

(No Model.)

R. H. BLACK.

SUCKER ROD.

No. 334,929.

Patented Jan. 26, 1886.

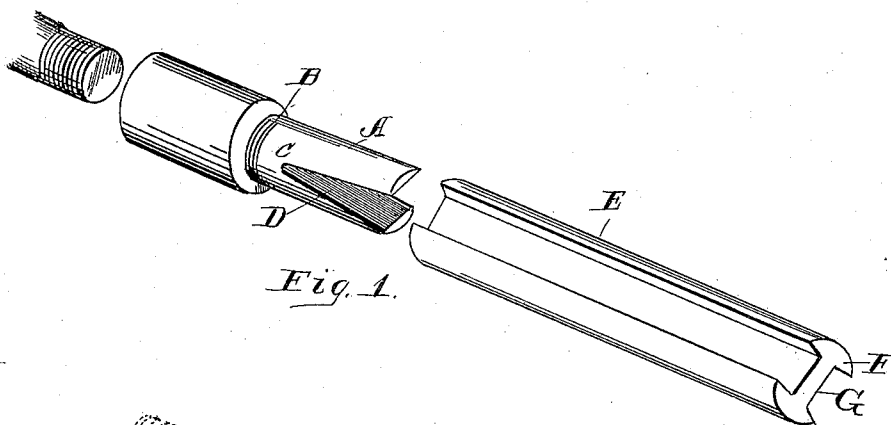


Fig. 1.

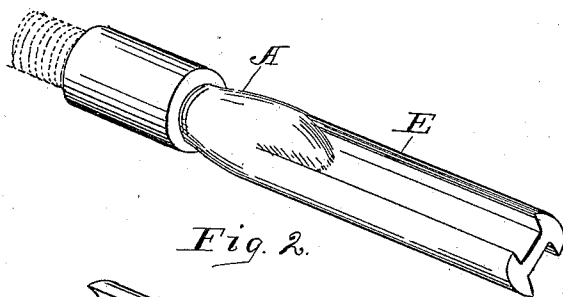


Fig. 2.

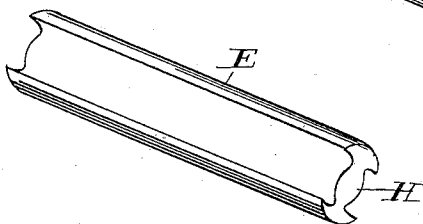


Fig. 3.

WITNESSES:

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ROBERT HARPER BLACK, OF KENDALL CREEK, PENNSYLVANIA.

SUCKER-ROD.

SPECIFICATION forming part of Letters Patent No. 334,929, dated January 26, 1886.

Application filed October 17, 1885. Serial No. 180,181. (No model.)

To all whom it may concern:

Be it known that I, ROBERT HARPER BLACK, of Kendall Creek, in the county of McKean and State of Pennsylvania, have invented a new and useful Improvement in Sucker-Rods for Oil and other Wells, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a perspective view of my improved sucker-rod with the sections detached; Fig. 2, a perspective view of the rod, showing completed weld; and Fig. 3, a perspective view of a section of the rod somewhat modified.

My invention relates to an improvement in sucker-rods so formed as to reduce the weight of the body as far as possible, and at the same time increase its rigidity; and to this end I form the rod I-shaped in cross-section, and also form the coupling with a wedge-shaped opening, so as to embrace the webbed portion of the rod.

In the accompanying drawings, A represents an ordinary sucker-rod coupling, one end, B, threaded. The other end, C, is provided with a wedge-shaped opening, D, therein, as shown in Fig. 1. The main portion of the body E of the rod is formed I shaped in cross-section, so that the point of greatest strain—namely, the outer portion, F, of the rod—will have the greatest amount of material. The web G, connecting these wings, may be either formed with parallel sides, as shown in Figs.

1 and 2, or, as I sometimes prefer it, formed with a core, H, centrally, as shown in Fig. 3.

In making the weld the wedge-shaped opening D in the end C of the coupling A is designed to receive the web G of the rod E, which is thus forged thereto between the wings of the sides F, which thus makes a solid and permanent weld, as shown in Fig. 2.

What I claim as new is—

1. In a sucker-rod, the body portion composed of a bar of metal formed I-shaped, so that a welding web portion may be embraced by the wings of the coupling, substantially as herein set forth.

2. In a sucker-rod, the coupling with a wedge shaped opening to embrace the web of the rod between the wings, and thus form a solid weld, substantially as herein set forth and described.

3. The combination, in a sucker-rod, of the coupling A, having therein at one end the wedge-shaped opening D, so disposed that the web G of the said rod may be interposed between the wings of the coupling, the whole arranged as and for the purpose substantially as herein set forth and described.

In testimony that I claim the foregoing I have hereunto set my hand, this 15th day of August, 1885, in the presence of witnesses.

ROBERT HARPER BLACK.

Witnesses:

R. G. BAILEY,
H. H. NORTH.