

J. C. ROBINSON.  
Oil-Still.

No. 218,901.

Patented Aug. 26, 1879.

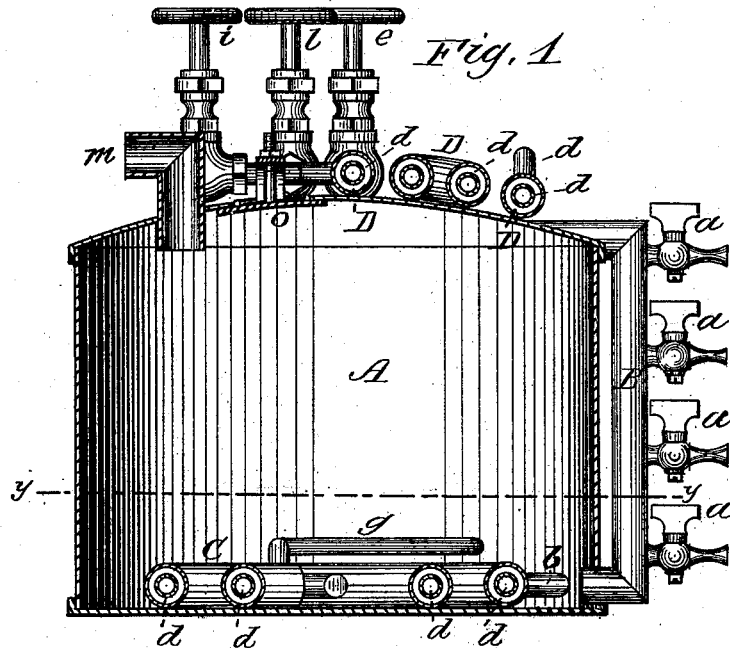
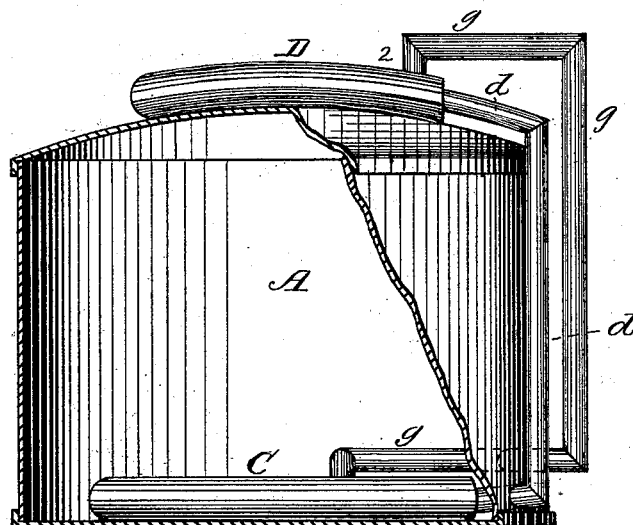


Fig. 2.



WITNESSES

Nat. E. Diphant.  
Geo. R. Porter.

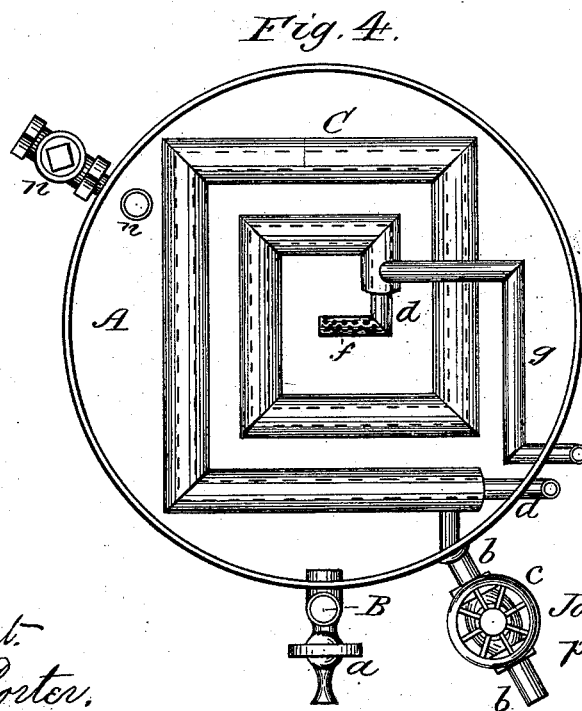
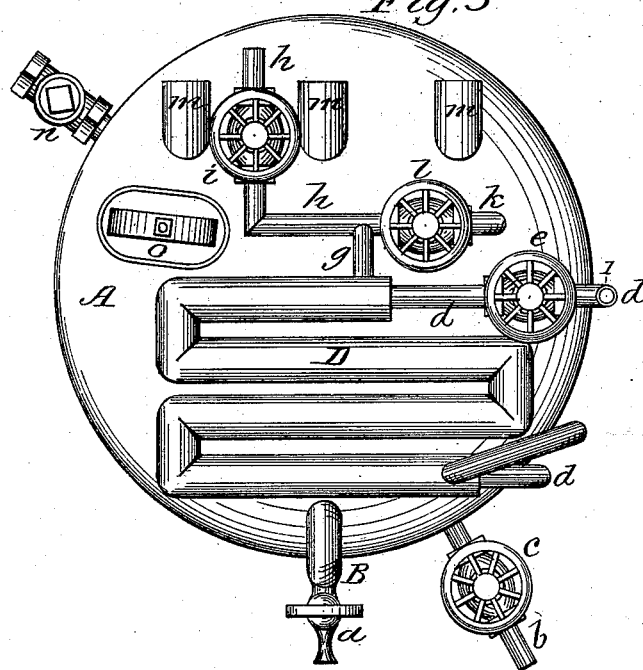
INVENTOR

Joseph C. Robinson,  
per Cha. H. Fowler,  
Attorney.

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WITNESSES

Nat. E. Slipknot.  
Geo. R. Porter.

INVENTOR

Joseph C. Robinson,  
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# UNITED STATES PATENT OFFICE.

JOSEPH C. ROBINSON, OF TITUSVILLE, PENNSYLVANIA.

## IMPROVEMENT IN OIL-STILLS.

Specification forming part of Letters Patent No. **218,901**, dated August 26, 1879; application filed June 9, 1879.

### *To all whom it may concern:*

Be it known that I, JOSEPH C. ROBINSON, of Titusville, in the county of Crawford and State of Pennsylvania, have invented a new and valuable Improvement in Oil-Stills; 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.

Figure 1 of the drawings is a representation of a sectional elevation of my invention. Fig. 2 is a detail view, partly in section, showing the steam pipes and jackets and oil-pipe. Fig. 3 is a top-plan view, and Fig. 4 is a longitudinal section taken on line *y y* of Fig. 1.

The present invention has relation to that class of stills used for the purpose of manufacturing lubricating, illuminating, and other oils; and it consists in providing the feed-pipe for oil with jackets near the top and bottom of the still, inclosing said feed-pipe and steam-pipes connecting the jackets, the steam-pipes also having connection with the interior of the still, to which exit-pipes for the steam are attached, the still, with its appurtenances, being also subjected to the action of fire heat, whereby a rapid and continuous distillation is effected, and the incoming oil warmed by exhaust-steam before entering the still, as hereinafter more fully set forth.

In the accompanying drawings, A represents the still of the oil-still, which may be of any suitable form and dimensions, and provided with a vertical pipe, B, communicating with the interior of the still, at the top and bottom thereof, and has a series of petcocks, *a*, which together form an oil-gage of the ordinary construction used in this class of stills.

Within the interior of the still or cylinder A, and at the bottom thereof, is a jacket, C, into which steam is introduced through a pipe, *b*, provided with a suitable faucet, *c*, said pipe entering the still A near its bottom and joining the jacket C.

The jacket C surrounds a feed-pipe, *d*, through which the oil passes.

The oil enters the feed-pipe *d* at 1, and the supply is regulated by a faucet, *e*, at the end of the worm.

The feed-pipe *d* is surrounded at the top of the still A by a jacket, D, the worm passing through the end of the jacket and down the side of the still, upon the exterior thereof, where it enters the still near its base, and passes into the jacket C.

The feed-pipe *d* terminates in a perforated head, *f*, upon the outside of the jacket C, for the discharge of the oil into the still after being subjected to fire and steam.

Although I have shown the upper portion of the feed-pipe *d* and the jacket D as being arranged outside of the still A, in practice the worm and jackets may be located inside of the still A, so that they will retain more heat.

The steam, after passing through the entire length of the jacket C, and around that portion of the worm located within the same, passes into the pipe *g* and out into the jacket D at 2.

The steam in its course envelops that portion of the feed-pipe located within the jacket D, and passes into the exhaust-pipe *h*, the escape of steam being controlled by a faucet, *i*.

The exhaust-pipe *h* communicates with a short pipe, *k*, which, in turn, communicates with the interior of the still A at the top thereof, and is provided with a faucet, *l*, to regulate the flow of steam into the still for carrying over the vapor, the vapor passing out through pipes *m* at the top of the still.

The still A, at its bottom, is provided with a faucet, *n*, for drawing off the sediment, and at its top with a man-hole, closed by a suitable cover, *o*, through which access to the interior of the still is had, when desired, for cleaning or repairing.

It should be understood that the still is set up in a similar manner as oil-stills are usually erected at the present day, the worm being connected to and leading from a still containing the oil, from which it is supplied, and the pipe *b*, for supplying the steam, communicating with a steam-boiler.

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

1. An oil-still consisting of the still A and feed-pipe *d*, in combination with the jackets C D and steam-pipes *b g*, substantially as and for the purpose set forth.

2. The tank A, feed-pipe *d*, and jackets C D, in combination with the steam-pipes *g*, exhaust-pipe *h*, and pipe *k*, for the introduction

of steam at the top of the still, substantially as and for the purpose described.

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

JOSEPH C. ROBINSON.

Witnesses:

J. R. LUSE,

B. G. PORTER.