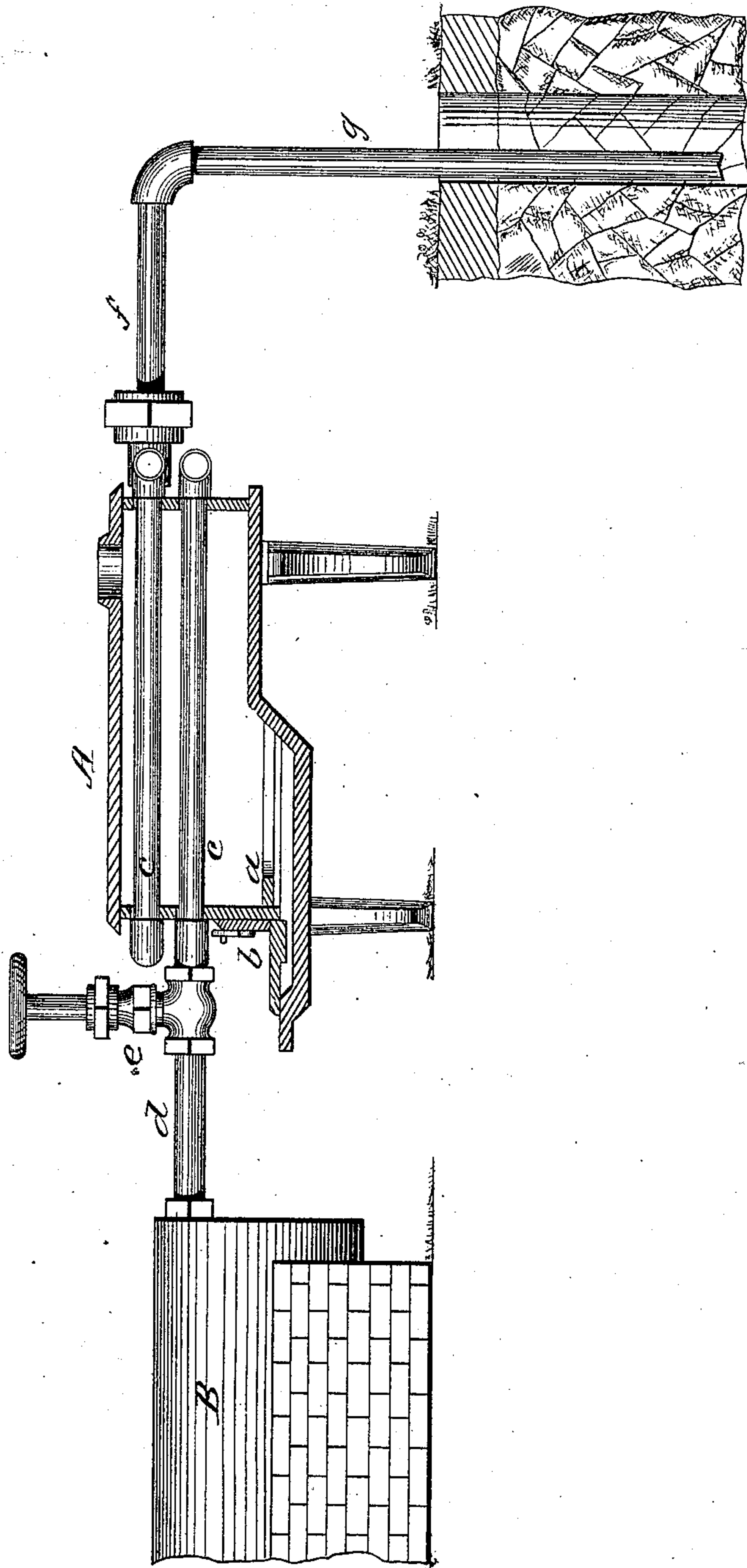


A. J. WEST.

PROCESS FOR STEAMING OIL-WELLS.

No. 193,838.

Patented Aug. 7, 1877.



WITNESSES

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AARON J. WEST, OF CONNEAUTVILLE, PENNSYLVANIA.

IMPROVEMENT IN PROCESSES FOR STEAMING OIL-WELLS.

Specification forming part of Letters Patent No. **193,838**, dated August 7, 1877; application filed July 20, 1877.

To all whom it may concern:

Be it known that I, AARON J. WEST, of Conneautville, in the county of Crawford and State of Pennsylvania, have invented a new and valuable Improvement in Process for Steaming Oil-Wells; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Previous to my invention, so far as I am aware, the method employed in steaming oil-wells was to cause a current of steam, coming direct from the boiler, to pass into the well. It has been found that the steam thus coming from the boiler becomes to a degree condensed as it passes through the pipes, and by the time it reaches the bottom of the well more or less water will be deposited upon the rocks, and thereby "paraffine" the oil thereon, and also thickens the oil in the well, which tends to close the pores in the rocks, and prevents the oil from passing through.

The object and purpose of my invention is to remedy these difficulties, which is accomplished by heating, and thereby drying, the steam after coming from the boiler, or, in other words, using superheated steam, which obviates all the above evils.

The best method of carrying out my inven-

tion is illustrated in the drawing, in which A represents a heater, having a suitable fire-grate, *a*, and door *b*. Within the heater A are a series of pipes, *c*, which communicate with a steam-boiler, B, by a branch pipe, *d*, the same being provided with a faucet, *e*. The other end of the pipes *c* connects with a branch pipe, *f*, which also is coupled to a vertical pipe or tubing, *g*, extending down in the oil-well.

As the steam is generated in the boiler it passes into the branch pipe *d*, and then into the pipes *c*, the pipes being heated by a suitable heating medium. As the steam passes through these pipes it is thoroughly heated and dried, so that when it passes therefrom into the well it prevents, to a great degree, the condensation of the steam.

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

The process herein described of steaming oil-wells by causing to flow therein a jet or current of superheated steam, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

AARON J. WEST.

Witnesses:

NAT. E. OLIPHANT,
R. S. REEVES.