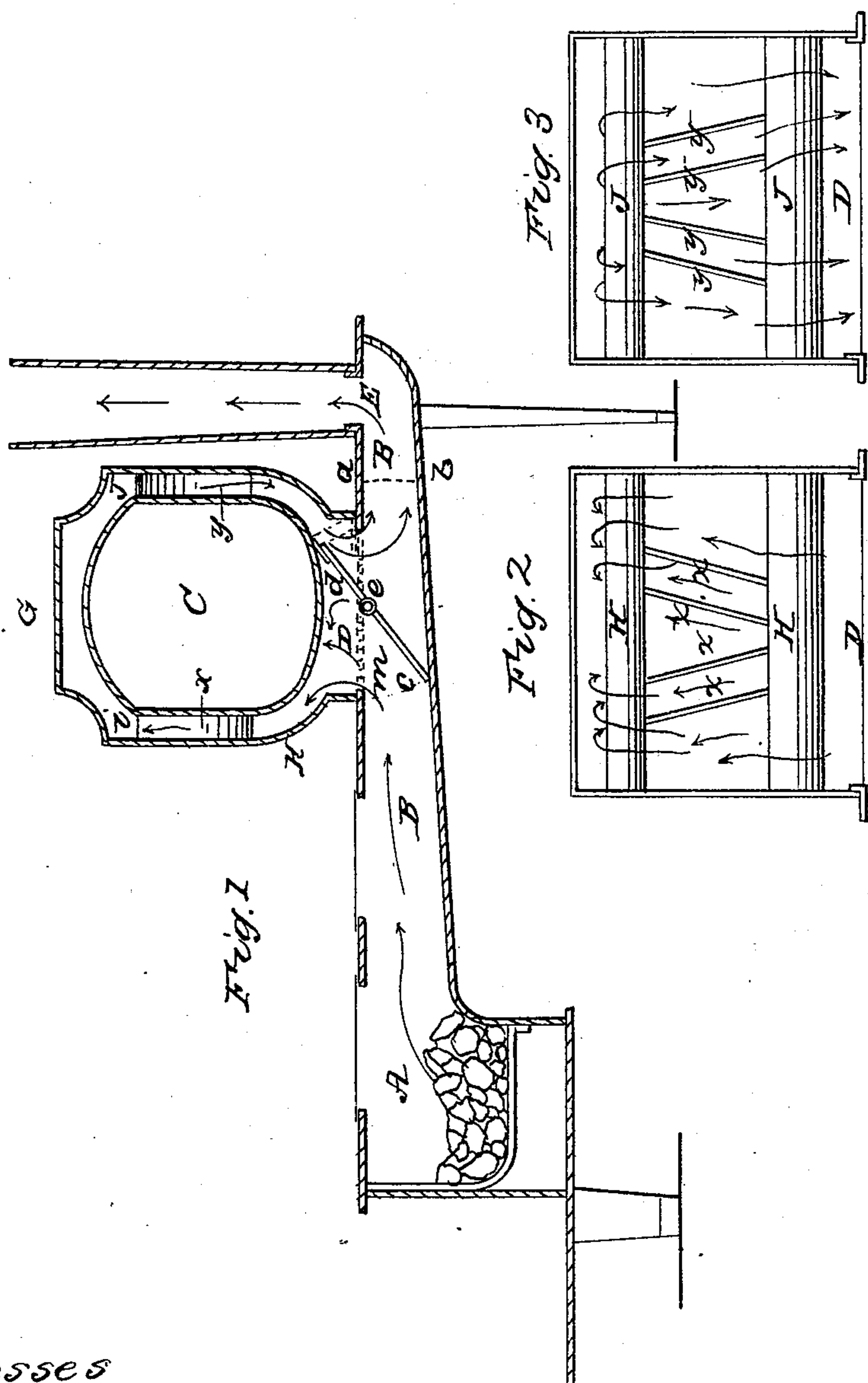


J. G. TREADWELL.

Cooking Stove Flue.

No. 16,455.

Patented Jan. 20, 1857.



Witnesses

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JNO. G. TREADWELL, OF ALBANY, NEW YORK.

COOKING-STOVE.

Specification of Letters Patent No. 16,455, dated January 20, 1857.

To all whom it may concern:

Be it known that I, JOHN G. TREADWELL, of the city of Albany, State of New York, have invented an Improvement in the Arrangement of Flues of Cooking-Stoves, of which the following specification, with the drawing hereto annexed as part of the same, is a full and correct description, similar letters in the different figures referring to the same parts of the apparatus.

My improvement relates to the combination and arrangement of the flues of what is called the elevated oven with that of the principal flue of the stove.

Figure 1 represents the profile section of an elevated oven stove, showing the fire-chamber A, main flue B with the elevated oven C placed near the rear end of the stove and over the opening D in the upper plate of the same.

In the usual method of constructing elevated ovens, the nozzle or opening for the smoke-pipe is placed over the top of the oven at the place marked by dotted lines G upon the outer casing which surrounds the sides and top of the oven, forming a hot air flue, around the sides of the oven, there being no other exit for the smoke &c., so that the flame passes by a short passage around both sides of the oven to the chimney, the stove being terminated by a plate at *a*, *b*.

My improvement consists in extending the back end of the stove far enough to place a nozzle E on the top plate, for the smoke pipe (or if more convenient place the nozzle in the end plate) so as to carry out a horizontal pipe from it, combining with this a damper arranged as shown in Fig. 1 which is a rectangular plate *c—d*, vibrating on an horizontal axis *e* so that when placed in the position shown in the drawing it shall cut off the draft from the main flue, turn it up the front flue H carry the flame, &c., over its top and then down back of the

damper into the main flue, and so out into the chimney pipe.

Fig. 2 shows a front view section of the front oven flue at *l*, *m*, Fig. 1, and Fig. 3 a similar back view section of the back oven flues, in order to show the arrangement of deflectors to distribute the heat. They are flat metal plates *x x* and *y y* across the flues placed as shown in angular positions, in the front flue H spreading out upwardly from near the center of the lower parts, the flat part, of the oven plate, and in the rear flue J taking the reverse positions, the flame and hot gases being spread out over the flat oven plates by this plan as plainly shown by the drawing.

The advantages of this proposed arrangement are: making the channel for the flame a continuous and direct sheet flue around the oven securing thereby the simplest and best drafts to the oven flues; by the damper arrangement securing the cutting off of the fire from the oven, when the same is not in use, thus preventing the radiation of heat from a very large surface of metal, which is injurious to the oven, and a very great inconvenience in moderate and warm weather.

I claim as my invention and improvement in stoves with elevated ovens having an escape flue below the elevated oven, and none above it—

The construction and arrangement of the damper so that by turning it in one direction it shall compel the flame and smoke to pass around the oven, and by turning it in another may shut off the flame and smoke entirely from the oven, substantially as set forth and described in the within specification.

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Witnesses:

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