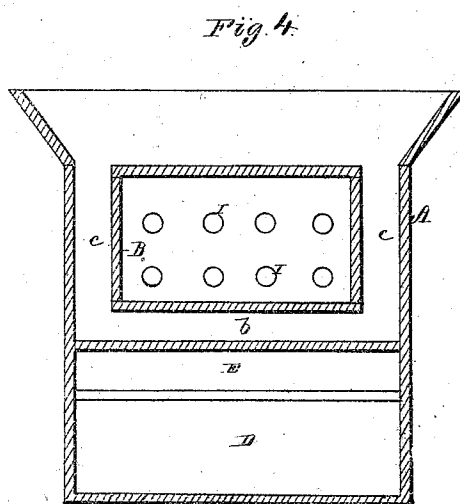
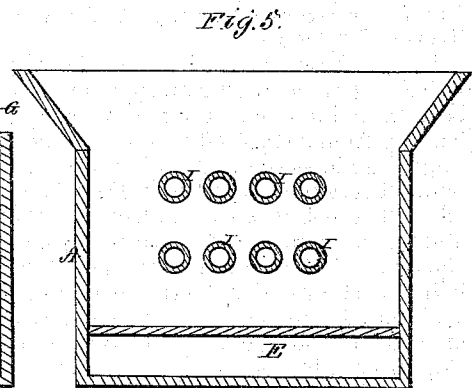
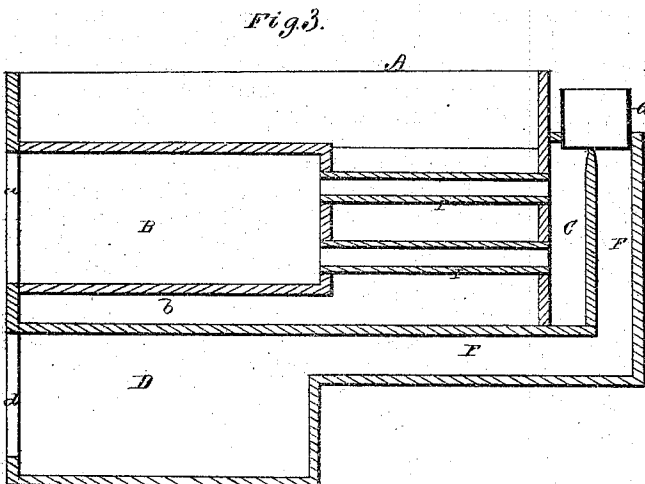
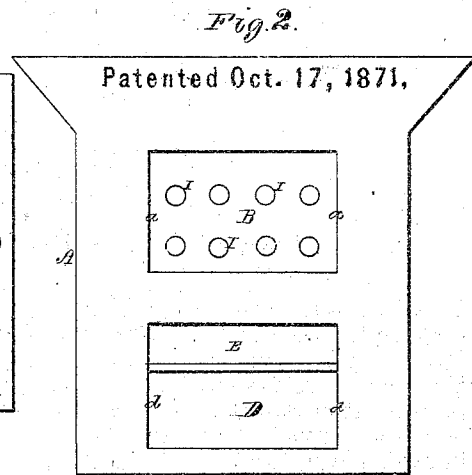
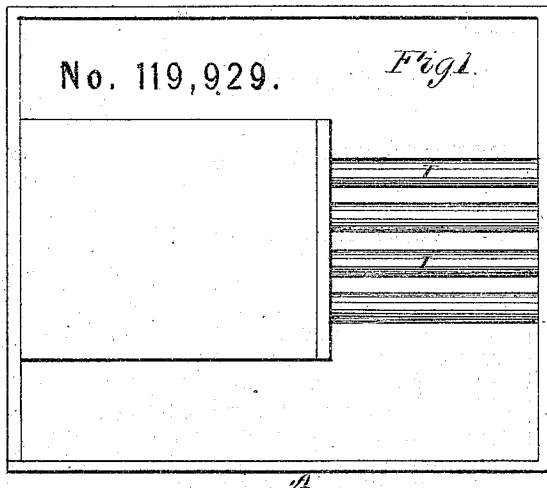


WILLIAM F. GIBSON.
Improvement in Evaporating for Saps, &c.



Witnesses.

S. W. Piper.

L. N. Moller.

William F. Gibson.

By his attorney.

R. H. Eddy

UNITED STATES PATENT OFFICE.

WILLIAM F. GIBSON, OF RYEGATE, VERMONT.

IMPROVEMENT IN EVAPORATORS FOR SAP, &c.

Specification forming part of Letters Patent No. 119,929, dated October 17, 1871.

To all whom it may concern:

Be it known that I, WILLIAM F. GIBSON, of Ryegate, of the county of Caledonia and State of Vermont, have invented a new and useful Improvement in Sap-Boilers or Evaporators; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figure 1 is a top view; Fig. 2, a front end view; Fig. 3, a longitudinal section, and Figs. 4 and 5, transverse sections of the sap-boiler as improved by me.

In the drawing, A denotes the evaporating-vessel or pan as having extended within it a fire-box, B, and a stack or series of smoke-tubes, I, leading from such fire-box into a chamber, C, arranged against the rear end of the evaporating-pan. The mouth *a* of the fire-box is at its front end. There is a space, *b*, beneath the fire-box and on the pan, and there are also spaces *c c* on the sides of the said fire-box and in the pan, all being as shown. Furthermore, there is arranged underneath the bottom of the evaporating-pan an auxiliary fire-box, D, and a flue, E, leading therefrom into another chamber, F, arranged in rear of the chamber *c*. An educt or smoke-dis-

charge pipe, G, leads out of the upper part of both the chambers C and F. The purpose of the auxiliary fire-place (whose mouth is shown at *d*) and its flue E and chamber F, arranged as described, with the evaporating-pan provided with the chamber C, the main fire-place or box and its smoke-stack, as described, is to effect to advantage what sugar-boilers term "siruping down."

After the fuel in the main fire-place has performed its office the whole or part of the remains of it may be removed into the auxiliary fire-place, whereby a slower evaporation of the liquid contents of the pan may be kept up. When a very quick boiling may be desirable both fire-places may be charged with fuel and it may be fired.

What I claim as my invention is—

The arrangement and combination of the auxiliary fire-place D, flue E, and chamber F with the evaporating-pan A and the main fire-place B, one or more tubes, I, and the smoke-chamber C, arranged substantially as specified.

WILLIAM F. GIBSON.

Witnesses:

MILLER FARROW,
C. B. DUBOIS.

(155)