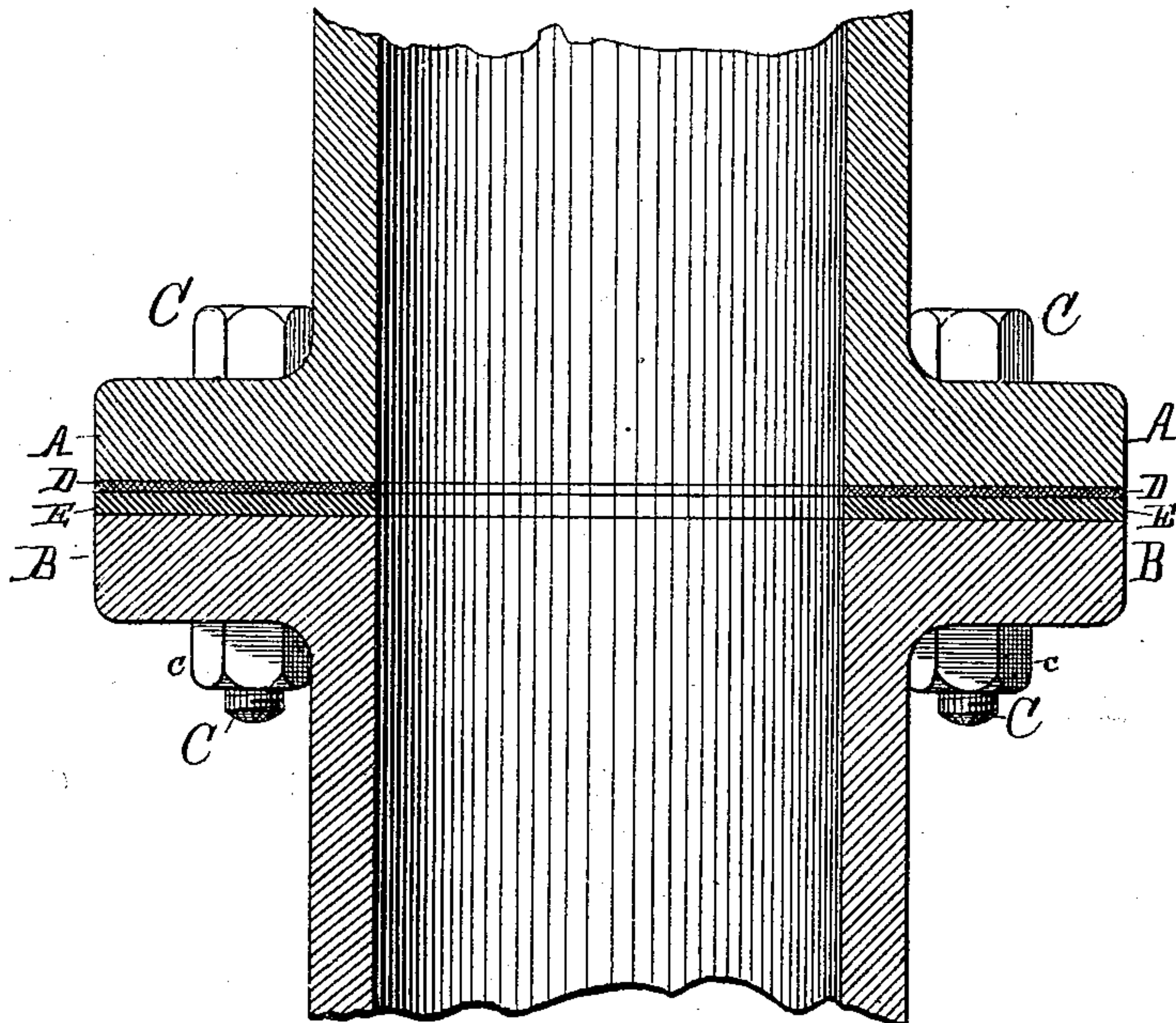


(No Model.)

D. N. MELVIN.
PACKING FOR STEAM JOINTS.

No. 277,048.

Patented May 8, 1883.



WITNESSES—
A. Gentner
W. C. Dey.

INVENTOR—
David N. Melvin,
By his attorney
Thomas D. Nelson.

UNITED STATES PATENT OFFICE.

DAVID N. MELVIN, OF LINOLEUMVILLE, NEW YORK.

PACKING FOR STEAM-JOINTS.

SPECIFICATION forming part of Letters Patent No. 277,048, dated May 8, 1883.

Application filed October 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, DAVID NEILSON MELVIN, a subject of the Queen of Great Britain, residing at Linoleumville, in the county of Richmond, State of New York, have invented certain new and useful Improvements in Packings for Steam-Joints, whereby they can be manufactured at a less cost than formerly, and also rendered more fitted for their purpose; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

Heretofore packings for joints have been mostly made from compositions the base of which was india-rubber, either with or without a fabric insertion, as might be required; and generally after they have been in use for a short time under a high temperature they become hard, brittle, and unyielding, so that if the joint is broken for any purpose it cannot be made again until a new packing is supplied, the old one having become so hard as to be incapable of bedding itself into the irregularities of the surfaces, if it were not all broken in pieces on the separation of the faces of the joint.

The object of my invention is to manufacture a packing which can be used many times for the same joint, and that will not lose its property of bedding accurately to the surfaces of the joint, even after extended use at a high temperature.

To carry out my invention I use oxidized linseed-oil, or what is known as "linseed-oil crusts," as the basis of my composition. These crusts may be produced from boiled linseed-oil in the same manner as in the manufacture of linoleum floor-cloth, or in any other manner available. I mix and incorporate with this oxidized linseed-oil all or any of the following ingredients, viz: plumbago, sulphur, wood pulp, red lead, black oxide of manganese, magnesia, lime, and hemp-fiber. The proportions of these are varied to suit the purpose to which the packing is to be applied. One receipt which I use for insertion-packing and where the coating of composition is required to be thin is: oxidized oil, forty parts; wood pulp, twenty-seven parts; sulphur, six parts; red lead, four parts; plumbago, twelve parts; black oxide of manganese, eight parts. An-

other receipt which I use when the packing is required to stand a high temperature and the surfaces are uneven and a thick joint is required is: oxidized oil, four parts; plumbago, seven parts; sulphur, one-half part.

The above ingredients are incorporated together at an elevated temperature in any mixing apparatus, such as a pair of rubber mixing-rollers. They are then rolled into a sheet through a pair of rollers, in the usual manner, of india-rubber cloth, either with or without a fabric insertion. I roll the mixture preferably onto canvas as a backing, and this backing is left without any covering of composition, so as to insure the absence of adhesion between the packing and one face of the joint, and when the joint is opened this face will separate easily from the canvas.

A great advantage of my invention consists in the fact that a joint made with this packing may be remade a great many times, the composition retaining a certain amount of elasticity, even after prolonged exposure to high temperatures.

The accompanying drawing forms a part of this specification, and is a cross-section through a gasket and adjacent parts.

Referring to the drawing and the letters of reference, A and B are the flanges of two lengths of pipe, compressed together by bolts and nuts C c.

D is the canvas or other cloth forming one face of my packing, and E is the elastic composition.

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

1. A joint-packing having a body of composition composed of oxidized oil and sulphur, wood pulp or analogous fiber, and plumbago or analogous stiffening material incorporated together to constitute a permanently elastic material, conforming to the irregularities of the joint, as herein specified.

2. The joint-packing described, having one face of canvas or analogous fabric without covering, and the opposite face thickly coated with an elastic composition, substantially as herein specified.

DAVID N. MELVIN.

Witnesses:

EDWARD STYLES,
GEORGE A. CROCHERM.