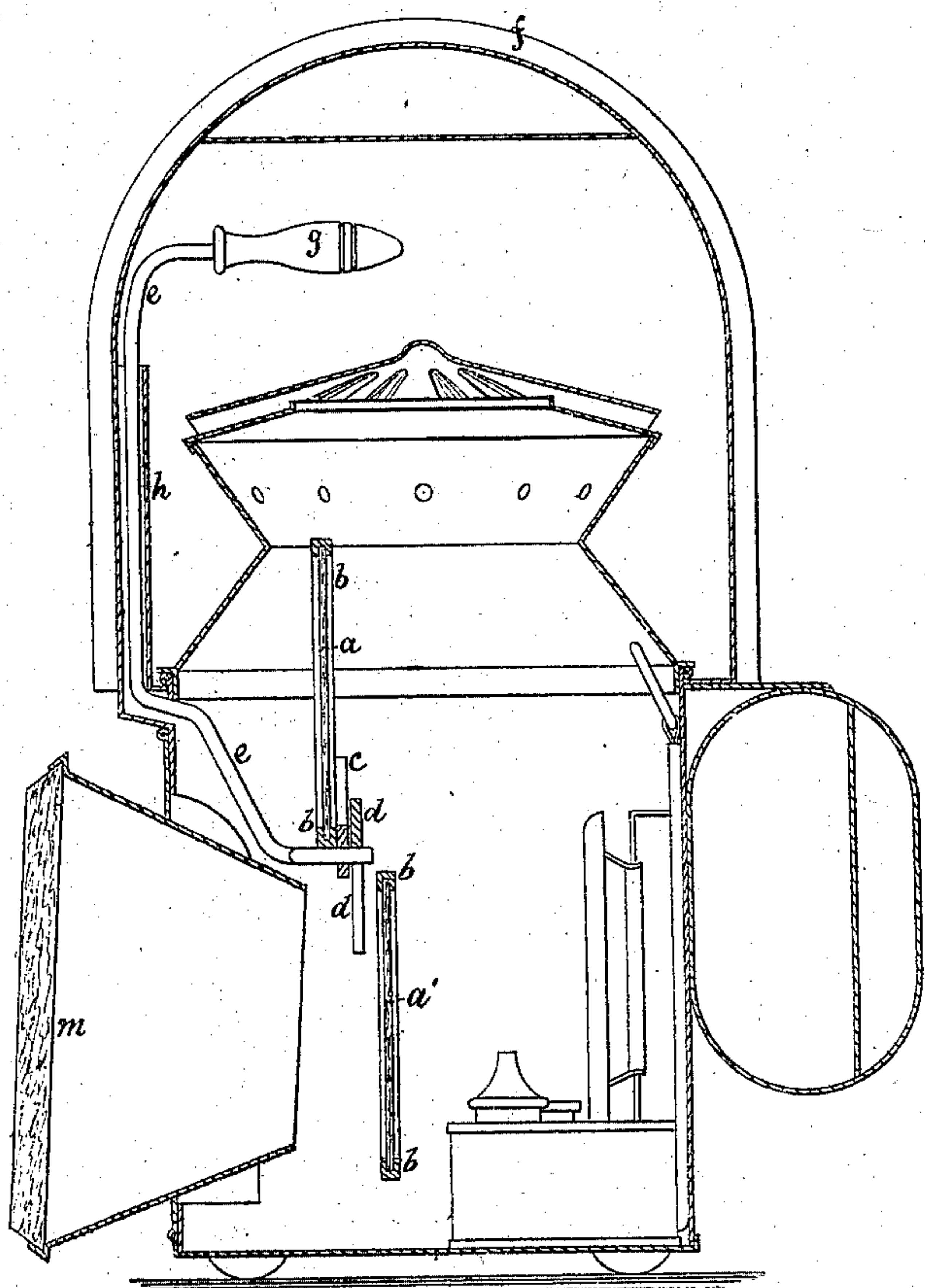


**S. W. CLARK & W. R. SYKES.**  
**Signal-Lanterns.**

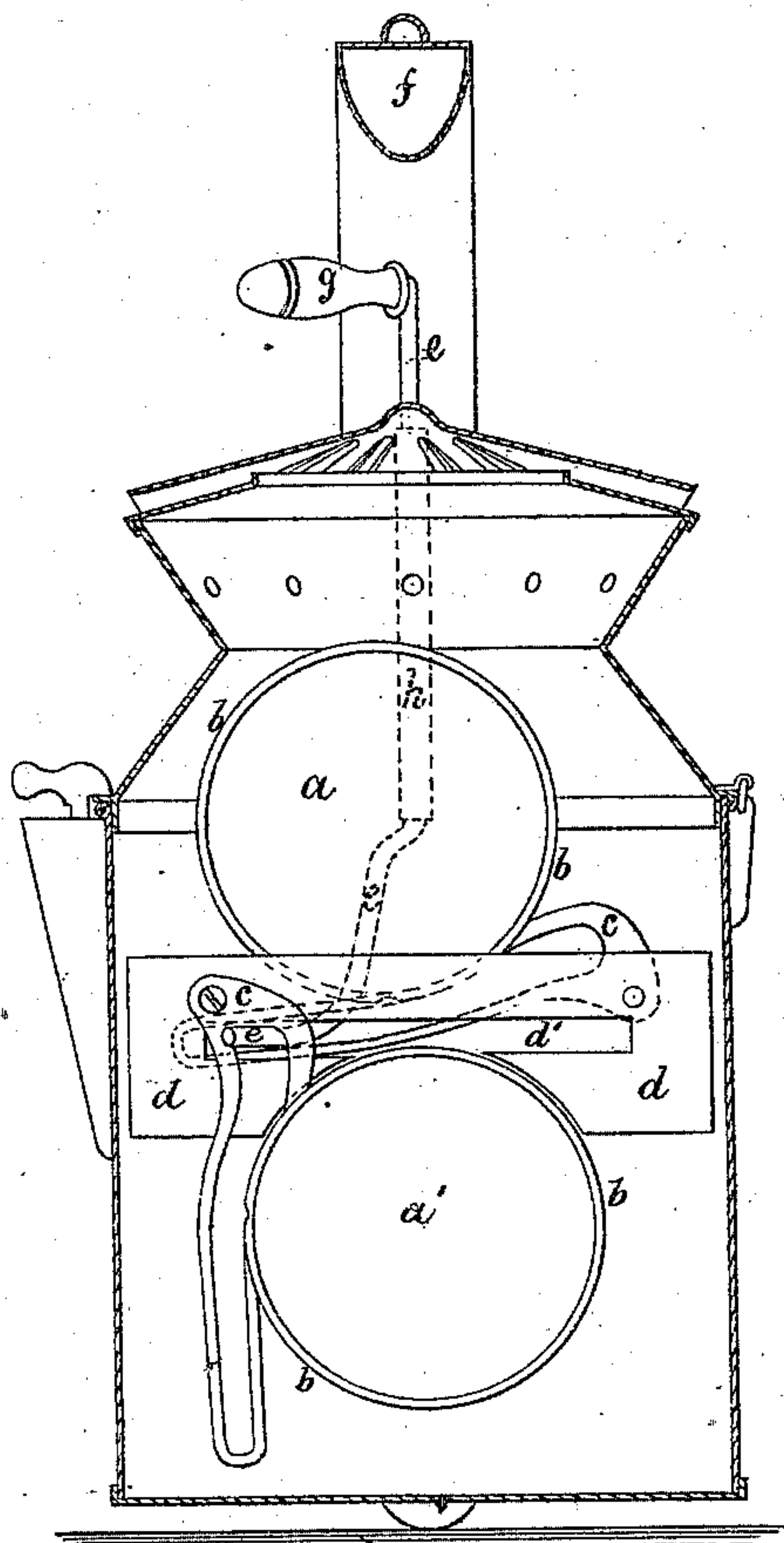
No. 140,015.

Patented June 17, 1873.

**FIG. 1.**



**FIG. 2.**



*Witnesses:*

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*Chas E Poucher*

*Inventors:*

*Samuel Wilson Clark*  
*William Robert Sykes*  
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*attys*

S. W. CLARK & W. R. SYKES.  
Signal-Lanterns.

No. 140,015.

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FIG. 3.

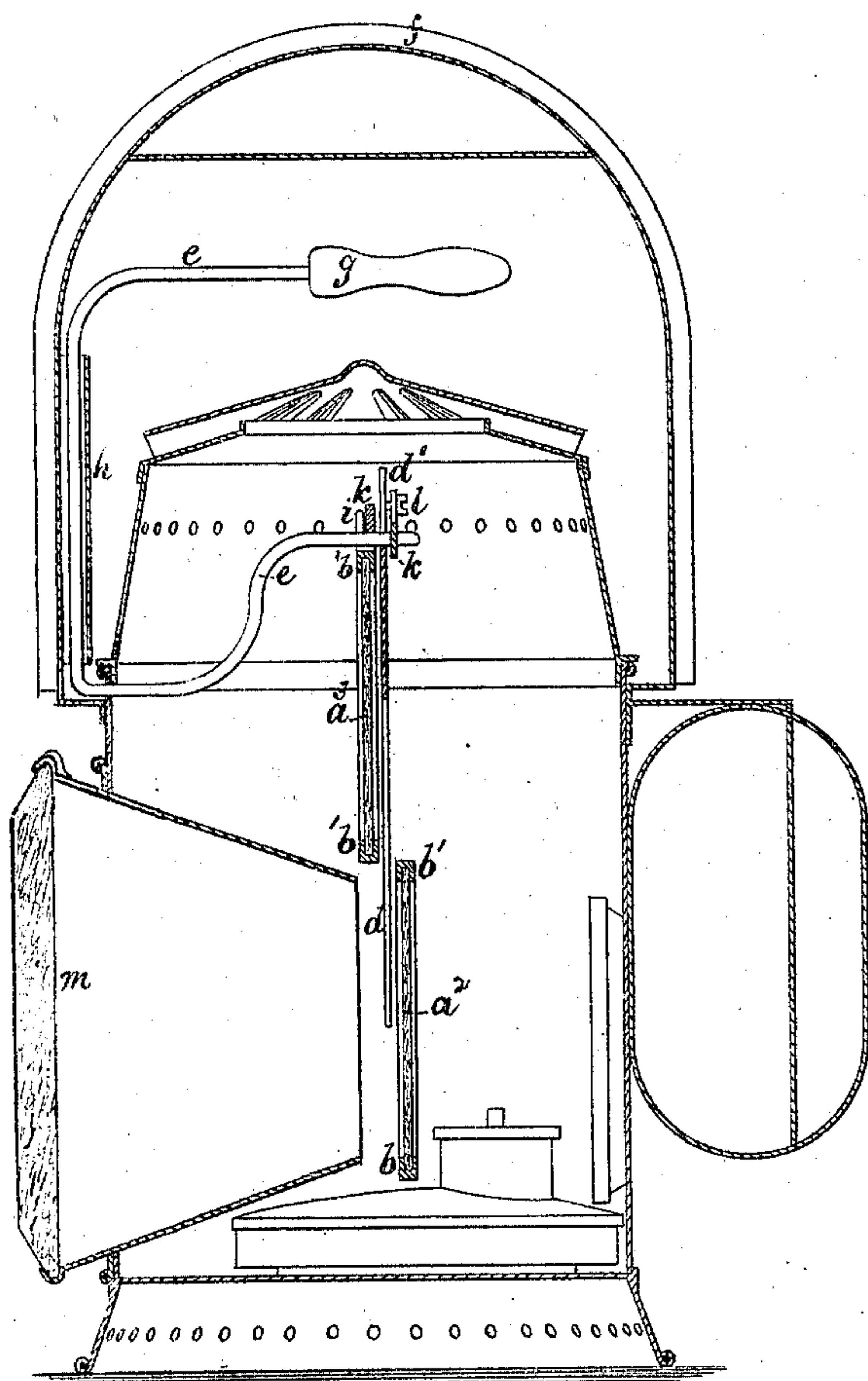
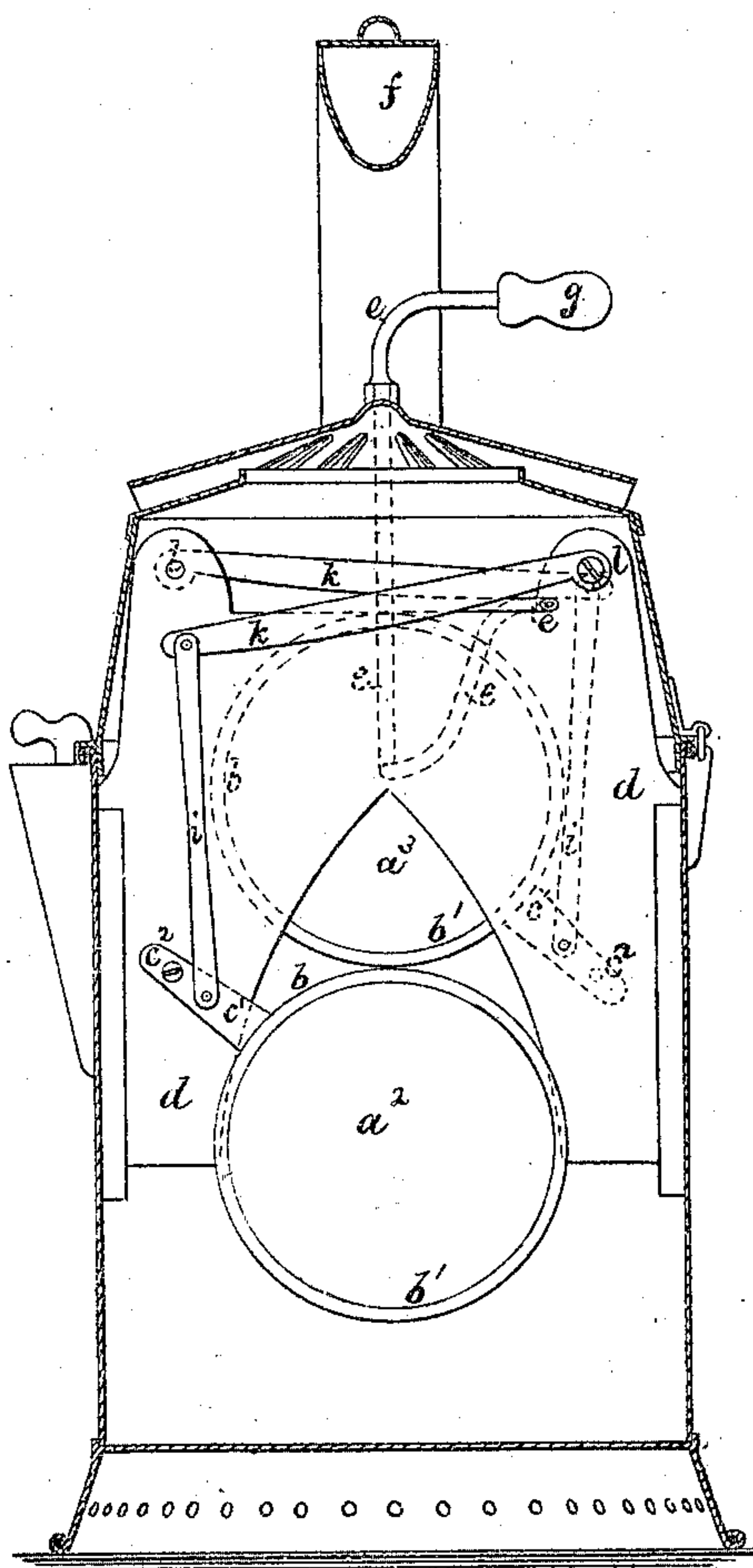


FIG. 4.



Witnesses:

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Chas E Poucher

Inventors:

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William Robert Sykes  
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# UNITED STATES PATENT OFFICE.

SAMUEL W. CLARK AND WILLIAM R. SYKES, OF LONDON, ENGLAND; SAID SYKES ASSIGNOR TO SAID CLARK.

## IMPROVEMENT IN SIGNAL-LANTERNS.

Specification forming part of Letters Patent No. 140,015, dated June 17, 1873; application filed February 19, 1873.

*To all whom it may concern :*

Be it known that we, SAMUEL WILSON CLARK and WILLIAM ROBERT SYKES, both of London, England, have invented or discovered certain new and useful Improvements in Hand Signal and other Lamps; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters and figures marked thereon, that is to say—

This invention relates to those lamps in which the colored shades or glasses are so held or hung that they fall of their own weight when they are released from the mechanism by which they are held up; and our invention consists of improved mechanism for raising, retaining, and releasing them.

In carrying our invention into effect the colored shades (say, red and green,)  $a a^1$  are held in frames  $b b$ , each of which has a slotted lug or projection,  $c$ , by which the shade is hung from a horizontal bar,  $d d'$ , in the lamp. The two shades are so disposed that when they are both raised they overlap each other. To the lamp we connect a rod or wire,  $e$ , the upper part of which is bent over the top of the lamp so as to be within reach of the fingers of the hand which holds the lamp by the ordinary top handle  $f$ . The middle portion of this rod is vertical, and is free to turn on its axis within a sleeve or tube,  $h$ , on the lamp-casing or on the lamp-handle, while the lower end of the rod is bent into a hook like form,  $e$ , so as to pass under and hold up the two colored shades,  $a a^1$ . When both colored shades are thus held up the lamp gives a white light, but by turning the rod by means of the finger portion to one side or the other one or the other of the colored shades is freed, and falls of its own weight between the light and the bull's-eye  $m$ , so as to give a colored signal. On returning the rod to its normal or central position, it lifts the colored shade.

By our arrangement it is impossible for both the colored shades to be in action at once, and as no springs are employed there is little liability of any derangement.

Figures 1 and 2 are vertical sections, taken

at right angles to each other, of a hand-signal lamp, constructed as hereinbefore described.

$a a^1$  are the two colored shades held in frames or rings  $b b$ . Each frame  $b$  has a lug or projection,  $c$ , by which it is hung or attached to a horizontal bar,  $d$ , carried across the lamp. In the figures the shade  $a$  is shown as up, and the shade  $a^1$  as down; when they are both up they overlap each other, and the lamp then shows a clear or white light.  $e e$  is a rod or wire, the upper part of which is bent over the top of the lamp so as to be within reach of the fingers of the hand which holds the lamp by the handle  $f$ ; this upper end of the rod  $e$  is fitted with a finger-piece,  $g$ . The middle portion of the rod is vertical, and is free to turn on its axis within a sleeve,  $h$ , while the lower end of the rod is bent into a hook-like form, so as to pass under the shade-frames  $b b$ . These frames are shown as slotted to receive the end of the rod, the object of the slots being to prevent a too sudden fall of the shades. On moving the rod  $e$  from the position shown to the central position it raises the shade  $a^1$ , so that a clear or white light is shown, and on moving the rod to the opposite side it allows the other shade  $a$  to fall and show a colored light. The bar  $d$  is slotted at each side, as seen at  $d'$ , to receive the rod  $e$ , and it is also shaped, as shown, in the center, so as not to intercept the light between the flame and the bull's-eye  $m$ . Instead of the bar  $d$  being fitted within the body of the lamp, it may be fitted to the lower part of the lamp-cover to which the sleeve  $h$  would then be attached.

In some cases we adapt a link-motion to the colored shades as an equivalent device, the links being raised or lowered by a bent rod or wire similar to that already described.

Figs. 3 and 4 represent a lamp with a link-motion adapted to the colored shades, as just stated.

The shade-frames  $b' b'$  have arms  $c^1 c^1$ , which are free to turn on pins  $c^2 c^2$ , attached to a plate,  $d$ .  $i i$  are links connecting the arms  $c^1 c^1$  to the ends of levers  $k k$ , the opposite ends of which are centered on the plate  $d$  at  $l l$ . The lower end of the bent rod  $e$ ,

which is similar to that shown in Figs. 1 and 2, passes under the levers *k k*. When the rod *e* is in its central position both the shades *a<sup>2</sup> a<sup>3</sup>* are held up, but on moving the rod to either side the link on the opposite side is allowed to descend, and the corresponding shade falls.

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

In a hand signal-lamp, the vibratory bent lever *e*, in combination with the slotted arms *c c*, or their equivalents, on the shade-frames *b b*, arranged to operate the colored shades *a<sup>1</sup>* in such a manner that both are removed from before the light when said bent lever is placed in its central or normal position, and

one or other of the colored shades placed before the light by moving the lever in one direction or the other, substantially as shown and described.

In witness whereof we, the said SAMUEL WILSON CLARK and WILLIAM ROBERT SYKES, have hereunto set our hands this 17th day of January, 1873.

SAM. W. CLARK.  
WILLM. ROBT. SYKES.

Witnesses:

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