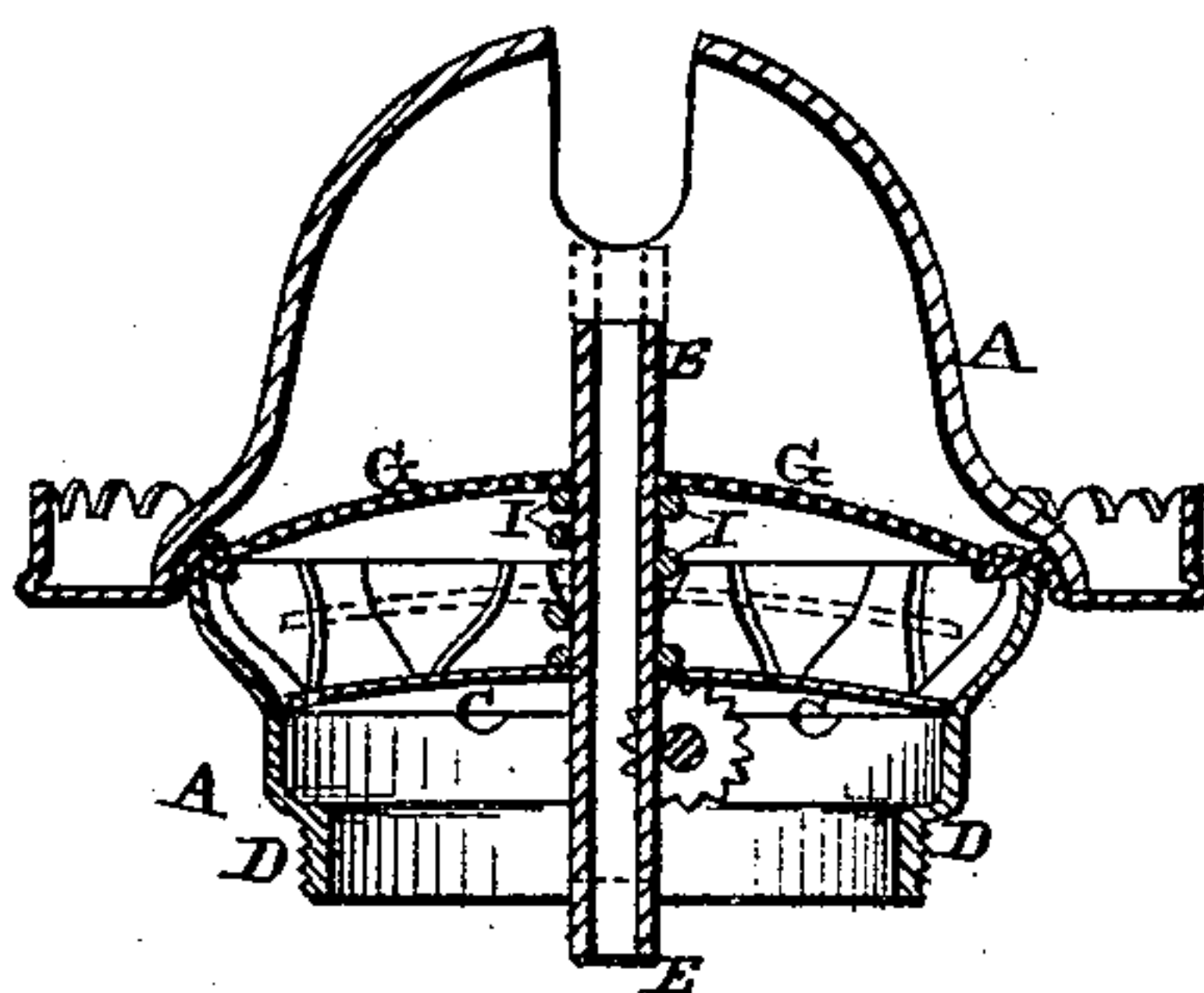


(No Model.)

A. P. ODELL.
Safety Valve for Lamps.

No. 236,614.

Patented Jan. 11, 1881.



Witnesses.

WITNESSES:
Wm. W. Mortimer
Wm. H. Kerr.

Inventor

A. P. Odell

per

F. A. Lehmann,
Atty.

UNITED STATES PATENT OFFICE.

ALBERT P. ODELL, OF BRADFORD, PENNSYLVANIA.

SAFETY-VALVE FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 236,614, dated January 11, 1881.

Application filed December 8, 1880. (No model.)

To all whom it may concern:

Be it known that I, ALBERT P. ODELL, of Bradford, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Safety-Valves for Lamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawing, which forms part of this specification.

My invention relates to an improvement in safety-valves for lamps; and it consists in attaching the valve directly to the wick-tube, and placing a spiral spring around the wick-tube, between the valve and the air-distributor, so as to keep the valve always pressed downward, as will be more fully described herein-after.

The object of my invention is to provide a safety-valve attachment for lamps, so that in case the gas should collect in the lamp-bowl and explode the exploding gas will be allowed to escape through the valve, and do no other harm than simply to put out the light.

The accompanying drawing represents a vertical section of a lamp-burner embodying my invention.

A represents a lamp-burner of any desired shape, size, or construction, and which has the bottom part of the burner entirely open, instead of being closed, as is generally the case. Secured to the wick-tube is the circular valve C, which is sufficiently wide to serve as a cover for all that part of the burner which is immediately above the screw-thread D, and which valve, together with the wick-tube, has a sufficient vertical play, as shown by dotted lines, to allow a free escape for all explosive gas which may have accumulated in the lamp-bowl. The wick-tube E, instead of being soldered to the air-distributor G, as is generally

the case, here simply passes through the same, without being in any wise fastened to it, so that this tube can have a vertical play sufficient to raise the valve above its seat. Passed around this wick-tube, and bearing against the air-distributor at one end and the valve at the other, is the spiral spring I, which serves to hold the spring pressed tightly down upon its seat until a sufficient force is applied against the bottom of the valve to raise it upward. In order to allow the wick-tube to rise upward, long slots are cut vertically in its sides, where the wick-raisers pass through it, so that when the tube does rise the stationary wick-raisers will form no impediment to its motion.

In case an explosion should take place the force of the gas lifts the valve above its seat, and then the gas escapes freely around the edge of the valve before the gas can break or injure the lamp in any way, and then the valve snaps back into position again and extinguishes all flame.

Where there is no attachment to the lamp for the purpose of allowing the gas to escape in case of an explosion, when the explosion takes place the lamp-bowl is shattered, the oil takes fire, and is scattered over the floor and all surrounding objects.

Having thus described my invention, I claim—

The combination, in a lamp burner, of the vertically-moving safety-valve C, the wick-tube E, spring I, and air-distributor G, the parts being arranged to operate substantially as shown.

In testimony that I claim the foregoing I have hereunto set my hand this 7th day of December, 1880.

ALBERT P. ODELL.

Witnesses:

W. W. MORTIMER,
A. C. KISKADDEN.