A. BURBANK.
Oil-Stove.

No. 219,685. Patented Sept. 16, 1879.

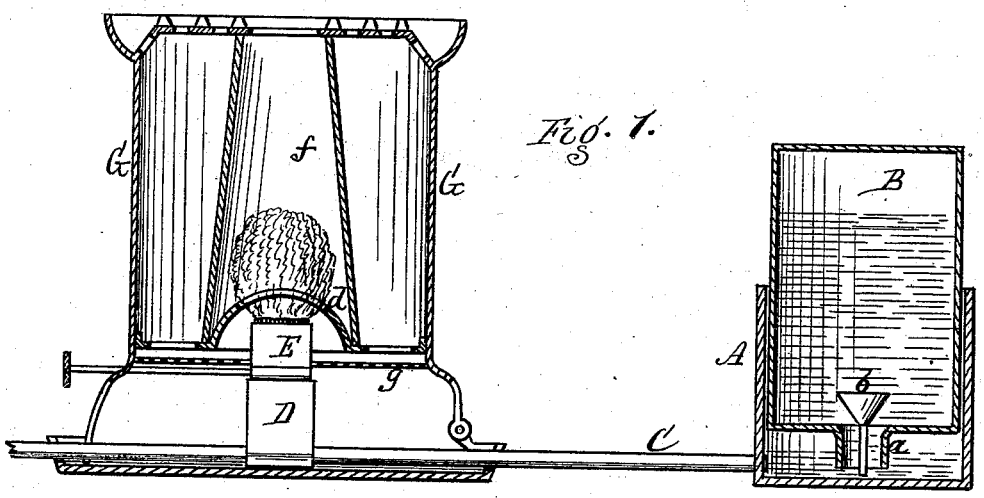


Fig. 1.

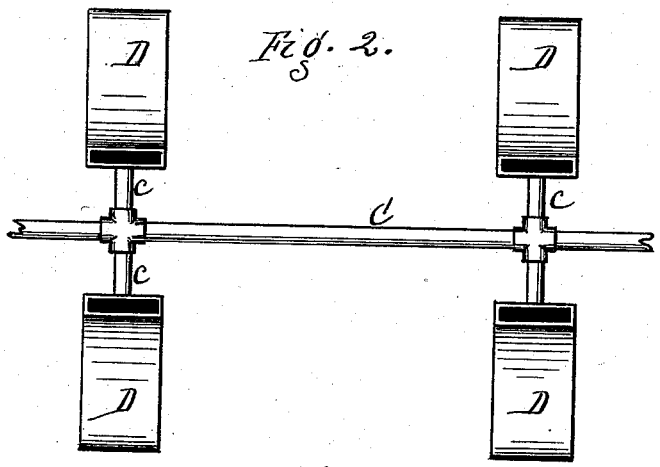


Fig. 2.

Fig. 3.

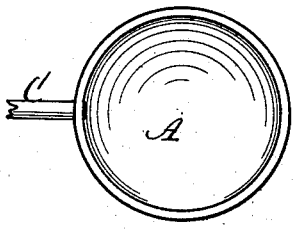
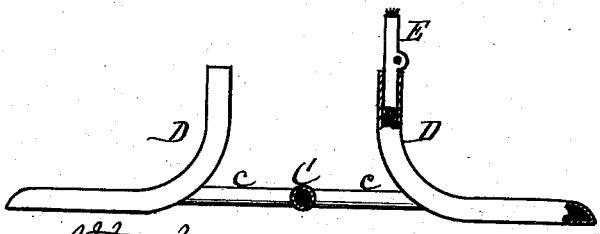
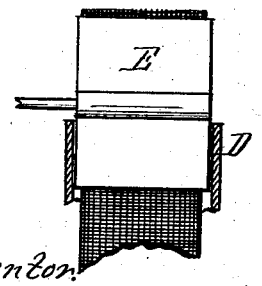


Fig. 4.





Attest.
R. E. White
John C. Dana.

Inventor.
Abner Burbank,
per R. F. Osgood.
Atty.

UNITED STATES PATENT OFFICE.

ABNER BURBANK, OF ROCHESTER, N. Y., ASSIGNOR, BY MESNE ASSIGNMENT, TO DAVID WING AND ALICE J. BURBANK, OF SAME PLACE.

IMPROVEMENT IN OIL-STOVES.

Specification forming part of Letters Patent No. **219,685**, dated September 16, 1879; application filed July 12, 1879.

To all whom it may concern:

Be it known that I, ABNER BURBANK, of the city of Rochester, county of Monroe, and State of New York, have invented a certain new and useful Improvement in Oil-Stoves; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a central vertical section of the stove. Fig. 2 is a plan with the heating-drum removed. Fig. 3 is an elevation of the wick-tube arrangement. Fig. 4 is a detail sectional view, showing the method of inserting the burners in the wick-tubes.

My improvement relates to certain devices in an oil-stove; and consists in the construction and arrangement hereinafter specifically set forth.

The oil-tank is removed some distance from the stove, and the oil is fed to the burners automatically in a manner somewhat similar to that in the German student-lamp. The oil-tank consists of the open-topped receptacle A and an inverted fount, B, which rests in the receptacle. The fount has an open mouth or neck, *a*, and a valve, *b*, so arranged that when the fount is inserted in the receptacle the valve is opened, and the oil can then flow down. C is an oil-pipe extending horizontally from the oil-tank any suitable distance, according to the number of separate stoves to be used with the same oil-tank. D D are wick-tubes, made preferably of cast metal, situated in pairs at right angles and on opposite sides of the oil-pipe C. They are connected with the oil-pipe by short lateral pipes *c c*, the outer ends of which open into the wick-tubes, while the inner ends connect with the main oil-pipe by a suitable cross-head or elbow. This allows the oil to flow from the main oil-pipe into the wick-tubes. The bottom or outer ends of the wick-tubes are made closed or sealed, so that no oil can escape there; but the tops are left open for the attachment of the burners.

The wick-tubes are preferably made of the curved form shown, the bottom part being horizontal and the top part vertical.

Where more than one stove is to be used the oil-pipe C is extended, and two or more pairs of the wick-tubes are connected therewith at suitable distances apart, as shown in Fig. 2.

E E are the burners which hold the wicks. They are short flat tubes having the wicks placed therein, and are provided with the usual spur-wheels for raising the wicks. The lower ends of the burners are fitted to be set accurately into the open tops of the wick-tubes, and require no other fastening. They can be removed and replaced at pleasure with the wicks attached.

The closed wick-tubes form receptacles to hold very small quantities of oil, which is fed automatically thereto by the oil-pipe C, the quantity being just sufficient to support proper combustion, and by this means the great body of oil is removed from the stove and cannot be affected by heat.

G is the heating drum or cylinder, which is located above the burners, and is of usual form. In the drum are cones *d d*, which cover the burners, and two chimneys, *f*, which convey the heat upward and discharge it through the open top of the drum. Beneath the cones is a perforated plate, *g*, for breaking the currents of air and properly feeding the same to the blaze.

The stove may be set upon a tray or other suitable support.

The use of the separate wick-tubes D D, having closed lower ends, enables the oil to be fed from oil-pipe C directly beneath the stove and properly supply the combustion without danger from heat, as the quantity of oil in said tubes is always small, and the great body of oil is removed to a safe distance. In this form they are also convenient for the insertion and removal of the wicks.

The use of two or more sets of the wick-tubes at suitable distance apart enables two or more separate stoves to be used, fed from the single oil-pipe C, and supplied from the single oil-tank A B. This is especially convenient for restaurants, &c., where several of the stoves are necessary.

In ordinary oil-stoves each stove has to have an oil-fount of its own.

The oil-tank A B, the oil-pipe C, and the wick-tubes D D all form one complete and integral device, so connected and arranged that they can be lifted and handled together.

The wick-tubes, by being arranged on opposite sides of the feed-pipe, and by projecting below the same, form feet or supports to retain the feed-pipe in a horizontal position, and by extending outward, as shown, they form a broad base, which prevents overturning of the reservoir and pipe. By curving inward at their top they enable two burners and two chimneys to be used with each heating-drum, which is essential to produce sufficient heat for cooking.

Having thus described my invention, I do not claim, simply and broadly, a feed-pipe extending from the oil-tank and provided with burners on its top; but

I claim—

In an oil-stove having the self-feeding reservoir B and feed-pipe C, one or more pairs of wick-tubes, D D, arranged on opposite sides of the feed-pipe and connected therewith by lateral pipes *c c*, said wick-tubes being curved, diverging at their bottom, forming feet or supports to the feed-pipe, but converging at their top to supply two burners to a single heating-drum, as herein shown and described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

ABNER BURBANK.

Witnesses:
EDWIN SCOTT,
DELOS WENTWORTH.