

B. T. RONEY.

Cooking Stove.

No. 4,188.

Patented Sept. 11, 1845.

Fig.2

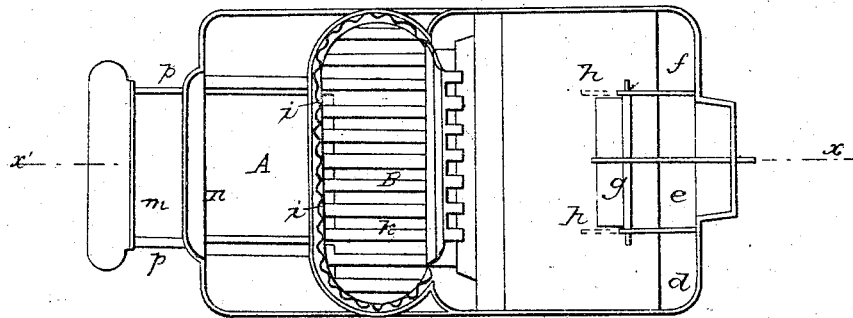


Fig.3

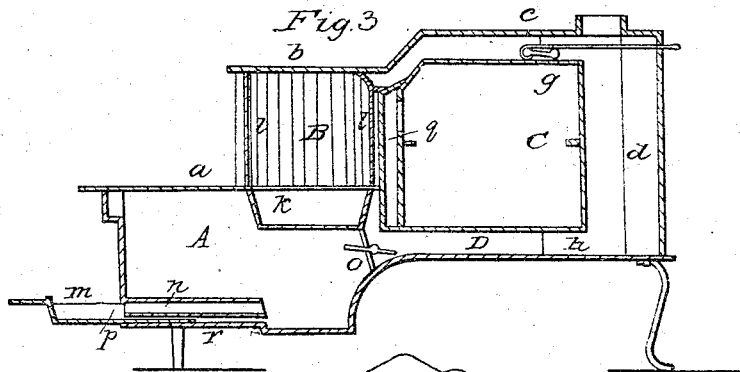
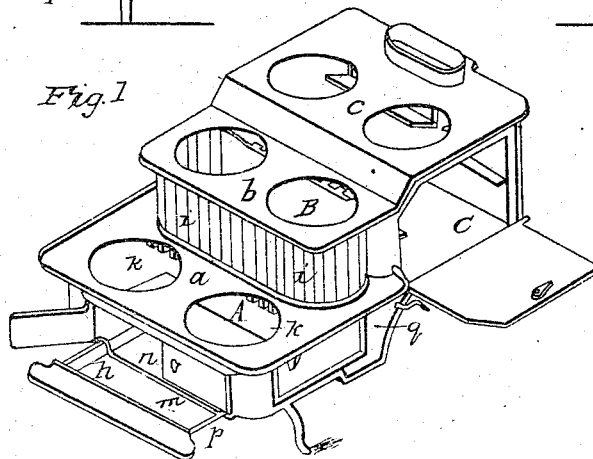


Fig.1



UNITED STATES PATENT OFFICE.

B. T. RONEY, OF ATTLEBOROUGH, PENNSYLVANIA.

COOKING-STOVE.

Specification of Letters Patent No. 4,188, dated September 11, 1845.

To all whom it may concern:

Be it known that I, B. T. RONEY, of Attleborough, in the county of Bucks and State of Pennsylvania, have invented a new and useful Improvement in Cooking-Stoves, and that the following is a full, clear, and exact description of the principle or character thereof and of the manner of making and using the same, reference being had to the accompanying drawings, which make part of this my specification, in which—

Figure 1 is a perspective view, Fig. 2 a top view with the top plate of the stove removed, and Fig. 3 a longitudinal vertical section taken at *xx* of Fig. 2.

The same letters are used in all the figures to indicate like parts.

The nature of my invention and what distinguishes it from all other stoves before known consists in the manner of arranging two fire chambers in one stove, one for anthracite, and the other for wood, to be used together, or either of them separately, by placing the one for anthracite coal over the back part of the one for wood, with the grated partition of the former extending below the top of the latter, the coal chamber above the grate being fluted vertically to afford a draft for the wood fire hereafter referred to when desired to carry the draft to the upper flue. And in combination with this arrangement of two fire chambers, so arranging the flues that one passes directly from the wood fire chamber, and below the coal grate, under the oven and up three flues in the back, the middle one opening directly into the pipe or chimney, and the two side ones communicating with the middle one by an aperture governed by a damper situated between the top plates of the oven and stove so that this draft can be carried up the three flues, or all up the middle division by closing this damper and another flue leading from the coal fire chamber over the oven to the three vertical back flues, so that when the damper in the middle division is opened the draft passes directly to the chimney and when closed it passes down the two side flues under the oven for a short distance and then around division plates to the middle flue.

By this arrangement a damper in the lower flue being closed, the draft from the wood fire is carried directly through the spaces formed by the flutes in the coal fire chamber to ignite the coal while the wood

fire is used for light culinary purposes such as cooking for breakfast, which would be too much delayed by the slow ignition of anthracite coal, or if the damper in the lower flue be open, part of the draft from the wood fire would pass through the coal fire chamber over the oven and part through the lower flue under and up the back of the oven while the front is heated by the coal fire or when no coal fire is used by the flame of the wood fire impinging against the back plate of the coal fire chamber. And if coal alone be used the draft can be directed over the top down the side back flues, under the oven around the partition plates to the middle back flue, or directly out to the chimney, as above described. And my improvements also consist in connecting with the front of the stove a sliding griddle, the bottom of the wood fire chamber being made double for its reception.

In the accompanying drawings A is the wood fire chamber, B the coal fire chamber and C the oven their top plates *a*, *b*, and *c* being provided with boiler holes in the usual manner. The lower flue D from the chamber A passes under the oven and is provided with a damper or register *o*, to cut off the draft and prevent it from passing under the oven. This flue communicates with the three vertical back flues *d*, *e* and *f* and the two plates which form the divisions between these three flues extends horizontally in the lower flue D as represented by dotted lines *h h* in Fig. 2 for the purpose of carrying the draft under the oven.

The middle flue *e* is provided with a damper *g* situated between the top plates of the oven and stove to direct the draft directly to the chimney, when opened and when closed to carry it down the back flues *d* and *f* under the oven around the division plates *h h* and up the back flue *e*. The coal fire chamber B is made with vertical flutes as represented at *i i* to prevent the coal from resting or packing against the whole surface of the plates and thus arrest the draft, which end is obtained effectually by these plates as fully explained above, and the grate bars *k k* extend down for some distance into the wood fire chamber so as to expose a considerable portion of the coal either to the action of the flame of the wood fire or to the current of air if there be no fire in the chamber A. The top of this coal chamber B communicates with the flue *l* at the top of the

oven, and the draft as before explained may be carried either directly out through the damper *g*, or down the flues *d* and *f* and up the middle flue *e*, as circumstances may
5 indicate.

The sliding griddle is represented at *m*, at the front of the stove, and drawn out; it is held and slides in a space between the bottom *n* of the wood fire chamber A, and
10 the bottom plate *r* of the stove. And as the sides of the griddle are turned up in manner represented at *p*, *p*, the bottom of the fire chamber corresponds in form and constitutes elevations at each side which answer
15 the purpose of andirons for the wood to rest on.

Between the back plate of the coal fire chamber B, and the front plate of the oven there is a chamber *q*, closed upon all sides
20 except at the top where it opens into the

oven. This space protects the oven from too high a temperature, and the rarefaction of the air in this chamber will establish a current which will discharge the heated air at the top and circulate through the oven. 25

What I claim as my invention and desire to secure by Letters Patent, is—

The manner in which I have combined the coal fire chamber with the wood fire chamber by placing the grate of the coal chamber B, 30 partly within the top of the wood chamber A, and in combination therewith the fluted form of the coal fire chamber to admit a draft from the wood fire to pass through the coal chamber, as herein fully expressed.

BENJMIN T. RONEY.

Witnesses:

NATHAN H. HARDING,
THOMAS PAUL.