D. J. HURLEY

Piston-Rod Adjuster for Oil-Wells.

No. 211,471. Patented Jan. 21, 1879.

Fig. 1.

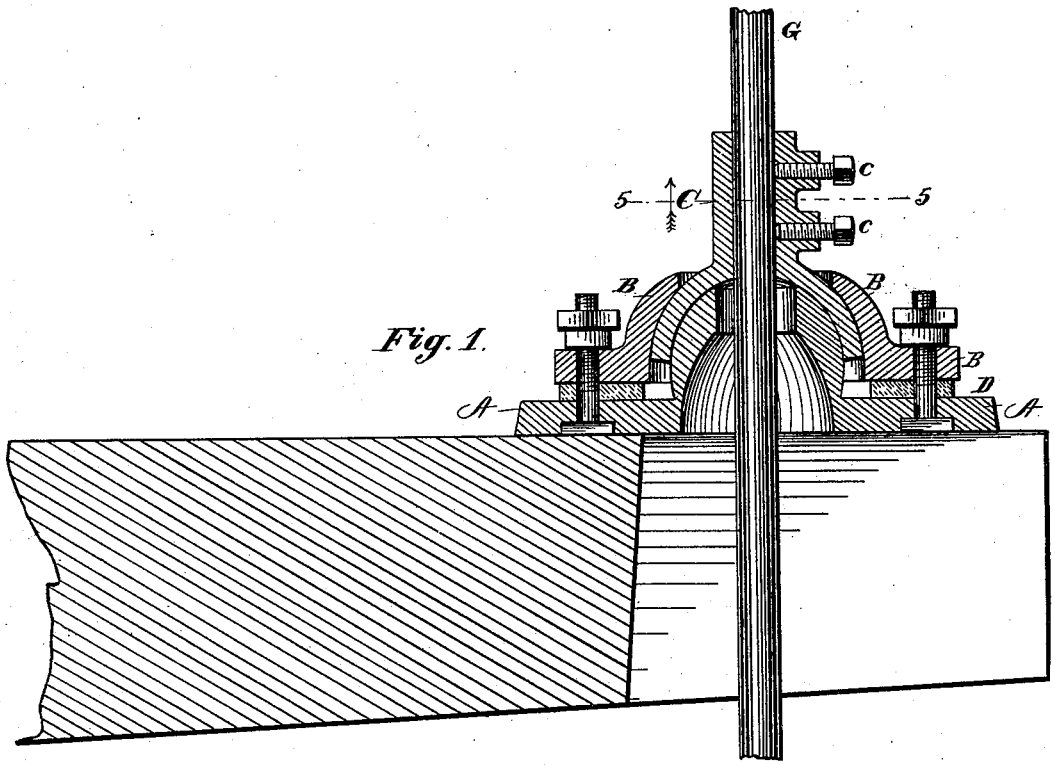


Fig. 2.

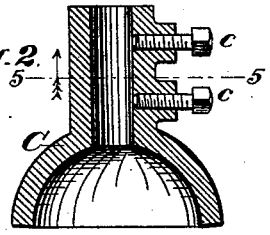


Fig. 3.

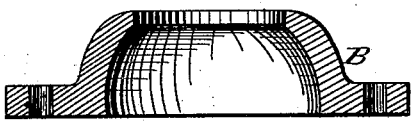


Fig. 4.

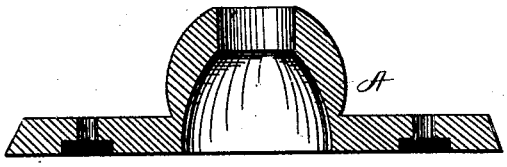
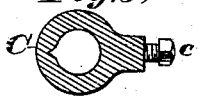


Fig. 5.



Witnesses.
W. E. Chaffee
D. P. Lord

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Daniel J. Hurley
By James E. Bowen
his Atty

UNITED STATES PATENT OFFICE.

DANIEL J. HURLEY, OF OIL CITY, PENNSYLVANIA.

IMPROVEMENT IN PISTON-ROD ADJUSTERS FOR OIL-WELLS.

Specification forming part of Letters Patent No. **211,471**, dated January 21, 1879; application filed April 10, 1878.

To all whom it may concern:

Be it known that I, DANIEL J. HURLEY, of the city of Oil City, in the county of Venango and State of Pennsylvania, have invented a new and useful Improvement in Piston-Rod Adjusters for Oil-Wells; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 represents a sectional view of my improved adjuster mounted upon a slotted end of the walking-beam. Figs. 2, 3, and 4 are sectional views of the various parts of the adjuster, said four sections being taken on a vertical line. Fig. 5 is a cross-section of the clamping portion of the adjuster, taken on the line 5 5 of Figs. 1 and 2.

The object of my invention is to furnish a device to be attached to the end of a walking-beam, capable of being adjusted upon the polished rod at any desired point thereon, and allowing the rod to adjust itself to the varying positions assumed by the walking-beam as it is worked up and down, or as it varies from side to side.

There have been many adjusters patented, and one that employs a ball-joint, to allow the necessary adjustment of the rod according to the motion of the beam.

The main and distinctive feature of this invention over the devices now in use is the arrangement of the parts and the packing, by which means an oil-chamber is formed, and the joint can be kept constantly lubricated. These joints being placed at the extremity of walking-beams cannot be reached conveniently, particularly when in motion, and, being also generally exposed to the air and sun, a large supply of oil is desirable at that point; and this supply I can retain by the peculiar form of my ball-joint support.

My adjuster is made in three parts. The first part, designated by A, is to be firmly fastened in any appropriate way to the walking-beam. Upon said part A is raised a hollow hemisphere, with an aperture sufficient to allow considerable lateral play of the polished rod G. The outside of the said hemisphere is made to fit smoothly, but closely, to a corresponding concavity in the clamping portion C. Said part C is composed of a hollow hemisphere, (made spherical both on its outside and its inside,) and also of a cylindrical part, which is made to receive the polished rod G. The aperture for said polished rod is made with a triangular groove at one side, (shown in cross-section, Fig. 5,) similar to the ordinary lathe-dog, and opposite to the angle of said groove I insert two set-screws, *c c*, the tightening of which will firmly clamp the polished rod G.

The third part of my adjuster consists of a cap, B, made so as to fit closely to the spherical portion of the part C, and, while retaining it in its place, allow of any necessary motion of the polished rod G.

The drawings show plainly the manner of attaching and fastening the parts together.

Between the cap B and the base-plate A, I introduce the packing material D, made of rubber or some other similarly-elastic substance. This will allow a little motion of the parts and retain lubricating-oil, so that there will not be any undue binding thereof upon each other.

With this device it is necessary to have either a hole or a slot in the end of the walking-beam for the passage of the rod G.

I claim—

1. In a piston-rod adjuster, the combination of a segment of a hollow sphere, with its convexity upward, as a bearing for a hollow segmental sphere having a clamping device, with a cap resting on packing, substantially as and for the purpose described.

2. A joint for a piston-rod adjuster formed of a segment, A, of a hollow sphere having its convexity upward, and formed with a bearing-plate resting on the walking-beam, a clamping device, C, with its lower end in the form of a segment of a hollow sphere, and a cap, B, resting on packing, all substantially as shown and described.

In testimony whereof I, the said DANIEL J. HURLEY, have hereunto set my hand.

DANIEL J. HURLEY.

Witnesses:

WM. L. LAY,

JAMES C. BOYCE.