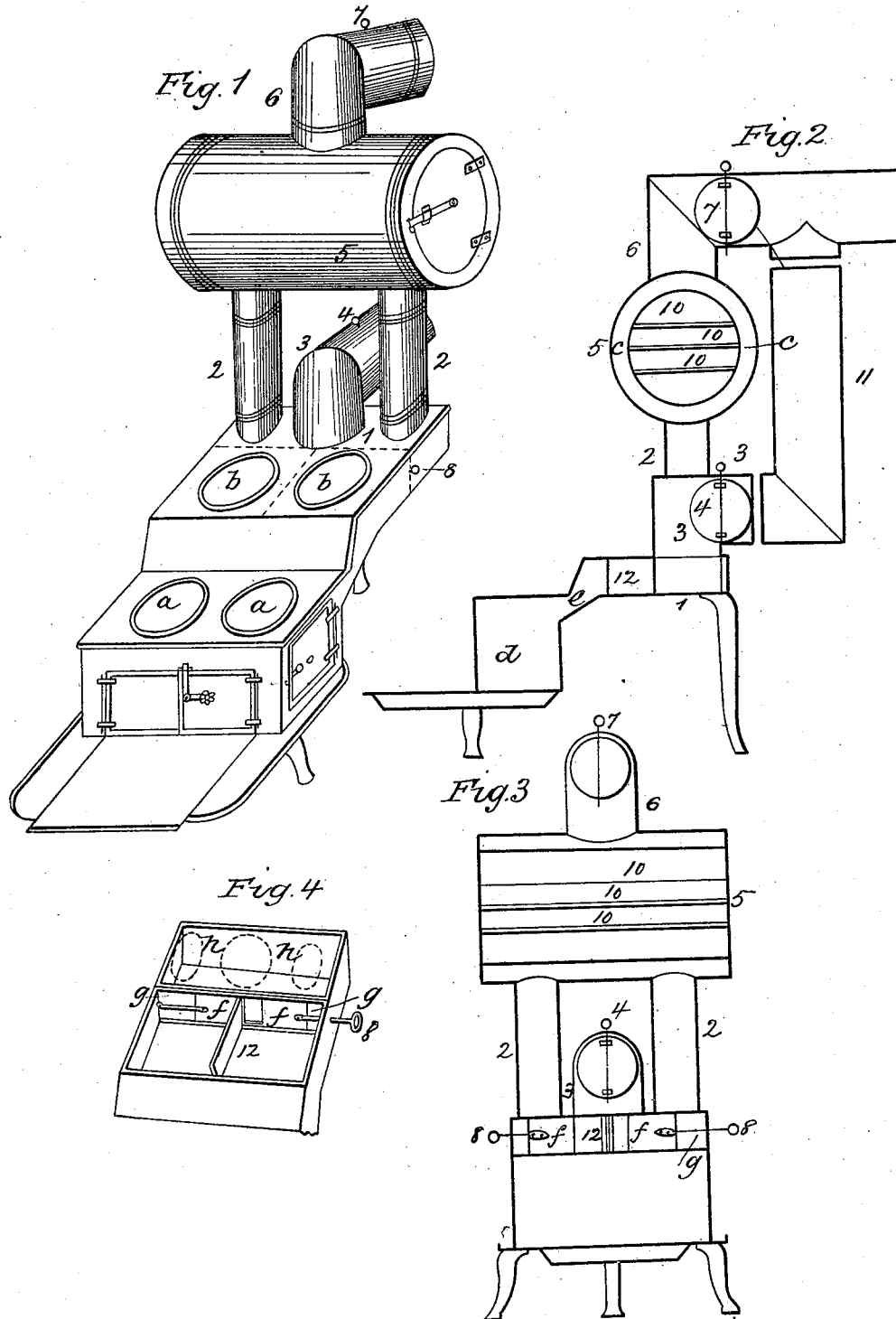


# WILLISTON & ARNOLD.

Cooking Stove.

No. 1,416.

Patented Nov. 16, 1839.



# UNITED STATES PATENT OFFICE.

JNO. P. WILLISTON AND W. A. ARNOLD, OF NORTHAMPTON, MASSACHUSETTS.

## CONSTRUCTION OF STOVES WITH ELEVATED OVENS.

Specification of Letters Patent No. 1,416, dated November 16, 1839.

*To all whom it may concern:*

Be it known that we, JOHN P. WILLISTON and WILLARD A. ARNOLD, of Northampton, in the county of Hampshire and State of Massachusetts, have invented an Improvement in the Manner of Constructing Cooking-Stoves with Elevated Ovens; and we do hereby declare that the following is a full and exact description thereof.

Figure 1, in the accompanying drawing is a perspective view of our stove, *a, a*, being openings for cooking utensils, immediately over the fire and *b, b*, similar openings in the top plate covering the chamber leading from the fire place to the flues, in which particulars this stove resembles many other cooking stoves now in use. No. 5 is an elevated oven, into the surrounding flue of which two pipes 2 2 extend from the heated air chamber of the stove. No. 6 is a smoke pipe leading from the flue of the elevated oven into a chimney and furnished with a valve or damper, the handle of which is seen at 7. No. 3 is a similar pipe leading directly from the back or heated air chamber and furnished with a valve, No. 4. This pipe may lead into a chimney or into pipe No. 6.

Fig. 2 is a longitudinal section from front to back of the stove, No. 5 being the elevated oven; *c c*, the flue surrounding it and Nos. 10, 10, the shelves within it, all arranged as in other elevated ovens. No. 11 is a pipe which may lead from pipe No. 3 into pipe No. 6 instead of carrying No. 3 directly into the chimney. No. 12 is a partition between the back boilers to be presently described. *d*, is the fire place and *e* the flue or throat leading from it into the chamber under the back boilers.

Fig. 3 is a cross section from side to side of the stove, the same numbers and letters where they occur indicating the same parts. *f, f*, are two sliding shutters or dampers which are governed by the rods 8, *g, g*, being the stationary parts of a partition crossing the chamber of which *f, f*, constitutes the movable portion actuated by the handle 8. The chamber leading from the fire chamber to the flues, we divide by partition into three separate compartments, as indicated by the dotted lines in the top plate Fig. 1 and shown more distinctly in Fig. 4,

which is a representation of these chambers, the top plate being removed for the purpose of showing them. *f, f*, and *g g* are, as in Fig. 3, the stationary and the movable portions of a partition running across the chamber and dividing it into a front and a back compartment, the pipes Nos. 2, 2 and 3 leading from this compartment through openings in the top plate, as indicated by the dotted lines. No. 12 is a partition leading from the middle of this cross partition toward the front of the stove and dividing the boiler chamber, into two compartments. When either of the sliding shutters *f* are closed the draft from the fire to the flues is arrested through the compartment to which said shutter appertains and the other being open the whole draft will pass through that compartment and operate exclusively upon any cooking vessel exposed to it. This affords an opportunity of directing the whole draft upon one vessel and at the same time of heating the oven through both the flues leading up to it, as they both open into the heated air compartment *h, h*, which extends entirely across the stove.

Having thus fully described the manner in which we construct our cooking stove with an elevated oven, we do hereby declare that we do not claim to be the inventors of the elevated oven; nor do we claim the dividing of the chamber which leads from the fire chamber to the smoke pipe into three separate chambers governed by valves for the purpose of directing the draft under either or both of the upper boilers, as herein set forth, this having been previously done; but

What we do claim is—

Our improvement in the manner in which we have combined an elevated oven with a stove so divided by carrying the heated air compartment *h, h*, entirely across the stove and allowing the flues 2, 2, of the elevated oven to open into it, by which means the perfect action of the oven is secured although the draft may be directed under one of the upper boilers only.

J. P. WILLISTON.  
W. A. ARNOLD.

Witnesses:

SAML. F. LYMAN,  
HARVEY KIRKLAND.