

No. 822,772.

PATENTED JUNE 5, 1906.

G. W. ROBINSON.

ROLLER FOR WASHING, WRINGING, MANGLING, AND OTHER SIMILAR  
MACHINES.

APPLICATION FILED APR. 14, 1905.

FIG. 1.

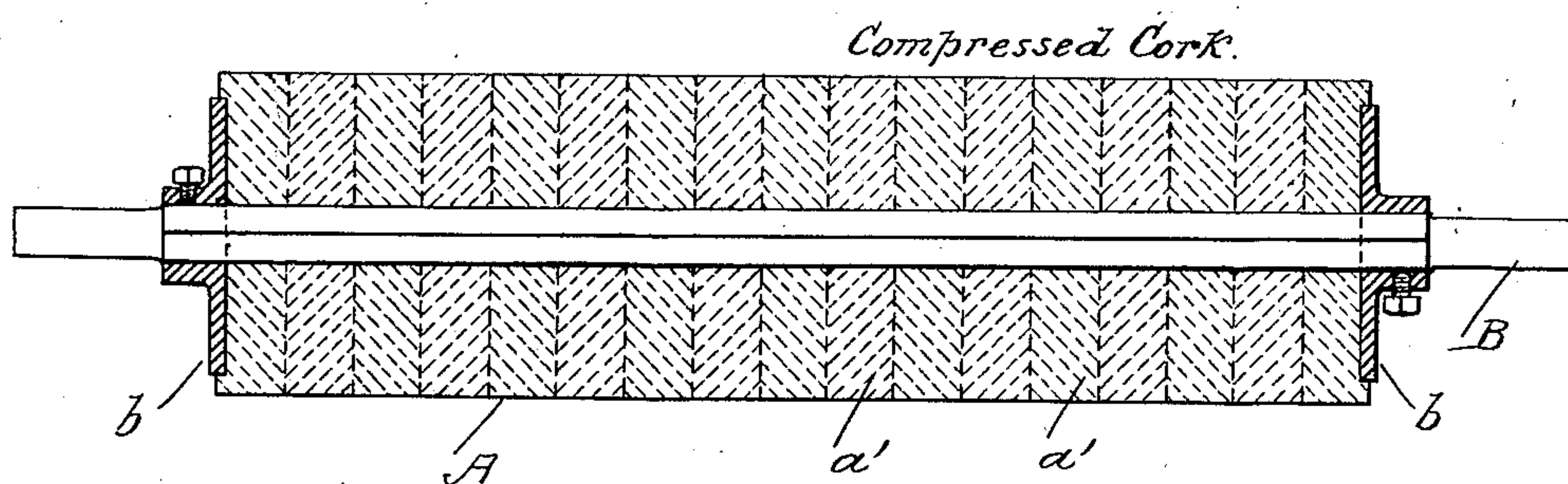
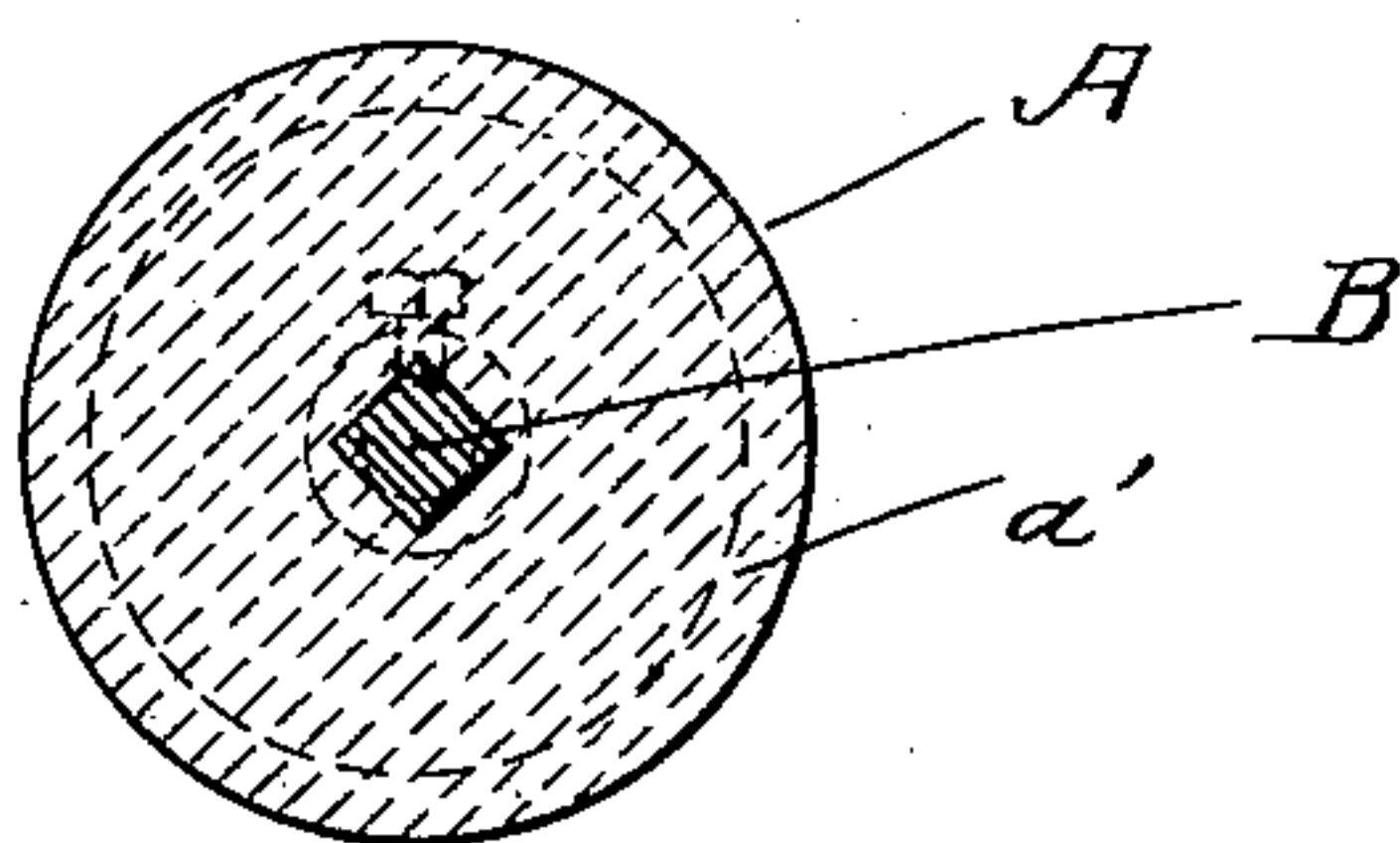


FIG. 2.



WITNESSES

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# UNITED STATES PATENT OFFICE.

GEORGE W. ROBINSON, OF PORTALEGRE, PORTUGAL.

ROLLER FOR WASHING, WRINGING, MANGLING, AND OTHER SIMILAR MACHINES.

No. 822,772.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed April 14, 1905. Serial No. 255,870.

*To all whom it may concern:*

Be it known that I, GEORGE WHEELHOUSE ROBINSON, a member of the firm of Robinson Bros., Cork Growers, Limited, and a subject of the King of Great Britain, residing at Corredoura, Portalegre, in the Kingdom of Portugal, (whose postal address is Horton street, Halifax, in the county of York, England,) have invented new and useful Improvements entitled Improvements in Rollers for Washing, Wringing, Mangling, and other Similar Machines, of which the following is a specification.

This invention relates to rollers of washing, wringing, mangling, and other similar machines.

The object of my invention is to construct said rollers of a material and in a manner that will be unaffected by the action of water or other moisture or torsional or peripheral friction, will give good results under pressure, retain their straight and parallel surfaces, be easily cleaned, and greatly increase their durability.

In the drawings, Figure 1 is a longitudinal section through a roller constructed according to this invention, and Fig. 2 is a cross-section through the same.

In constructing my improved roller I form or manufacture the same from slabs or disks of cork constructed or built up in a particular manner—that is, each block is composed of a number of solid cork slabs or disks or from layers of granulated cork or cork-dust. These cork slabs or disks or the layers of granulated cork or cork-dust, as the case may be, are subjected to a series of great pressures within a suitable hydraulic or the like press and bound together or compressed into a homogeneous whole.

In order to obtain a permanent and effectual adhesion of the several slabs, disks, or layers aforesaid, I treat the component parts as follows: In using slabs or disks of which I preferably construct my improved rollers I place two slabs within a suitably-shaped chamber or cylinder supported within a suitable framework and subject them (by means of a hydraulic press) to a great pressure—say two or three thousand pounds to the square inch, more or less, as found suitable. The ram of the press is then raised and a third slab introduced, the pressure again applied, the ram again raised, a fourth slab introduced to the cylinder, pressure once more applied, and so on alternately adding

a slab and applying the pressure until the block within the cylinder or chamber is of the desired length. Each pressure permanently fixes or attaches the last-added slab or disk to the rest of the block.

When employing granulated cork or cork-dust, a suitable quantity (preferably representing two subsequent layers) is placed within the pressure chamber or cylinder and pressure applied, as aforesaid, after which a regulated uniform quantity or layer of loose material is added and pressure applied alternately until the desired length of block is obtained. The slabs or disks, as well as the several layers of loose material, are by these alternate introductions and pressures bound or compressed into a solid block capable of being turned down into a roller for the purposes before described.

A is the roller, constructed of cork disks  $a'$ , as hereinbefore set forth, and mounted on a shaft B between end plates  $b$ .

The block upon being cut or turned down and made cylindrical presents a smooth and uniform periphery unaffected by water, temperatures, varying degrees of moisture, dyes, or peripheral friction. Further, rollers of this construction are not liable to retain or exude dyes or other undesirable coloring-matter which previously they may have come in contact with.

In rollers for domestic or laundry purposes, especially for mangling, I propose to fill up the natural recesses or depressions which occur in the cork by treating their peripheral surfaces with a solution or paste composed of materials or substances impervious to and unaffected by hot water, such as alcohol and shellac in equal parts, calcium phosphate, and boiled linseed-oil, the shellac to be dissolved in the alcohol and mixed with the calcium phosphate and linseed-oil until they form a paste, or in place of this preparation I may employ animal glue and add two per cent. of potassium bichromate. After using either of these pastes for the aforesaid purpose and exposing the roller so treated to bright sunlight for one to six months the said filling becomes impervious to hot water. I may employ any other ingredient or substance or a combination of ingredients or substances for this purpose, as found suitable, or I may dispense with their use, as desired.

After the block of compressed cork has been bored and made cylindrical of the required diameter it is preferably clamped be-



tween metal disks or flanges, one at each end, slightly less in diameter, and mounted upon the roller-shaft. It is then ready for placing in the machine.

5 What I claim as my invention, and desire to secure by Letters Patent, is—

A roller formed of layers of cork consolidated into a homogeneous body by pressure and having the small cavities in its surface

filled with a waterproof cement formed of animal glue and bichromate of potash hardened by exposure to light.

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

GEORGE W. ROBINSON.

Witnesses:

W. MICKIE,

CARLOS JOSÉ DAHM.