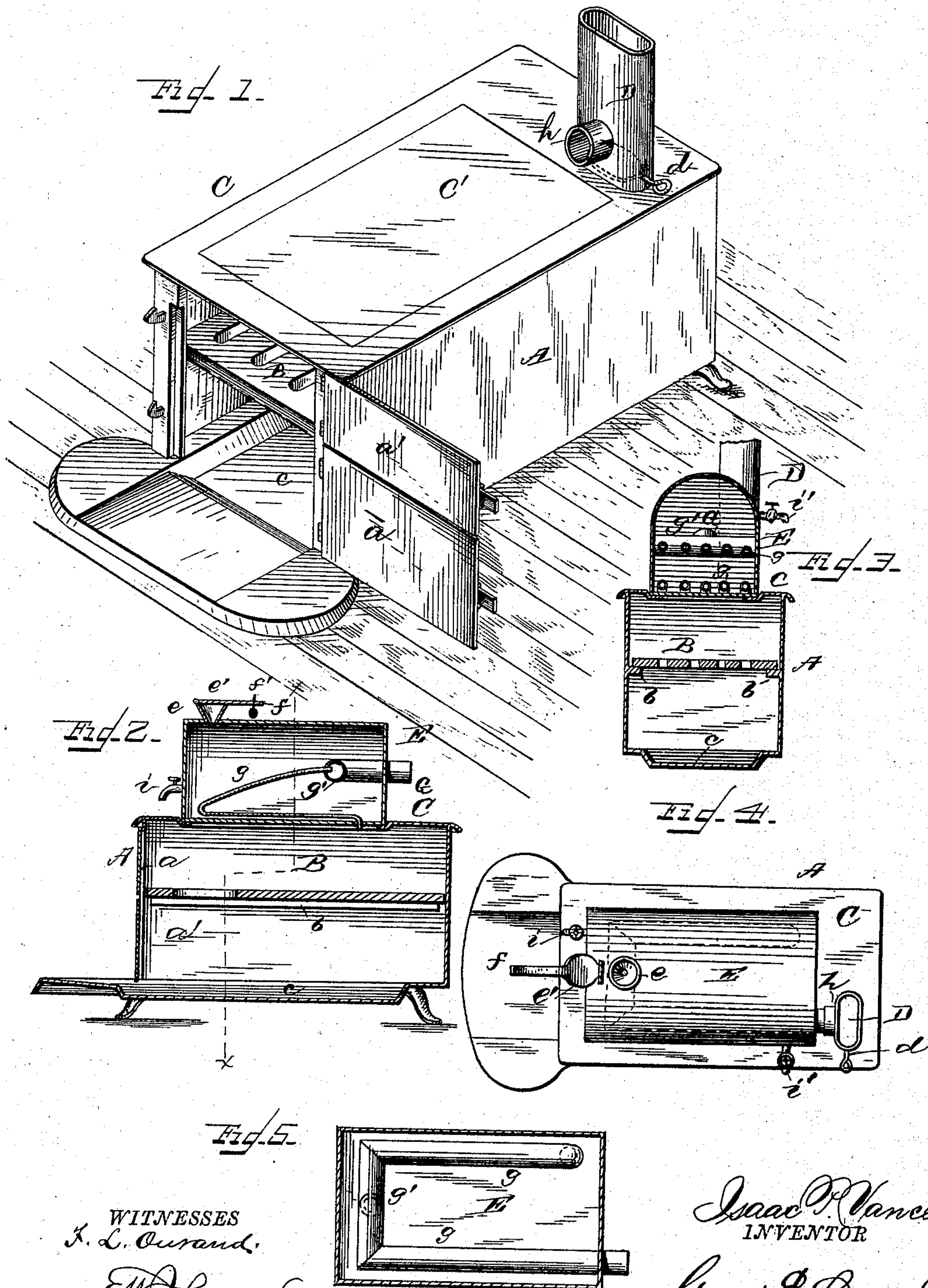


(No Model.)

I. P. VANCE.  
STOVE AND BOILER.

No. 322,216.

Patented July 14, 1885.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## STOVE AND BOILER.

SPECIFICATION forming part of Letters Patent No. 322,216, dated July 14, 1885.

Application filed December 31, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC P. VANCE, a citizen of the United States of America, residing at West Stockholm, in the county of St. Lawrence and State of New York, have invented certain new and useful Improvements in Stoves and Boilers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in stoves and boilers, said invention being designed more especially for use in cooper and wheelwright shops, or such shops as have a liberal supply of chips or shavings, and in which at times it is necessary to have steam for the purpose of bending lumber.

My invention consists in a stove and boiler, the parts of which are constructed as herein shown and described, and set forth in the claim.

In the accompanying drawings, which illustrate my invention, Figure 1 is a perspective view; Fig. 2, a sectional view; Fig. 3, a vertical section taken through the line *x x* of Fig. 2; Fig. 4, a plan view; Fig. 5, a detail view.

A represents a box-stove, which is provided at one end with doors *a a'*, and on its interior with ledges *b b*, upon which rests a false bottom, B, which is removable, and when desired may be placed near the bottom of the stove above the ash-pit *c*. The top of the stove is provided with a rectangular opening, C, which may be covered ordinarily with a plate, C'. The rear portion of the top of the stove, near one side of the same, is provided with a chimney or smoke-outlet, D, within which is located a damper, *d*, above which damper a branch pipe, at right angles with the main smoke outlet, is located. The boiler E is of such configuration that it will fit over the opening C, and this boiler is provided at its upper portion with a funnel, *e*, for filling the same, which funnel has hinged thereto a covering-plate, *e'*, with a projecting tongue, *f*, for the reception of a sliding weight, *f'*, by means of which the funnel, when not used for filling

the boiler, is converted into a safety-valve. The boiler is provided with fire-tubes *g g*, the lower ends of which project through the bottom of the boiler, the upper ends being connected or attached to a cross-pipe, *g'*, which has attached thereto a pipe, G, which projects to the rear wall of the boiler and enters the branch pipe *h* of the stove-pipe. The boiler E is provided with stop-cocks *i i'*, which are attached to the sides of the same at any convenient point, one being located above the water-level and adapted to receive a pipe for the purpose of conveying the steam to a steaming-box, the other stop-cock being for the purpose of ascertaining the depth of water in the boiler and drawing the same therefrom when required. It will be noted that the products of combustion from the stove enter the rear portion of the boiler and are conveyed through the pipes *g* to the chimney, said products of combustion entering the chimney above the damper *d*.

By providing the stove with a removable bottom or grate, said stove may either be employed for heating purposes or for heating the water in the boiler.

A stove of the class shown and described is specially adapted for the uses herein mentioned, as said stove will readily burn such materials as chips and shavings, and when the shelf or false bottom B rests upon the ledges *b b* the heat acts mainly upon the bottom of the boiler and passes through the flues located in said boiler.

If desirable, the pipe *h*, which leads into the stove-pipe D, may be provided with a damper, though in practice I prefer to cover this short pipe with a cap when the boiler is not used.

I claim—

In combination with a stove constructed substantially as described, and provided with a smoke outlet, D, and supplemental outlet *h*, an independent removable boiler having return-flues *g*, connected to a pipe which enters the supplemental outlet *h*, and steam-exit opening *i'*, the parts being constructed substantially as shown and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ISAAC P. VANCE.

Witnesses:

C. E. SANFORD,  
GEORGE EVERETT.