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F. B. VAUGHN
SUCKER ROD JOINT
Filed June 1, 1926

1,814,271

Fig. 1

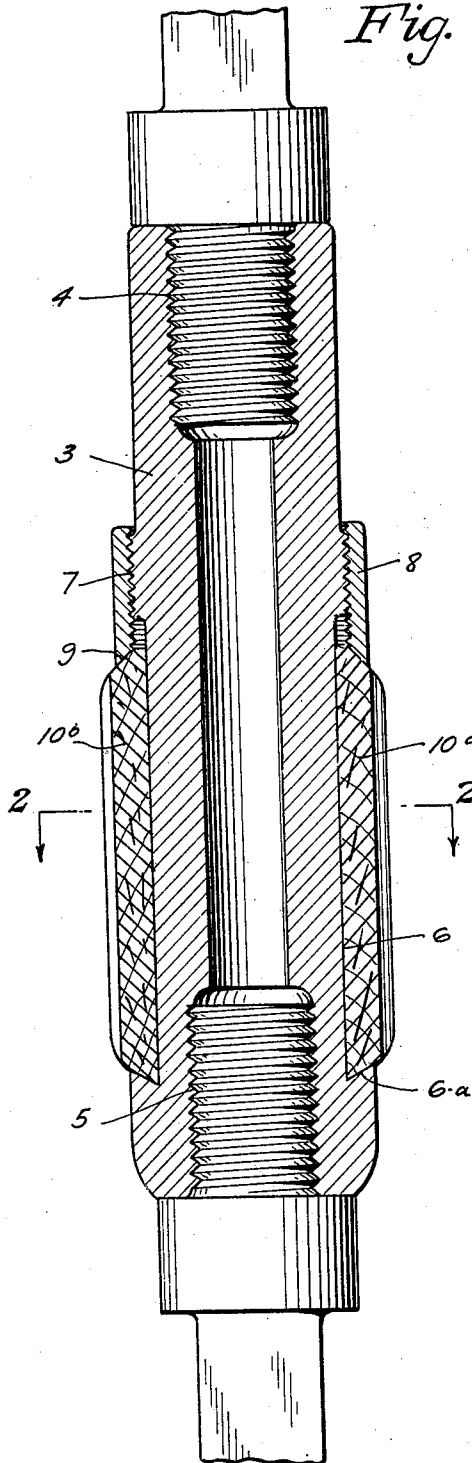
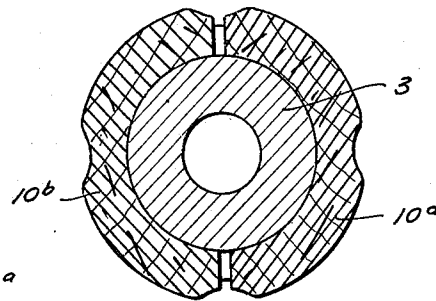


Fig. 2



INVENTOR.
Fred B. Vaughn
BY *Westall and Wallace*
ATTORNEYS.

UNITED STATES PATENT OFFICE

FRED B. VAUGHN, OF MAYWOOD, CALIFORNIA, ASSIGNOR TO JOHN GRANT, OF LOS ANGELES, CALIFORNIA

SUCKER ROD JOINT

Application filed June 1, 1926. Serial No. 112,760.

This invention relates to sucker rods for pumps of the type used in deep wells wherein the pump barrel is located far down in the well hole and the string of rods is comparatively long and slender. This results in bending, buckling, and whipping of the rod in its reciprocation due to its resiliency. Furthermore, the well holes are often crooked so that the rod will strike the sides of the pump tubing. The rod bends sufficiently to cause striking of the same against the tubing causing wear of the latter and also of the rod. The enlargements at the joints connecting the sucker rod sections are the portions contacting and subject to wear, also causing wear upon the tubing.

The present invention appertains to a joint protector for sucker rods and has for its primary object the provision of an armor or sheath of material which is of a comparatively soft and wear resisting nature, such as wood. Another object of this invention is to provide a joint member which is arranged to have a replaceable armor sheath, and which does not require taking the sucker rod string apart to replace the armor.

These objects together with other objects and corresponding accomplishments are obtained by means of the embodiment of the invention illustrated in the accompanying drawings, in which:

Fig. 1 is an axial section through a joint; and Fig. 2 is a section as seen on the line 2-2 of Fig. 1.

Referring with more particularity to the drawings, the joint is arranged to couple sections of the sucker rods together. It comprises a body 3 having an internal bore, threaded at the ends to provide boxes 4 and 5. These boxes are intended to receive the threaded pins on the ends of the sucker rod sections. One section of the sucker rod will be connected by its pin to the body at box 4 and the other rod section similarly at the box 5. Intermediate of the ends of the body there is a reduced portion 6, having at the lower margin an undercut ledge or shoulder 6a. At the upper margin of the reducing portion, the body is externally threaded as indicated by 7 to receive a jam collar 8

having a seat 9 which is upwardly and inwardly inclined. The armor sheath preferably comprises a split sleeve of hard wood, the sections being indicated by 10a and 10b. The ends of the sleeve are tapered so as to seat in the recesses and against the shoulders 6a and 9.

The device is assembled by placing the sleeve section in position and screwing down the jam collar 8. This locks the sleeve sections together and to the body. The joint is then used as a coupling between the sucker rod sections. Obviously, when the sleeve must be replaced, the jam collar 8 is backed up, the old sleeve sections removed and new sleeve sections inserted. The jam collar is then tightened against the sleeve to lock the latter in position.

What I claim is:

A sucker rod connector comprising a cylindrical tubular body having a reduced portion intermediate its ends with an external undercut shoulder at one end thereof, the bore of said connector being internally threaded at the ends to receive sucker rod sections, a wear sleeve of wood having bevelled ends and of greater external diameter than any portion of said body split longitudinally into sections and resting against said shoulder, said body being externally threaded beyond the reduced portion at the other end thereof, a longitudinally adjustable jam collar mounted on said threaded portion and providing an undercut seat for engaging the other end of said wear sleeve to lock the latter in place between it and said shoulder.

In witness that I claim the foregoing I have hereunto subscribed my name this 18th day of May, 1926.

FRED B. VAUGHN.