

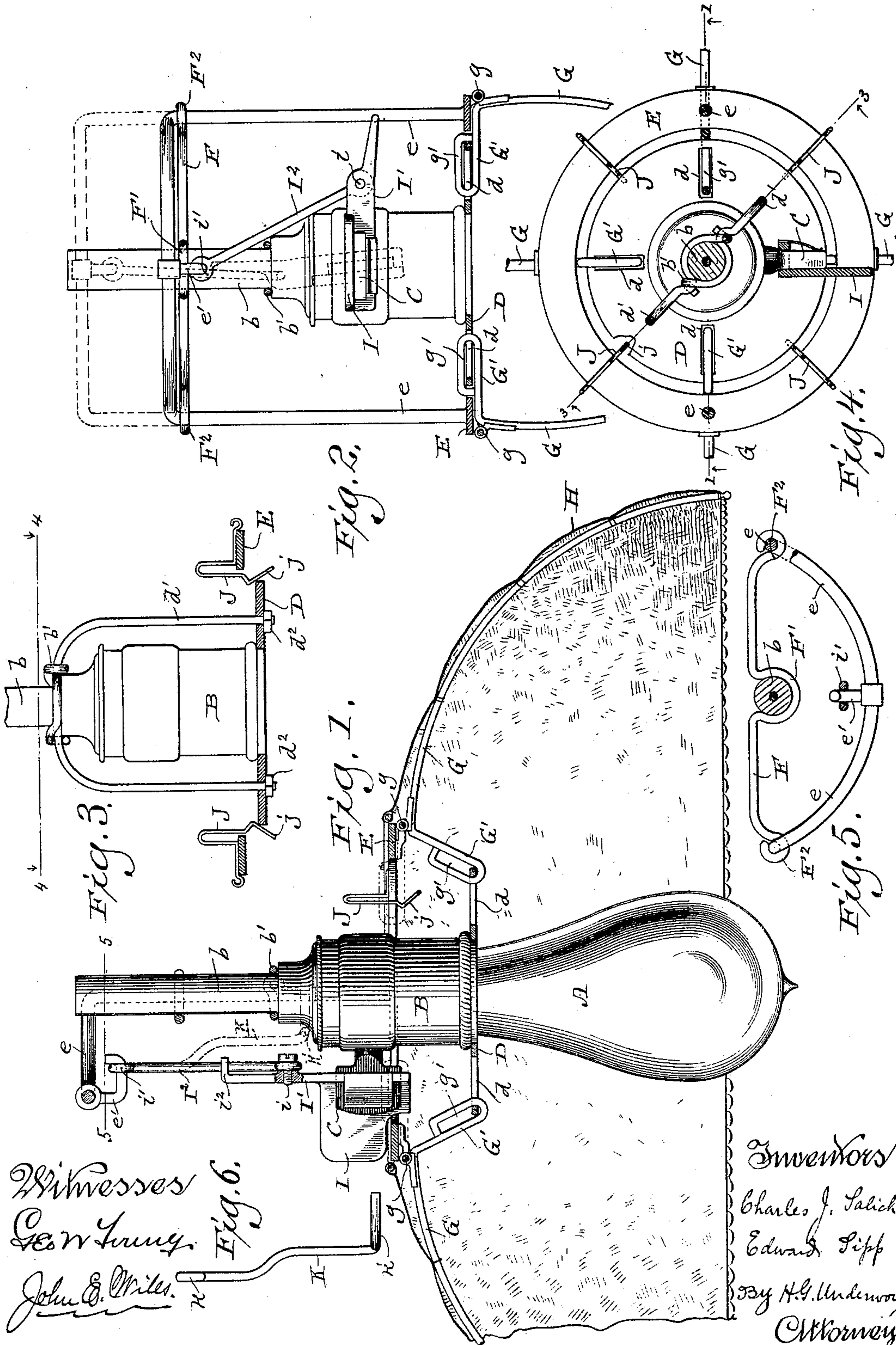
(No Model.)

2 Sheets—Sheet 1.

C. J. SALICK & E. SIPP.
SHADE FOR INCANDESCENT ELECTRIC LAMPS.

No. 481,285.

Patented Aug. 23, 1892.



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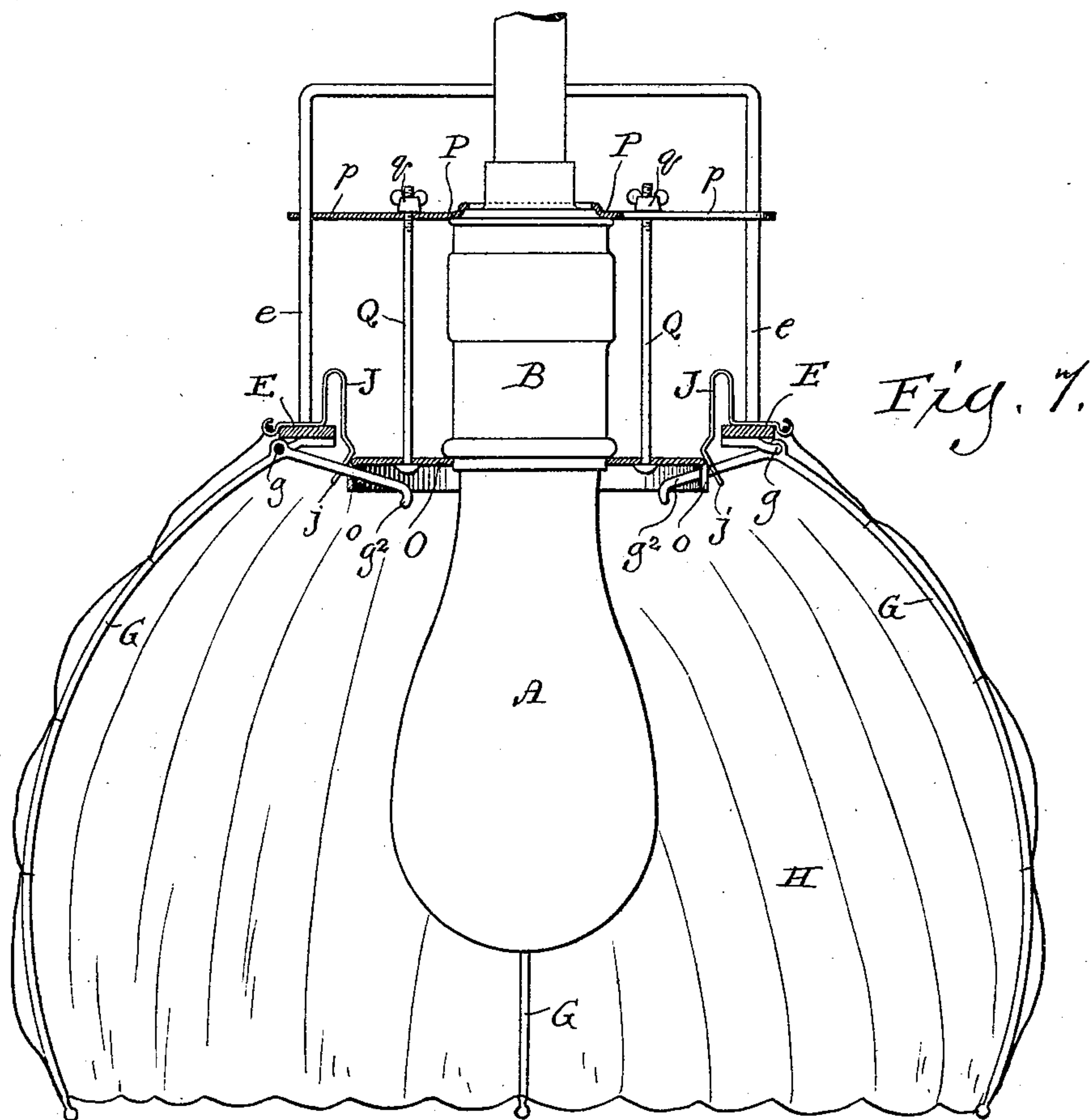


Fig. 8.

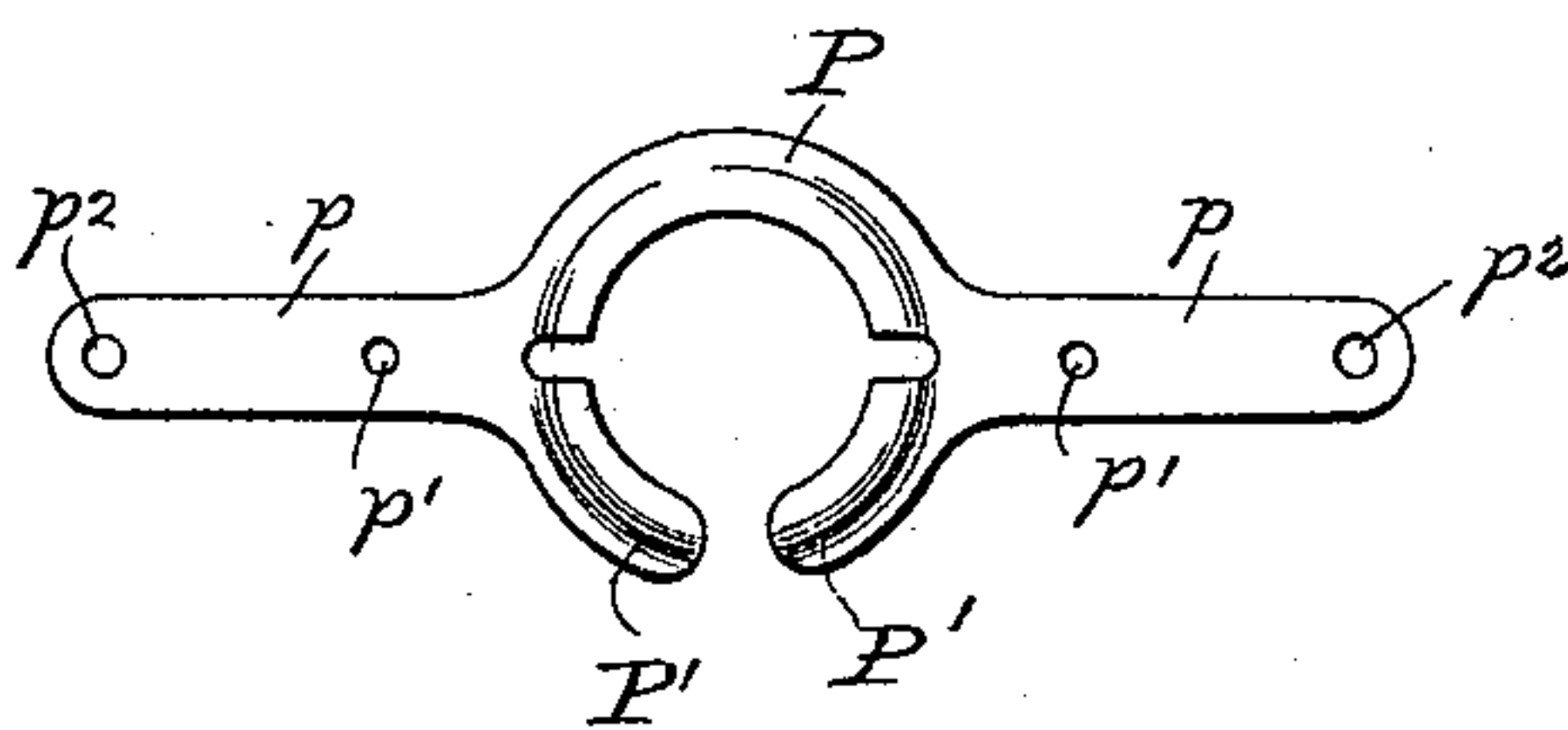
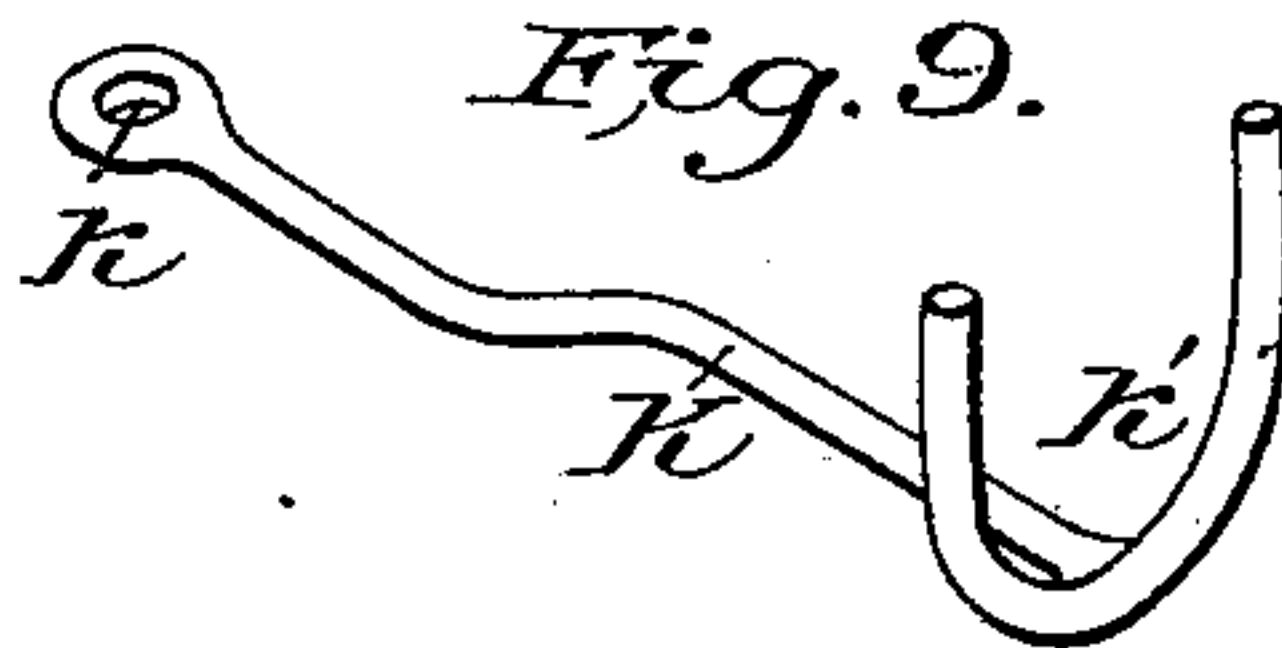


Fig. 9.



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UNITED STATES PATENT OFFICE.

CHARLES J. SALICK AND EDWARD SIPP, OF WATERTOWN, WISCONSIN.

SHADE FOR INCANDESCENT ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 481,285, dated August 23, 1892.

Application filed April 10, 1891. Serial No. 388,406. (No model.)

To all whom it may concern:

Be it known that we, CHARLES J. SALICK and EDWARD SIPP, citizens of the United States, and residents of Watertown, in the county of Jefferson, and in the State of Wisconsin, have invented certain new and useful Improvements in Shades for Incandescent Electric Lamps; and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention relates to certain new and useful improvements in shades for incandescent electric lamps, and relates more particularly to a device of this class which is arranged to be folded or contracted about the lamp or to be expanded or spread out at will.

The invention consists in the matters hereinafter described, and pointed out in the appended claims.

In the accompanying drawings, illustrating our invention, Figure 1 is a view of an incandescent lamp with one form of our improved shade applied thereto. Fig. 2 is a side elevation of the upper part of the same. Fig. 3 is a vertical section on line 3 3 of Fig. 4. Fig. 4 is a horizontal section on line 4 4 of Fig. 3. Fig. 5 is a horizontal section on line 5 5 of Fig. 1. Fig. 6 is a detail view. Figs. 7 and 8 are views illustrating another form of our improved shade. Fig. 9 is a perspective view of the detail illustrated in Fig. 6.

In said drawings, Figs. 1 to 6, A indicates the lamp, B the socket, and C the switch or key, all of which are of the ordinary construction.

D is a ring secured to the outside of the socket B, preferably adjacent to the lower end of the latter. This ring D is provided with a series of radial slots $d\ d$, as shown in Figs. 1 and 4.

E indicates a second ring, larger in diameter than the ring D and supported upon a suitable frame $e\ e$, which frame is movably supported upon a tubular projection b upon the upper end of the socket B by means of a bracket F, which is conveniently arranged to embrace the said tubular projection b , as at F', and provided with lateral arms having eyes or apertures $F^2\ F^2$ for the passage of the vertical arms of the frame e , so as to permit of a vertical movement of said arms therein.

G G are arms for supporting the shade-covering H, said arms being pivotally secured to the under side of the ring E at $g\ g$, as shown in Figs. 1 and 2. The arms G G are provided with downwardly-extended portions $G'\ G'$ upon their inner ends, said downwardly-extended portions being each formed with an elongated opening or slot g' , which engages the outer edge of the ring D at the outer extremity of one of the radial slots $d\ d$, as shown in Figs. 1 and 2.

I indicates a clip arranged to embrace the key or switch-lever C, said clip being provided with an extended arm I', to which is pivoted at i a connecting bar or rod I², which is in turn connected with the vertically-movable frame e by means of a hook e' , which engages an eye i' in the upper end of the connecting bar or rod I', so that by a rotary movement of the clip I a vertical motion is communicated to the connecting bar or rod I' and the movable frame e . By such movement the ring E is raised and lowered in an obvious manner, thus carrying the pivoted arms G G up and down. By the engagement of the said pivoted arms with the stationary ring D upon the lower end of the socket B, as before described, a vertical downward movement of the ring E and arms G G will cause the said arms to rotate about the pivotal supports $g\ g$, so as to swing the lower ends of the said arms inwardly and close the shade about the lamp, as illustrated more particularly in Fig. 2. By the engagement of the clip I with the lamp-key C the movement of said key to make or break the circuit in the lamp is effected simultaneously with the opening and closing of the shade about the lamp. By the arrangement shown in the drawings the upward or opening movement of the shade is effected by the movement of the clip I to close the lamp-circuit, so that as the lamp is lighted the shade is opened. Similarly the reverse movement of the clip I serves to break the lamp-circuit and to collapse the shade about the lamp.

The connections between the key and the clip and between the connecting bar or rod and the frame e are sufficiently loose to permit of the clip I being slipped off from the key C, so that, if desired, the shade may be left either open or closed without regard to whether the lamp is burning or not. In this

manner, if desired, the shade may be closed about the lamp, so as to soften and subdue the light of the lamp, thus rendering said lamp serviceable as a night-lamp or for use in a sick-room, where a brilliant light would be objectionable.

By the arrangement of the shade to collapse, as described, when the lamp-circuit is broken said shade serves to protect the lamp-bulb from dirt and dust while the lamp is not in use.

Any means for attaching the ring D to the socket B may be employed—as, for instance, as shown in Fig. 3, a yoke d' may be secured to said ring, as at d^2 , said yoke being also secured at its upper end to the upper end of the socket B by means of a loop or ring b' , which is arranged to embrace the projection b upon the upper end of the socket. By this means the ring D is firmly held in position upon the lower end of the socket, so that the downward pressure of the pivoted arms G G will not cause the said ring to be disengaged from the socket.

As shown in Figs. 1 and 2, the clip I is arranged to move slightly past the vertical line through the center of rotation in the movement of opening the shade and lighting the lamp, and the arm I' on said clip is provided with a projection i^2 upon its outer end, which when the shade is opened to its full extent comes into engagement with the connecting bar or rod I², as shown in Fig. 1 by full lines and in Fig. 2 by dotted lines. By this arrangement the weight of the arms G G and the covering H has no tendency to cause the shade to sag, but tends to hold the parts firmly in their opened position.

As a separate and further improvement we provide the vertically-movable ring E with a plurality of springs J J, as shown in Figs. 1, 3, and 4 of the drawings, said springs being arranged around the inner margin of said ring and provided with inclined lower ends $j j$, arranged to come into engagement with the outer margin of the lower ring D when the shade has been partially lowered or closed. By this arrangement, if it is desired to only partially close the shade, the clip I may be disengaged from the key C and the shade lowered, so as to bring the springs J J into engagement with the ring D. In this condition the shade will be supported in a partially-closed position by the springs J J and the lamp may be lighted or cut out, as may be desired.

If it is desired at any time to entirely close the shade, the frame or yoke e may be depressed by hand, so as to force the springs J J downwardly past the ring D and to permit the arms G G to swing into the positions shown in dotted lines, Fig. 1, and in full lines, Fig. 2.

If it is desired to make the shade non-collapsible, we provide a supporting-arm K, having at its upper end an eye k for engaging the

hook e' on the yoke or frame e and at its lower end provided with furcations $k' k'$, adapted to engage the upper end of the socket B, as shown by dotted lines in Fig. 1.

When it is desired to render the shade stationary, it is only necessary to disengage the connecting-bar I² from the hook e' , when the clip I and all the connections attached thereto may be disengaged from the lamp. After the clip I and connecting-bar I² have been removed the supporting-rod K may be engaged with the hook e' and arranged to rest at its lower bifurcated end upon the upper end of the socket B, as shown by dotted lines at the upper part of Fig. 1, so as to support the shade in its opened position.

When it is desired to close the shade, the lower end of the supporting-rod K may be moved out of engagement with the socket B, so as to permit the shade to be closed by hand.

In the form of construction shown in Figs. 7 and 8 a ring O is located upon the lower end of the socket B, said ring being provided with a downwardly-turned flange and with small perforations $o o$ at or near its margin, through which perforations the inner ends of the angular portions of the arms or bows G G pass, said ends being provided with stops $g^2 g^2$ to prevent them from being drawn entirely out of said perforations or apertures. In this form of construction a yoke P is formed from a single piece of sheet metal, as shown more particularly in Fig. 8, said yoke being formed with a central aperture adapted to embrace the upper end of the lamp-socket and with two spring-arms P' P', adapted to be sprung apart to admit the said upper end of the socket and to spring back into position as soon as the yoke has been located upon the socket, so as to firmly retain said yoke upon said socket. Bolts Q Q are passed through the ring O and through apertures $p' p'$ in lateral arms $p p$ on the yoke P, and thumb-screws $q q$ serve to hold the parts firmly together, while at the same time permitting the yoke to be readily unfastened when desired. The outer ends of the arms $p p$ are provided with apertures $p^2 p^2$, through which the arms $e e$ move in the manner before described. In this form of construction, also, the springs J J are arranged to engage the outer periphery of the ring O in the manner before described, so as to hold the shade in an intermediate position.

By our improvements it will be seen that we are enabled to provide a device which is adapted for attachment to any form of incandescent electric lamp and which may be readily operated so as to form an open or a closed shade for said lamp, while at the same time the device is simple in its construction, cheap to manufacture, and durable.

Having described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

1. A collapsible shade for incandescent

electric lamps, comprising a stationary ring adapted for engagement with the lower end of the lamp-socket, a movable ring located around the outside of said lamp-socket, a yoke or frame extending upwardly from said latter ring and having a sliding engagement with a stationary bracket, a plurality of arms or bows pivotally engaged with the under side of said movable ring, extensions upon the inner ends of said arms or bows engaging the outer periphery of said stationary ring, and means for raising and lowering said movable ring, substantially as and for the purposes described.

2. A collapsible shade for incandescent electric lamps, comprising a stationary ring adapted to engage the lower end of the lamp-socket, a movable ring located outside of said socket, a plurality of arms or bows pivotally engaged with the said movable ring and provided with slotted extensions upon their inner ends, said slotted inner ends having engagement with the outer periphery of said stationary ring, a movable yoke or frame for supporting said movable ring, a clip adapted to engage the lamp key or lever, and connections between said movable frame or yoke for giving a vertical movement to said frame

by the rotary movement of said key, substantially as set forth.

3. The herein-described improvement in shades for incandescent electric lamps, comprising a stationary ring adapted to be secured upon the lower end of the lamp-socket, a vertically-adjustable ring supported upon arms or brackets upon said lamp-socket, a plurality of arms or bows pivotally secured to the under side of said adjustable ring, slotted extensions upon the inner ends of said pivoted arms operatively engaged with the said stationary ring, and springs upon the inner periphery of said adjustable ring adapted to engage the outer margin of said stationary ring when said adjustable ring is partially lowered, substantially as and for the purposes described.

In testimony that we claim the foregoing we have hereunto set our hands, at Watertown, in the county of Jefferson and State of Wisconsin, in the presence of two witnesses.

CHARLES J. SALICK.
EDWARD SIPP.

Witnesses:

JOHN G. CONWAY,
MAX GÜTZNAR.