

# UNITED STATES PATENT OFFICE.

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## PACKING FOR JOURNALS.

SPECIFICATION forming part of Letters Patent No. 411,326, dated September 17, 1889.

Application filed May 13, 1889. Serial No. 310,638. (Specimens.)

*To all whom it may concern:*

Be it known that I, HARRIETT B. DEVLAN, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented new and useful Improvements in Packings for Journals, of which the following is a specification.

This invention has for its object to provide a new and improved lubricating-packing for journal-boxes, which is more heat-resisting and tends to cool the axle more effectually than the packing for which I obtained Letters Patent No. 146,883, dated January 27, 1874.

The present invention consists, essentially, in a packing compound comprising bamboo fiber and porous elastic fibrous material, such as sponge.

I have discovered that bamboo fiber in a lubricating-packing for journal-boxes is very useful, as it is heat-resisting and tends to more effectually cool the axle than any lubricating-packing containing elastic fibrous materials of which I am aware.

The bamboo fiber and sponge, or other porous elastic fibrous material, may be employed with a mineral substance possessing lubricating properties—such as asbestos, steatite, or graphite—and hair or like material may be incorporated in the packing, to aid in transmitting the oil or other lubricating material to the axle.

In carrying out my invention I take two pounds of bamboo fiber and mix therewith one pound of purified sponge divided into small pieces, and to this may be added one and a half pound of a mineral substance—such as asbestos, steatite, or graphite—and one pound of hair. These proportions give good results; but I do not wish to be understood as confining myself to any specific proportions, since they may be varied to suit the conditions required.

In lubricating compounds comprising waste materials of a fibrous nature I find that it is very desirable to produce an economical pack-

ing for journal-boxes that will be elastic, that will preserve the axle in a well-lubricated condition, and that will possess heat-resisting properties and tend to cool the axle.

In my present invention the tendency to cool the axle is greatly facilitated by the vegetable fiber of the bamboo-stalk, while the elasticity of the packing and correct supply of oil or other lubricant to the axle are provided by the sponge.

The bamboo fiber is impervious to heat, and will cool the axle more effectually than any vegetable fiber of which I am aware that may be incorporated with the packing compound. The sponge, when saturated with oil, becomes resilient, or elastic and springy, and acts as a fountain to supply the oil to the axle. The hair or like fiber, if used, aids the sponge in supplying the oil, and the mineral substance, if used, contributes to the lubrication and aids in preventing undue heating of the axle.

The sponge may be saturated with a thin solution of caoutchouc or other similar gum, to render it more durable and impart to the same a certain lubricating quality.

Having thus described my invention, what I claim is—

1. A packing for journal-boxes, comprising bamboo fiber and pieces of sponge, substantially as described.

2. A packing for journal-boxes, comprising bamboo fiber, pieces of sponge, and a mineral substance—such as asbestos, steatite, or graphite—substantially as described.

3. A packing for journal-boxes, consisting of bamboo fiber, pieces of sponge, hair, or like fiber, and a mineral substance—such as asbestos, steatite, or graphite—mixed together in about the proportions stated, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

HARRIETT B. DEVLAN.

Witnesses:

WM. J. ROUGEL,

ROBT. W. SOUTHING, Jr.