

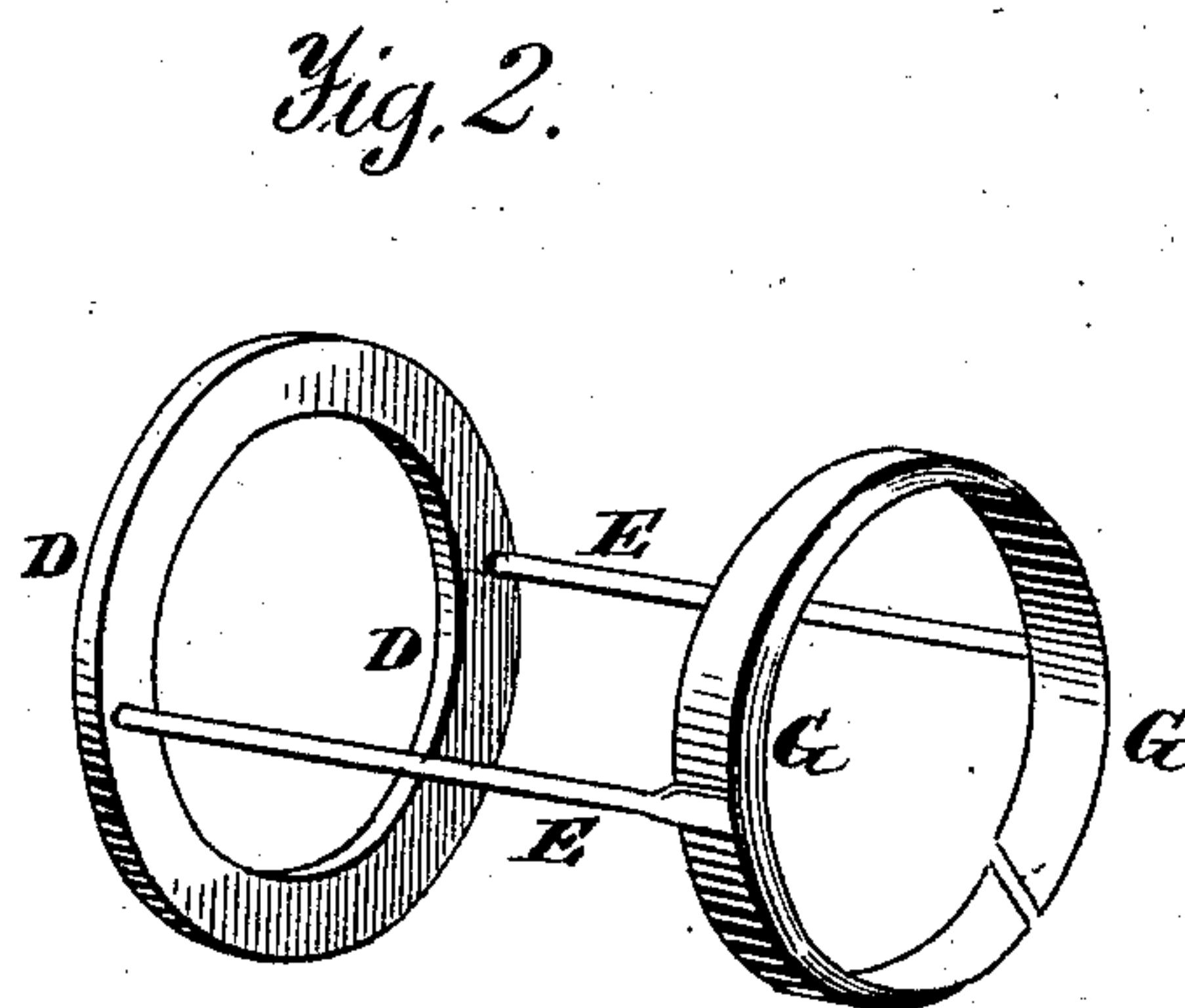
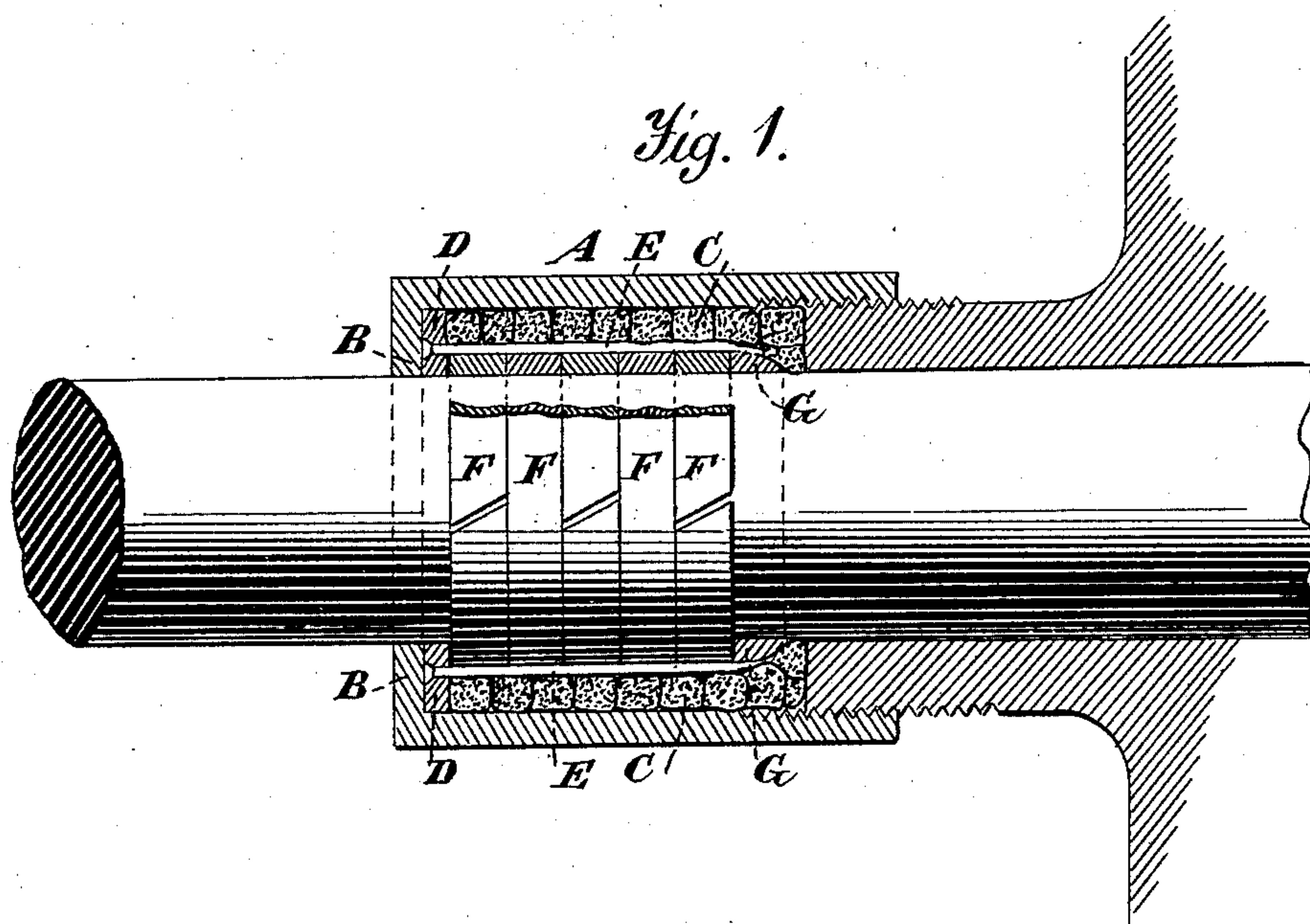
(No Model.)

M. D. L. SWANK & J. T. THORNLEY.

PISTON ROD PACKING.

No. 285,441.

Patented Sept. 25, 1883.



Witnesses.
A. Ruppert.
J. C. Breast.

Inventor.
M. D. L. Swank
J. T. Thornley
per J. R. Nottingham *Atty.*

UNITED STATES PATENT OFFICE.

MARQUIS D. L. SWANK AND JASPER T. THORNLEY, OF ANDERSON, IND.

PISTON-ROD PACKING.

SPECIFICATION forming part of Letters Patent No. 285,441, dated September 25, 1883.

Application filed January 29, 1883. (No model.)

To all whom it may concern:

Be it known that we, MARQUIS D. L. SWANK and JASPER T. THORNLEY, citizens of the United States, residing at Anderson, in the county of Madison and State of Indiana, have invented certain new and useful Improvements in Piston-Packing; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to certain improvements in packings for the stuffing-boxes of piston-rods; and it has for its objects to provide a compound packing for such purposes, consisting of a yielding fibrous material and a series of elastic metallic rings, through which the piston-rod passes, so as to form a perfectly-tight bearing around the rod, as more fully hereinafter specified. These objects we attain by the means illustrated in the accompanying drawings, in

Figure 1 of which is represented a vertical sectional view of our invention, and in Fig. 2 a detail showing annuli connected by rods.

The letter A indicates a cylindrical shell provided at one end with an internal annular flange, B, and at the other with an internal screw-thread, by means of which it may be secured to an externally-screw-threaded boss on the exterior of the cylinder-head, through which the piston-rod works.

The letter C indicates a packing of fibrous material, preferably in the form of a rope of asbestos. The said rope is coiled spirally in the interior of the shell, as indicated. Against the inner edge of the annular flange is located an annulus, D, from which extend the wires or rods E toward the screw-threaded end of

the shell, and within the coiled packing are located a series of obliquely-split packing-rings, F, arranged so as to break joints with each other, as indicated.

At the screw-threaded end the shell is provided with a beveled annulus, G, which is connected in any suitable manner to the wires or rods of the before-mentioned annulus, the two annuli, as thus connected, serving to hold the fibrous packing and the rings in place.

The shell is attached to the boss of the cylinder-head in the usual manner, and the piston-rod passes through the elastic rings and their surrounding and intervening packing, the same forming a perfectly tight-joint, which will permit the rod to work freely and prevent any escape of fluid. The rods connecting the two annuli hold the fibrous packing in place, and also keep the metallic rings from being displaced by the movement of the piston-rod.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. A packing for piston-rods, composed of coiled fibrous material, and a series of inclosed metallic rings located in a suitable shell, to be attached to the boss of the cylinder-head, substantially as specified.

2. In combination with the inclosing-shell, flanged and screw-threaded, as described, the connected annuli, the fibrous packing, and the split rings located in the shell, and arranged substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

MARQUIS D. L. SWANK.
JASPER T. THORNLEY.

Witnesses:

HOWELL D. THOMPSON,
THOMAS B. ORR.