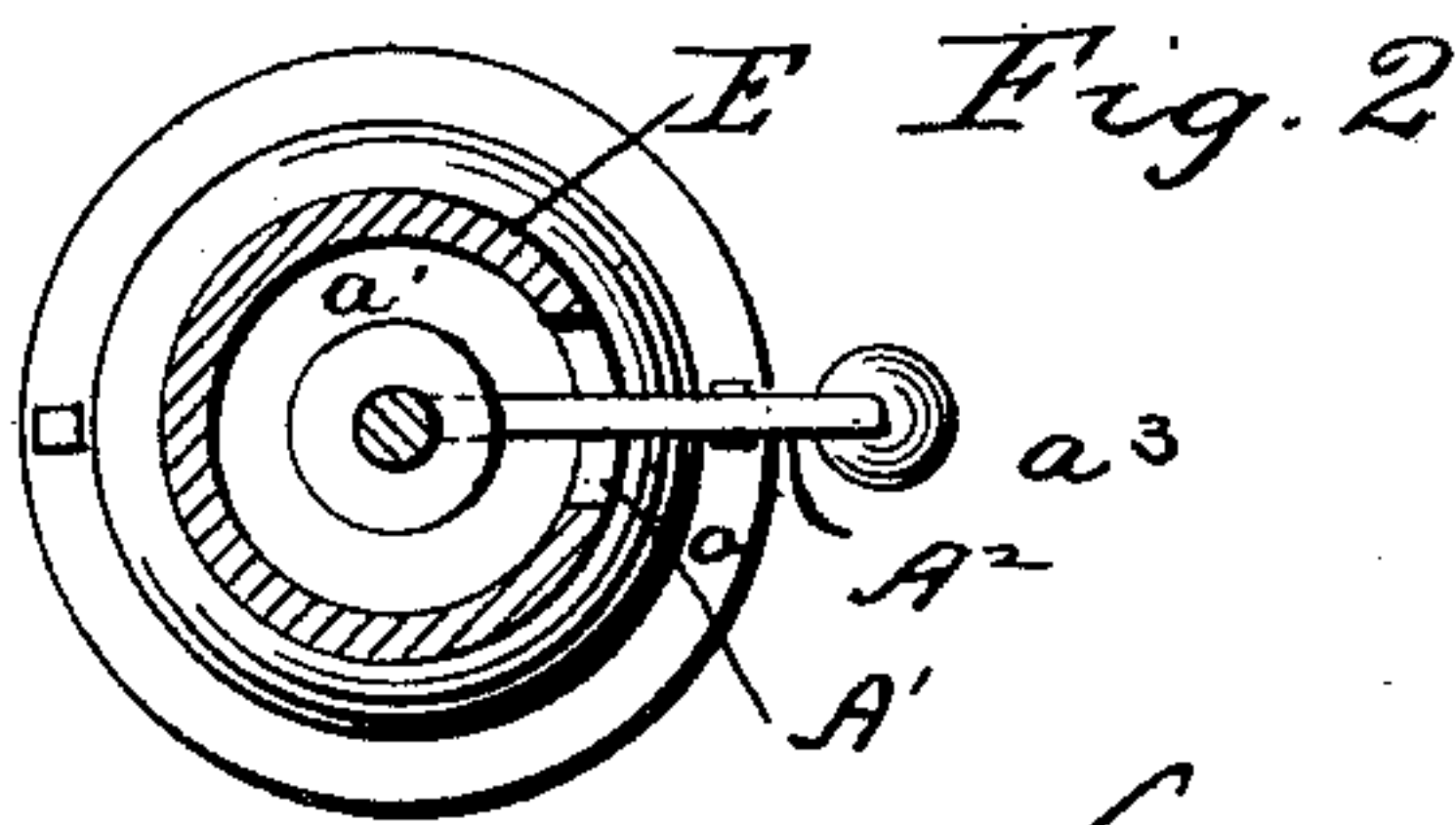
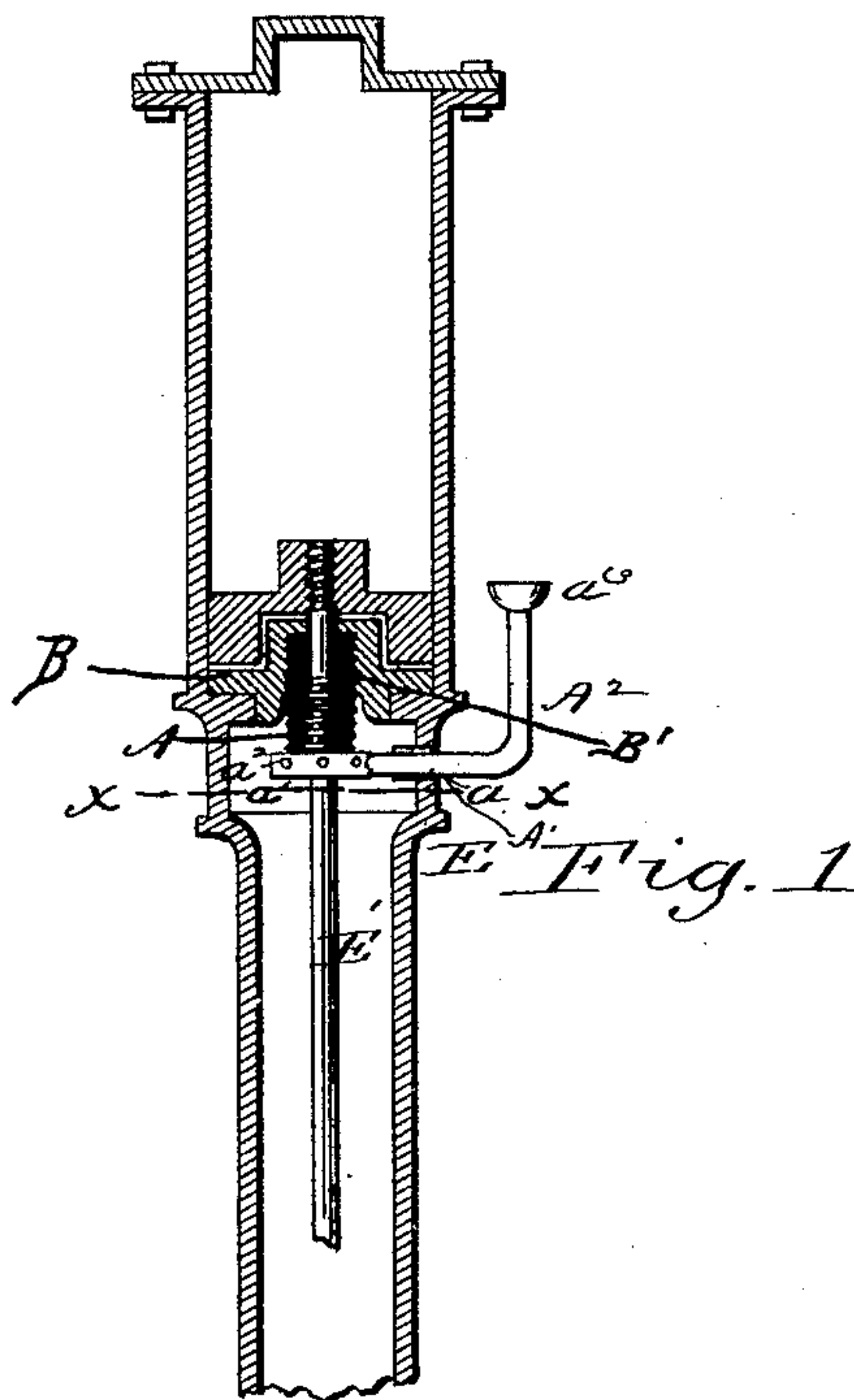


(No Model.)

L. D. COPELAND.  
STUFFING BOX.

No. 406,882.

Patented July 16, 1889.



*L. D. Copeland*

WITNESSES—

*Albert B. Blackwood*

*Oscar W. Humphrey*

INVENTOR—

*by Connolly Bros*  
*atp*

# UNITED STATES PATENT OFFICE.

LUCIUS D. COPELAND, OF CAMDEN, NEW JERSEY.

## STUFFING-BOX.

SPECIFICATION forming part of Letters Patent No. 406,882, dated July 16, 1889.

Application filed May 16, 1888. Serial No. 274,071. (No model.)

*To all whom it may concern:*

Be it known that I, LUCIUS D. COPELAND, a citizen of the United States, residing at Camden, in the county of Camden and State of New Jersey, have invented certain new and useful Improvements in Stuffing-Box and Piston-Rod Lubricators for Steam-Engines; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, which form part of this specification.

This invention has relation to steam-engines, and particularly to incased engines of the type wherein the piston-rod is arranged and operates within a metallic shell forming a portion of the casing, which includes the gearing and other operative parts.

The object of the present invention is to provide a stuffing-box for the piston-rod with an adjustable gland and means for adjusting the same without removing the shell or any portion thereof.

My invention consists in the combination, with the cylinder, piston-rod, and piston-rod casing, of an adjustable gland and novel means for adjusting the same.

In the drawings, Figure 1 is a vertical central sectional view of a steam-cylinder, with piston-rod, casing covering the same, and my improved adjustable gland and lubricating device; and Fig. 2 is a transverse sectional view on line  $x x$  of Fig. 1.

The adjustable gland and piston-rod lubri-

cator consists of a gland A, threaded on its exterior surface, so as to screw into the interiorly-threaded portion B' of the cylinder-head B, and provided with a head or flange  $a'$ , having radial holes  $a^2$  at intervals extending through the flange.

$A^2$  is an L-shaped tube adapted to fit into one of the holes  $a^2$ , and provided at its upper end with a cup  $a^3$  to contain oil, which is fed therefrom through the tube to the piston-rod. The tube  $A^2$  leads out from the flange  $a'$  through a slot or opening A' in the adjacent portion of the engine-casing E, inclosing the piston-rod E', and serves as a lever or handle by which the gland is turned for the purposes of adjustment, the tube being changed from one hole  $a^2$  to another, according as may be required in turning the gland a considerable distance.

Having described my invention, I claim—

In a steam-engine, the combination, with the cylinder-head B, provided with an interiorly-threaded portion B', and the exteriorly-threaded gland A, having flange  $a$ , provided with radial holes  $a^2$ , of the tube  $A^2$ , passing through the slot A' in the casing E, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of May, 1888.

LUCIUS D. COPELAND.

Witnesses:

SANDFORD NORTHROP,  
WILL H. POWELL.