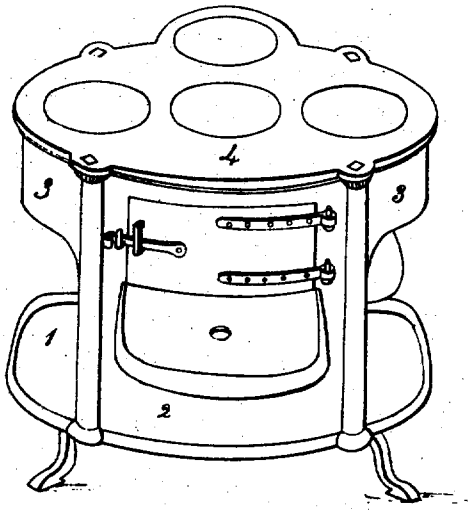
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H. M. Camp,

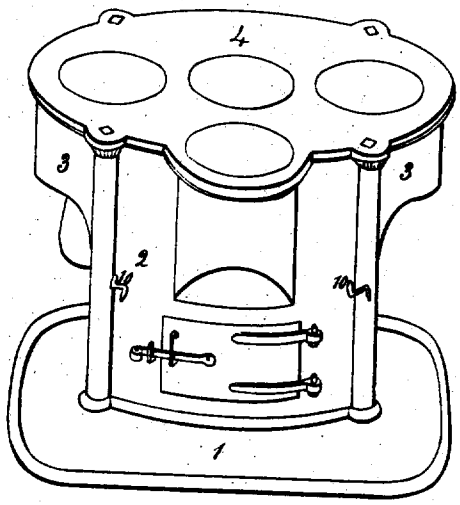
Cook Stove.

Patented Oct. 14. 1834.

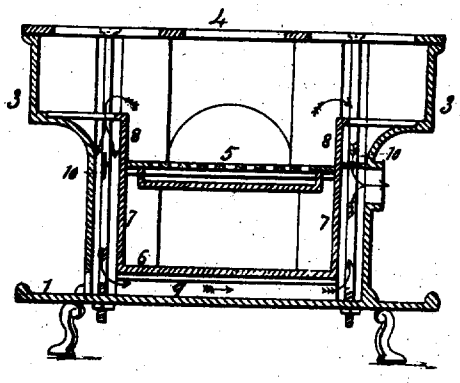
Front-view



Back-view



Section



Oct 14. 1834

1

Henry William Camp
Letters Patent

645.04

The schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Henry William Camp himself of his improvement in the common Iron Cooking Stove

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To all to whom these presents shall come: Be it known that I Henry W. Camp of Owego in the County of Tioga and State of New York have invented a new and useful improvement in the construction and operation of the common Iron Cooking Stove; and that the following is a full and exact description of the construction and operation of the said stove as invented or improved by me, that is to say. The size and form of the stove is not so material and in these it may be varied. The following is a description of one of an ordinary size and shape with the proportions. The body of the stove being oblong has swelled sides and ends. The swelled or curved ends extend but part of the way from the top down, leaving the base or bottom part of the stove of much less dimensions than the upper part and has but two doors, one the fire door on the front side of the stove for putting in fuel, and the other the oven door on the backside of the stove. The body of the stove is twenty two inches and a half high and three feet in length acrss the top and about 22 inches wide including the projection for the reception of a boiler on the back side, the base or lower part being about 28 inches long and 14 inches wide through the centre and 9 through the ends, and has two hearths one on the front and one on the back side of the stove. the upper or fire hearth on the front side is sunk for holding ashes and coals, and the lower or oven hearth on the back side for the convenience of the oven which is in the lower part of the stove. The whole stove being an irregular figure of which a more perfect idea may be formed from the following description of the several plates and parts. 1st The bottom plate is an oblong

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oblong figure with straight and parallel ends, curved or rounded corners and on the front side curved or swelled out 3 inches and straight on the back side, three feet long and two feet 6 inches in width across the centre. On the top of which plate is a moulding three fourths of an inch high running angularly around its outer edge and a like moulding runs out from the front moulding and distant about two inches from and within the outer end moulding and curves across the plate lengthwise so as to form with the front moulding an enclosed area about 25 inches long and nine inches wide at the ends and 16 in the centre of the curve for the reception of the upright plates which form the body of the stove. All of which mouldings are cast solid with the plate. Leaving the remainder of the plate projecting from under the body of the stove on the back side and at the ends so as to form a hearth for the oven about 12 inches wide before the oven door and 3 inches at the ends of the stove. The front edge of the plate and the moulding are ornamentally projected near the corner to form the bases of the pilasters. On the under side of which plate are ordinary brackets for fixing the cast iron legs which are about 4½ inches long on which the stove stands. 2d The side plate are two feet wide and twenty two inches high the front one of which curves or swells from one side to the other outwardly about 2½ inches from a plane surface and has an opening in it above the middle of the plate and equidistant from the sides of the plate 16 inches long and 7½ inches high for a door to the fire and through which the upper or fire hearth plates, irregularly formed on the under side to fit the bottom of the sunk hearth which projects over and rests on it. The back side plate is curved in like manner about one and a half inch from a plane and has a like opening 12 inches long and 7 inches high for a door to the oven and is equidistant from the sides and two and a half inches from the bottom plate or hearth, and two and a half inches above this door is a projection of this plate which at the top is of a circular form projecting five inches extending in this form from the top of the stove down 6 inches and then terminating in an oblique plane of 5½ inches in length sloping

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slanting into the body of the stove and terminating 2 and one half inches above the top of the oven door forming an area within the stove for the reception of a boiler. These side plates have also several perpendicular and horizontal mouldings on their insides for the purpose of supporting several plates hereinafter described. These side plates have about two inches of the perpendicular edges curved or swelled out representing externally pilasters and forming hollows internally through which the binding rods pass from the top to the bottom plates and also forming grooves or shoulders within which the end plates are fitted. 3d The end plates are of the same height and are curved outwards in nearly a half circle extending from the top down 7½ inches where about three inches of the projection terminates by the plates being sloped or curved in and down three inches and there forming a plane surface which extends to the bottom plate about 4½ inches. One of which end plates has an elliptical opening in it 9 inches in length and three inches in width placed horizontally and directly beneath the three inch curve or concave for the passage of the smoke and surrounded externally by a flange for the reception of a stove pipe. The top of this flange is about 9 inches from the top of the stove. Through the other end plate and on the hearth or bottom plate is a small aperture three inches by two for the purpose of clearing the flues under the oven and cooling the oven. 4th The top plate is so formed as to fit the side and end plates of the stove with a moulding on the under side around the outer edge projecting three fourths of an inch which binds all the upright plates together. This plate has four apertures of a circular form and nine inches diameter for the reception of boilers or other stove furniture which are covered with cast iron lids, and this plate and the moulding project in four places in an ornamental form for the capitals of the pilasters. 5th The fire plate is a horizontal plate two feet long extending through the stove except the two inch spaces at the ends for the flues and is about equidistant from the bottom & top plates and forms the top of the oven resting on a moulding upon the back plate and also resting on the front plate through

which

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which it projects to form a hearth, and also on the upright end p
of the oven which are two inches from the end plates of the stove an
together with the bottom plate of the oven form the flue which pas
under the oven. This fire plate is 23½ inches long and about 13 in
within the stove and at the distance of from ½ to 2 inches from t
side of the stove or edge of the plate it is sunk one and three fo
inch and projects thro' the front plate fifteen inches, being eig
inches in width where it passes the front plate and forms a circu
sunk hearth with a moulding extending around its outer edge. T
sunk part of the hearth approaches within a half inch of the mould
except at the distance of five inches from the front plate where it
recedes to two inches. A circular groove or shoulder runs around
upper edge of the sunk part 3/8ths of an inch deep in which is fitte
a plate which forms the upper side of the hearth and has a round
inch hole in its centre to admit the air and a moulding one hal
inch high on the top of its inner edge fitted for the purpose of clos
the draught under the door and this plate may be partially o
wholly removed at pleasure for the purpose of creating a draug
or to use a gridiron. The sunk part of the plate within the m
is covered with a fire grate of a rectangular form fitted to cover
6th The oven plate or plate which forms the bottom of the oven is
feet long and is two inches above and parallel with the bottom
leaving a flue underneath it and extends to the side plates an
is within two inches of the end plates joining the end plates of th
oven and is supported by mouldings cast on the side plates.
7th The two end plates of the oven are 10½ inches long and 9 inch
high and rectangular and are placed perpendicularly between
oven plate and fire plate and meet the side plates and are s
tain by mouldings on the side plates near the grooves or pilasters
8th There are two perpendicular plates placed one on ea
end of the fire plate 4 inches high and extending across the width
the stove at the distance of five ½ inches from the end plates
the purpose of throwing the fire upon the boilers and forming th

and protecting them from ashes, each plate having on its upper edge a horizontal grate cast solid on and forming with it a right angle, each of which grates extends towards the end plate in a circular form so as to cover the flues and protect the dampers from coals or fuel and these are held firmly in their places by moulding cast on the side plates for that purpose. 9th. There are two flues or what is called a double flue. One is the long flue and extends over one of the plates last mentioned, passing through the grate and down between the end plate and this grate-plate and till down between the end plate of the stove and that of the oven to the bottom plate, and passes under the oven and up on the other end of the stove between plates like those at the end where it passes down to the aperture where it passes off 8½ inches from the bottom plate. And the other flue passes over the other upright plate and through its grate and down 4½ inches directly to the aperture where it meets the long flue and both are discharged through the same into the pipe or chimney. 10th. There are two dampers formed of flat pieces of cast iron 9 inches by three extending at each end to form pivots and rounded at the corners and beveled on one edge to fit and close the flue and rounded on the pivot edge for turning placed horizontally in the flues and resting on the ends of the fire plate with one pivot of each resting in countersinks in the front plate, and the other passing through the back side plate and made square so as to be turned on the outside with a small crank fitted to them for the purpose of closing either of the flues and regulating the draughts and for partially or wholly turning the fire under the oven or passing it off through the short flue and thus regulating the heat of the oven. The whole stove being bound together by four wrought iron rods passing through perpendicularly with heads in countersunk holes in the top plates and nuts on the rods beneath the bottom plate- the whole stove being of cast iron except the rods and trimmings. The improvements claimed are principally as follows- 1st In the form and construction of the flues & dampers for the purpose

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power of directing and regulating the fire. being so constructed as to
cause a draught of heat from the fire both ways and equalize
turn it one way or the other by simply moving one or both dam
ers so as to apply the heat where it may be needed and turn
under the oven or not or partially as for baking with greater da
ty and better, the heat being by this process distributed equa
if necessary through the whole stove and applied so directly up
the bodies and cooking utensils or oven as to require less fuel
any other differently constructed stove or fire place whatever,
furnish the same facilities - all of which is further described
2d. In the form and construction of the fire hearth which is also
scribed above, comprising an ordinary hearth on the top plate
ordinary use and convenience and a sunk hearth under it wh
and (with the sunk plate within the stove) contain convenie
quantities of coals and ashes for cooking and forms a recepta
for ashes from the burning fuel which is upheld by the grate a
described and by means of this and the draught made to burn fu
and advantageously. This draught being caused and increa
or diminished by means of a hole in the centre of the upper plat
the hearth and the partial or entire removal of this plate
is removed entirely to admit of the use of a griddle or other co
ing utensil. 3d. In the oven and the application of the heat
it & its location. It being so situated that it may have only
gentle heat all around it or a heat on the upper side only
intense heat all around it or otherwise, and which heat m
shut off at once and cool air allowed to pass into the bottom
4th. In the situation of the main flue and flange for conducti
the smoke in such a manner and place as to ensure a draugh
admits of a beneficial use of the two flues and the dampers abo
mentioned. 5th. In the formation and construction of the fram
ular plate which form the flues with the grate attached to
the whole of each being one piece cast solid and forming an enti
section over the flues against the admission of fuel or other th

into the flues or out to the dampers without obstructing the draught as further described above. 6th In the formation of the top plate and location of the four boilers in it so as to receive the heat from the fire on all of them equally. 7th The form and location of the fire grate over the sunk part of the plate within the stove, it being so placed as to admit of burning stone or charcoal and this too immediately under the boilers.

Witnesses
Charles C. Noble
Horace B. Dickinson

Henry William Camps

2639. 4.02]

Drawing

(Patented October 14. 1834)