

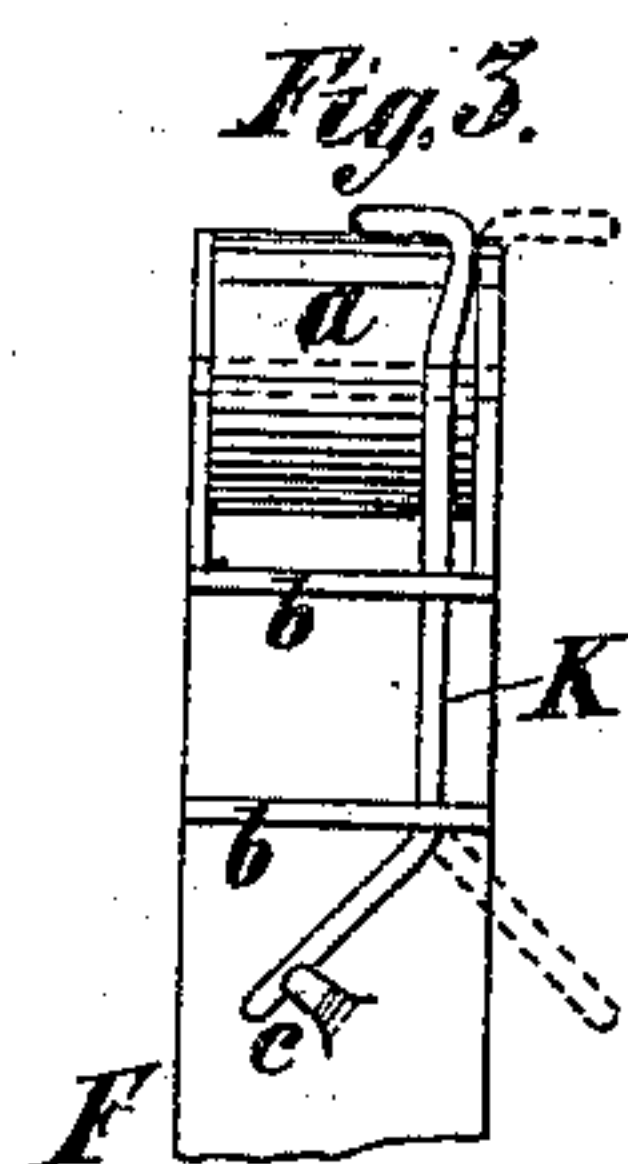
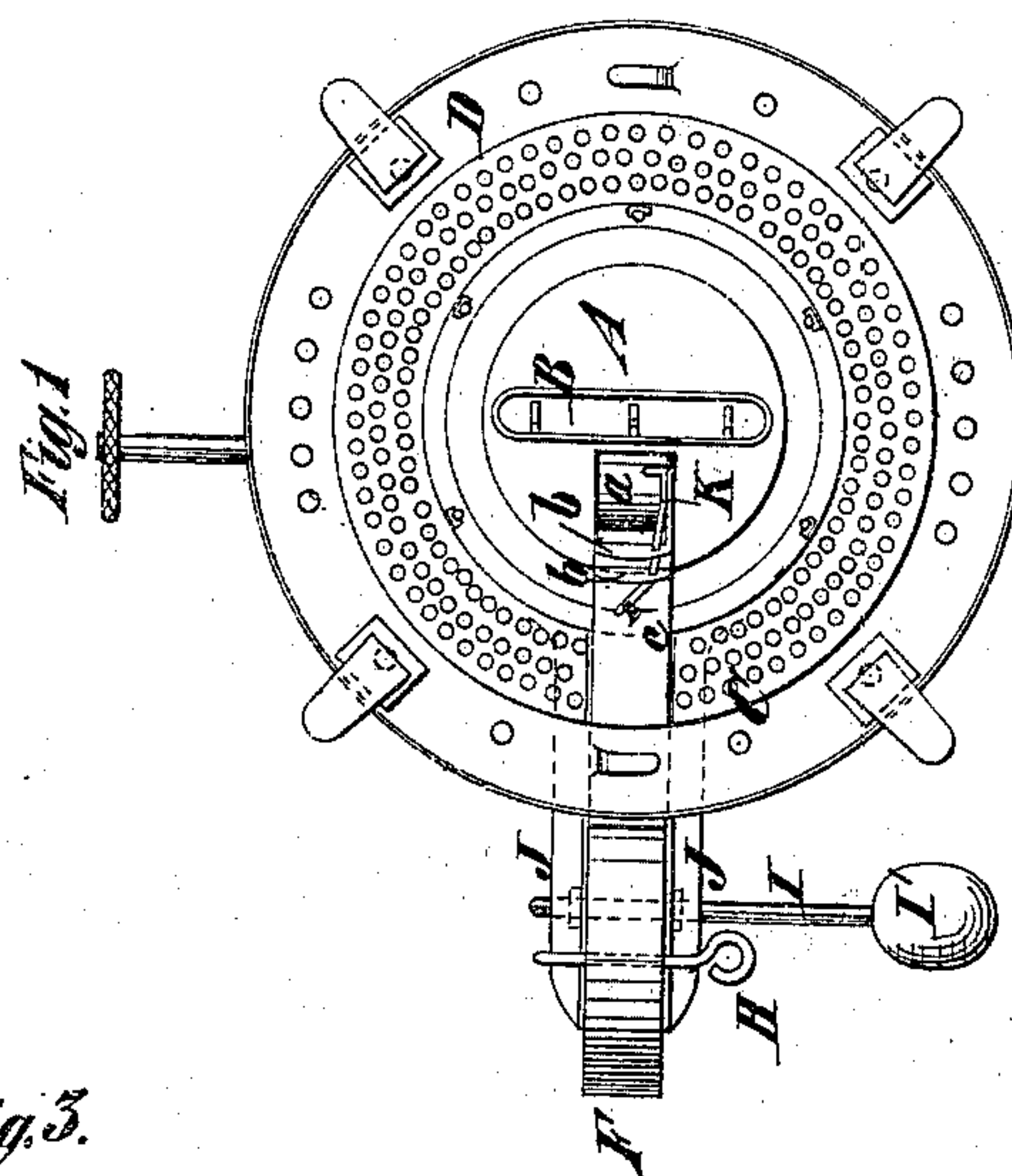
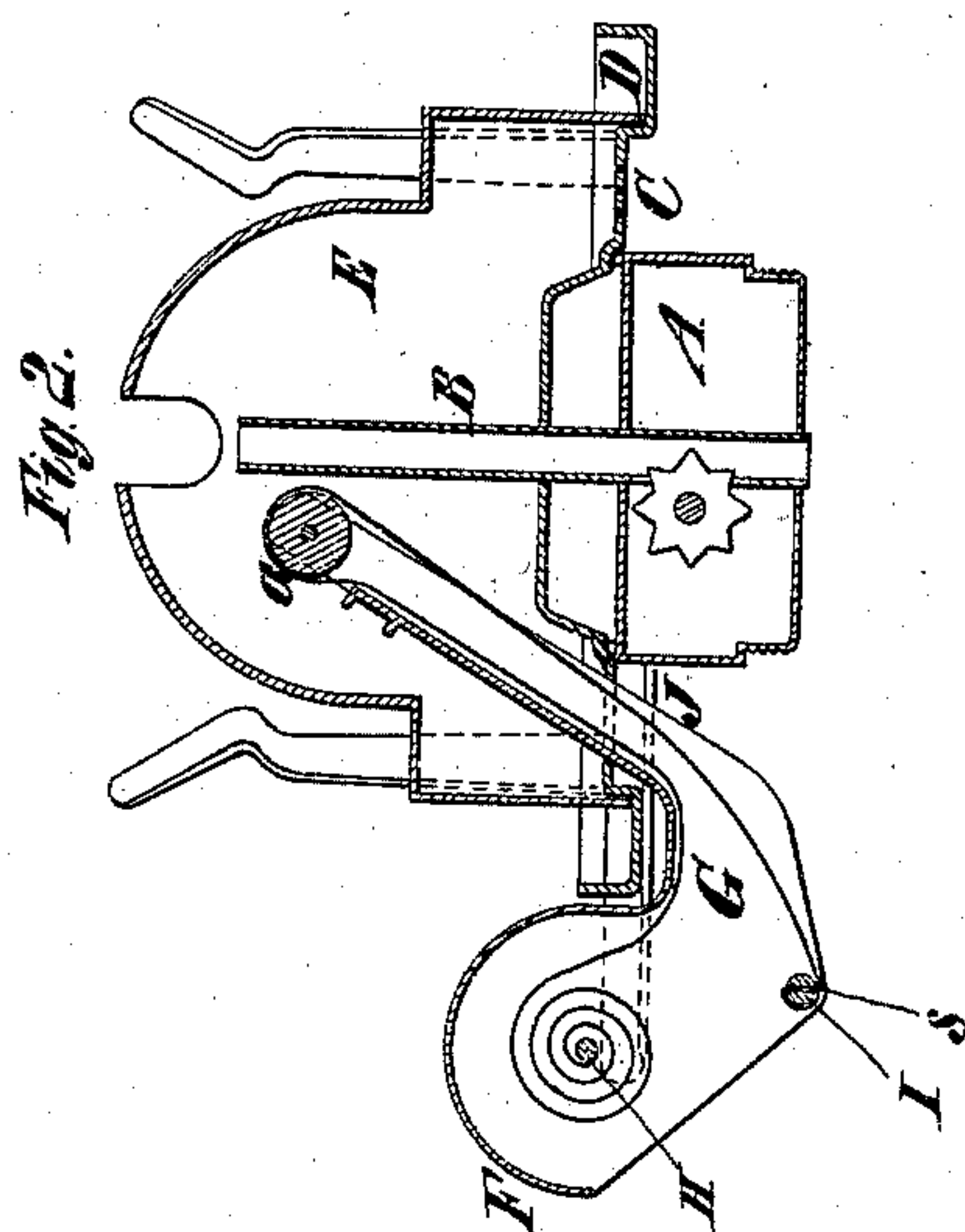
(No Model.)

S. RUSSELL.

LIGHTING APPARATUS FOR LAMPS, &c.

No. 254,701.

Patented Mar. 7, 1882.



WITNESSES  
*J. Keane*  
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By his attorney  
*Edwin H. Brown*



# UNITED STATES PATENT OFFICE.

STERNE RUSSELL, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE  
SCOVILL MANUFACTURING COMPANY, OF SAME PLACE.

## LIGHTING APPARATUS FOR LAMPS, &c.

SPECIFICATION forming part of Letters Patent No. 254,701, dated March 7, 1882.

Application filed August 24, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, STERNE RUSSELL, of Waterbury, in the county of New Haven and State of Connecticut, have invented certain  
5 new and useful Improvements in Lighting Apparatus for Lamps, Lanterns, &c., of which the following is a specification.

The improvements relate to lighting apparatus for lamps, lanterns, &c., wherein is used  
10 a tape provided with ignitable pellets which are fired upon contact with an igniting device.

The improvements consist in the combination, with a lamp, lantern, or like device having an opening in its air-distributor or draft-plate, of a lighting apparatus having a case  
15 comprising a body and a conduit made in one integral structure with the body, and projecting therefrom, so as to be adapted to be inserted through the said opening, and means for detachably connecting the body of said case to  
20 said air-distributor or draft-plate.

They also consist in the combination, with a lighting apparatus, of an igniting device, which is so secured in place that it may be swung  
25 aside when desirable.

In the accompanying drawings, Figure 1 is a plan or top view of a lamp-burner embodying my improvements and having the cone removed to reveal the parts which ordinarily are  
30 covered by it. Fig. 2 is a central vertical section of this lamp-burner with its cone in place, and Fig. 3 is a face view of the upper portion of the case of the lighting apparatus and the igniting device on a larger scale.

Similar letters of reference designate corresponding parts in all the figures.

A designates the base, B the wick-tube, C the air-distributor or draft-plate, D the chimney-gallery, and E the cone or deflector, of an  
40 ordinary lamp-burner adapted to burn kerosene-oil.

F designates the case of the lighting apparatus, consisting of a circular body, which is shown as extending outside the air-distributor  
45 or draft-plate, and a conduit or upper portion, which extends upward through a hole or opening in the air-distributor or draft-plate into proximity to the tip of the wick-tube, and which is made in one integral structure with the body.

50 G designates a tape, provided with ignitable pellets, which is coiled upon a pin, H, and

passes thence along the conduit of the case F to and around a roller, *a*, at the end thereof, and returns back through the said conduit to the spindle I. The tape is fastened to the spindle I by having its end slipped through a slot, *s*, in the spindle, and by being wound around the spindle. This spindle, when turned, draws the tape around the roller *a* and winds it up. This spindle may be conveniently turned  
60 through the agency of a knob or hand-piece, I', with which it is provided.

J designates two parallel bars, which are affixed to and extend laterally beyond the air-distributor or draft-plate C. They are shown  
65 as made separate from the air-distributor or draft-plate and as affixed to it and the base A; but I do not confine myself to this way of providing the burner with them. The body portion of the case F fits between these bars J outside the air-distributor or draft-plate, and the  
70 case is held in position by the bearing of its conduit within its opening in the air-distributor or draft-plate and by means of the pin H bearing on the top of the bars J. The pin H  
75 thus serves two purposes.

It is obvious that by withdrawing the pin H the case may be detached from and drawn or removed outward through the air-distributor for the purpose of replacing an expended tape  
80 by a new one, or for any other purpose, and that the case may be easily secured in place again. When thus constructed and arranged the case of the lighting apparatus does not materially, if at all, interfere with the draft of  
85 air for the wick, and does not necessitate any modification of the cone E.

K designates an igniting device, which operates by scratching the ignitable pellets upon the tape, when by the motion of the latter they  
90 are moved past it. As here shown it consists of a wire fastened to the conduit of the case F, and having its end bent to operate in the manner described upon the pellets as they pass over the roller *a*. It consists essentially of a  
95 straight portion, which is supported near one edge of the conduit of the case F in bearings in ribs *b*, extending therefrom, and terminates in a bent-over upper end. Its lower portion is bent over toward the opposite edge of the con-  
100 duit of the case F, and is slipped behind a catch, *c*, on said conduit. By this catch the



device is prevented from turning when in use; but if it is desirable to turn it aside, as indicated by dotted lines in Fig. 3, its end is disengaged from the catch, and then it may be so  
5 turned aside. This will be found convenient in inserting a new tape in position, and sometimes in readjusting a tape where this is necessary.

It is obvious that substantially the same  
10 combination of parts is applicable to a lantern or other like device.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a lamp, lantern, or  
15 like device having an opening in its air-distributor or draft-plate, of a lighting apparatus having a case comprising a body and a conduit made in one integral structure with the body, and projecting therefrom, so as to be  
20 adapted to be inserted through the said open-

ing, and means for detachably connecting the body of said case to said air-distributor or draft-plate, substantially as specified.

2. The combination, with the air-distributor or draft-plate of a lamp, lantern, or like de- 25 vice, of the case F, bars J, and pin H, substantially as and for the purpose specified.

3. In a lighting apparatus for a lamp, lantern, or like device, a pivoted scratching igniting device, substantially as and for the pur- 30 pose specified.

4. The combination, with the conduit of the case F, of the igniting device K, bearings therefor in which it may be turned, and a catch, c, substantially as and for the purpose 35 specified.

STERNE RUSSELL.

Witnesses:

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