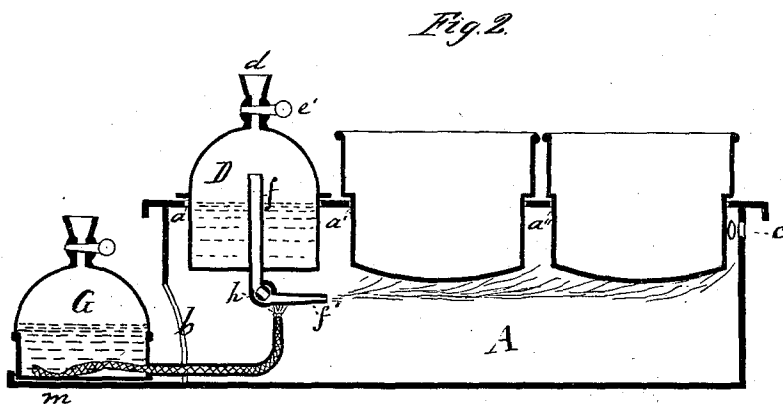
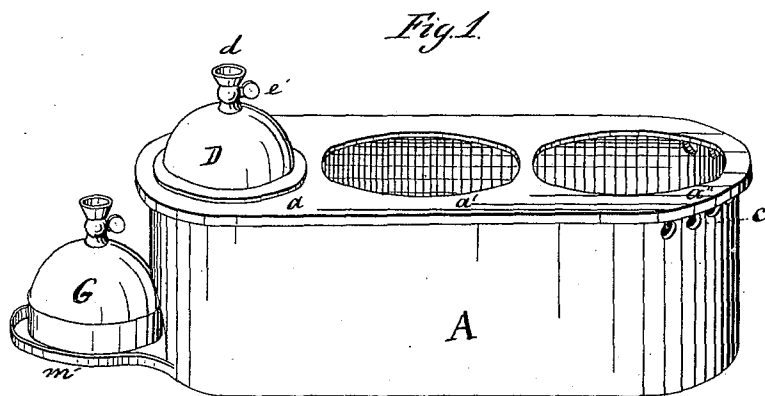


(No Model.)

E. G. STARCK.
Alcohol Stove.

No. 230,904.

Patented Aug. 10, 1880.



Witnesses:
F. B. Townsend
Richd. A. Dyer

Inventor:
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UNITED STATES PATENT OFFICE.

ERNST G. STARCK, OF CHICAGO, ILLINOIS.

ALCOHOL-STOVE.

SPECIFICATION forming part of Letters Patent No. 230,904, dated August 10, 1880.

Application filed March 25, 1880. (No model.)

To all whom it may concern:

Be it known that I, ERNST GOTTLIEB STARCK, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Alcohol-Stoves, of which the following is a specification.

The nature of my invention relates to stoves to be used for cooking and ironing during the summer time, when a common stove would be objectionable on account of its external heating capacity.

With this purpose in view, heretofore stoves have been used in which kerosene or coal-oil was used as fuel; but on account of the explosive qualities of such fuel and of the bad smell and smoke connected with its use such stoves are objectionable to a large class of people. Therefore my invention consists in a stove in which alcohol can be burned most economically and effectively; and it consists, more particularly, in the peculiar construction and arrangement of the same, as will be fully hereinafter explained.

In the drawings, Figure 1 represents a perspective view of my stove, and Fig. 2 a longitudinal vertical section through the center of the same.

Like letters in the several figures of the drawings designate like parts.

A denotes the body of the stove, oblong in shape, and having three pot-holes, *a a' a²*, a front opening, *b* for inserting the igniting-lamp and for the free admission of atmospheric air to the flame, and a series of perforations, *c*, in the rear end for the escape of the gases produced by combustion. D is a vessel, which is placed in the pot-hole *a*, the mouth, *d*, of which vessel is hermetically closed by a faucet-valve, *e'*, or by a stopper. A pipe, *f*, which reaches nearly to the top of said vessel, extends up through the center of the bottom of the same, and underneath said bottom, after being bent at right angles, it forms a nozzle, *f'*, for ejecting the alcohol vapor in a small jet toward the rear end of the stove. The escape of the alcohol vapor through this nozzle is regulated by a faucet-valve, *h*, in the pipe *f*. Another vessel, G, is placed upon the hearth-plate *m*, which forms a continuation of the base

of the stove at its front end. This vessel G has a long spout projecting from near its base, and turned upward at its end. In this spout is inserted a wick.

The vessel is intended to be filled with alcohol, lard, or any other oil, and is so placed that when the wick is ignited the flame will be underneath the vessel D, at about its center, which is heated thereby. The alcohol contained in said vessel is vaporized by the heat, and this vapor will issue under pressure from the nozzle of pipe *f*, and be ejected horizontally toward the bottom of the cooking-vessels placed in pot-holes *a' a²*. The jet of alcohol vapor will be ignited by the lamp G, which can be moved forward for that purpose, and the blast of burning gases thus directed under the cooking-vessels will rapidly heat the same. The jet of vapor thus ejected with force in one direction will draw a sufficient current of air with it, which will enter through opening *b* in the front of the stove, and will facilitate a perfect combustion of the alcohol vapors. The gases resulting from the combustion will escape through the perforations *c* in the rear end of the stove; but in place of these, where it is desirable to use the stove in a closed room, a smoke-pipe may be connected with the rear end of the stove for conducting the gases into the chimney or out of doors.

Both the alcohol-vessel and the lamp can be readily removed from the stove, and the lamp can be moved in and out on the hearth-plate *m* to light the jet of vapor and bring its flame more directly beneath the alcohol-vessel.

What I claim as my invention is—

An alcohol-stove consisting of body A, having pot-holes *a a' a²*, front opening, *b*, and rear perforations, *c*, in combination with the hermetically-closed vessel D, having pipe *f*, with nozzle *f'*, and a wick-lamp, G, the whole being constructed and arranged substantially as described and shown.

E. G. STARCK.

Witnesses:

RICHD. N. DYER,
OLIVER W. MARBLE.