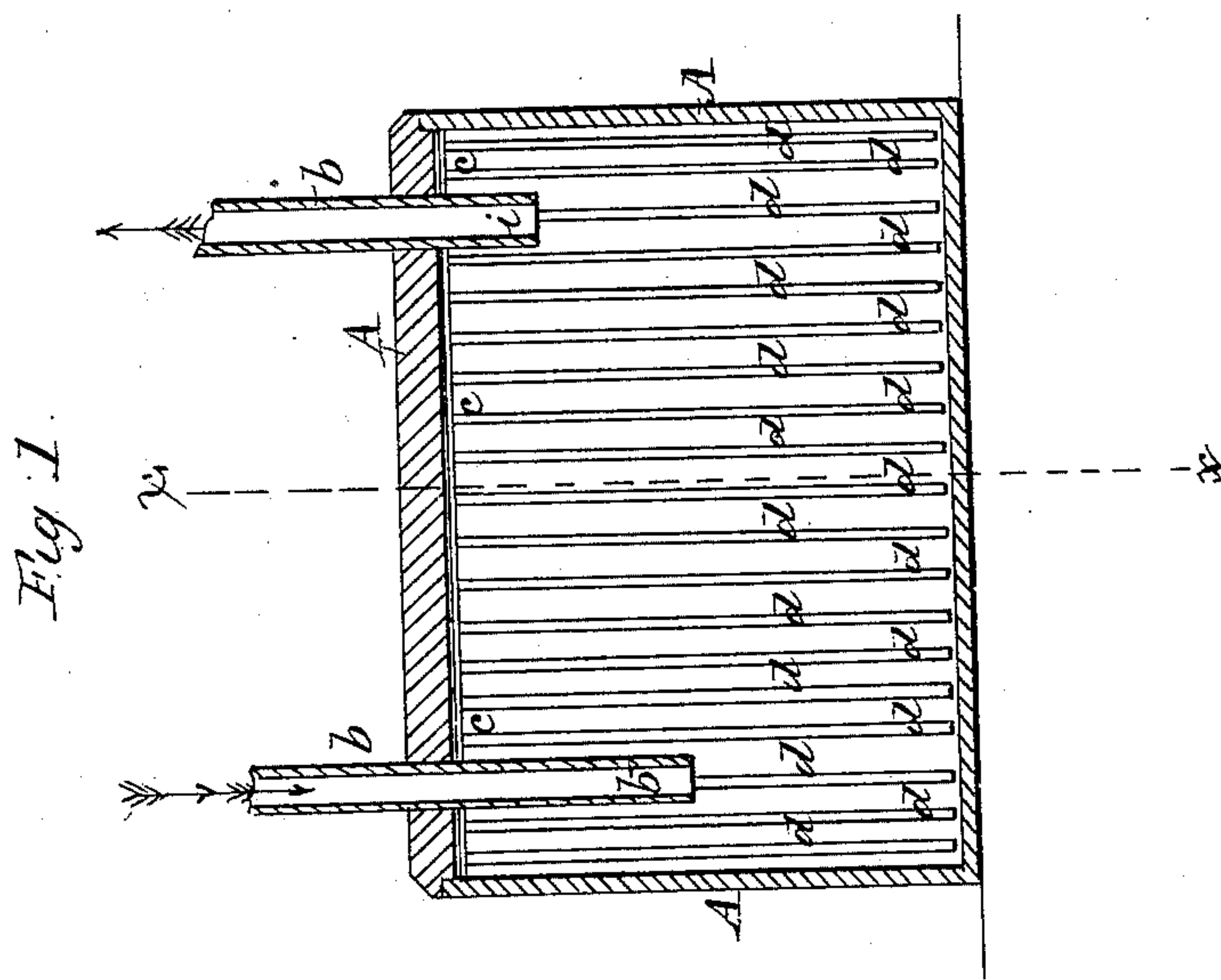
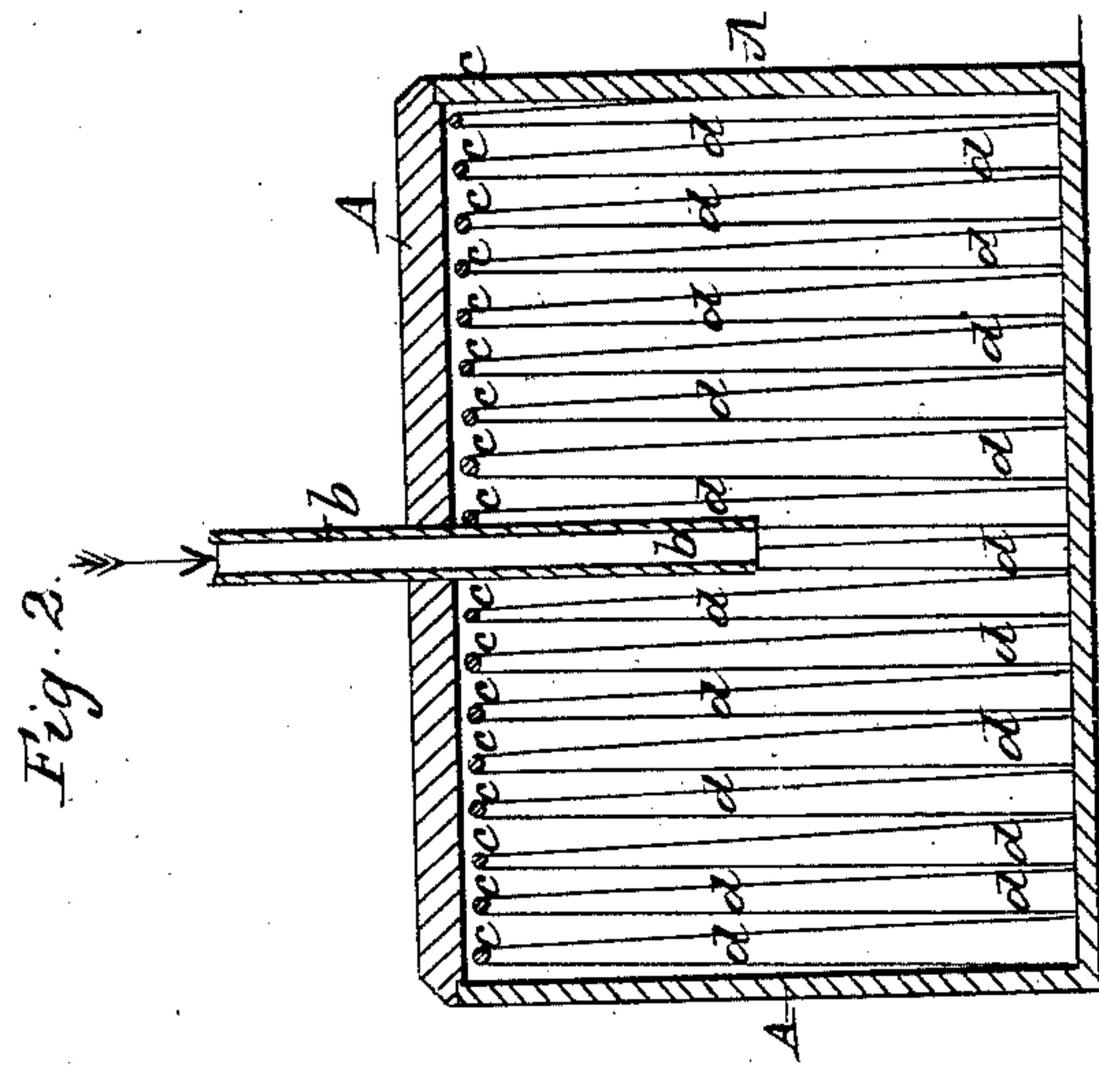


A. K. JOHNSTON.
Apparatus for Carbureting Gas.

No. 57,729.

Patented Sept. 4, 1866.



Witnesses
H. H. Young
Land A. Burr.

Inventor
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UNITED STATES PATENT OFFICE.

ALGERNON K. JOHNSTON, OF NEW YORK, N. Y.

IMPROVED APPARATUS FOR CARBURETING GAS.

Specification forming part of Letters Patent No. **57,729**, dated September 4, 1866.

To all, whom it may concern:

Be it known that I, ALGERNON K. JOHNSTON, of the city, county, and State of New York, have invented a new and useful piece of Apparatus, called a "Pholophene-Box," for use in Carbureting Gas; and I here declare that the following is a full and exact description thereof, reference being had to the accompanying drawings.

The nature of my invention consists in the use of very cheap and readily obtained material and apparatus, in a very simple and effective way, in the stead of other expensive and complicated apparatus heretofore used.

I first provide a box, of which Figure 1 is a longitudinal vertical section, and Fig. 2 a transverse vertical section in the line *xx* of Fig. 1.

I prefer to have the box of metal. Across the top I extend wires, strips of metal, wood, or even twine, *c*, or place the shavings on shelves or grating. Across these I hang shavings *d d*, so that they shall extend from the

top to near the bottom of the box, or perhaps to the bottom. I now partially fill the box with pholophene or other carbonizing fluid, and pass the gas to be improved through the inlet *b* in such a way that it must pass through the shavings, corn-stalks, husks, straw, or similar substances that have been hung over or suspended at the cross-slats, wires, &c., and out at *b'*. I prefer these shavings of pine.

I am well aware that pieces of wood have been used for this purpose; but although the pores of the pieces of wood will carry up the fluid to the top of the box, they will not provide nearly the same amount of evaporating-surface as will shavings.

What I claim as my invention is—

The use of the materials above described, for the purpose set forth.

ALGERNON K. JOHNSTON.

Witnesses:

DAVID A. BURR,
CHAS. L. COOMBS.