

(No Model.)

F. BOLD.
Piston Rod Stuffing Box.

No. 232,106.

Patented Sept. 14, 1880.

FIG. 1.

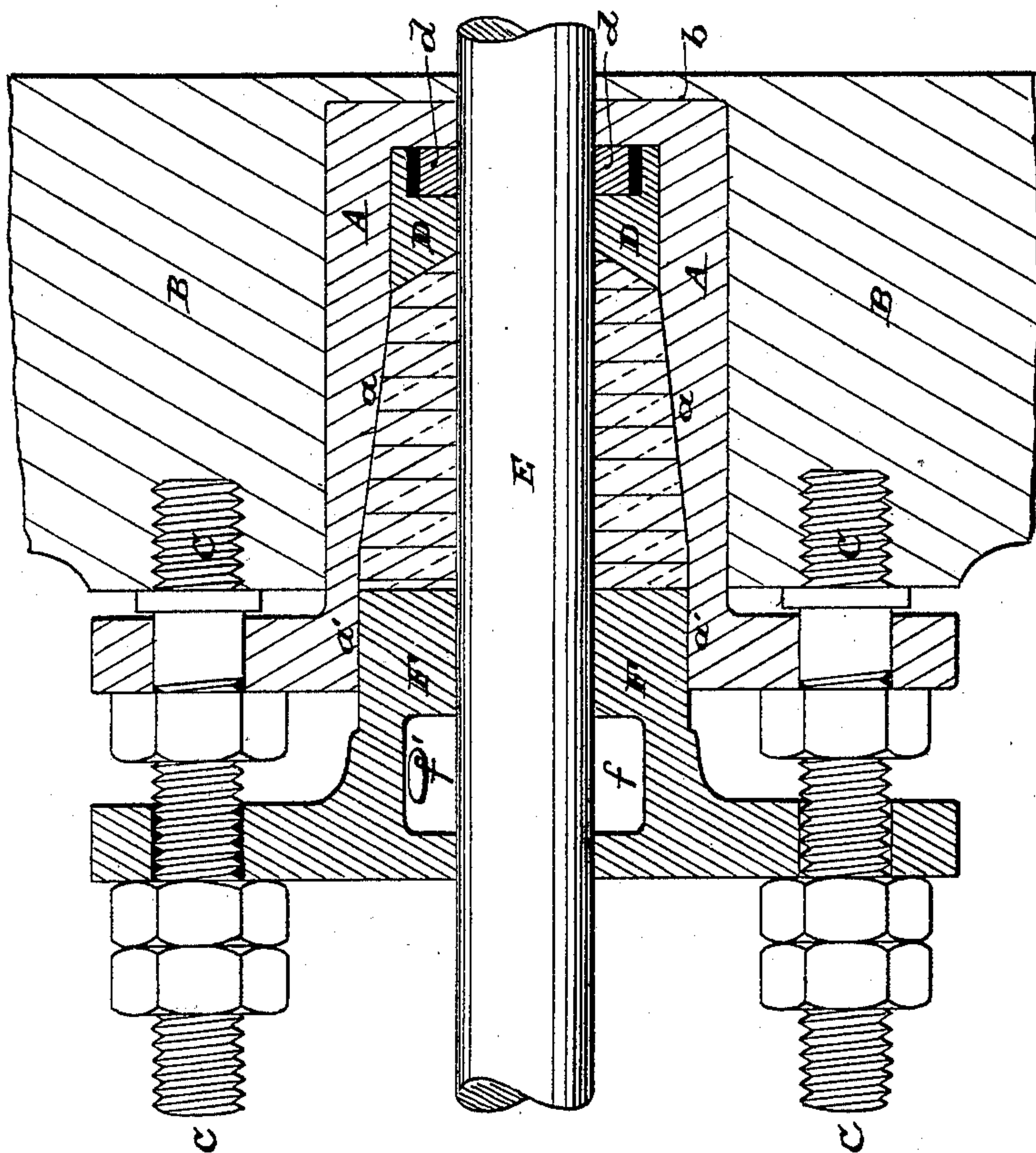
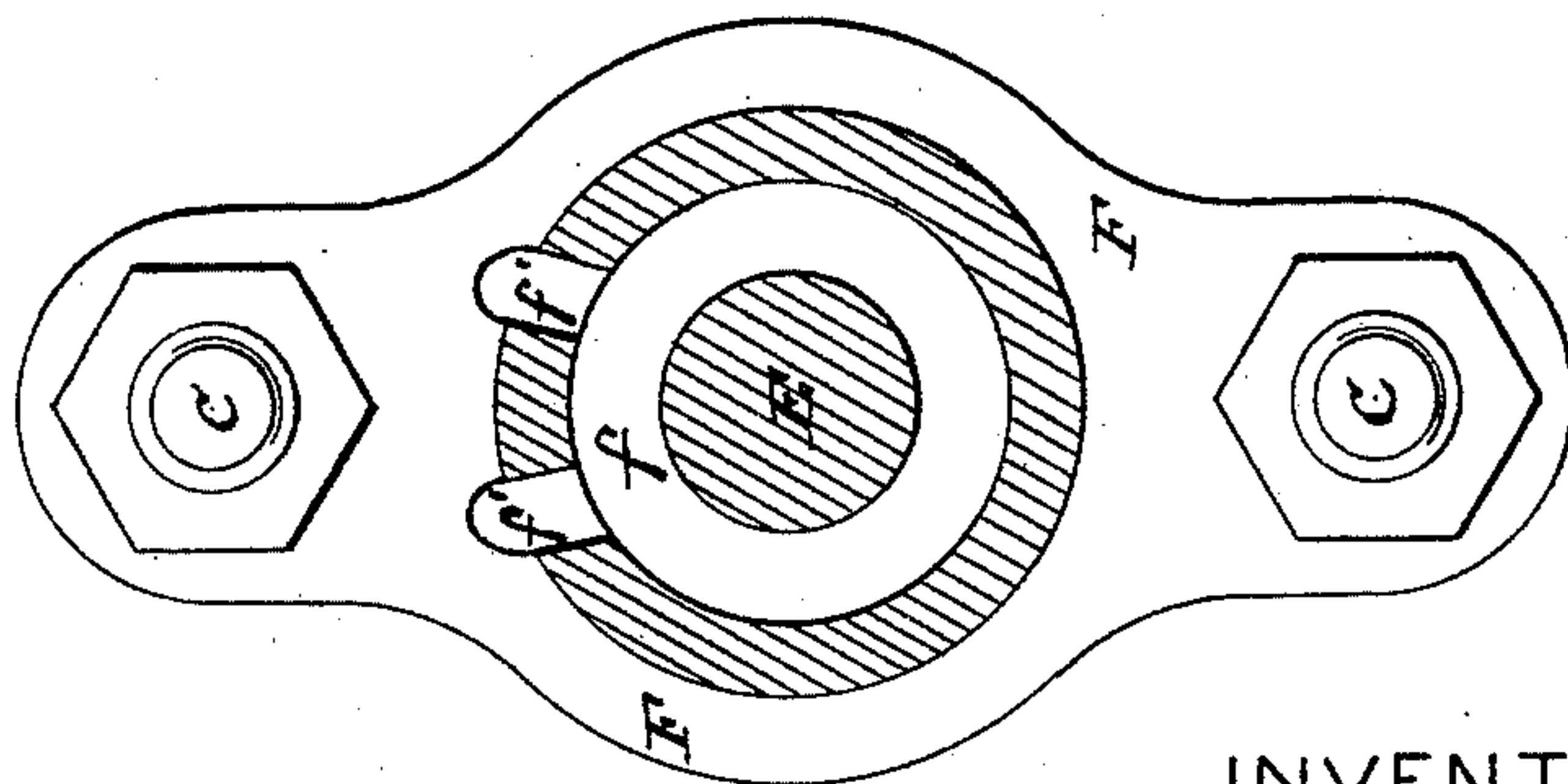


FIG. 2.



ATTEST:

Robert Burns
George Bullock

INVENTOR:

Fred Bold.

UNITED STATES PATENT OFFICE.

FRED BOLD, OF ST. LOUIS, MO., ASSIGNOR OF TWO-THIRDS OF HIS RIGHT
TO GEORGE BULLOCK AND GLENN M. WHITESIDE, OF SAME PLACE.

PISTON-ROD STUFFING-BOX.

SPECIFICATION forming part of Letters Patent No. 232,106, dated September 14, 1880.

Application filed May 31, 1880. (No model.)

To all whom it may concern :

Be it known that I, FRED BOLD, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Piston-Rod Stuffing-Boxes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention consists, first, in the peculiar construction of the stuffing-box with an inclined packing-chamber, as hereinafter more fully described, the object of which is to allow the use of a packing of bar-lead or other suitable solid material, and by means of which any wear of the same can be readily and effectually taken up and thus prevent the escape of steam; secondly, in the provision at the rear end of the stuffing-box of a movable ring encircling the piston-rod and having a free vertical movement with the same, so as to follow up the wear of the piston-rod, &c., and prevent the escape of steam around the upper portion of the periphery of said rod, in the manner as will hereinafter more fully appear.

In the drawings, Figure 1 is a longitudinal section illustrating my invention. Fig. 2 is a cross-section of the same, at line *x x*, through oil-cellar.

The drawings represent the stuffing-box A as separate from the cylinder-head B, and secured thereto by means of the gland-bolts C and a ground joint at *b*; yet in some forms of construction the part A may form an integral part of the cylinder-head.

At the back end of the stuffing-box A is arranged a cup-piece, D, surrounding the piston-rod E, as clearly indicated in Fig. 1. The back end of this cup is recessed out, so as to receive a packing-ring, *d*, surrounding the piston-rod, and having a free movement in the said recess, so as to follow up the piston-rod as it gradually wears away the packing and stuff-

ing-box and prevent any leakage of steam around the upper periphery of said piston-rod.

The packing is preferably formed of a bar of soft lead wrapped around the piston-rod, although any other form or material may be used.

In order to compress and fill in the packing around the piston-rod in an effectual manner, the interior of the box is formed tapering at *a*, as shown, with a straight part, *a'*, for the movement of the gland F, as shown. The gland F is formed hollow, so as to have an annular oil-chamber, *f*, for the reception of oil for lubricating the piston-rod, oil being introduced into the same through opening *f'*.

In this construction a stiff material, such as lead, &c., can be used as a packing material, as it furnishes an effectual means of taking up any wear of the same, and thus a more perfect packing is formed, as it is a well-established fact that lead forms a very superior packing when there is means for taking up the wear as it occurs in use.

Having thus fully described my said invention, what I claim is—

1. The stuffing-box having its bore formed with an inclined portion, *a*, and a straight portion, *a'*, for the movement of the gland, constructed and arranged as shown, as and for the purpose set forth.

2. The combination, in a stuffing-box, of the ring *d*, arranged in the recess in the cup-piece D, and having a free vertical movement upon the piston-rod, as described, and for the purpose set forth.

In testimony of which, witness my hand this 25th day of May, A. D. 1880.

FRED BOLD.

In presence of—

ROBT. BURNS,
GEO. BULLOCK.