F. J. Roth,

Stuffing-Box Packing.

No. 77,534. Patented May 5, 1868.

Fig. 2

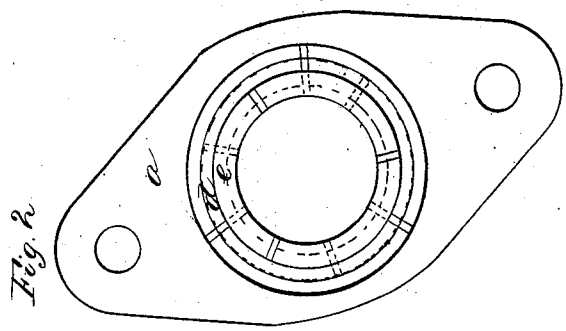
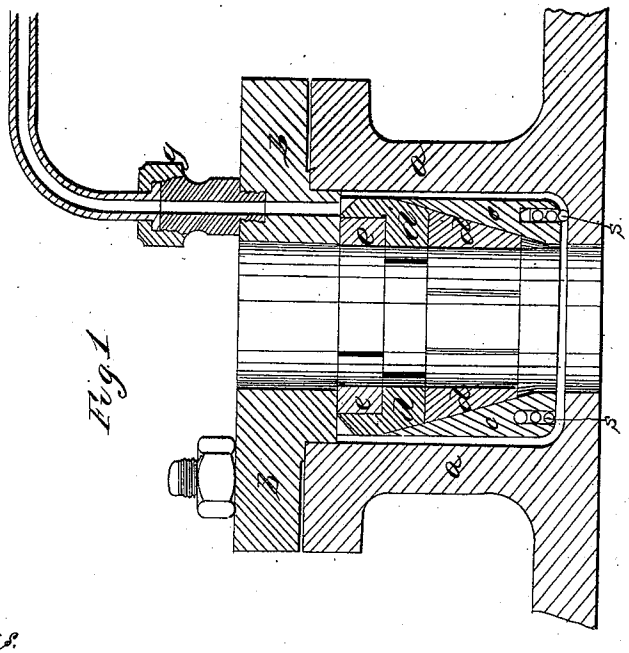


Fig. 1



Witnesses.
Jno A Ellis
James White

Inventor.
Frank J Roth
Per
F K Alexander & Co
Attys

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

United States Patent Office.

FRANK J. ROTH, OF SCHENECTADY, NEW YORK.

Letters Patent No. 77,534, *dated May* 5, 1868; *antedated April* 22, 1868.

IMPROVEMENT IN STUFFING-BOX 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, FRANK J. ROTH, of Schenectady, in the State of New York, have invented certain new and useful Improvements in Stuffing-Box Packing; and I hereby declare that the following is a true, full, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the drawings annexed, which make a part of this specification—

Figure 1 represents a diametrical section of stuffing-box and packing.

Figure 2 is an end view of packing, with cap removed.

The object of my mode of packing is to have steam to act upon the rear end of the follower in order to pack the piston-rod. *d d'*, the packing-rings, are each cut into three sections, (see fig. 1,) and must be made of hard composition. Ring *e*, which presses against the packing *d'*, is to be cut only once.

C represents a conical-shaped follower, which, with the packing-ring *d'*, must be turned somewhat smaller than the bore of stuffing-box *a*, so as to allow the packing to adjust itself to the vibration of the piston-rod.

S designates a spring which is used to keep the packing-rings *d d'* and conical follower *c* in contact with inner surface of cap *b*. The joints between follower *c* and *d'*, and between follower *c* and ring *e*, must be made perfectly steam-tight. When the depth of stuffing-box will not admit of as long packing as is here described, the packing-ring *d* can be dispensed with.

b represents the cap, which is to be secured up to a steam-joint against stuffing-box *a*. The back of stuffing-box *a* will have a bore somewhat larger than the bore in cap *b*, so that the piston-rod may play freely through it. In order to keep the packing free from dirt, I employ either a cock, *g*, screwed into the cap *b*, or otherwise a connnection-pipe, to be used in locomotives, or horizontal engines. This pipe will be connected with the cylinder-cock next to the stuffing-box, so that, when open, steam rushes through the stuffing-box and carries off any impurities that may have lodged there.

I do not claim this vibration of the packing as my invention, but heretofore the vibration has been of no practical use, as it only requires a short time to fill it up with grease or dirt, and thus impede the motion of the said rod; but,

What I do claim, and wish to secure by Letters Patent, is—

The employment of cock *g*, or its equivalent, when used in connection with stuffing-box *a*, substantially as herein set forth and described.

In testimony that I claim the foregoing as my own, I hereby affix my signature in the presence of two witnesses.

FRANK J. ROTH.

Witnesses:

CHARLES ROTH,

ANDREW SCHINNERER.