

A. A. ATKINS.
Fluid-Ejector.

No. 159,739.

Patented Feb. 16, 1875.

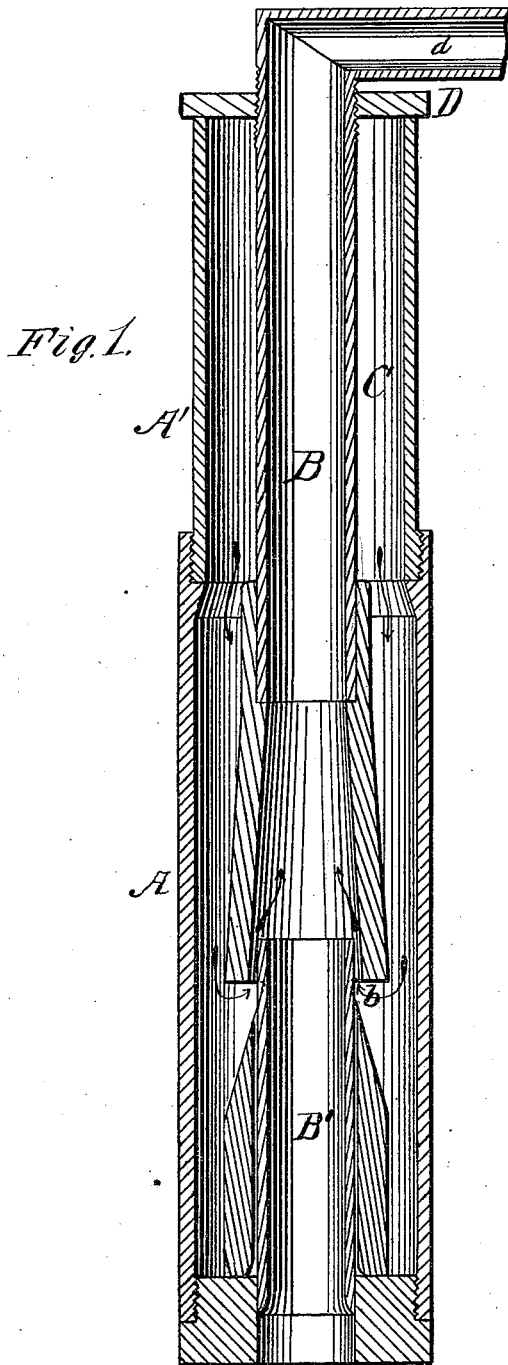


Fig. 2.

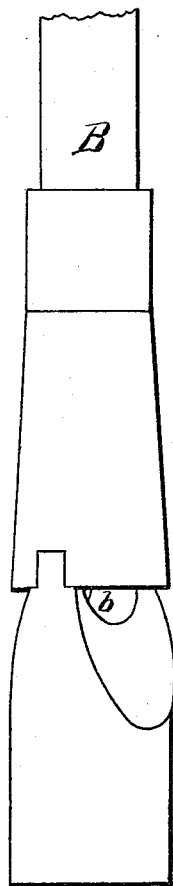


Fig. 3.

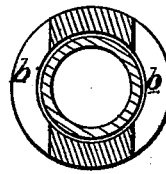
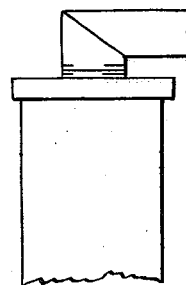


Fig. 4.



WITNESSES

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ANDREW A. ATKINS, OF ST. PETERSBURG, PENNSYLVANIA.

IMPROVEMENT IN FLUID-EJECTORS.

Specification forming part of Letters Patent No. **159,739**, dated February 15, 1875; application filed July 15, 1874.

To all whom it may concern:

Be it known that I, ANDREW A. ATKINS, of St. Petersburg, in the county of Clarion and State of Pennsylvania, have invented certain Improvements in Ejectors for Oil-Wells, &c., of which the following is a specification:

My invention relates to a new and improved means for forcing oil, &c., from wells, by the injection of air; and it consists in the device, which will be hereinafter described, by which arrangement and construction of parts I succeed in regulating the flow of oil, &c., by governing the current of air, as will be hereinafter set forth.

Figure 1 is a vertical section, showing my invention. Fig. 2 is a view showing the construction of the oil-tube; and Fig. 3 is a transverse section, showing the oil-tube at the place where the air enters. Fig. 4 shows the screw-cap.

A represents the case, which is provided at its upper end with an opening, into which air is forced or injected. This case incloses the whole apparatus, and is calculated to be introduced into the well. A' is another portion of the same, coupled to the portion A by means of screw-thread, as shown. The portion A is larger in diameter than the portion A', to accommodate the enlarged portion of the oil-tube B B', which will be hereinafter described. B B' is the oil-tube, the former being constructed as a cylinder, and the latter as a smaller cylinder, around which the former works. The part B is provided with apertures *b*, which apertures pass the upper portion of

the part B' when the part B is lowered, and this action closes the apertures and prevents the air from entering the oil-tube and forcing the oil up.

The lower end of the oil-tube may be provided with a valve, or other means, which will prevent the pressure of the air from forcing the oil downward.

At the upper end my oil-tube passes through a screw-cap, D *d*, which, acting in connection with the part B, allows the operator to graduate and regulate the current of air at will, as will be readily seen.

The oil rises in the oil-tube B B' above the aperture *b*. The air is forced down the air-tube C, and, entering the oil-tube at *b*, forces the oil up out of the well. By the screw-cap this flow of air may be regulated at will.

I claim—

1. The oil-tube B, provided with apertures *b*, in combination with the tube B', constructed and operating so as to allow the graduation and regulation of the flow, as shown and specified.

2. The oil-tube B, having apertures *b*, in combination with the casing A A', and oil-tube B', constructed and operating as and for the purposes herein described and shown.

In testimony that I claim the foregoing as my own, I hereby affix my signature in presence of two witnesses.

ANDREW A. ATKINS.

Witnesses:

J. W. HATCH,
S. J. EDINGA.