

L. A. ROBERTS.
LANTERN.

APPLICATION FILED AUG. 19, 1909.

967,562.

Patented Aug. 16, 1910.

Fig. 1.

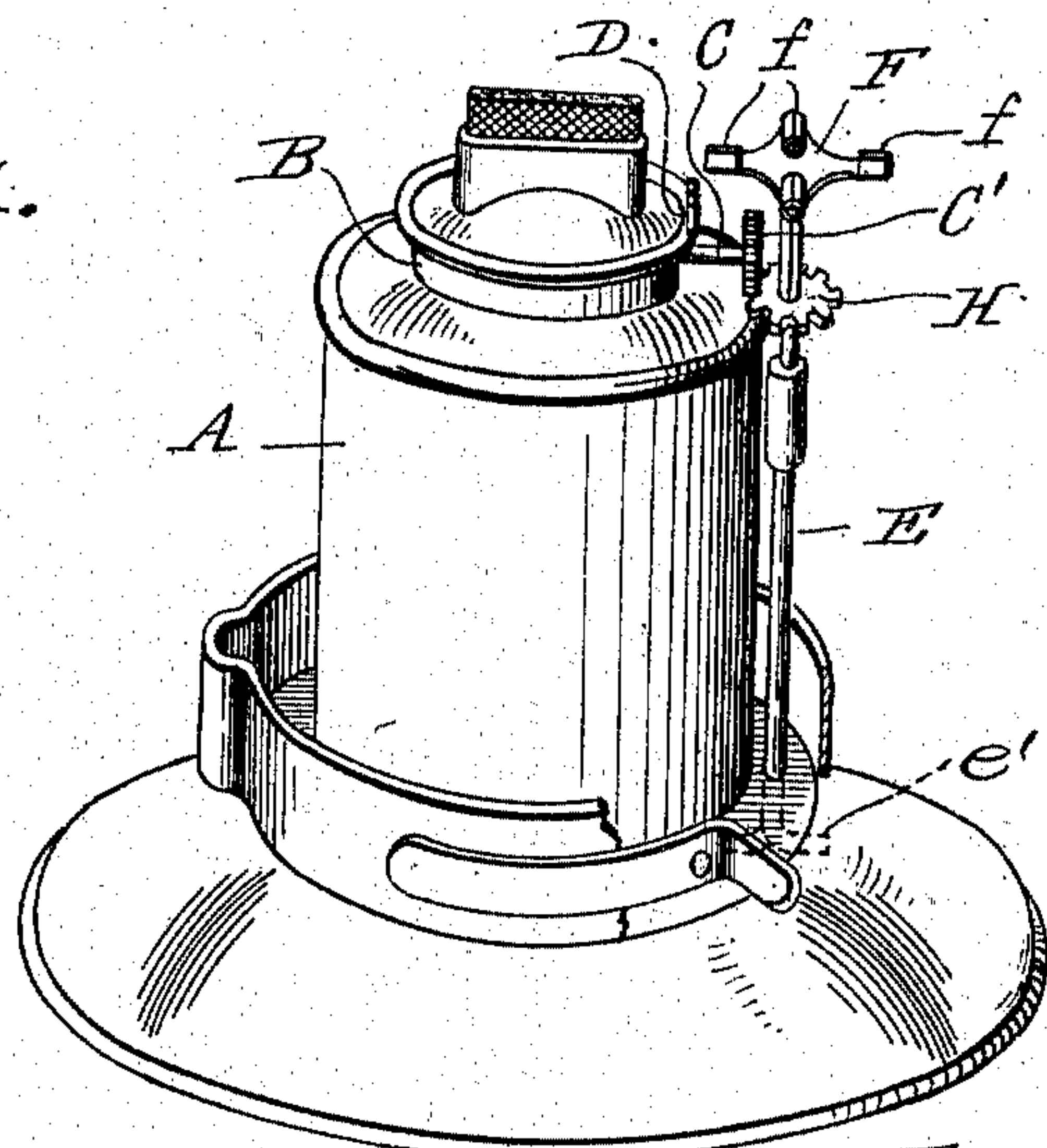


Fig. 2.

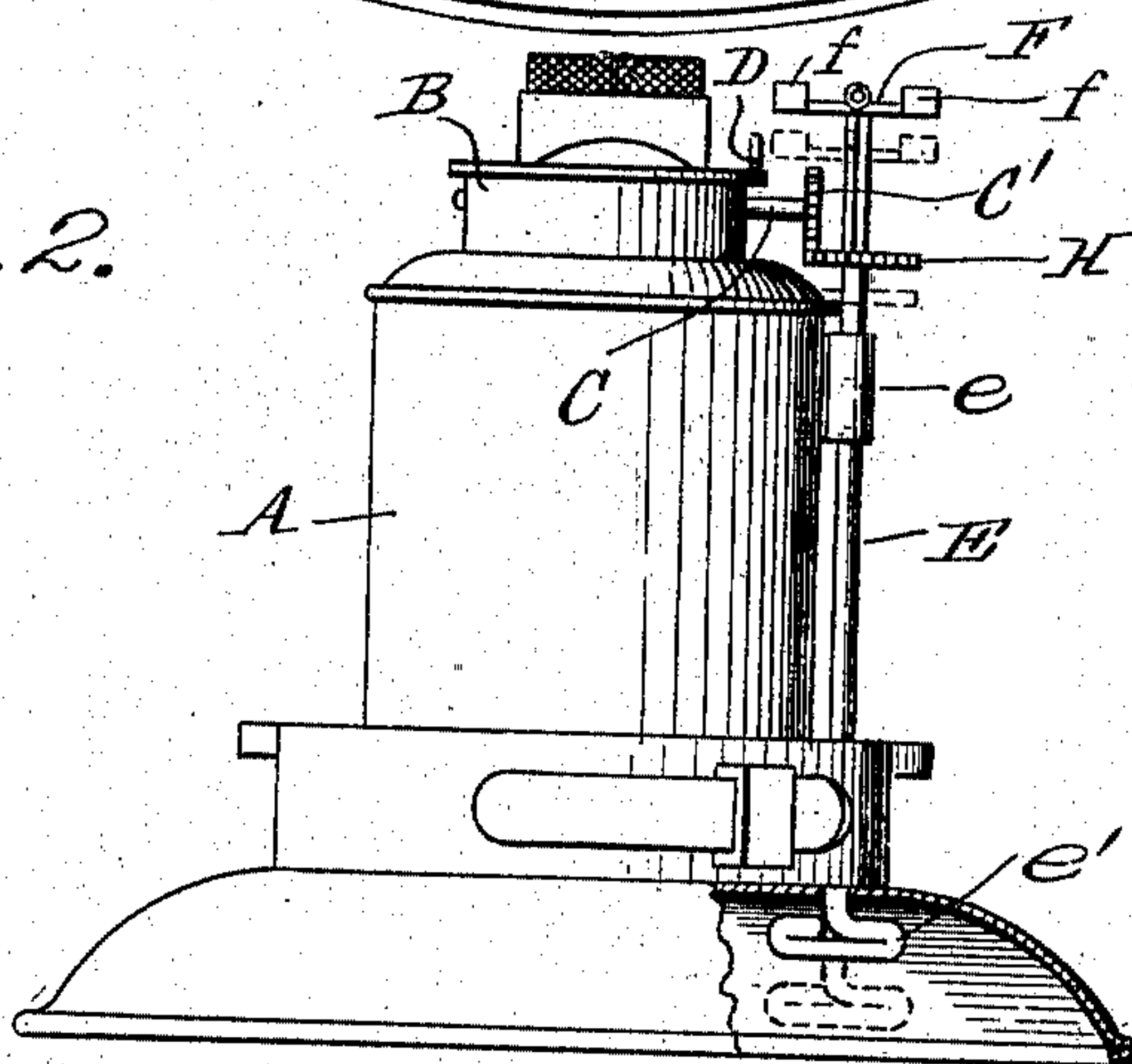
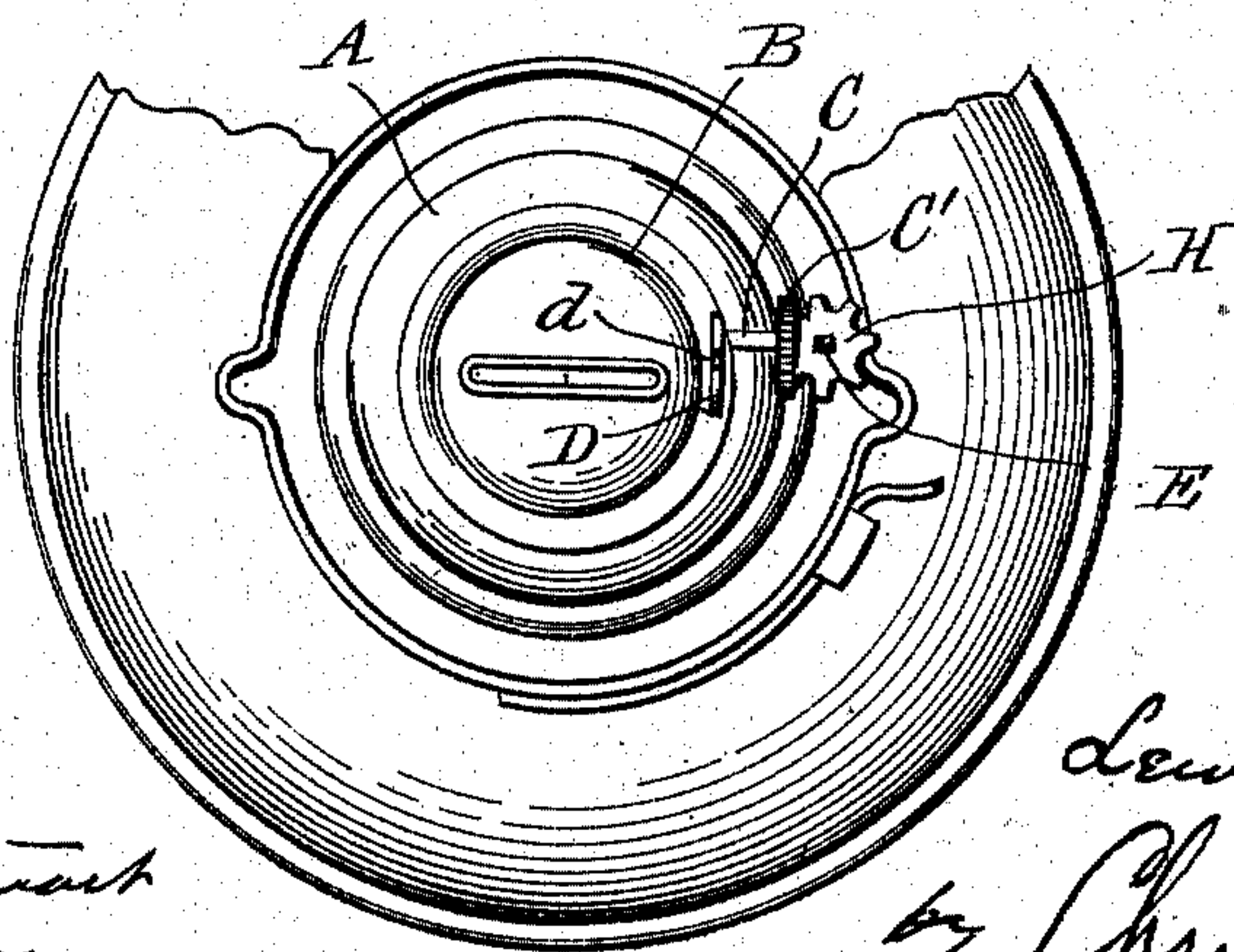


Fig. 3.



Witnesses

Alexander S. Stewart
Halter W. Brown

Inventor

Lewis A. Roberts

by *Charles H. Mumford*
his Attorney

UNITED STATES PATENT OFFICE.

LEWIS A. ROBERTS, OF SCRANTON, PENNSYLVANIA, ASSIGNOR TO ROBERTS SAFETY LANTERN MANUFACTURING COMPANY, OF SCRANTON, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

LANTERN.

967,562.

Specification of Letters Patent.

Patented Aug. 16, 1910.

Application filed August 19, 1909. Serial No. 513,694.

To all whom it may concern:

Be it known that I, LEWIS A. ROBERTS, of Scranton, in the county of Lackawanna, State of Pennsylvania, have invented certain
5 new and useful Improvements in Lanterns; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures and letters of reference marked thereon.
10

This invention relates to improvements in lamps and lanterns and more particularly to that class of lanterns having an oil pot or
15 base movable or removable with relation to the globe and upper part of the lantern, the object being to provide a simple and inexpensive device which will permit the wick to be manipulated, either raised or lowered,
20 and lighted from the exterior without the necessity of opening any part of the lantern.

Primarily the invention consists in mounting the igniter carrier and wick raising and lowering device on the same shaft, which is
25 movable at will, to throw either one or the other of said devices into operative position.

Further than this, the invention consists in certain novel details of construction and combinations and arrangements of parts, all as
30 will be now described and pointed out particularly in the appended claim.

In the accompanying drawings—Figure 1 is a perspective view of the base of a lantern having my present invention applied
35 thereto. Fig. 2 is a side elevation showing the wick manipulating devices in engagement in full lines, and the igniter carrier in position to bring the igniters in contact with the igniting surface, in dotted lines. Fig. 3
40 is a detail top plan view with the igniter carrier removed.

Like letters of reference in the several figures indicate the same parts.

I have shown my invention as applied to
45 an ordinary conductor's lantern in which the base or oil pot and wick are removable through the bottom of the lantern frame, thus showing the adaptability of the invention to a type of lantern with which the
50 greatest difficulty in applying devices of this character would exist. However, it will be

understood that I do not wish to limit myself to the application of the invention to any particular form of lantern or lamp.

The letter A indicates the oil pot which
55 may be connected to the lantern frame in any preferred or usual manner, B the collar and burner screwing into the top of the oil pot and having the usual wick raising or lowering shaft C. On the outer end of the shaft
60 C is rigidly mounted a gear or toothed wheel C' and on the collar or burner between the shaft and wick tube is affixed the igniting surface for the matches or igniters. As
65 shown, this igniting surface is formed by the edge of a small piece of metal D properly curved down at each end to facilitate the movement of the igniters over the same and
70 having a notch *d* just in advance of the point at which the igniters come nearest the wick.

A vertical shaft E is journaled loosely in bearings *e* on the side of the oil pot and passes down through the bottom where it is provided with a handle or finger piece *e'* to facilitate its movement. At the extreme up-
75 per end the shaft E carries the igniter holder F which consists of a plate having four or more points *f* bent into circular form as shown and adapted to work in proximity to the igniting surface when the shaft is in its
80 lowest or retracted position.

Below the igniter carrier and wick raising shaft C and wheel C' a gear wheel H is mounted on the movable shaft E in position
85 for its teeth to engage the teeth of wheel C' when the shaft E is elevated or advanced, the gear wheels being entirely disengaged when the shaft is retracted.

For convenience the upper end of the shaft E is squared and the wheel H and igniter
90 carrier F are mounted on the squared portion, thus preventing the independent movement and by the application of a little solder they are held permanently in position and the shaft itself is also held without
95 further fastening means, as the movement in one direction is limited by the igniter carrier and wheel H and in the opposite direction by the handle or finger piece.

In operation, a series of igniters such as
100 short friction matches are mounted in the igniter carrier in position to strike and ride

over the igniting surface, then, when it is desired to light the wick, the shaft is retracted or lowered and turned until one of the igniters striking the igniting surface rides up the same and is lighted as it crosses the notch, being then in juxtaposition to the wick and will ignite the same. If this does not happen because of the remoteness of the igniter, the shaft is advanced and the igniter brought still nearer the wick thus absolutely insuring a proper lighting of the same. When it is desired to manipulate the wick or adjust the same, the shaft is advanced until the wheels H and C' engage and the shaft is turned until the desired adjustment is effected.

Ordinarily there is little danger of the unused igniters held by the carrier becoming ignited from the wick at any adjustment of the shaft. However, in order to prevent any possibility of this happening, it is safe to only advance the shaft with one of the previously used igniters toward the wick and as less than a quarter turn is necessary to turn the wick from the highest to the lowest point desired in ordinary use, none of the unused

igniters will be brought inward near the wick.

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

In a lantern, the combination with a burner, a wick raising and lowering shaft journaled thereon and having a gear wheel at one end and an igniting surface in proximity to the burner, of an oil pot, a longitudinally movable shaft journaled in bearings on the oil pot, a gear wheel mounted rigidly on the shaft at an intermediate point and adapted to mesh with the wheel on the wick raising shaft when elevated and an igniter carrier mounted rigidly on the longitudinally movable shaft above the gear wheel and adapted to bring the igniters into line with the igniting surface when the shaft is lowered and the gear wheels are out of mesh.

LEWIS A. ROBERTS.

Witnesses:

G. B. CARSON,
WILL C. MOULTON.