

No. 713,411.

Patented Nov. 11, 1902.

C. ENDRUWEIT.
YIELDING STUFFING BOX.

(Application filed Jan. 19, 1901. Renewed Aug. 11, 1902.)

(No Model.)

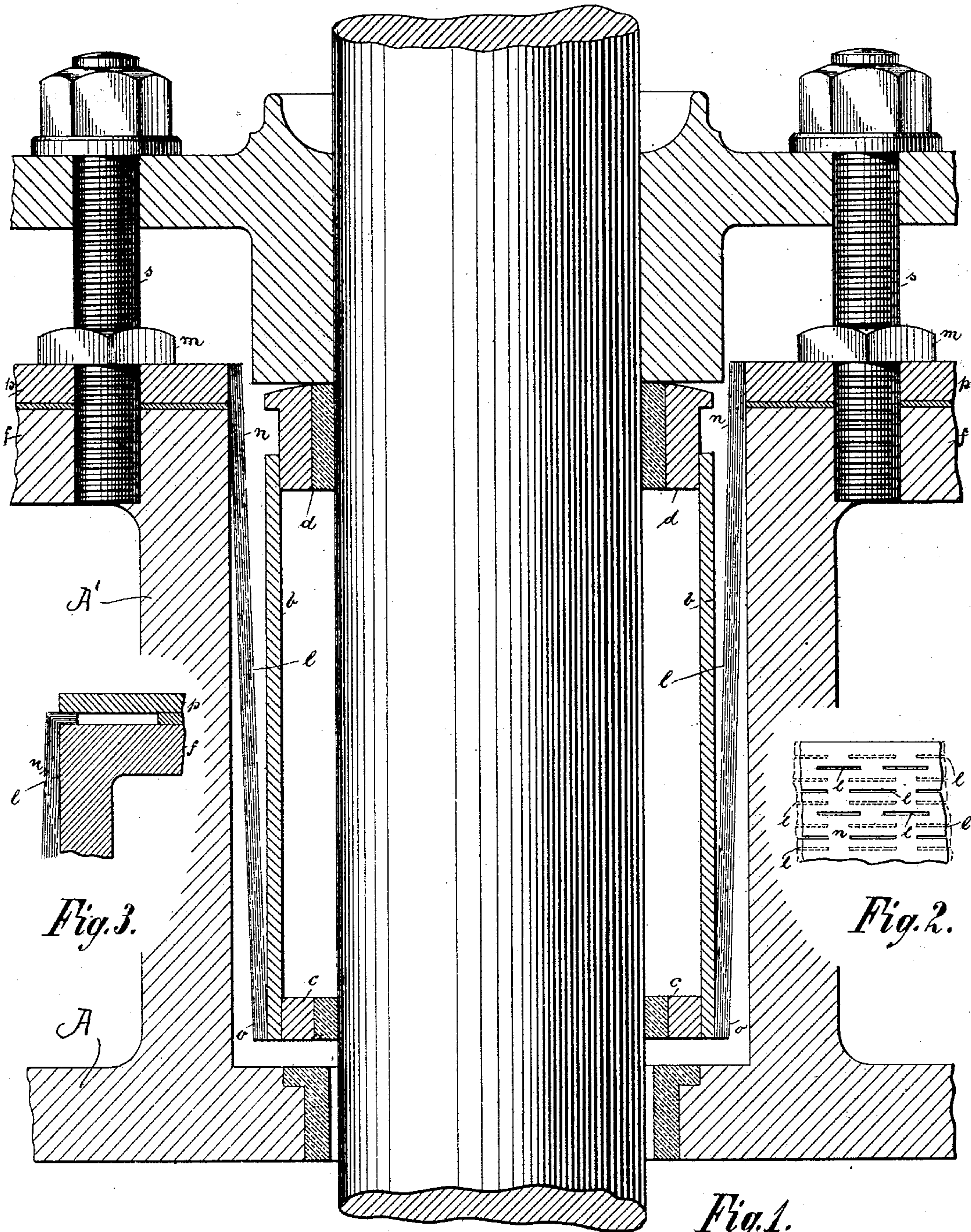


Fig. 3.

Fig. 2.

WITNESSES
A. B. B. J.
James Mathers

Fig. 1. INVENTOR
Carl Endruweit.
BY B. F. Eibler
Atty

UNITED STATES PATENT OFFICE.

CARL ENDRUWEIT, OF BERLIN, GERMANY.

YIELDING STUFFING-BOX.

SPECIFICATION forming part of Letters Patent No. 713,411, dated November 11, 1902.

Application filed January 19, 1901. Renewed August 11, 1902. Serial No. 119,314. (No model.)

To all whom it may concern:

Be it known that I, CARL ENDRUWEIT, engineer, of Dalldorferstrasse 16, Berlin, Germany, have invented a new and useful Improvement in Yielding Stuffing-Boxes, of which the following is a specification.

My invention relates to improvements in engine stuffing-boxes; and the object of my improvement is to produce a stuffing-box which is absolutely steam or gas tight and which also affords a certain degree of flexibility in order to avoid undue friction upon the sliding or rotating rods which are intended to be tightly guided in or through such boxes. I attain these objects in a stuffing-box constructed and equipped as shown in the accompanying drawings, in which—

Figure 1 is a central sectional view of a stuffing-box possessing features of merit as above referred to. Fig. 2 illustrates a detail of construction hereinafter referred to, and Fig. 3 illustrates a modification in the construction of such boxes.

Like letters of reference denote like parts of drawings and specification.

In the drawings, A represents a partial view of a cylinder-lid, projecting out from which is the flanged cylindrical casing A', which is adapted to receive the members constituting a stuffing-box, as above referred to. To the flange *f* is gas-tightly secured the ring *p*. The bore of said ring is tapering inwardly, and secured therewith is a cone shell, which consists of laminated sheet-metal. The sheets *n* being of ordinary paper thickness and preferably perforated, as shown at *l*, (see Fig. 2,) with the exception of the outer sheet or mantle *o*, which is solid. The rolled sheets are so fitted into each other or laminated that the perforations of any one sheet become covered by the solid part of the adjoining sheet or sheets. At the lower or inner terminal all the sheets are united by welding, brazing, or soldering, and, furthermore, securely connected therewith is the box *b*, which contains the packing material, same being held confined between the bottom *c* and sleeve *d*. The upper or outer face of said sleeve is slightly rounded, and forced against said face is the stuffing-box gland by means of the screws or studs *s*.

In building up the above-mentioned cone

shell of sheet or leaf material same becomes a more or less pliable structure, and thus serves as a yielding support for the stuffing-box *b*, enabling the latter to accommodate itself to the position or alinement of the piston-rod. Hence undue friction upon the piston-rod is eliminated, and the latter can easily be kept in absolutely tight condition without appreciable wear upon the piston-rod.

Fig. 3 illustrates a modification in the form and manner of securing or holding the shell in position. Furthermore, said shell may be laminated of material wound in spiral form as well as cylindrical form, the chief object of this invention being in the application of a yielding member for support of the packing material for piston-rods, &c.

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

1. In a stuffing-box for piston-rods, &c., a cone shell consisting of laminated material and an internal box containing the packing material the outer extremity of said shell being secured to an external casing and the inner extremity supporting said box at or near its inner terminal and suitable means enabling compression of said packing material all constructed and arranged substantially as and for the purposes set forth.

2. A stuffing-box for piston-rods, &c., comprising an internal receptacle for the packing material and a pliable cone shell, the said shell being supported by an external casing and the said receptacle having connection with said shell in such manner as to afford yielding accommodation of the packing with regard to the piston-rod substantially in the manner as and for the purpose set forth.

3. For piston-rods, &c., the combination of an external casing, an internal box containing packing material, a laminated cone shell and suitable means for compressing said packing material and all parts being relatively secured and arranged substantially in the manner as and for the purpose set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CARL ENDRUWEIT.

Witnesses:

WM. SHIEBING,
HENRY HASPER.