G. FINTON.

Oscillating Gland for Flowing Oil-Wells.

No. 143,280. Patented September 30, 1873.

Fig. 1.

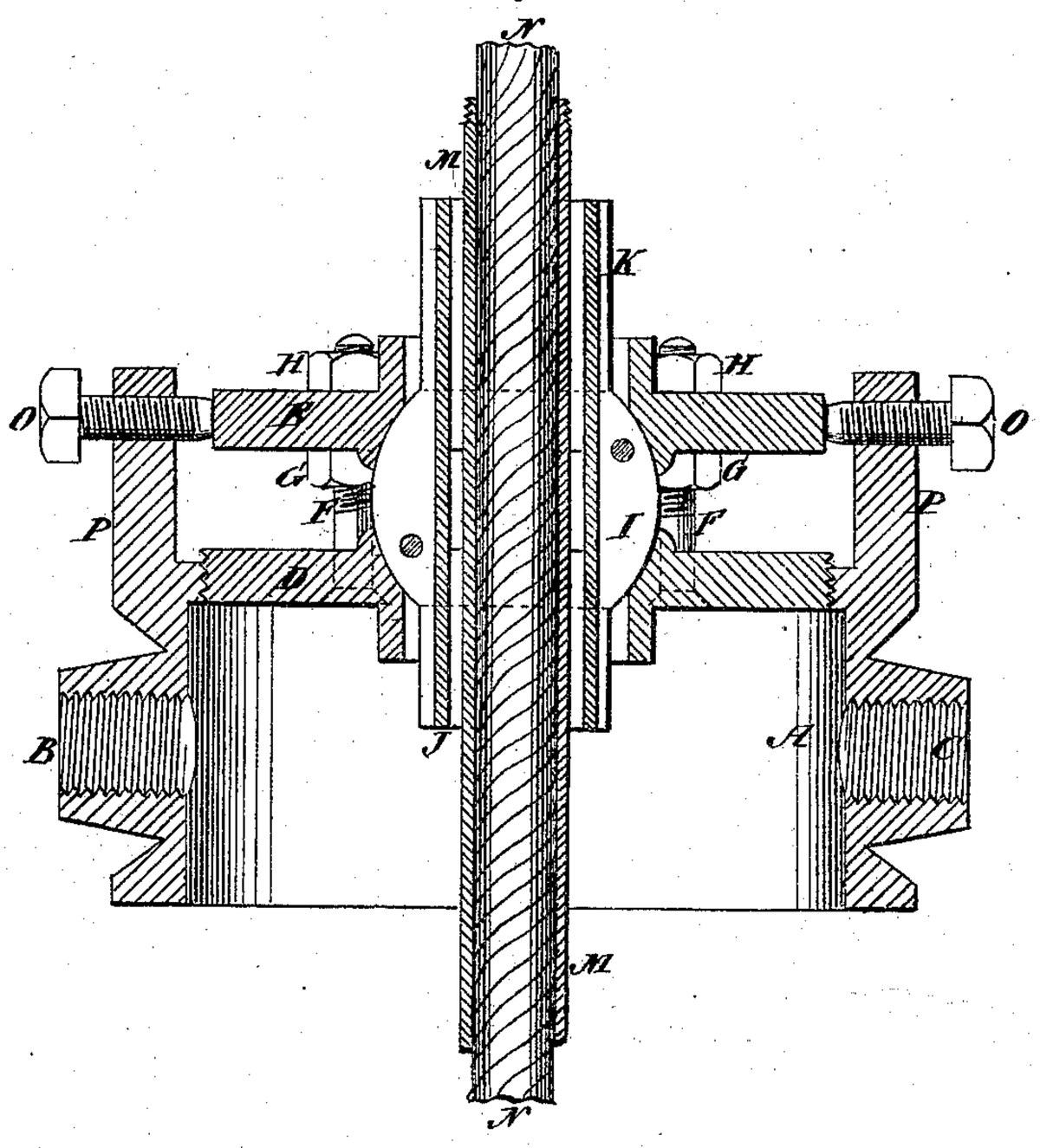
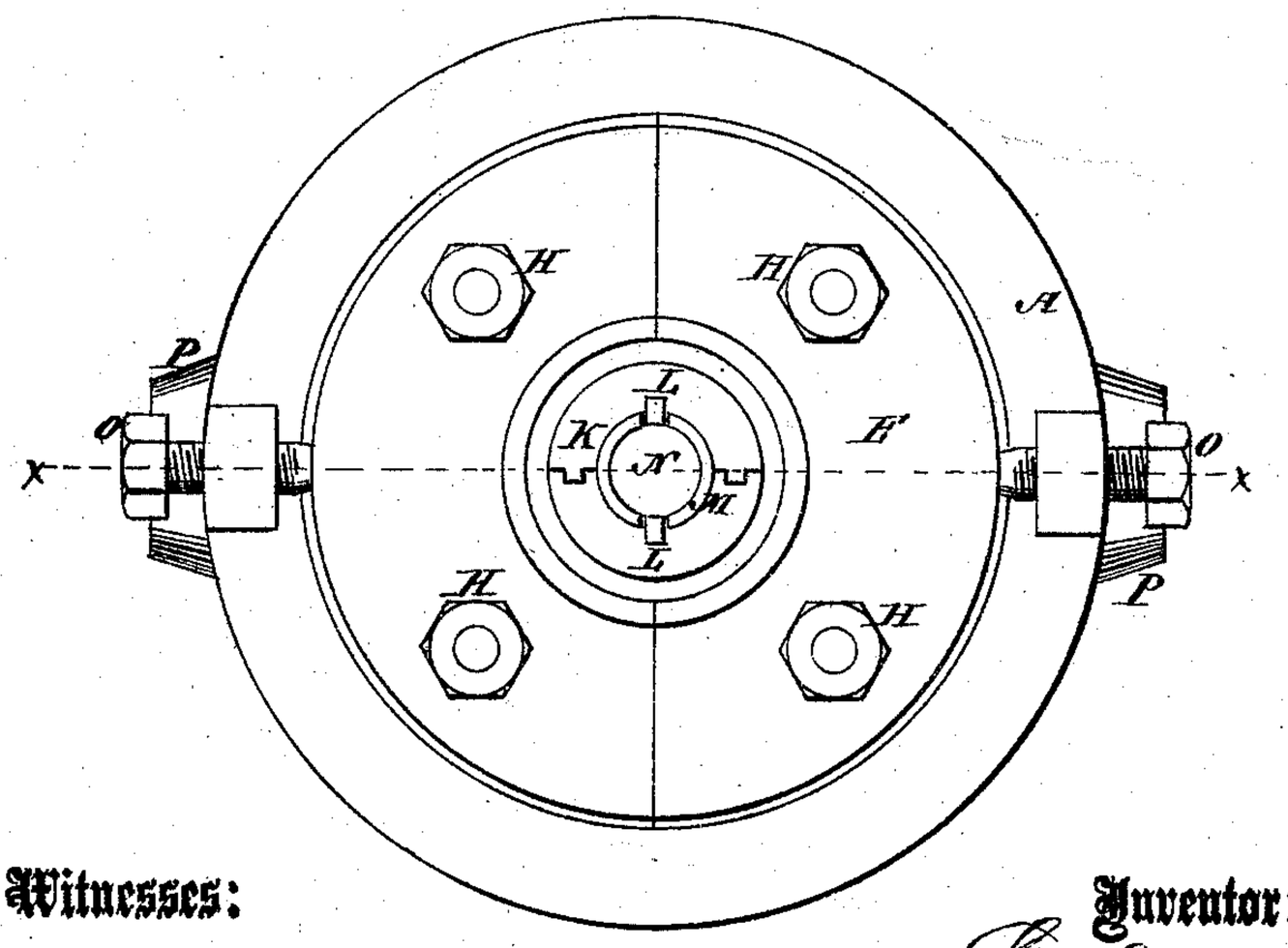


Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE FINTON, OF MEADVILLE, PENNSYLVANIA.

IMPROVEMENT IN OSCILLATING GLANDS FOR FLOWING OIL-WELLS.

Specification forming part of Letters Patent No. **143,280**, dated September 30, 1873; application filed July 19, 1873.

To all whom it may concern:

Be it known that I, GEORGE FINTON, of Meadville, in the county of Crawford and State of Pennsylvania, have invented a new and Improved Oscillating Gland for Flowing Oil-Wells, of which the following is a specification:

This invention relates to an apparatus which is fastened to the top of the casing to prevent the escape of oil or gas during the process of drilling oil-wells; and it consists in a ball-and-socket gland, constructed and applied as hereinafter described.

In the accompanying drawing, Figure 1 is a vertical central section of the apparatus taken on the line *x x*, Fig. 2. Fig. 2 is a top view.

Similar letters of reference indicate corresponding parts.

A represents the base or shell of the gland, which is provided with orifices B and C, with female screws for attaching discharge-pipes, as seen in the drawing. D is a plate, resting in a recess in the top of the shell, which forms the lower part of the ball-socket. E is a plate, which forms the upper part of the socket, which is adjustably supported by the screw-bolts F, more or less in number, a short distance above the upper part of the socket by means of jam-nuts G on the screws, and the ordinary nuts H on the top of the plate. I represents the ball, and J K the tubular extension of the ball, one above and one below, as seen in the drawing. The ball and tubes are made in two parts, and the tubes have a feather, L, on each side, which separate the parts of the surrounding tubes M. N is the cable, which passes down through the divided tube M, as represented, from which the drilling-tool is suspended.

The upper plate E, which forms part of the socket, may be made in two parts. This plate is supported laterally by the set-screws O O, which work in the lugs P P of the shell A. Where the tubes J K of the ball pass through the plates D E there is play allowed for the oscillation of the tubes.

The cable thus arranged will oscillate in either direction, as the parts described form a universal joint, and while oscillating the ball and tubes freely revolve.

This apparatus is attached to the top of the casing of the well, and permits the rope from which the iron tool is suspended to pass through the gland oil and gas tight, and to move up and down in the act of drilling without permitting either oil or gas to escape, except through the orifices B and C, seen in Fig. 1. If oil escapes, it may be conveyed to an oil-tank, and if gas escapes it may be conducted off to a distance, so as to avoid danger.

This apparatus is used when the drilling is nearly completed, as at such times veins of oil or gas are frequently struck which escape from the top of the well, frequently causing loss and danger from explosion from contact with the fire of the furnace. My invention prevents all this.

When the drilling is completed the apparatus is removed, and the well is tubed in the usual manner.

I do not confine myself to the precise form or arrangement of the parts described, as they may be varied without departing from my invention.

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

1. An apparatus, consisting of shell A, socket-plates D and E, ball I, extension-tubes J K, and sectional tube M, fastened to the top of the casing of an oil-well, substantially as and for the purposes described.

2. The discharge-openings B and C, substantially as and for the purposes described.

GEORGE FINTON.

Witnesses:

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