(No Model.)

2 Sheets—Sheet 1.

Q. S. BACKUS.

OIL STOVE.

No. 344,513. Patented June 29, 1886.

Fig. 1.

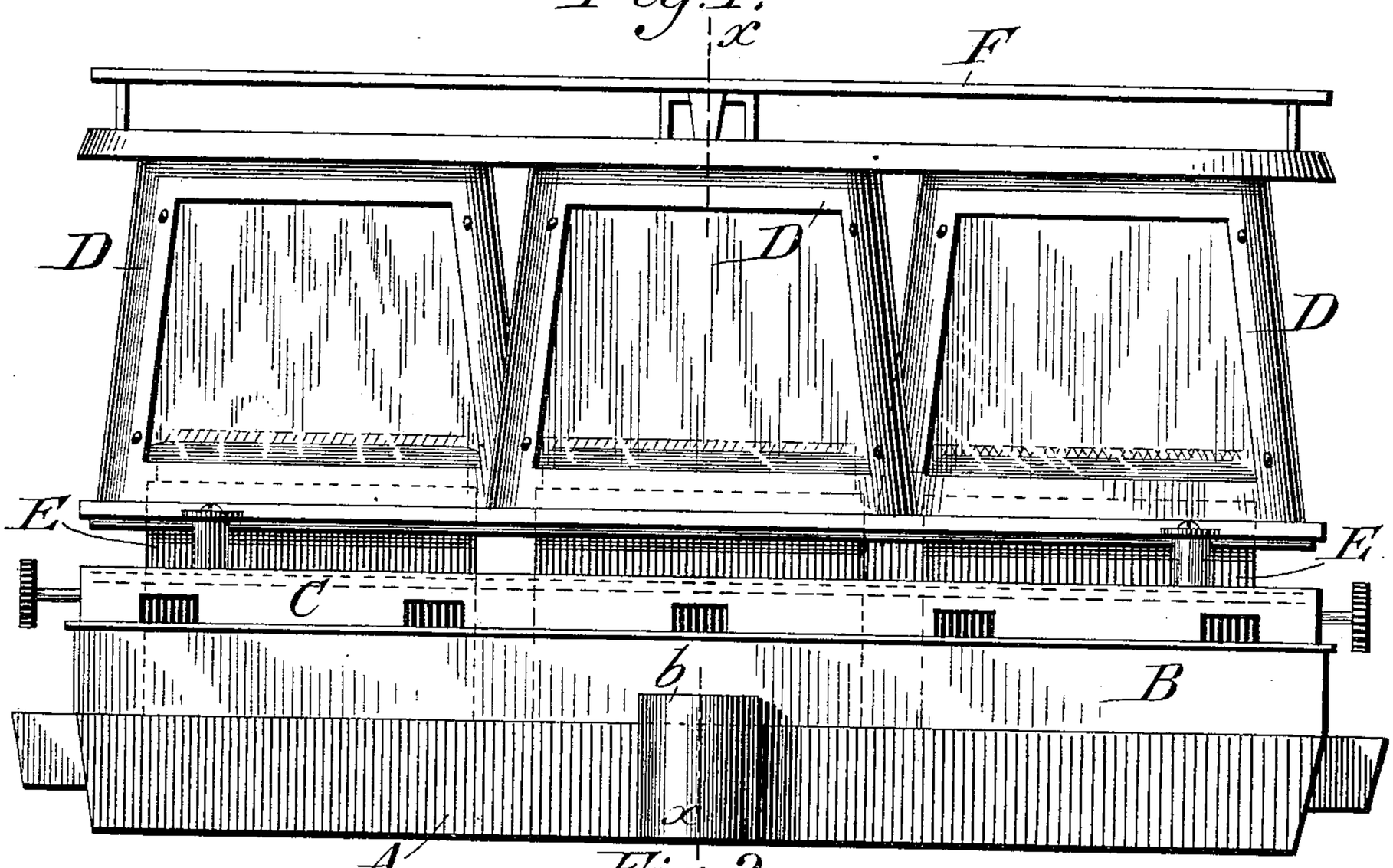
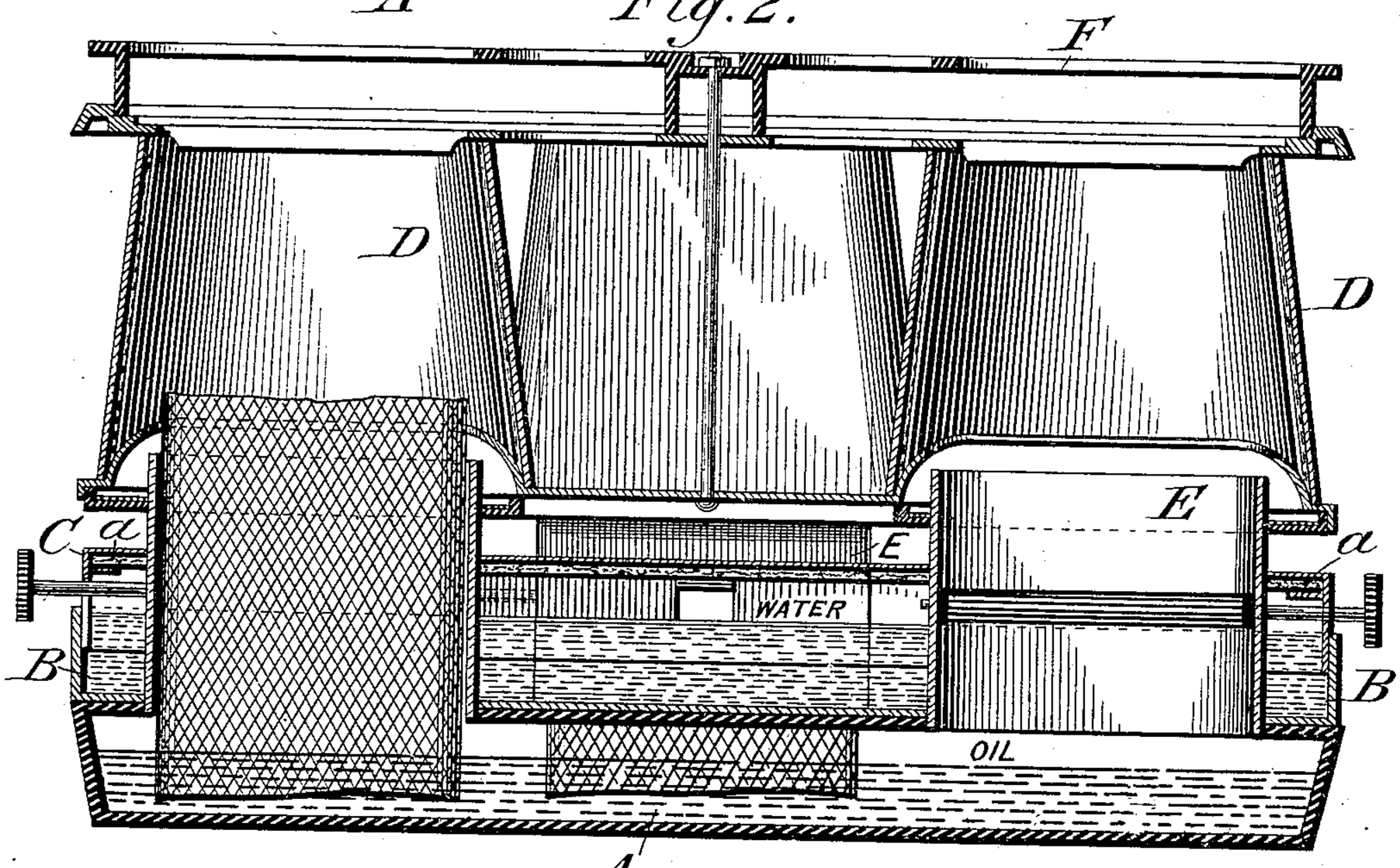


Fig. 2.



Attest:

F. H. Schott

Fred E. Tasker.

Inventor:

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Per John C. Tasker Atty.

(No Model.)

2 Sheets—Sheet 2.

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OIL STOVE.

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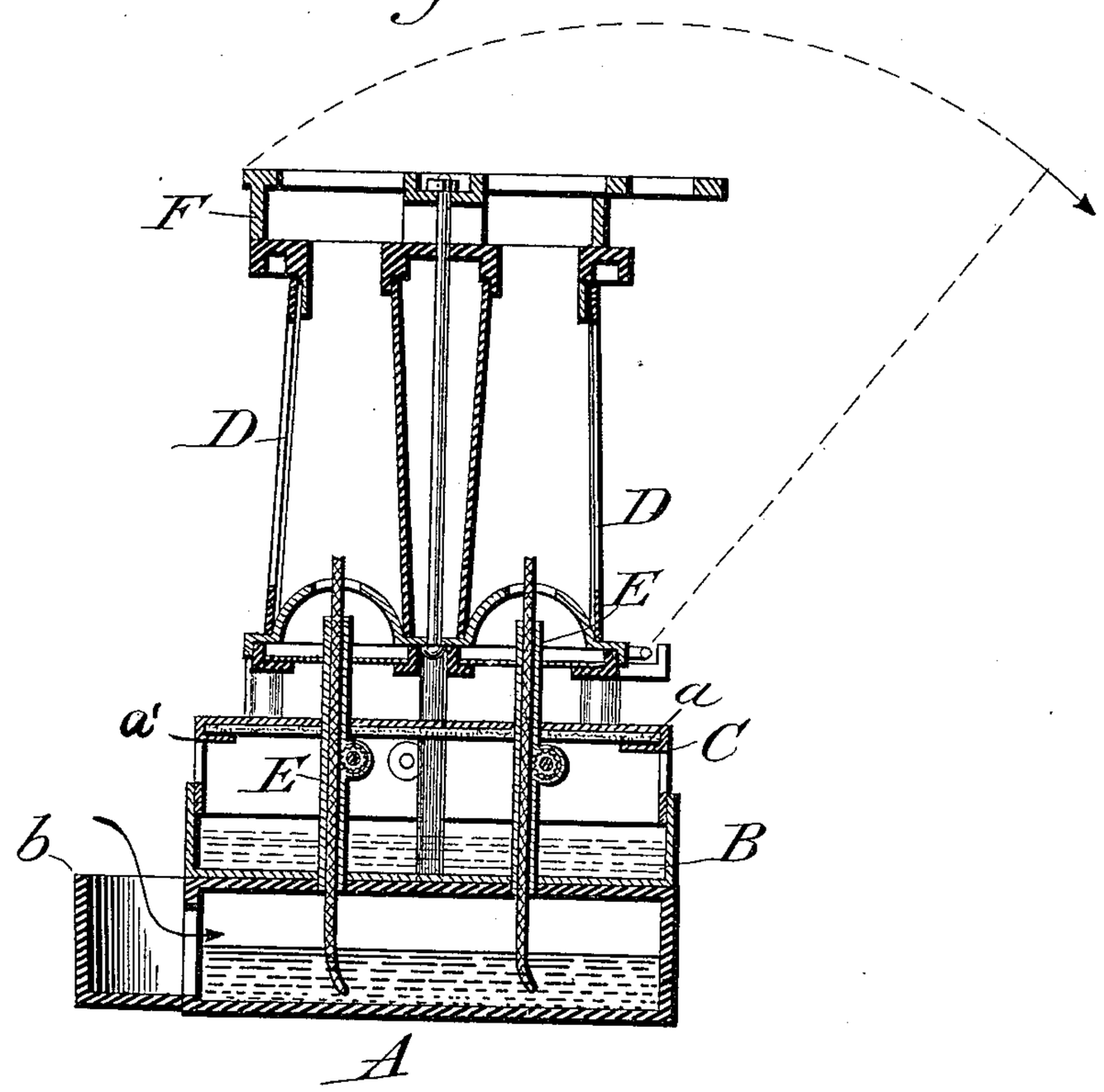
Fig. 3.



Attest:
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Inventor:
Quimby S. Backus
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UNITED STATES PATENT OFFICE.

QUIMBY S. BACKUS, OF WINCHENDON, MASSACHUSETTS.

OIL-STOVE.

SPECIFICATION forming part of Letters Patent No. 344,513, dated June 29, 1886.

Application filed November 24, 1885. Serial No. 183,891. (No model.)

To all whom it may concern:

Be it known that I, QUIMBY S. BACKUS, a citizen of the United States, residing at Winchendon, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Oil-Stoves; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The invention relates to oil-stoves.

Heretofore much difficulty has been experienced in the use of these stoves, as unless the oil-reservoir was placed at a distance from the burner the heat of the latter would generate inflammable and highly-dangerous vapor.

The invention therefore consists in a construction and arrangement of parts, as will be hereinafter set forth and claimed.

In the annexed drawings, illustrating my invention, Figure 1 is a side elevation of my improved oil-stove. Fig. 2 is a longitudinal section of the same, and Fig. 3 is a transverse section on the line *x x* of Fig. 1.

Like letters of reference designate like parts.

A represents the base or oil-reservoir of the stove, which may be of rectangular or any other desirable form, and this reservoir may be formed with a tubular projection, *b*, for convenience in filling the same. Upon the oil-reservoir is situated a water-pan, B, of greater or less depth, which is calculated to afford a layer of water between the flame and the oil, in order that the latter may be kept cool. This pan is provided with a cover, C, whose lower surface is furnished with a layer of asbestus, *a*. This, being an excellent non-conductor of heat, serves as an additional preventive of the oil becoming heated. It also keeps the water cool. The asbestus, being nearly impermeable by heat, does not allow the heat from the flame to reach the water in the pan below; but should a small amount chance to pass through, or should the asbestus itself become heated, the heat is effectually prevented from warming the oil by reason of the interposed water layer and the current of air, which is continually passing between the surface of the water and the asbestus.

In order to retain the asbestus layer in place upon the under side of the cover of the pan, I prefer to use a metal plate, *a'*, which is supported on cleats or lugs at the end and sides of the cover, sufficient space being left between said plate and the cover for the layer of asbestus. Reference to Fig. 2 will show the manner in which I arrange the burners or wick-tubes E. They are placed lengthwise of the stove, and as regards each other are situated end to end, so that there may be a continuous line of flame from one end of the stove to the other without any intervening space unheated. The wick-tubes E are fastened upon the oil-tank and extend up through the water and asbestus layers and into the chimneys D. These chimneys are attached together in any convenient manner, and a frame-work or plate, F, is placed upon their upper ends, as shown in the drawings, to serve as a top for the oil-stove.

The chimneys D D may be constructed as desired, but I prefer the style shown in Fig. 1 of the drawings, in which it will be observed that sheets of mica are inserted in one or both sides of the flattened metal tube. These mica lights serve a double purpose in giving light and allowing the attendant to observe the height and intensity of the flame.

In an oil-stove thus constructed inflammable vapor is less liable to be generated or accumulated, for the wick-tubes are kept thoroughly cooled by passing through the water; consequently these tubes cannot generate vapor nor conduct heat to the oil-tanks. Further, the water is itself always kept cool by having the layer of asbestus between it and the flame. Thus my improved arrangement insures a cool oil-receptacle by the double safeguard of the asbestus and the water layer. It insures that the water be cool by providing the asbestus layer, and it prevents inflammable vapor forming in the oil-tank by having its wick-tubes kept surrounded by this thoroughly-cooled water.

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

In an oil-stove, the combination of an oil-tank, the wick-tubes, the water-reservoir situated directly above the tank, the cover for said reservoir, which is provided on the under side with an asbestus lining, and furnished with apertures for the admission of currents of air to the water-tank, substantially as shown, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

QUIMBY S. BACKUS.

Witnesses:
PHILIP MAURO,
FRED E. TASKER.