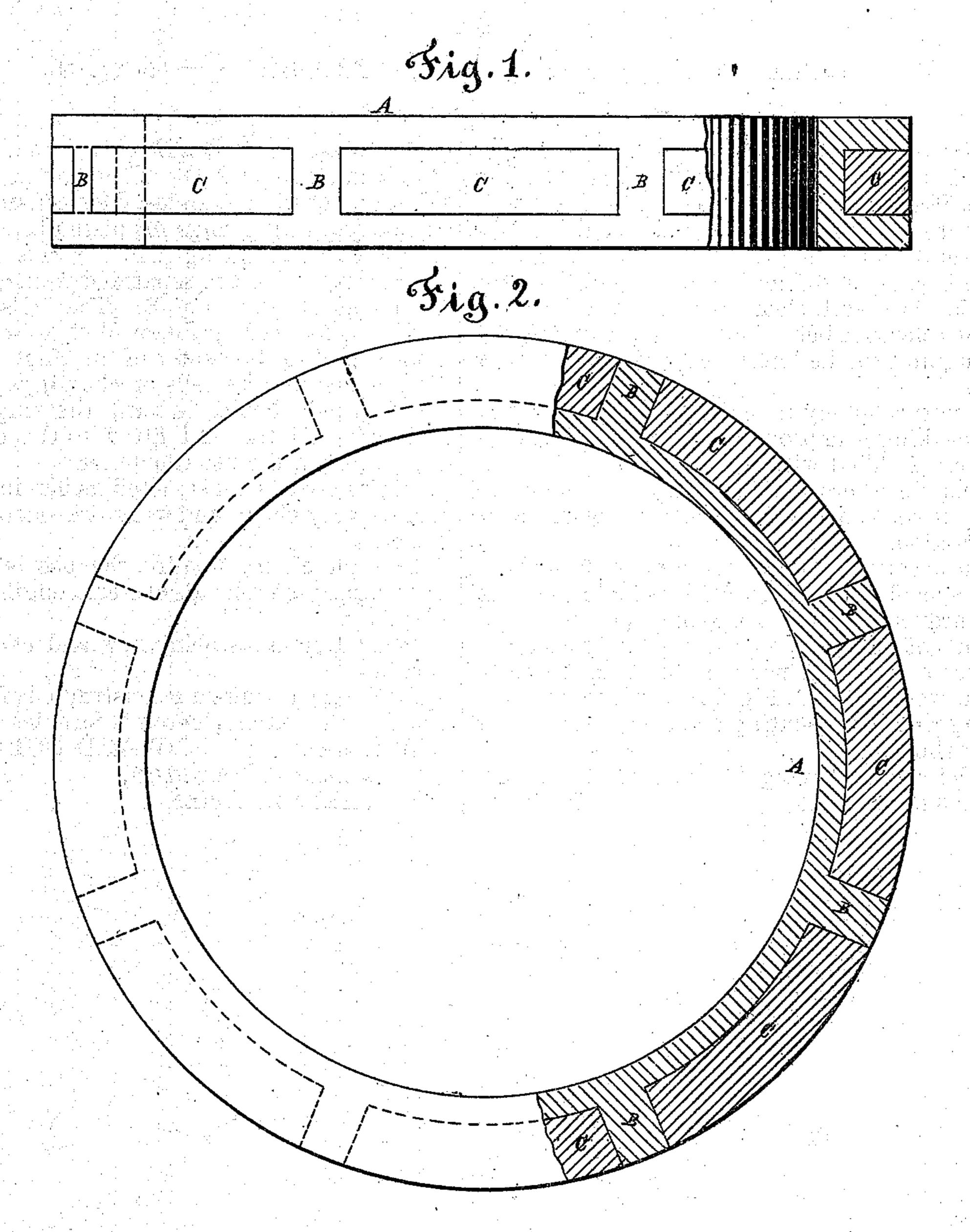
## EDWARD SULLIVAN.

## Improvement in Piston Packing.

No. 119,248.

Patented Sep. 26, 1871.



Witnesses.

Inventor.

Edward Sullivan By I. I Sohnston his attorney

## UNITED STATES PATENT OFFICE,

EDWARD SULLIVAN, OF MOUNT WASHINGTON, PENNSYLVANIA.

## IMPROVEMENT IN PISTON-PACKINGS.

Specification forming part of Letters Patent No. 119,248, dated September 26, 1871.

To all whom it may concern:

Be it known that I, EDWARD SULLIVAN, of Mount Washington, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Packing-Rings for Piston-Heads; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The nature of my invention consists in a metallic packing-ring provided with a series of cells or chambers filled with wood.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction.

In the accompanying drawing, which forms part of my specification, Figure 1 is an edge view of my improvement in packing-ring, representing a portion cut and broken away so as to show a transverse section of the metallic ring, its cells, and the wood filling. Fig. 2 is a face view of the packing-ring, representing a vertical section of a part of the ring.

In the accompanying drawing similar letters refer to similar parts.

A represents a metallic ring for a piston-packing for a steam-engine. This may be constructed of any of the metals used for constructing the ordinary packing-rings for piston-heads. In the periphery of the ring A is a series of cells or chambers, which are separated from each other by means of partitions B. The cells are filled with wood C, the grain or fiber of which is on lines radial to the center of the ring. After the ring is cast and its cells or chambers filled with wood, which should be hard, the ring is placed in a turning-lathe and fitted to the cylinder of the engine in the usual manner.

Packing-rings constructed as herein described will be very cheap and will work smoothly in the cylinder.

I do not claim, broadly, the use of wood for packing in piston-heads of steam-engines or other enginery.

What I claim as being new and of my invention is—

A piston packing-ring constructed of metal and wood in the manner hereinbefore described.

Witnesses: EDWARD SULLIVAN.
JAMES J. JOHNSTON,
JAMES D. JONES. (72)