A. D. Fisk,

Cook Stove.

No. 2,335. Patented Nov. 10, 1841.

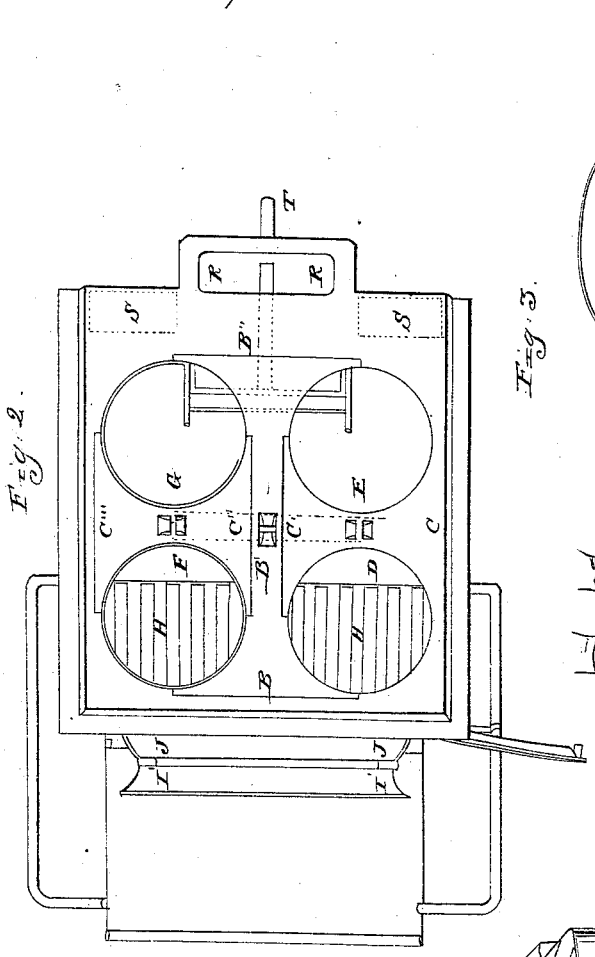

Fig. 2.

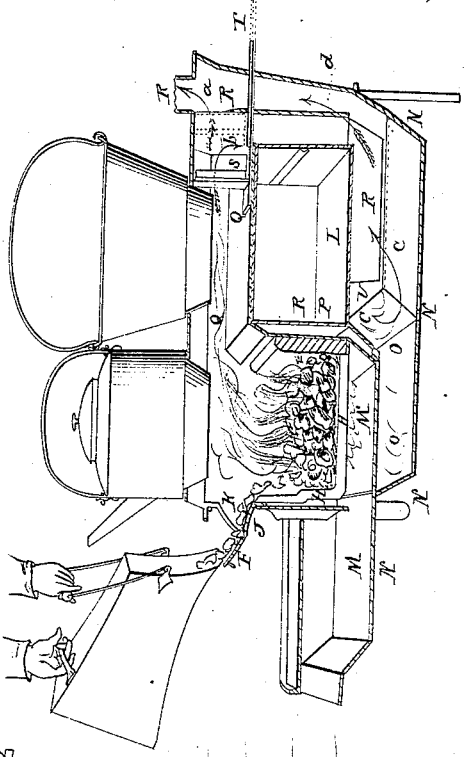

Fig. 3.

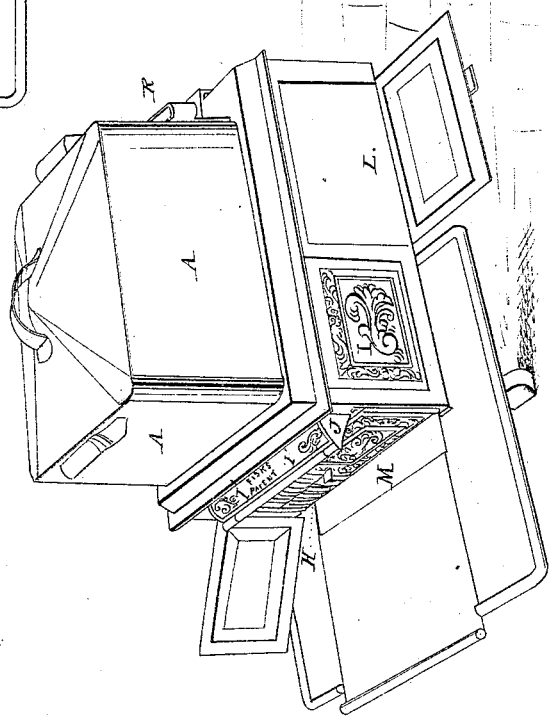

Fig. 1.

UNITED STATES PATENT OFFICE.

A. D. FISK, OF NEW YORK, N. Y., ASSIGNOR TO NELSON W. FISK.

COOKING-STOVE.

Specification of Letters Patent No. 2,335, dated November 10, 1841.

To all whom it may concern:

Be it known that I, A. D. FISK, of the city of New York, in the State of New York, have invented certain Improvements in the Manner of Constructing Stoves for Cooking, which I denominate the "Novelty Cooking-Stove;" and I do hereby declare that the following is a full and exact description thereof.

In the accompanying drawing, Figure 1 is a perspective view of my stove. Fig. 2 is a top view thereof, and Fig. 3 a vertical section through the middle of it from front to back.

The top plate of my stove I make flat, that portion of it which is above the fire chamber, and that which is above the oven being on the same horizontal plane. By thus making it I am enabled to arrange the boiler holes in a manner much more convenient and effective than can be done when the plate above the oven is elevated above that part which extends over the fire chamber. In the top plate I make a large opening, having three lift out pieces adapted thereto, by which I am enabled to employ several boilers when desired, or only one large boiler, as shown at A, A, Fig. 1. The opening in the top plate I make equal in length and width, and alike at each of its sides so that the separate lift out pieces used by me shall fit equally well either across or along the stove. In Fig. 2, the three lift out pieces marked B, B′, B″, C C′, C″, C‴, are represented as so arranged as to form four round boiler holes D, E, F and G; but if one of the short lift out pieces C, C′, was removed there would then, in the place of the two openings D and E, be one long boiler hole with circular ends and parallel sides, adapted to a wash kettle, or other boiler of suitable form. The same effect would, of course, be produced on the opposite side by the removal of the lift out piece C″ C‴; the long lift out piece B, B′, B″ being left in place. The reverse arrangement also may be made, and the latter lift out piece be placed crosswise of the stove, so that a long boiler may be placed either immediately over the fire or above the oven and is capable, in fact, of assuming four different positions. The advantage resulting from this arrangement is as follows. Complaint has frequently been made that when washing and cooking were to be carried on at the same time, the wash kettle, if placed directly over the fire, interfered with the cooking, by removing the kettles used for that purpose from the direct source of heat; while if the wash kettle was placed across the stove, and over the oven, it required too long a time to bring its contents to a boiling heat. In a stove with the lift out pieces constructed as herein described a long wash kettle, or other similar boiler may be placed in a position so as to have one end of it immediately over the fire, by making the longitudinal opening in the direction of the length of the stove from front to rear, on either side of it; or when desired, it may be placed directly over the fire, or directly over the oven.

The fire chamber may be made to contain a grate for the burning of coal as at H, H, in the respective figure; or this may be removed, and wood used as fuel.

I is an end door for the supply of fuel.

In front of the stove above the grate doors, I construct a hinged feeder for the supply of coal when that fuel is used. This hinged feeder consists of a stationary trough-like piece cast with the front plate of the stone and extending along it the whole width of the grate, and of a movable cover, hinged to said stationary piece, which cover, when closed, incloses an opening, included between its upper edge, and the lower edge of the stationary piece. In each of the figures.

I′, I′, is the cover of the feeder seen only in section in Fig. 3; and J, J, is the stationary portion of it;

K, Fig. 3, is the opening along the front plate, which opening is closed by I′ and J, when the cover I′, I′, is opened it falls no farther back than is sufficient to cause it to form a part of a feeding trough to conduct the coals into the grate, as shown in Fig. 3. This feeder is not so constructed so as to perform the office of the part so called in some other stoves, in which the feeders are intended to be reservoirs of coal from which to supply the fire as it gradually burns away, while the design of my feeder is merely to establish a convenient means of replenishing the fire when a fresh supply of coal is required.

The oven L, of this stove has nothing peculiar in its construction; but I so form the bottom plate of the stove and arrange the flue and heated air spaces as to derive greater advantage from the heat given out by the fuel than in stoves of other construction. This arrangement is distinctly shown in the

sectional view. Fig. 3, M, M′, is the ordinary ash pit, when the stove is used for burning coal; but when the grate is removed and wood is burnt the fuel then lies upon M′, in either case a large quantity of heat is lost by radiation when the lower side of the plate M′ is exposed to the external air; to prevent this the bottom plate N, N, of my stove is so constructed as to leave a hollow space, or heated air chamber, O, O, between it and the plate M′. There is also a space P, between the back plate of the fire chamber and the front plate of the oven, which is open at its lower side to, and may be considered as a part of the chamber O, O, which extends in part also under the oven. The draft from the fire passes directly over the oven, through the flue space Q. Behind the oven there are three flues, two descending and one ascending; the opening of the ascending flue, which is in the middle, is shown at R, R, Fig. 2; the place of the descending flues is immediately below the dotted lines at S, S, a valve, or shutter, the handle of which is marked T, serves, when required, to open a direct communication to the flue R, R, in the ordinary way, as indicated by the arrow *a*, Fig. 3; when this valve is closed the draft is down the descending flues S, S, on each side of R, as shown by the arrow *b*. These descending flues continue down behind, and under the oven, and open into the space O,O, at V, whence the draft is carried back, and up in the flue R, R, as indicated by the arrows *c* and *d*. The draft from the fire as it commingles with the heated air contained in the heated air chamber O, O, acquires an accession of heat, and of course communicates a larger portion to that part of the bottom and the back of the oven with which it comes into contact.

Having thus fully described the nature and construction of my "novelty cooking stove", what I claim as new therein, and desire to secure by Letters Patent, is—

1. The manner of arranging and combining the lift out pieces by which the boiler holes are formed, so as to admit of their being so arranged that a long boiler may be placed in four different situations, by the proper disposition of the said lift out pieces, in the manner and for the purpose set forth.

2. I claim the particular manner herein described of constructing the hinged feeder for the supplying of coals to the fire grate.

3. I claim the particular manner in which I have formed the heated air chamber under the fire chamber, between the back plate of said fire chamber, and the front plate of the oven, and in part under the oven; into which air chamber the gaseous products of combustion pass through the descending flues, on their way to the center ascending flue; the respective parts herein named being combined with each other substantially as described.

I do not claim the arranging of two descending and one ascending flue in the rear of the oven as of my invention, such flues having been before used, but I limit my claim to the combination of them with the heated air chamber in the particular manner and for the purpose herein fully made known.

ALMOND D. FISK.

Witnesses:

THOS. P. JONES,

WASH. PEALE.