

A. Mc Mullin.

Piston Packing.

Nº 91,250.

Patented Jun. 15, 1869.

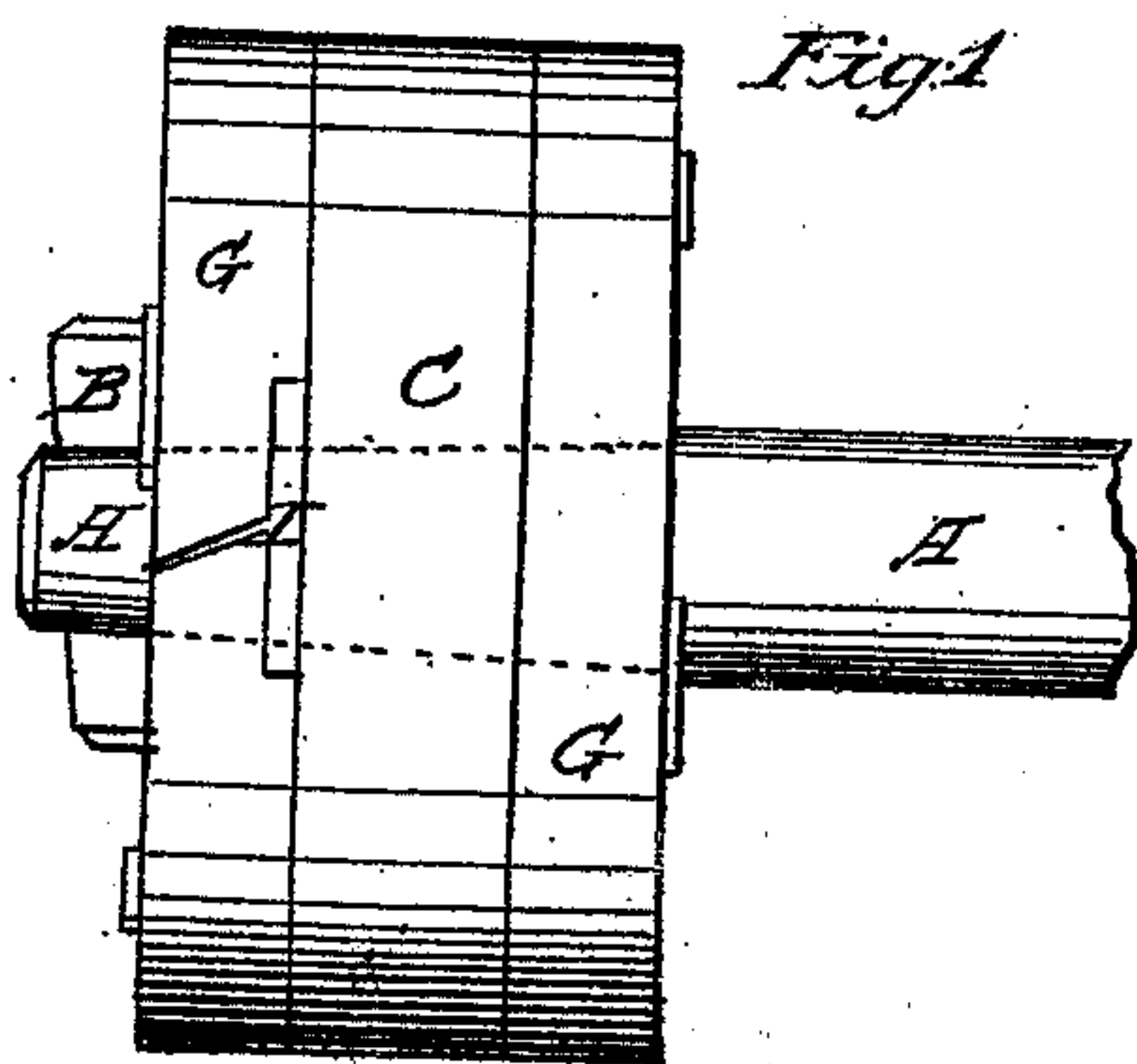


Fig. 1

Fig. 2

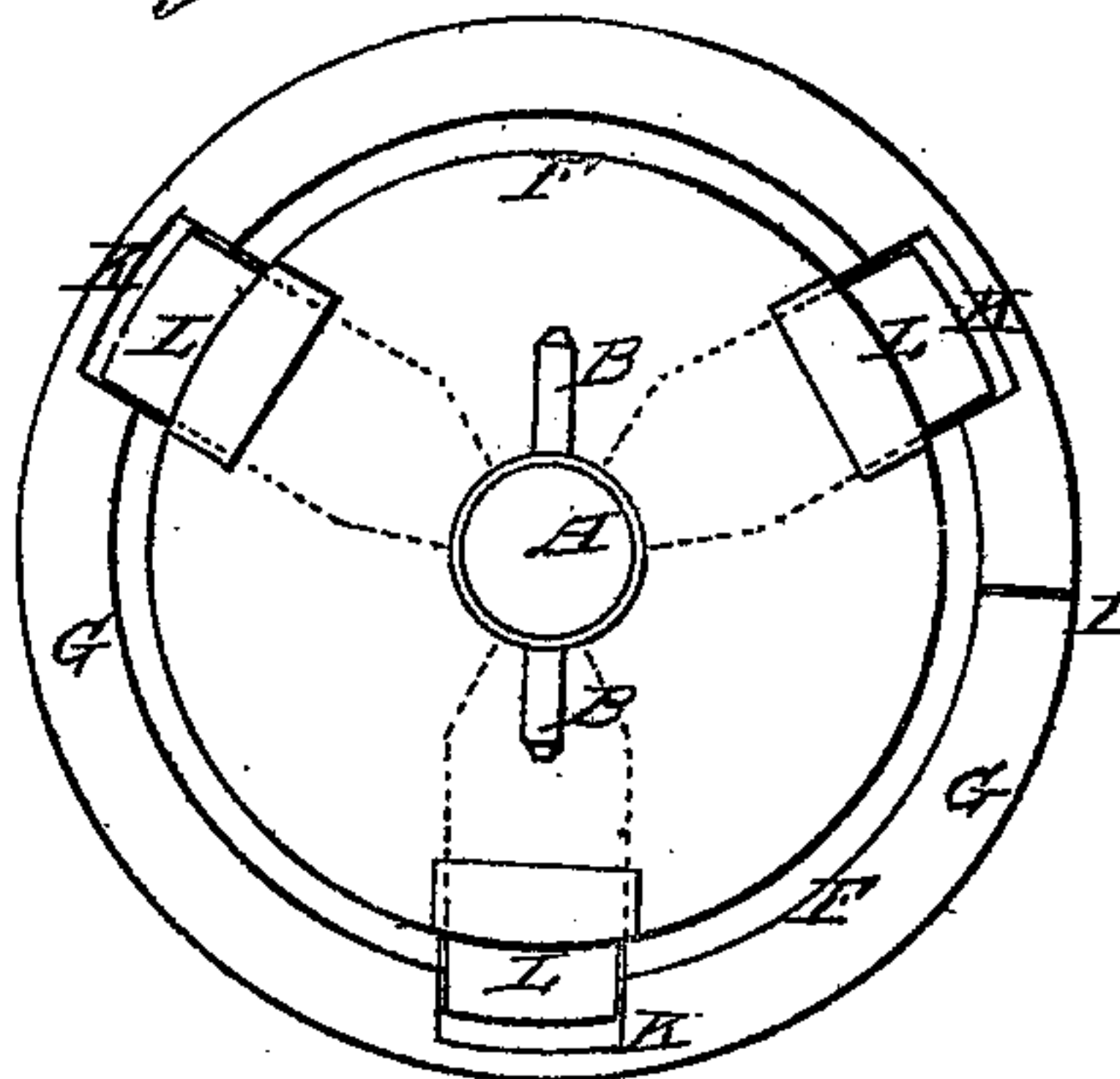


Fig. 3

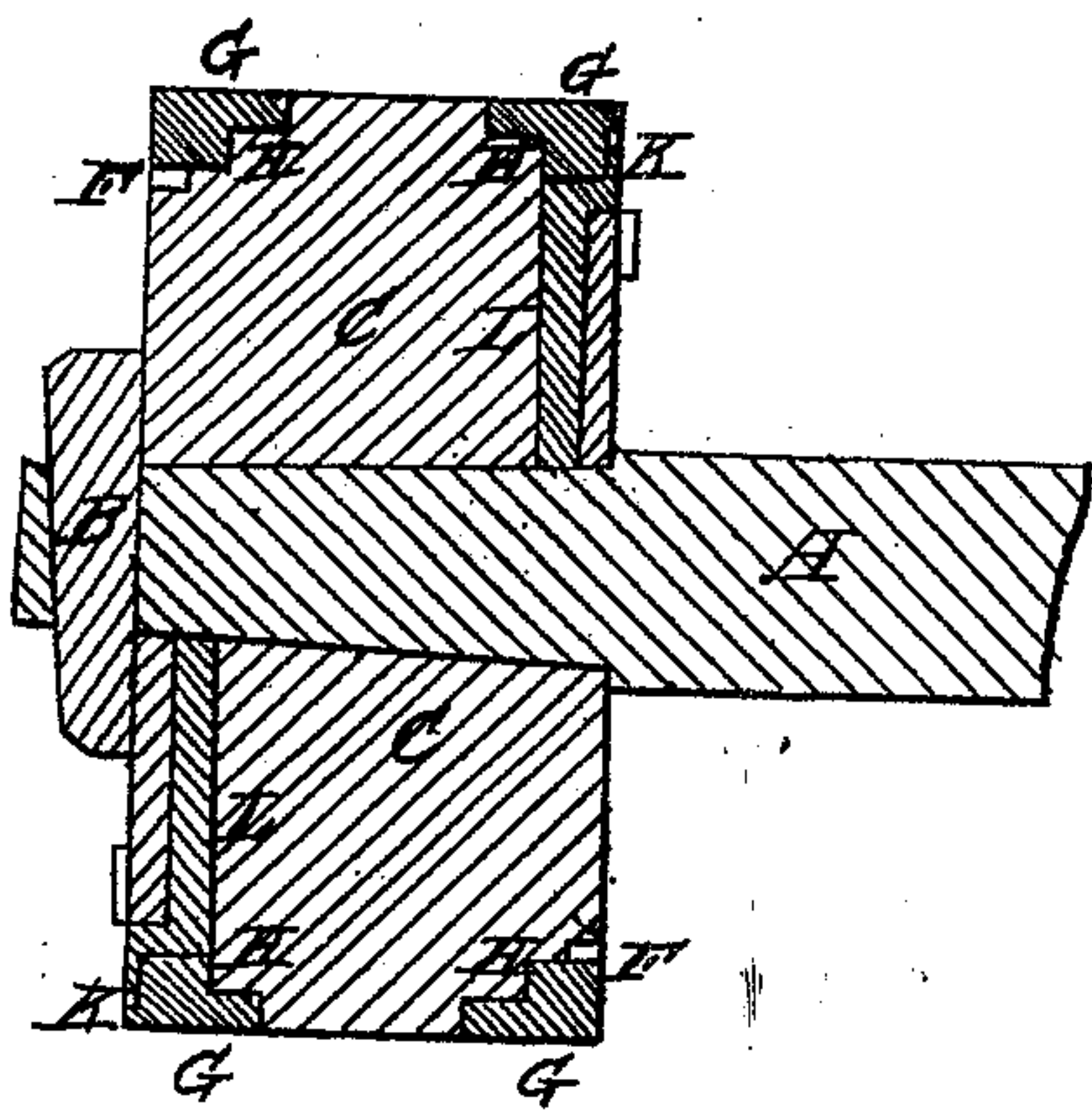


Fig. 4

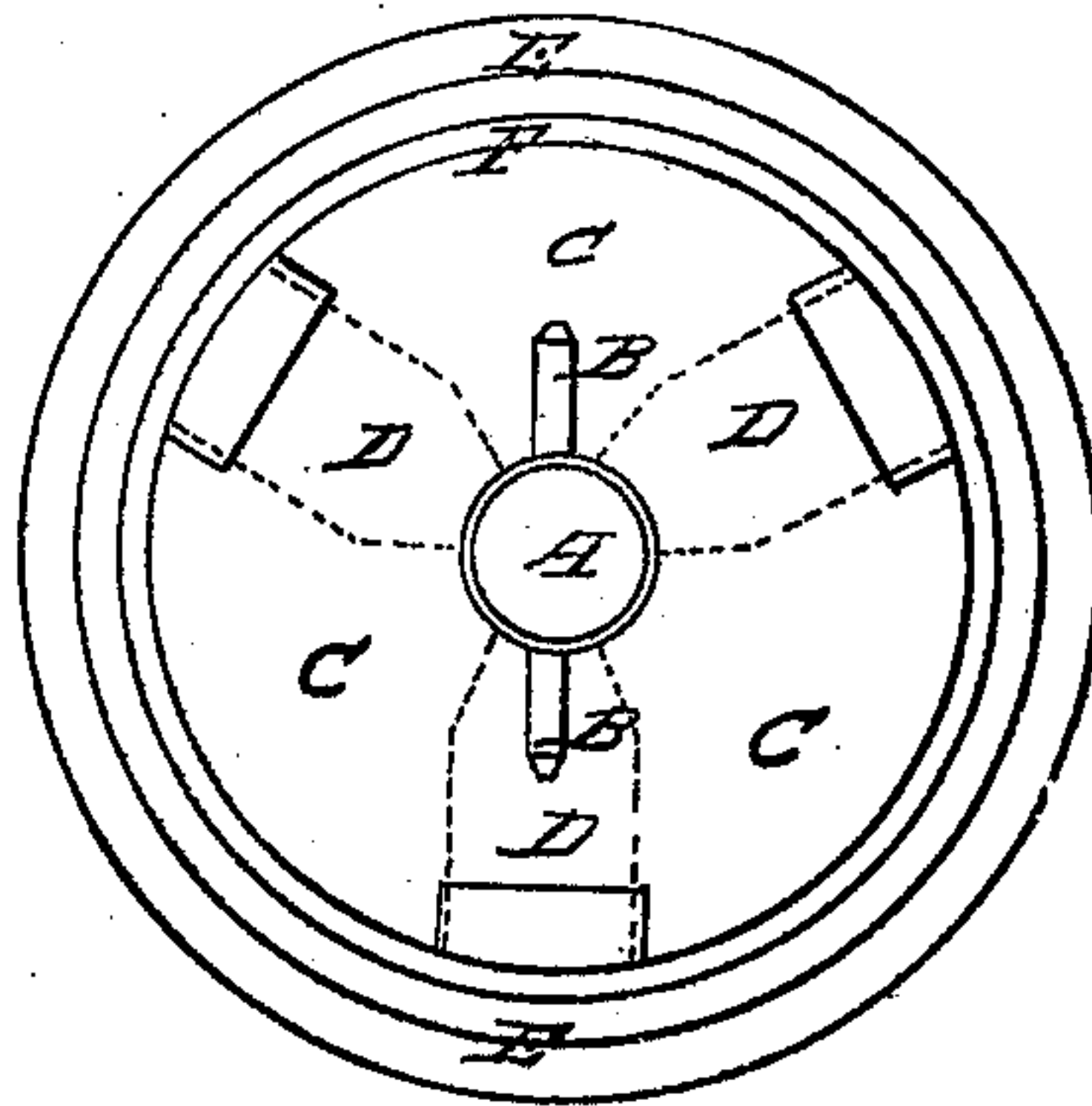


Fig. 5

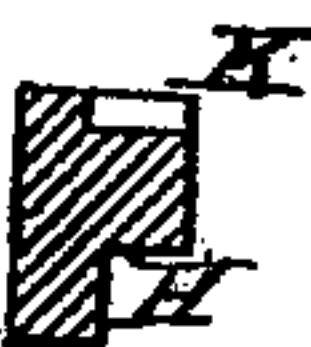


Fig. 6

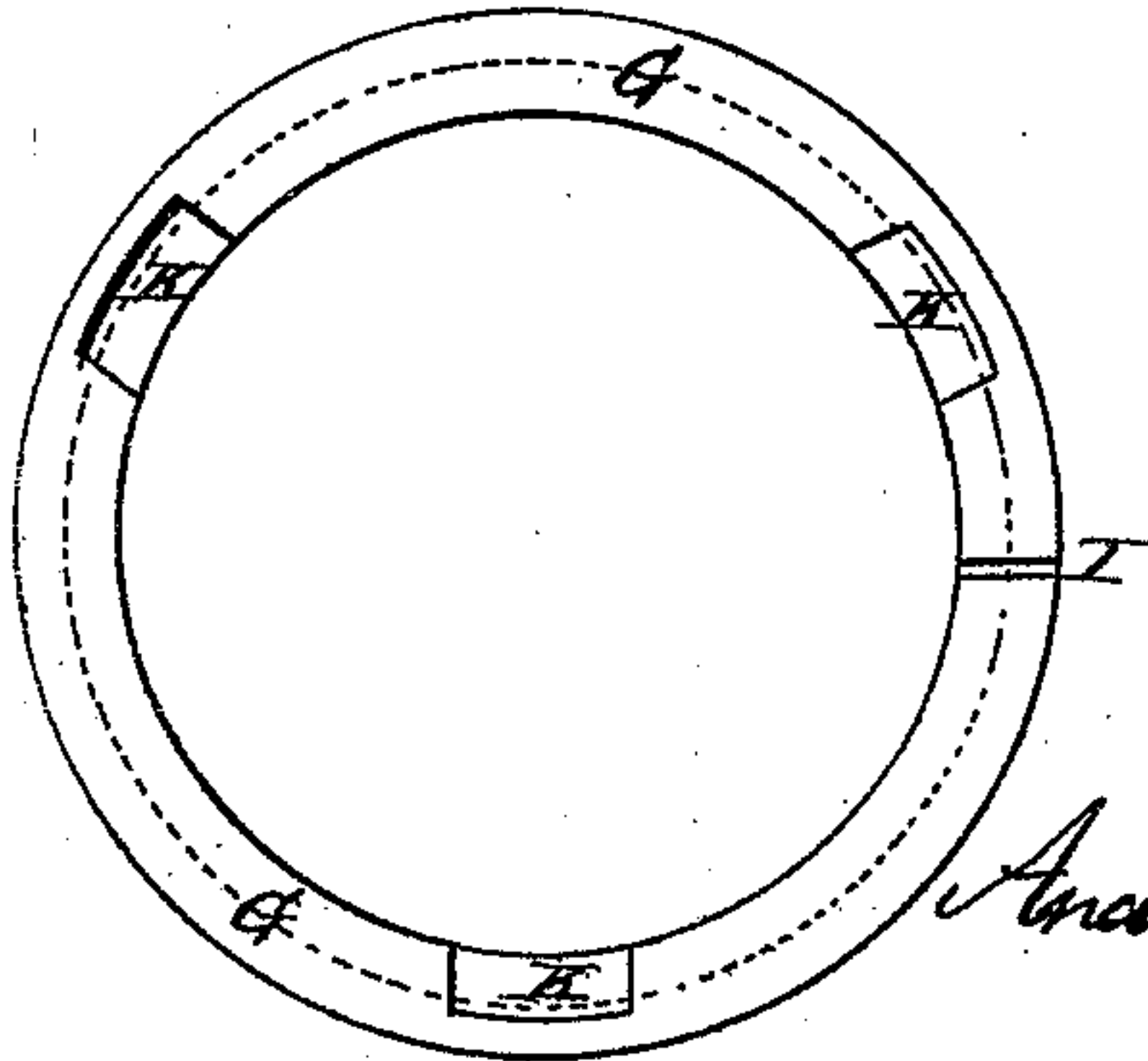


Fig. 7



Fig. 8

Witnesses

Inventor

Samuel Mc Mullin
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United States Patent Office.

ANDREW McMULLIN, OF PATERSON, NEW JERSEY.

Letters Patent No. 91,250, dated June 15, 1869.

IMPROVEMENT IN 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, ANDREW McMULLIN, of Paterson, county of Passaic, and State of New Jersey, have invented a new and useful Improvement in Pistons for Steam and other Engines; and do hereby declare that the following is a general description thereof, reference being had to the accompanying drawings, making part of this specification.

The nature of my invention consists in the construction and arrangement of the parts relative to each other, substantially as hereinafter described.

Figure 1 represents a side elevation of my improved piston;

Figure 2, an end view, showing the holders in their relation to the steam-packing rings and piston-rod, and the steam-space or channel into which the steam enters for expanding the packing-rings;

Figure 3, a longitudinal section through holders;

Figure 4, an end view of piston-head with packing removed;

Figures 5 and 6, plan and section of steam packing ring; and

Figures 7 and 8, views of holder removed from piston-head.

In the said drawings—

A indicates the piston-rod, passing through the piston-head, and secured by a key, B, at its outer end;

C is the piston-head, cast in one piece;

D, the recesses in the face *d* of the head, for reception of the holders;

E E is the double rectangular steam-packing seat on the face of the piston-head; and

F is the channel, or steam-space between the piston-head and packing, for expanding and pressing the packing against the cylinder by means of the steam. (See fig. 2.)

This head may be cored out and cast hollow, instead of solid, if preferred.

G is the steam-packing ring, having a rectangular bearing, H, to fit on the piston-head, (forming ground joints;) a plate, I, for breaking joint in the packing-ring, to prevent access of the steam from one packing to the other; and recesses, K, into which the holders which secure the packing-rings to the piston-head rest; and

L is the sliding holder, which slides into the piston-head, to admit of the packing-rings being placed on the piston-head, and which, on pushing the piston-rod through its head, slides out into the recesses K in the packing-rings, securely fastening the packing-rings to the piston-head.

The piston-head, as already explained, is placed on its rod, by first pushing the holders back into the piston-head, and slipping the packing-rings on the piston-head. Next, the piston-rod is pushed through the head and keyed, said rod in its passage pushing the holders into their places on the packing-rings, and in this manner the piston-head is secured to its rod and the packing-rings to the piston-head, dispensing with the use of the ordinary flange, follower, springs, and bolts, which were liable to work loose, and cut and tear the cylinder.

Furthermore, the steam acting on the face of the piston, tends to keep the packing-rings up to the head, while the steam entering the channels F K, expands and presses the packing-rings against the cylinder, and the holders up to and against the piston-rod.

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

The piston-head C, the rings G, and holders L, the channels F and K, and rod A, all constructed and arranged substantially as described.

In testimony whereof, I have hereunto set my signature, this 22d day of March, A. D. 1869.

Witnesses: ANDREW McMULLIN.

SAMUEL McMULLIN,
JOHN BUSTARD.