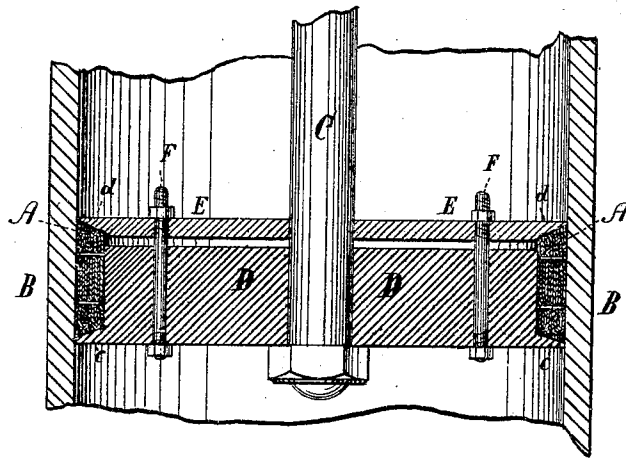
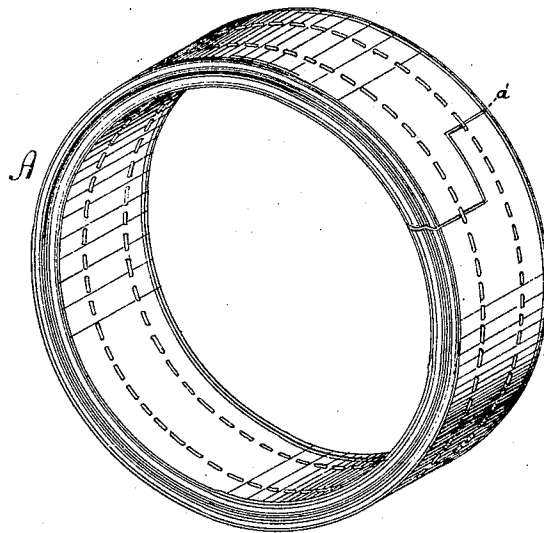


S. N. GOODALE.

Improvement in Piston-Packing.

No. 130,214.

Patented Aug. 6, 1872.



INVENTOR.

Samuel N. Goodale

WITNESSES,

C. H. Fowler
J. B. Conroy.

UNITED STATES PATENT OFFICE.

SAMUEL N. GOODALE, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN PISTON-PACKINGS.

Specification forming part of Letters Patent No. 130,214, dated August 6, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, SAMUEL N. GOODALE, of St. Louis, county of St. Louis, State of Missouri, have invented certain new and useful Improvements in "Steam or Air Piston-Rod Packing and Stuffing-Boxes"; the object of which is to furnish a packing easily manufactured at a reduced rate, and which shall be, in all respects, more simple and durable than any before used; and being put into the market in rings of different sizes, or in one continuous piece, to be cut into suitable, convenient sizes to fit a piston-rod or stuffing-box of any dimension; and I do hereby declare that the following is a full, clear, and exact description of the same, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a perspective view of a ring formed of my improved packing; and Fig. 2 is a longitudinal section of a cylinder, stuffing-box, and piston-rod with the packing in place.

Like letters of reference indicate like parts.

A, Fig. 1, represents the packing, which is composed of manufactured fibrous material, such as cloth or canvas, folded and stitched in the manner shown. By having the packing united by one, two, or more rows of stitches the material is held firmly together, and the stitches form seams or crevices, in which, when the packing is pressed in place against the cylinder, the air is compressed, whereby it is impossible for the steam to escape. The packing is first made of one continuous piece, and then cut in any desired size, and put together by a "break-joint," as shown at *a'*, Fig. 1. The packing is made of any desired thickness, the outside being of cloth or canvas, and the inside of the same material, or of

fibrous material of any other form. B, Fig. 2, indicates a cylinder of the usual form; C, a piston-rod, to one end of which is attached the stuffing-box D. The gland E is apertured in the center to pass upon the rod C, and adjustably attached to the stuffing-box by screw-bolts and nuts F F. A, Fig. 2, represents the packing in place. The stuffing-box is made convex on the inside, and the gland is made concave to correspond. The stuffing-box and gland are made with flanges *c* and *d*, the faces of which incline downward and inward toward each other, as shown, the object of which is to press the packing A outward against the cylinder more firmly as the screw-bolts are tightened and the gland E drawn up.

I am aware that packing composed of fibrous material has been used by stitching together several layers of canvas and cutting the same between the rows of stitches. This cutting leaves a rough ragged edge, which "strings out," and catches between the edges of the stuffing-box, gland, and cylinder or piston-rod, whenever the same may be used. By my improved packing this difficulty is obviated, as the packing is first folded and then stitched. The edges of the same are left smooth, and the packing compact throughout.

I do not, therefore, claim, broadly, the use of a fibrous material for packing; but,

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

As a new article of manufacture, the packing A, when folded and stitched so as to leave the edges smooth, and composed of the fibrous material, substantially as shown and described, and for the purpose set forth.

SAMUEL N. GOODALE.

Witnesses:

T. C. CONNOLLY,
F. A. LEHMANN.