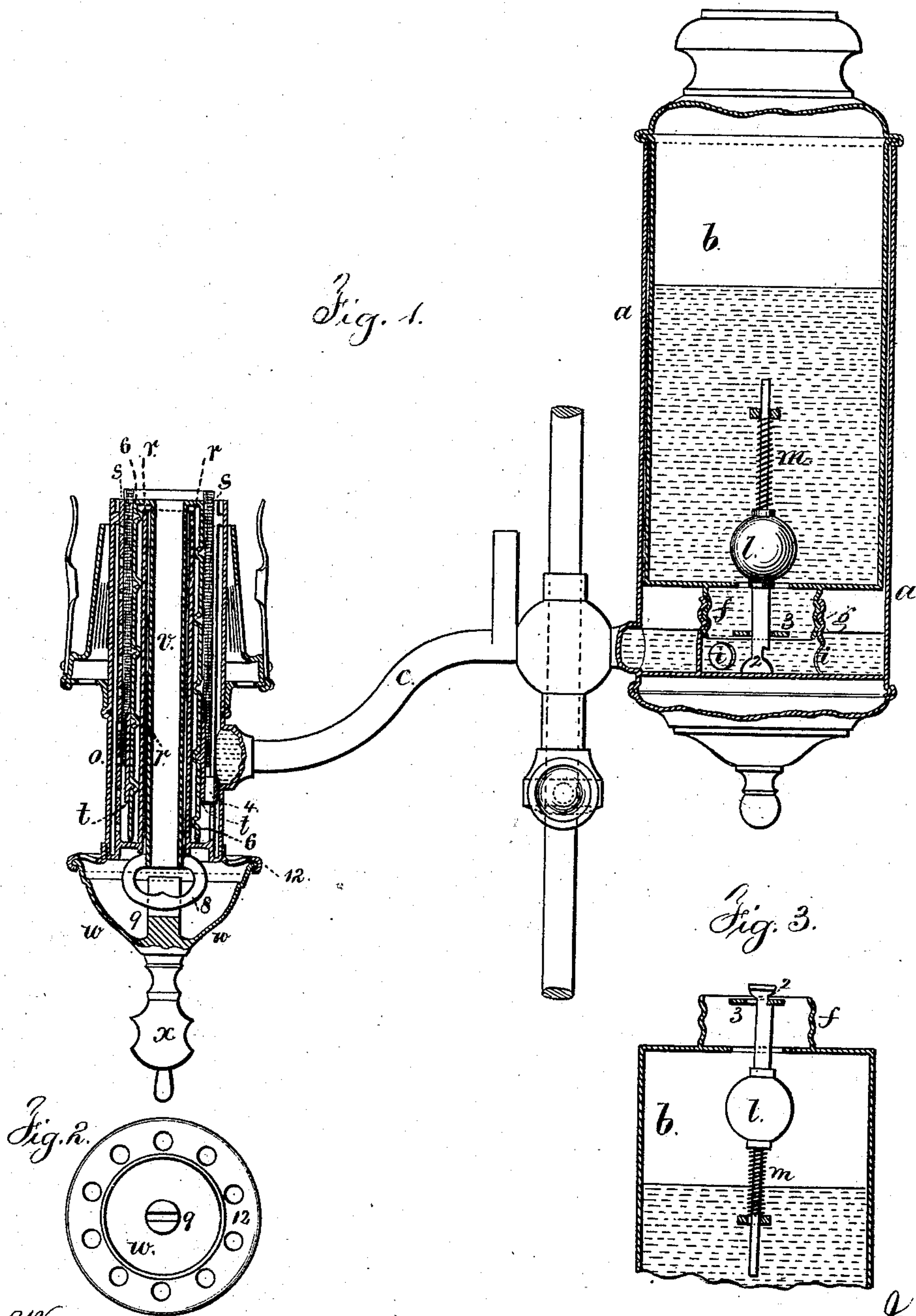


H. L. COE.
Student-Lamp.

No. 215,506.

Patented May 20, 1879.



Witnesses
Charles H. Smith
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Inventor
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Att'y

UNITED STATES PATENT OFFICE.

HENRY L. COE, OF CLIFTON, NEW JERSEY, ASSIGNOR TO MANHATTAN BRASS COMPANY, OF NEW YORK, N. Y.

IMPROVEMENT IN STUDENT-LAMPS.

Specification forming part of Letters Patent No. **215,506**, dated May 20, 1879; application filed October 22, 1878.

To all whom it may concern:

Be it known that I, HENRY L. COE, of Clifton in the county of Passaic and State of New Jersey, have invented an Improvement in Student-Lamps, of which the following is a specification.

I combine with the fountain in a student-lamp a spring-valve and a catch for holding the valve open while filling. This spring will close the valve if the fountain becomes detached from the reservoir, and thereby prevent the contents of the fountain running out if the lamp is upset.

In the drawings, Figure 1 is a vertical section of the lamp complete. Fig. 2 is a plan of the drip-cup detached, and Fig. 3 is a section of the fountain inverted for filling.

The reservoir *a* or cup is of suitable size to receive the fountain *b*, and the tube *c* passes to the lamp-burner, as usual; and upon the lower end of the fountain *b* is a screw-neck, *f*, preferably made of sheet metal; and in the central lower part of the reservoir, inside the same, is a screw-socket, *g*, that is attached to the reservoir, and into which the neck *f* is screwed when the fountain is inserted in place in the reservoir. This is done by revolving the fountain.

There are openings at *i* in the screw-socket *g*, for the oil to pass out freely into the reservoir and lamp.

There is applied to the fountain the valve *l* and a spring, *m*, to close the same. These have been used before; but it was necessary to press the valve down against the action of the spring while filling the fountain.

I make a notch at 2 on the stem of the valve, that serves as a latch against the under side of the bridge 3, to hold the valve open while filling, and as soon as the stem is moved to disconnect this latch the spring closes the valve. Upon screwing the fountain into place the valve is opened, but not sufficiently to allow the notch 2 to act as a latch.

In the burner there is the outer tube or case, *o*, and air-tube *r*, connected at the bottom, as usual. There is a tube, *s*, within the case *o*, leaving an annular cup around the upper end

of the case *o*, to catch and return any overflow from the wick, and this tube *s* is slotted longitudinally and forms a guide for the pin 4, upon the thimble *t*, to which the wick is attached.

Within the air-tube *r* is a tube, *v*, or a tubular frame, and this is connected at the upper end to a sheet-metal screw-tube, 6, that is within the oil-space, outside the air-tube *r*, and between the same and the wick, so as to operate upon a feather inside the wick-thimble, and raise and lower the wick by revolving the tube *v* and screw-tube 6. These wick-raising devices have before been used.

At the bottom of the tube *v* there is a bridge, 8, that is received into the slotted upper end of the turning-post *q*, within the drip-cup *w*; and at the bottom of the drip-cup there is the thumb-piece or button *x*, by which the drip-cup *w*, post *q*, and tubes *v* and 6 can be turned in raising and lowering the wick.

To prevent leakage, the bottom of the post *q* is soldered firmly into the drip-cup, and the drip-cup is otherwise made, in the usual manner, of one thickness of metal, except that its upper edge, instead of being firmly connected with the perforated ring 12, is free to revolve therein. This is accomplished by turning the top edge of the drip-cup outwardly and inclosing it by the returned flange of the edge of the ring 12, the parts being sufficiently loose to allow of the drip-cup being revolved without turning the ring 12, that is screwed to the lower end of the burner in the usual manner.

I claim as my invention—

The combination, with the spring-valve and fountain, of a notched stem and bridge, forming a latch for holding the spring-valve open while the fountain is being filled, substantially as specified.

Signed by me this 14th day of October, A. D. 1878.

HENRY L. COE.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.