

No. 782,551.

PATENTED FEB. 14, 1905.

C. E. GERVAIS.

IGNITION DEVICE FOR CENTRAL DRAFT LAMPS.

APPLICATION FILED MAY 29, 1903.

2 SHEETS—SHEET 1.

Fig: 1.

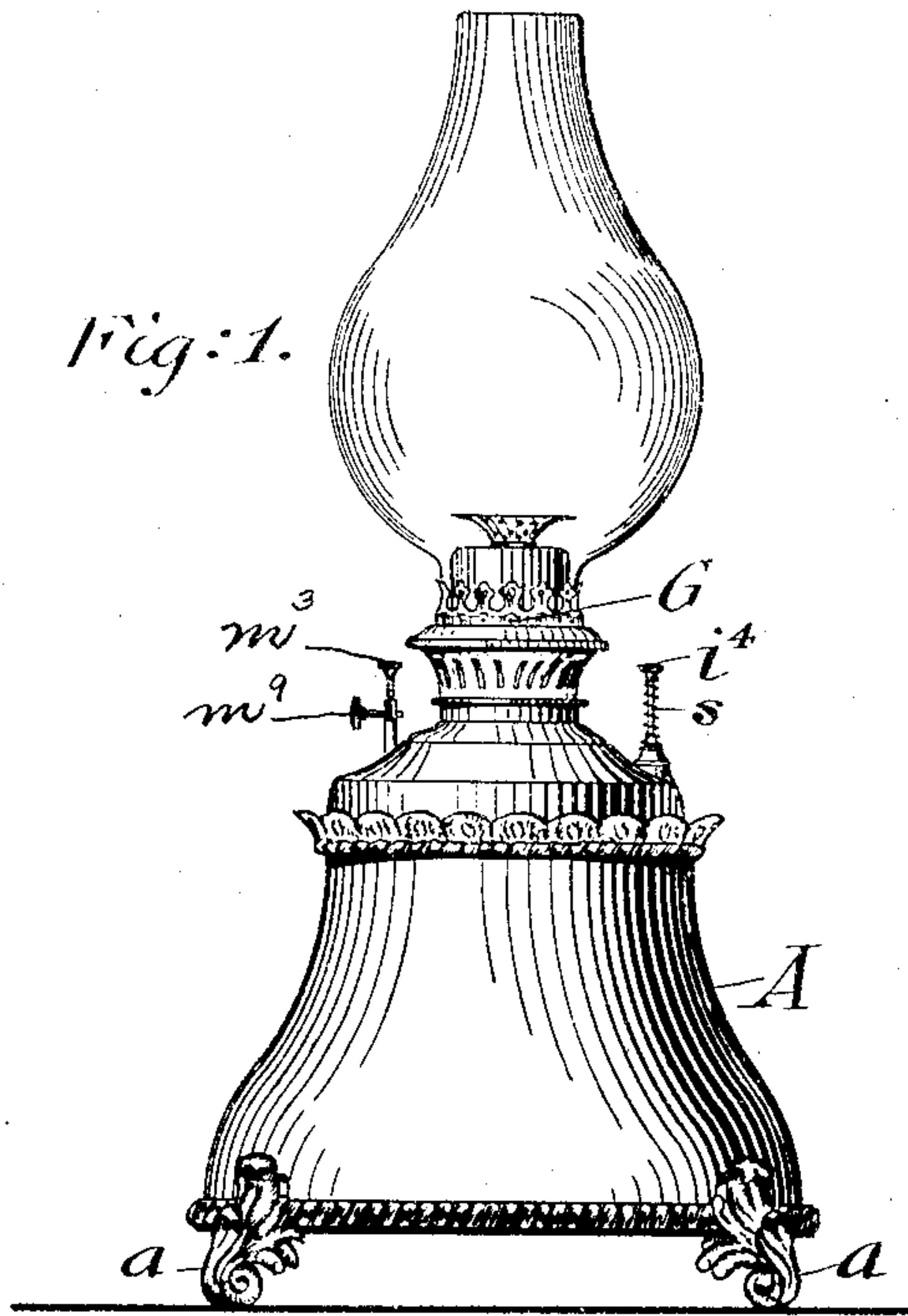
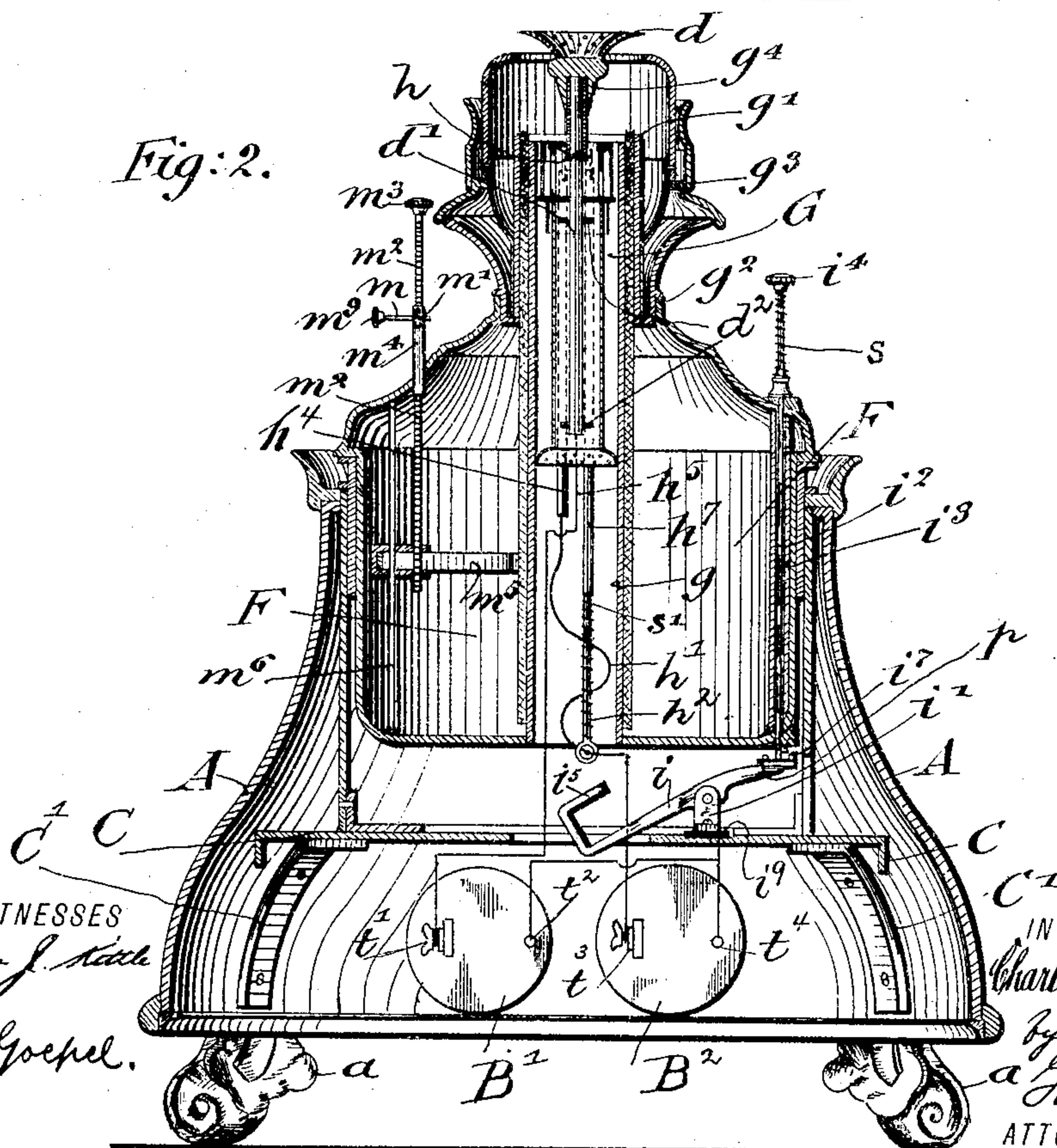


Fig: 2.



WITNESSES

John J. Kitch

C. P. Goepel.

INVENTOR

Charles E. Gervais

By J. J. Kitch

ATTORNEYS

No. 782,551.

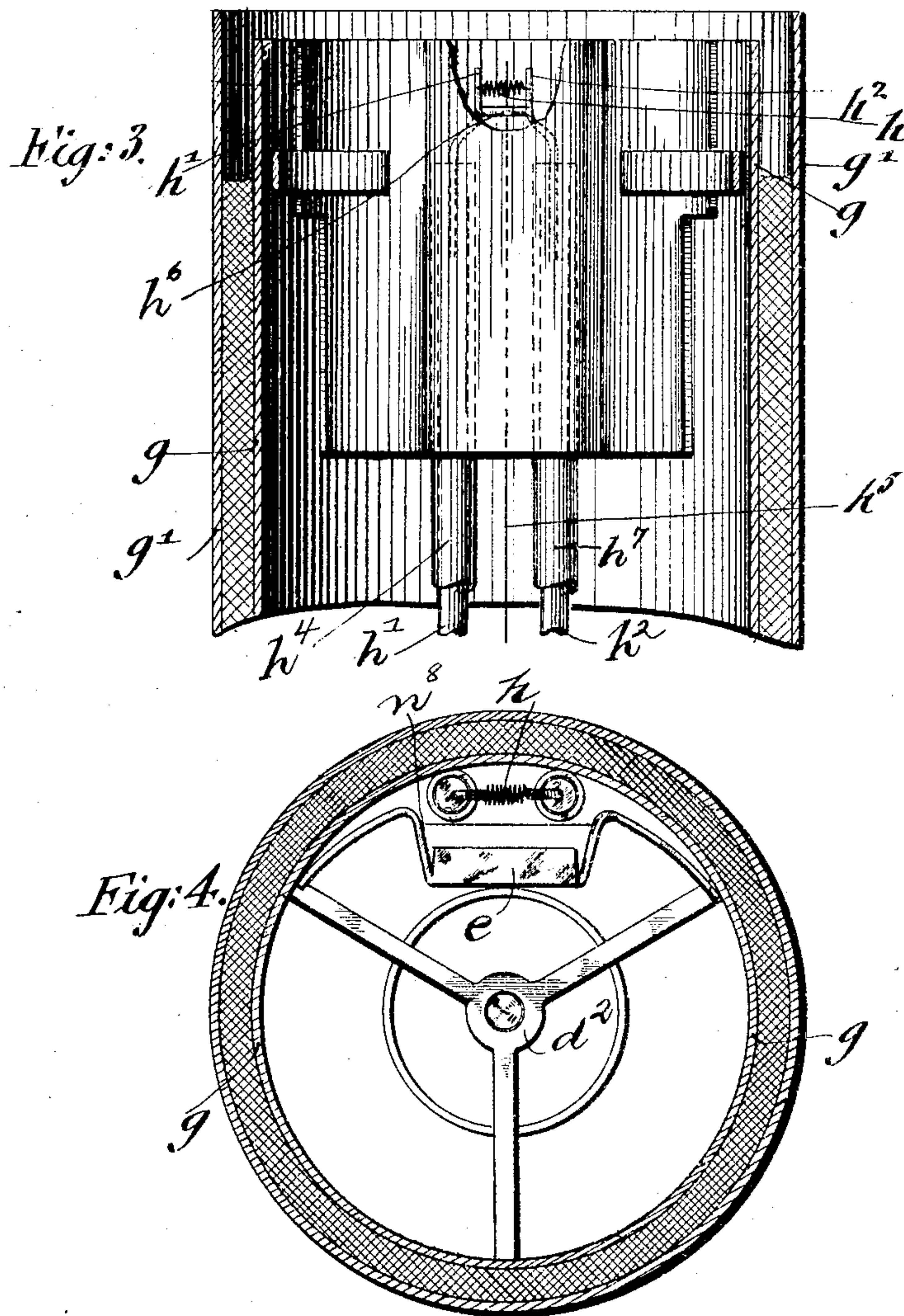
PATENTED FEB. 14, 1905.

G. E. GERVAIS.

IGNITION DEVICE FOR CENTRAL DRAFT LAMPS.

APPLICATION FILED MAY 29, 1903.

2 SHEETS—SHEET 2.



WITNESSES

*John J. Kittle*

*C. P. Gosnell.*

INVENTOR

*Charles E. Gervais*

*by Gomer Niles*

ATTORNEYS



# UNITED STATES PATENT OFFICE.

CHARLES E. GERVAIS, OF NEW YORK, N. Y.

## IGNITION DEVICE FOR CENTRAL-DRAFT LAMPS.

SPECIFICATION forming part of Letters Patent No. 782,551, dated February 14, 1905.

Application filed May 29, 1903. Serial No. 159,231.

*To all whom it may concern:*

Be it known that I, CHARLES E. GERVAIS, a citizen of the United States, residing in New York, borough of Manhattan, and State of New York, have invented certain new and useful Improvements in Ignition Devices for Central-Draft Lamps, of which the following is a specification.

This invention relates to certain improvements in central-draft lamps by which they may be conveniently and instantly lighted; and for this purpose the invention consists of a central-draft lamp which is provided with an igniting device that is located near the upper end of the wick-tube and formed of a platinum coil in circuit with an electrical battery, as will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side elevation of a central-draft lamp with my improved igniting device. Fig. 2 is a vertical transverse section through the lamp-font and burner of my improved central-draft lamp, showing the battery and electric igniting device in position thereon. Fig. 3 is a transverse section of the burner-tube, showing in detail the igniting device, said figure being drawn on a larger scale; and Fig. 4 is a plan view of Fig. 3.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the supporting-stand of my improved central-draft lamp, which may be made of plain or ornamented style, on supporting-legs *a* of the same.

F is the lamp-font, which is supported in the usual manner in the upper part of the lamp-stand, sufficient space being left below the font to provide for the storage of several dry batteries B' B<sup>2</sup>, as shown in Fig. 2. Above the batteries is arranged a horizontal platform C, on which the switch devices are supported by which the igniting device is thrown into circuit with the batteries B' B<sup>2</sup>. The platform C is supported on suitable bracket-arms C', that are riveted thereto and to the lower part of the lamp-casing. The font F is provided with a central-draft burner G of any approved construction, said burner consisting

of an interior wick-tube *g*, that extends centrally through the font to the bottom of the same, and an exterior tube *g'*, that is supported at the upper part of the font, as shown in Fig. 2. To the upper end of the font is screwed the usual burner-base *g'*<sup>2</sup>, that is provided with a gallery *g'*<sup>3</sup> and a cone *g'*<sup>4</sup>, while a deflector *d* is supported on a center rod *d'*, that is supported in the usual manner by a sleeve *d'*<sup>2</sup> axially in line with the center of the wick-tube.

Near the upper edge of the inner wick-tube *g* is located an igniting-coil *h*, of platinum, which is supported by conducting-rods *h'* *h'*<sup>2</sup>, that are connected below the coil with a strip *h'*<sup>6</sup>, of a suitable non-conducting material, and pass in downward direction through sleeves *h'*<sup>4</sup> and *h'*<sup>7</sup> at the interior of the wick-tube to the lower part of the same, as shown in Figs. 2 and 3.

A switch-lever *i* is fulcrumed to lugs *i'* on the platform C and insulated therefrom at *i''*. One end of the lever *i* is located below a vertically-guided and spring-actuated rod *i'*<sup>2</sup>, which is guided in a tube *i'*<sup>3</sup> of the font and which extends through the top of the font to the outside of the same. The spring-actuated rod *i'*<sup>2</sup> is provided with a knob *i'*<sup>4</sup> at its upper end for conveniently taking hold of the same. On depressing the knob *i'*<sup>4</sup> the switch-lever *i*, which is connected with one pole, *t'*<sup>4</sup>, of a battery B<sup>2</sup>, turns on its fulcrum and its U-shaped end *i'*<sup>5</sup> is brought in contact with the lower end of the conductor *h'*<sup>2</sup>, which is connected with the coil *h*, which in turn is connected by the conductor *h'* with the other pole, *t'*<sup>3</sup>, of the battery B<sup>2</sup>, as shown in Fig. 2. By means of the lever *i* the circuit is closed and the coil *h* is moved upwardly, brought in contact with the wick, and raised to incandescence. Before the depression of the rod *i'*<sup>2</sup> the wick-tube has been raised by the wick-raising mechanism, which is arranged diametrically to the rod *i'*<sup>2</sup>, so that the upper end of the wick extends above the edge of the inner wick-tube *g*. The heat of the incandescent platinum coil *h* produces the volatilization of the oil in the portion of the wick adjacent to the coil and the almost instant ignition of the vapors emitted, so that the wick is



ignited at the portion adjacent the coil, which ignition soon extends all around the upper edge of the wick, so that the lamp is thereby lighted. As soon as the wick has been ignited the pressure on the rod  $i^2$  is relaxed, so that the spring  $s$  thereon moves it upwardly, whereby the switch-lever  $i$  returns by gravity to its original position, as shown in Fig. 2, and the coil  $h$ , by means of the spring  $s'$  acting against the sleeve  $h^7$ , returns to its normal position.

The wick-raising device is operated by a rod  $m$ , fastened to a pinion  $m'$ , engaging a rack  $m^2$ , that is provided with a button  $m^3$  at its upper end and which is guided in an oblong guide-sleeve  $m^4$ , attached to the top of the lamp-font F. The lower end of the rack  $m^2$  is connected with a wick-engaging device  $m^5$ , which is guided by a vertical rod  $m^6$ , that is supported by the top and bottom of the lamp-font. When pressing on the button  $m^3$  of the rack  $m^2$ , the wick is lowered and the flame extinguished, while for raising the wick the pinion  $m'$ , located in the sleeve  $m^4$  and operated by the shaft or rod  $m$ , provided with a button  $m^9$ , is turned, so that the rack, and thereby the wick, is raised in the usual well-known manner.

My improved central-draft lamp is so arranged as to permit the quick and convenient igniting of the same, which has heretofore never been carried out with lamps of this class and which always required the removing of the chimney and lighting the flame by means of a match.

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

1. The combination, with a wick-tube having a wick, of an incandescent coil, a source of electricity, conductors connected with the coil, of which one is connected with one terminal of the source of electricity, an insulated connecting-piece for said conductors, a lever connected with the other terminal of the source of electricity for raising the conductors for moving the coil in proximity to the wick, and for closing the circuit for bringing

the coil to incandescence, substantially as set forth.

2. The combination, with a wick-tube having a wick, of an incandescent coil, a source of electricity, stationary sleeves, conductors movable therein and connected with the coil, one of which is connected with one terminal of the source of electricity, means connected with the other terminal of the source of electricity for moving said coil in proximity to the wick-tube, means for closing the circuit for bringing said coil to incandescence, and means for returning the coil to its normal position, substantially as set forth.

3. The combination, with a wick-tube having a wick, of an incandescent coil, a source of electricity, stationary sleeves, conductors movable therein and connected with the coil, one of which is connected with one terminal of the source of electricity, an insulated connecting-piece for said conductors, means connected with the other terminal of the source of electricity for moving said coil in proximity to the wick-tube, means for closing the circuit for bringing said coil to incandescence, and a spring connected with one of said conductors for returning the coil to its normal position, substantially as set forth.

4. The combination, with a wick-tube having a wick, of an incandescent coil, a source of electricity, stationary sleeves, conductors movable therein and connected with the coil, of which one is connected with one terminal of the source of electricity, an insulated connecting-piece for said conductors, a lever connected with the other terminal of the source of electricity for raising the conductors for moving the coil in proximity to the wick, and for closing the circuit for bringing the coil to incandescence, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CHARLES E. GERVAIS.

Witnesses:

PAUL GOEPEL,  
C. P. GOEPEL.