

(No Model.)

J. WILLIAMS, Jr.
FIBROUS LUBRICATOR.

No. 409,721.

Patented Aug. 27, 1889.

Fig. 1.

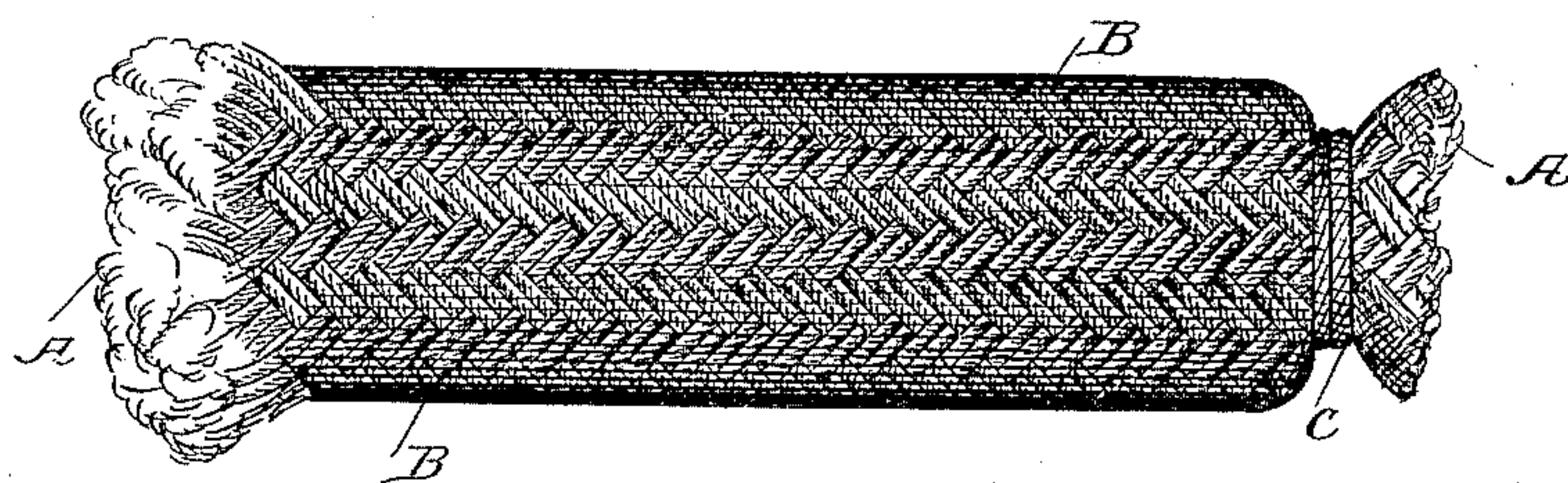


Fig. 2.

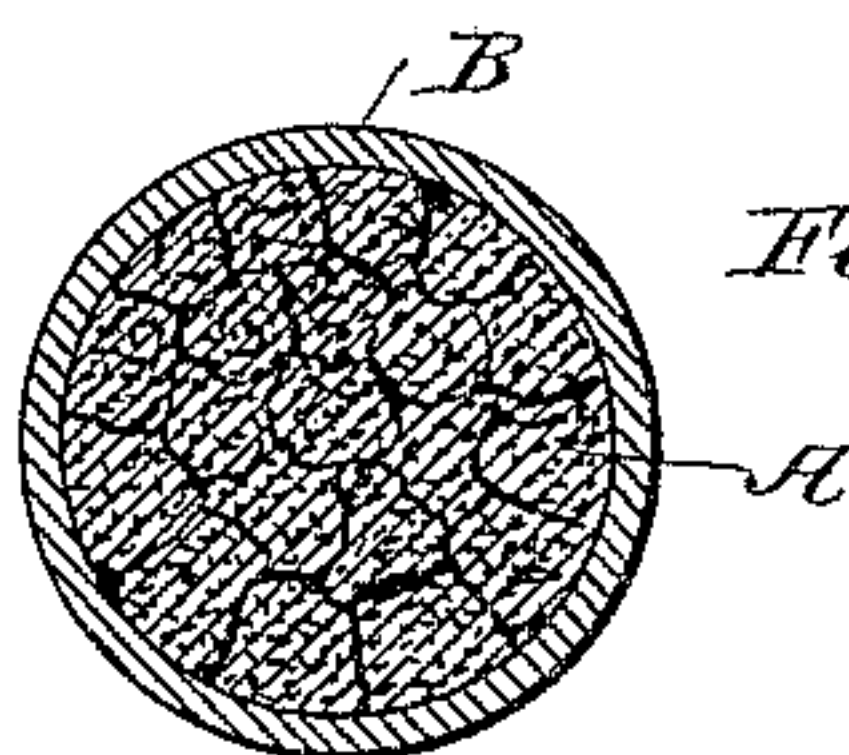
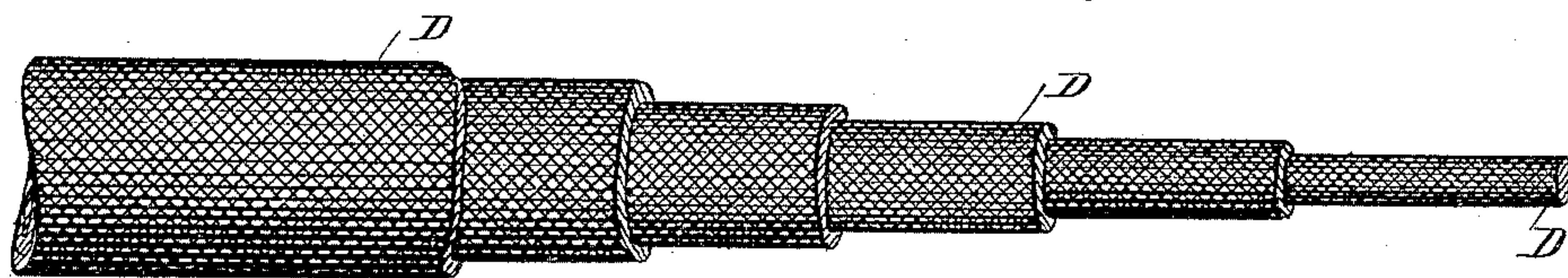


Fig. 3.



Witnesses:

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Per. O. D. Lewis

Att'y.

UNITED STATES PATENT OFFICE.

JOSEPH WILLIAMS, JR., OF PITTSBURG, PENNSYLVANIA.

FIBROUS LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 409,721, dated August 27, 1889.

Application filed April 10, 1889. Serial No. 306,725. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH WILLIAMS, Jr., a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Fibrous Lubricators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved fibrous lubricator for lubricating journal-bearings; and it consists in a fibrous cylindrical body saturated with a stiff lubricant and adapted to be placed upon the journal in a manner that when the same becomes warm or heated by friction a sufficient quantity of the lubricant will be discharged from the fibrous substance to properly lubricate the journal, as will be fully set forth hereinafter.

In the accompanying drawings, Figure 1 is a side view of a fibrous substance such as I prefer to use in connection with my invention. Fig. 2 is a cross-section of the same. Fig. 3 is a side elevation of a fibrous body constructed somewhat different from that before described.

To put my invention into practice, I form from cotton, hemp, wool, or any other like fibrous material A a long continuous rope loosely bunched together, making the same springy and pliable. Over this fibrous material A is a plaited covering B, woven from the same material or of a substance and of a like nature. The object of this covering B is to prevent the lubricant from flowing too freely and to keep the fibrous substance in a body. This fibrous body when completed is placed in a kettle or boiler partially filled with a suitable stiff lubricant, which has been reduced to a liquid condition by heat. The one end of the fibrous body, after the same has been thoroughly saturated by the lubricant, is passed through a circular opening in the cover of the boiler, the said opening being of the same diameter as that of the fibrous body, which, when the same is drawn through the opening, scrapes and removes a greater part of the lubricant from the outside of the cover B. While this operation is going on the

fibrous body is tied by a piece of twine C at regular intervals and of a length suitable to the size of the journals for which they are intended, and then wound in continuous coils, which puts the same into marketable shape.

When desired to lubricate a journal of a roll or other bearing, a section is cut from the fibrous body and placed on the top of the same in the direction of its length. When the journal becomes warm by friction, the lubricant contained in the fibrous body is reduced into a semi-liquid condition and escapes through the pores of the cover B in a quantity proportioned to the temperature of the journal, thereby preventing any waste of the same. The ends of each of these sections are carefully closed by tying the same with a cord, which prevents the lubricant from flowing too freely from the interior of the rope.

Although I have shown only one end of the woven fibrous covering B closed and tied by the cord c in Fig. 1 as an example of the manner of confining the semi-fluid lubricant within the fibrous body, yet I would have it understood that in practice I close both ends of the fibrous body in the same manner as shown in the example here given, as will be perfectly obvious to those skilled in the art.

In the modified form of my invention shown in Fig. 3 I use a series of woven layers D of fibrous material. These layers are made of a suitable fibrous substance and closely woven in a cylindrical form one upon the other until a fibrous body of the desired diameter and length is secured, after which the ends of the body are closed in any suitable way or tied up, as in the example shown in Fig. 1; or the ends may be left open.

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

1. As a new article of manufacture, a lubricator consisting of a fibrous absorbent core and a fibrous cylindrical covering woven closely together and around the core, whereby when the fibrous body formed by the core and covering is saturated with a lubricant the covering becomes rigid and has its pores and interstices closed to retain the lubricant in the core, substantially as and for the purpose described.

2. As a new article of manufacture, a lubri-

cator consisting of a fibrous absorbent core and a fibrous covering woven closely together and around said core, the ends of the body being closed substantially in the manner and
5 for the purpose described.

3. As a new article of manufacture, a lubricator consisting of a core and covering composed of a series of closely-woven fibrous layers, which are graduated in diameter and fit-

ted closely around one another, substantially 10 as and for the purpose described.

In testimony that I claim the foregoing I hereunto affix my signature this 26th day of March, A. D. 1889.

JOSEPH WILLIAMS, JR. [L. S.]

In presence of—

FRANK W. SMITH,
M. E. HARRISON.