No. 624,305. Patented May 2, 1899.

J. R. CRABILL.

STUFFING BOX FOR WATER GAGES.

(Application filed Feb. 26, 1898.)

(No Model.)

Fig. 1.

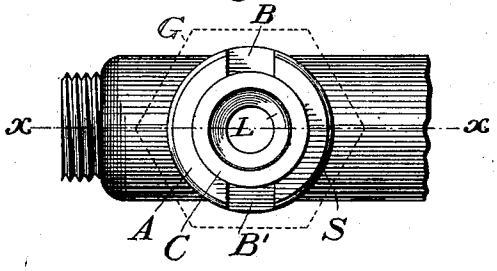


Fig. 2.

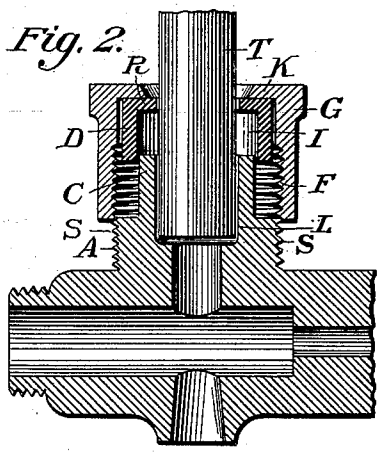


Fig. 3.

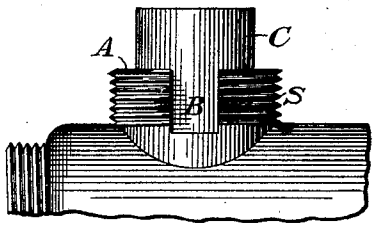


Fig. 4.

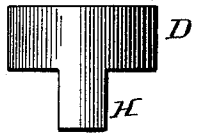


Fig. 5.

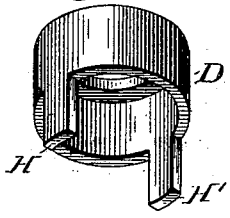
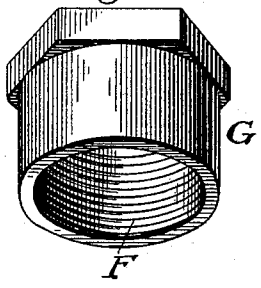


Fig. 6.



Witnesses.

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

UNITED STATES PATENT OFFICE.

JOSEPH R. CRABILL, OF LA HARPE, ILLINOIS.

STUFFING-BOX FOR WATER-GAGES.

SPECIFICATION forming part of Letters Patent No. 624,305, dated May 2, 1899.

Application filed February 26, 1898. Serial No. 671,807. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH R. CRABILL, a citizen of the United States, residing at La Harpe, county of Hancock, State of Illinois, have invented a new and useful Improvement in Stuffing-Boxes, of which the following is a specification.

My invention relates to improvements in stuffing-boxes used for sealing the ends of glass tubes in water-gages for steam-boilers and for other purposes where fluid or gas is rendered visible under pressure.

The object of my improvement is to construct a stuffing-box that presses the packing material against the glass tube on all sides equally and prevents any twisting or other strain on the glass tube when the cap of the stuffing-box is screwed down to seal it in the chamber. I attain these objects by mechanism illustrated in the accompanying drawings, which is made a part of this specification, in which—

Figure 1 is a plan view of the body of my improved stuffing-box, showing chamber for the glass tube and outline of cap by dotted lines. Fig. 2 is a sectional vertical view of my complete improved stuffing-box on line *x x*, Fig. 1. Fig. 3 is a side view of the body of my improved stuffing-box. Fig. 4 is a side view of hollow stuffing-box gland. Fig. 5 is a perspective view of Fig. 4. Fig. 6 is a perspective view of cap for my improved stuffing-box.

Similar letters refer to similar parts throughout the several views.

The body A of the stuffing-box, which forms the chamber L for the reception of the glass tube T, has a screw-thread S cut on its lower half and is larger than the upper half C, which is smooth and acts and takes the place of a follower for closing the box I in the gland D of the stuffing-box, as shown in the drawings. The difference in diameter of the lower and threaded part S and the upper and smooth part C of the body A is sufficient to permit the shell of the stuffing-box gland D to slip down over the upper smooth part C of the body A to clear the screw-thread F in the cap G when F passes down over it to engage with the screw-thread S on the body A.

The stuffing-box gland D has an inner flange R projecting inward equal to the thickness of the walls of the upper part C of the body A, forming the box I for packing material.

There are slots B B in the screw-thread part C of the body A, as shown in Figs. 1 and 3, and of such depth as to form a cavity beneath the screw-thread S for reception of lugs hereinafter described.

The cap G has an inner flange K, which catches over the gland D and carries it down with it when it is turned and screwed down on screw-thread S on the body A.

The stuffing-box gland D has lugs H H extending from the lower edge of its shell, which passes into slots B B in the body A of the stuffing-box and prevents the gland D from turning when the flange K of the cap G presses on it to force it down on the packing material in box I, causing said packing material to press against the glass tube T on all sides equally without twisting or straining in any manner, thereby eliminating the chief cause of breakage of glass tubes when in use.

I do not contemplate using my improved stuffing-box with the glass-tube chamber L facing upward only as the terms "vertical," &c., in the specification imply, but to be faced in any direction when in use; nor do I confine myself to the use of the two lugs H H and the corresponding slots B B in my invention, since any number of slots can be used with same effect.

Having thus fully described a stuffing-box embodying my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a stuffing-box for securing in place the glass tubes of water-gages for steam-boilers and other fluid-receptacles, the combination of the cylindrical body A having its lower half enlarged and threaded and its upper half reduced and smooth, said threaded portion having longitudinal slots, but not of a depth sufficient to cut into glass-tube chamber L, the gland D provided with lugs H H fitting into the slots of the threaded portion to prevent the rotation of the gland, the internally-threaded cap G fitting over the gland and threaded part of the body A, substantially as described.

JOSEPH R. CRABILL.

Witnesses:
F. W. PEET,
R. B. WILLIAMS.