

T. CASCADEN, JR.
ILLUMINATING DEVICE FOR OVENS.
APPLICATION FILED APR. 18, 1910.

980,598.

Patented Jan. 3, 1911.

2 SHEETS—SHEET 1.

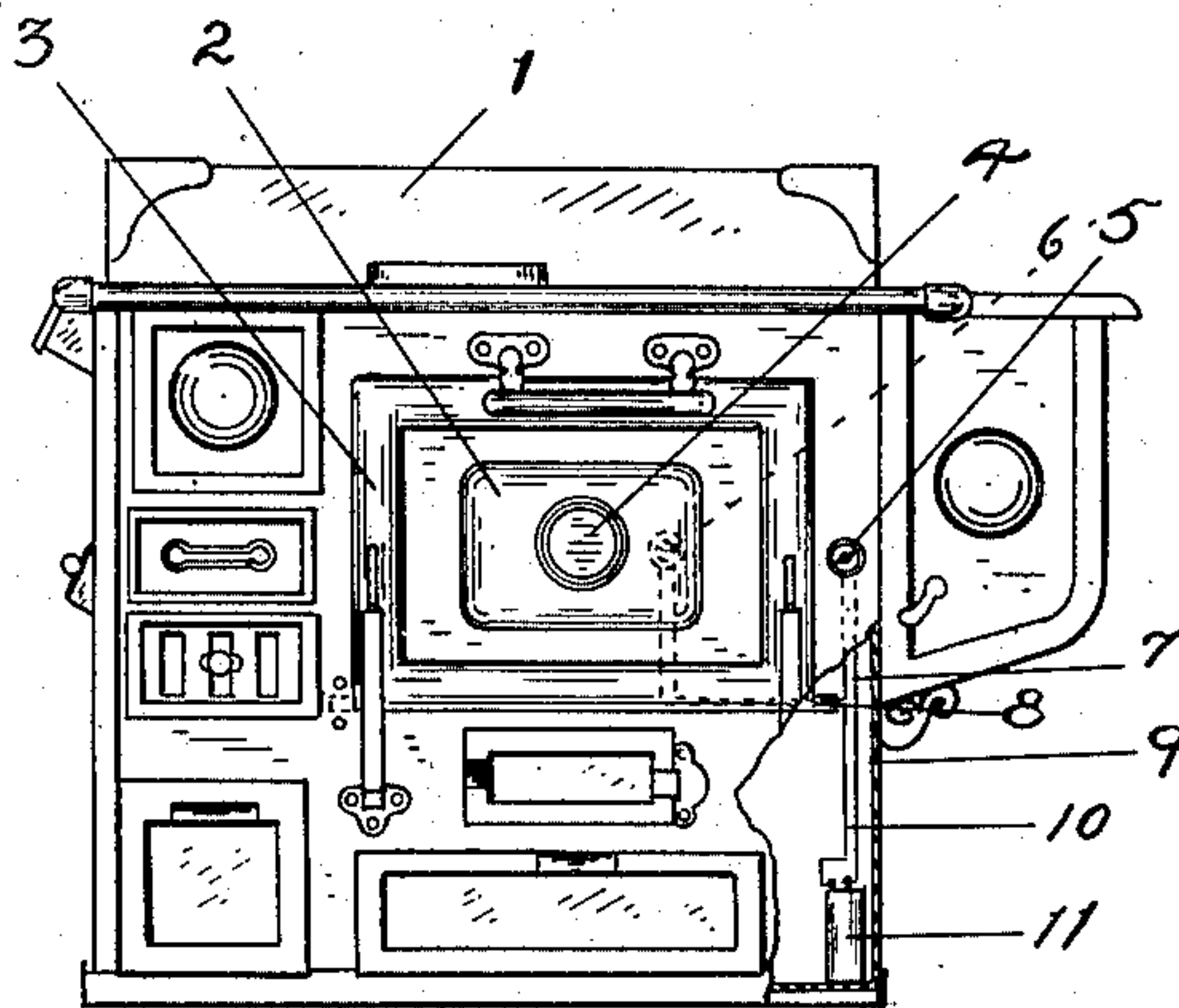


Fig. 1.

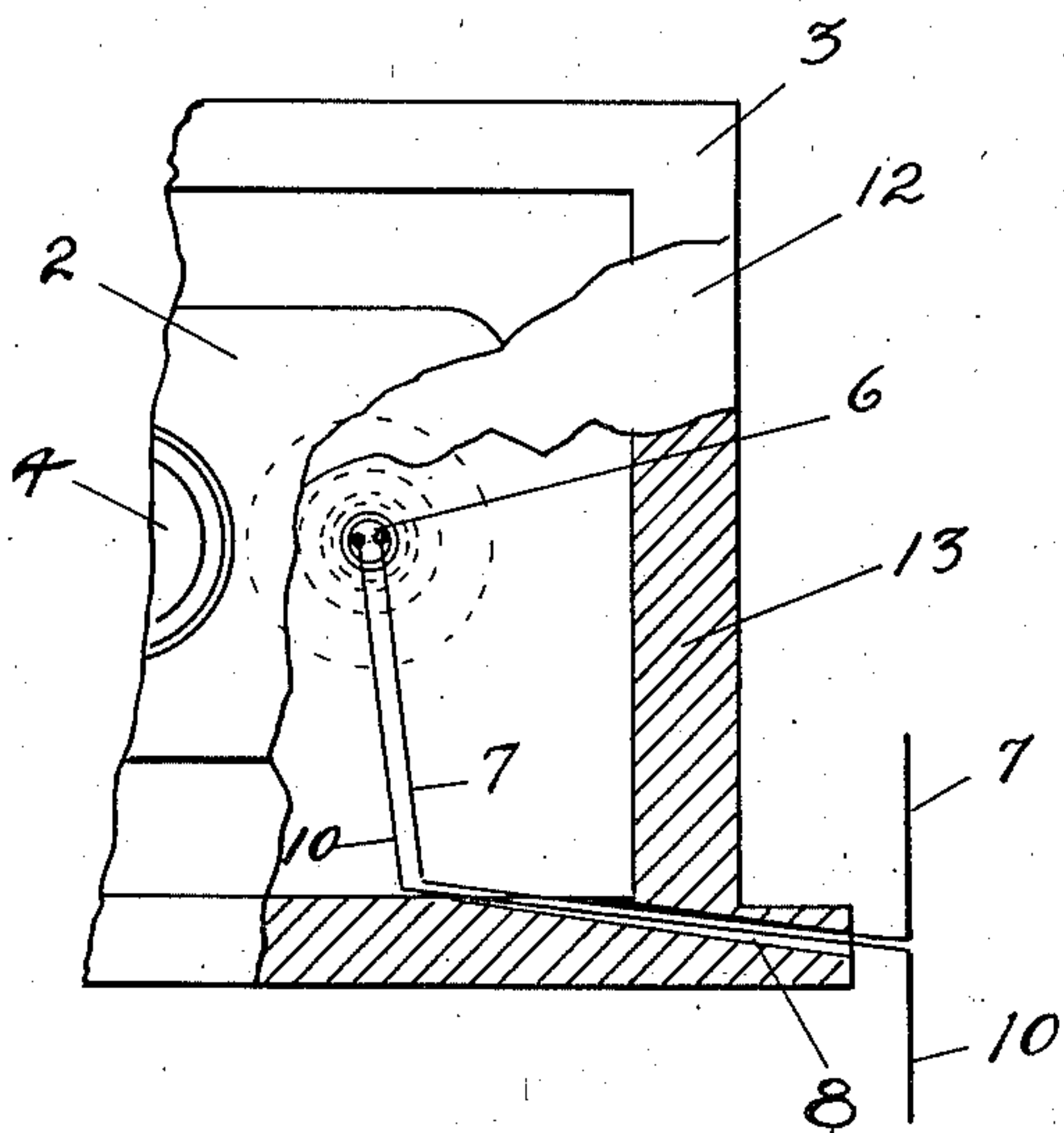


Fig. 2.

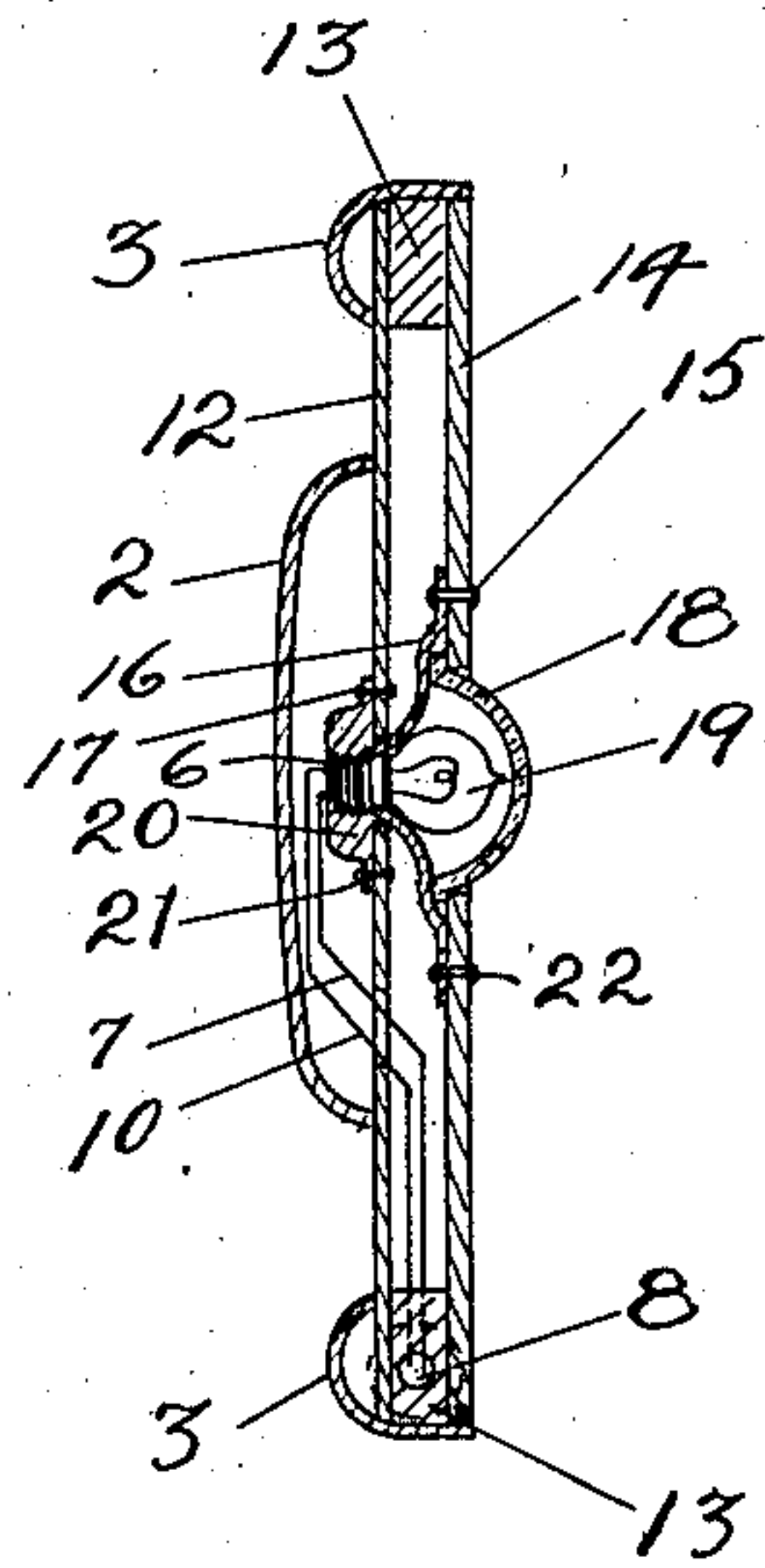


Fig. 3.

WITNESSES:

H. B. Burr.

O. D. Young

INVENTOR,

Thomas Cascaden, Jr.,

BY G. C. Kennedy,

ATTORNEY.

980,598.

T. CASCADEN, JR.
ILLUMINATING DEVICE FOR OVENS.
APPLICATION FILED APR. 18, 1910.

Patented Jan. 3, 1911.

2 SHEETS-SHEET 2.

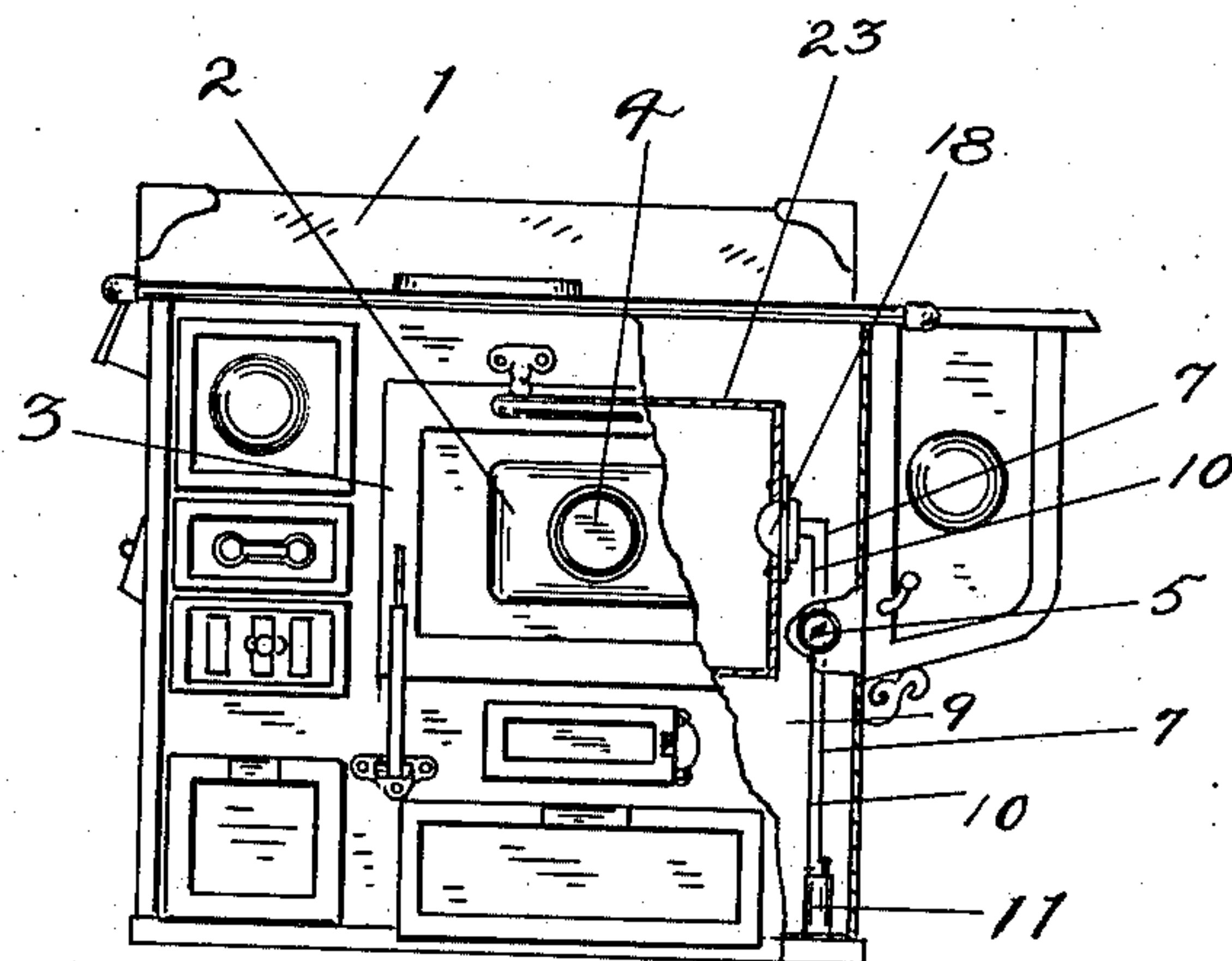


Fig. 4.

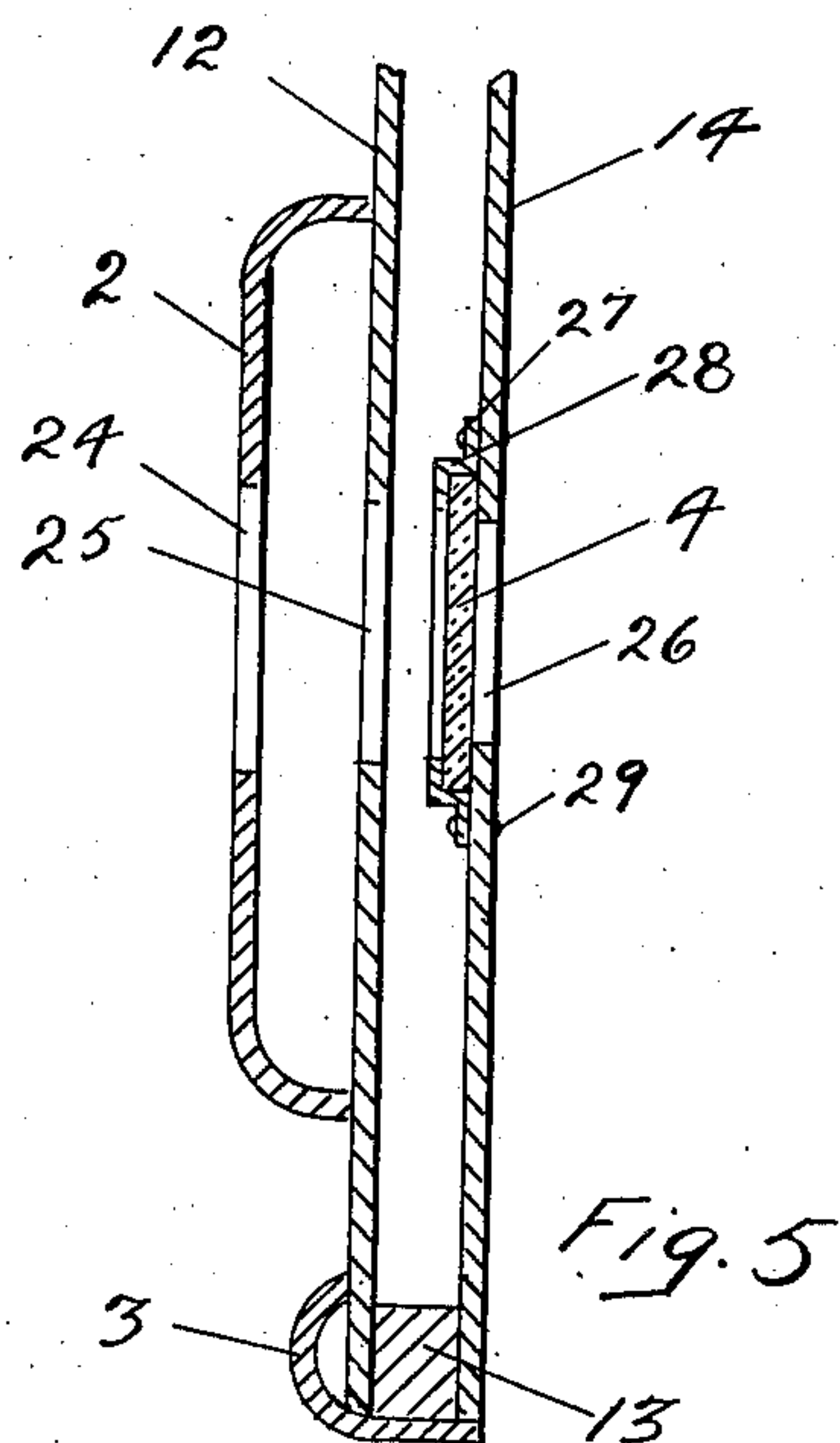


Fig. 5.

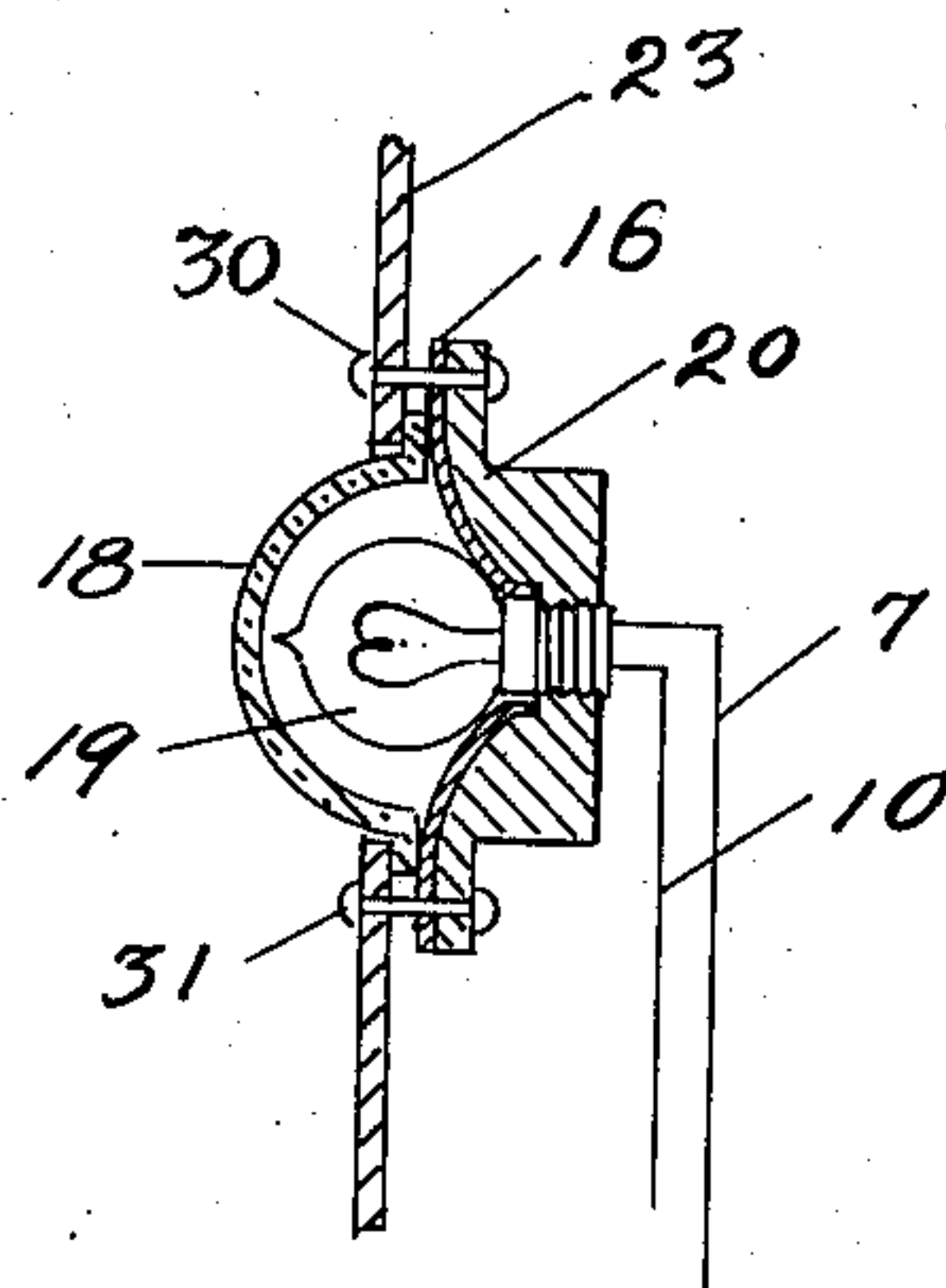


Fig. 6.

WITNESSES:

H. B. Burr.
O. D. Young

INVENTOR,
Thomas Cascaden, Jr.,

BY G. C. Kennedy,
ATTORNEY.

UNITED STATES PATENT OFFICE.

THOMAS CASCADEN, JR., OF WATERLOO, IOWA.

ILLUMINATING DEVICE FOR OVENS.

980,598.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed April 18, 1910. Serial No. 556,087.

To all whom it may concern:

Be it known that I, THOMAS CASCADEN, Jr., a citizen of the United States of America, and a resident of Waterloo, Blackhawk county, Iowa, have invented certain new and useful Improvements in Illuminating Devices for Ovens, of which the following is a specification.

My invention relates to improvements in illuminating devices for ovens, and the object of my improvement is to provide a suitable and convenient lighting means adapted to bring the contents of a heated oven into full view from its outside without any necessity for opening the oven itself for that purpose.

This object I have accomplished by the means which are hereinafter described and claimed, and which are illustrated in the accompanying drawings, in which:

Figure 1 is a front elevation of a range with closed oven door, parts of the range being shown as broken away to disclose the light-producing means set therein. Fig. 2 is an enlarged detail view of a portion of the oven and its door, broken to disclose the electrical connections to the incandescent light bulb mounted in said door. Fig. 3 is a vertical section of the oven and door shown in Fig. 2, taken through the recess in the door in which the lamp bulb is mounted. Fig. 4 is a front elevation of a range, with parts of same broken away to disclose illuminating means for the oven located in a different place from the means shown in the hereinbefore mentioned figures. Fig. 5 is an enlarged broken detail sectional view of the oven door of the range, the section being taken vertically through the peep-hole and its transparent cover. Fig. 6 is an enlarged detail broken section, taken vertically, through the mounting of the incandescent light bulb, as located in the inner wall of oven shown in Fig. 4.

Similar characters of reference designate corresponding parts throughout the several views. It being very desirable that the contents of an oven may be clearly seen when cooking without disturbing the process of cooking by opening the oven door, I have designed means for effecting that purpose. It is known, that if a peep-hole merely is placed in the oven wall or in its door, without some means for otherwise illuminating the interior of the oven, very little if anything can be clearly seen through such a

peep-hole. If the peep-hole be covered with glass or some other kind of transparent body, very little light from outside is refracted through such glass into the oven, and the glass rather reflects the light rays impinging upon it, forming a species of mirror to the view owing to the dark interior background of the oven. It is therefore necessary to adopt some independent source of illumination to be located within the oven or mounted in its inner walls, to effectively disclose the contents of the oven to an observer at the peep-hole or window.

In Fig. 1 is shown a range of an ordinary type in which is an oven provided with a downwardly-swinging door 2. This door is formed of a hollow rectangular spacing body 13 whose lower corners have integral outwardly projected pintles. Inner and outer face-plates 14 and 12 are secured to said body by marginal framing 3. An ornamental covering-piece 2 is shown over the middle portion of the outer surface of the plate 12.

As shown in Fig. 5, the covering-piece 2, and the plates 12 and 14 have openings 24, 25 and 26 respectively alined horizontally with each other, and used as a peep-hole into the oven. To cover said peep-hole, a transparent plate 4 is used, loosely mounted over the opening 26 in the plate 14, being set in a hollow frame 28 secured to the plate 14 by means of screws or other securing means 27. The transparent plate 4 may be placed over either of said openings as desired, or thought necessary. To one side of said peep-hole, the plates 12 and 14 only are orificed in horizontal alinement to provide a seat for the incandescent electric light lamp 19, the opening in the plate 14 being the largest. A socketed plate 20 is secured to the outer face of the plate 12 with its central threaded opening registering with the hole in said plate, and is secured to the plate by bolts 17 and 21. In this socketed plate the exteriorly-threaded base 20 of an incandescent electric lamp 19 is removably seated, the glass globe of the lamp projecting through the alined opening in the plate 14 and being surrounded by a domed glass guard 18 whose outwardly flanged edge is held between the plate 14 and a reflector 16, the edge of the latter being also secured to said plate 14 by bolts 15 and 22. The insulated conducting wires 7 and 10 of said lamp are passed through a conduit 8 in one of the pintles of

the door frame 13, and thence downward to a dry-cell battery 11 removably located in the base of the range 1, in a compartment 9.

The numeral 5 designates a make-and-break device adapted for insertion in the circuit of said wires, whereby the circuit may be made or broken through said lamp 19 as desired.

In Figs. 4 and 6 are illustrated a variation in which the lamp 19 is mounted in the wall of the oven 23, instead of in its door. The principle involved is the same, however, and said lamp is secured in a socketed body 20 which is fastened to the wall 23 by means of bolts 30 and 31. The reflector 16 is secured between the body 20 and the wall 23 by said bolts, sufficient space being left between the edge of the reflector and said wall for the insertion of the flanged edge of the domed guard 18. The conductors 7 and 10 with the make-and-break device 5 are connected between said lamp and the battery 11 in the range 1.

While I have illustrated an incandescent electric lamp as the means for illuminating the interior of the oven 23, yet I do not intend to confine myself to any specific means of illumination, nor to any specific location of the illuminating means, the idea involved in my invention being to provide suitable means for lighting the interior of the oven and for permitting a view of its interior from its exterior.

I do not intend to confine myself to a window in the oven covered with any particular kind of transparent material, as either glass or mica or any suitable substance may be used, and in fact, it is not essentially necessary that the peep-hole should be covered at all except in certain cases, as it may be left uncovered when desired, or found necessary.

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

1. In combination, a stove containing an oven, an electrically-lighted lamp set in the

inner wall thereof and adapted to illuminate the interior of the oven, a transparent guard over said lamp, said oven having a peep-hole permitting a view of its interior from its exterior, a transparent guard closing the aperture of said peep-hole, a source of electric-lighting current located in said stove without said oven, insulated conductors communicating between said source of power and said lamp, and means for making and breaking an electrical circuit through said lamp when desired.

2. In combination, an oven having a door swung on pintles, one of said pintles having a conduit therein, an electrically-lighted lamp set in the inner wall of said door, means for making an electrical circuit through said lamp, and conductors leading to and from said lamp to said means by way of the conduit in said pintle.

3. In combination, an oven provided with a peep-hole covered by a suitable transparent body, said oven having a door, and illuminating means in said door adapted to light up the interior of said oven.

4. In combination, an oven provided with a door, lighting-means seated in the inner wall of said door and adapted to illuminate the interior of said oven, said door having means for permitting a view of the interior of said oven from its exterior.

5. In combination, an oven provided with a door, lighting-means seated in said door and adapted to illuminate the interior of said oven, and means for permitting a view of the interior of said oven from its exterior.

6. In combination, an oven provided with a door, lighting-means seated in the inner wall of said door and adapted to illuminate the interior of said oven.

Signed at Waterloo, Iowa, this 31st day of March, 1910.

THOMAS CASCADEN, Jr.

Witnesses:

EFFIE W. FOWLER,
GEO. C. KENNEDY.