J. H. RANGE.

PUMP ROD GUIDE BEARING.

APPLICATION FILED AUG. 30, 1910.

982,870. Patented Jan. 31, 1911.

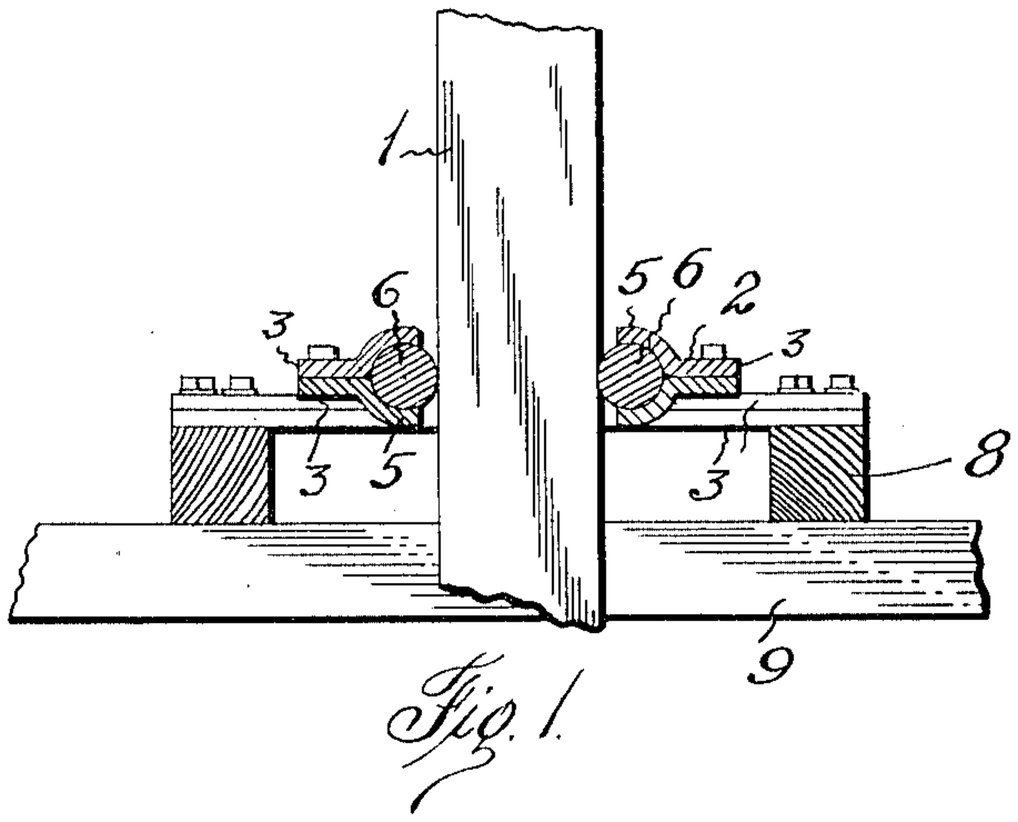
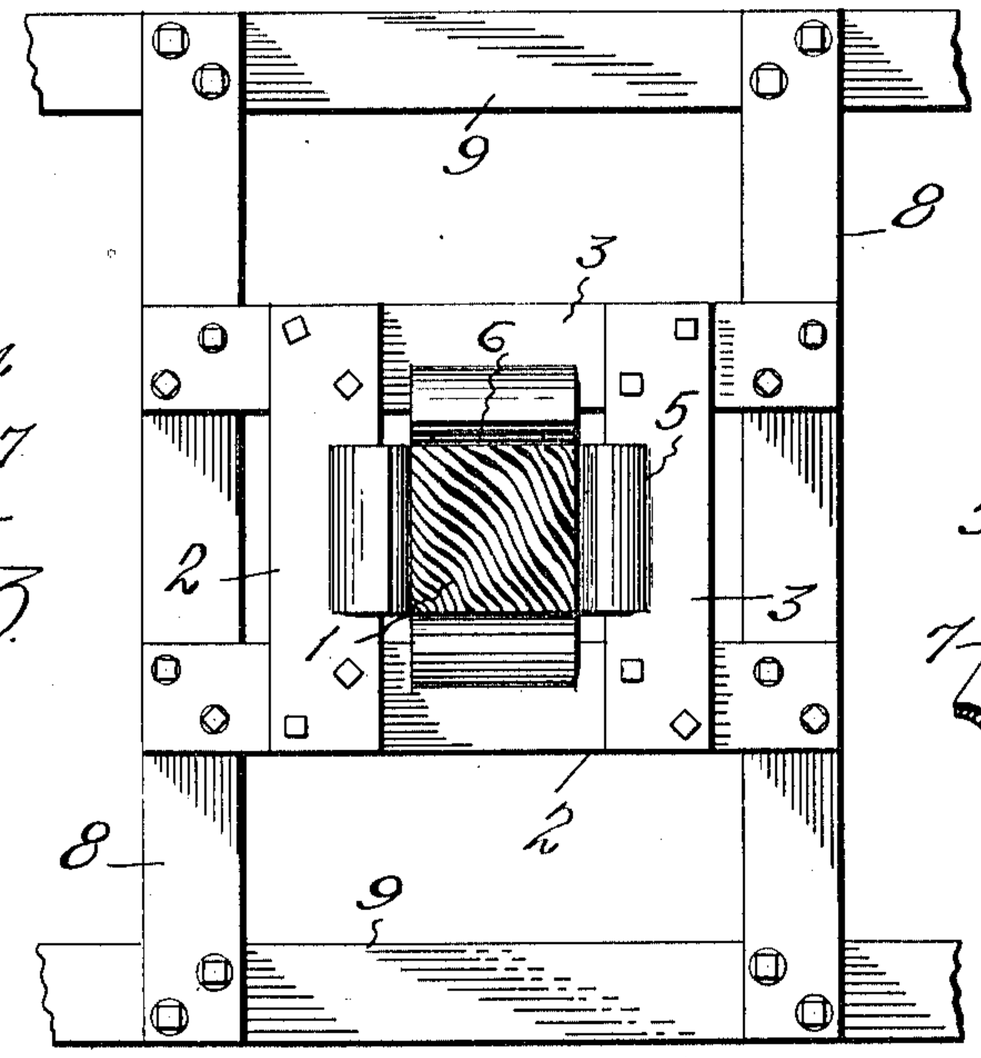


Fig. 1.



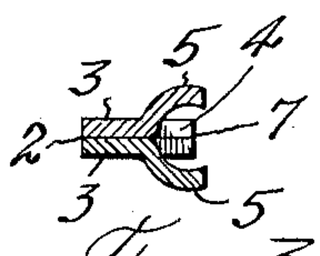


Fig. 3.

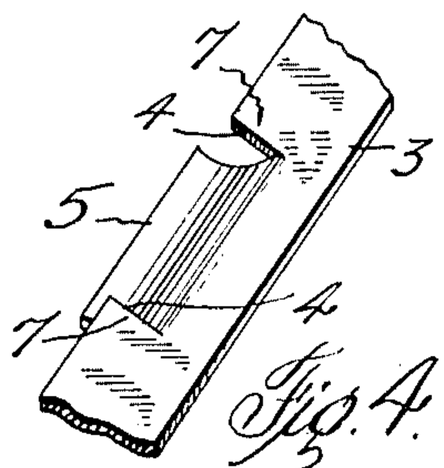


Fig. 4.

Fig. 2.

WITNESSES.

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PUMP-ROD-GUIDE BEARING.

982,870. Specification of Letters Patent. Patented Jan. 31, 1911.

Application filed August 30, 1910. Serial No. 579,694.

To all whom it may concern:

Be it known that I, JULIUS H. RANGE, a citizen of the United States, residing at Skidmore, in the county of Bee and State of Texas, have invented certain new and useful Improvements in Pump-Rod-Guide Bearings, of which the following is a specification.

This invention pertains to guides for pump rods.

The object of the invention is to provide a roller bearing guide for a pump rod whereby the latter will be retained in vertical alinement and the wear reduced to a minimum, and further by which the rod will be prevented from unscrewing at the pump.

Finally the object of the invention is to provide means of the character described that will be strong, durable, efficient, and easy of operation, simple and comparatively inexpensive to construct, and also in which the several parts will not be likely to get out of working order.

With the above and other objects in view, the invention has relation to certain novel features of construction and operation, an example of which is described in this specification and illustrated in the accompanying drawings, wherein:

Figure 1. is a vertical section showing the bearing applied to a pump rod, Fig. 2. is a plan view of the same, Fig. 3. is a transverse section through one of the roller supports, and Fig. 4. is a detail in perspective of one of the members of the roller supports.

In the drawing the numeral 1, designates an ordinary pump rod which is square in cross section. At each side of the rod a bearing support 2 is disposed. Each bearing support comprises two plate members 3 placed one upon the other. At its central portion each member is cut inward from its longitudinal edge as shown at 4 in Fig. 4 and the metal between the cuts upset to form a curved housing 5.

The members of each bearing support are placed together so that the housings register with their inner contours in the same arc of a circle. Between the members of each support a bearing roller 6 is disposed and the curvature of the housing is such as to retain the roller but at the same time to expose about one-third of its surface.

Each roller has a length substantially equal to the width of one of the sides of the pump rod and is held against longitudinal displacement by the horizontal portions 7 of the plate members at each end of the housing. The rollers project from the housing a sufficient distance to engage the sides of the pump rod as is shown in the drawing.

Two of the bearing supports are made longer than the others and have their ends fastened on cross beams 8 which latter are fastened on the horizontal timbers 9 of the pump tower. These long supports are disposed so that their rollers 6 will impinge opposite sides of the pump rod, while the short supports are disposed at right angles to the long ones and secured thereto so that their rollers impinge the other two sides of the pump rod.

It is apparent that four rollers are employed, one engaging each side of the pump rod. By this arrangement a guide is formed for the pump rod and the latter is held against lateral displacement. This construction will reduce wear of the pump rod to a minimum, prevent the pump rod from unscrewing and will be substantially noiseless in its operation.

What I claim is:

1. In a guide bearing for pump rods, a plurality of supports, each support comprising two plate members disposed one on the other and having curved housings, and rollers adapted to impinge the sides of a pump rod, one roller engaging in the housings of each support.

2. In a guide bearing for pump rods, a plurality of supports disposed at right angles to each other and adapted to surround a pump rod, each support comprising two plate members disposed one on the other and having curved housings at their central portions, and rollers, a roller being disposed in the housings of each support and having a portion of its surface projecting from the housings and adapted to engage one of the sides of a pump rod.

3. A pump rod guide bearing support comprising, a pair of elongated plate members, each member having an upset curved

portion at its center, the curved portion of one member curving in a direction opposite to that of the curved portion of the other member, and a roller secured between the curved portions and having less than half of its surface exposed.

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

JULIUS H. RANGE.

Witnesses:
JOSEPH B. HUNTER,
HUGO R. RUSSEK.