

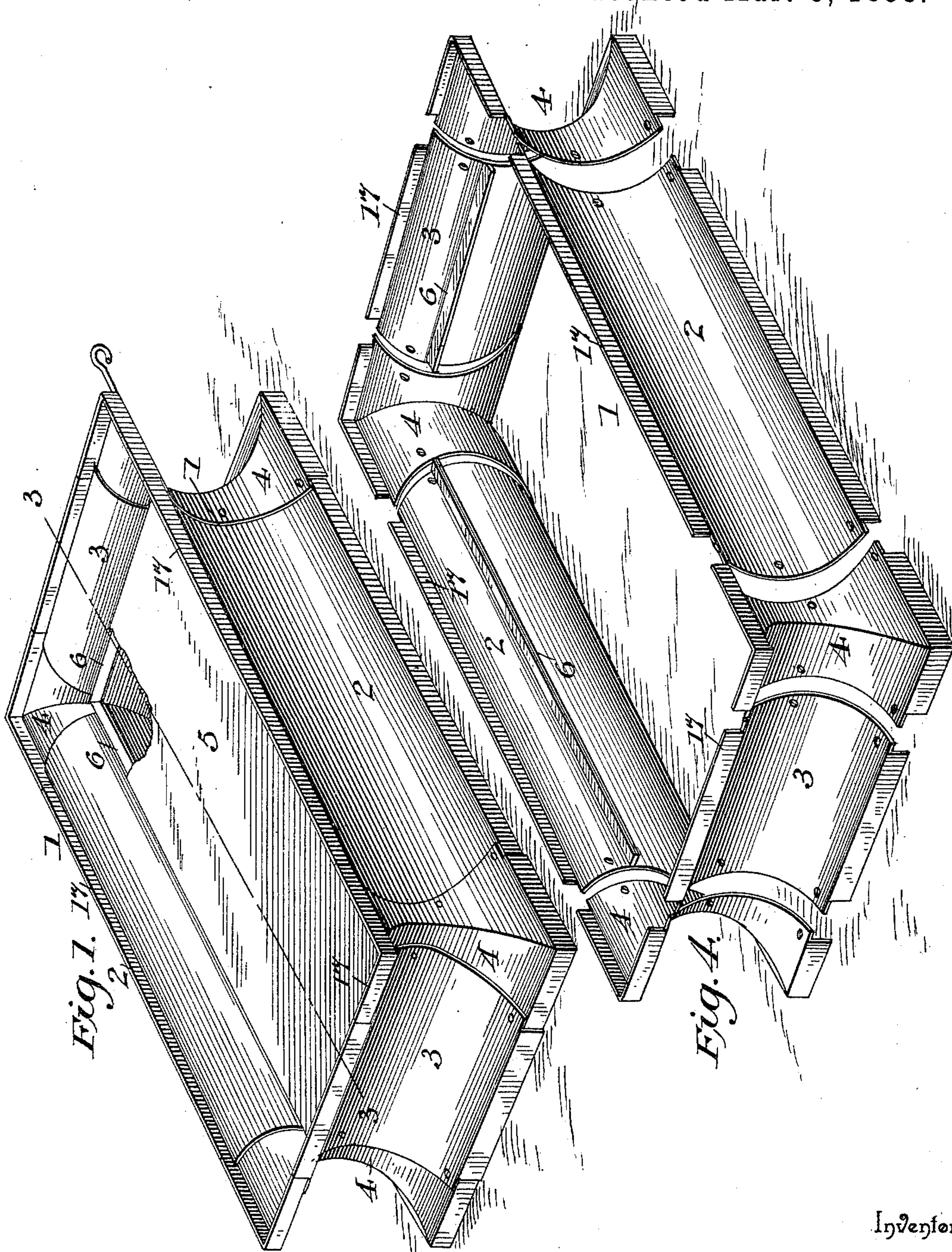
(No Model.)

2 Sheets—Sheet 1.

J. A. HORTON.  
BASE FOR STOVES.

No. 600,247.

Patented Mar. 8, 1898.



Witnesses

Robert C. Crump.

H. J. Beukhof

By his Attorneys,

C. A. Snow & Co.

Inventor

James A. Horton.



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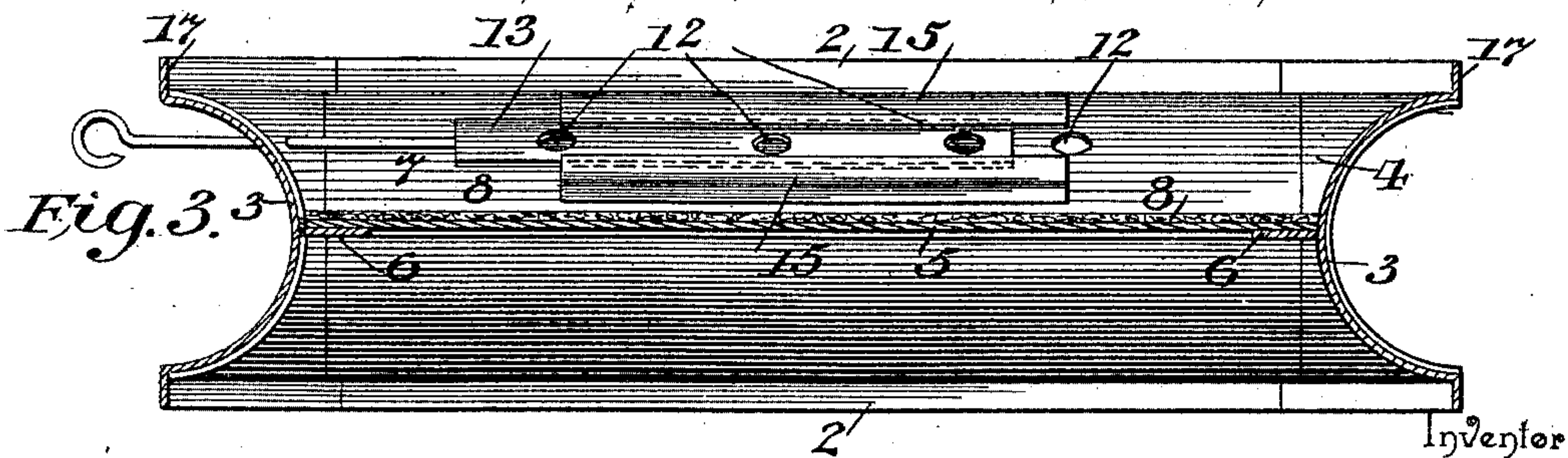
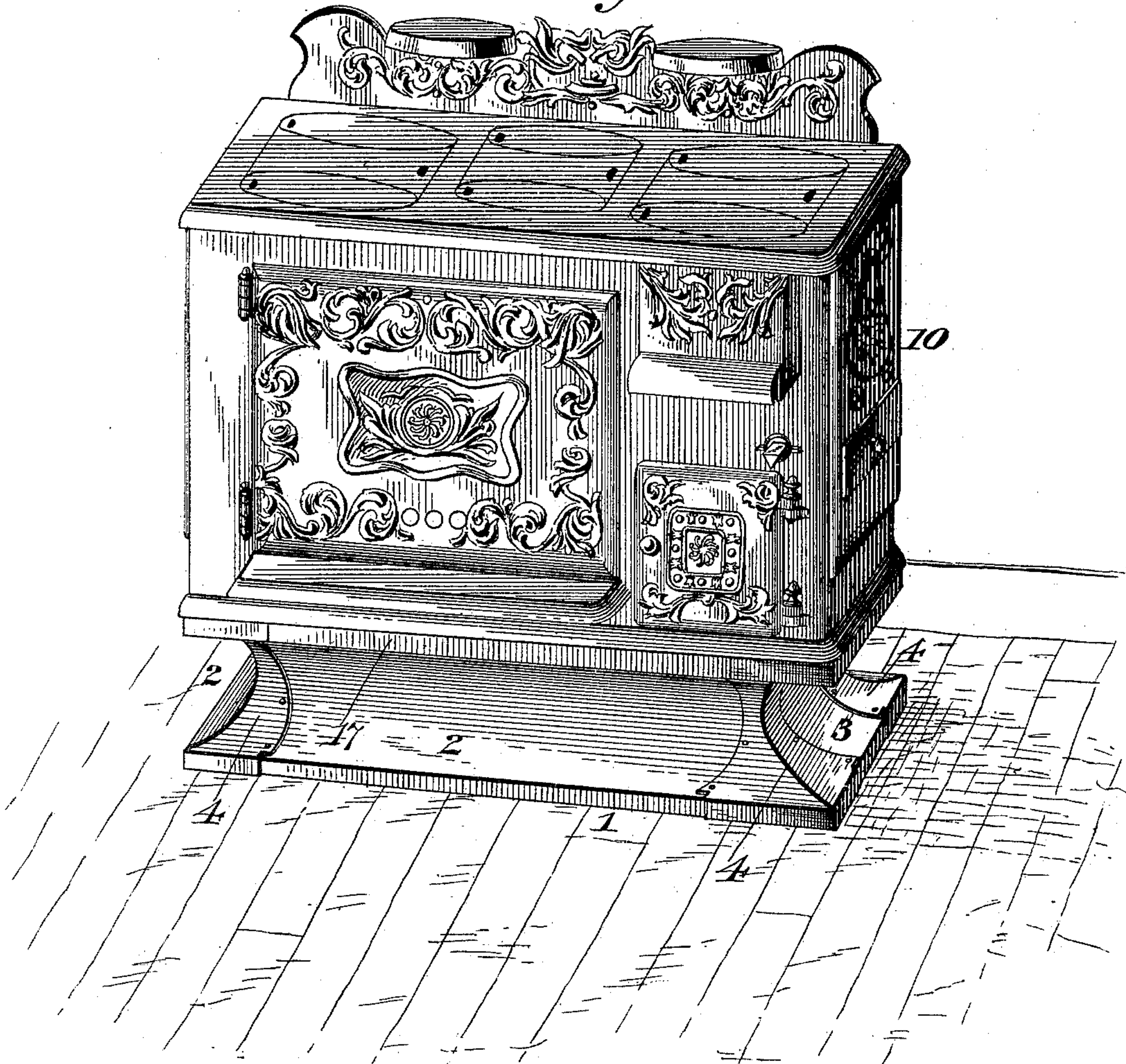
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*Fig. 2.*



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# UNITED STATES PATENT OFFICE.

JAMES A. HORTON, OF NEW CASTLE, PENNSYLVANIA.

## BASE FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 600,247, dated March 8, 1898.

Application filed July 10, 1897. Serial No. 644,081. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES A. HORTON, a citizen of the United States, residing at New Castle, in the county of Lawrence and State of Pennsylvania, have invented a new and useful Base for Stoves, of which the following is a specification.

My invention relates to a radiating-base for cook-stoves and ranges, adapted for service in connection with any kind of a stove or range now in use or supplied by the trade; and the object of the invention is to provide a base of novel and simple construction by which heat from a stove may be deflected or radiated in a downward direction toward and upon the floor of a room or other apartment in which the stove is located.

It is well known that the lowest strata of air in a kitchen or room is the coldest part thereof. Ordinary stoves or ranges make no provision for deflecting the heat toward the floor of a room, and the heating effect of a stove of the ordinary kind is practically lost, so far as heating the lower parts of a room is concerned, at least until all other parts of a room shall have been warmed sufficiently to insure the heat descending to the floor. My invention overcomes this defect in ordinary ranges or cook-stoves, because my base is constructed to receive the heat from the lower part of a stove-body and to deflect and radiate such heat toward and upon the floor of the room.

A further object of the invention is to provide the base with means whereby the floor is protected from the direct heat from the stove-bottom; and a further object is to make the improved base in such a manner that its elements or parts are interchangeable one with the other in order that the members of the base may be packed compactly for shipment or storage and readily assembled together to receive the body of a stove or range.

To the accomplishment of these ends my invention consists in a radiating-base made in sections, as hereinafter described, and readily assembled together to produce a complete structure upon which the body of a stove or range may easily be placed, in the provision of a baffle-plate or barrier within the

base to protect the floor beneath the stove from the radiating effect directly beneath the stove or range, and in the employment of a regulating damper or slide in connection with the ports in such a radiating-base as I have invented to control the flow of hot air from the base into the room.

To enable others to understand my invention, I have illustrated the preferred embodiment thereof in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of my radiating-base independent from a stove or range which may be mounted or placed therein. Fig. 2 is a perspective view showing a stove or range mounted upon the radiating-base of my invention. Fig. 3 is a vertical transverse section on the plane indicated by the dotted line 3 3 of Fig. 1. Fig. 4 is a perspective view of the members or sections of the base detached one from the other.

Like numerals of reference denote corresponding parts in all the figures of the drawings, referring to which—

1 designates the base embodying my invention. This base is constructed of a series of separable members or sections in such a way that the several parts thereof may be interchanged one for the other and to provide for packing them compactly together for shipment or storage. I prefer to make the base in eight sections or members, of which 2 2 designate the sides, 3 3 the ends, and 4 the four corner sections or members. These members or sections of the base are constructed in a peculiar way to cause them to radiate or deflect the heat downward toward the floor, and to this end I make the sections of curved or angular form vertically, so that the top part of the base will overhang the lower edges. I prefer to make each section of concave form, as shown by the drawings; but this particular curvature of the members of the base is not essential, because I am aware that the same effect can be secured by making the sections of the base of angular form in a manner to cause the upper part of the section to hang over the lower part thereof.

The side sections 2 2 and the end sections 3 3 are made, preferably, of lengths substan-



tially straight, except for the transverse curvature or angularity hereinbefore described. The corner-sections 4, however, are made of right-angled form in cross-section in addition to the vertical curvature or angularity to conform to the contour of the side and end sections 2 2 and 3 3.

The members of the base are assembled together by adjusting the sides in parallel relation to each other, placing the ends across the sides, and fitting the corner-pieces 4 to the extremities of said side and end sections. I arrange the several sections to have the edges of the corner-sections 4 lap the edges of adjacent side and end sections, and the parts are united substantially together by rivets or stove-bolts, as will be understood. This assemblage and uniting of the several elements completes the base to receive the stove-body or range 10, which is adapted to be seated or to rest directly upon the base. The base is designed to rest on a floor or other horizontal surface without the intervention of legs or other supporting devices.

A base constructed as herein described presents a structure in which the walls of the base are of concave or angular form in vertical planes, and such a base is especially well adapted to radiate the heat in a downward direction toward the floor of a room. The stove or range being seated directly upon the open base a chamber is provided between the base and stove, into which the heat radiated from the stove-bottom is confined, and as the overhanging upper part of the base is nearest to the stove-body or range the heat will be deflected and radiated downward toward the floor, as contemplated by my invention.

As a means for protecting the floor beneath the stove or range from the radiation of heat from the bottom of such stove or range I have provided the baffle-plate 5, which is arranged within the base. The sections of the base are constructed with ribs or flanges on their inner sides, which, when the sections are assembled together, form the continuous seat-flange 6 on the inside of the base, about midway of the depth thereof. This seat-flange serves to receive and sustain the baffle-plate 5, and the latter is thus held inside of the base beneath the stove or range to form a chamber 7, in which is confined the hot air radiated from the bottom of the stove. This baffle-plate thus forms a barrier to arrest the downward radiation of heat from the stove or range seated upon the base, and as a further means for arresting such radiation I may line the baffle-plate with one or more layers of asbestos, (indicated at 8,) or other heat-resisting medium may be used. If desired, the baffle-plate may be secured in place within the base by rivets or bolts, but as the plate fits snug in the base and rests upon the seat-flange the fastening means may be omitted.

The hot air confined within the chamber 7 between the base and the stove or range

seated thereon may escape through ports 12, which are formed in the upper overhanging walls of the base above the baffle-plate 5. These ports may be provided in one member only of the base—as, for instance, the member at the front of the stove; but it is obvious that the ports may be duplicated in the other side or either end of the base, as desired. The ports 12 may be opened or closed by a regulating-damper, shown in the drawings as consisting of a slide 13, fitted at its edges in suitable ways or guides 15 on the inside of the base, one end of said slide-damper having a rod or handle which extends through the base, so that its projecting end may be readily grasped by hand for adjusting said damper.

The base may be provided at its upper marginal edge with an offstanding vertical flange 17, within which the bottom part of a stove-body or range may be fitted, and the stove or range may be united to the base in any suitable way.

From the foregoing description, taken in connection with the drawings, it will be noted that I have provided a base which rests upon the floor and closes the space between the stove and the floor, so that the housewife is not required to sweep under the stove. At the same time the base is constructed to afford a medium for radiating the waste heat from the bottom of the stove or range in a downward direction upon the floor, and the volume of heat radiated by the base may be easily controlled by adjusting the damper. The floor directly beneath the stove is protected by the baffle-plate from the direct radiation of intense heat from the stove-bottom. The base is made of sections, each simple in construction and arranged to be easily assembled together, all the parts being interchangeable for ready assemblage without difficulty.

The angular and vertically-concaved corner-sections may be reinforced by rods or ornamental pillars, if desired; or said corner-sections may be made of D-shaped form in cross-section. The sections or members of the base may each be cast in a single piece of metal; but I do not limit myself to cast-metal sections, because I am aware that the sections or members may be stamped or pressed from sheet metal, either from iron or steel sheets. As great strength is obtainable from angular metal stamped from sheets of iron or steel and as the sections or members of my base are essentially of angular or curved form, it is obvious that the base can be made to good advantage from sheet metal. By using heavy plate metal great strength and durability can be secured at a low cost in the manufacture of my improved radiating-base for stoves and ranges.

My improved construction of the base overcomes the necessity for employing the bottom floor-plate, which has heretofore always been employed in connection with stoves or



ranges of that class which use a closed base beneath the body of the stove or range proper. In shipping stoves from a factory to the retail merchant it is the practice to assemble together the various parts of the base, including the floor or bed plate, and to crate the parts. In my improvement this bed-plate is dispensed with and the sections or parts of the base may be compactly assembled together, thus conveniently disposing the parts of the base for shipment and storage.

A base constructed in accordance with my improvement has each angular corner-sections of similar form and dimensions at both ends thereof, and the side and end sections are similarly shaped to conform to each other and to the curvature of the corner-sections. This construction is advantageous in that the corner-sections or side and end sections may be used interchangeably—that is to say, the corner-sections may be reversed end for end and be used at any one of the four corners of the base, the side sections may be used on either side of the base, or the end sections at either end of the base. Thus in assembling the base the parts may be quickly and easily fitted and coupled without the exercise of undue care.

In the construction of a stove-base which dispenses with the floor or bed plates it is essential that the base may be made strong enough to sustain the weight of the stove or range body, and when the base is stamped or pressed from sheet metal this is a very important consideration. By making the base with its side, end, and corner sections of concave contour vertically and by making the corner-sections of angular form horizontally the base is given the necessary strength to sustain the weight of the stove or range, and in this connection the angular and concave contour of the corner-sections not only provides for the connection of the side and end sections to give a symmetrical appearance, but they add materially to the strength of the structure.

From the foregoing description, taken in connection with the drawings, it will be seen that I have provided an improved base which is especially well adapted to radiate in a downward direction toward and upon the floor of a room; that it is simple and cheap of construction; that the sections of the base are readily assembled and united together to produce a strong structure; that the construction of the sectional base overcomes the necessity for employing the floor or bed plate, because the sections of the base are very rigid and firm, and that the corner-sections thereof reinforce in a measure the side and end sections and thus contribute to the rigidity and strength of the structure.

It will be understood that I make no claim to the stove or range shown in Fig. 2 as mounted upon the base. The stove or range may be of any usual or preferred construction, be-

cause my base is adapted for use universally in connection with all kinds or styles of stoves. Of course the base will be made in different sizes, according to the stoves or ranges which it may be desired to mount thereon.

I am aware that changes in the form and proportion of parts and in the details of construction herein shown and described as the preferred embodiment of my invention may be made by a skilled mechanic without departing from the spirit or sacrificing the advantages of my invention. I therefore reserve the right to make such modifications and alterations as fairly fall within the scope of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A radiating-base for ranges and stoves consisting of walls of irregular form in vertical section, and a non-conducting diaphragm or plate supported within the base and forming in the upper part thereof a hot-air chamber by which heat is supplied to the downwardly-facing surfaces of said vertically-irregular walls of the base, substantially as described, for the purposes set forth.

2. A radiating-base having its walls of irregular vertical contour and provided within itself with a seat-flange, a baffle-plate fitted to said seat-flange, ports in the walls of said base above the baffle-plate therein, and a regulating-slide, as and for the purposes described.

3. As a new article of manufacture, a radiating-base for stoves having its walls formed with downwardly-facing radiating-surfaces, and a non-conducting partition within said base on the plane of the downwardly-facing surfaces thereof and forming with the base a chamber to receive the heat radiated from the bottom of a stove or range adapted to be seated on said base, substantially as and for the purposes described.

4. A radiating-base for stoves comprising vertically-concave side and end sections and corner-sections of angular form in cross-section and concave in vertical section conforming to the side and end walls, said side and end sections and the corner-sections being assembled together to overlap and unite solidly together forming a complete base, substantially as described.

5. A radiating-base for stoves comprising vertically-concave side and end sections, and corner-sections having their upper and lower ends of corresponding form and dimensions, said corner-sections being angular in cross-section and of concave form in vertical section, whereby the walls and corner-sections may be inverted and used interchangeably in assembling the parts of the base, substantially as described.

6. A radiating-base for stoves or ranges comprising side and end sections, and corner-sections of angular form in cross-section, each



of the sections having a concave contour in  
a vertical plane and the side or end sections  
provided, on their inner faces, with horizontal  
ledges or lugs arranged to sustain a baffle-  
5 plate horizontally within the base, substan-  
tially as described.

In testimony that I claim the foregoing as

my own I have hereto affixed my signature in  
the presence of two witnesses.

JAMES A. HORTON.

Witnesses:

I. W. WORRELL,  
EDWIN WILSON.