

(No Model.)

F. PINCH.
ROD PACKING.

No. 382,187.

Patented May 1, 1888.

Fig. 1.

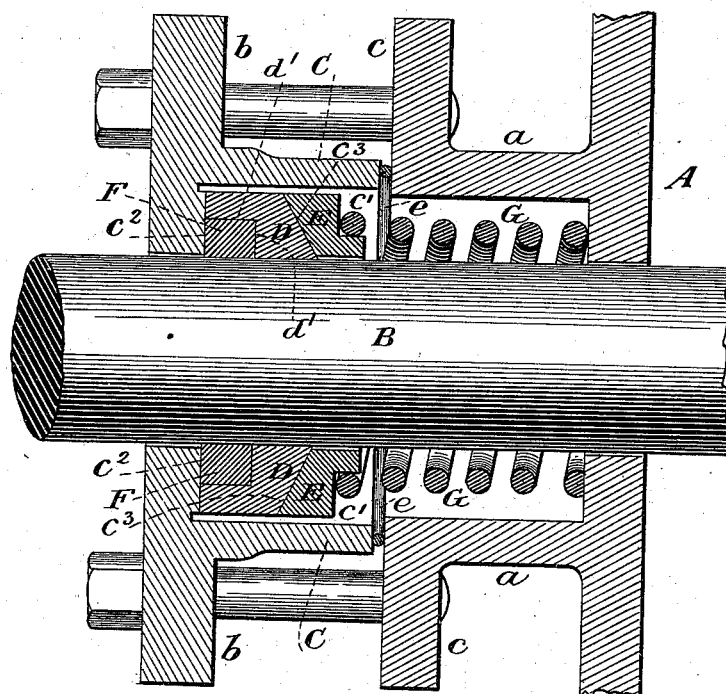


Fig. 2.

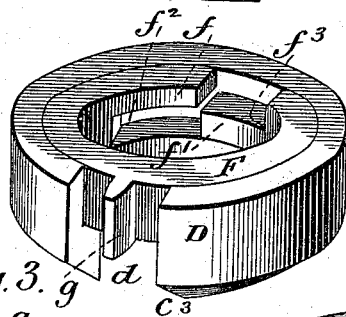


Fig. 3.

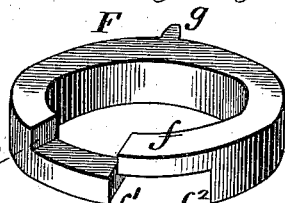
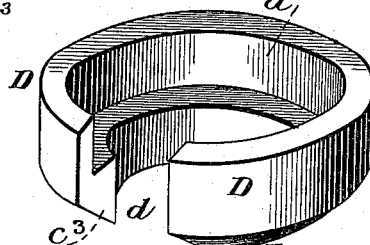


Fig. 4.



Witnesses:
A. Ruppert.
E. Cruse.

Inventor:
Frank Pinch,
by *Wm. J. Howard*

UNITED STATES PATENT OFFICE.

FRANK PINCH, OF SIDNEY, ASSIGNOR TO THE EXCELSIOR METALLIC PACK-
ING COMPANY, OF MIDDLETOWN, NEW YORK.

ROD-PACKING.

SPECIFICATION forming part of Letters Patent No. 382,187, dated May 1, 1888.

Application filed December 5, 1887. Serial No. 257,032. (No model.)

To all whom it may concern:

Be it known that I, FRANK PINCH, of Sidney, in the county of Delaware and State of New York, have invented certain new and useful Improvements in Adjustable Packing for Piston and other Rods, of which the following is a specification, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of the invention is to make a perfectly steam or water tight joint by means of metallic ring packing; and the invention consists in certain details of construction of the ring packing, as will be fully set forth in the specification and claim.

In the accompanying drawings, Figure 1 is a longitudinal section of the forward end of a cylinder, showing the stuffing-box, gland, rod, and packing-rings. Fig. 2 is a perspective view of the packing-rings, and Figs. 3 and 4 are views of the packing-rings detached.

Similar letters of reference indicate similar parts in the respective figures.

A is the cylinder-head having an ordinary stuffing-box, *a*.

B is the piston-rod.

C is a gland or casing, having a front flange, *b*, corresponding in shape with the front flange *c* of the stuffing-box, and is connected to said flange *c* by bolts, in the usual manner. The interior of the casing C is trued out upon the two faces *c'* *c''*.

D is a ring having a peripheral opening, *d*, and provided on its interior with a right-angled recess, *d'*, in which the ring F fits snugly, the two rings being so constructed that when in position their outward faces shall be flush with each other. The ring F is also cut through, as shown, the two ends *f* *f'* thus formed being cut away on opposite sides to form rabbets *f''* *f'''*, into which the ends *f* *f'* are respectively adapted to fit and overlap. As the insides of the two rings wear away, the pressure of the steam on the outside of the ring D will gradually force the ends formed by the cuts in the peripheries of the two rings toward each other, and thus always keep the rings closed tightly upon the rod. The ring

F is also provided with a lug or projection, *g*, on its outer face, which projects outwardly into the opening *d* in the ring D, and serves to prevent the ring F from turning around so as to bring the open portions of the two rings together.

The flat faces of the rings D and F fit against the trued face *c'* of the casing C and make a steam-tight joint. The opposite end of the ring D is beveled, as shown at *c'*, and against said beveled face a second beveled ring, E, having a correspondingly-beveled face, fits. G is a spring within the stuffing-box *a* and surrounding the piston-rod for the purpose of forcing the rings D, E, and F against the face *c'* of the casing C. A packing, *e*, is placed between the stuffing-box and casing C.

Sufficient space is left between the annular packing-rings and the casing C to allow for a slight lateral motion of the piston-rod inside of the casing to permit steam to reach the outside of the packing-rings to close them upon the rod.

I am aware that packing-rings having an interior right-angled recess for the reception of another packing-ring have been made heretofore. I am also aware that packing-rings having overlapping ends have been heretofore made, and I do not therefore claim such broadly; but,

Having described my invention, I claim--

In a metallic ring packing, the combination, with an outer ring having a peripheral opening and an interior right-angled recess, of an inner ring resting in said recess and having a lug on its periphery projecting outwardly into the peripheral opening in the outer ring, the said inner ring being cut through, and the ends thus formed cut away to form rabbets, into each of which the opposite end of said ring is adapted to fit, and thus cause the ends to overlap, substantially as specified.

In testimony whereof I have hereunto set my hand and seal.

FRANK PINCH. [L. S.]

Witnesses:

EDWIN CRUSE,
C. B. THOMPSON.