2 Sheets—Sheet 1.

KETCHAM & WHEELER.

Cooking Stove.

No. 1,419. Patented Nov. 27, 1839

Fig: 1.

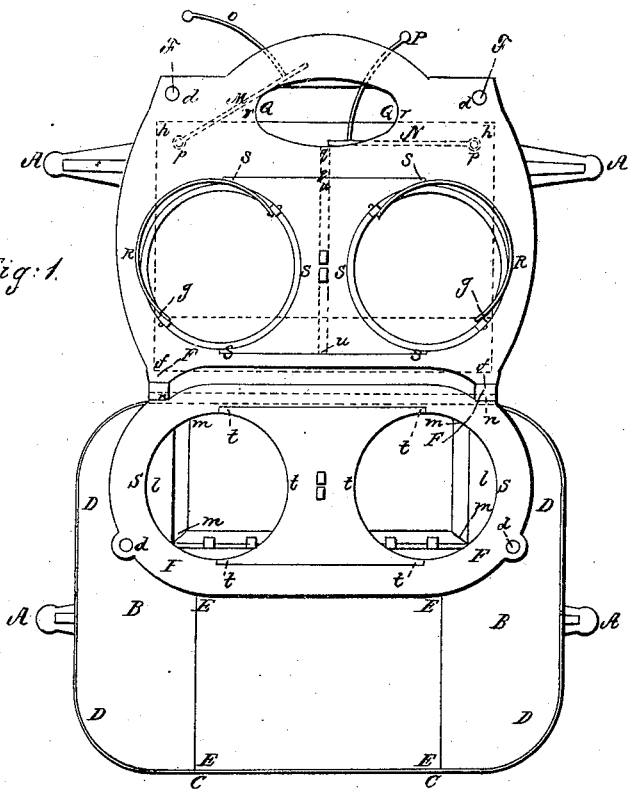
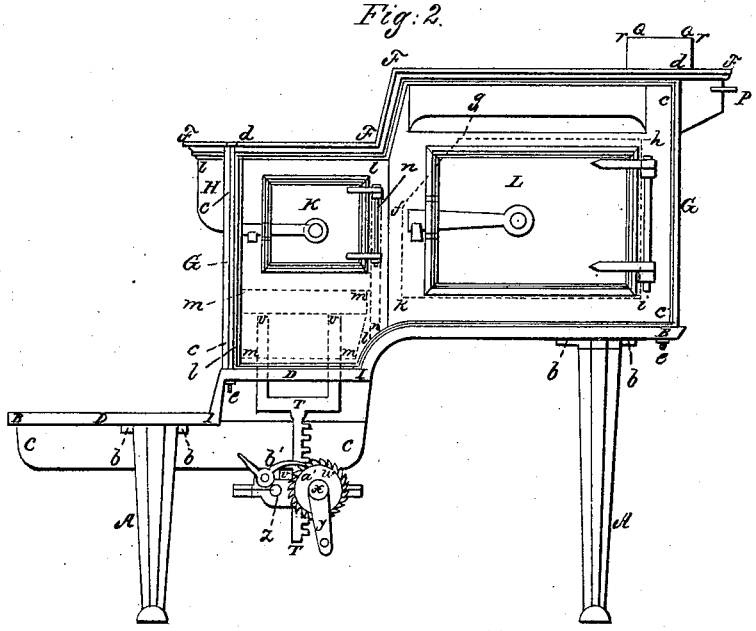


Fig: 2.



Specification and Drawings from Office of R. H. Eddy. Boston.

№ 1419.

2 Sheets—Sheet 2.

KETCHAM & WHEELER.

Cooking Stove.

No. 1,419. Patented Nov. 27, 1839

Fig: 4.

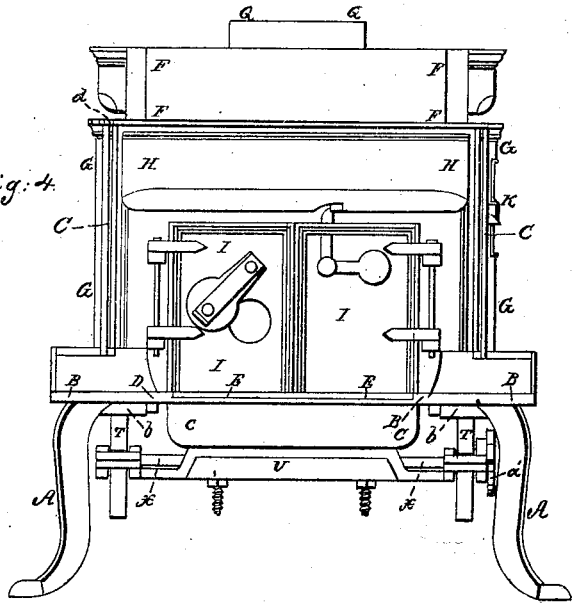
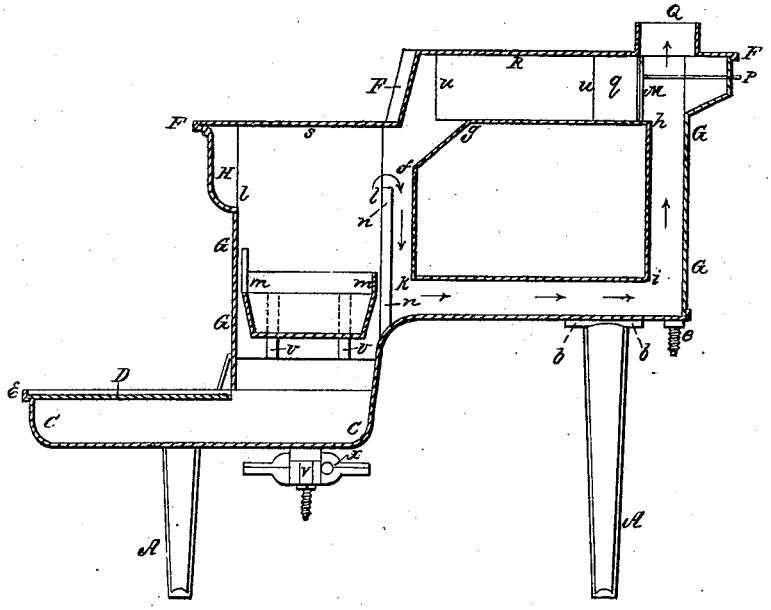


Fig: 3.



UNITED STATES PATENT OFFICE.

MICAH KETCHAM, OF BOSTON, AND WILLIAM A. WHEELER, OF WORCESTER, MASSACHUSETTS.

CONSTRUCTING THE FLUES OF STOVES.

Specification of Letters Patent No. 1,419, dated November 25, 1839.

To all whom it may concern:

Be it known that we, MICAH KETCHAM, of Boston, county of Suffolk, and WILLIAM A. WHEELER, of Worcester, county of Worcester, State of Massachusetts, have invented new and useful Improvements in Stoves for Culinary and such other Purposes in which the Same May be Used.

The disposition, arrangement and use of the several parts of these improvements, the principles thereof, and several modes in which we have contemplated the application of that principle, or character by which they may be distinguished from other inventions, together with those parts, improvements or combinations we claim as our inventions and discoveries, we have fully set forth and described in the following specification and accompanying drawings.

Figure 1, Plate 1, represents a top view of our improved stove. Fig. 2, is a side elevation. Fig. 3, Plate 2, is a longitudinal section, and Fig. 4, is a front view.

A, A, A, A, Figs. 1, 2, 3, 4, are the cast iron legs on which the stove rests. They are attached to a cast iron bottom plate B, B, B, B, by being wedged or driven between cleats or projections *b*, *b*, *b*, *b*, Figs. 2, 3, 4, in the usual manner of connecting such parts. The cast iron bottom plate B, B, B, B, which supports the body of the stove, is shaped as represented in the drawings, and has connected to it an ash box or pan C, C, and a hearth D, D, D, Figs. 1, 2, 3, 4, shaped as seen in the drawings. That part E, E, E, E, Figs. 1, 3, 4, directly over the ash box or pan C, C, is made to slide outward, so that the ashes may be moved from the pan.

F, F, F, F, Figs. 1, 2, 3, 4, represents the cast iron top plate of the form there exhibited.

G, G, Figs. 2, 3, 4, are the front and rear end pieces of cast iron.

The top bottom and sides and ends, having suitable ledges formed around their edges, are placed on each other and secured together by rods *c*, *c*, Figs. 2 and 4, with countersunk heads *d*, *d*, *d*, *d*, Figs. 2 and 4, and screws on their opposite ends with nuts *e*, *e*, *e*, *e*, Figs. 2 and 3, in any of the usual modes generally practised of fitting such parts together and which is readily understood by all mechanics who manufacture stoves. A portion H, Figs. 2, 3, 4, is swelled out, for the purpose of allowing the flame to act around the sides of a boiler, inserted in the top immediately over the fire.

I, I, Fig. 4, are the front fire doors.

K, Figs. 2 and 4, is a small fire door in the side. L, Fig. 2, is the oven door, of which there may be another in the opposite end of the oven if desirable.

f, *g*, *h*, *i*, *k*, in the longitudinal section, Fig. 3, represent the oven, the portion of the same being shown by dotted lines *f*, *g*, *h*, *i*, *k*, Fig. 2, and *f f*, *g g*, *h h*, Fig. 1.

l, *l*, *l*, *l*, Figs. 1, 2, 3, is the fireplace.

m, *m*, *m*, *m*, Figs. 1, 2, 3, is the firebox or grate box for fuel. Between this latter and the oven there is a movable partition *n*, shown by dotted lines in Figs. 1, 2, and more particularly in Fig. 3. This partition rests between small projections from the sides of the stove, and being movable, may be raised at any time, so that any ashes or soot which may be collected between the same or underneath the oven may be drawn forward into the ash box by the introduction of a shovel, poker or any other suitable instrument. As wood is generally the kind of fuel to be used in this stove, should it be desirable to burn coal, the partition *n*, *n*, and interior of the fire place, may be lined with fire stone, or any of the proper modes usually practised.

M, N, Figs. 1, 3, are two dampers with rods O, P, Figs. 1, 2, 3, for the purpose of opening and closing the same. These dampers are hinged at one extremity *p*, *p*, Fig. 1, and at the other when shut rests against the small perpendicular partition *q*, *q*, Figs. 1 and 3, between the top of the oven and that of the stove. The funnel or smoke flue is placed on the rim of the opening Q, Q, Figs. 1, 2, 3, 4.

The top plate F, has two elongated openings S, S, R, R, formed semicircular at their ends, the first S, S being directly over the fire space and the last R, R, over the top plate of the oven. These openings may, each, be separated or divided into two circular spaces S, *t*, *t*, *t*, *t*—R, *s*, *s*, *s*, Fig. 1, by the plates *s*, *s*, *s*, *s*, *s*, *s*—*t*, *t*, *t*, *t*, *t*, *t*, shaped as exhibited in Fig. 1. The plate *s*, *s*, has attached to its under side a thin partition *u*, *u*, Figs. 1, 3, which, when the plate S is inserted in its place, separates or divides the space between the top *g*, *h*, of the oven and top plate F, so that by clos-

ing the damper N, and opening the damper M or vice versa the whole flame may be caused to pass at pleasure, through either half of the space over the oven. Cast iron covers and boilers of suitable material are to be adapted to these spaces, to be used as convenience may require.

By closing both dampers M, N, Fig. 1, the flame or smoke may be made to take a direction downward between the plates *n*, *n*, *f*, *k*, underneath the oven and thence upward between the back of the oven and back of stove, where it escapes into the exit flue, as denoted by arrows in Fig. 3. By opening both dampers it may be caused to pass over the top of the oven.

The ends of the fire box *m*, *m*, *m*, *m*, Figs. 2 and 3, rest on the tops *v*, *v*, of the forked racks T, T, T, T, Figs. 2 and 4. The forks V V of the racks pass through cylindrical holes in the bottom plate B, B. A pinion *w* near each extremity of a rod, *x*, Figs. 2, 3, 4, plays into the teeth of the racks T, T. The rod *x* turns, near each end, in suitable bearings connected to the end of a bar U, Figs. 2, 3, 4. By turning the shaft *x* by the handle *y* the racks and fire box are raised or lowered, at pleasure, so as to diminish or increase the distance between the coals and the bottom of the boiler or vessel, inserted in the top plate F over the fire. Small friction rollers *z*, *z*, are placed behind each rack and a ratchet wheel *i*, Figs. 2, 4, is attached to the extremity of the shaft *x*, so that by means of a click or pawl *b'*, Fig. 2, the fire box may be retained at any height at pleasure.

Having thus described our improvements in stoves we shall confine our claim to the following.

The movable dividing plate *s*, *s*, *s*, *s*, *s*, *s*, (for the object above set forth) in combination with the partition *q q*, Figs. 1, 3.

In testimony that the above is a true description of our said invention, we have hereto set our hands this sixteenth day of July, in the year eighteen hundred and thirty eight.

MICAH KETCHAM. [L. S.]
W. A. WHEELER. [L. S.]

Witnesses:
R. H. EDDY,
EZRA LINCOLN, Jr.