J. L. Alberger

Kettle for Trying Oils, Fats &c.

No. 22,152. Patented Nov. 30. 1858.

Fig. 1.

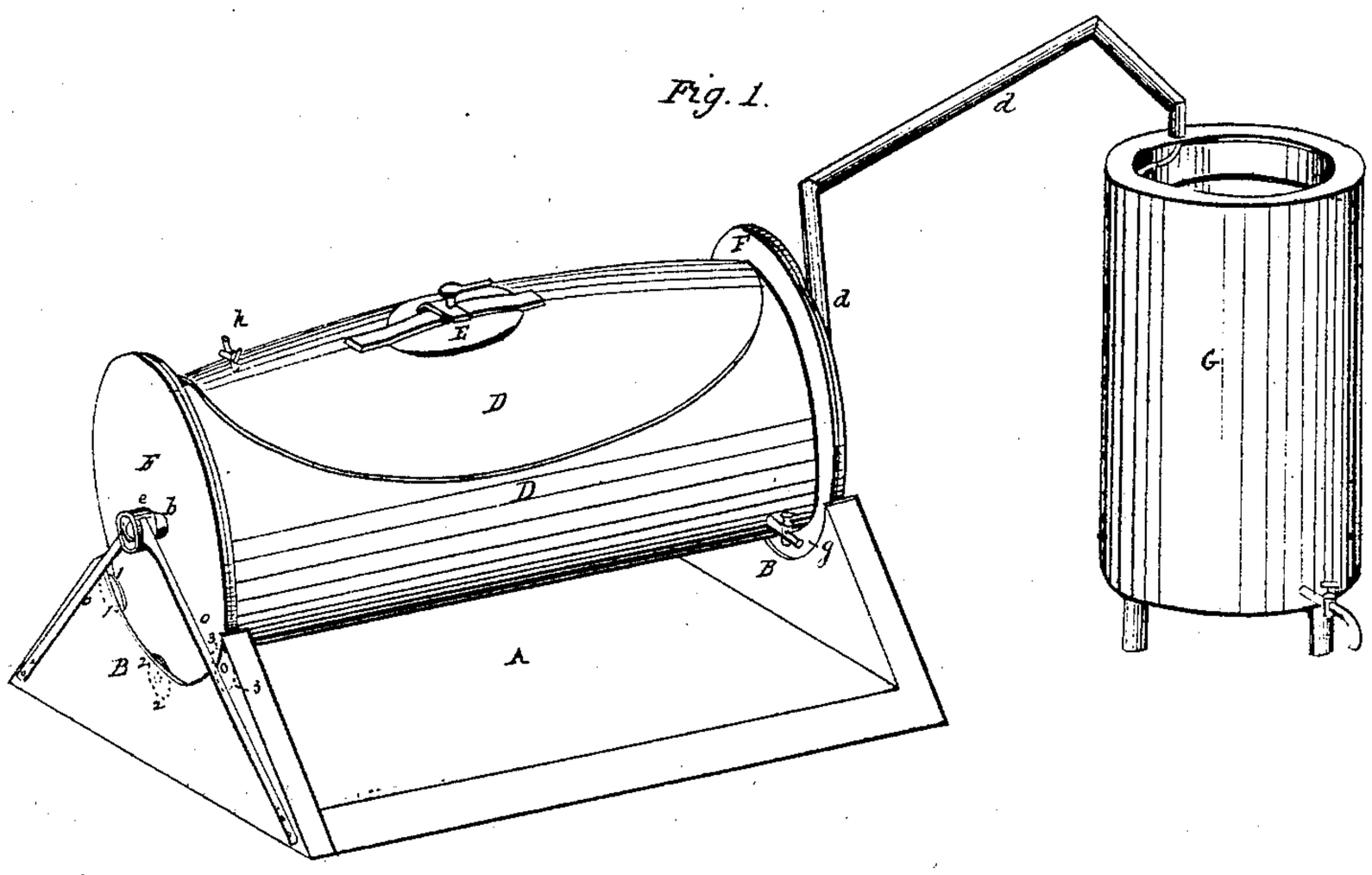


Fig. 2

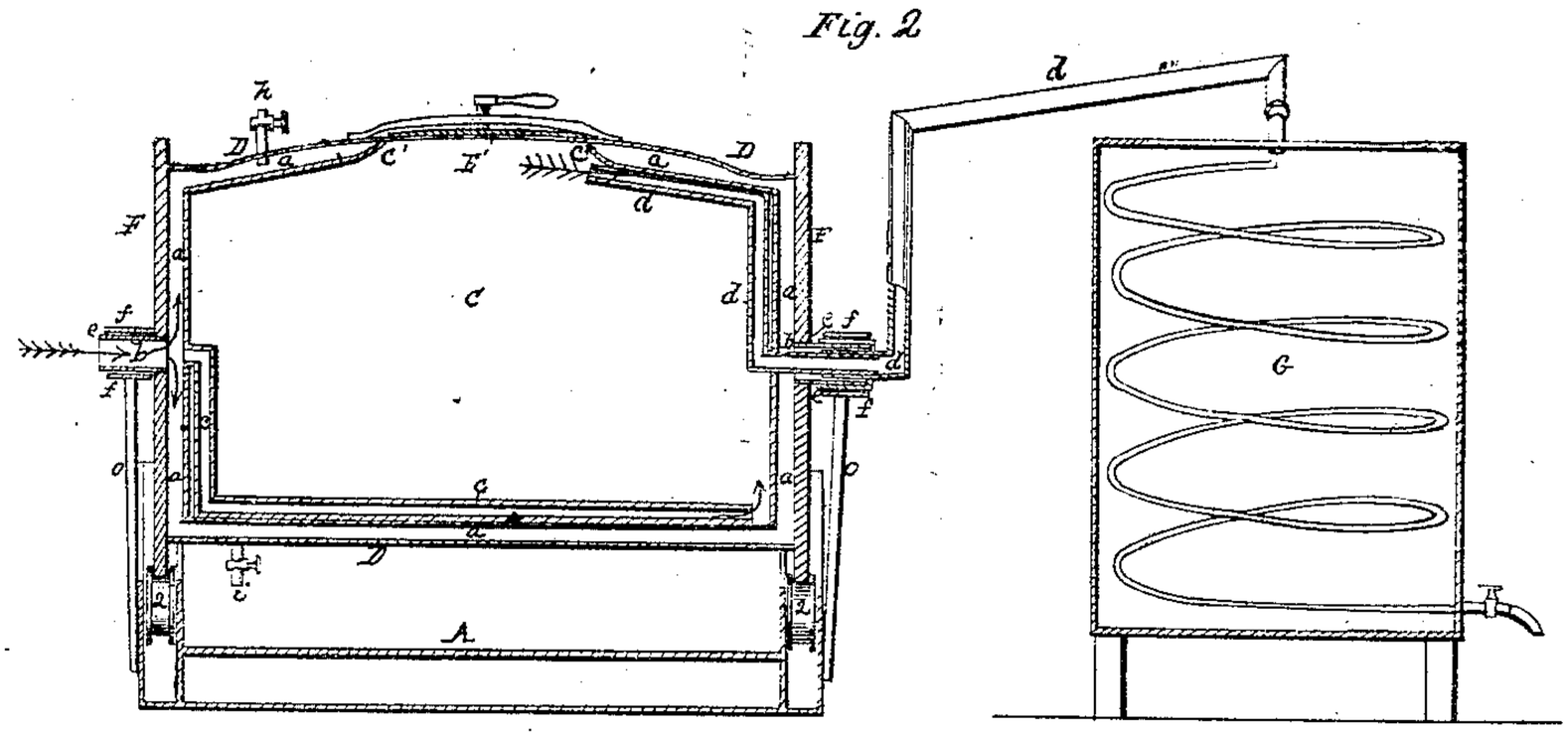
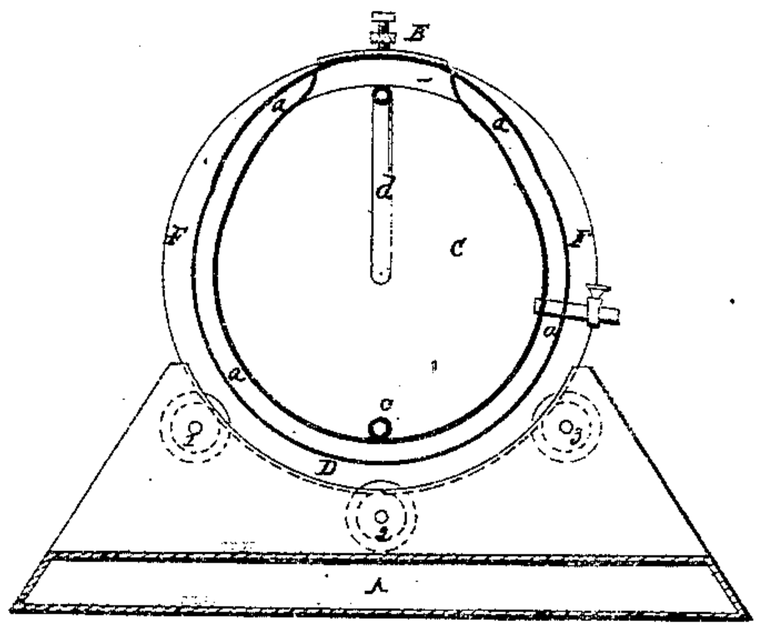


Fig. 3



UNITED STATES PATENT OFFICE.

J. L. ALBERGER, OF BUFFALO, NEW YORK.

KETTLE FOR TRYING OILS.

Specification forming part of Letters Patent No. 22,152, dated November 30, 1858; Reissued September 12, 1876, No. 7,305.

To all whom it may concern:

Be it known that I, J. L. ALBERGER, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Kettles or Boilers for Trying Oils, Fats, &c.; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, represents a perspective view of the boiler, and its support, with an apparatus attached, for condensing the foul gases or vapors thrown off. Fig. 2, represents a longitudinal vertical section through the apparatus, leaving the connecting pipe, and worm pipe of the condenser in full. Fig. 3, represents a transverse vertical section through the boiler and its supporting bed.

Similar letters of reference where they occur in the several figures, denote like parts of the apparatus, in all of them.

My invention relates to the construction and arrangement of a boiler or tank, surrounded by a steam jacket, or having steam introduced in its interior, and made to revolve upon its bed or cradle, for the purpose of emptying it of its contents, and used with or without a condensing apparatus, the object being to boil, or try fats, oils, &c., by the direct, or the indirect action of steam, as will be hereafter particularly pointed out.

To enable those skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A, represents a metallic, or otherwise, bed, at each end of which are pillar blocks B, B, the tops of which are rounded out, to suit the perimeter of the boiler, or boiler heads that are to turn thereon. In these pillar blocks B, B, are arranged double flanged friction rolls 1, 2, 3, set in the circumference of a circle, corresponding to that of the boiler heads.

The boiler or tank C, is cylindrical, but having that part of it C′, through which the opening from the exterior is made, slightly swelled out, or flaring, to cause the oil, or fats, to run out when said boiler is turned over. The boiler C, may be surrounded by a steam jacket D, so as to leave steam-way *a* all around its sides and ends, except just where the cover E, that closes the manhole or opening comes.

The cylinder heads F to the jacket or outer cylinder D, are made strong, and project from 2 to 6 inches from the cylinder. These cylinder heads rest on the friction rollers 1, 2, 3, in the pillar blocks B, B, which allows the boiler to be readily turned over for emptying it of its contents. There are hollow journals *b*, *b*, affixed to each of the cylinder heads F, but the boiler is not supported on these journals, its weight rests upon the friction rolls 1, 2, 3. The journals are hollow for the purpose of admitting steam not only into the steam way *a*, between the tank and jacket, but also if so preferred to the pipe *c*, which leads into the tank, and thus furnish steam in direct contact with the material being boiled—the steam pipe *c*, being open at its inner end, for this purpose. The red arrows in Fig. 2, show how the steam enters. The gas or vapor which rises from the boiling mass, rises to the upper part of the boiler, and is carried off by the pipe *d*, (as shown by the blue arrow, in Fig. 2) through one of the hollow journals *b*, and thence to a condenser G, where the vapor is condensed and thus all the foul smell arising from the boiling of animal fats, avoided.

The object in making the length of the cylinder horizontally, greater than its height, is first, to keep its top low down, and thus save the elevating of the material to the top of the boiler; secondly, to prevent a heavy column of fluid matter over the steam pipe *c*, which would require a heavy head of steam to force it through and into the boiler, against this column; thirdly, it rests and turns more readily upon its bearings.

The advantage of swelling out that portion of the boiler about the man-hole, is that when the boiler is turned over to be emptied, all the contents will run out, as that part is the lowest, when turned over.

The parts *e*, *e*, where the steam enters, and where the vapors pass out, are made tight by packing in the usual way, while a steam-joint is preserved so that the boiler may turn without twisting the pipes that lead into, and out of it—said pipes being supported in stationary bosses or sleeves *f*, supported by the braces *o*, *o*. The water of condensation between the boiler and jacket, may be drawn off by a cock *i*, Fig. 1; and the steam may be

let off at the top by a cock *h*, same figure; and a third one *g* may be so arranged as to draw off the oil or fats from the interior tank, without opening the man hole for that purpose, and this cock may be placed at or above the center of the tank. When the tank is used without the jacket, the cocks are arranged accordingly.

Having thus fully described the nature and object of my invention, what I claim therein as new and desire to secure by Letters Patent is—

A horizontally placed cylindrical boiler or tank, surrounded by a steam jacket, or having the steam admitted directly into it, when said boiler or tank is capable of being turned over in its cradle and have all its contents run out at the man-hole, as herein described; and this I claim whether said boiler be used in connection with a condenser, or without it, substantially as set forth.

J. L. ALBERGER.

Witnesses:
W. C. ALBERGER,
F. A. ALLBERGER.

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