

O. Collier

Piston

Nº 98,232.

Patented Dec. 28, 1869.

Fig. 1.

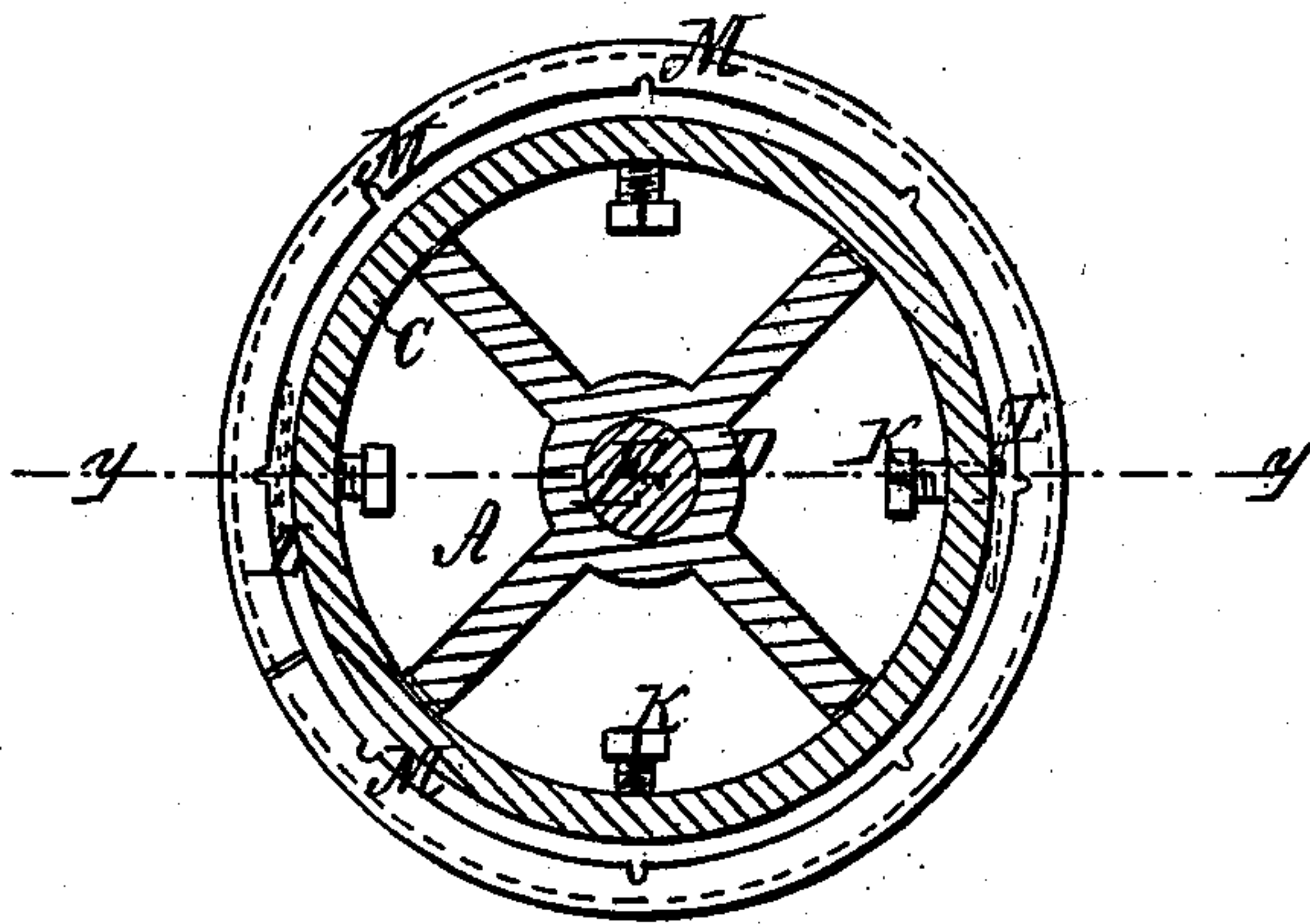
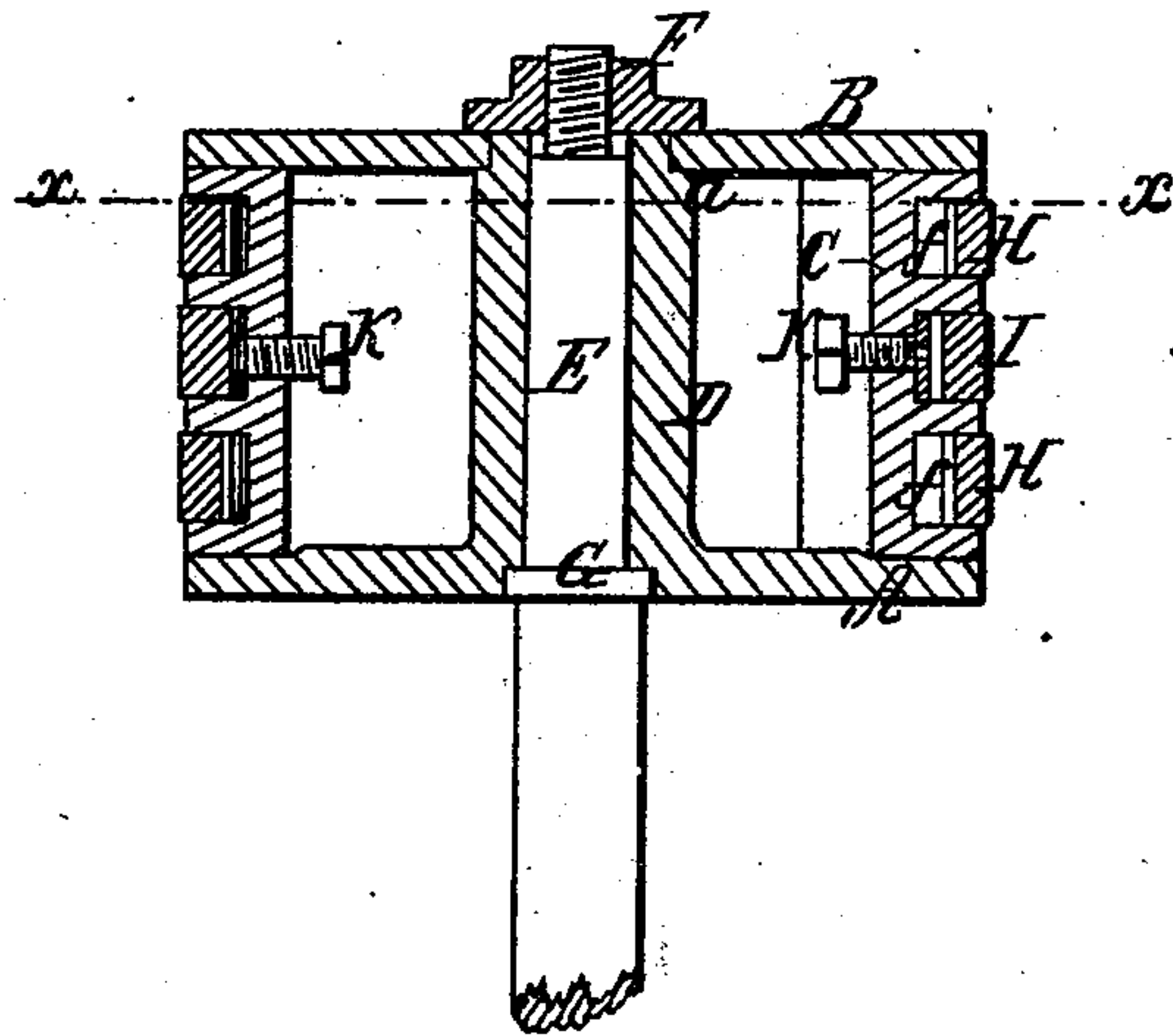


Fig. 2.



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Wm. Clark.
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United States Patent Office.

O. COLLIER, OF SACRAMENTO, CALIFORNIA.

Letters Patent No. 98,232, dated December 28, 1869.

IMPROVEMENT IN PISTONS AND PISTON-PACKING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, O. COLLIER, of Sacramento, in the county of Sacramento, and State of California, have invented a new and useful Improvement in Pistons; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in pistons for steam-engine pumps, &c., and mode of packing the same, having for its object to provide a simple, cheap, and more efficient arrangement of parts than those now in use.

My invention consists in a piston provided with two end disks, a central ring with three annular recesses, two end rings, and an adjustable centring-ring, as more particularly described hereafter.

Figure 1 represents a sectional elevation of my improved piston, taken on the line *x x* of fig. 2, and

Figure 2 represents a section taken on the line *y y* of fig. 1.

Similar letters of reference indicate corresponding parts.

The piston comprises two disks, A and B, and a grooved ring, C.

The disk A is provided with a central tubular extension, D, which receives the disk B at the end against a shoulder, *a*. It also receives internally the piston-rod E, which projects sufficiently beyond the end to receive a nut, F, for clamping the two disks

together, with the grooved ring C between them, and secures the whole on the rod against the collar G.

The ring C and the disks are of the same diameter, and the faces coincide.

This ring is provided with three grooves, *b*, in its face, in the two outer ones of which the spring packing-rings H are placed, and in the central groove another stronger ring, I is placed, which serves also as a packing-ring, but more especially designed for centring the piston by the use of set-screws K, screwing through the ring C.

These set-screws may set directly against the ring, or springs L may be interposed.

This arrangement provides a very simple construction, and an efficient and simple means of centring the piston and keeping it off the surface of the cylinder.

The rings H are provided with transverse grooves M, to permit them to be sprung outward against the cylinder from time to time, as they wear away.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

A piston, provided with end disks A B, ring C, (with three annular recesses *f*), end rings H H, and adjustable centring-ring I, all arranged and fitted together in the manner described.

O. COLLIER.

Witnesses:

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