

(No Model.)

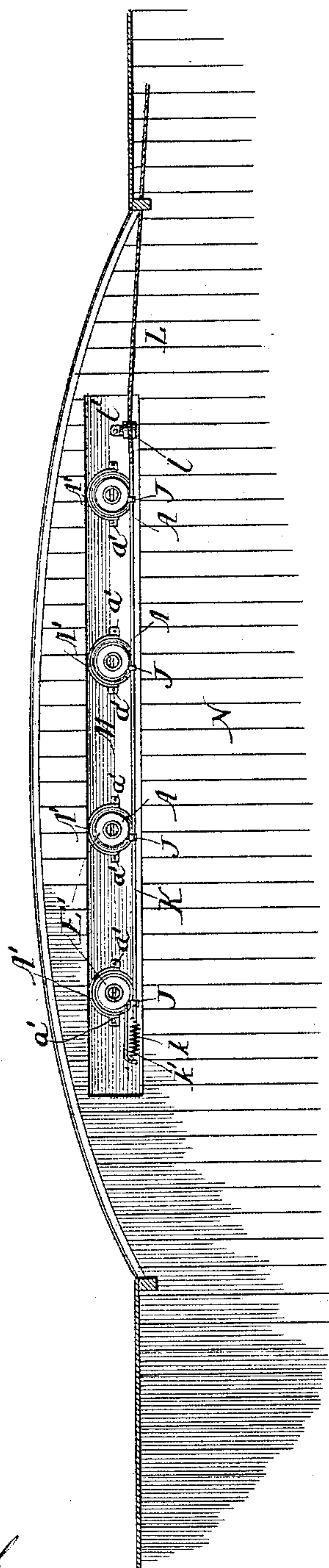
2 Sheets—Sheet 1.

C. & J. LANDIS.  
LAMP.

No. 450,867.

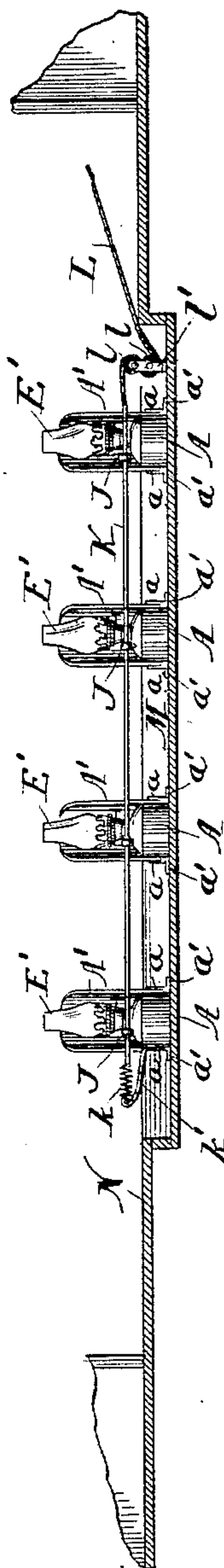
Patented Apr. 21, 1891.

Fig 1.



Witnesses:  
Fred Gerlach  
O. W. Bohl.

Fig. 2.



Inventors:  
Charles Landis  
Joseph Landis

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

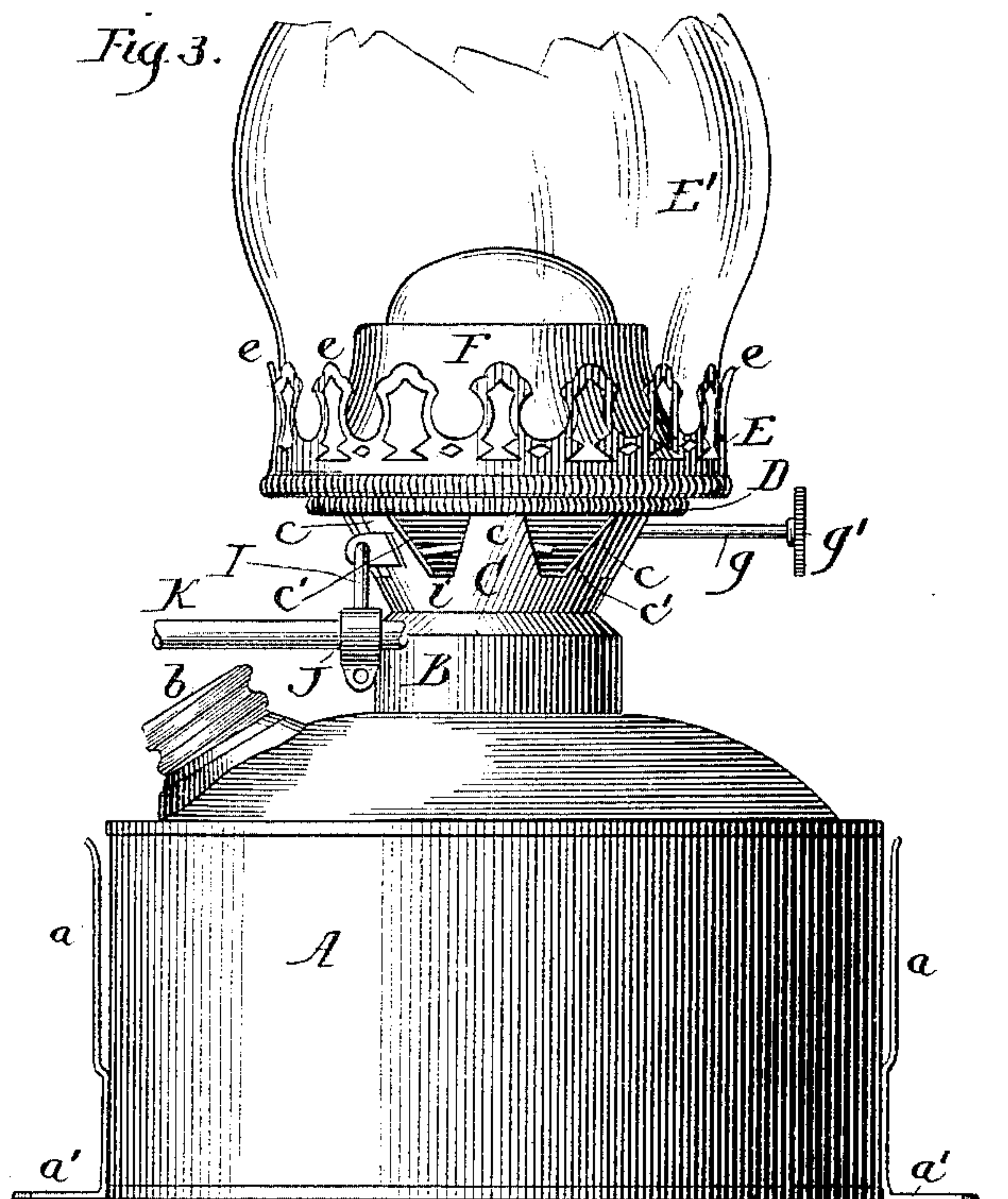


Fig. 4.

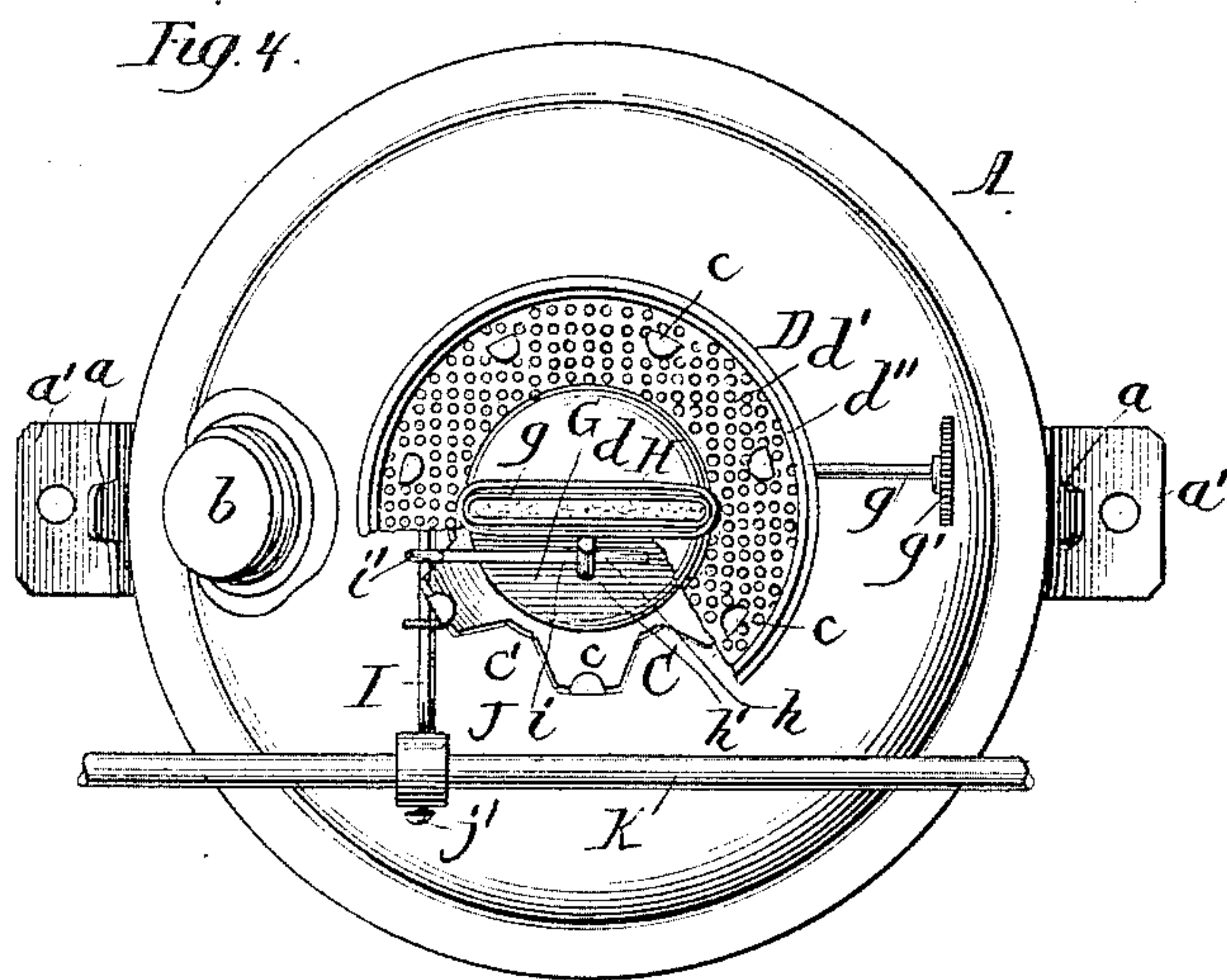
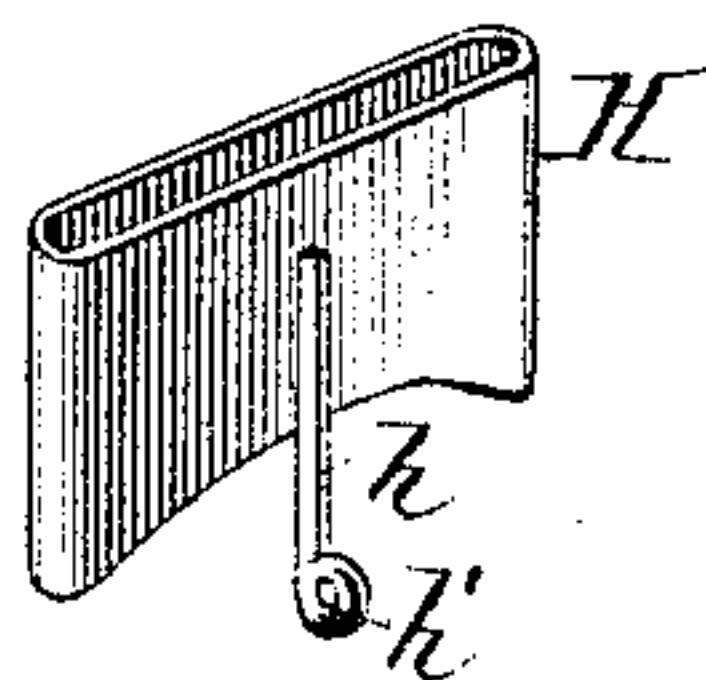


Fig. 8.



Witnesses:  
Fred Berlach  
Chas. Bond.

Fig. 5.

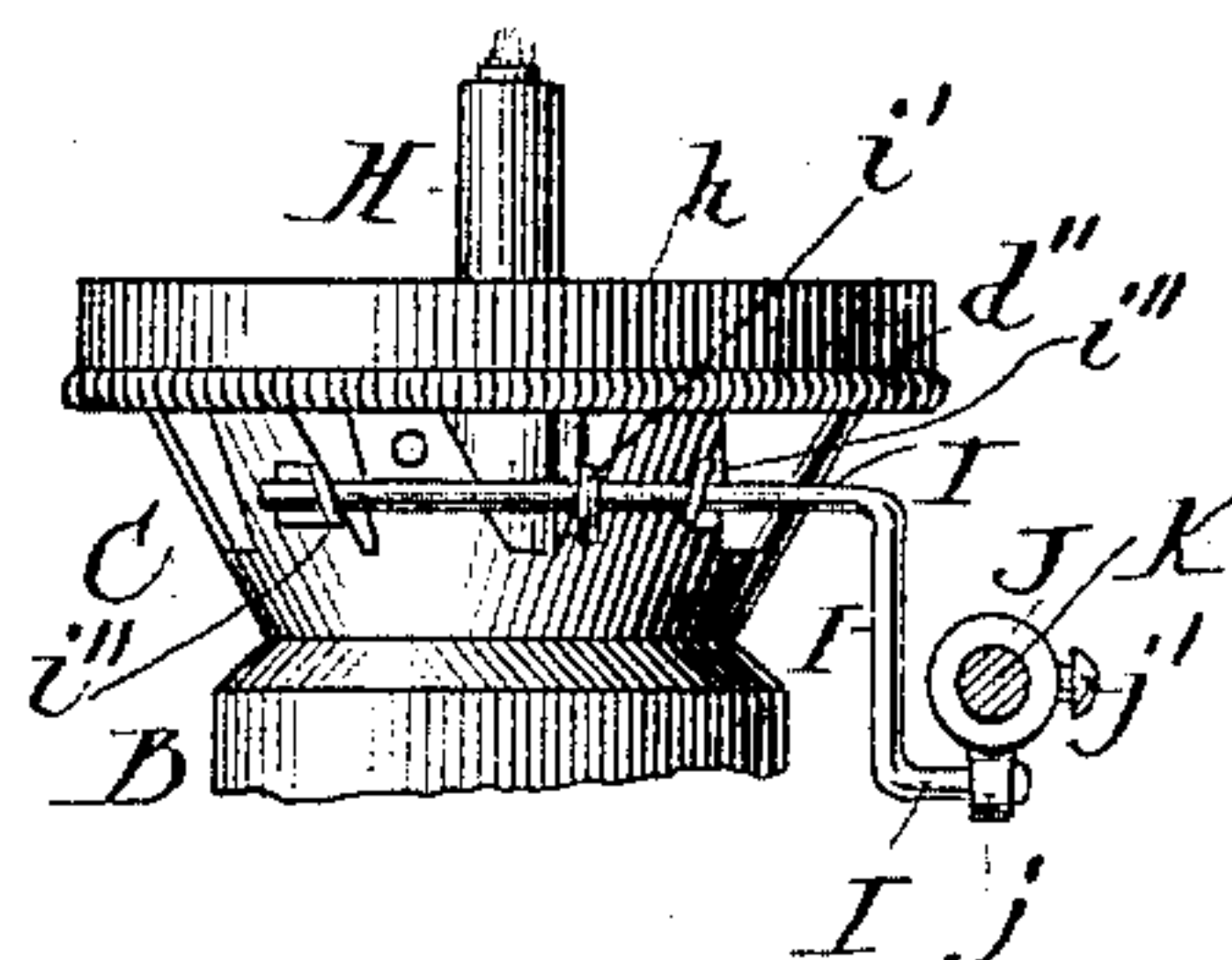


Fig. 6.

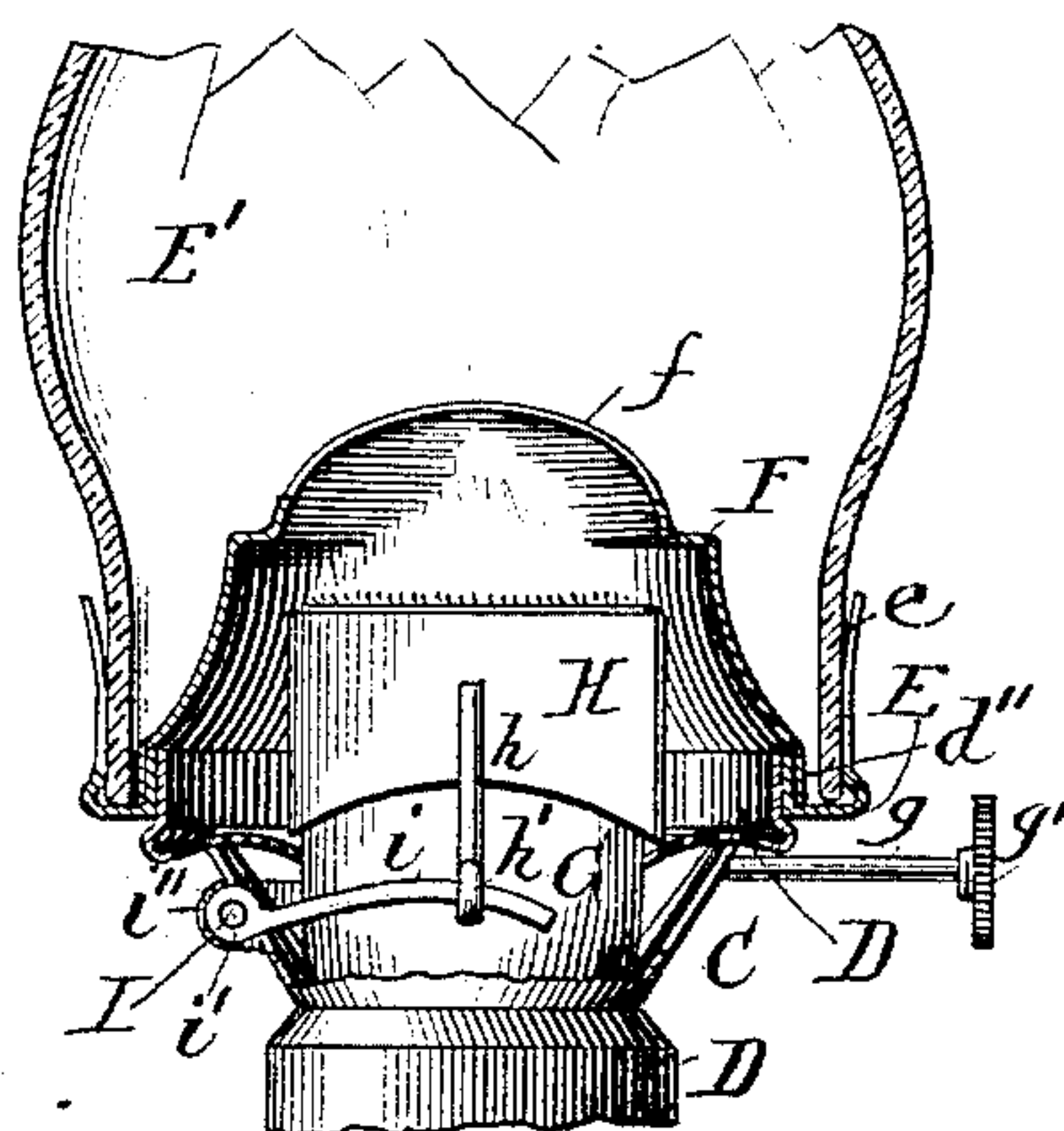
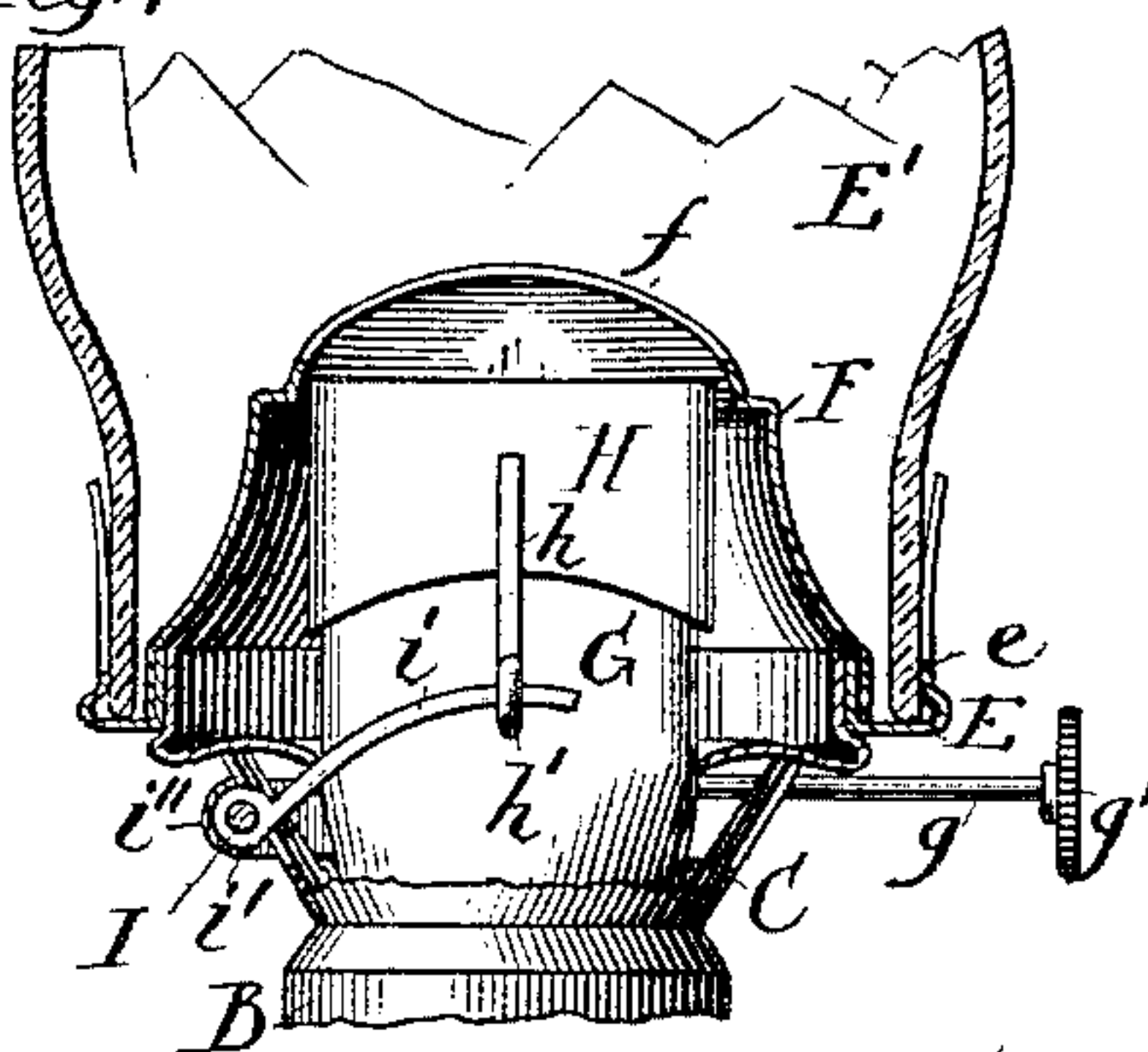


Fig. 7.



Inventors  
Charles Landis  
Joseph Landis.



# UNITED STATES PATENT OFFICE.

CHARLES LANDIS AND JOSEPH LANDIS, OF CHICAGO, ILLINOIS.

## LAMP.

SPECIFICATION forming part of Letters Patent No. 450,867, dated April 21, 1891.

Application filed July 25, 1890. Serial No. 359,960. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES LANDIS and JOSEPH LANDIS, residing at Chicago, in the county of Cook and State of Illinois, citizens of the United States, have invented a certain new and useful Improvement in Lamps; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, in which—

Figure 1 is a top or plan view showing the front of a theater-stage with a number of foot-light lamps and the attachment for simultaneously shading down the lights. Fig. 2 is a sectional elevation of the arrangement shown in Fig. 1. Fig. 3 is an elevation of a single lamp, showing the appliances for raising the shade-tube for the light. Fig. 4 is a top or plan view of a lamp with the cone removed and the air-screen partly broken away to show the operating devices of the shade-tube for the light. Fig. 5 is a detail showing a side view of the arm for operating the shade-tube for the light. Fig. 6 is a sectional elevation showing the shade-tube for the light down. Fig. 7 is a sectional elevation showing the shade-tube for the light raised. Fig. 8 is a perspective view of the shade-tube.

It is the practice, where gas cannot be had, to use lamps for the foot and border lights in a theater, and, as heretofore used, in order to shade the lights down and brighten them up again it is necessary to separately turn each light down for shading and turn them up again for brightening, and such operation is attended with more or less trouble and inconvenience and is not perfect in its results, owing to the impossibility of having the several lamps graduated to the same degree of shade and brilliancy.

This invention is primarily designed for use with foot-light and border-light lamps for theaters, but can be applied to and used with lamps for other purposes, and has for its object the shading of a lamp without turning the light down and to simultaneously shade all the lamps composing the foot and border lights; and to this end the invention consists in a sliding shade-tube located around the wick-tube, which can be raised to shade the

light and dropped to brighten the light without lowering or raising the wick; in providing a lifting-arm for operating the shade-tube; in providing a connection for operating the lifting-arms of all the lamps simultaneously, and in the several parts and combinations of parts hereinafter described, and pointed out in the claims as new.

In the drawings, A represents the body of a lamp designed for theatrical use, for which purpose on opposite sides are provided straps *a*, between which and the body of the lamp a reflector A' is held, and each strap *a* is turned at its lower end to form an ear *a'*, by means of which ears *a'* the lamp as a whole is firmly secured in position.

B is a collar firmly attached to the body A of the lamp, and the top of the body A has a filling-opening closed by a cap *b*, as usual.

C is the burner-jacket, formed of a metal band having strips *c*, with openings *c'*, which jacket screw-threads into the collar B, as usual.

D is the burner-cone-receiving plate, formed of a solid center *d* for attachment to the wick-tube, a perforated portion *d'* for the admission of air, and a peripheral flange *d''* for the cone.

E is the chimney-holder, formed of a metal band having a series of strips or arms *e*, as usual, and supporting the chimney E', as usual.

F is the cone, having a slot *f* for the flame, as usual, and, as shown, the cone is attached to the band of the chimney-holder, so that the cone and holder are in effect one piece.

G is the wick-tube attached to the center *d* of the plate D, and the wick is raised and lowered, as usual, by means of a stem *g*, having a button *g'*, the stem having the usual spur-wheels.

H is the shade-tube encircling the wick-tube and free to slide up and down on the wick-tube, and this tube H on one side has an arm *h*, with an eye *h'* at its end.

I is a crank-arm having an arm *i* attached thereto by an eye *i'* or otherwise, and this arm *i* has its end entered in the eye *h'* of the arm *h*, and the crank-arm I is supported in bearings *i''*, attached to the jacket C.

J is a socket having an eye *j* to receive the end of the crank-arm I, as shown in Fig. 5.



K is a rod to which the sockets J of a number of lamps are attached, so that the movement of the rod will operate the crank-arms I of all the lamps simultaneously and to the same extent. Each socket J is attached to the rod K by means of a set-screw  $j'$ . The rod K at one end has attached thereto a coil-spring  $k$ , one end of which is attached to the end of the rod and the other end to an arm or bracket  $k'$ , attached to the body of the end lamp or other suitable support.

L is a rope or cord attached at one end to the end of the rod K and running back behind or below the stage, and this rope or cord runs between pulleys or guide-wheels  $l$ , mounted in a support  $l'$  in the arrangement shown.

M is the depression or pit at the front of the stage, in which the lamps are located.

N is the stage.

The parts represented by the letters A, A', B, C, D, E, E', F, and G can be of the construction shown or of any other well-known form of construction and arrangement for such parts of lamps, and the depression or pit M, when used, and the stage N are of the usual construction and arrangement, and these parts need not therefore be specifically described as to their construction and operation. The shade-tube H does not fit snugly around the wick-tube, having a space between them for the passage of air to supply combustion when the tube H is raised, and this tube is applied by slipping it, with the arm  $h$  thereto attached, onto the wick-tube. The outer end of the arm  $i$  is slipped into the eye  $h'$  of the arm  $h$ , and the crank-arm I is passed through the bearings  $i''$  and the eye  $i'$  of the arm  $i$ , and the eye  $i'$  soldered, brazed, or otherwise firmly secured to the crank-arm I, so that by oscillating the crank-arm I the shade-tube H can be raised or lowered. The crank-arms I for the number of lamps composing the foot-lights are attached to the rod K by slipping a number of sockets corresponding to the number of lamps onto the rod K and slipping the eye  $j$  of a socket J onto the end of the crank-arm and then locking the socket  $j$  to the rod K by its set-screw  $j'$ , and when adjusted and in position for use the crank-arms all have the same relation, so that with the movement of the rod K each crank-arm I will be moved to the same extent, raising or lowering each sliding tube H to the same degree, or approximately so, producing an equal shading or brightening of all the lamps simultaneously. The spring  $k$  is attached at one end to the end of the rod K and at its other end to the arm or bracket  $k'$ , and the rope or cord L is attached to the end of the rod K and passed over the upper pulley or guide-wheel  $l$ , and between the two guide-wheels  $l$ , and under the lower guide-wheel, and carried back of the wings or under the stage. The number of sockets J depends upon the number of lamps, and the lamps, each with a shade-tube and its operating devices, are first set in po-

sition and secured, after which the rod K is connected with each lamp by a socket J. The spring  $k$  and the rope or cord L are attached when the lamps are ready for use as foot-lights.

In use the rod K is drawn by the operator, standing back of the wings or below the stage, against the spring  $k$ , moving the rod K in the same direction, and such movement of the rod K raises each crank-arm I, and with it the arm  $i$ , and through the arm  $h$  raises each shade-tube H; and each shade-tube H, when raised, forms a wall inclosing the light and preventing any radiation therefrom, thereby effectively darkening or shading the several lamps to the same extent and at the same time. The lights are brightened, after a shading, by releasing the draw on the rope or cord L, when the spring  $k$  acts and returns the rod K, bringing all the crank-arms I to their normal position and lowering the shade-tubes H on all the lamps for the light to radiate and illuminate the stage, and this brightening of the lights will occur for all the lamps at the same time, as the shade-tubes are all lowered simultaneously.

The several lamps are to be lighted and properly adjusted as to the flame, and after this is done no further attention is required for the wicks, as the operation of the shade-tubes does not change the position of the wicks, which remain the same, as the shading is done by inclosing the flame with the shade-tube, which simply cuts off the radiation of the light without any lowering of the wick.

This shade attachment can be applied to ordinary lamps, as all that is required is to shape the shade-tube to conform to the shape of the wick-tube and slip the shade-tube onto the wick-tube and provide a connection by which it can be raised and lowered, and this shade-tube will be found very valuable and efficient, as by its use the light can be readily and quickly changed without the necessity of lowering and raising the wick, and the wick will not have to be regulated, except for the first lighting, as after that the change in the light is made by and through the shade-tube, and by having each of the lamps for a foot-light provided with this shade-tube and a connection for operating all of the lamps simultaneously and to the same extent in regard to its shading and lighting the change is uniform and to the same degree for all of the lights, and one operation changes all the lamps, thus making a great saving in time and labor.

The shade-tube, while it performs the required work effectually, does not extinguish the light when raised, but simply encompasses the light with a wall, so that when the shade is dropped the lamp is still lighted and in condition for use, and this shade-tube can be applied to and used with a single lamp where it is desired to have a shaded light without an extinguishment of the lamp.

The lamps are shown arranged for foot-



lights; but it is to be understood their use is not confined to foot-lights, as they can be used for border-lights and other places, the lamps being arranged as is usual for border-lights of a stage.

What we claim, and desire to secure by Letters Patent, is—

1. A series of lamps, each having a wick-tube and a shade-tube located directly around and encircling the wick-tube, and each having a crank-arm for operating the shade-tube, in combination with a movable rod and connections on said rod, one for each crank-arm, adjustable on and along the rod for operating each crank-arm simultaneously to raise all the shade-tubes and shade the light down uniformly without extinguishment and to lower all the shade-tubes simultaneously to clear the light of all the lamps at one and the same time, substantially as specified.

2. A series of lamps, each having a wick-tube and a shade-tube located directly around and encircling the wick-tube, and having a crank-arm for each lamp, and an arm connecting the crank-arm with the shade-tube arm, in combination with a movable rod and

a series of collars on the rod, one receiving each crank-arm, adjustable on and along the rod for adjusting all the arms in unison, whereby a movement of the rod will simultaneously rock all the crank-arms to the same extent to raise all the shade-tubes to shade down the light without extinguishment and to lower all the shade-tubes to make the light full and clear, substantially as and for the purposes specified.

3. A series of lamps, each having a shade-tube H located directly around the wick-tube and operating when raised to cut the light down, and having an arm *h* and crank-arms I, each with an arm *i* connected with an arm *h*, in combination with the collars J, one for each crank-arm, and movable rod K for operating all the shade-tubes at one and the same time to simultaneously darken and clear the light of all the lamps, substantially as and for the purposes specified.

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Witnesses:

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JNO. C. MACGREGOR.