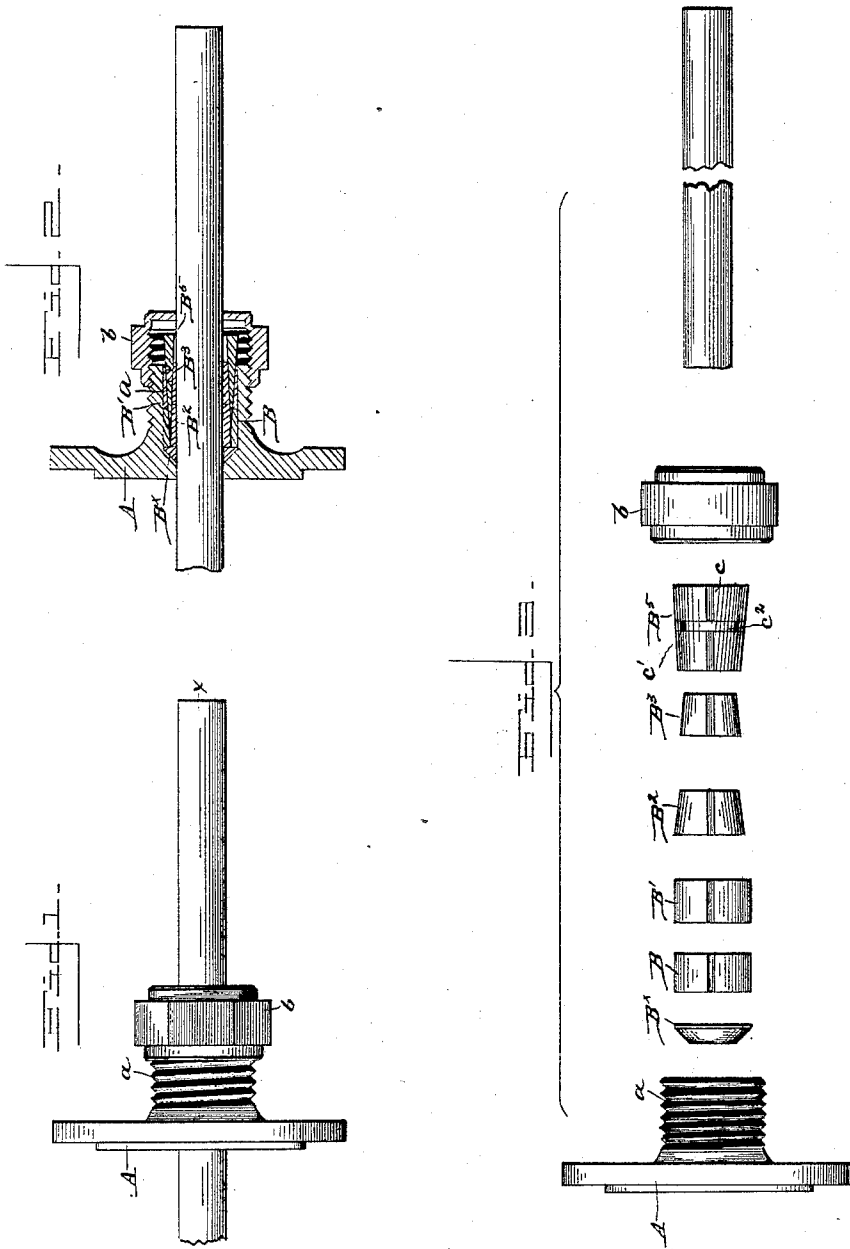


(No Model.)

W. GROB.  
PISTON ROD PACKING.

No. 416,058.

Patented Nov. 26, 1889.



WITNESSES  
*Matt H. Humphrey*  
*Harvey Myers*

INVENTOR  
*William Grob*  
*By Myers & Co. Attorneys.*

# UNITED STATES PATENT OFFICE.

WILLIAM GROB, OF FREMONT, OHIO.

## PISTON-ROD PACKING.

SPECIFICATION forming part of Letters Patent No. 416,058, dated November 26, 1889.

Application filed June 29, 1889. Serial No. 315,967. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM GROB, a citizen of the United States of America, residing at Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Piston-Packing, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain improvements in piston-rod packings; and it consists of the novel construction and combination of parts, as will fully appear from the following description and accompanying illustration, in which—

Figure 1 is a plan view of a cylinder-head and piston-rod to which is applied my improved packing. Fig. 2 is a sectional elevation thereof. Fig. 3 is a view showing the sundry individual parts of my packing disassociated.

In carrying out my invention I employ in connection with the cylinder-head A, having the usual stuffing-box *a*, a series or multiplicity of variously-sized split or slotted cylinder or ring sections B B' B<sup>2</sup> B<sup>3</sup> B<sup>4</sup> and an unsplit or unslotted ring-section, which, when assembled, constitute a compound spring packing. The section B<sup>x</sup>, which has its inner side ground and conformed to the conical seat at the inner end of the stuffing-box, forms a solid square bearing or base for the packing proper. The split or slotted sections, by reason of their split or slotted character, have more or less elasticity or spring and capability of expansion and contraction, rendering them compensating to wear and capable of being accordingly compressed or tightened up, as occasion may require, by the action of a cap *b*, which is screw-thread-fitted upon the stuffing-box *a*. The split or slotted sections are also slightly conical, which aids their wear-compensating function, the longer inner one B<sup>3</sup> having a horizontal slot *c*, said section having a transverse slot *c'* crossing said longitudinal slot, said transverse slot being fitted with a splicing piece or bar *c<sup>2</sup>*, which I term a "cut-off." The steam will escape

through the meeting ends of the inner sections and out through the longitudinal slot in ring-section B<sup>5</sup>, which is prevented by inserting in transverse slot *c'* a snugly-fitting splicing piece or bar *c<sup>2</sup>*. This bar, when it is necessary to contract the ring-sections caused by wear, may be shortened at one end to fit in the slot tightly, thus preventing the escape of steam. The slotted or conical sections are assembled or nested the smaller within the larger, while the abutting sections are reversely arranged end for end as relates to their diameters, the slits or slots of adjoining sections also exchanging positions side for side.

As before mentioned, this assemblage or series of split cylinder or ring sections forms a compound elastic packing which compensates wear and substitutes the ordinary packing—such as rubber, hemp, cotton, &c.—now generally used.

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

1. The combination of the cylinder-head having its stuffing-box screw-threaded for reception of a screw-cap, the series of longitudinally-split ring-sections, one of which is provided with a transverse slot having the splicing piece or bar and the conical ring or seat, substantially as shown, and for the purpose described.

2. The combination of the series of slotted ring-sections reversely disposed end for end relative to their diameters and seated upon a conical-shaped ring or seat, one of said ring-sections having a transverse slot fitted with a splicing piece or bar disposed in a packing-box, said box being screw-threaded for the reception of a screw-cap, which compresses the ring-sections, as shown, and for the purpose described.

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

WILLIAM GROB.

Witnesses:

D. B. LOVE,  
W. S. RICHARDS.