J. H. BAIR.

Sucker-Rod Sockets for Oil and other Wells.

No. 212,831. Patented Mar. 4, 1879.

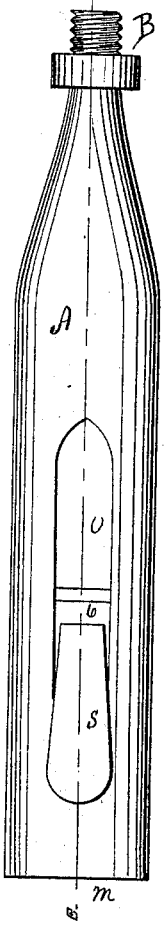

Fig. 1

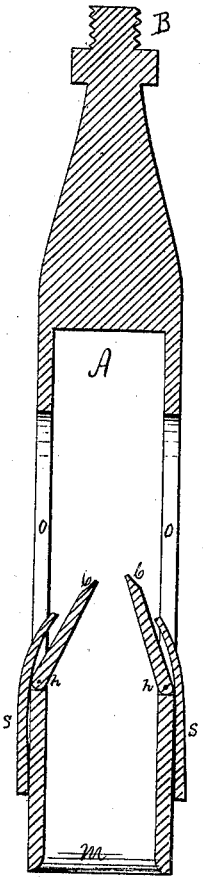

Fig. 2

Witnesses.

James B Boyle

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UNITED STATES PATENT OFFICE.

JOHN H. BAIR, OF PARKER CITY, ASSIGNOR OF ONE-HALF HIS RIGHT TO O. D. LEVIS, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN SUCKER-ROD SOCKETS FOR OIL AND OTHER WELLS.

Specification forming part of Letters Patent No. **212,831**, dated March 4, 1879; application filed May 10, 1878.

To all whom it may concern:

Be it known that I, JOHN H. BAIR, of Parker City, county of Armstrong, and State of Pennsylvania, have invented a new and useful Improvement in Sucker-Rod Sockets for Oil or Salt Wells, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, wherein—

Figure 1 is a plan view of the valve-socket. Fig. 2 is a central vertical section.

The object of my invention relates to the construction of a device for raising sucker-rods out of oil or salt wells when they have parted, leaving a portion of the sucker-rods in the tubing in the well, often causing great delay in raising it, and in some cases requiring the tubing to be drawn, thereby incurring expense and the risk of dropping the tool in the tubing in the well.

The socket A, Fig. 1, is made of a piece of iron pipe to fit the inside of the tubing, having a screw head and thread, B, at one end, and an opening, M, at the other end, with its edges beveled inwardly, so as to direct the sucker-rod or drill or the tools to be drawn, into the mouth or opening M. The socket A is long enough to allow its passage down around the sucker-rods, so as to secure a firm hold. The socket A has two openings opposite each other, in the lower end of each of which a valve or catch, C, is placed, having its upper end sharpened, the lower end being firmly secured to the socket A by a hinge, *h*, or other device, so that the lower end of the valve or catch C will fit on the lower part of the opening O in the socket A. These valves or catches C are inclined toward the inside of the socket A, and are held in this position by springs S, fastened on the outside of the socket A, when the sucker-rods in an oil or salt well part, leaving a portion in the tubing in the well. The socket A is screwed into the end of a sucker-rod by means of the screw B, and is lowered into the well. When the socket A reaches the rods in the tubing in the well it passes down over them, the valves or catches C are forced back, the rod passes up into the socket A, the springs S force the valves or catches C inwardly, and, by raising on the socket A, the catches C, pressing into the wood or iron of the sucker-rod, take a firm hold and draw it out.

It will be observed that in my construction the tools or materials to be drawn up by my device may be as large in cross-section as the cross-section of the opening *m* in the pipe A, and that the parts to be drawn up will press, if sufficiently large, the hinged catches C outward in the slots, so that they will be in the line of the bore of the pipe.

I am aware that a tool-extractor or drill-rod grab consisting of a tube-section provided with a single catch has heretofore been employed, and I therefore lay no claim to such invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The socket A, provided with slots *o o*, beveled edge *m*, and screw-head B, in combination with the catches C, hinged in the lower ends of the slots, and springs S, substantially as described, and for the purpose set forth.

JOHN H. BAIR.

Witnesses:
J. C. REILLY,
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