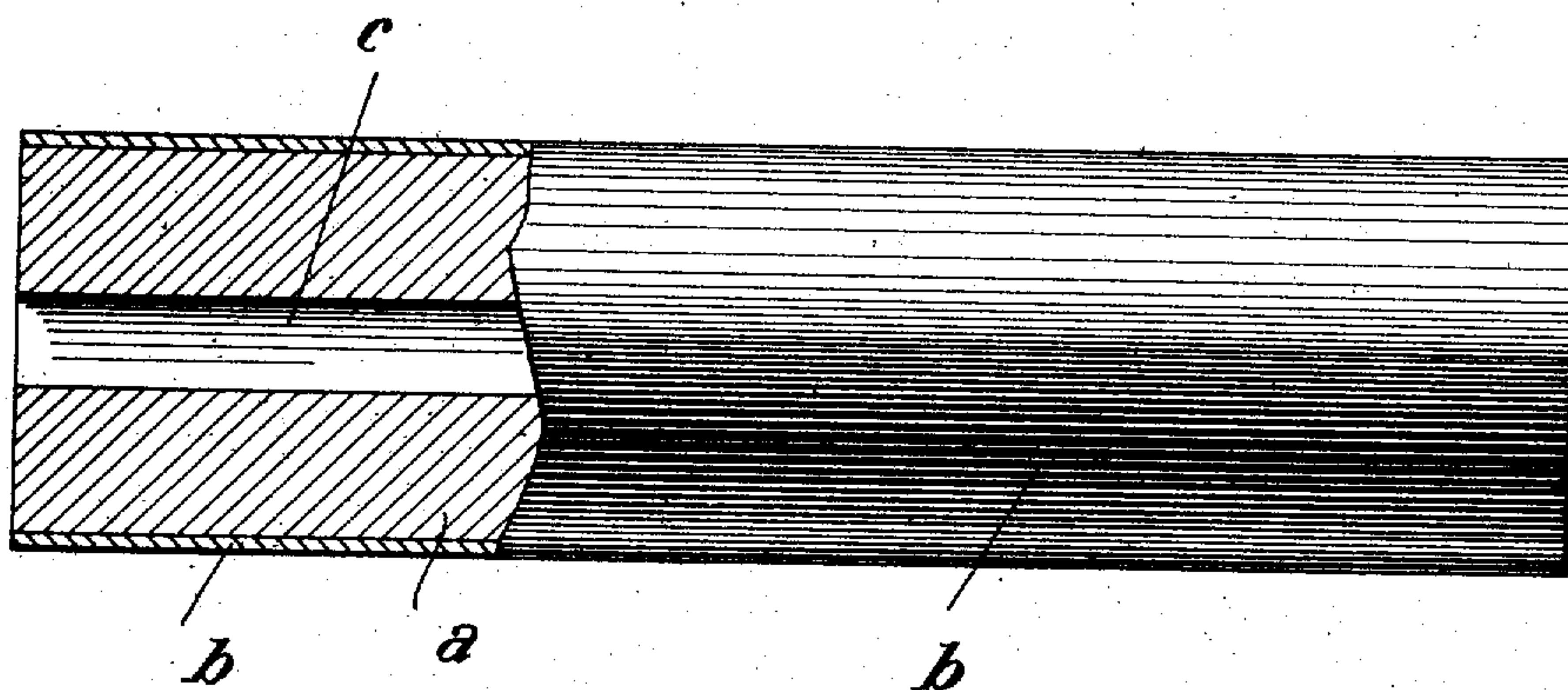
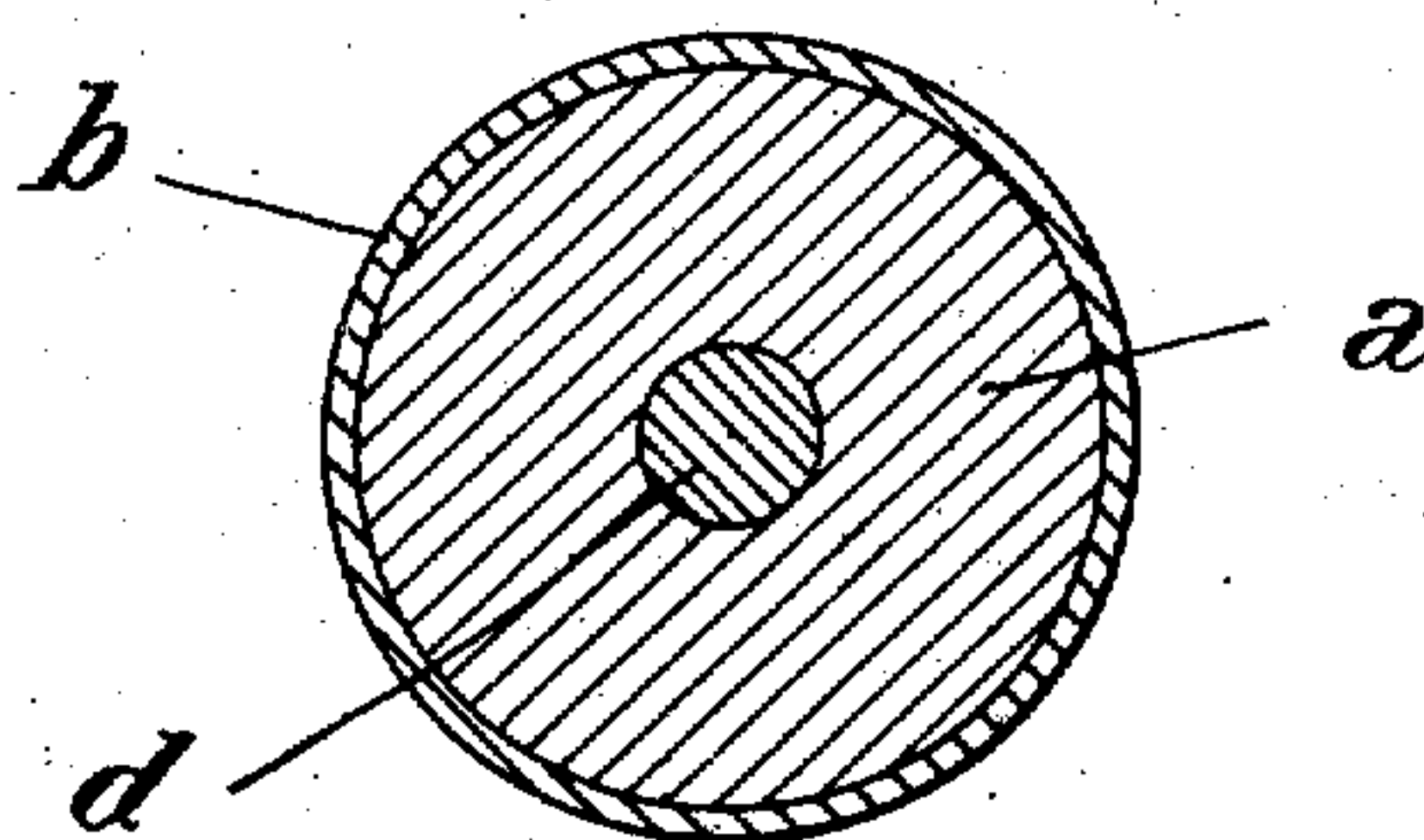


Fig. 2.



Witnesses:
C. Merkel
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Inventor:
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by William P. O'Keefe
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UNITED STATES PATENT OFFICE.

ENRIQUE NOGUERA, OF BARCELONA, SPAIN, ASSIGNOR TO PABLO RIENÄCKER, OF BARCELONA, SPAIN.

TYPE-WRITER CYLINDER.

No. 860,559.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed June 13, 1906. Serial No. 321,463.

To all whom it may concern:

Be it known that ENRIQUE NOGUERA, engineer, a citizen of Spain and subject of the King of Spain, residing at Barcelona, Notariado 8, Spain, has invented certain new and useful Improvements in Type-Writer Cylinders, of which the following is a full, clear, and exact description.

The type writer cylinders hitherto used have the disadvantage that in consequence of hard rubber being employed in their manufacture and their being loosely mounted on the cylinder shaft, they cause a clattering noise which, particularly when several typewriters are in the same room, greatly disturbs and hinders those at work in the room.

A further disadvantage of the cylinders hitherto used is that, when they have been in use for a long time, holes or projections form on the surface and prevent the writing from being uniform.

This invention is intended to obviate these disadvantages.

This purpose is effected by suitably covering a cylinder of suitably light material, wood for example, with a suitably flexible body of sufficient strength. The body must possess a degree of softness that will moderate the strokes of the types, that is will be noiseless but the softness must not be so great that the types when struck will penetrate the material.

While the typewriter cylinders hitherto used are made of hard rubber, the novelty of this invention consists in the employment of soft rubber, which is so treated with suitable substances (varnish or rosin) that the upper surface of the cylinder is suitably hard and strong while the requisite flexibility is insured.

Whereas the hard rubber cylinders hitherto employed are bodies which are rigid throughout their thickness and consequently cause the difficulties described above, cylinders made according to the present invention have the advantage of being soft enough up to the core (wood) to yield to the flexible pressure produced by the striking of the types, while the surface struck is sufficiently hard to insure a permanently rigid contact surface, whereby the types when

struck are provided with an even printing surface for producing distinct characters.

The invention is illustrated in the accompanying drawing, Figure 1 being a side elevation partly in longitudinal section Fig. 2 a transverse section.

a is a wooden cylinder bored in a longitudinal direction, and forming the core of the cylinder, *b* is the soft rubber covering surrounding the wooden core, the latter serving for the reception of the shaft *d*, the boring *c* being so made that the shaft *d* suitably fits into it.

The soft rubber cover *b* surrounding the wooden core *a* is impregnated with suitable substances such as varnishes, copal-varnish for example, or copal-varnish mixed with spirit, in order to make its surface sufficiently strong. This varnish penetrates the rubber covering to a certain depth and prevents the striking of the types on the cylinder and the continuous use of the latter from producing temporary or permanent depressions, an object also furthered by the employment of the wooden core.

The resistant property of the cylinder may also be increased by covering the wooden core *a* with the same kind of varnish as the soft rubber cylinder *b*.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A type writer cylinder consisting of a wooden cylindrical core, and a sheathing of soft rubber, the latter being impregnated with a suitable varnish substantially as described.

2. A type writer cylinder consisting of a cylindrical wooden core, and a sheathing of soft rubber, the latter being impregnated with a hardening varnish and the surface of the core coated with a similar material.

3. A type writer cylinder, consisting of a wooden cylindrical core and a sheathing of soft rubber, the latter being impregnated with copal varnish.

In witness whereof, I subscribe my signature, in presence of two witnesses.

ENRIQUE NOGUERA.

Witnesses:

BENJ. H. RIDGELY,
STANLEY C. HARRIS.