

E. M. LOWDEN.
Lamps.

No. 155,456.

Patented Sept. 29, 1874.

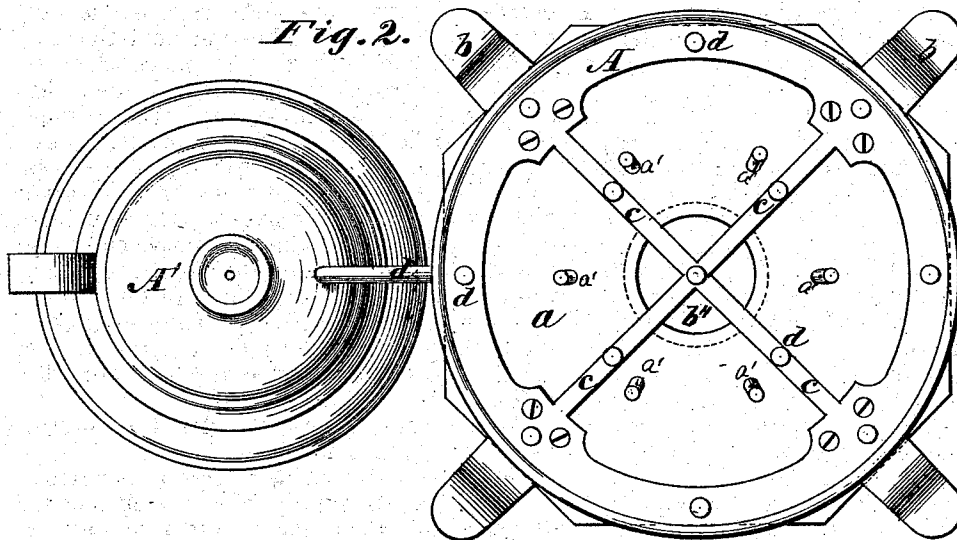
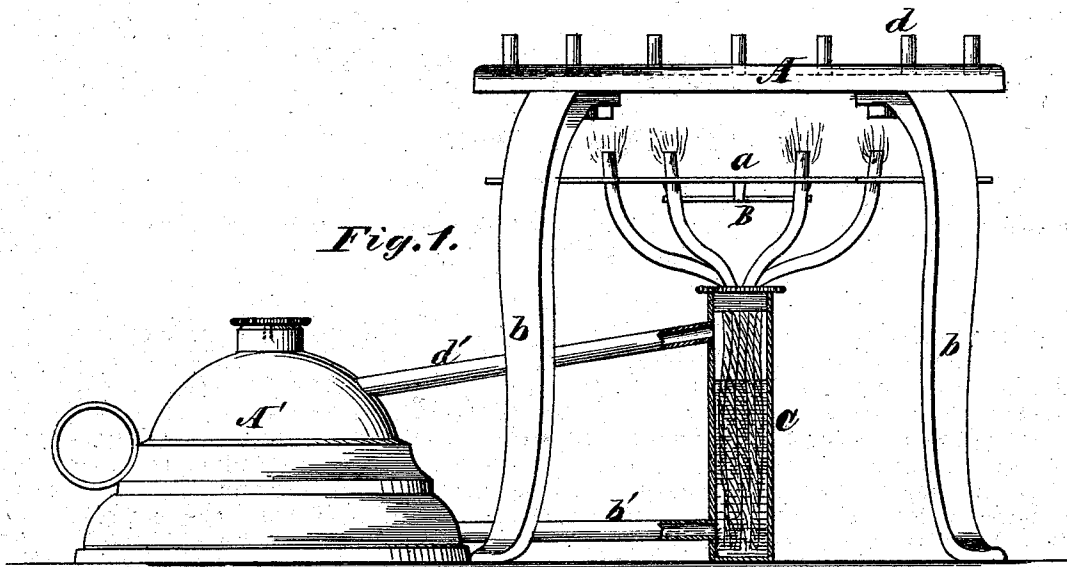
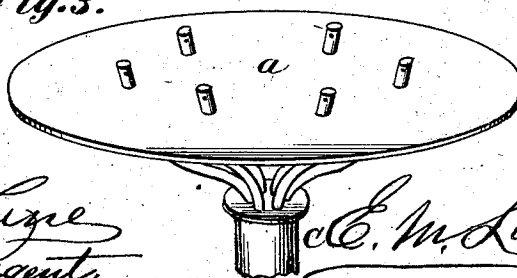


Fig. 3.



Witnesses.

H. W. Luzz
John August.

Inventor.

E. M. Lowden.

UNITED STATES PATENT OFFICE.

EDWARD M. LOWDEN, OF NEW YORK, N. Y.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **155,456**, dated September 29, 1874; application filed May 29, 1872.

To all whom it may concern:

Be it known that I, EDWARD M. LOWDEN, of the city of New York and State of New York, merchant, have invented a new and improved method of constructing and combining the use of stoves, lamps, and burners, to be used for light, heating, and cooking purposes, with oils, spirits, fluids, &c.; and I do hereby declare that the following is a full description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists of a new improvement in the construction of lamps to be used for lighting, heating, and cooking purposes.

I construct a lamp as follows: A', Figure 1, is the main reservoir to hold the oil. C is an upright tube to hold the burner and wick. These two, A' and C, being placed at a safe distance apart, I connect at or near the base by the small supply-tube b', which conducts the oil from A' to C. I then insert from the outside into the upper end of the upright tube C, above the level of the burning material, one end of the vent-tube d'. The purpose of this vent-tube d' is to relieve tube C of the surplus vapor which may be formed therein, and discharge it at a distance safe from the flame of the burner, and to admit the air to tube C necessary for combustion. To make this convenient and practicable I carry the other end of the vent-tube d' to the reservoir A', and fasten d' to A', leaving the end of d' open to discharge the vapor; but, for greater safety, I prefer inserting the said open end of vent-tube d' into the reservoir A' above the level of the oil, and have said vent-tube d' act in co-operation with a vent-hole in reservoir A'. I

then put a vent-hole in reservoir A' at or near the top, or in any part or attachment thereof that admits of a vent of air to and from the interior of said reservoir A' above the level of the burning material. Then, by attaching a burner and wick to tube C and filling reservoir A' with oil, my lamp is ready for use.

The improvement is obvious. The vent-tube d', either alone or in co-operation with a vent-hole in reservoir A', acts as a safety-valve, preventing an explosion either by expansion or sudden ignition of the vapors of the fluid or oil used. It also admits the required amount of air necessary for combustion, obviating the sucking operation which takes place when air is obtained through the burner, and which any one practically acquainted may have observed with other lamps when the air in them is exhausted, and which very quickly is the case when the wick-tube vapor-burners are used, and causes the light to go out. The vent-tube d' also makes practicable and satisfactory the constructing of the upright tube C of small proportion and placing it at a distance from the reservoir A', therefore requiring but a small portion of the burning material at the point of combustion, and as well lessening the shade of the light downward.

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

The combination of the reservoir A', having the vent-hole, the supply-tube b', wick-tube C, and vent-tube d', as and for the purposes set forth.

E. M. LOWDEN.

Witnesses:

H. W. McCUNE,
JOHN NUGENT.