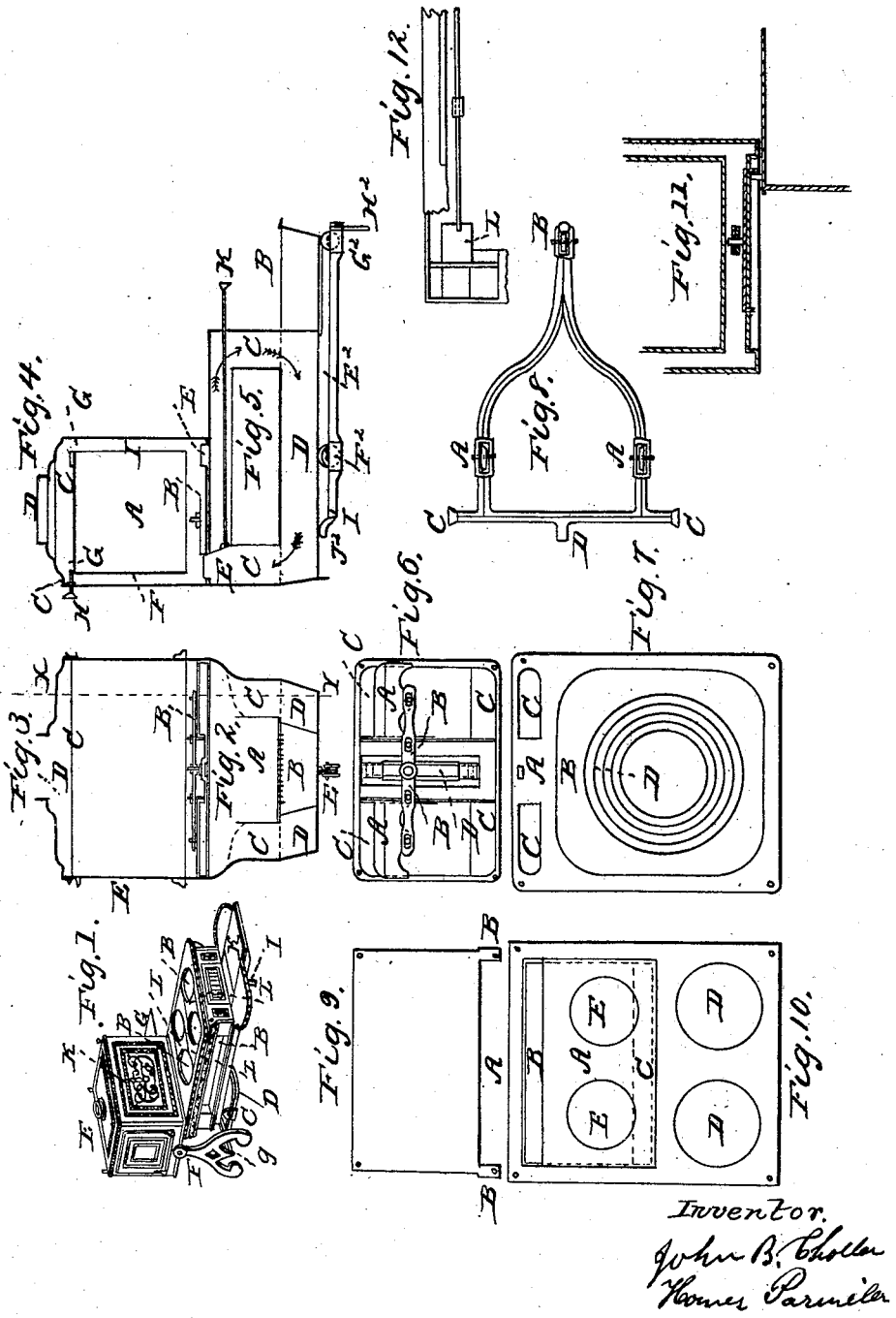
CHOLLAR & PARMELEE.

Cook Stove.

No. 3,656. Patented July 11, 1844.



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UNITED STATES PATENT OFFICE.

JOHN B. CHOLLAR AND HOMER PARMELEE, OF WEST TROY, NEW YORK.

RAILWAY-STOVE.

Specification of Letters Patent No. 3,656, dated July 11, 1844.

To all whom it may concern:

Be it known that we, JOHN B. CHOLLAR and HOMER PARMELEE, of West Troy, county of Albany, State of New York, have invented new and useful improvements in cooking-stoves applicable to the stove known as "Isaac B. Bucklin's patent railway cooking-stove" and other stoves of similar construction—*i. e.*, stoves with movable fire chambers or furnaces which move to and from a stationary oven or a movable oven with stationary fire chamber or grate; and we do hereby declare that the following is a full and exact description thereof.

Our improvements consist in certain alterations of the aforesaid stove or stoves as follows, reference being had to the annexed drawings making a part of this specification in which—

Figure 1 is a perspective view of Isaac B. Bucklin's patent railway with our improvements added thereto. Letter A, the movable stove or fire chamber drawn out so as to enable the operator to make use of the four boiler holes B, B, B, B; L, L, L, movable plates between the boiler holes so constructed as to be taken out, making the top of the fire chamber into one large boiler hole or opening, and substituting any other form of plate or plates. H, hearth slide. C, one of two flange rollers which support and guide the fire chamber under the oven. D, the roller frame on which the fire chamber rests. I, leg to frame D supporting the front end of same. E, the stationary part of the stove which contains the oven. G, the oven door in its position when opened. F, one of two legs which support the oven part and the roller frame at J the part which receives the dovetail of the frame. K, K, K, damper rod knobs. When all shoved up as shown, the heated air and smoke pass immediately under the back boiler holes off direct—that is back through the fire chamber and its back flues and up through the front of the stationary part which contains the oven and thence through the pipe.

Fig. 2, is a cross vertical section of movable stove or fire chamber on a line with and immediately in front of front boiler holes in Fig. 1. A, fire-place extending to back plate of fire chamber under all the boiler holes, of which a correct form is shown by the curved dotted lines back of vertical flues C, C. B the grate and ash-pan. D, D, returning horizontal flues which are used when the heat is wanted immediately under the front boilers or as a saving of fuel. E, section of front roller and frame for the support of front part of fire chamber.

Fig. 3, is a longitudinal vertical section of the stationary part containing the oven with its top and bottom flues. A interior of oven with oven doors E, E, closed. B, flue under the oven with the outside bottom oven plate and the sliding plates or dampers with levers attached to cover the back flues when the fire chamber is drawn out. C, the flue above the oven connecting with the pipe hole D.

Fig. 4, is a cross vertical section through X, Y, Fig. 3, of stationary part containing the flues and oven. A, interior of oven. B, horizontal flue (with the sliding plates and levers for closing the back flues or openings) connecting immediately with the fire chamber through the outside bottom oven plate at openings E, E, and through the corresponding openings at the other end of the plate not shown in this section. F, I, vertical flues. C, flue connecting with the pipe hole D. G, G, sliding damper connecting with knob and rod H, for regulating the heat about the oven, now closed at top of flue F, giving the heat an entire circulation about the oven. If it be required to change the draft it may be done by a gentle push on the knob H which will open F and close I giving a direct draft.

Fig. 5, is a longitudinal vertical section of the fire chamber or movable stove through X, Y, Fig. 2 showing the vertical flues C, C, and the returning horizontal flue D, the arrows showing the direction of the heated air and smoke when the damper L shown separately, in Fig. 12, is closed by drawing out the rod by the knob K, which operation brings the heat under and about the front boilers which may be placed on the front boiler holes. B the hearth in front part of ash pan. E^2 the roller frame. F^2 one of two flanged rollers. G^2 front roller. H^2, leg. I dovetail to connect with oven leg. J^2 the tongue or arm for back support to fire chamber when in its present position in which we use the back flue or opening. E Fig. 4 and its corresponding one not shown in this section of the bottom outside oven plate. But in case we wish to use the back boiler holes then draw the fire chamber forward then the openings in the fire chamber connect with the front openings in the oven

bottom, still using the damper L in its present position. But if we wish to bring the heat in direct contact with the back boilers then we push the knob K back against the front by which the damper L moves against the back of fire chamber through the back vertical flue leaving an opening at L which gives a direct draft from the fire chamber to the oven.

Fig. 6 is a plan of outside bottom oven plate. C, C, C, C openings or flues. A, A, self-sliding dampers or plates. B, B, connecting levers which connect with the sliding bar D and dampers or plates which alternately open and close the back openings now shown as half closed. This sliding bar D is so arranged with two hooks one at each end passing through the above bottom oven plate and connecting with a movable stove or fire chamber in a similar manner to Bucklin's; the chamber is drawn out as in Fig. 1, the above plates or dampers entirely close the back openings so as not to admit external air and thereby injure the draft in which case the heated air and smoke passes through the front openings and when the fire chamber or movable stove is run up under the oven as in Figs. 4 and 5 in its motion under it strikes the bar D on one of its projecting hooks by means of a projection stop on the top of the fire chamber as may be seen in Fig. 7 at A, and Fig. 11 *a* and opens the back flues C, C, in which case the front ones are closed by the top of the fire chamber as it passes under them.

Fig. 7 is a plan of fire chamber. B, top of the movable stove. C, C, openings or flues which connect with oven through the openings or flues C, of Fig. 6 which openings correspond as the openings of the fire chamber may be placed at the front or the rear openings to suit convenience. B one entire large plate with contracting rings D, D, D, D, to suit any size pot or kettle. The rings and plates may be displaced and the tops applied by plates L, L, L, as in Fig. 1 showing boiler holes B, B, B, B.

Fig. 8 is a plan of cast iron roller frame with rollers to support the movable stove or fire chamber. A, A, rollers with flanges to keep the fire chamber in its direct course under the oven when moving. B, front roller which moves between two ribs cast under the bottom of fire chamber and supports the front part of the ash pan. C, C, dovetails which are fitted to the oven legs. D projecting tongue or arm to support the stove or fire chamber when it is under the oven keeping it steady in case of its getting a hoist at the hearth which might cause it to rise from the front roller.

Fig. 9 is a plan of I. B. Bucklin's patent railway outside bottom oven plate with the opening or flue one side and in front at A, which forms three sides to the flue. The other side is formed by outside front oven plate making one entire opening or flue on the front of the oven which communicates with the flues of the oven and the movable stove or fire chamber at opening B or at C Fig. 10. B, B, ears or flanges that project down the sides of fire chamber top to guide the chamber under the oven when in motion.

Fig. 10 is a plan of Isaac B. Bucklin's fire chamber or movable stove top with two stationary holes for boilers D, D, and two boiler holes E, E, in a movable plate A, which by its sliding motion may form its flue at B, or at C, so when the fire chamber is drawn out the flue for smoke and heated air will be at B, and when pushed under the oven the movable plate must be pushed back closing the opening at B and opening at C, at all times connecting with the opening or flue A Fig. 9 causing the opening A Fig. 9 to communicate direct with the fire chamber and oven.

We do not claim any of the above described different parts separately nor do we claim any part of the railway cooking stove as patented by Isaac B. Bucklin or other stoves with movable grates or fire chambers as our invention.

What we do claim therefore and desire to secure by Letters Patent is—

1. The arrangement and combination of the aforenamed several parts as follows, the arrangement of the flues or openings in front and rear in the bottom, below the oven plate Fig. 6 and in combination therewith the self-acting dampers, constructed and arranged as described so as to enable us to do away with the sliding plate with boiler holes as in Isaac B. Bucklin's patent with his alternating openings on the top of the fire chamber and substituting in its place our improved fire chamber top Fig. 7 with its plates and rings as above described with two openings or flues on the back end C, C.

2. We further claim the combination of the vertical front, rear and horizontal flues with their dampers in the fire chamber as represented in Figs. 2, 5 and 12.

We expressly say and wish to be understood that we do not claim any of these above described parts as new but only in the combination described with Isaac B. Bucklin's patent railway cooking stove or any other stove of similar construction that is with a movable fire chamber or furnace moving to and fro under an oven, and as such we clain the invention adaptation and combination above named as witness our hands.

West Troy, June 25, 1844.

JOHN B. CHOLLAR.
HOMER PARMELEE.

Witnesses:
JONATHAN HART,
I. H. MARSHALL.