

(No Model.)

G. L. SWETT.

APPARATUS FOR BURNING KEROSENE OIL FOR FUEL.

No. 397,150.

Patented Feb. 5, 1889.

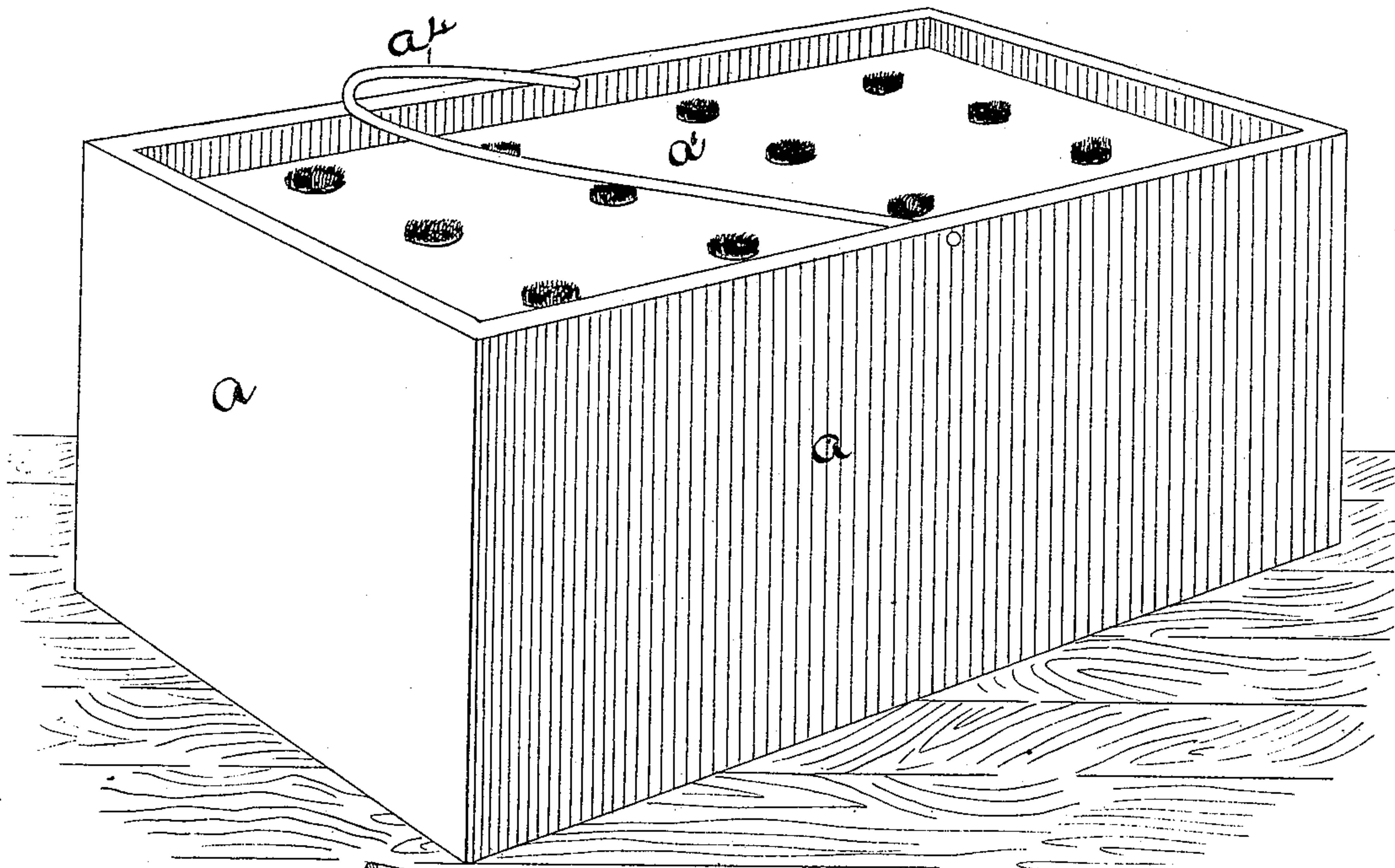


Fig. 1.

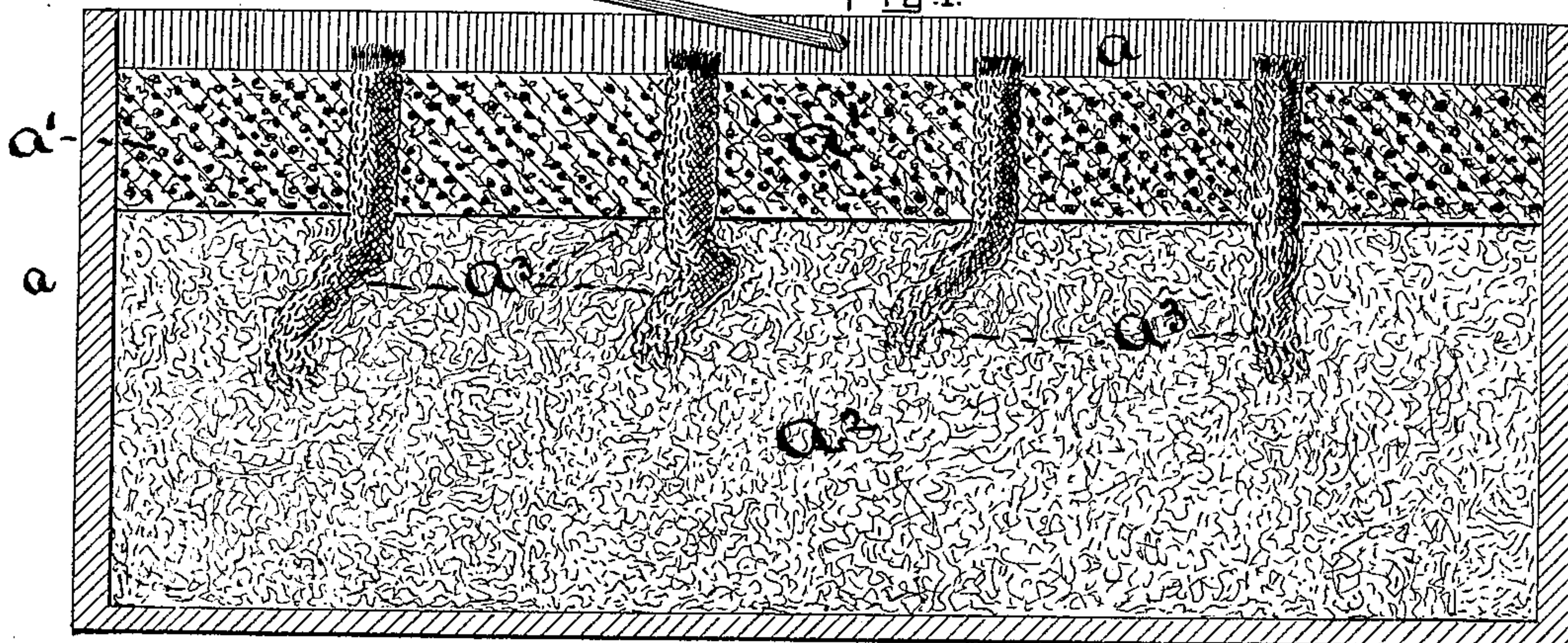


Fig. 2.

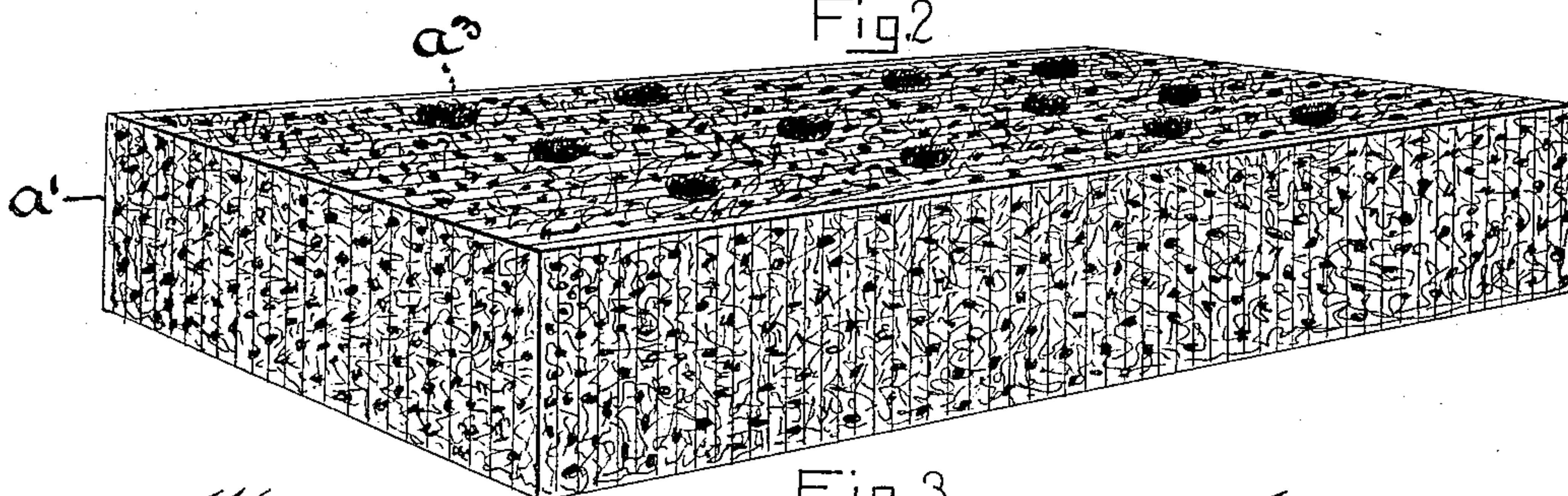


Fig. 3.

Witnesses.  
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# UNITED STATES PATENT OFFICE.

GREENLEAF L. SWETT, OF BOSTON, MASSACHUSETTS.

## APPARATUS FOR BURNING KEROSENE-OIL FOR FUEL.

SPECIFICATION forming part of Letters Patent No. 397,150, dated February 5, 1889.

Application filed February 29, 1888. Serial No. 265,764. (No model.)

*To all whom it may concern:*

Be it known that I, GREENLEAF L. SWETT, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Apparatus for Burning Kerosene-Oil for Fuel, of which the following is a specification.

My invention relates to devices to be used to contain the kerosene-oil to be used as fuel, and for controlling and bringing it to the point of combustion, the object being to provide a simple and practical device for burning kerosene in cooking or heating stoves.

This improved apparatus comprises an oil-tank, a mass of asbestos or other incombustible fiber, (which I term the "mass-wick,") partially filling said tank, and a porous block fitted within said tank and covering the mass-wick, said block being provided with wick-holes, through which individual wicks extend through the porous block to the mass-wick beneath the block.

The porous block may be composed of fire-clay and sand, mixed, worked, molded, and burned, after the manner in which fire-bricks are made, the wick-holes therein being formed in any suitable manner. This brick is adapted to fit within the tank, and when placed therein rests upon and completely covers the top area of the mass-wick and fills the tank to a line within about one-sixteenth of an inch of its top. The porous block serves as a cover for holding the fiber of the mass-wick in position, as a wick for absorbing and conducting the oil to its upper surface by capillary attraction, and as a wick-holder for the individual wicks.

The individual wicks may be composed of twists or braids of asbestos, and are placed in the wick-holes in the porous block before the latter is adjusted in the tank.

In the use of my improvement the tank is filled with kerosene or equivalent hydrocarbon until the latter shows on the top side of the porous block. A lighted match is then applied to one of the individual or point wicks, and the oil on the entire upper surface of the porous block will become ignited and will continue to burn with intensity for an hour, more or less, according to the size of the tank.

In the drawings annexed, Figure 1 is a perspective view of this improved apparatus for burning hydrocarbon oil. Fig. 2 is a longitudinal section thereof. Fig. 3 is a perspective view of the porous block constituting a part thereof.

$a$  marks the wall of the tank.

$a'$  marks the porous block.

$a^2$  marks the mass-wick.

$a^3$  marks the point-wicks and the vertical apertures through the porous block.

$a^4$  marks a bail to handle the tank by.

I claim as my invention—

The combination of the containing-tank  $a$ , the mass wick  $a^2$  therein, the porous block  $a'$ , covering the top of the mass-wick, said porous block being provided with wick-holes, and individual wicks  $a^3$ , extending through said block onto the mass-wick, substantially as described.

GREENLEAF L. SWETT.

Witnesses:

W. E. GOUGH,

CHS. HOUGHTON.