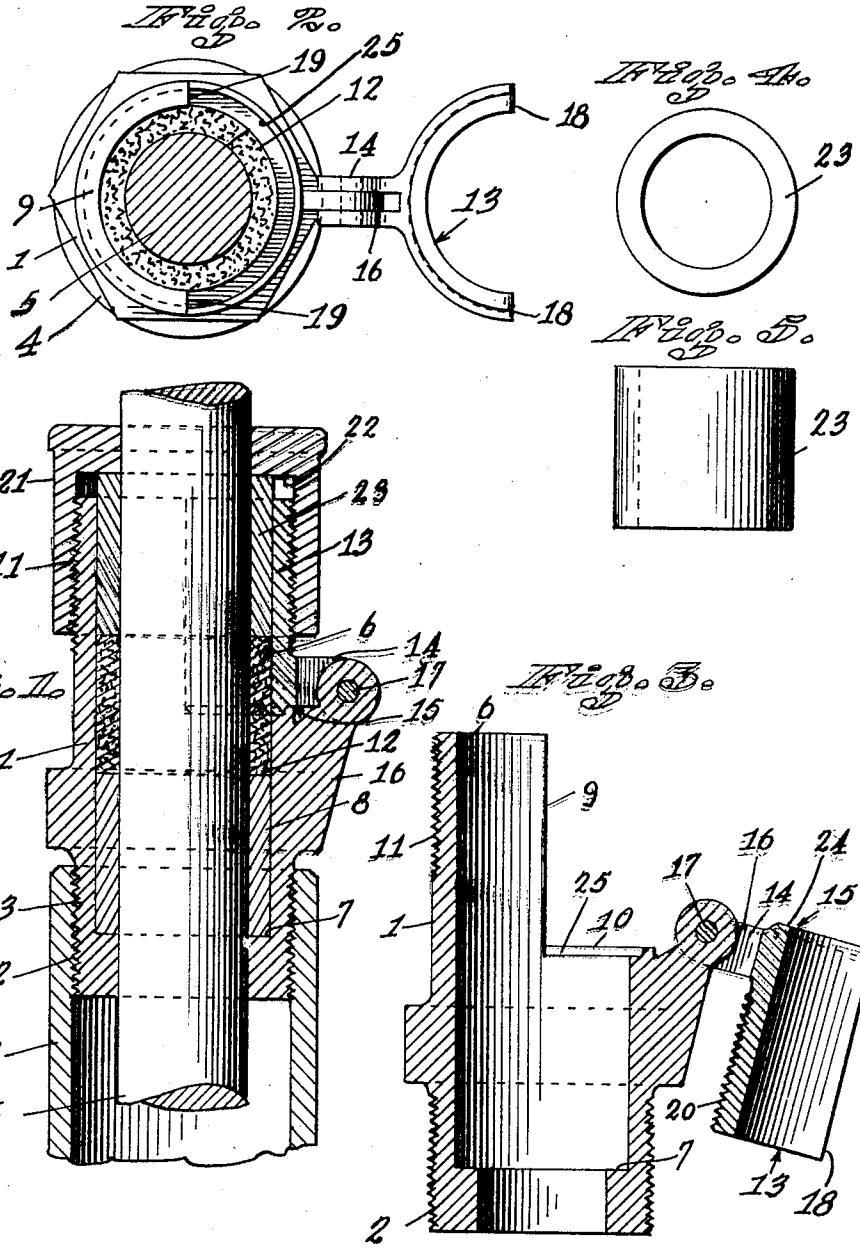
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STUFFING BOX

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STUFFING BOX

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My invention relates to improvements in stuffing boxes, and it consists of the combinations, constructions and arrangements hereinafter described and claimed.

An object of my invention is to provide a stuffing box in which the interior portion thereof is readily accessible for introducing packing therein or removing packing therefrom.

More specifically, I propose to arrange a stuffing box in which a portion of the side wall thereof may be swung on a hinge in order to permit free access to the packing, the portion being returned to its normal position to act as a retaining means for the packing after the repacking operation has been completed.

A further object of my invention is to provide a device of the type described which is simple in construction, durable and efficient for the purpose intended.

Other objects and advantages will appear as the specification proceeds, and the novel features of my invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings, forming a part of this application, in which

Figure 1 is a longitudinal section of my device;

Figure 2 is a plan view of Figure 1, parts being removed, and a hinged portion being swung open;

Figure 3 is a vertical section of a body member showing the hinged portion opened;

Figure 4 is a plan view of one of the packing sleeves which I employ; and

Figure 5 is a side elevation of Figure 4.

While I have shown only the preferred form of my invention, I wish it to be understood that various changes or modifications may be made within the scope of the claims hereunto annexed without departing from the spirit of the invention.

In carrying out my invention, I provide a central body member 1 which is threaded as at 2 into a corresponding portion 3 of a supporting member 4. The member 4 may be a cylinder of a pump, or the like, in which a reciprocating rod 5 is disposed.

The interior of the body member 1 is formed with an annular recess 6 which extends longitudinally thereof, the lower portion of the recess being partially closed by an inwardly-projecting ledge 7. A removable sleeve 8 encircles the shaft 5 and is supported by the ledge 7.

Referring now to Figures 2 and 3, it will be noted that the body portion 1 has an extension 9 which projects some distance above the surface 10 of the body member. The extension 9 is substantially semicircular in section, and is provided with a threaded portion 11, the purpose of which will be hereinafter described.

In order that a seal may be effected between the member 1 and the shaft 5 during the movement of the latter, I have placed packing 12 in the recess 6 as will be seen by referring to Figure 1.

The conventional stuffing box is of such construction that the operation of removing the packing therefrom is rather difficult. With this disadvantage in mind, I have constructed the upper portion of the body so that approximately one-half of the side wall thereof may be swung on a hinge so as to expose the packing.

The hinged member has been generally designated as 13. Figure 2 shows a bifurcated member 14 extending from the lower edge 15 which engages with a projection 16 of the body member. A pin 17 serves to connect the two members together. With such a construction, it is obvious that the member 13 may be swung from a position as shown in Figure 3 until the edges 18 of the member 13 contact with the faces 19 of the projection 9.

When the member 13 is in the position as shown in Figure 1, the external threads 20 of the member cooperate with the threads 11 to form a continuous threaded portion for receiving an adjustable cap 21.

Interposed between the packing 12 and the interior surface 22 of the cap is arranged a sleeve 23. This sleeve is of substantially the same construction as the sleeve 8. It is apparent that a rotation of the cap 21 will force

the packing 12 downwardly and at the same time against the shaft 5.

The lower edge of the member 13 is provided with a shoulder 24 which extends into a recess 25 in the member 1 when the hinged member is in an operative position. This arrangement prevents lateral movement of member 13 when the packing 12 is forced downwardly by the sleeve 23.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. Whenever the packing 12 is to be replaced, the cap 21 is removed and the member 13 is swung on the pin 17 until the packing is exposed. The sleeve 23 may then be moved along the length of the shaft 5 in order to permit free access to the packing.

In carrying out the repacking operation, a supply of packing is introduced into the open end of the body member 1. The sleeve 23 is then moved axially until it contacts with the packing. The hinged member 13, when swung into the position as shown in Figure 1, is secured in place by the adjusting cap 21. The desired amount of pressure may be exerted on the packing by rotating the adjusting cap.

I claim:

1. A stuffing box comprising a body member having a shaft extending therethrough, packing disposed in said box and surrounding said shaft, a hinged member swingable into a position for exposing said packing from a position exterior of said box, an adjustable cap for securing said hinged member in an operative position, and a member disposed between said cap and said packing whereby a movement of said cap will force said packing against said shaft.

2. In a stuffing box, a body member, a hinged member swingable laterally with respect to said first member, one of said members having a recess therein, the other member having a shoulder extending therefrom, said recess receiving said shoulder when said members are abutted together, and means for securing said members together.

3. In a stuffing box for a shaft, a sleeve adapted to encircle the shaft and formed with an internal shoulder contacting the shaft, a ring adapted to rest on the shoulder, a packing superimposed on the ring, a second ring superimposed on the packing and a cap adapted to be threaded on the upper end of the sleeve for urging the upper ring into the sleeve, the latter including a hinged section for giving access to the packing.

4. In a stuffing box of the character described, a packing receiving sleeve having an exterior thread at one end and a cap adapted to be screwed thereon, the threaded end of the sleeve including a semi-cylindrical section hinged on a transverse axis for giving access to the interior of the sleeve when the cap is removed.

5. In a stuffing box of the character described, a packing receiving sleeve having a substantially semi-cylindrical extension, a substantially semi-cylindrical section complementary of the extension hinged to the sleeve transversely to the axis thereof and means for fastening the hinged section to the extension for forming a complete cylinder.

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