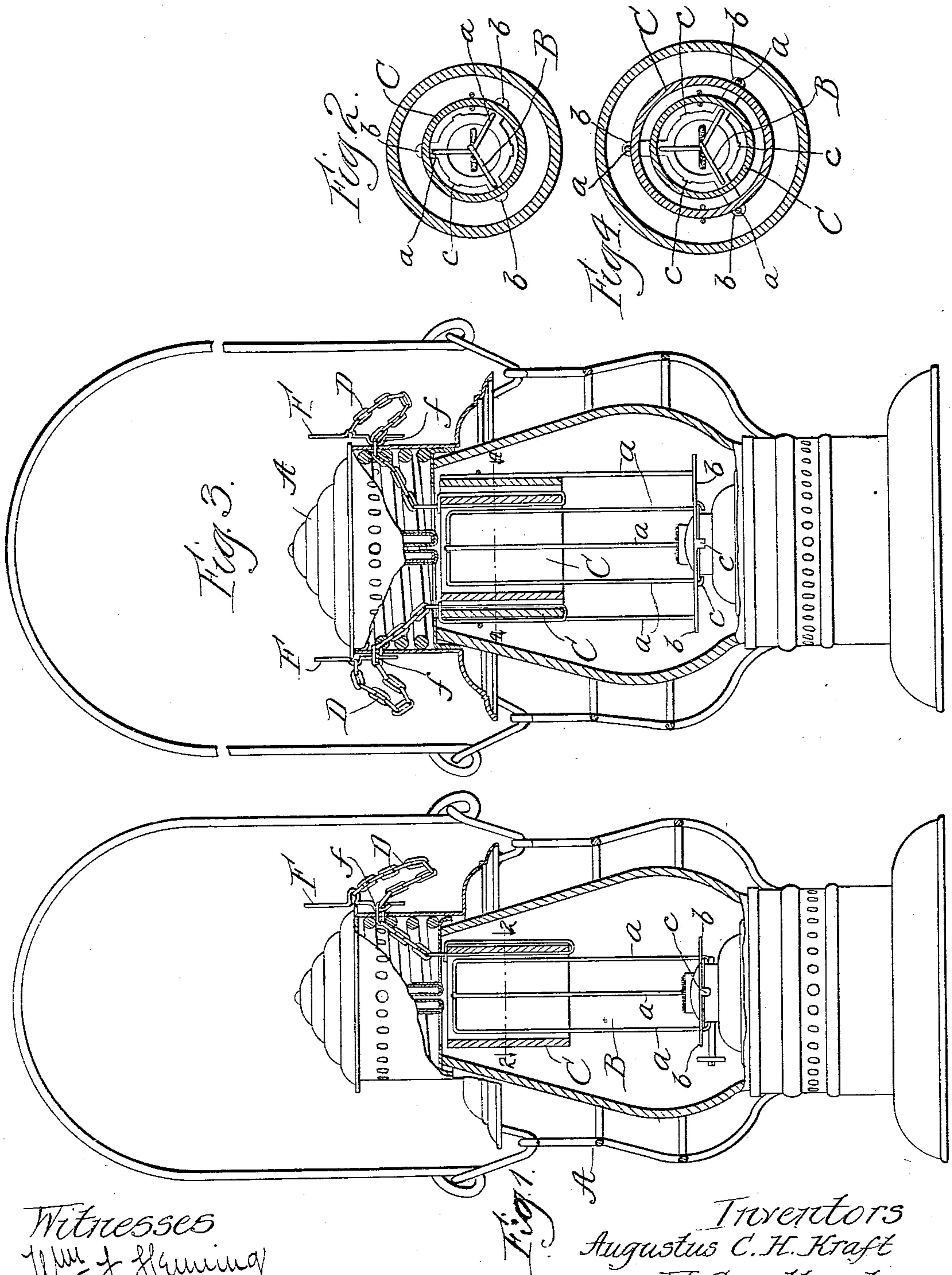


(No Model.)

D. W. SWEETLAND & A. C. H. KRAFT.  
LANTERN.

No. 557,717.

Patented Apr. 7, 1896.



Witnesses  
Wm. J. Fleming  
S. M. Rheim

Inventors  
Augustus C. H. Kraft  
Dana W. Sweetland  
by *James G. Guss* Atty.



# UNITED STATES PATENT OFFICE.

DANA W. SWEETLAND AND AUGUSTUS C. H. KRAFT, OF CHICAGO, ILLINOIS.

## LANTERN.

SPECIFICATION forming part of Letters Patent No. 557,717, dated April 7, 1896.

Application filed January 2, 1895. Serial No. 533,643. (No model.)

*To all whom it may concern:*

Be it known that we, DANA W. SWEETLAND and AUGUSTUS C. H. KRAFT, citizens of the United States of America, and residents of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lanterns, of which the following is a specification.

This invention relates to certain new and useful improvements in lanterns; and it consists in the construction and arrangement illustrated in the accompanying drawings, hereinafter described in the specification, and more particularly pointed out in the claim thereto annexed.

Like letters of reference are used to designate the same parts in the several figures of the drawings, in which—

Figure 1 is an elevation, partly in section, of an ordinary lantern with our invention applied thereto. Fig. 2 is a cross-sectional view upon the line 2 2 of Fig. 1. Fig. 3 is a modified form of our invention, and Fig. 4 is a cross-sectional view upon the line 4 4 of Fig. 3.

The object of our invention is to produce a lantern which will show any color it may be desired to employ, as well as an ordinary white light, the latter to be used when the necessity for the former, whatever may be its color, has passed.

Heretofore in the use of lanterns for signaling purposes separate lanterns have been employed for each color desired, thus necessitating the outlay of a considerable amount of money, a corresponding expense by virtue of the breakage, as well as the handling of this great number of lights, to say nothing of its manifest inconvenience and the uncertainty of having the particular colored light desired at hand when needed. By our invention we propose to obviate all these objections and produce from one lantern two, three, or more colors, dispense with one-half to three-fourths or more of the lanterns used, as well as prevent the loss of time and inconvenience of handling the larger quantity of lights.

Referring to the drawings, A designates any ordinary form of lantern provided with the customary globe, burner, and foraminous cap-piece. Upon the burner, or in any other suit-

able and proper manner, we mount a wire frame B, which consists, as we have illustrated it, (although it is at once apparent that it may be made in a variety of ways,) of wires *a a*, set in a circular base-piece *b*. This base-piece *b* is provided with two or more clamps *c c*, which are bent in under the peripheral flange of the burner, and thus hold the said wire frame firmly in place. Outside of the frame B is a sliding cylinder C, made, preferably, of glass colored to suit the occasion of its use and supported in any convenient and suitable way. For this purpose we have shown a chain D attached to said cylinder, the said chain being passed up through one of the openings in the cap-piece of said lantern and secured by a pin F.

By means of the chain D the cylinder can be raised or lowered, as desired, and when elevated can be retained in the latter position by passing the pin F through one of the links of said chain. We have provided one form of pin having two bent portions, as shown, one adapted for the attachment of the end of the chain and the other to prevent the pin from slipping out when inserted in a link.

In Fig. 3 we have illustrated a modified form, in which we employ two colored slide-cylinders, and these can be used conjointly or separately, as desired. In this modified form we have provided also a double frame, having wires on the outside of the cylinders as well as the inside, in order that in passing each other said cylinders may not come in contact and thus prevent their perfect working.

The operation of the device is apparent. When an ordinary white light from the lantern is desired, the sliding cylinder is drawn to its elevated position by pulling on the chain D and then passing the pin through a link in the chain. It is thus held away from the flame of the lantern, and a pure white light is alone seen; but when a colored light is to be used the pin is withdrawn, and the cylinder falls down into place, surrounding the flame, and thus a light is shown of whatever color the cylinder is. When two cylinders are employed—for instance, one red and one blue—four different lights may be discovered, white, red, blue and, by dropping both cylinders at the same time, purple. Thus any

combination of primary colors may be used to produce additional complementary colors, and the number of slides may be increased.

5 We are aware that the idea of providing signal-lanterns with slides of different colors is not in itself new; but what we claim as our invention is the particular form of construction set forth in the drawings and described in the specification.

10 Having thus described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

In a signal-lantern the combination with one or more colored cylindrical slides, of a

wire frame provided at its base with clamps 15 whereby it is firmly secured to the burner of the lantern, chains attached to said cylindrical slides, and pins connected to said chains provided with bent portions, one adapted for attachment to said chains, and the other to 20 prevent the pin from slipping out when inserted in a link; substantially as and for the purpose set forth.

DANA W. SWEETLAND.  
AUGUSTUS C. H. KRAFT.

Witnesses:

JAMES L. GERRY,  
WALTER D. ENID.