

No. 776,842.

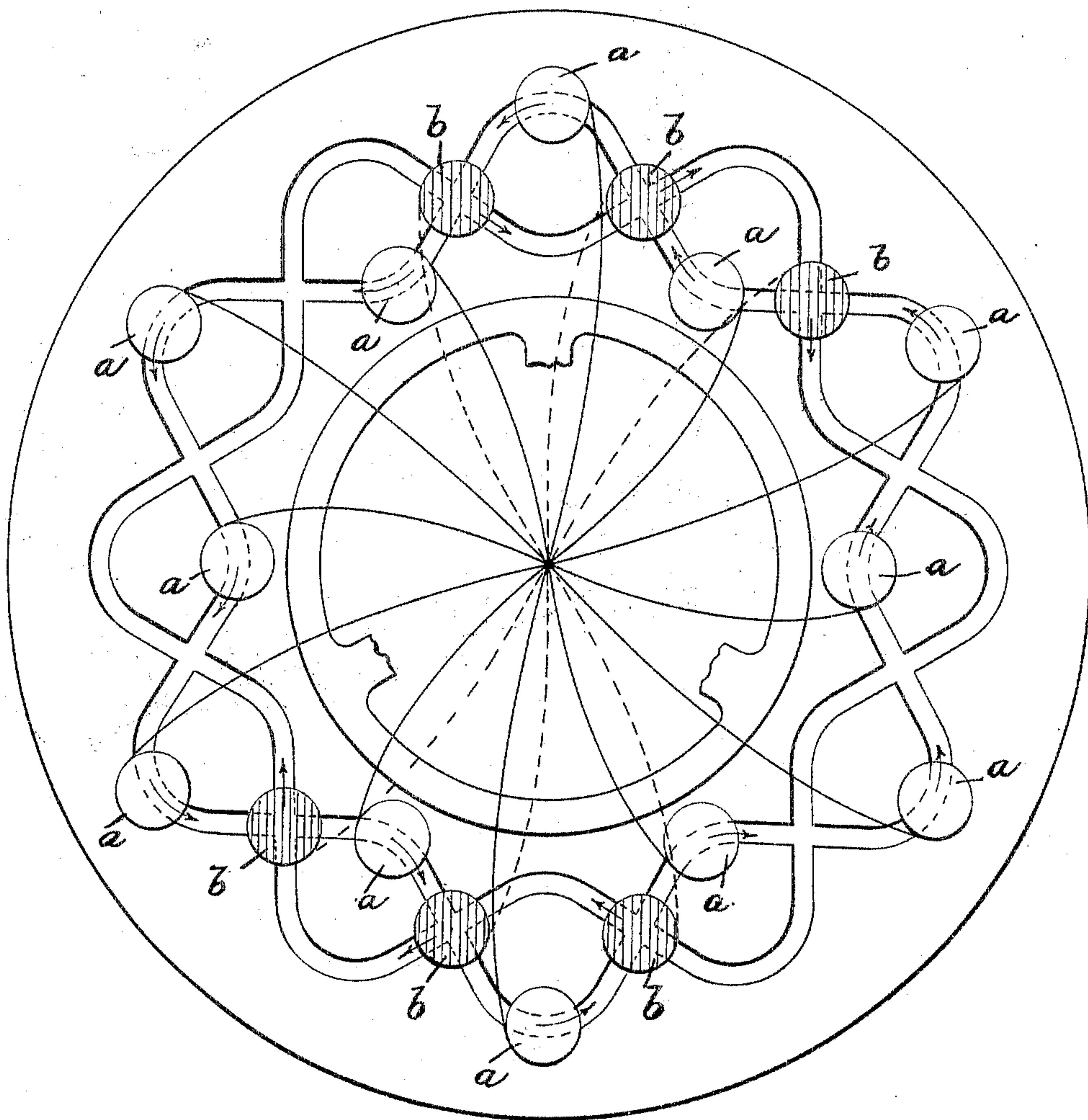
PATENTED DEC. 6, 1904.

T. HORWOOD.  
BRAIDED CORD.

APPLICATION FILED APR. 27, 1903.

SPECIMENS.

*Fig. 2.*



*Fig. 1*



Witnesses:

*Geo. T. Warwick*

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# UNITED STATES PATENT OFFICE.

THOMAS HORWOOD, OF WESTFIELD, MASSACHUSETTS.

## BRAIDED CORD.

SPECIFICATION forming part of Letters Patent No. 776,842, dated December 6, 1904.

Application filed April 27, 1903. Serial No. 154,477. (Specimens.)

*To all whom it may concern:*

Be it known that I, THOMAS HORWOOD, a citizen of the United States of America, and a resident of Westfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Braided Cords, of which the following is a full, clear, and exact description.

This invention relates to a certain new description of plaited or braided cord.

The object of this invention is to produce a plaited or braided cord which while having the general external appearance of a twisted-strand cord characterized by a plurality of spiral entwining-ribs has all the attributes of a braided cord; and the invention consists in a braided cord having a series of the threads or strands thereof which are coursed in one direction widely unequal in number from threads or strands combined with the first series which are coursed in the opposite direction, whereby all the strands drawn into the closely-braided relations produce the cord having the spirally or helically ribbed exterior, the ribs being composed or formed from the more numerous strands.

I have fully and clearly illustrated my invention in the accompanying drawings, wherein—

Figure 1 is a side view of a cord produced by a braiding according to this invention. Fig. 2 is a diagrammatic view of an ordinary braiding-machine, showing the relative arrangement of the racers or bobbin-carriers as employed in the production of the invention.

In carrying out my invention the cord-like fabric is produced in an ordinary braiding-machine, which, for instance, may be a twenty-four racer and twenty-four-thread-carrying machine, and the twelve racers shown at *a*, Fig. 2, are utilized to carry their respective threads in one direction and six of the reversely-running racers are omitted or rendered non-effective, the remaining six in two sets of three each at opposite sides of the machine being utilized to carry the threads in courses opposite from those of the first-mentioned twelve racers, as shown at *b*, and with no other change or modification in the braiding-machine the same by being

continuously run in the usual manner with the exception stated will braid the cord solid, having the characteristics set forth and the aspect more or less such as represented in the drawings. The relative arrangement of the racers or bobbins is clearly shown in the diagrammatic view embodied in Fig. 2 of the drawings.

The cord-like fabric such as described is especially available for whip-lashes and has desirability over the ordinary three-strand cord whip-lashes, which are knotted near the ends, while the same at the very ends outside of the knot are raveled.

The whip trade demands lashes having the spirally-ribbed aspect; but such lashes in the form of the three-strand cord knotted at the extremity are of short life, for after some use the knot becoming broken away the lash quickly unravels and becomes useless.

A lash made of the braided cord-like fabric, as described, requires no knot at its extremity; but by unbraiding or raveling with a sharp-pointed instrument the end portion the proper lash end is produced, and thereafter in extended use will not cause a harmful degree of further raveling. This cord-like fabric is otherwise useful, for instance, as a cleaning-cord for bores of many-passaged parts, the character of the external surface of the cord, the strands of which are braided instead of wound or entwined spirally, operating as a much better cleaning agent than a twisted-strand cord. The cord thus produced is also attractive and slightly and would be desirably used as the cords for curtains and other purposes where the ordinary plain-surfaced braided cords are at present utilized.

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

1. As a new article of manufacture, a cord the body of which is composed of a plurality of strands braided together and having an exterior helical rib, said rib being formed of portions of the strands composing the body of the cord.

2. As a new article of manufacture, a braided cord composed of two sets of strands coursed in opposite directions, one set of strands being

greater in number than the other, the arrangement being such that the finished article is provided with a helically-ribbed exterior.

3. As a new article of manufacture, a braided  
5 cord composed of two sets of strands coursed in opposite directions, one set of strands being greater in number than the other.

Signed by me at Springfield, Massachusetts,  
in presence of two subscribing witnesses.

THOMAS HORWOOD.

Witnesses:

A. V. LEAHY,

WM. S. BELLOWS.