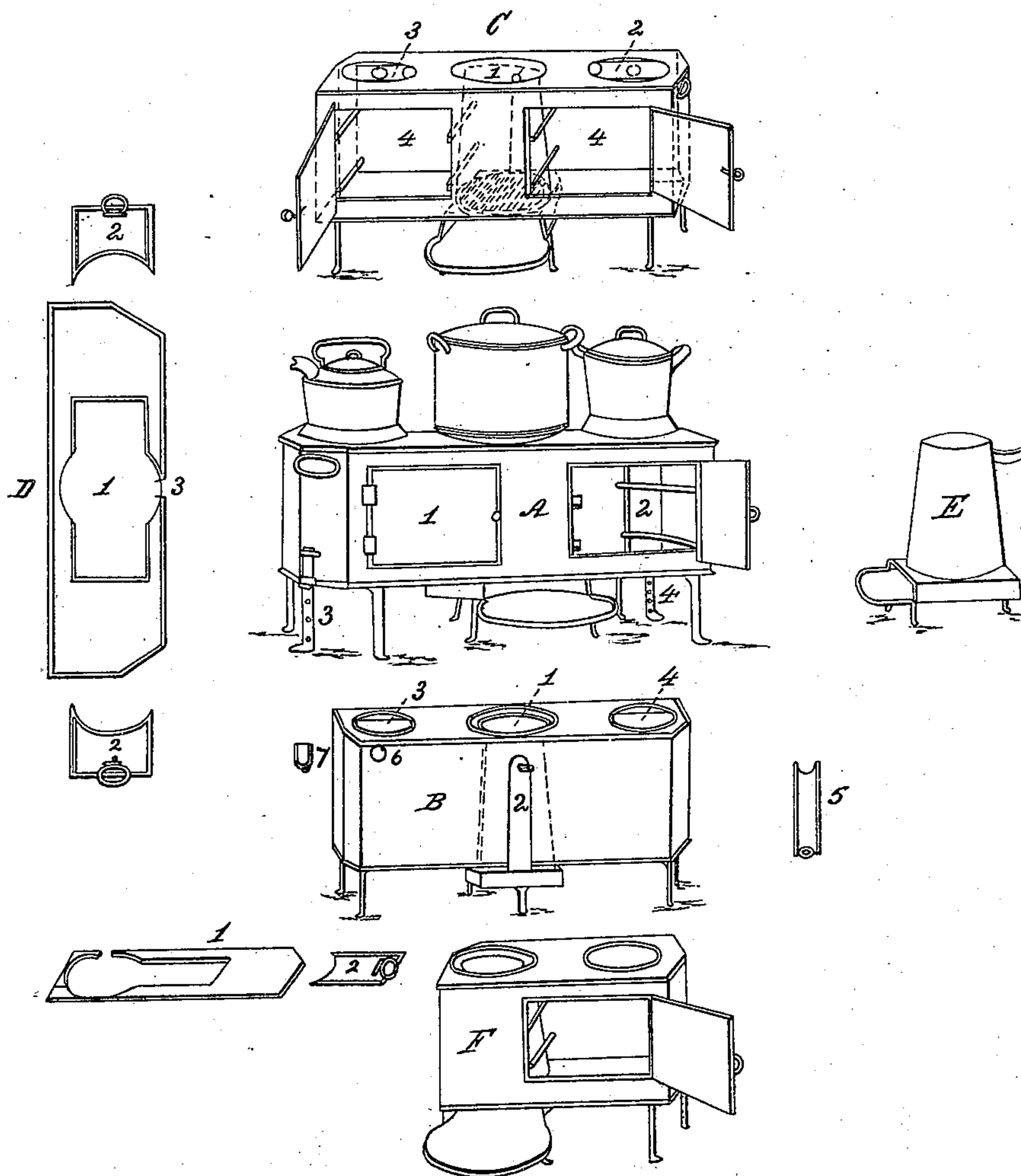


H. GLEASON.  
Cooking Stove.

No. 513.

Patented Dec. 15, 1837.





# UNITED STATES PATENT OFFICE.

HORACE GLEASON, OF BOSTON, MASSACHUSETTS.

## COOKING-FURNACE.

Specification of Letters Patent No. 513, dated December 15, 1837.

*To all whom it may concern:*

Be it known that I, HORACE GLEASON, of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented a new and Improved Cooking-Furnace and Mode of Heating the Same; and I do hereby declare that the following is a full and exact description.

My invention consists in constructing a compact and portable apparatus having all the conveniences for cooking to fit into and be heated by a common cylinder or upright stove to be removed therefrom at pleasure and placed out of the way when not in use while the stove remains to warm the room, affording at a trifling expense all the conveniences of the largest cooking stoves which are now in use with the additional convenience of its being portable and capable of being removed from the stove by which it is heated and carried and used in any room where a cylinder stove is used, thus enabling small families and those who wish to use economy in rent and fuel to cook in their parlors or sitting rooms without the incumbrance of a common cooking stove.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

I have caused to be prepared drawings of said furnace indicating its shape also sections of the same to which for the sake of brevity I will refer.

Figure A represents the furnace with the boilers placed upon it and placed over a cylinder stove. The body of the furnace is made of copper, tin, or sheet iron about two feet in length more or less according to the size of the stove to be used the height and width each about one half of the length. It has two doors opening into the oven one on each side of the cylinder as shown by Nos. 1 and 2.

Figure E represents the cylinder stove over which the furnace is placed.

D represents the floor over the oven inside of the furnace which divides the box or body of the furnace into two posts about three or four inches from the top forming a chamber over the oven into which the boilers set. No. 1 on said Fig. D is an aperture through which the cylinder passes into the chamber the aperture is long and about a foot in length to permit the heat to pass from the oven into the chamber when the oven is not in use. No. 2 are slides or damp-

ers made to close over said apperture and fit close to the cylinder to prevent the heat from escaping from the oven. By these dampers the heat of the oven and the boilers may be regulated at pleasure. No. 3 is an opening for the funnel of the stove upon the back side of the furnace.

Figure B represents the back side of the furnace when placed over the stove. No. 1 is the top of the cylinder which passes up to a level with the top of the furnace 3 and 4 are the openings to admit the boilers. 2 is an opening in the back side of the furnace to admit the funnel when placing the furnace over the stove. No. 5 is a slide to cover said opening and close up around the funnel which prevents the heat from escaping from the oven. No. 6 is a hole for a small funnel to be described hereafter.

There is only one opening in the bottom of the furnace which is that through which the cylinder passes and which is just large enough to permit the furnace to pass over the cylinder and rest upon the platform of the stove, said opening being entirely closed by the top of said platform. *c* is a diagram of said furnace showing both the out and inside and the stove upon which it is placed. There is no division in the oven except that formed by the cylinder. The oven is supplied with griddles as usual in stoves. The heat in the oven with a moderate fire in the cylinder is intense so much so that water will boil therein in a short time when all the doors and dampers are closed. Therefore to moderate the heat of the oven and at the same time increase that under the boilers I have placed at each end of the furnace a gage or standard made of iron of sufficient size to support the furnace for the purpose of raising or lowering the furnace upon the cylinder at pleasure, this gage is represented by No. 3 on Fig. A, it rests upon the floor and passes from thence through staples which are fastened to the furnace, is perforated with holes about half an inch apart and the furnace when raised is held in its place by a pin which passes through these holes under the bottom of the furnace. When the furnace is raised by these gages as standards so that the mouth of the cylinder is but about an inch above the floor of the chamber a greater part of the heat from the cylinder passes off under the furnace and then if the dampers in the oven are drawn from the opening the oven will soon cool to



a moderate temperature. Where the oven is not in use and it is required to increase the heat under the side boilers, the furnace should be raised about an inch upon the cylinder and the dampers in the oven drawn aside in this case the heat from the oven and that from the mouth of the cylinder is discharged into the chamber.

Figure F represents one of these furnaces of a smaller size having only two places for boiling and one door to the oven in this sized furnace the cylinder stove passes up through one end instead of the middle, in other respects it is like the one already described. The floor of the chamber is shown by No. 1 and the slide or damper by No. 2. The ends of the furnace are made sloping half way from the back to the front in order the better to fit into a fireplace and at the same time the better to reflect the heat in the oven. The center hole in the top of the furnace or that up through which the mouth of the cylinder comes is of the size of the outside of the cylinder the others of the size of the inside. The boilers should be made to set into the chamber about two or three inches having a rim or projecting sides to prevent the heat from escaping around them.

Hard coal, soft coal, or wood may be made use of in heating my furnace. One stick of wood of the size and length of a man's arm sawed into blocks three inches long is sufficient to cook an ordinary meal for a large family. The best sized cylinder stove for

this use is one about twelve inches in height and seven inches in diameter. By removing the ordinary funnel from the cylinder stove and closing the opening represented by No. 2 on Fig. B the smoke and heat from the flue of the stove is discharged into the chamber of the furnace and by removing the slide shown by No. 7 from the little funnel hole 6 the smoke passes off that way. By this method the heat under the boilers may be increased.

What I claim as my invention is—

Constructing a cooking furnace or apparatus having an oven, conveniences for boiling and other culinary purposes, the different parts thereof being united and of the shape above described without having attached to it any grate, chimney, or fireplace but having instead thereof a hole made perpendicularly through it to admit a common cylinder or upright stove by which it is to be heated also applying to each end of said furnace a gage to produce the heat thereof at pleasure and making the whole compact and portable so as to be easily removed from the cylinder and placed out of the way when not in use and it is for the invention of these improvements that I am desirous of securing Letters Patent.

HORACE GLEASON.

Witnesses:

JUSTIN FIELD,  
GEORGE H. WHITMAN.