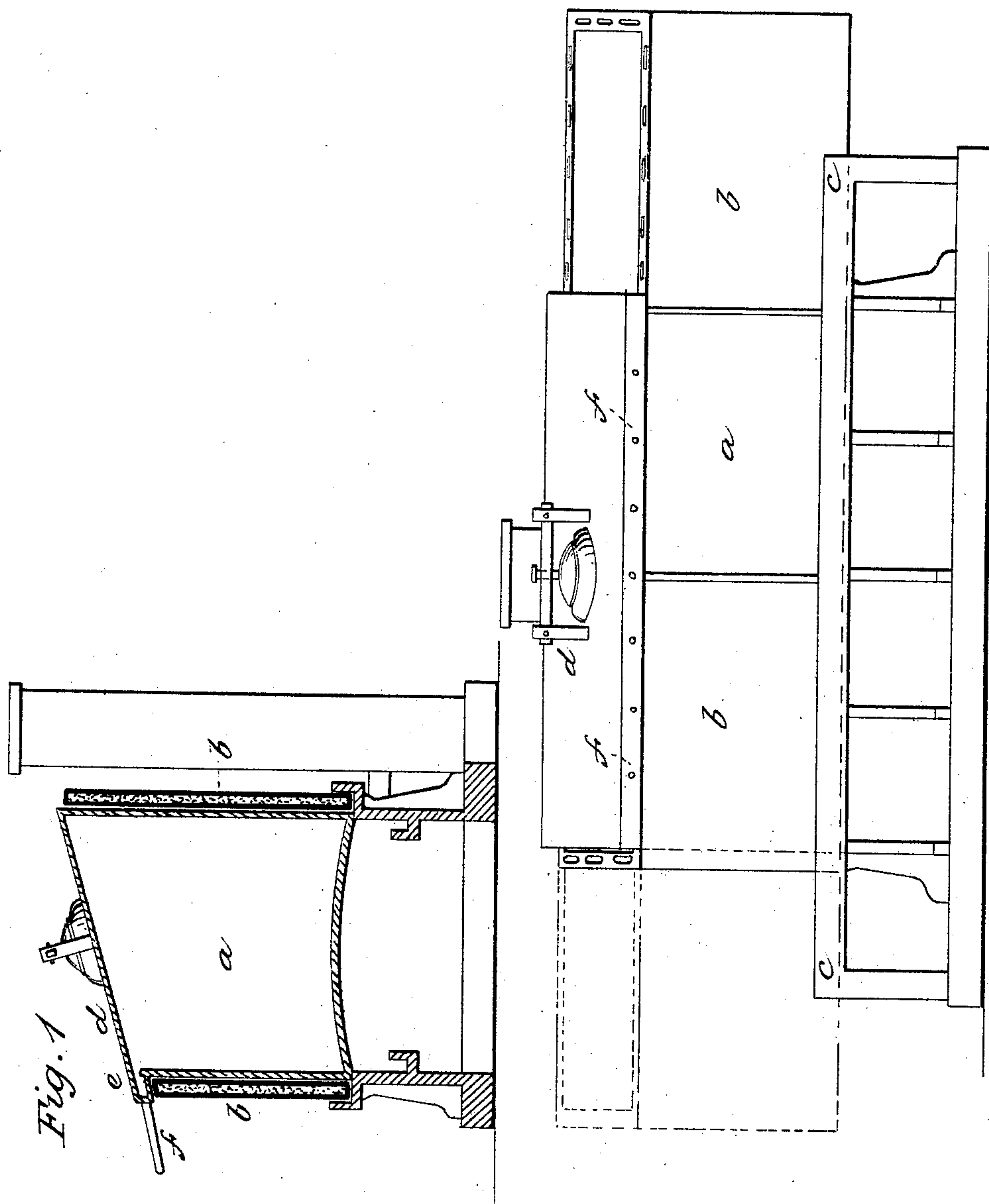


A. C. RAND,
Oil Still.

No. 62,362.

Patented Feb. 26, 1867.



Witnesses:
Edw. J. ...
Alden B. Rand

Inventor:
A. C. Rand

United States Patent Office.

ALONZO C. RAND, OF UNION MILLS, PENNSYLVANIA.

Letters Patent No. 62,362, dated February 26, 1867.

IMPROVEMENT IN STILLs.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ALONZO C. RAND, of Union Mills, Erie county, State of Pennsylvania, have invented certain new and useful Improvements in Stills for the distillation of coal oil and petroleum; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which drawings form a part of this specification.

Similar letters represent similar parts in each of the figures. In the drawings—

Figure 1 is a transverse vertical section; and

Figure 2, a side elevation of a still.

The usual method of setting stills is to protect them from external cold air by stone or brick masonry. Now, each time the still is "run off," it is necessary, before "charging" again, to allow it to cool sufficiently for a person to enter and clean it thoroughly from thick tar and coke, else the distillate would be of bad color, and the bottoms of the stills burn out. The masonry surrounding the still retains the heat, and much time is lost in waiting for it to cool. By my improvement this delay, loss of time, and other difficulties mentioned, are avoided. It consists in providing the still *a* with an exterior adjustable double covering or "jacket," *b*, made of sheet iron or other suitable material, the space within the same being filled with sand or other non-conductor of heat. This jacket is made in two parts, and closely surrounds the stills on its sides. During the process of distillation this jacket is made to envelope the sides of the still for the purpose of retaining the heat. After the still is "run off," it being desirable to cool it as rapidly as possible, to save waste of time, the two halves of the jacket are disconnected and rolled apart on the ways or slides *c* upon rollers, (not represented upon drawings,) thus allowing the air to come in contact with the still, and cooling it on all sides at once. In fig. 2 one part or half of the jacket *b* is represented enveloping the still *a* in its proper position during distillation, the other half being represented as removed for the purpose of cooling. In the drawings I have represented a still of rectangular form; but this jacket can be applied to stills of any form with equal advantage.

In using my improvement I construct the top or roof *d* of the still at such a pitch or angle that the vapors arising during distillation and condensing on the under side of said roof shall not, as is usually the case, drop back into the oil, but shall adhere to the roof, and run down into a gutter, *e*, and from thence through pipes *f* into the pipes or "worms" usually provided for the purpose of condensing. All the uncondensed vapors also pass through this gutter into the condensing pipes aforesaid, the gutter thereby taking the place of the ordinary "goose-neck" now in use.

Having thus described my improvement, what I claim, and desire to secure by Letters Patent, is—

Surrounding and enveloping a still with an adjustable double covering or jacket, filled with a non-conducting substance, substantially as described and for the purposes herein set forth.

ALONZO C. RAND.

Witnesses:

E. D. SUNDERLIN,

ALDEN B. RAND.