

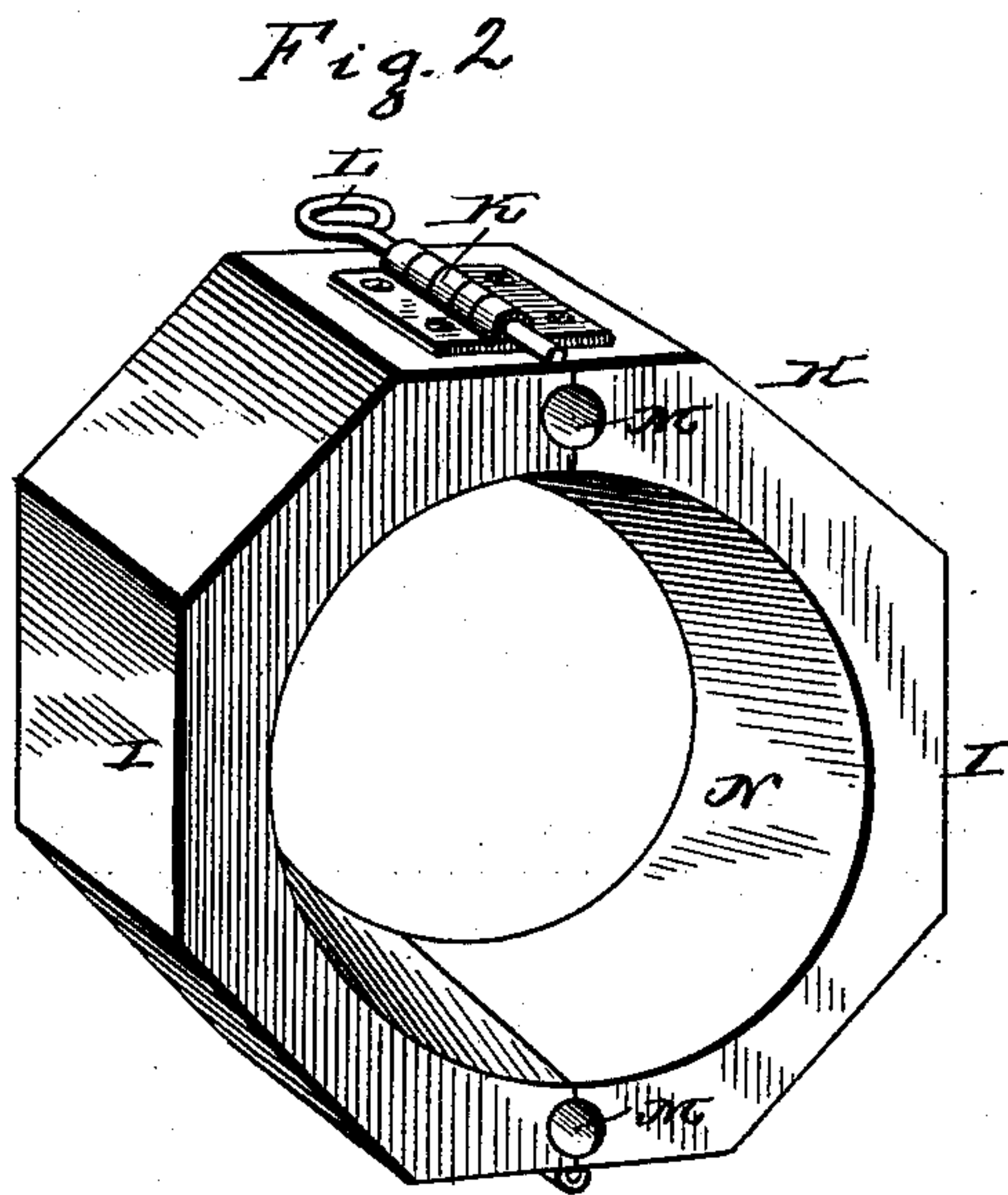
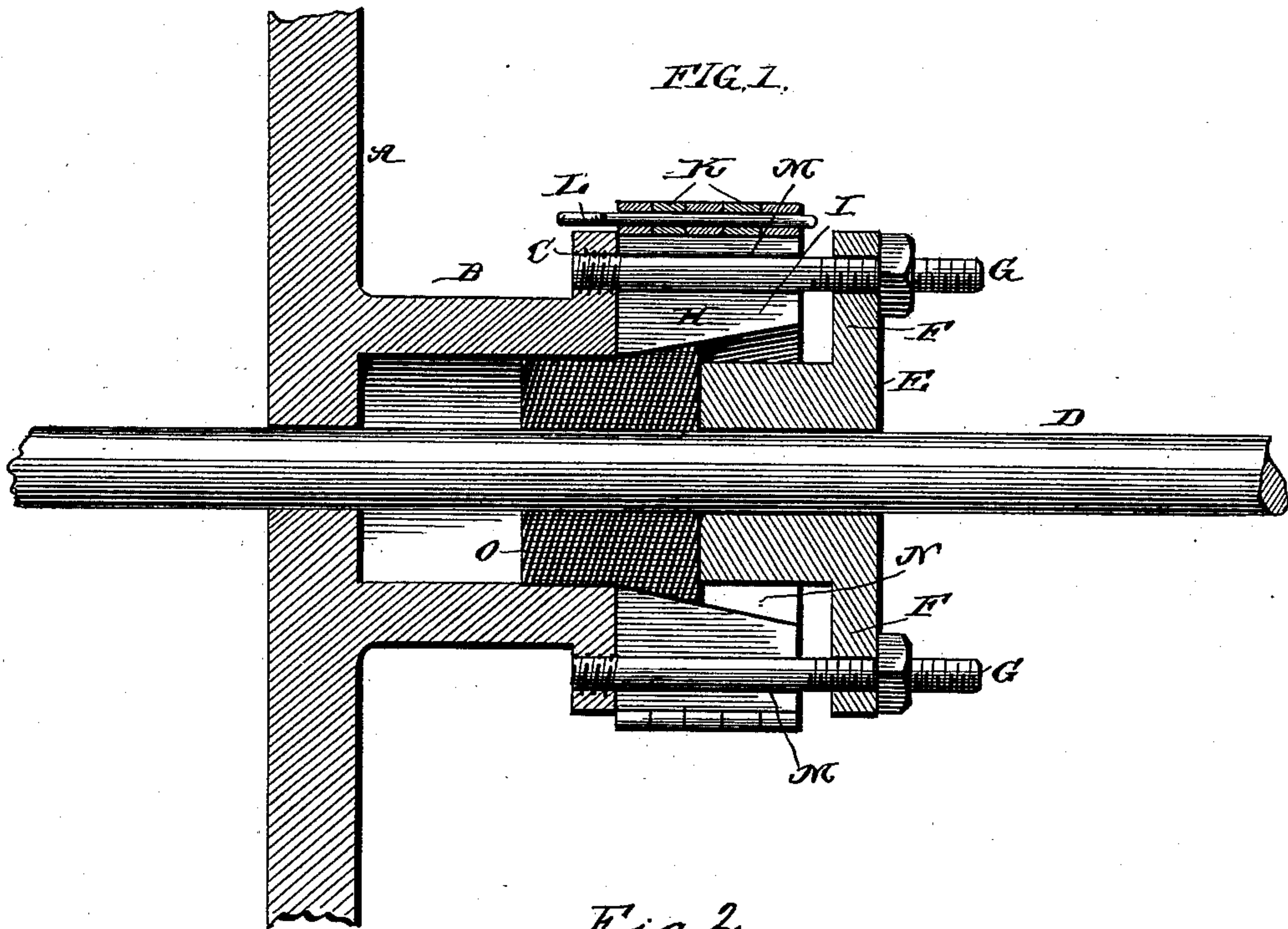
(No Model.)

A. BRADFORD.

ROD PACKING.

No. 362,355.

Patented May 3, 1887.



Witnesses

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ALDEN BRADFORD, OF FALL RIVER, MASSACHUSETTS.

ROD-PACKING.

SPECIFICATION forming part of Letters Patent No. 362,355, dated May 3, 1887.

Application filed February 8, 1887. Serial No. 226,965. (No model.)

To all whom it may concern:

Be it known that I, ALDEN BRADFORD, a citizen of the United States, residing at Fall River, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Devices for Packing Piston-Rods, of which the following is a specification.

My invention relates to an improvement in devices for packing piston-rods; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a vertical sectional view of a part of a steam-cylinder, showing the piston-rod, the stuffing-box, my improved packing device, and the manner of using the same. Fig. 2 is a detached perspective view of my improved packing device.

A represents the head of a steam-cylinder, provided with the usual stuffing-box, B, having a projecting flange, C.

D represents the piston-rod, which works in an opening made in the center of the cylinder-head, and passes through the center of the stuffing-box in the usual manner.

E represents the packing-gland, which is adapted to enter the opening in the stuffing-box, and is provided with a projecting annular flange, F, the diameter of which corresponds to the diameter of the flange C.

G represents the usual clamping-bolts, which project from the flange of the stuffing-box, and are adapted to secure the packing-gland thereto, and to force the said gland into the stuffing-box when the nuts on the clamping-bolts are turned.

In order to cause the piston-rods to be packed steam-tight in the stuffing-box, it is highly desirable that a packing-ring of suitable material be employed, the diameter of which normally exceeds the diameter of the stuffing-box, in order that the said packing-ring may be compressed when forced into the stuffing-box, and thereby caused to bear firmly against all sides of the piston-rod. It requires a considerable expenditure, however, of time and labor to force such a packing-ring into the stuffing-box; and the object of my invention is to provide a device which is adapted to guide and

direct the packing-ring into the stuffing-box with ease and facility, and thus enable the packing-ring to be very readily inserted in the stuffing-box. Such a device I illustrate in Fig. 2, and it consists of an annular collar, H, comprising two semicircular sections, I, which are hinged together on one side, and are provided at their free edges with projecting lugs or ears K, adapted to align with each other when the sections are closed, and provided with aligned openings adapted to receive a securing-pin, L, the function of which is to lock the free sides of the sections together. In the center of the collar is made a conical or funnel-shaped opening, N, one half of the said opening being formed in one section I, and the other half thereof being formed in the opposing section. The smaller end of the conical opening has a diameter corresponding to the diameter of the central opening in the stuffing-box.

M represents cylindrical openings, which are made between the opposing sides of the sections I of the collar, the said openings M being adapted to receive the clamping-bolts G.

The operation of my invention is as follows: In order to insert the packing-ring into the stuffing-box of the cylinder-head, the gland E is first released from the stuffing-box by unscrewing the nuts on the clamping-bolts G and drawing the gland outwardly on the piston-rod a suitable distance from the stuffing-box. The ring or collar H has its sections opened, and is inserted over the piston-rod so as to surround the same, and is closed upon the same, the bolts G being caused to enter the openings M between the opposing sides of the hinged sections of the collar. The latter is arranged so that the smaller end of its conical opening shall communicate with the opening in the stuffing-box, as shown in Fig. 2. The packing-ring O is then inserted in the outer side of the conical opening in the collar H, and the gland E is forced backwardly on the piston-rod and caused to enter the conical opening in the guiding-collar H until the outer ends of the clamping-bolts G pass through the openings which are made in the flange of the gland to receive them. The nuts are then screwed on the outer threaded ends of the clamping-bolts, which causes the flange

to be forced rearwardly on the piston-rod, and it will be readily understood that as the gland moves rearwardly it forces the packing-ring rearwardly through the conical opening 5 in the guiding-collar, the latter serving to gradually compress the packing-ring, so that it will be directed easily into the stuffing-box. As soon as the packing-ring is inserted in the outer end of the stuffing-box, the guiding-collar 10 H is removed by withdrawing the pin L from the lugs or ears K, thus releasing the sections of the collar, and enabling them to be opened, so that the collar may be taken from the engine. The gland is then screwed home into 15 the stuffing-box.

Having thus described my invention, I claim—

1. In a rod-packing, a collar to direct the packing-ring into a stuffing-box, the said collar having a conical opening, the inner end of 20 which is of the same diameter as the opening in the stuffing-box, substantially as described.

2. In a rod-packing, the guiding-collar to direct the packing-ring into the stuffing-box, 25 the said guiding-collar having the hinged sec-

tions I and the conical opening N, made between the said sections, for the purpose set forth, substantially as described.

3. In a rod-packing, the guiding-collar to direct a packing-ring into a stuffing-box, the 30 said collar comprising the sections I, hinged together and provided with the conical opening N, formed between them, the said sections having the lugs or ears K projecting from their free sides and adapted to align with each 35 other, and the pin L, adapted to extend through aligned openings made in the said lugs or ears to lock the free sides of the hinged sections together, substantially as described.

4. In a rod-packing, a collar to direct the 40 packing into a stuffing-box, and having the funnel-shaped passage to receive the packing, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 45 presence of two witnesses.

ALDEN BRADFORD.

Witnesses:

MAJOR GOODWIN,
NIELS AMZEN.