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E. C. MEIER

1,729,175

SUCKER ROD GUIDE

Filed June 13, 1927

Fig 1

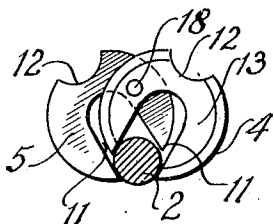


Fig 2

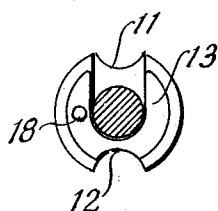


Fig 3

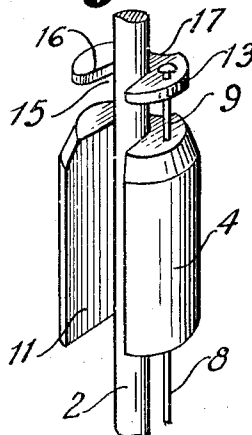


Fig 4

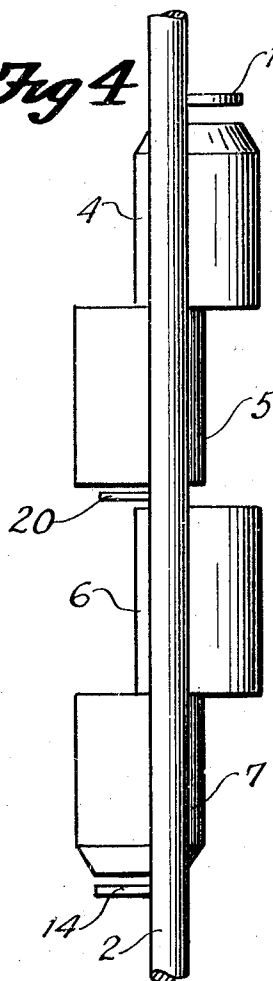


Fig 5

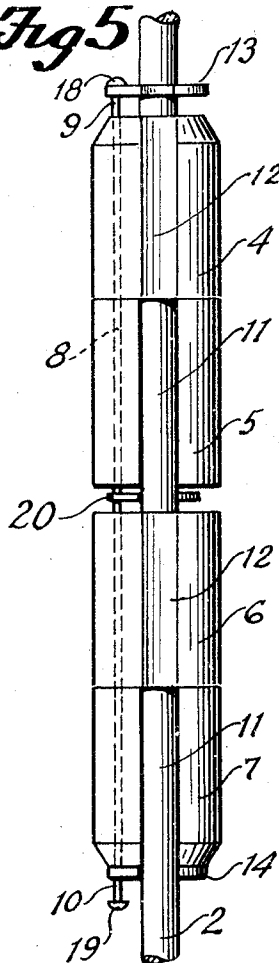
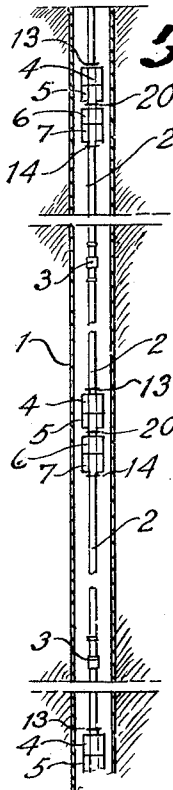


Fig 6



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SUCKER-ROD GUIDE

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This invention relates to sucker rod guides for oil well pumps and the like. The primary object is to provide means for preventing the sucker rods from whipping against the casing and means is provided for preventing the guide from slipping or creeping on the rods. A string of rods consists of a plurality of sections and it is good practice to put a guide on each rod section. The guide is made up of a plurality of alining bushings pivoted together and having slots, the edges of which overlap so that the guide is strong on the rod. These bushings have a tendency to creep or slip, so I have provided rod engaging means for preventing creeping.

In the drawings:

Fig. 1 is a sectional view through the rod with the bushings in positions to receive the rods in their slots.

Fig. 2 is a sectional view of the rod with the bushing applied.

Fig. 3 is a perspective view of one of the bushings and a gripping plate or washer.

Fig. 4 is an elevational view of the guide with the bushings in positions to receive the rod.

Fig. 5 is an elevational view of the bushing attached to the rod and

Fig. 6 is a longitudinal sectional view through the casing, part of the sucker rod string being shown in elevation with the guides applied.

The tubing is designated by the reference numeral 1. The sucker rod sections 2 are connected by union 3. The guide consists of a plurality of bushings here designated 4, 5, 6 and 7, although, the number employed may be varied. The bushings are cylindrical in form and they are pivotally connected by a rod 8 which extends longitudinally through them and which has projecting ends 9 and 10. The bushings have rod receiving slots 11 into which the rod sections 2 are received. Each section, also, has an oil passage way 12. Since the bushings are eccentrically pivoted

by the rod, they can be swung to the positions shown in Figures 1 and 4, to receive the rod 2, then they are closed about the rod, as shown in Fig. 5, with an oil groove 12 alternating with a rod receiving groove 11 so that when the guides are in place, as shown in Figures 5 and 6, liability of the guide coming off the rod will be eliminated.

In order to prevent creeping of the guide, I provide rod engaging members shown as plates or washers 13 and 14. These are carried by the ends 9 and 10 of the rod 8. The washers have rod receiving notches 15, the edges 16 of which are adapted to impinge or bite upon the rod when the washer or washers are tilted on the ends 9 and 10 of the pivot 8. Therefore, creeping or sliding of the guide will be prevented. The washers have notches 17 so that oil may pass the washers in an unrestricted manner to the top of the well. The washers or plates may be stamped or otherwise formed and they may be applied to the pivot rods 8 before the heads 18 and 19 are formed on the rods 8.

It will be apparent from the foregoing that the guides may be easily applied to the sections of a string of sucker rods and that creeping of the guides will be prevented because whenever the guides have a tendency to move longitudinally, the plates will tilt so that the sharp edged slots 15 will bite or impinge upon the sucker rod sections.

What I claim and desire to secure by Letters Patent is:—

1. A sucker rod guide having means to receive a sucker rod and a sucker rod engaging plate loosely carried by the sucker rod guide, said plate having a sucker rod receiving slot, the edges of which are adapted to impinge upon the sucker rod to prevent the guide from creeping.

2. A sucker rod guide having a pin projecting from one end thereof and a plate mounted on and movable lengthwise of the pin and

adapted to tilt with respect to the pin, the plate having a slot provided with a rod engaging edge.

3. A sucker rod guide comprising an elongated body having means to receive a sucker rod whereby when the guide is in place, the sucker rod will be surrounded by said guide and a tiltable sucker rod engaging plate loosely carried by the end of the guide and provided with a rod engaging slot so that when the plate is tilted, the edge of the slot will impinge on the rod to prevent longitudinal movement of the guide.

In testimony whereof I affix my signature.

EARL C. MEIER.