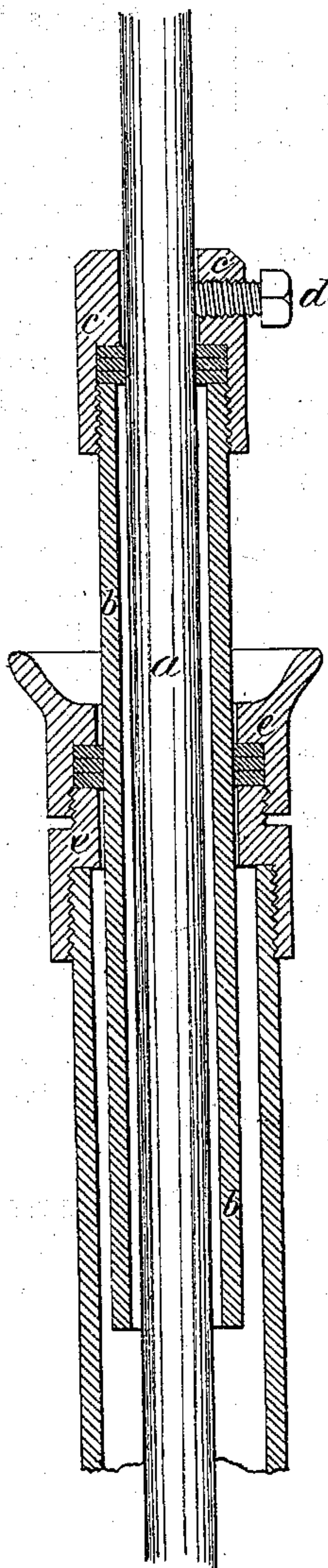


JOHN F. CARLL.

Improvement in Piston-Rods for Steam-Engines.

No. 127,025.

Patented May 21, 1872.



E. B. Frew
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} Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN F. CARLL, OF PLEASANTVILLE, PENNSYLVANIA.

IMPROVEMENT IN PISTON-RODS FOR STEAM-ENGINES.

Specification forming part of Letters Patent No. 127,025, dated May 21, 1872.

SPECIFICATION.

Specification describing certain Improvements in Piston-Rods, invented by JOHN F. CARLL, of Pleasantville, county of Venango, and State of Pennsylvania.

My invention relates more particularly to the class of piston-rods used in pumps and steam-cylinders of long stroke, which are most liable to become worn by friction, and where it is at times desirable to change the point of contact or length of stroke; and consists in interposing between the piston-rod and the stuffing-box or end of cylinder through which it passes, a tube or sleeve fixed in any desired position upon the piston-rod by means of a set-screw or equivalent device, and working through the stuffing-box or cylinder-head, the entire friction and wear being upon the outer portion of the sleeve. A suitable packing is inserted at or near the set-screw, sufficient to prevent the escape of steam or fluid.

The drawing represents a longitudinal section of my invention, not drawn to any particular scale, as the size and proportions of the parts may vary according to the use made of them.

a represents the piston-rod, which may be of common-rolled round iron, neither turned in a lathe or polished. *b* is a tube or sleeve, turned smooth on its outer surface and surrounding the piston-rod. *c* is a collar, of the sectional form shown, arranged to be screwed upon the upper or outer end of the sleeve *b*, the upper end of the collar being fitted to the rod as ac-

curately as it can be without turning or polishing the latter. A shoulder is shown within the collar *c*, and a packing of any suitable material is inserted around the rod and held in place by and between said shoulder and the end of the sleeve *b* sufficient to prevent the escape of any steam or fluid. *d* is a set-screw passing through the collar *c*, and above its packing, for holding the sleeve firmly at any desired point on the rod. *e* is the stuffing-box commonly placed upon the end of the pump-tube or cylinder-head, (as the case may be,) and through which the piston-rod usually works.

It will be seen that by the use of the sleeve *b* no wear can come upon the piston-rod, and the latter may be raised or lowered—if in a pump—to adjust the distance between valves without changing the relative positions of the wearing-surface and stuffing-box *e*. The sleeve *b*, whenever worn and unfit for use, can be readily and cheaply replaced without necessitating an entire new piston-rod.

I claim as my invention—

The tube or sleeve *b*, with its collar *c*, packing and set-screw *d*, arranged upon the piston-rod *a*, and between it and the stuffing-box *e*, the whole operating substantially as and for the purposes set forth.

JOHN F. CARLL.

Witnesses:

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