

(No Model.)

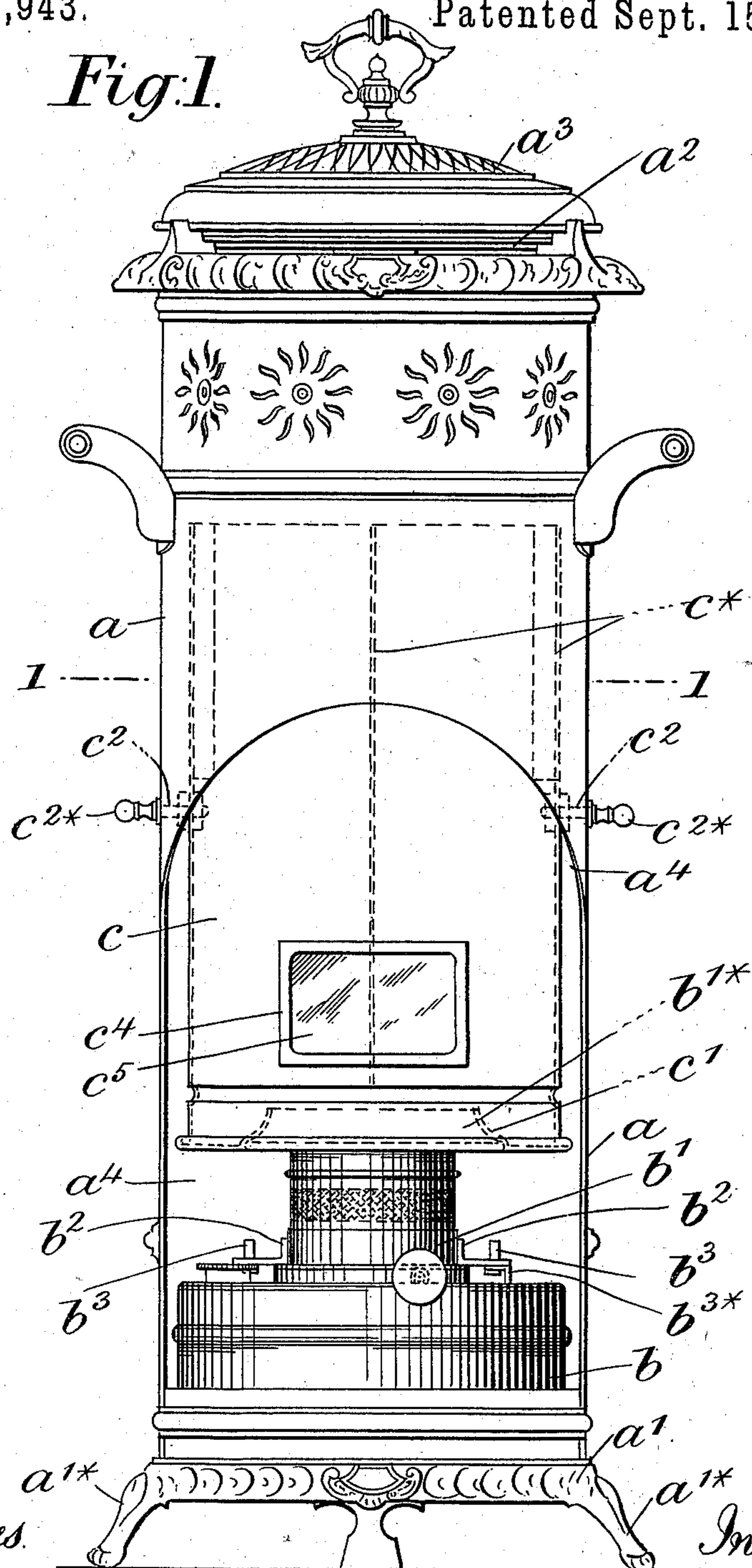
5 Sheets—Sheet 1.

J. HIRSCHHORN.
LAMP STOVE.

No. 567,943.

Patented Sept. 15, 1896.

Fig. 1.



Witnesses.

Walter E. Allen.
Edward Q. Knight.

Inventor.

Jacob Hirschhorn.
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Attorneys.

(No Model.)

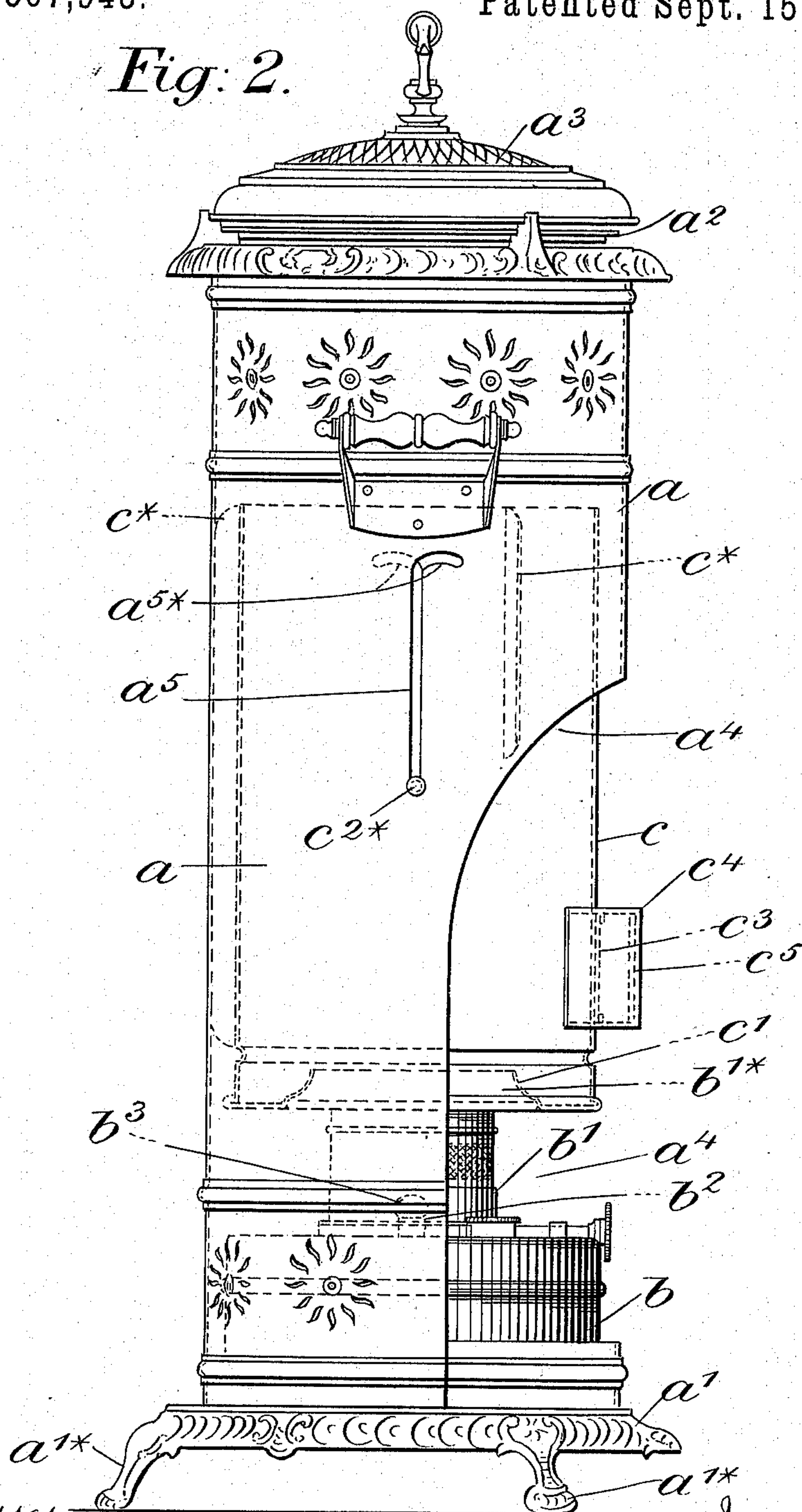
5 Sheets—Sheet 2.

J. HIRSCHHORN.
LAMP STOVE.

No. 567,943.

Patented Sept. 15, 1896.

Fig. 2.



Witnesses.

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(No Model.)

5 Sheets—Sheet 3.

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LAMP STOVE.

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Fig: 3.

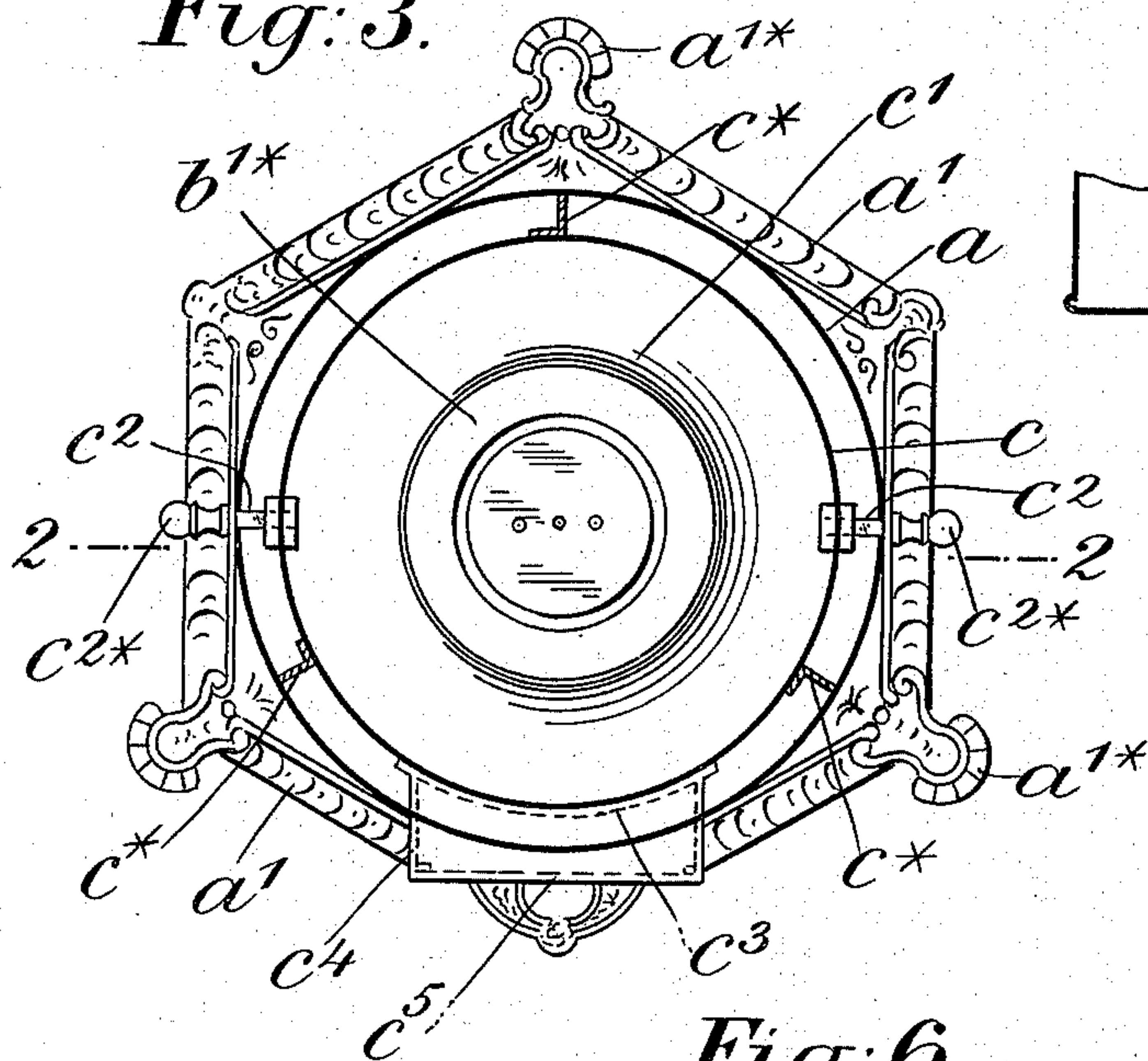


Fig: 5.

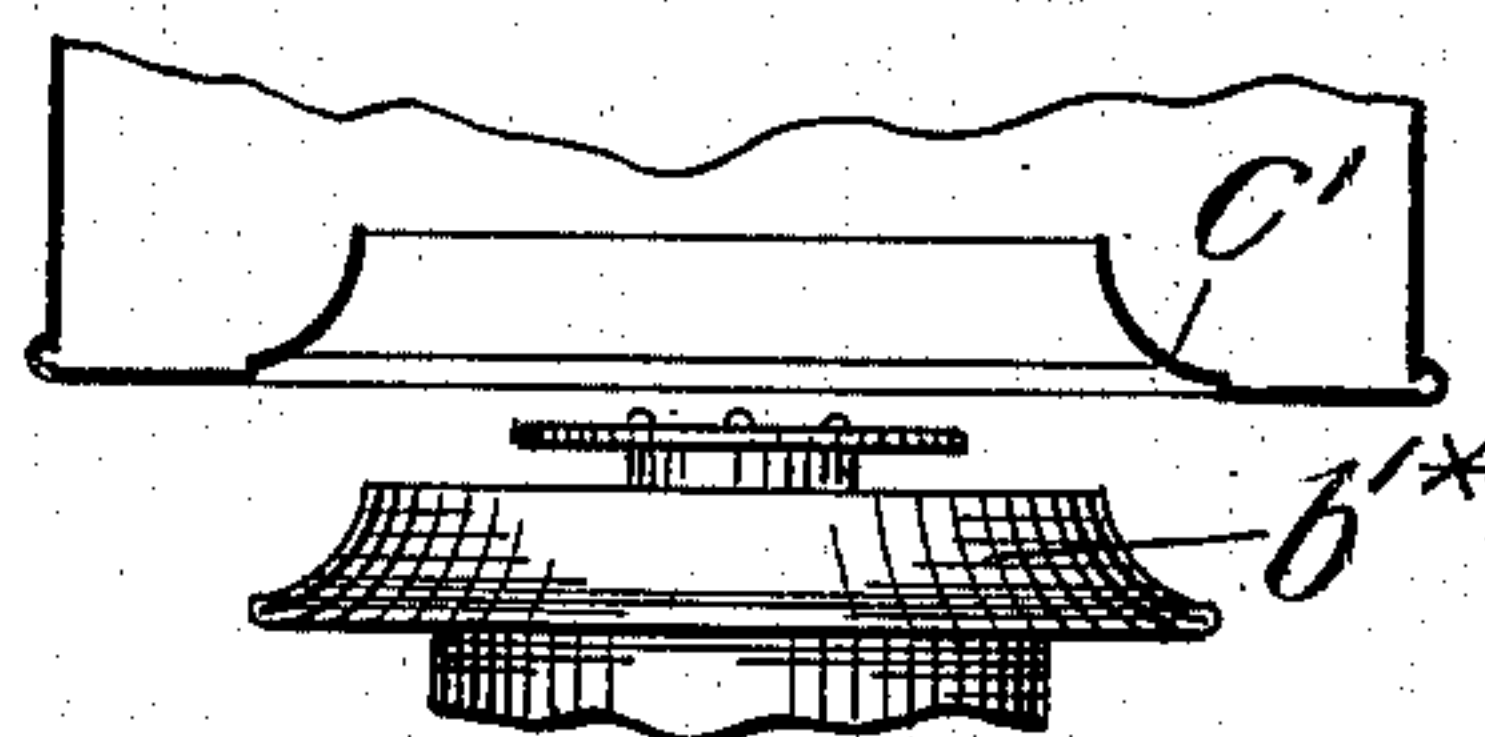


Fig: 6.

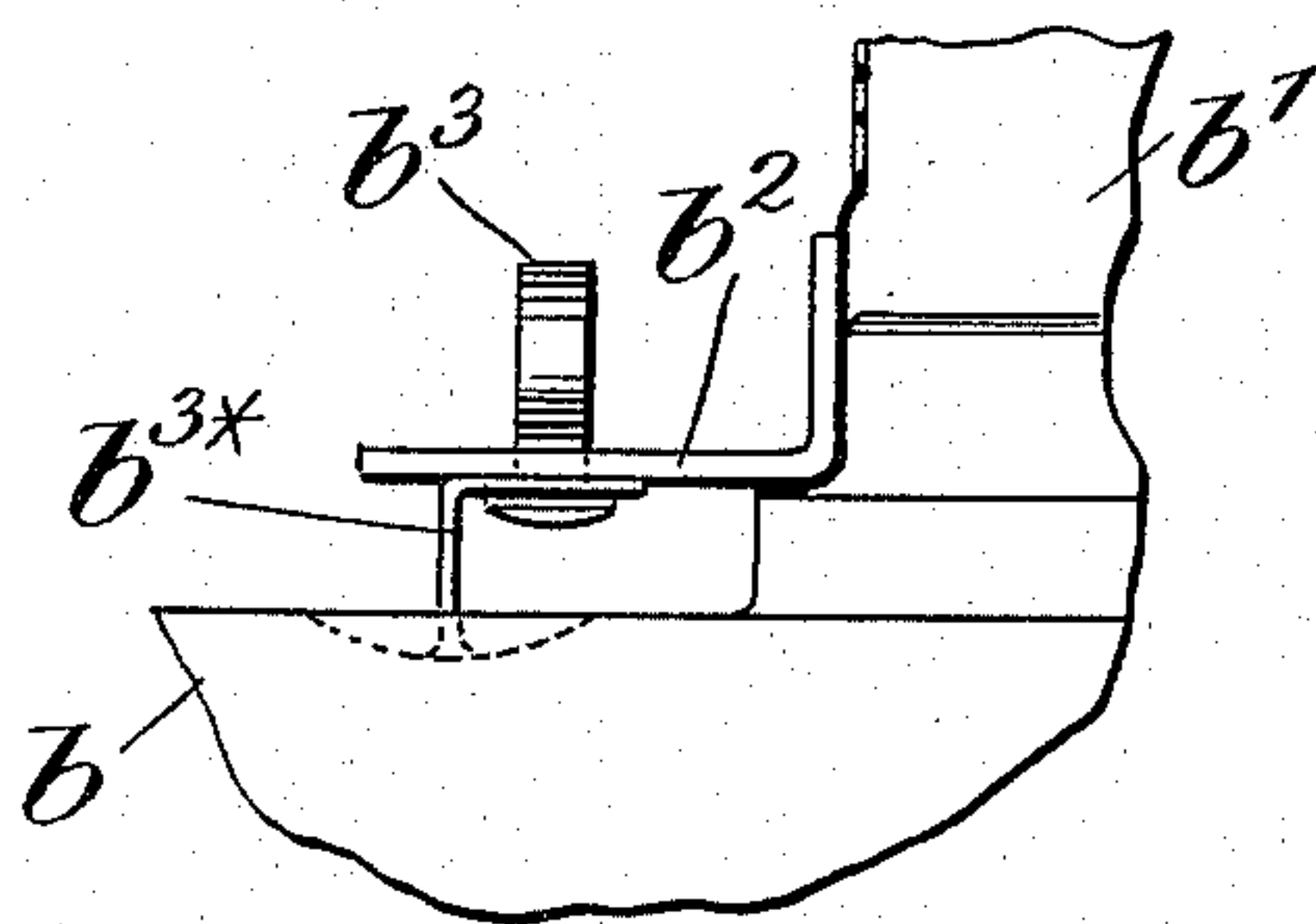


Fig: 7.

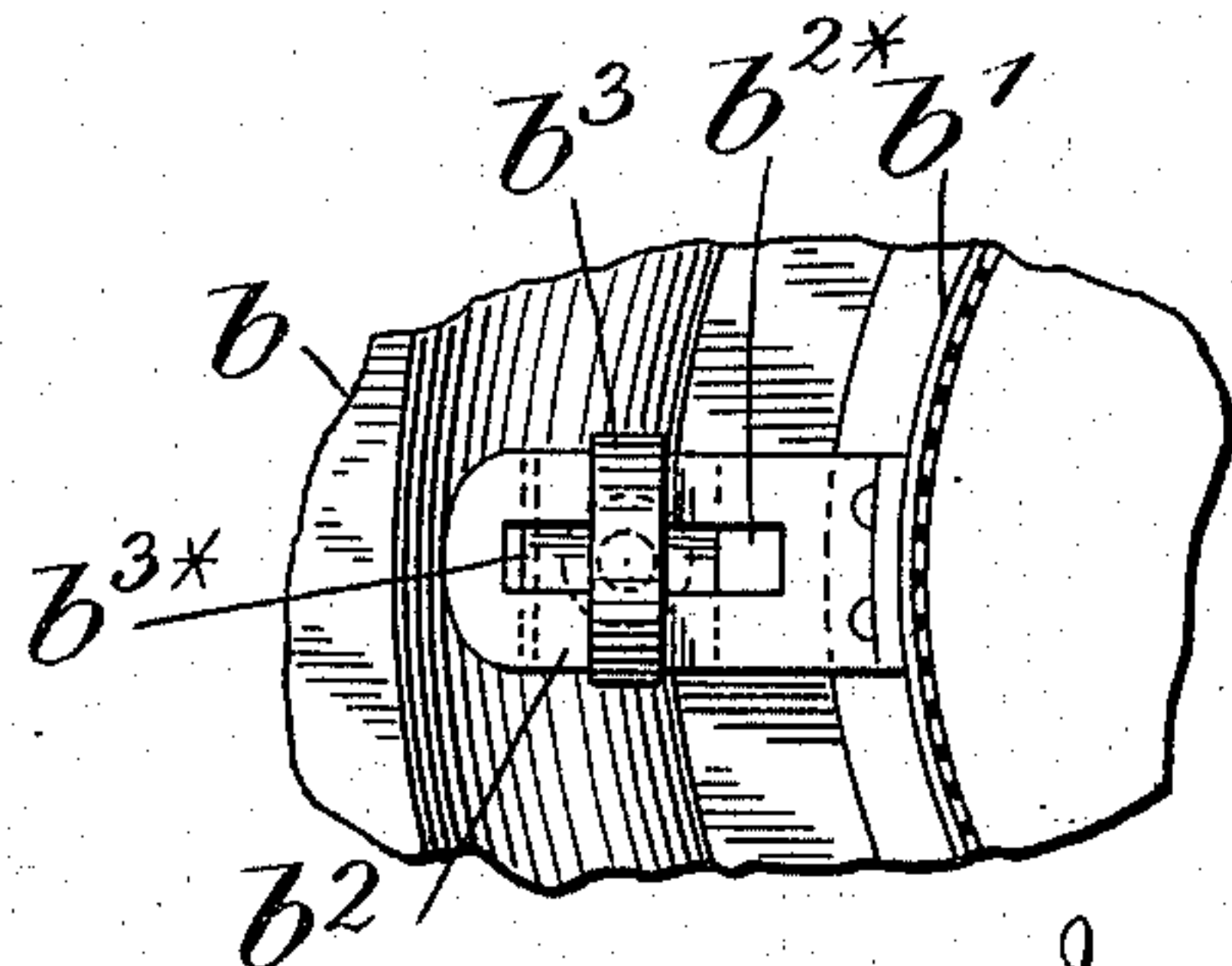
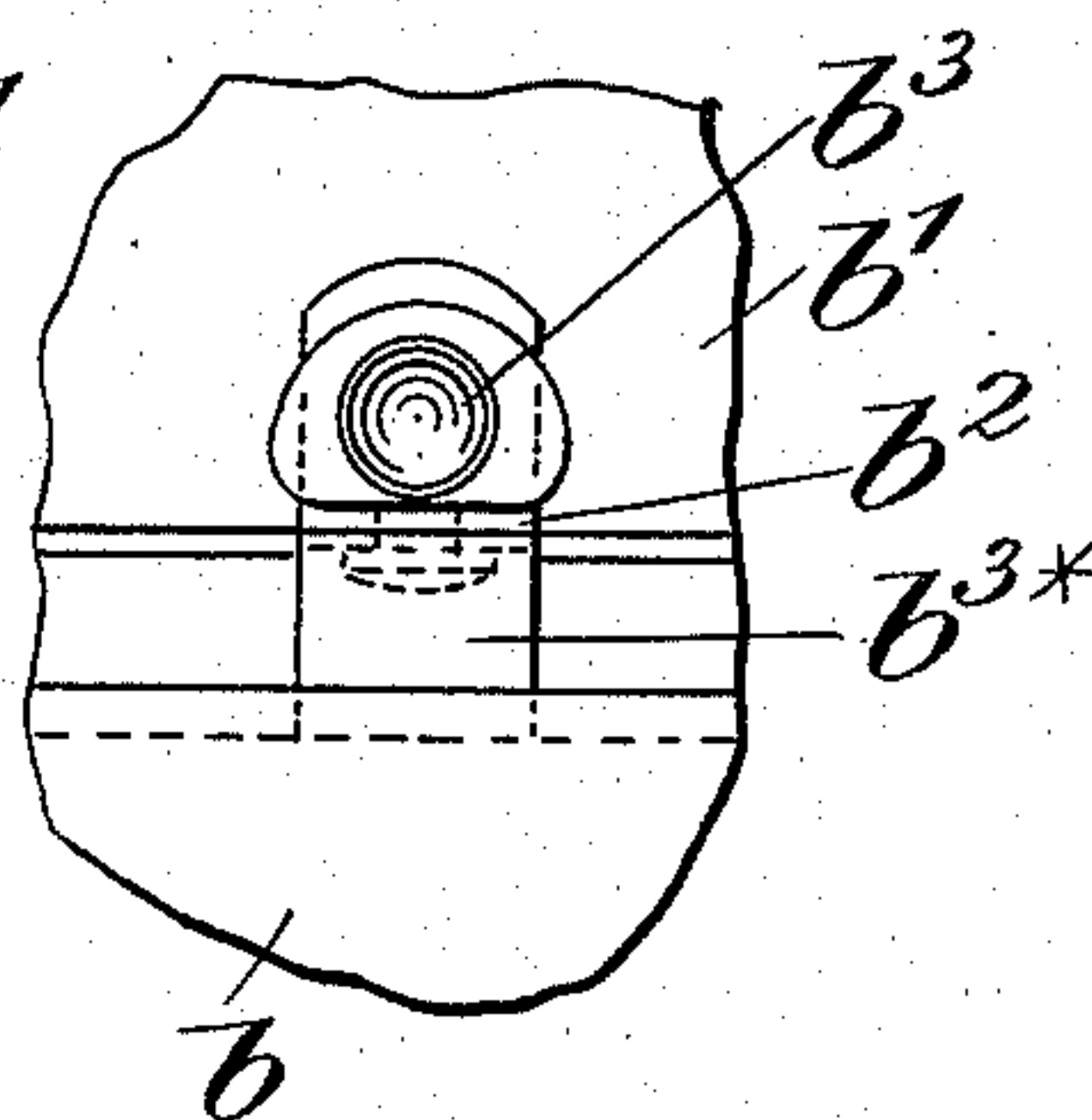


Fig: 8.

Witnesses.

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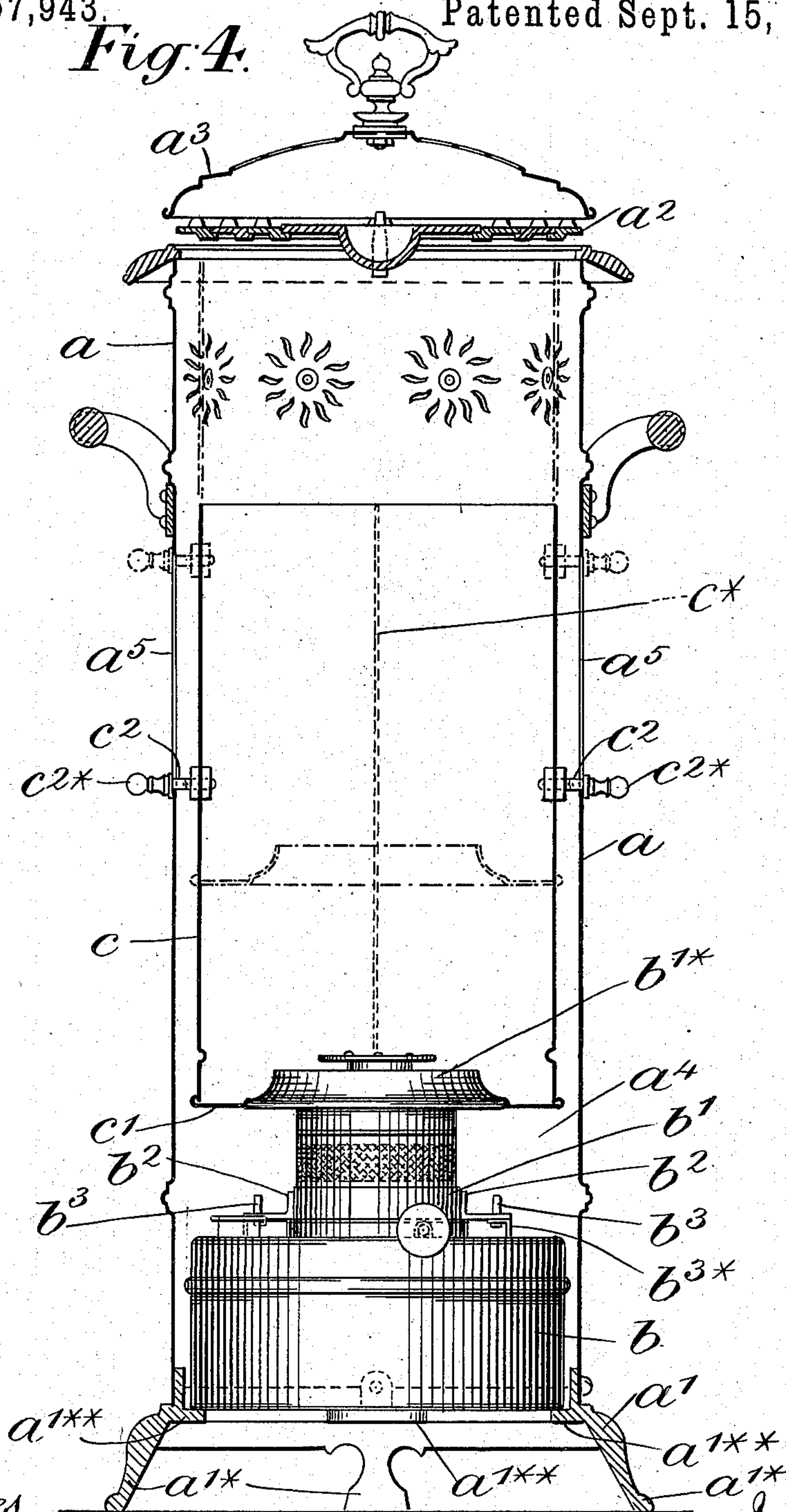
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Fig. 4.



Witnesses.

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Fig: 9.

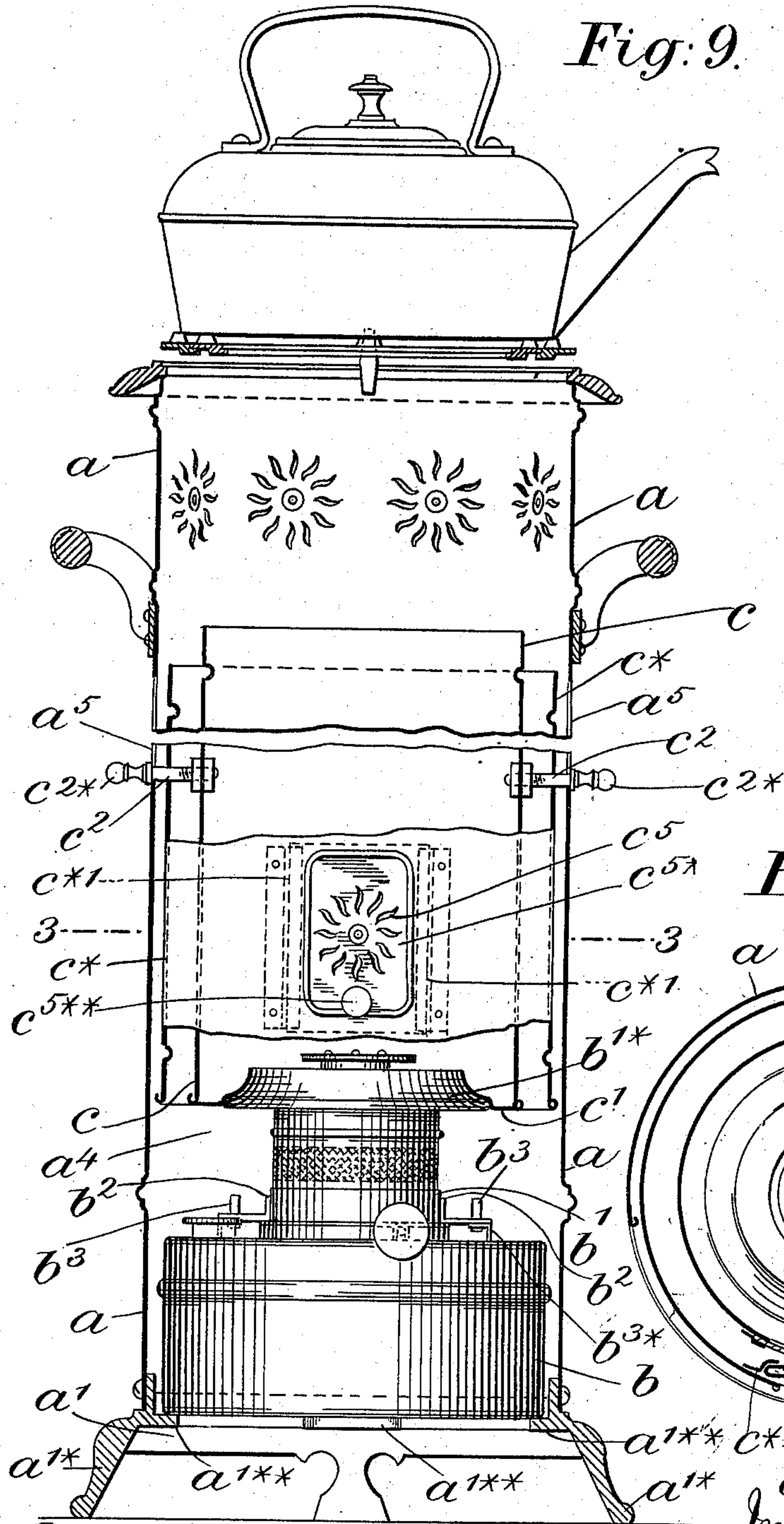
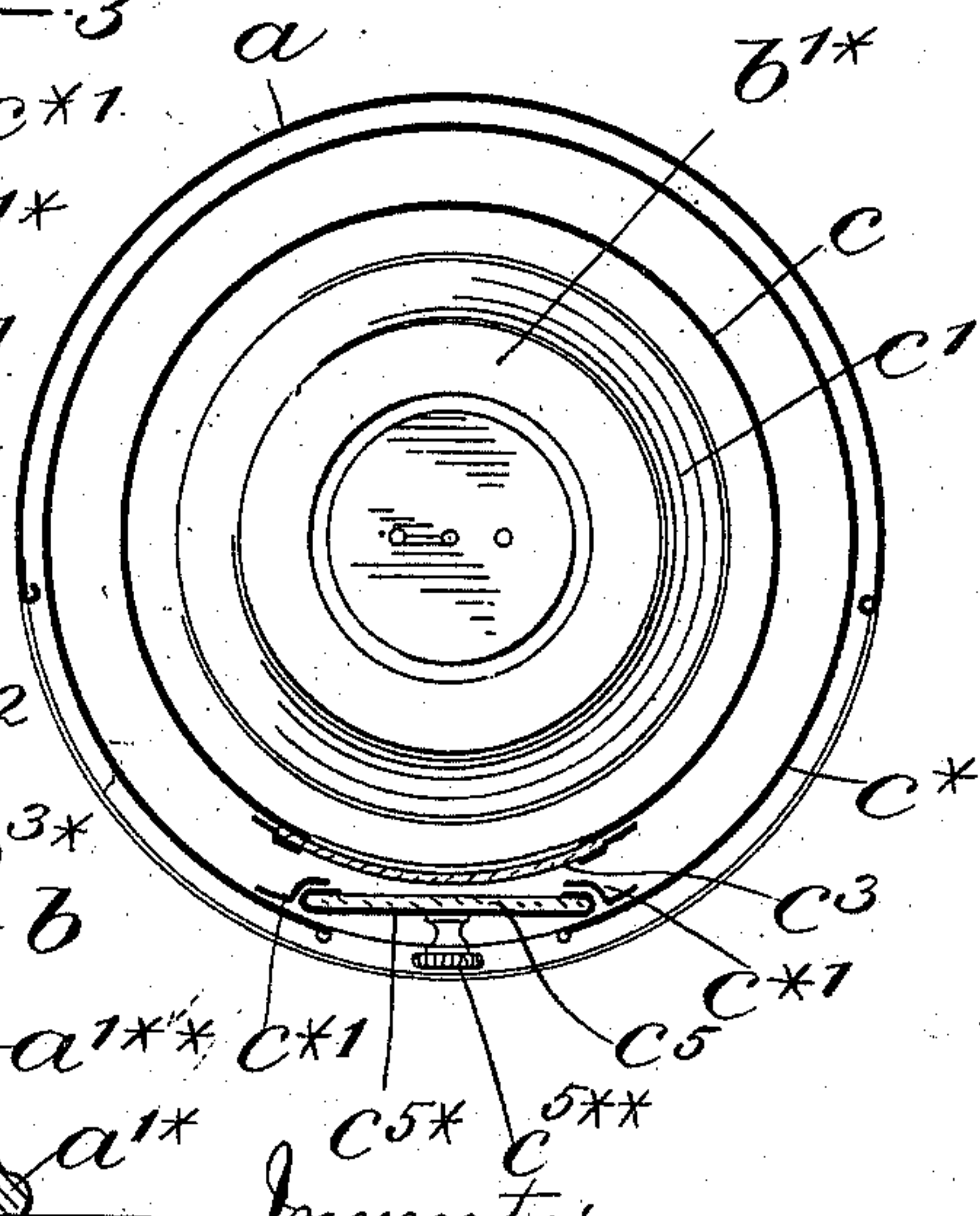


Fig:10.



Witnesses.

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UNITED STATES PATENT OFFICE.

JACOB HIRSCHHORN, OF BERLIN, GERMANY.

LAMP-STOVE.

SPECIFICATION forming part of Letters Patent No. 567,943, dated September 15, 1896.

Application filed March 26, 1895. Serial No. 543,296. (No model.)

To all whom it may concern:

Be it known that I, JACOB HIRSCHHORN, lamp-manufacturer, a subject of the Emperor of Germany, residing at 149 Köpenickerstrasse, Berlin, in the Empire of Germany, have invented certain new and useful Improvements in or Connected with Lamp-Stoves, of which the following is a specification.

10 The invention relates to that class of lamp-stove which is formed with a tall cylindrical or rectangular body and intended more especially for use in halls and other situations for the purpose of warming buildings, and
15 the object of the present invention is to give to such stoves an improved appearance and to render the same more efficient in use than heretofore. In stoves of this character a round-wick or central-draft burner is commonly employed, and the burner-casing has
20 formed or fixed therewith at the upper part thereof an apertured plate, disk, or rest of large diameter upon which the body of the stove which constitutes the chimney removably
25 ably seats. This arrangement is objectionable in many respects, one being that the parts are loose and another that the body of the stove becomes highly heated, and consequently in course of time becomes discolored, thus detracting from the ornamental appearance of
30 the stove.

Now, according to the present invention, in lieu of making the chimney answer the purpose of the body of the stove, as heretofore,
35 the body of the stove is formed of a separate tubular pedestal or casing of round or other suitable section, and at the front of this body or casing is formed an opening to allow of the insertion and removal of the lamp, while
40 within this body or casing is arranged an inner body or chimney of slightly less diameter than the outer casing or body of the stove. The apertured plate, disk, or rest, in lieu of being fixed with the casing of the burner, as
45 heretofore, is fixed to the lower end of the inner body or chimney and the casing of the burner is formed with a gallery or seat of small diameter upon which the apertured plate or disk rests, the meeting faces of those
50 parts being curved or otherwise shaped to form the necessary close fit, the weight of the inner body or chimney being all that is nec-

essary to maintain a tight joint between the parts. By this arrangement, in addition to the volume of air which passes up through the burner and chimney or inner body and thereby becomes heated a draft is created between the outer body or casing and the inner body or chimney, thus causing a large volume of air to be circulated and heated and thereby rendering the stove more efficient than heretofore, added to which the outer body or casing of the stove is protected by the wall of air between it and the inner body or chimney and consequently is not liable to discoloration
65 by overheating. Furthermore, the outer casing or body forms a protection against the accidental contact of articles of dress or the like with the heated chimney and which might result in a serious accident.

70 In order to raise the inner body or chimney off the burner in order to light or trim the same, the inner body or chimney is provided with lateral projections or studs which pass through vertical slots formed in the outer body and terminate in knobs or handles, by the aid of which the inner body or chimney may be lifted to the required height, while in order to retain it in that position the vertical slots terminate in horizontally inclined offsets or recesses adapted to engage the studs, so that by raising the inner body or chimney to the required height and giving a slight rotation thereto by the aid of the handles it will be held suspended in that position
85 until it is again lowered to seat upon the burner. The inner body or chimney may be guided in any suitable manner so that when it is lowered into position it will accurately register with the burner of the lamp. It will be evident that in lieu of the arrangement of catches hereinbefore described any other suitable devices may be employed for holding the inner body or chimney in its raised position. The inner body or chimney, the lower part of which is exposed to view for part of its circumference, is provided with a
95 talc window in order that the light from the lamp may be admitted to the room, but in order to give a more cheerful appearance to the stove according to the present invention the talc window is surrounded by a projecting frame in which is removably mounted a sheet of ruby-glass, by which means the glass
100

is protected from the injurious action of the extreme heat and the appearance of the stove when in use is much improved.

In lamps of this character it is usual to fix the burner-casing with the lamp by means of bayonet-catches or the like, but such devices do not possess the solidity which is necessary in a burner which is required to support a chimney or body of the character herein referred to.

Now, according to another part of the present invention, the burner-casing has fixed therewith laterally-projecting brackets which are longitudinally-slotted to engage corresponding turn-buttons mounted upon the reservoir or container of the lamp, so that by passing the turn-buttons through the slots and then turning them at right angles thereto the burner-casing may be securely and solidly fixed with the other part of the lamp without risk of its becoming accidentally detached therefrom.

In order that the said invention may be more clearly understood and readily carried into effect, I will proceed, aided by the accompanying drawings, more fully to describe the same.

Figure 1 is a front elevation of a lamp-stove constructed according to the present invention. Fig. 2 is a side elevation thereof. Fig. 3 is a horizontal section taken on the line 1 1 of Fig. 1. Fig. 4 is a vertical transverse section taken on the line 2 2 of Fig. 3. Fig. 5 is a detail view of parts, showing the inner body or chimney about to seat upon the burner-casing. Fig. 6 is a front elevation of part of the stove drawn to an enlarged scale and representing more particularly the means of fixing the burner-casing with the lamp. Fig. 7 is a side elevation thereof, and Fig. 8 is a plan thereof. Fig. 9 is a vertical transverse section, partly in elevation, of a stove representing a slight modification; and Fig. 10 is a horizontal section taken on the line 3 3 of Fig. 9.

In the several figures like parts are indicated by similar letters of reference.

Referring to Figs. 1 to 8, *a* represents the body of the stove, which is of cylindrical, although it might be of rectangular, shape and formed of sheet-iron, and *a'* represents the base of the stove, which is formed of cast-iron and of the shape of a ring and is furnished with feet *a''*, upon which the stove rests, and with flanges *a'''*, which support the lamp in position. The body *a* at the top thereof is furnished with a nest *a²* of rings adapted to close or more or less open the upper part of the body *a*, according to whether at the moment it is intended to employ the stove solely for heating purposes or to boil the contents of a kettle or the like, (which is represented at Fig. 9,) and *a³* represents an ornamental removable lid or cover to the body *a*.

b represents the lamp or container, which is furnished with a central-draft burner, as

is customary in stoves of this character, and *b'* represents the burner-casing.

The body *a* of the stove is formed of a tubular pedestal or casing of round or other suitable section, and at the front of the body or casing *a* is formed an opening *a⁴* to allow of the ready insertion and removal of the lamp *b*.

Within the body or casing *a* is arranged an annular and vertically-movable body or chimney *c* of slightly less diameter than the outer casing or body *a* of the stove, and the apertured plate, disk, or rest *c'*, instead of being fixed with the casing *b'* of the burner, as heretofore, is, according to the present invention, fixed to the lower end of the inner body or chimney *c*.

The casing *b'* of the burner is formed with an upwardly-converging gallery or seat *b''* of small diameter, upon which the downwardly-flaring apertured plate or disk *c'* of the inner body or chimney *c* rests, the meeting faces of those parts, that is to say, the gallery or seat *b''* and the apertured plate *c'*, being curved, or they might be otherwise shaped to form the necessary close fit, the weight of the inner body or chimney *c* being all that is necessary to maintain a tight joint between the parts. By this arrangement, in addition to the volume of air which passes up through the burner and chimney or inner body *c* and thereby becomes heated, a draft is created between the outer body or casing *a* and the inner body or chimney *c*, thus causing a large volume of air to be circulated and heated and thereby rendering the stove more efficient than heretofore, added to which the outer body or casing *a* of the stove is protected by the wall of air between it and the inner body or chimney *c* and consequently is not liable to discoloration by overheating. Furthermore, the outer casing or body *a* remains comparatively cool, and there is consequently no risk of fire from the contact therewith of articles of dress, and inasmuch as the highly-heated chimney or inner body *c* is inclosed within the outer body *a* it is impossible for articles of dress or the like to come into contact with its heated surface, and which in a stove of ordinary construction might result in a serious accident.

In order to raise the inner body or chimney *c* off the burner of the lamp *b* in order to light or trim the same, the inner body or chimney *c* is provided with lateral projections or studs *c²*, which pass through vertical slots *a⁵*, formed in the outer body *a*, and terminate in knobs or handles *c^{2*}*, by the aid of which the inner body or chimney *c* may be elevated to the required height, while in order to retain it in its raised position the vertical slots *a⁵* are arranged upon opposite sides of the body *a*, and terminate in horizontally inclined or curved offsets *a^{5*}*, which take the same direction, having regard to the circumference of the body *a*, and are adapted to engage the studs *c²*, so that by raising the inner body or chimney *c* to the required height and giving

a slight rotation thereto by the aid of the handles c^{2*} it will be held suspended in that position, as represented by the dotted lines in Fig. 4, until it is again lowered to seat upon the burner.

It will be evident that in lieu of the arrangement of catches lastly hereinbefore described any other suitable devices may be employed for holding the inner body or chimney c in its raised position.

The inner body or chimney c may be guided in any suitable manner so that when it is lowered into position it will accurately register with the burner of the lamp, and in the present example the inner body c is provided with radial ribs or projections c^* for that purpose. The inner body or chimney c , the lower part of which is exposed to view for part of its circumference, as shown more particularly at Figs. 1 and 2, is provided with a talc window c^3 in order that the light from the lamp b may be admitted to the room or apartment in which the stove is placed, but in order to give a more cheerful appearance to the stove, according to the present invention, the talc window c^3 is surrounded by a projecting frame c^4 , in which is removably mounted a sheet of ruby-glass c^5 , by which means the glass c^5 is protected by the talc c^3 from the injurious action of the extreme heat emanating from the flame of the lamp, and the appearance of the stove when in use is much improved.

In lamps of this character it is usual to fix the burner-casing b' with the lamp b by means of bayonet-catches or the like, but such devices do not possess the solidity which is necessary in a burner which is required to support a chimney or body of the character herein referred to.

Now, according to another part of the present invention, the burner-casing b' has fixed therewith laterally-projecting right-angled brackets b^2 , which are formed with longitudinal radial slots b^{2*} , which engage corresponding vertical turn-buttons b^3 , mounted with capability of turning upon right-angled standards or brackets b^{3*} , fixed with the top of the reservoir or container b of the lamp, so that by passing the turn-buttons b^3 through the radial slots b^{2*} and then turning them at right angles thereto, as shown more particularly at Figs. 6 to 8, the burner-casing b' may be securely and solidly yet removably fixed with the other part b of the lamp without risk of its becoming accidentally detached therefrom.

In the example given at Figs. 9 and 10 the inner body or chimney c has fixed therewith and with the studs c^2 a guide c^* of cylindrical form, the office of which is to guide the inner body or chimney c in its movements, as hereinbefore described with respect to the previous arrangement, so that when it is lowered into position it will more or less accurately register with the gallery or seat b'^* of

the burner b' , and the cylindrical guide c^* also serves the purpose of further insulating the body a from the heat of the lamp. It will, however, be evident that in lieu of the guides c^* hereinbefore shown and described any other suitable arrangement of parts might be employed to guide the inner body or chimney c in its movements. In this example the frame c^4 for supporting the ruby-glass is dispensed with, but advantage is taken of the cylindrical guide c^* to carry the ruby-glass at the required distance from the talc window, and for this purpose guides $c^{*'}$ are fixed with the cylinder c^* and carry a sliding shutter c^{5*} , which has removably fixed therewith a sheet of ruby-glass c^5 . The shutter c^{5*} is pierced with ornamental perforations to allow of the passage therethrough of rays of light from the lamp, while it is also provided with a handle c^{5**} , by the aid of which it may, when desired, be raised to give a view through the talc window c^3 of the flame of the lamp.

Although the outer body a of the stove and the inner body or chimney c are described as cylindrical in form, it will be evident that they may be of rectangular or other suitable shape, provided the devices c^2 a^{5*} for holding the inner body or chimney c suspended are modified so as to avoid the turning of the inner body c for that purpose, and it will be obvious that many simple devices may be employed for that purpose, such as hooks carried by the handle c^{2*} , engaging eyes or the like carried by the body a , in place of the offsets a^{5*} of the slots a^5 .

By the means hereinbefore described at a small additional cost the stove is rendered much more serviceable and ornamental than heretofore.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a lamp-stove the combination of a fixed outer body having vertical slots terminating in horizontal inclined or curved offsets, a vertically-movable inner body or chimney having lateral studs provided with handles and extending through the slots of the body, a seat or gallery carried by the lamp and a corresponding part carried by the lower end of the inner body or chimney the diameter of the inner body with relation to the outer body being such as to leave an air-passage between those parts substantially as herein shown and described and for the purposes stated.

2. In a lamp-stove the combination of a fixed outer body, a vertically-movable inner body or chimney separated from the outer body by an air-passage, a lamp, an upwardly-converging seat or gallery carried by the lamp, a corresponding downwardly-flaring part carried by the lower end of the body or chimney means for guiding the inner body or chimney in its movements and means for holding it in

its raised position at the times desired substantially as herein shown and described and for the purpose stated.

3. In a lamp-stove the combination of a
5 fixed outer body a vertically-movable inner body or chimney separated from the outer body by an air-passage, a lamp, an upwardly-converging seat or gallery carried by the lamp a corresponding downwardly-flaring part carried
10 by the lower end of the inner body or chimney and a cylindrical guide fixed with the inner body or chimney substantially as herein shown and described and for the purpose stated.

4. In a lamp-stove the combination of a 15 fixed tubular outer body, a vertically-movable tubular inner body or chimney of slightly smaller diameter than the outer body so as to separate such bodies and leave an air-space between them, a seat or gallery carried by the 20 lamp and a corresponding part carried by the lower end of the inner body or chimney, substantially as herein shown and described and for the purposes stated.

JACOB HIRSCHHORN.

Witnesses:

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OSCAR RICHTER.