

*E. A. Louis d' Argy*  
*System of Flambeau like*  
*lighting apparatus. &c.*

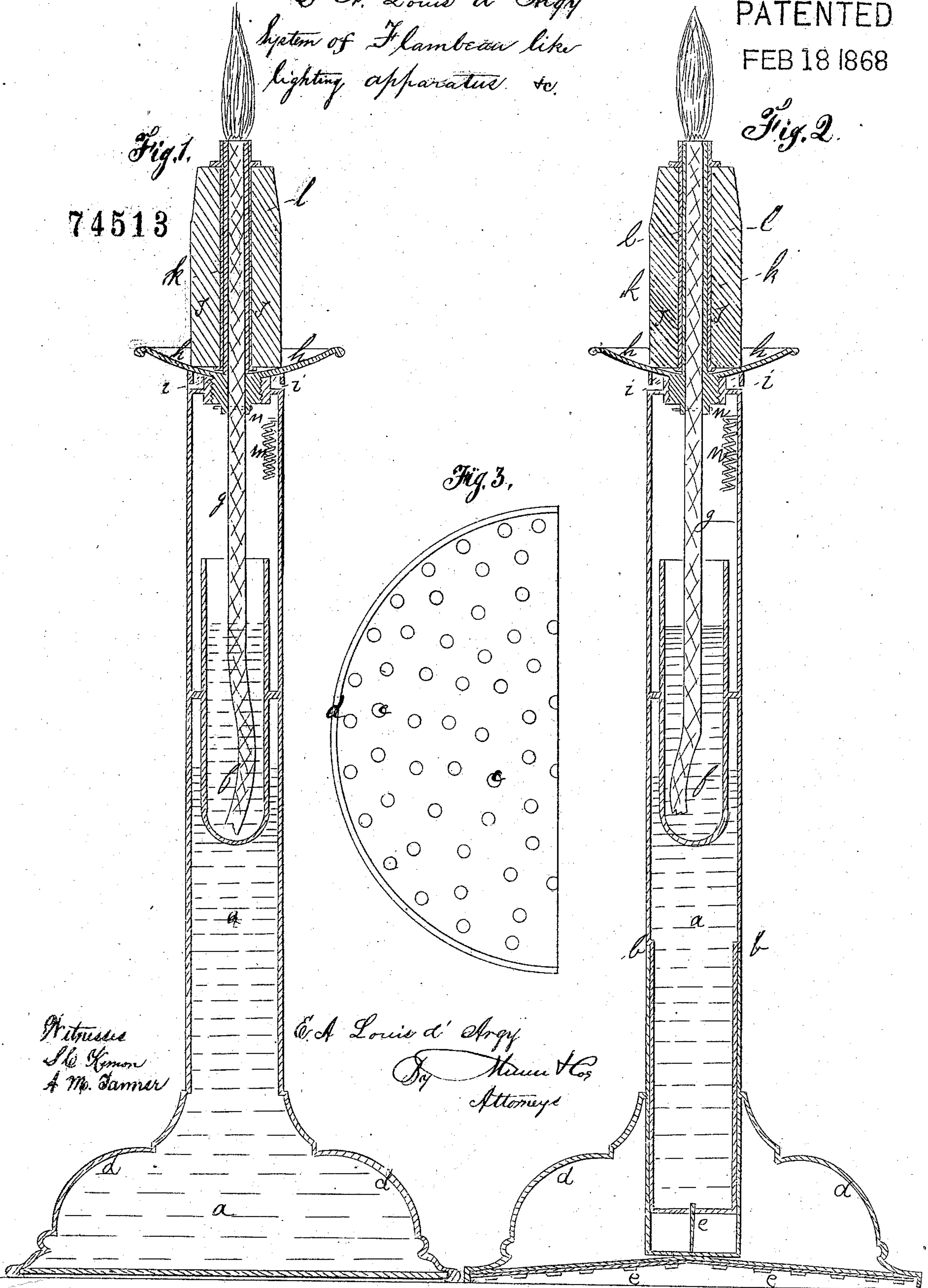
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*Fig. 1.*

*Fig. 2.*

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*Fig. 3.*



*Witnesses*  
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# United States Patent Office.

EDMOND ARMAND LOUIS D'ARGY, OF PARIS, FRANCE.

*Letters Patent No. 74,513, dated February 18, 1868.*

## IMPROVEMENT IN SYSTEM OF FLAMBEAU-LIKE LIGHTING-APPARATUS, &c.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, EDMOND ARMAND LOUIS D'ARGY, of Paris, in the French Empire, manufacturer, have invented a "System of Flambeau-like Lighting-Apparatus, Fed by Light Mineral and other Oils;" and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed sheet of drawings, making a part of the same.

My invention consists in a new lighting-apparatus of the genus flambeau, candlestick, &c., fed by light mineral or other oils.

This lighting-apparatus is composed of—

I. A closed interior capacity for storing up the oil to burn in the liquid state.

II. A small cup placed above the said capacity, and into which is dipping the wick called "cordeline." This cup is fed by the mere rocking or turning upside down of the apparatus, either lit or not.

III. A burner above the small cup. This burner is composed, first, of an obturator screwed in the body or frame of the apparatus, so as to act as tap or stopper in the oil-reservoir or capacity, but instead of the screw-thread, any other suitable closing-device may be substituted; second, an insulator made of some calorifugal material which is bad conductor of heat or caloric; third, of a wick, so-called "cordeline," formed in two parts, the one, which sucks the oil, by capillarity, out of the cup, and the other, which is intended to burn, being the only one that wants to be replaced for another when consumed; these two wicks are superposed on and contiguous to one another; fourth, of a burner, properly said, or a plain tube, into which is tightly confined that part of the wick which is lit, and the upper end of the combustible liquid-conveying wick. This burner is provided with a regulator of the height of the flame by the height to be given to the burning wick. This regulator shams a stearine-candle end.

IV. A small inside tube, whereby the pressure is established round the interior part of the reservoir, without any atmospheric air being, for all that, admitted within the apparatus. This tube is merely intended to prevent the vacuum from being made within, and thus preventing the regular ascent of the combustible liquid. It is made spiral, so that the oil, on the upturning motion, for the feed of the cup, may have a long cross-traject to run, and consequently have no sufficient time left to flow out.

V. A glass chimney, which part of the lighting-apparatus may be suppressed or dispensed with, as it is not intended to produce the draught, but merely to prevent a slight current of external air from blowing the flame out.

VI. I also add to my flambeau, made in two movable parts, a socle, in which I place a paper strewn with phosphorous pastils, which, on being rubbed against a pin, will be inflamed, and thus serve to light the wick.

In the accompanying drawing I have represented two specimens of a lamp-flambeau of my invention.

Figure 1 is a central vertical section of the flambeau, which is not disjointable, the whole body of it forming a capacity.

Figure 2 is a central vertical section of the same, but liable to be disjointed or taken to two pieces, the upper portion of the body alone constituting a capacity, or the oil-reservoir.

Figure 3 is a partial plan of the socle.

In these figures the same letters of reference indicate the same parts where they recur.

I will describe, first, the flambeau with the lighting-pastils, and which is liable to be disjointed.

*a*, capacity containing the oil. This capacity can slide so far as *b*, into a socket formed in the socle *d*. It may be readily fitted in said socket, and as easily removed from it. *c*, rubbing-pin, on which the phosphorous pastils *e* are to be rubbed, which pastils are, as aforesaid, strewn, in the manner of a quincunx, on a paste-board sheet lodged or inserted under the socle *d*. When all the pastils are consumed, they may be replaced by others. To light the wick, the flambeau is disjointed or taken to two pieces, by causing the two parts to separate, which two parts are put together again when the wick is lit. *f*, little cup fed from the reservoir *a*. It suffices for that to have the lighting-apparatus turned upside down. *g*, wick, in one or rather two parts, the lower part or wick being held by a small pin, *h*. *h*, sockets screwed on the reservoir *a*. *i*, wooden or other calorifugal washer. *j*, mock stearine-candle end. It is formed of china, glass, &c., and shams a stearine-candle end. Inside this is the tube *k*, sliding on the tube forming issue *l*, in which the wick passes and is detained. The tube *k*, by shooting a greater or less portion of the wick-end *g*, regulates the flame, and when

desired puts it entirely out. *m*, little capillary spiral tube, for the purpose above specified; that is to say, when the flambeau is turned upside down, for supplying with oil the cup *f*, the essence does indeed flow into said tube, but its run being comparatively long, and crossed by the windings or spires of the tube, not a single drop of the liquid shall be spilt, owing to the lack of time, which would require its running out through the narrow spiral channel; and on the flambeau being set upright again, this liquid will go back again to the reservoir *a*. Several burners disposed beside one another may constitute a chandelier.

As far as concerns the flambeau shown, fig. 1, it is needless to describe it more particularly, the only difference being in its being not disjointable or formed with articulations, both the main body *a* and the socle *d* being made to contain oil within them.

*Claims.*

The system of lamp-flambeau, as described, the principal features of which are—

1. The combination of the removable reservoir *a*, base *d*, and cup *f*, said reservoir adapted to be inverted for feeding the oil to the cup, as herein shown and described.
2. The pressure spiral tube *m*, for the purpose of preventing the oil inside from being spilt out when the flambeau is turned upside down.
3. The wooden or equivalent washer *z*, in combination with the reservoir *a* and socket *h*, as herein described, for the purpose specified.
4. The combination of the pastils *e* with the base, *d*, of the flambeau and the pin *c*, substantially as described, for the purpose specified.

E. D'ARGY.

Witnesses:

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DEMOS.