

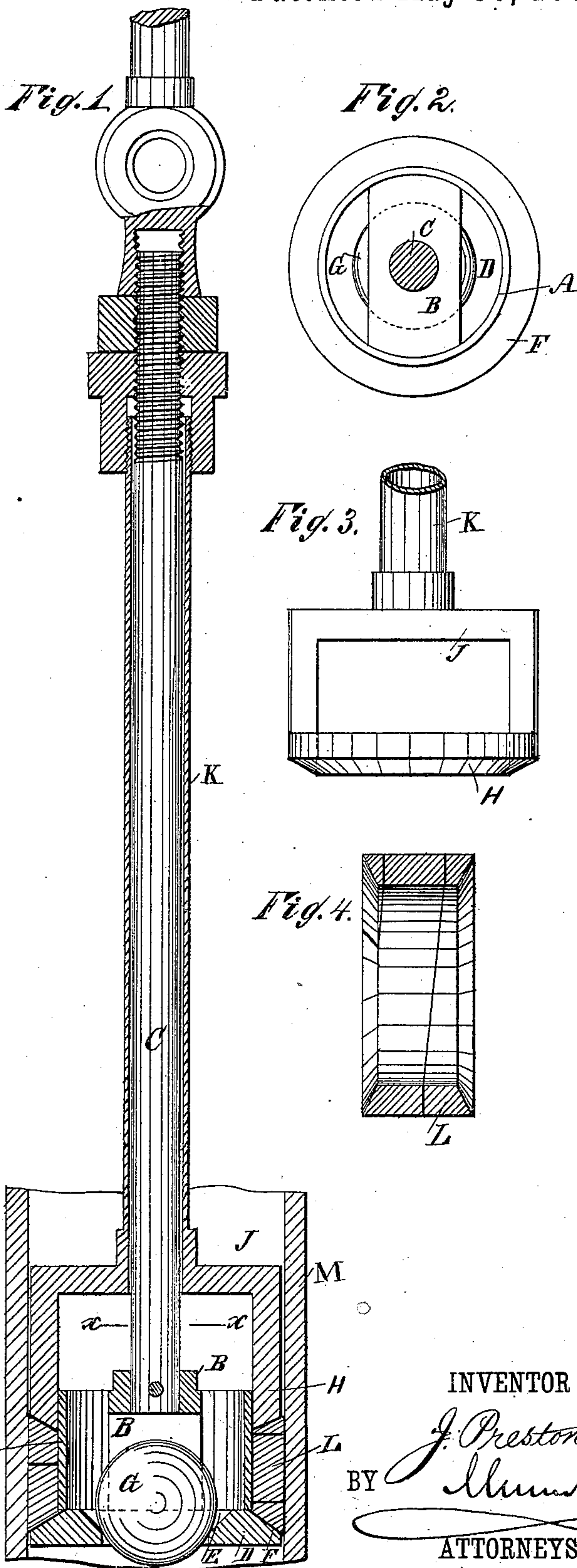
(No Model.)

J. PRESTON.

PISTON.

No. 258,599.

Patented May 30, 1882.



WITNESSES:

*Thos. G. Hooper*  
*C. Deaguirre*

INVENTOR:

*J. Preston*  
BY *Munn Co*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JAMES PRESTON, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO S. A. BURNS AND C. A. COOKE, OF SAME PLACE.

## PISTON.

SPECIFICATION forming part of Letters Patent No. 258,599, dated May 30, 1882.

Application filed August 2, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES PRESTON, of the city, county, and State of New York, have invented certain useful Improvements in Pistons, of which the following is a specification.

The object of my invention is to facilitate adjusting the packing of a piston in such a manner that it will fit very closely in the cylinder.

The invention consists in a piston formed of a valve-cage attached to the end of a rod and provided at its lower edge with an external beveled flange, and of a beveled ring attached to a fork at the lower end of a tube surrounding the rod, between which beveled flange and beveled ring the packing is held, which is wound spirally around the valve-cage.

In the accompanying drawings, Figure 1 is a longitudinal sectional elevation of my improved piston and its rod. Fig. 2 is a plan view of the valve-cage. Fig. 3 is a longitudinal elevation of the same. Fig. 4 is a cross-sectional elevation of the spirally-wound packing-ring.

This invention is an improvement on the piston for which Letters Patent No. 242,366 were issued to me on the 31st day of May, 1881.

A short cylindrical piece, A, is attached to a transverse bar, B, fastened to the lower end of the piston-rod C, and a bottom, D, with a central aperture, E, and forming an external annular flange, F, of the cylindrical part A, is attached to the lower end of the same, whereby a valve-cage containing a ball, G, or any other suitable valve, is formed, this ball or valve G closing the aperture E of the bottom D when the piston is raised. A beveled ring, H, is attached to the ends of a fork, J, fastened to the lower end of a tube, K, surrounding the rod C, and held on the same by nuts screwed on the upper threaded end of this rod C. A packing-strip, L, of rubber, leather, or other suitable material, the ends of which strip are beveled, is wound spirally around the cylindrical part A,

and is compressed between the beveled ring H and the beveled flange F, as shown in Fig. 1. By turning the tube K on the rod C from left to right, for instance, the ring H and the flange F will be brought together, and the packing-strip will be compressed firmly and will spread outward and fit very closely against the sides of the cylinder M. If the packing-strip fits too tightly, it can be loosened by turning the tube K in the inverse direction. The spirally-wound packing-strip L fits very closely on the valve-cage and against the beveled ring H and the flange F.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a piston, the combination, with a valve-cage having a beveled flange and attached to a rod, of a beveled ring attached to the lower end of a tube surrounding the rod, and of a packing-strip wound spirally around the valve-cage and held between the beveled flange and beveled ring, substantially as herein shown and described, and for the purpose set forth.

2. In a piston, the combination, with the short cylinder A, fastened to a rod, C, by a transverse bar, B, of the apertured bottom D, forming a beveled flange F, of the beveled ring H, attached to the fork J at the lower end of the tube K, and of a packing-strip, L, wound spirally around the short cylinder A, substantially as herein shown and described, and for the purpose set forth.

3. The piston-rod C, constructed, substantially as herein shown and described, with a valve-cage formed of the short cylinder A, the transverse bar B, and the apertured bottom D, with projecting beveled edges at its lower end, as and for the purpose set forth.

JAMES PRESTON.

Witnesses:

OSCAR F. GUNZ,  
C. SEDGWICK.