

UNITED STATES PATENT OFFICE.

FRANCIS RIKER AND HENRY DENNIS, OF BERGEN POINT, NEW JERSEY.

PACKING FOR AXLE BOXES AND BEARINGS.

SPECIFICATION forming part of Letters Patent No. 239,549, dated March 29, 1881.

Application filed October 27, 1880. (No specimens.)

To all whom it may concern:

Be it known that we, FRANCIS RIKER and HENRY DENNIS, of Bergen Point, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Packings for Axle Boxes and Bearings; and we 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 it.

Our invention relates to an improvement in packings for axle boxes and bearings; and it consists in the use of the flesh which is scraped or otherwise removed from the hides of animals, either before or after the hides have been tanned, in connection with suitable oils or lubricants of any kind which can be absorbed by the flesh, as will be more fully described hereinafter.

The object of our invention is to do away with the cotton-waste and other such material as has heretofore been packed in the journal-boxes for the purpose of absorbing the lubricant, and which packing, after having been used for some length of time, has either to be renewed or it will ignite, and to substitute therefor an elastic non-inflammable packing which will absorb the oil very freely and keep the journals constantly lubricated without the slightest danger under any circumstances.

We take hides which are in a raw, cured, salted, or tanned state, and scrape from their inner sides the flesh which is adhering to them, and which is known as "flesh-waste." This flesh-waste, when dried, absorbs oil and greasy substances of all kinds, and holds it with such tenacity that even when saturated it will not allow the oil to drop off. This flesh-waste is very elastic, so that it tends to always press upward against the axle, so as to hold the oil in constant contact therewith, and is absolutely non-combustible. Being non-combusti-

ble and elastic, it will not ignite, even after having been in use for some length of time, but will simply wear away by frictional contact with the journal after the oil has become exhausted. To such an extent is this waste non-inflammable that even when heat is applied to it when dry the waste will simply shrivel up, but not ignite.

We do not limit ourselves to one particular lubricating compound which is to be used in connection with this waste, for many different kinds of oil can be used equally well.

We have found that any lubricating compound, whether made from petroleum, fish, or sperm oils, or any combination of oils, may be used, as all that is necessary is, that the flesh-waste should be immersed in the lubricant, and then the elastic waste will feed it to the axles.

In actual practice we use several grades of oil for different kinds of work. The slower the speed the lower the grade of oil, and the higher the speed the higher the grade of oil. Where the waste is first moistened with water before being placed in the box or bearing, the waste feeds the oil equally as well, and thus no oil is absorbed by the waste.

This lubricant is specially adapted for car-axle boxes, but answers equally well for heavy machinery of all kinds.

Having thus described our invention, we claim—

A non-combustible packing for axle boxes and bearings, composed of flesh-waste, substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands and seals this 25th day of October, 1880.

FRANCIS RIKER. [L. S.]
HENRY DENNIS. [L. S.]

Witnesses:

ROBT. BENNY,
HENRY S. SHROPE.