No. 727,225. PATENTED MAY 5, 1903.

J. D. STURTZ.

DEVICE FOR PACKING THROTTLE VALVES.

APPLICATION FILED DEC. 22, 1902.

NO MODEL.

Fig. 1

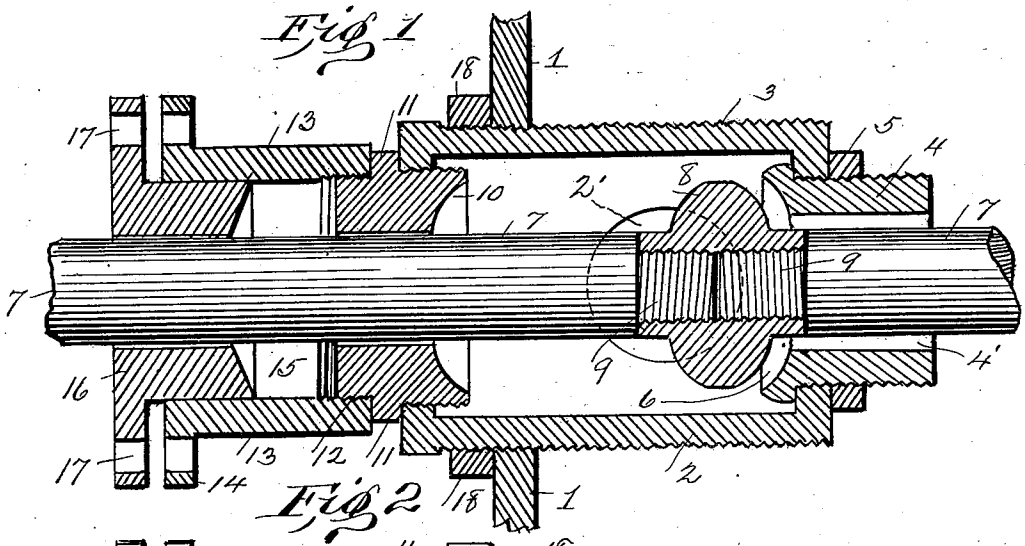


Fig. 2

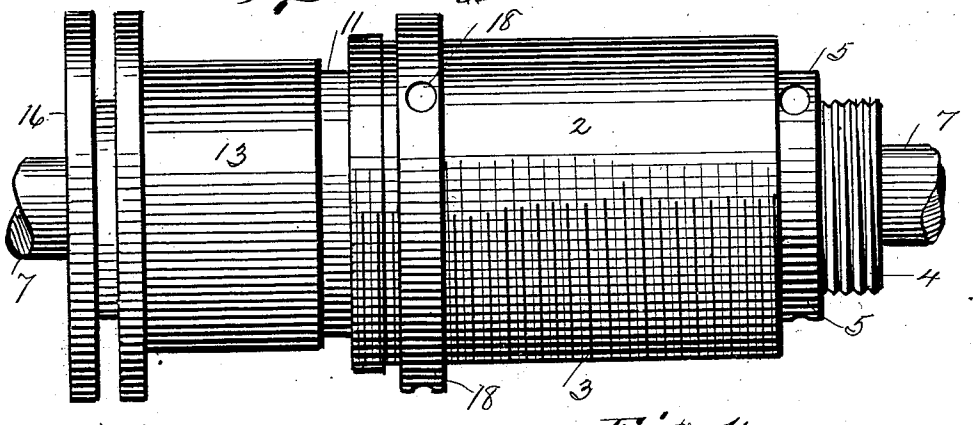


Fig. 3.

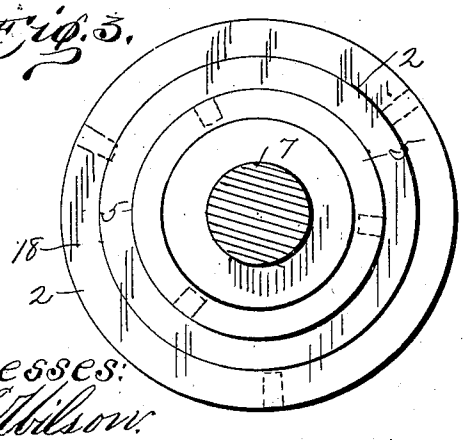
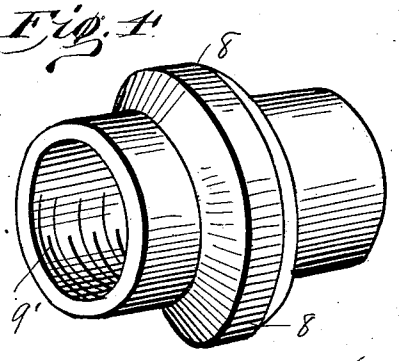


Fig. 4.



Witnesses:
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Inventor:
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by Dewey Lewis Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 727,225. Patented May 5, 1903.

UNITED STATES PATENT OFFICE.

JOHN D. STURTZ, OF UNIONTOWN, PENNSYLVANIA.

DEVICE FOR PACKING THROTTLE-VALVES.

SPECIFICATION forming part of Letters Patent No. 727,225, dated May 5, 1903.

Application filed December 22, 1902. Serial No. 136,117. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. STURTZ, a citizen of the United States, residing at Uniontown, in the county of Fayette and State of Pennsylvania, have invented a new and useful Improvement in Devices for Packing Throttle-Valves, of which improvement the following is a specification.

This invention relates to an improved device whereby the packing of throttle-valve stems may be renewed without reducing the steam-pressure in the boiler; and it consists in the certain details of construction and combination of parts, as will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a central side sectional elevation of my improved device, the same being constructed and arranged in accordance with my invention. Fig. 2 is a side elevation of the same. Fig. 3 is an end elevation, and Fig. 4 is a perspective view of the removable valve-seat.

To construct a device whereby the packing about the throttle-stem may be readily removed and replaced without reference to the pressure of steam in the boiler, I form from suitable metal a cylindrical shell 2, partly closed at either end, leaving annular openings in which screw-threads are formed. This shell 2 is formed with an external thread 3, by means of which it may be attached to the boiler-shell 1 and held rigid in the desired position by means of a jam-nut 18. Screwed into the forward opening in the shell 2 is a valve-seat 6, consisting of an annular casting 4, having at its inner end a seat 6 and formed with a central bore 4', somewhat larger in diameter than the throttle-stem 7. This seat may be adjusted to position by means of its screw-thread and locked by the jam-nut 5. The throttle-stem 7 is divided at a point within the shell 2 and the meeting ends formed with screw-threads 9 and connected with the valve 8, (see Figs. 1 and 4,) the said valve being interiorly threaded and when seated will close communication between the interior of the shell 2 and the boiler.

Attached by means of a screw-thread in the outer end of the shell 2 is an annular piece 11, the inner end of which is formed with a seat 10 and the outer end with a reduced threaded portion 12, upon which is screwed a short cylindrical piece 13, forming a part of the stuffing-box. This portion of the stuffing-box is fitted with an annular gland 16 and flange 14, formed with bolt-openings 17, leaving an intervening space 15, in which the packing for the throttle-stem 7 is placed. An opening 2' in the side of the shell 2 affords a means of connecting the steam-pipe leading to the cylinders of the engine.

In operation if it is desired to renew the packing in the stuffing-box with a full pressure of steam in the boiler it is only necessary to move back the valve 8 to the seat 10, remove the gland 16 and packing in the space 15. New packing is now substituted and the parts replaced and the valve 8 moved back to its former position.

Various slight modifications and changes may be made in the details of construction without departing from the spirit of the invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

In combination with the wall of a boiler, a cylindrical shell 2 with threaded circumference fitted in a threaded aperture in said wall, the ends of said shell having threaded apertures, a threaded union 11 having a valve-seat 10 and fitted in one end of said shell, a gland-receiving shell fitted over one end of said union, a circumferentially-threaded open-ended cylindrical member 4 fitted in one end of the shell and having a valve-seat 6, a sectional throttle-stem 7, the adjacent ends of which are threaded, a valve 8 having oppositely-disposed convexed surfaces and provided with a central bore with threaded wall adapted to receive the threaded ends of said sectional throttle-stem, as set forth.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN D. STURTZ.

In presence of—
FRED. O. HENZI,
M. E. HARRISON.