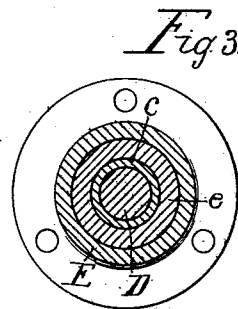
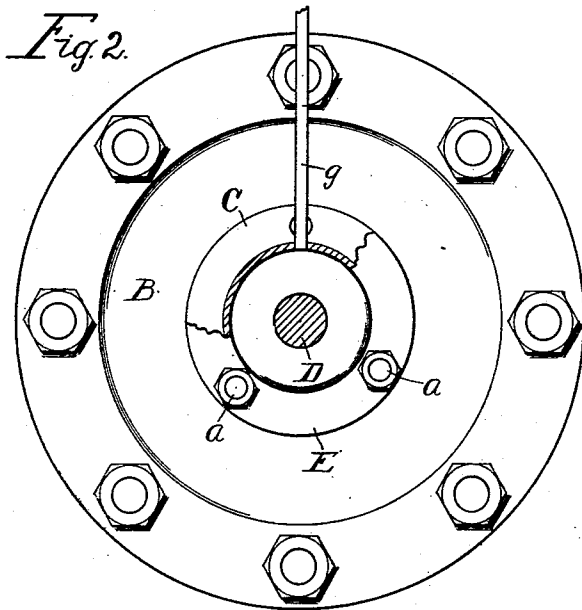
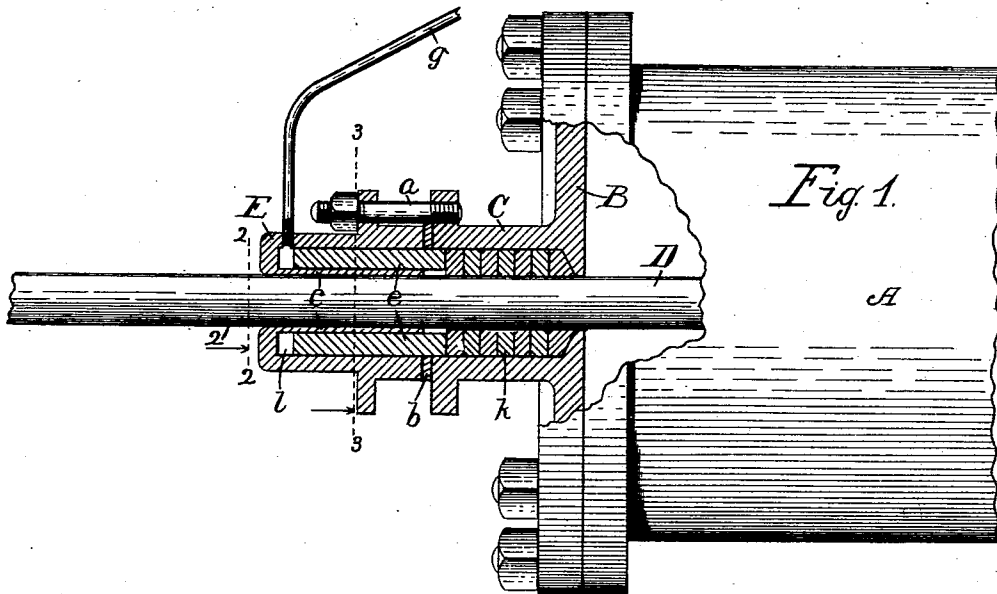


(No Model.)

O. J. GARLOCK.
PISTON ROD PACKING.

No. 572,053.

Patented Nov. 24, 1896.



Attest:
m. L. Winston.
M. V. Hayes.

Inventor:
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Atty.

UNITED STATES PATENT OFFICE.

OLIN J. GARLOCK, OF ROCHESTER, NEW YORK, ASSIGNOR TO THE GARLOCK
PACKING COMPANY, OF PALMYRA, NEW YORK.

PISTON-ROD PACKING.

SPECIFICATION forming part of Letters Patent No. 572,053, dated November 24, 1896.

Application filed May 22, 1896. Serial No. 592,632. (No model.)

To all whom it may concern:

Be it known that I, OLIN J. GARLOCK, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Piston-Rod Packing, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

My invention relates to a means for packing rods such as the piston-rods of steam-cylinders, pump-rods, &c., the object being to produce a device by means of which to employ steam or fluid pressure to aid in producing a steam-tight joint around the rod.

The invention is hereinafter fully described and more particularly pointed out.

Referring to the drawings, Figure 1 shows a portion of a steam-cylinder with my invention attached thereto, parts being broken away and longitudinally sectioned. Fig. 2 is an end view indicated by arrow 2' in Fig. 1, the rod being transversely sectioned on the dotted line 2 2, parts being broken away. Fig. 3 is a transverse section on the dotted line 3 3 in Fig. 1 viewed as indicated by the arrow pointed thereon.

Referring to the figures, A is a steam-cylinder, of ordinary construction, B being the head, C the stuffing-box, and D the piston-rod. To the stuffing-box C, I add a chamber or cage E, Fig. 1, joining it to the stuffing-box by means of longitudinal studs or tie-bolts *a*. The internal diameter of the outer wall of this chamber corresponds with the internal diameter of the stuffing-box, the chamber constituting, in a sense, a longitudinal extension of the stuffing-box. At the base of the chamber and between it and the stuffing-box there is placed a ring *b*, of packing, to form a steam-tight joint between the joined parts; or, if preferred, a ground-joint may be formed between the chamber and the stuffing-box.

The chamber E is cylindrical and, as shown in Figs. 1 and 3, is formed with an inner longitudinal wall or sleeve *c* to bear against or meet the rod D. Within the annular space *l*, between the outer and the inner cylindrical walls of the chamber, is placed a cylindrical or annular presser-head *e*, as shown.

The stuffing-box C is filled with some suitable packing material—such, for example, as

rings *k*, of prepared rubber or fibrous packing. The presser-head *e* fits closely within the annular space *l* of the chamber E, but so as to have longitudinal motion therein, its inner end being adapted to press the packing material. A steam-pipe *g* of small caliber communicates with the space *l* of the chamber E at the outer end of the latter, said pipe leading from the interior of the steam-chest of the cylinder or some convenient part of the live-steam space between the throttle-valve and the cylinder. Steam under pressure flowing through this pipe will act to press the head *e* against the packing *k*, tending to cause the latter to form a steam-tight joint with the piston-rod.

When the engine is not in use and the throttle-valve closed, the pressure against the head *e* and the packing will be relieved. The presser-head fits between the walls of the space *l*, so as to form practically steam-tight joints with those walls, so that steam introduced into said space cannot escape therefrom. The parts are so arranged that the presser-head slightly enters the stuffing-box C, as shown in Fig. 1, which serves to accurately center the parts, and the length of the presser-head admits of its following down into the stuffing-box as the packing wears away.

The inner and the outer walls of the chamber E are preferably made of the same length, and the head *e* projects beyond the open end of said chamber.

What I claim as my invention is—

1. A device for packing piston-rods consisting in combination with a stuffing-box, and packing material therein, of an extension-chamber for the stuffing-box having an outer and an inner cylindrical wall inclosing an annular space between them, a cylindrical presser-head in said space adapted to press the packing material, and means for supplying steam under pressure between the end of the head and the extension, substantially as set forth.

2. A device for packing piston-rods consisting in combination with a stuffing-box and packing material nearly filling the same, of an extension-chamber at the end of the stuffing-box, said extension being provided with an inner longitudinal wall or sleeve, the

bore of which is the same as the diameter of the rod, a cylindrical head between the sleeve and the wall of the extension, the outer end of which is at a distance from the end of the
5 extension and the inner end extends past the joint between the stuffing-box and the extension and bears against the packing material, and means for introducing steam under pressure between the ends of the extension and

the outer end of the head, substantially as is set forth.

In witness whereof I have hereunto set my hand, this 13th day of May, 1896, in the presence of two subscribing witnesses.

OLIN J. GARLOCK.

Witnesses:

ENOS B. WHITMORE,
M. L. WINSTON.