

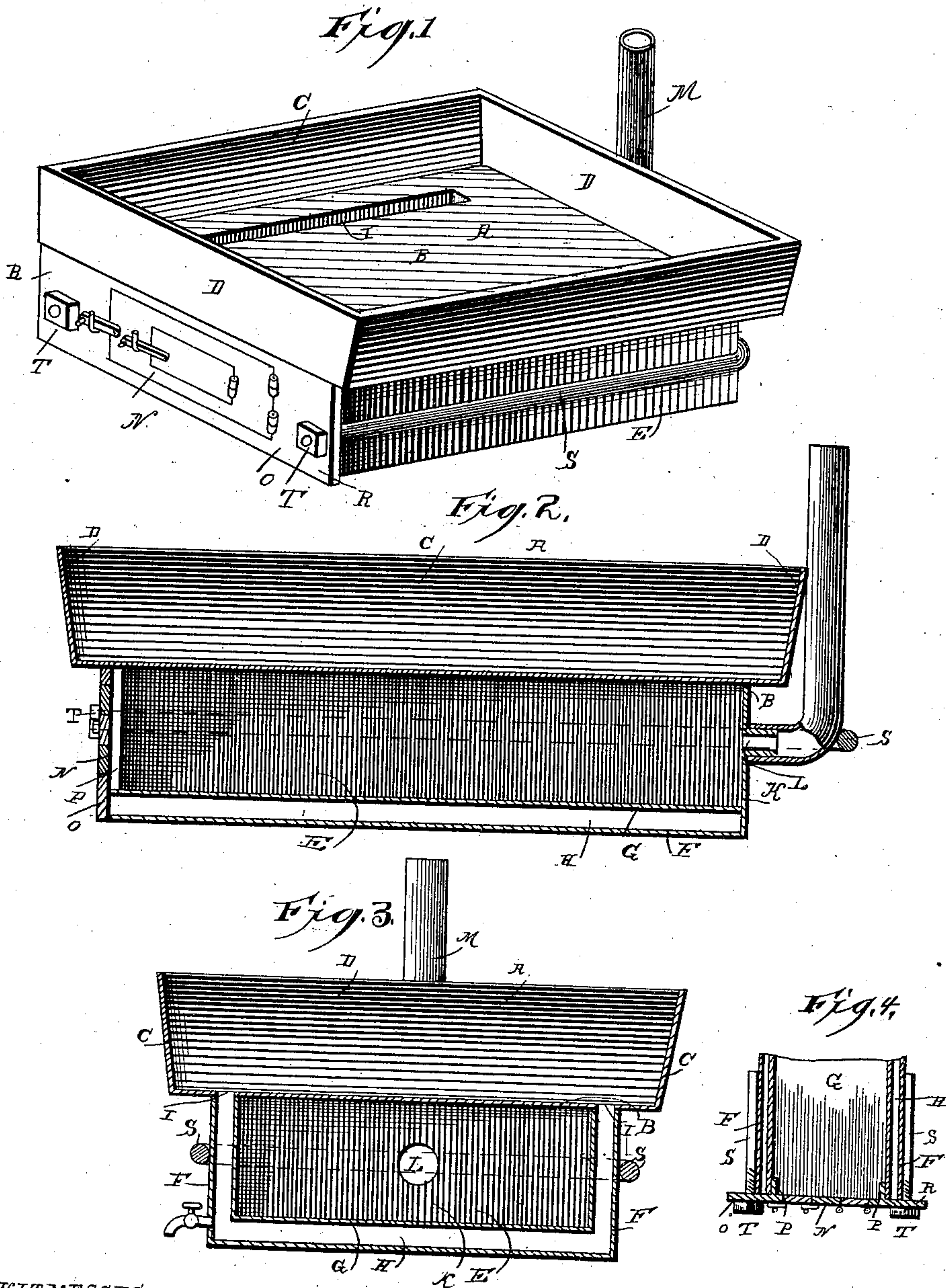
(No Model.)

H. F. THURSTON.

EVAPORATING PAN.

No. 376,490.

Patented Jan. 17, 1888.



WITNESSES

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UNITED STATES PATENT OFFICE.

HARRISON F. THURSTON, OF BARTLETT, ASSIGNOR TO CHARLES W. WHITE,
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EVAPORATING-PAN.

SPECIFICATION forming part of Letters Patent No. 376,490, dated January 17, 1888.

Application filed May 19, 1887. Serial No. 238,765. (No model.)

To all whom it may concern:

Be it known that I, HARRISON F. THURSTON, a citizen of the United States, residing at Bartlett, in the county of Carroll and State of New Hampshire, have invented a new and useful Improvement in Evaporating - Pans, of which the following is a specification.

My invention relates to an improvement in evaporating-pans; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claim.

In the drawings, Figure 1 is a perspective view of an evaporating-pan and fire-box embodying my invention. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a vertical transverse sectional view of the same. Fig. 4 is a detail sectional view.

A represents the evaporating-pan, which is made of sheet metal, and comprises the bottom B, the sides C, and the ends D. The sides and ends are flared outward, as shown.

E represents the fire-box, which is made of sheet or plate metal, and is arranged under the evaporating-pan and depends from the lower side thereof. This fire-box comprises an outer shell, F, and an inner shell, G, the said shells being separated from each other, and thereby forming a space or chamber, H, between the side walls and bottoms of the two shells. Longitudinal openings I are made in the bottom of the evaporating-pan, and the said openings communicate with the space or chamber H, as shown in Fig. 3.

From the foregoing description it will be readily understood that the sirup when poured into an evaporating-pan flows downward into the space or chamber H, and thereby the fire which is built in the fire-box is surrounded, except at the ends of the fire-box, by the sirup, and the evaporating-pan is thus provided with a large amount of heating-surface.

One end of the fire-box is closed, as at K, and is provided with an opening, L, with which a smoke-flue, M, is attached. The opposite end of the fire-box is provided with a hinged door, N. The door is secured to a door-frame, O, which is provided with rearwardly-projecting lips or flanges P, that enter the end of

the fire box and bear against the sides thereof, and with end flanges, R, which project beyond the end of the fire-box, and have openings through which the threaded extremities of a long U-shaped yoke or clip-rod, S, may be passed. The said clip-rod extends longitudinally on the outer side of the fire-box, and its curved central portion embraces the rear side of the smoke stack. Nuts T are screwed on the threaded extremities of the clip-rod, and serve to clamp the same firmly to the smoke-stack and the door-frame O, and thereby secure the said smoke-stack and door-frame firmly to opposite ends of the fire-box.

An evaporating-pan thus constructed possesses many advantages. The large heating-surface enables the sirup to be boiled very rapidly, and thereby effects a considerable economy in fuel. The evaporator is light, strong, and durable, and is easily transported from one place to another, set up for operation, or taken apart to be stored.

Having thus described my invention, I claim—

The combination of the evaporating-pan, having the depending fire-box on its lower side, formed of an inner and outer shell, providing a space between them which communicates with the pan, the rear end of said fire-box being closed and provided with an opening, L, and the front end thereof being open, the smoke-stack arranged in rear of the fire-box and fitted on opening L, the door-frame O, arranged on the front end of the fire-box removable therefrom, and having the flanges R, and the clip yoke or rod S, embracing the rear side of the smoke-stack, and having its arms extending forward through the flanges R and provided with clamping-nuts T, thereby securing both the smoke-stack and the door-frame in position, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

HARRISON F. THURSTON.

Witnesses:

W. PITMAN,

G. W. M. PITMAN.