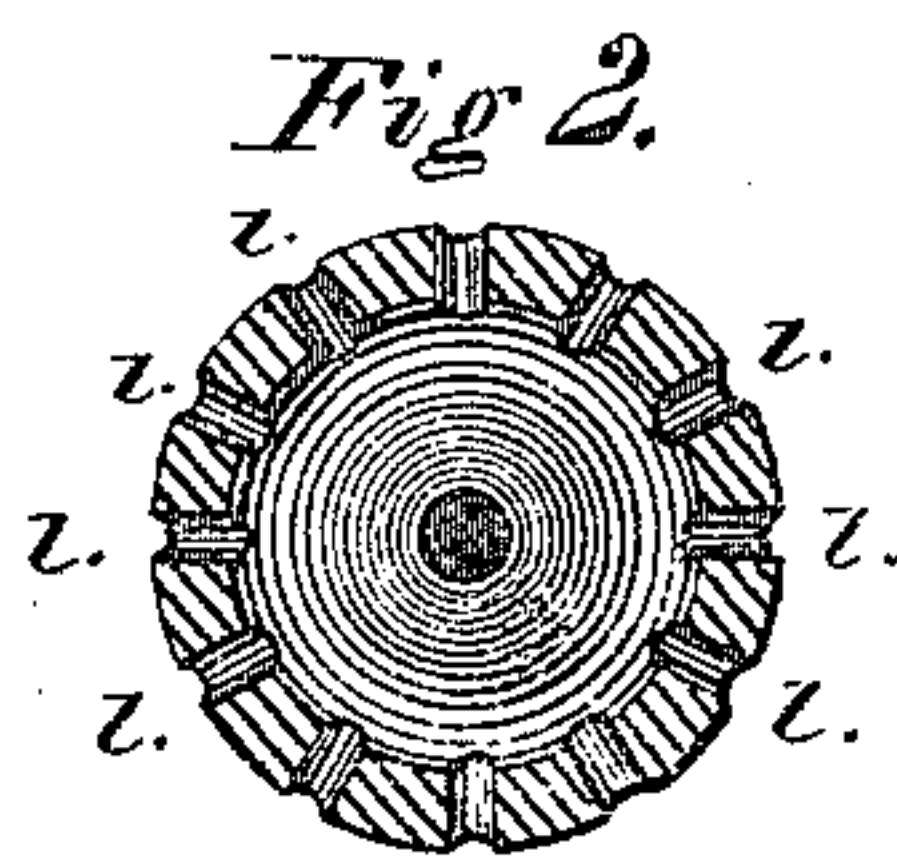
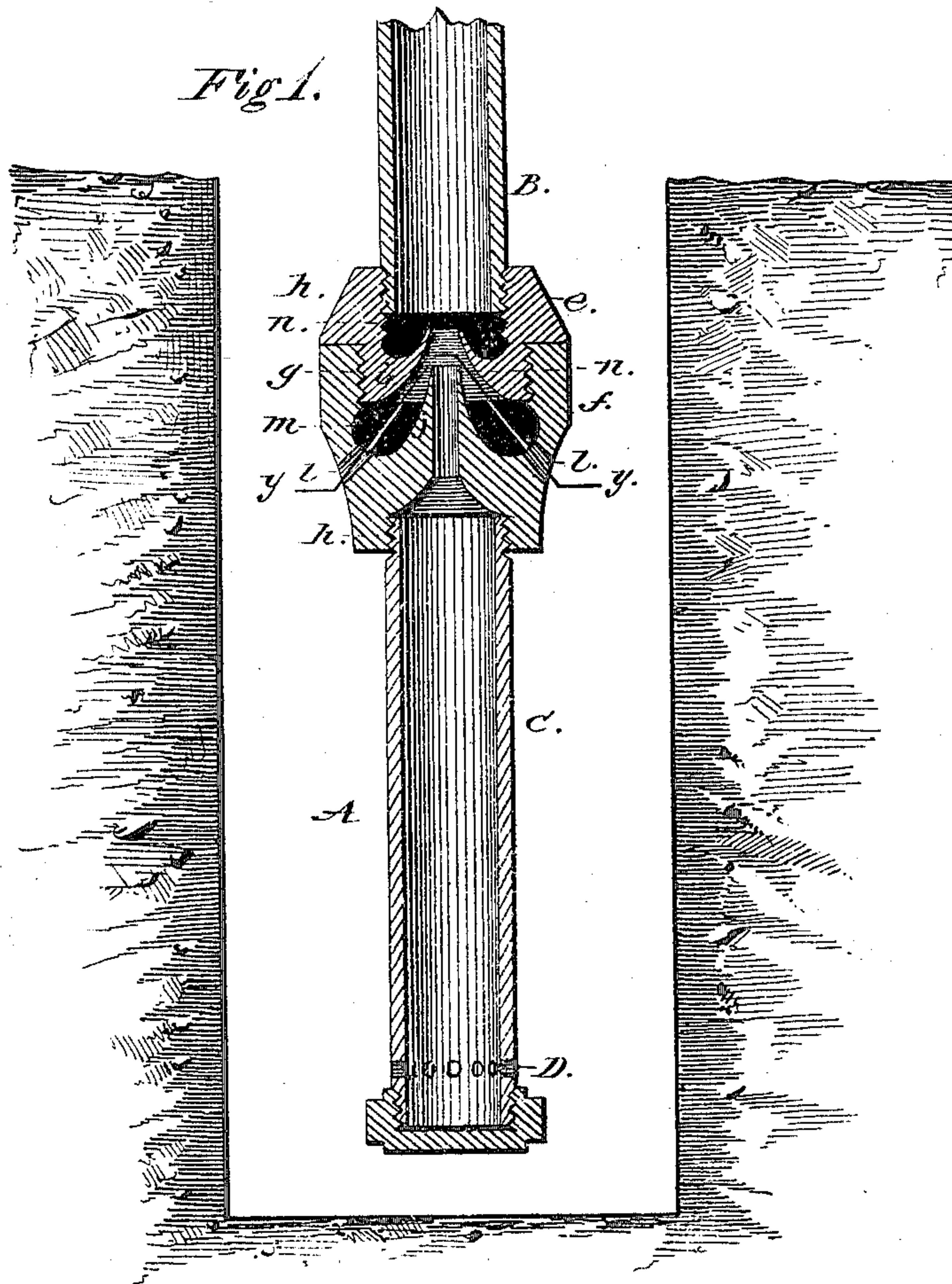


W. REED.

Apparatus for Ejecting Oil and other Fluids from Wells.

No. 134,397.

Patented Dec. 31, 1872.



Witnesses.

Wm. W. S. Dyre.
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UNITED STATES PATENT OFFICE.

WILLIAM REED, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN APPARATUS FOR EJECTING OIL AND OTHER FLUIDS FROM WELLS.

Specification forming part of Letters Patent No. 134,397, dated December 31, 1872.

To all whom it may concern:

Be it known that I, WILLIAM REED, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in Apparatus for Ejecting Oil and other fluids from Wells; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The nature of my invention consists in ejecting oil and other fluids from wells by and through the medium of the gas found in the well, combined with the apparatus hereinafter described.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawing which forms part of my specification, Figure 1 is a vertical section of an oil-well provided with my improvement in apparatus for ejecting the oil and other fluid from the well. Fig. 2 is a transverse section of the same at line *y* of Fig. 1.

In the accompanying drawing, A represents the oil-well. B C represent iron pipe, the diameter of which is about one inch. The lower end of the pipe is provided with a series of small openings, as indicated at D. The parts B C are united at the desired point by means of a coupling made in two parts, *e f*, which are of peculiar construction, the form of which is indicated in the accompanying drawing. Each part of the coupling is provided with screws *g* and *h*, and disks *i* and *j*, projecting inward toward the axis of the bore of the coupling, the disk *i* being provided with an opening about one-fourth of an inch in diameter, and the disk *j* with an opening about three-six-

teenths of an inch in diameter. The part *f* of the coupling is provided with a number of small openings, *l*, which communicate with the chamber *m* formed by the disks *i* and *j*, when the parts *e* and *f* are in juxtaposition. The opening at *n*, between the disks *i* and *j*, is about one-eighth of an inch in width. The screw-threads *g* are for the purpose of attaching together the parts *e* and *f* of the coupling, and the screw-threads *h* are for the purpose of connecting the pipes B and C to the coupling. The pipe B is provided with an ordinary "seed-bag," used for the purpose of preventing the water from flowing down into the well below the point where the seed-bag is placed on the pipe.

The use and application of the seed-bag are well understood by operators of oil and salt wells; therefore I will not further describe it.

In oil and salt wells gas is always present, and often issues from the well with great force. The gas being confined by the seed-bag, it will press down on the fluid in the well and cause it to flow through openings D into the pipe C, and up it and through the openings in the disks *e* and *f* into the pipe B, and the gas, flowing through openings *l* into chamber *m*, and from it through opening *n*, forces the oil or other fluid up through pipe B, and thereby ejects it from the well.

Having thus described my improvement, what I claim as of my invention is—

The coupling, constructed substantially as hereinbefore described, and combined with a pipe or pipes for the purpose of ejecting fluid from a well through the medium of the gas present in it, as set forth.

WILLIAM REED.

Witnesses:

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JAMES J. JOHNSTON.