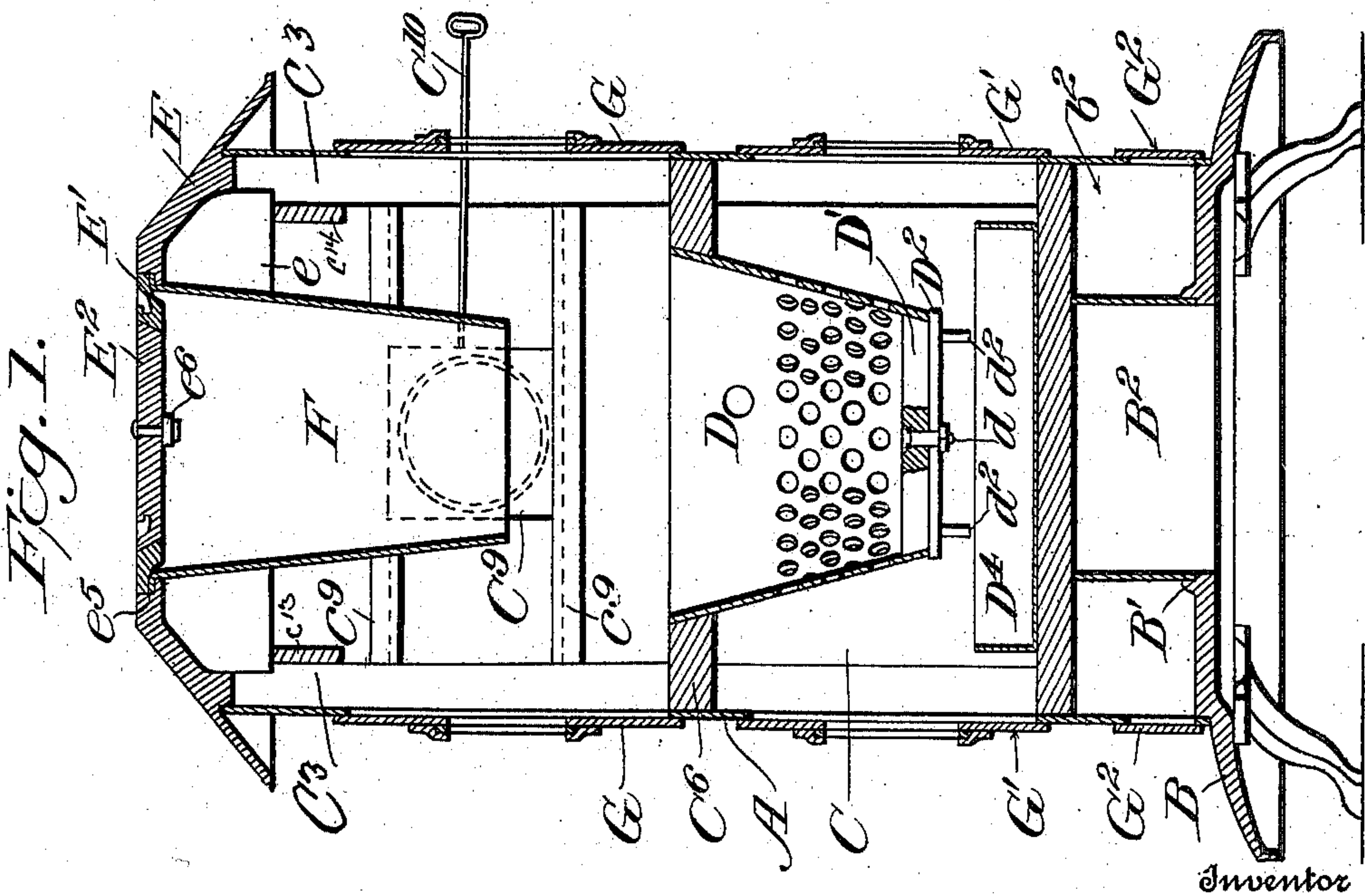
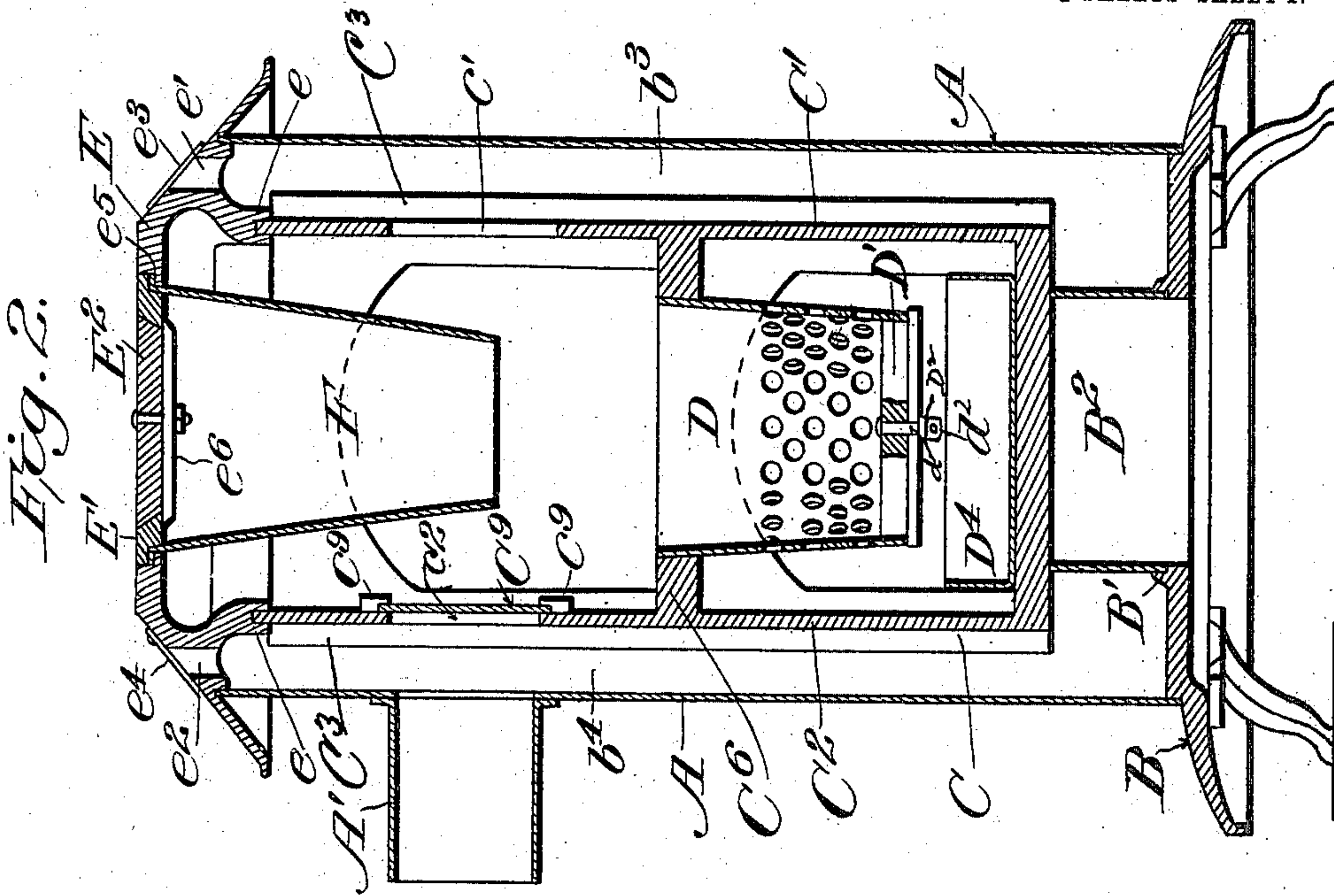


W. T. EASTES.
 BASE BURNING HEATING STOVE.
 APPLICATION FILED AUG. 6, 1910.

984,200.

Patented Feb. 14, 1911.

2 SHEETS—SHEET 1.



Inventor

Witnesses

C. H. Walker
Albert Hopkins

By

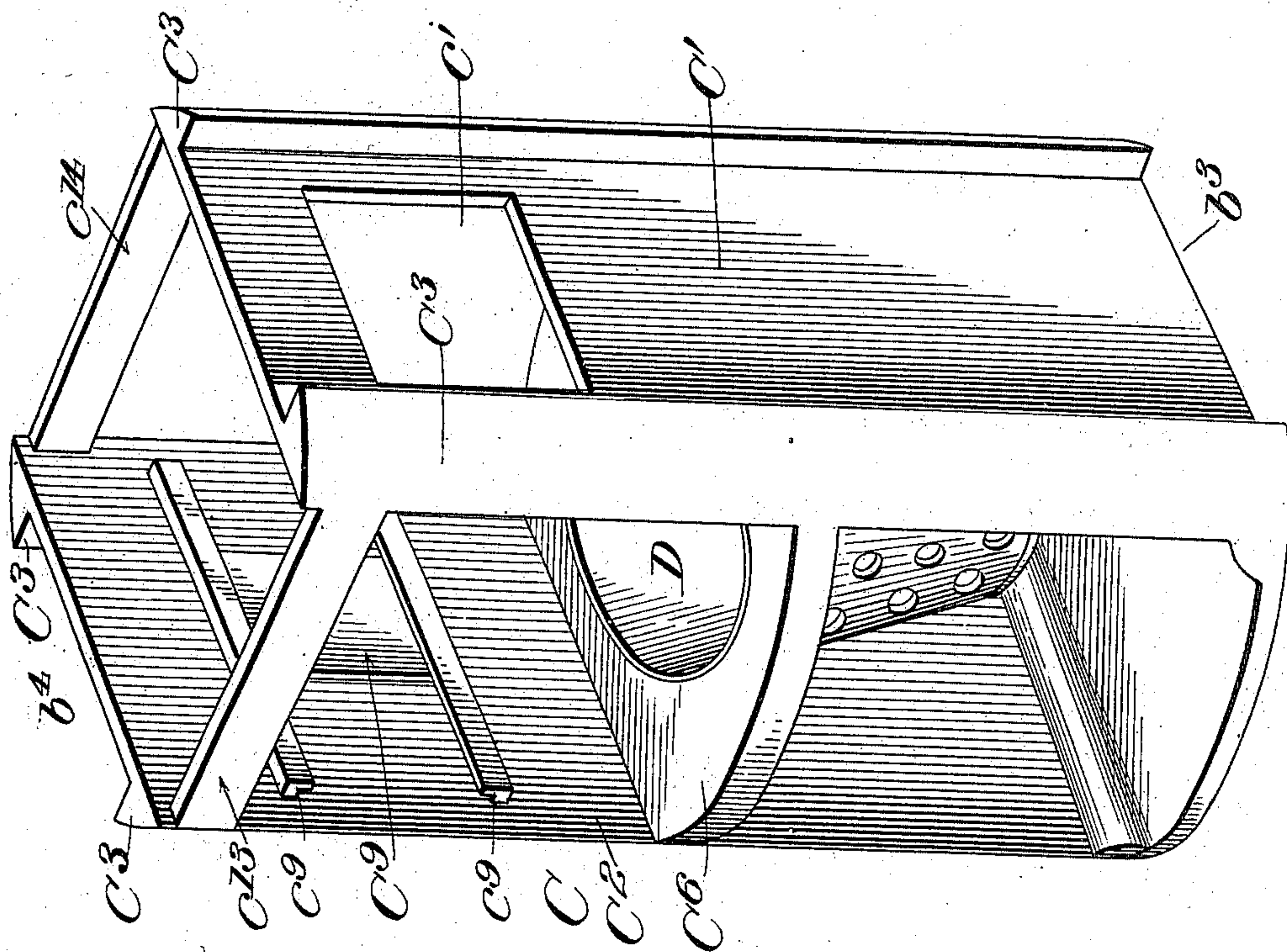
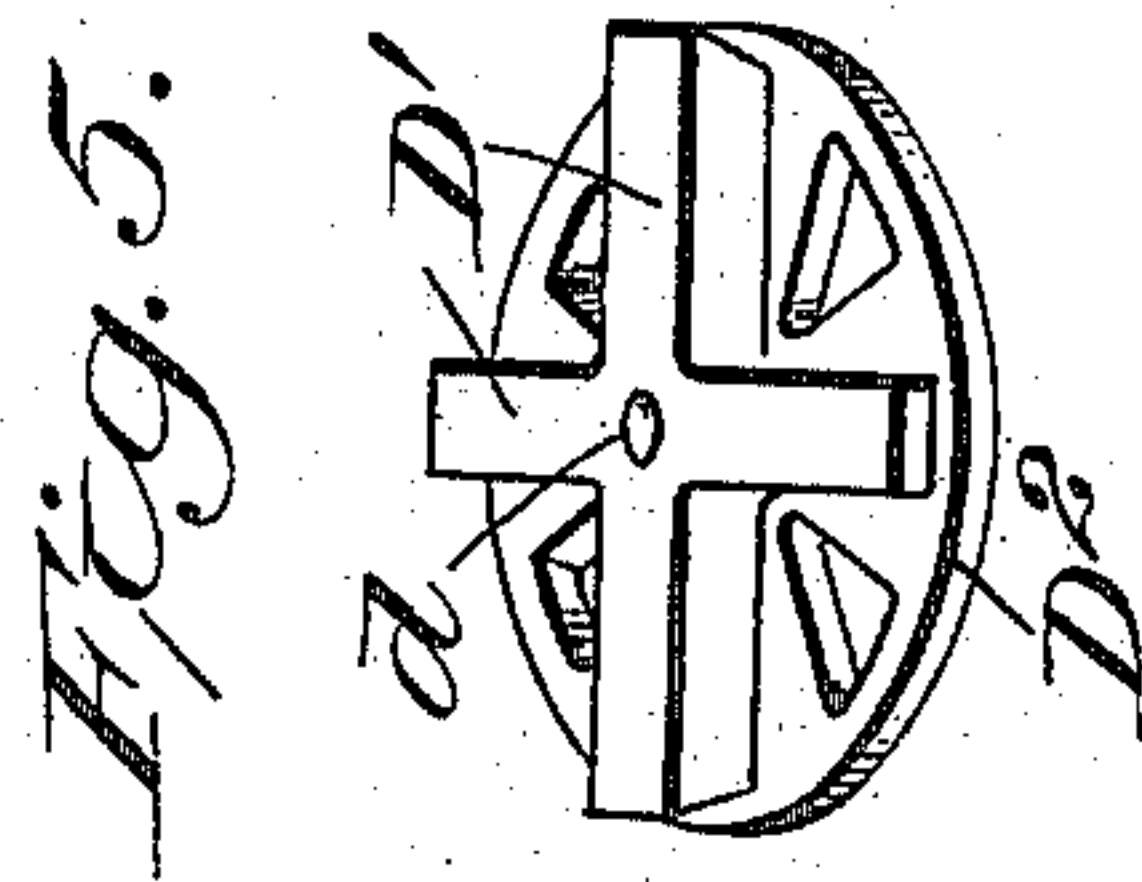
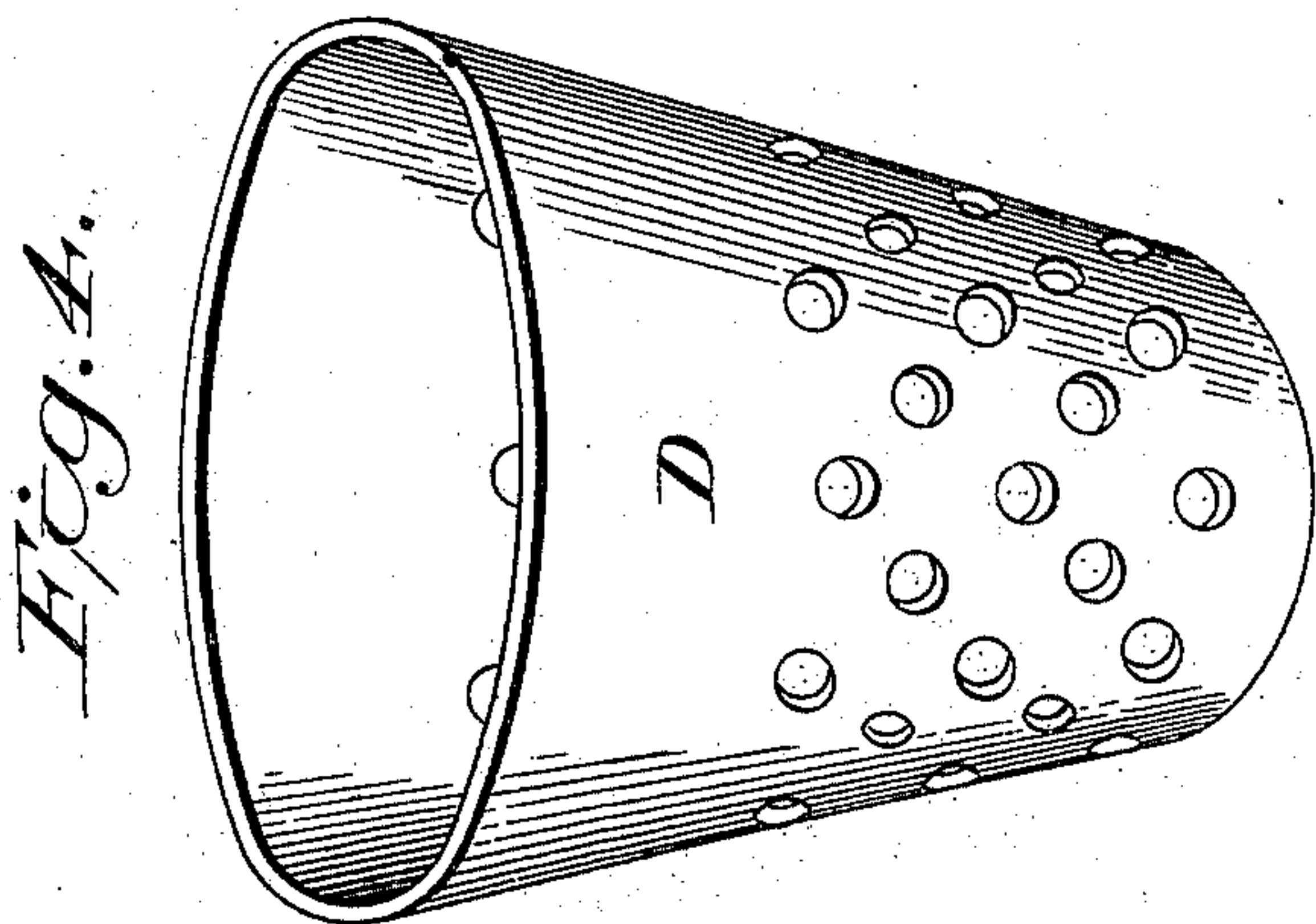
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George E. Evans
 Attorney

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2 SHEETS—SHEET 2.



Witnesses

C. Walker.
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Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM T. EASTES, OF GASTON, INDIANA.

BASE-BURNING HEATING-STOVE.

984,200.

Specification of Letters Patent.

Patented Feb. 14, 1911.

Application filed August 6, 1910. Serial No. 576,016.

To all whom it may concern:

Be it known that I, WILLIAM T. EASTES, a citizen of the United States, residing at Gaston, in the county of Delaware and State of Indiana, have invented certain new and useful Improvements in Base-Burning Heating-Stoves, of which the following is a specification.

My invention relates to base-burning heating-stoves.

The objects of the invention are to provide a base burning heating stove adapted for burning soft, or hard coal or wood; to provide a stove in which the products of combustion are caused to travel from above the fire pot down along the front of the stove around a cold air dome in the base, and thence up along the back to the smoke outlet, to provide a stove in which upon removing the top a framework forming the flues, fire pot support and ash chamber may be removed as a whole; to provide the base under the ash pit with a central cold air dome or cylinder open at its bottom and closed at its top by the bottom of the ash pit, thus forming in connection with the surrounding casing an annular flue connecting the front and rear flues formed between the vertical front and rear sides of the frame and the said casing; to provide a removable magazine for use with hard coal but which may be removed when soft coal or wood are to be used; to provide a foraminated elliptical fire pot with its ends next to two doors so that the burning fuel may be readily stoked through the openings from either side; to provide such a stove which shall be simple in construction, easy to assemble and repair, inexpensive to manufacture and durable. These objects I accomplish by the construction shown in the accompanying drawings, in which—

Figure 1 is a central vertical sectional view through a stove provided with my improvements; Fig. 2 is a similar view in a plane at right angles to Fig. 1; Fig. 3 is a perspective of the removable frame; Fig. 4 is a perspective of the fire pot; Fig. 5 is a like view of the grate supporting bar and grate.

A, designates the cylindrical metal casing preferably of sheet metal and open at both ends.

B, is the base provided with a circular, centrally apertured raised portion B', closely fitting the lower open end of the casing and

provided above at its apertured portion with an open ended sleeve or collar B² forming a cold air dome around which an annular space or flue b² is provided within the lower end of the casing.

C, is a removable frame, the parts of which may be separately formed and secured together or they may be formed as a single casting. This frame C comprises two parallel vertical side walls C' C², corner posts C³, rounded to snugly fit the interior of the casing, a horizontal middle partition C⁶ having an elliptical opening and forming a rest or support for an elliptical fire pot D. The bottom of the frame C, forms the floor of the ash pit, closes the top of the cold air dome B² and also closes the top of the annular base flue b² at the opposite sides of the casing. Between the vertical sides C' C² of the frame C, and the front and rear sides of the casing A, are spaces reaching from the top of the casing to the bottom and forming flues b³, b⁴, which open at their lower ends into the annular base flue b². The front wall or side C', of the frame C, is provided above the fire pot with a down-draft opening c' leading into the flue b³ while the wall C² is provided directly opposite the opening c' with a direct draft opening c². This opening c² is opposite the smoke outlet A' in the rear side of the upper portion of the casing A and is provided with a damper C⁹, sliding in ways c⁹, c⁹, and having an operating rod c¹⁰, extending through the casing A. The upper ends of the side walls C', C², are connected by cross-pieces c¹³ c¹⁴.

The top E, of the stove is circular and fits within and closes the top of the casing A and has on its lower sides parallel ribs e, which receive the upper ends of the walls or partitions C' C² and this top closes the upper ends of the flues b³ b⁴. At its front and rear the top E, is provided with openings e' e² communicating with the upper ends of the flues b³, b⁴, and closed by suitable closures e³, e⁴, mounted on the upper side of the top.

Centrally of the top is a rabbeted elliptical opening e⁵, adapted to removably receive the elliptical, tapered magazine F, having a flange around its upper end to seat in the said opening. The opening e⁵ is closed by an elliptical lid E', having a central opening closed by a smaller lid E² having a cross-bar e⁶ pivoted to its under side and engaging with its ends the under

side of the main lid E'. The lid E' closes the top of the stove and also the upper end of the magazine when it is used.

Both sides of the frame C, at right angles to the walls C' C² are open and both sides of the casing A, above and below the fire pot rest C⁶ are provided with doors G, G', having draft slides; the upper doors G, open into the combustion chamber above the fire pot while the lower doors G', open into the ash pit. Below the doors G' are small doors G², through which the base flue b² may be cleaned. The vertical flues b³ b⁴, may be cleaned through the top openings e' e².

The fire pot D, is elliptical in cross-section and tapers from top to its circular lower end. It is removable from the rest or support C⁶. Within the lower end of the fire pot are removably secured two heavy iron bars D', which cross each other and serve to protect the shaking grate D² from injury by heavy lumps of coal. This grate D² is pivoted centrally to the middle portions of the bars D' by a bolt d, and its lower side has two apertured lugs d² d² into which the end of a poker, may be inserted for shaking the grate. The fire pot D, is a casting provided with a large number of openings through which a poker may be inserted from either side of the stove for stirring the fire, &c. The shape of the fire pot permits of the ready removal of clinkers, &c.

Any suitable ash pan D⁴ may be placed in the ash pit and it may be removed through either door G'. The draft slides in the doors G, G', operate in the usual manner.

The operation is as follows: Upon starting the fire the direct draft damper C⁹ is opened so that the products of combustion pass directly to the smoke outlet. After the fire is properly started this damper C⁹ will be closed and the draft will then be through the front opening e' down through flue b³, around the base flue b², thence up through flue b⁴, to the smoke outlet. The cold air dome B², affords considerable radiating surface at the base of the stove and also protects the floor of the room from receiving an injurious amount of heat. By my construction the front of the stove is highly heated before the heated products of combustion pass to the back of the stove to heat it and the greatest amount of surface is heated.

The parts are readily assembled, the body or casing A, being first secured to the base B, then the frame C, is let down into the casing to divide it into its several parts of combustion chamber, fire pot rest, ash pit, down-draft flues, &c. After this the top is secured in place and the stove is ready for use. If hard coal is to be used the magazine will be inserted or it will be left out

where other fuel is to be employed. The fuel used may, therefore, be changed at any time without otherwise changing the stove.

The construction illustrated may be varied without departing from the scope of my invention.

What I claim is:—

1. A base burning heating stove comprising an outer casing or body having a smoke outlet, a base and a top therefor, and a substantially rectangular frame within and separate from the body with its four corners contacting with the interior of the body and having a bottom piece spaced from the base to form a base flue and forming the ash pit bottom, parallel vertical front and rear walls spaced from the interior of the body or casing to form vertical flues opening at their lower ends into the base flue the other two sides of the frame being open, a middle partition forming a fire pot rest, a fire pot supported thereby; a down-draft opening being formed in the front vertical wall above the fire pot rest, and a dampered direct draft opening in the rear vertical wall to communicate with the smoke outlet of the casing said casing having upper and lower doors registering with the open sides of the frame.

2. A base burning heating stove comprising a cylindrical body or outer casing having a smoke outlet, a base and a top therefor, and a separate substantially rectangular frame within the body with its four corners contacting with the interior thereof; the frame having open sides and front and rear vertical walls forming between them and the front and rear of the body two vertical flues, a bottom partition spaced above the base and forming a base flue into which said vertical flues open and also forming the bottom of the ash pit, a middle apertured partition forming a fire pot rest, and a fire pot supported therein the edges of the partitions at the open sides of the frame being rounded to fit the curvature of the casing; the front vertical wall, above the fire pot, having a down-draft opening and the rear vertical wall having a dampered direct draft opening to communicate with the smoke outlet of the casing said casing having upper and lower doors registering with the open sides of the frame.

3. A base burning heating stove comprising a base having a central opening, a tube or sleeve extending up from the opening and forming a cold air dome and an annular base flue, a cylindrical casing or body mounted on the base and having a top and a smoke outlet, a separate rectangular frame within the casing or body provided with a bottom partition closing the top of said cold air dome and forming the top of the base flue and the bottom of the ash pit, vertical front and rear walls forming vertical flues

leading down into the base flue, and a middle partition forming a fire pot rest; the front wall of the frame having a down-draft opening above said middle partition, and the rear wall of the frame having a dampered direct draft opening to communicate with the smoke outlet.

4. A base burning heating stove comprising an outer cylindrical casing having a smoke outlet, a base therefor, a top, a substantially rectangular frame within the casing having front and rear walls spaced from the casing to form vertical flues, rounded corner posts at the four corners of the frame and snugly fitting the interior of the casing, a bottom partition spaced above the base to form the top of a base flue into which said vertical flues open and also forming the bottom of the ash pit, and a middle partition forming the fire pot rest; the upper part of the front vertical wall of the frame having a down-draft opening, and the like part of the rear vertical wall having a dampered direct draft opening to communicate with the smoke outlet.

5. A base burning heating stove comprising, a casing having a smoke outlet, a base, a top, and a frame fitting within and removable through the upper end of the casing and having a bottom partition spaced from the base to form the base flue, vertical front and rear walls spaced from the interior of the case to form the vertical flues communicating at their lower ends with the base flue, and a middle partition forming a fire pot rest the sides of the frame being open above and below the middle partition; a down-draft opening being formed in the front wall above the fire pot rest and a dampered direct draft opening being provided in the vertical rear wall above the fire pot rest the said casing having upper and lower doors registering with the open sides of the frame.

6. A base burning heating stove comprising, a base having a smoke outlet, a cylindrical casing or body thereon, a top having a central covered opening and front and rear covered openings, and a substantially rectangular frame within the casing and having vertical front and rear walls forming vertical flues into which the front and rear cover openings lead, a bottom partition spaced above the base to form the base flue communicating with the lower end of said vertical flues, and a middle partition having a fire pot opening; the front vertical wall having a down-draft opening above the middle partition and the rear vertical wall having a dampered direct draft opening.

7. A base burning heating stove comprising, a base, a cylindrical body or casing thereon having a smoke outlet, a top having

a central covered opening provided with a depending removable magazine, and a substantially rectangular vertical frame within the body or casing open at its sides and provided with vertical front and rear walls forming the vertical flues, a middle partition having a fire pot opening and a bottom partition spaced from the base to form the base flue; a down draft opening being formed in the front wall above the middle partition and a dampered direct draft opening in the rear vertical wall above said middle partition said casing having upper and lower doors registering with the open sides of the frame.

8. In a base burning heating stove a substantially rectangular vertical frame open at its sides, having vertical front and rear walls, corner posts at the four corners of the frame, a bottom partition and a middle partition apertured to receive a fire pot; and openings being formed in said two walls above the middle partition for the purpose set forth.

9. A base burning heating stove comprising, a base having a smoke outlet, a cylindrical body or casing, a top, and a substantially rectangular frame within the casing and provided with a bottom partition spaced from the base to form the base flue, vertical front and rear walls forming the vertical flues opening into the base flue, a middle portion having a depending fire pot, dampered doors in both sides of the casing above and below the fire pot; the vertical front wall of the frame having a down-draft opening and the vertical rear wall having a dampered direct draft opening.

10. A base burning heating stove comprising a casing, a base, a top, an open oblong frame fitting within the casing and having a bottom partition spaced from the base to form a base flue, vertical front and rear walls or sides spaced from the interior of the casing to form vertical front and rear flues communicating with the base flue; the rear flue having a smoke outlet, a middle partition having an elliptical opening, an elliptical fire pot supported at its upper end in said opening and having a grate support in its lower cylindrical end and a grate pivoted centrally to said support; a down draft opening being formed in said front wall above the fire pot rest and a dampered direct draft opening being provided in the vertical rear wall above the fire pot rest; said casing having opposite doors above and below the middle partition.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM T. EASTES.

Witnesses:

LEWIS PAYTON,

WILLIAM B. DAVIS.