

June 4, 1929.

W. C. SMITH

1,716,247

PUMP ROD ATTACHMENT

Filed Dec. 6, 1926

Fig. 1.

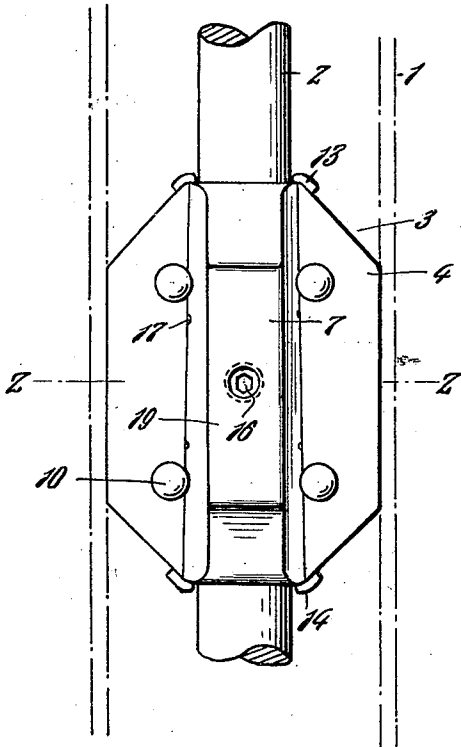


Fig. 2.

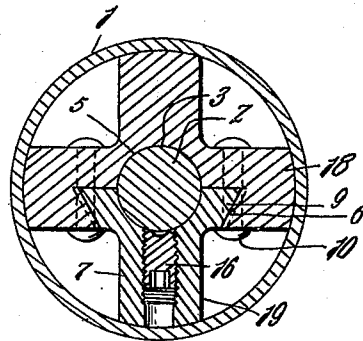


Fig. 3.

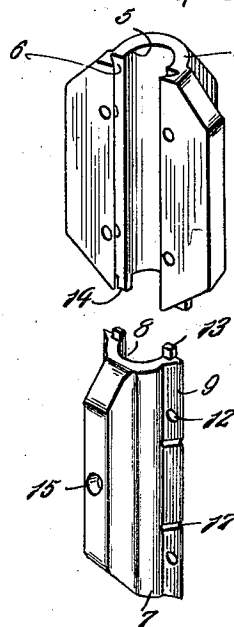
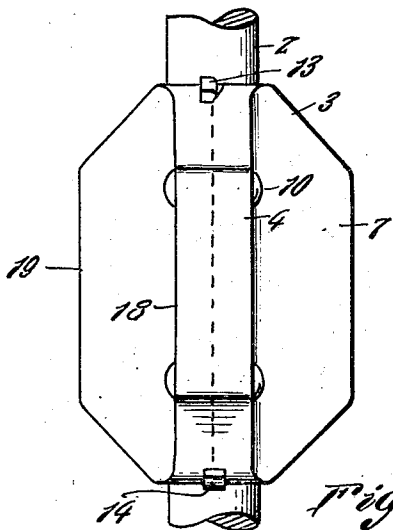


Fig. 4.

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UNITED STATES PATENT OFFICE.

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PUMP-ROD ATTACHMENT.

Application filed December 6, 1926. Serial No. 153,026.

This invention relates to a guide for a pump rod, the general object of the invention being to provide a device which is adapted to be connected to a pump rod and which is provided with ribs or wings for engaging the casing to prevent the rod from contacting with the casing, which will produce wear between the parts.

A further object of the invention is to provide means whereby the device can be easily and firmly attached to a pump rod.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a view showing the invention attached to a rod, a portion of the well casing being shown in dotted lines.

Figure 2 is a section on line 2—2 of Figure 1, showing the casing in full lines.

Figure 3 is a view showing the two parts of the device.

Figure 4 is a view taken at right angles to Figure 1, with the casing omitted.

In these views, 1 indicates the well casing, 2 indicates the pump rod and 3 indicates the improved guiding device. This device comprises the body 4 which is formed with a semi-circular bore 5 for receiving a portion of the pump rod and said body is also formed with a dove-tail guideway 6 which intersects the bore and which is larger at one end than at the other so as to produce a guideway of wedge shape. The device also includes a section 7 which is also formed with a semi-circular recess 8 and this section is of wedge shape and is provided with the beveled edges 9 so that it can fit in the dove-tail guideway 6. Thus when the section 7 is slid into the guideway of the body 4, the semi-circular recesses of the two parts will form a circular passage for receiving a part of the pump rod and the parts must be so shaped that the wedging action between the two parts of the device will act to cause them to firmly grip the pump rod between them.

After the parts are put in place, rivets 10 are passed through holes 11 formed in the

body 4 and the holes 12 formed in the section 7 to fasten the parts together. Small projections 13 are formed on one end of the section 7 and similar projections 14 are formed on the opposite end of the body, these projections being adapted to be bent over when the parts are placed together to form an additional means of fastening the two parts together. The section 7 is formed with a threaded hole 15 to receive a set screw 16 which is adapted to engage the pump rod to firmly fasten the device to the rod. Grooves 17 are formed in the beveled edges of the section 7 so that portions of the walls of the dove-tail grooves in the body can be upset into these grooves 17 to act as a further means for locking the parts together.

The body is provided with the three ribs or wings 18 and the section 7 is provided with the rib or wing 19, the four ribs or wings having their extremities rounded so that they will engage the interior walls of the casing and thus the device will act as a guide for the pump rod in its reciprocatory movement and prevent the rod from contacting with the casing. By the use of rivets for holding the two parts together, any tendency of the parts to spring is prevented. Where a rod has become worn and is liable to break, the device can be placed over the worn part and shims inserted between the rod and the device so that the rod will be reinforced at its weakened part and further wear will be prevented.

As will be seen, the rivets pass through two of the wings 18 of the body 4 and side portions of the section 7.

As will be noted, the hole 15 is only threaded at its inner end so that there is no danger of the set screw 16 working its way out of the hole and dropping into the well. The set screw is inserted in the hole before the section 7 is put in place and this set screw must be short so that the rib 19 can wear to a considerable extent before the set screw is reached.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What I claim is:—

An attachment for a pump rod comprising a body having wings thereon with a semi-circular recess in the body opening out through one side thereof with tapered undercut
5 grooves in the body adjacent the edge walls of the recess, a section having a semi-circular recess therein forming with the recess in the body an annular opening for receiving the pump rod, the sides of the section
10 being beveled and tapered to engage the guideway formed by the grooves in the body, a wing on the section, rivets passing through portions of the body and section for fasten-

ing the section to the body, projections at one end of the section, projections at the
15 opposite end of the body, the projections on the section being bent over into engagement with the body and the projections on the body being bent over into engagement
20 with the section and the beveled edges of the sections having grooves therein for receiving portions of the undercut walls of the body which are pressed into the grooves.

In testimony whereof I affix my signature.

WILLIAM C. SMITH.