

(No Model.)

A. HARRIS & G. M. CLARK.

LOCOMOTIVE HEAD LIGHT.

No. 270,794.

Patented Jan. 16, 1883.

Fig. 1.

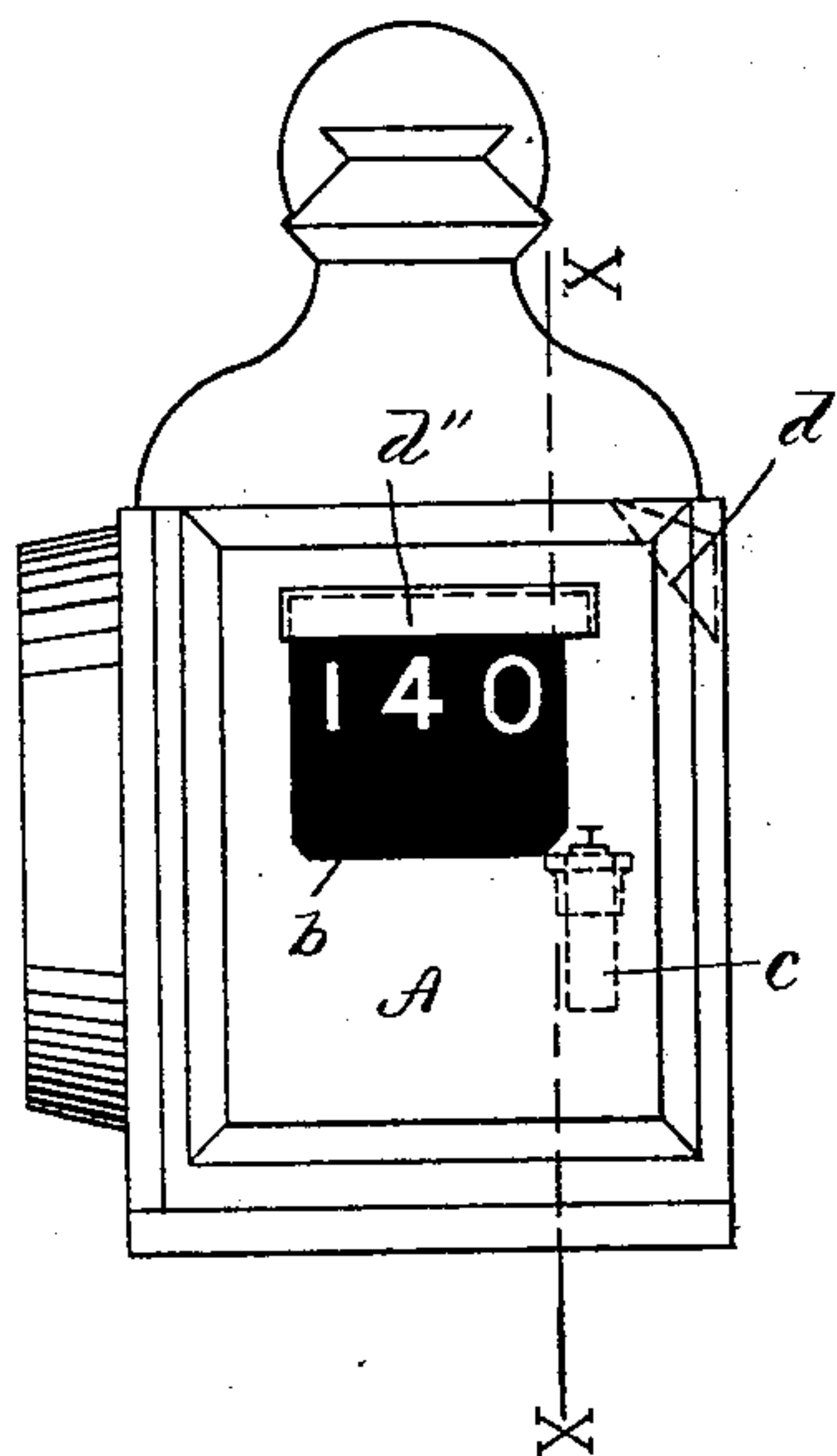
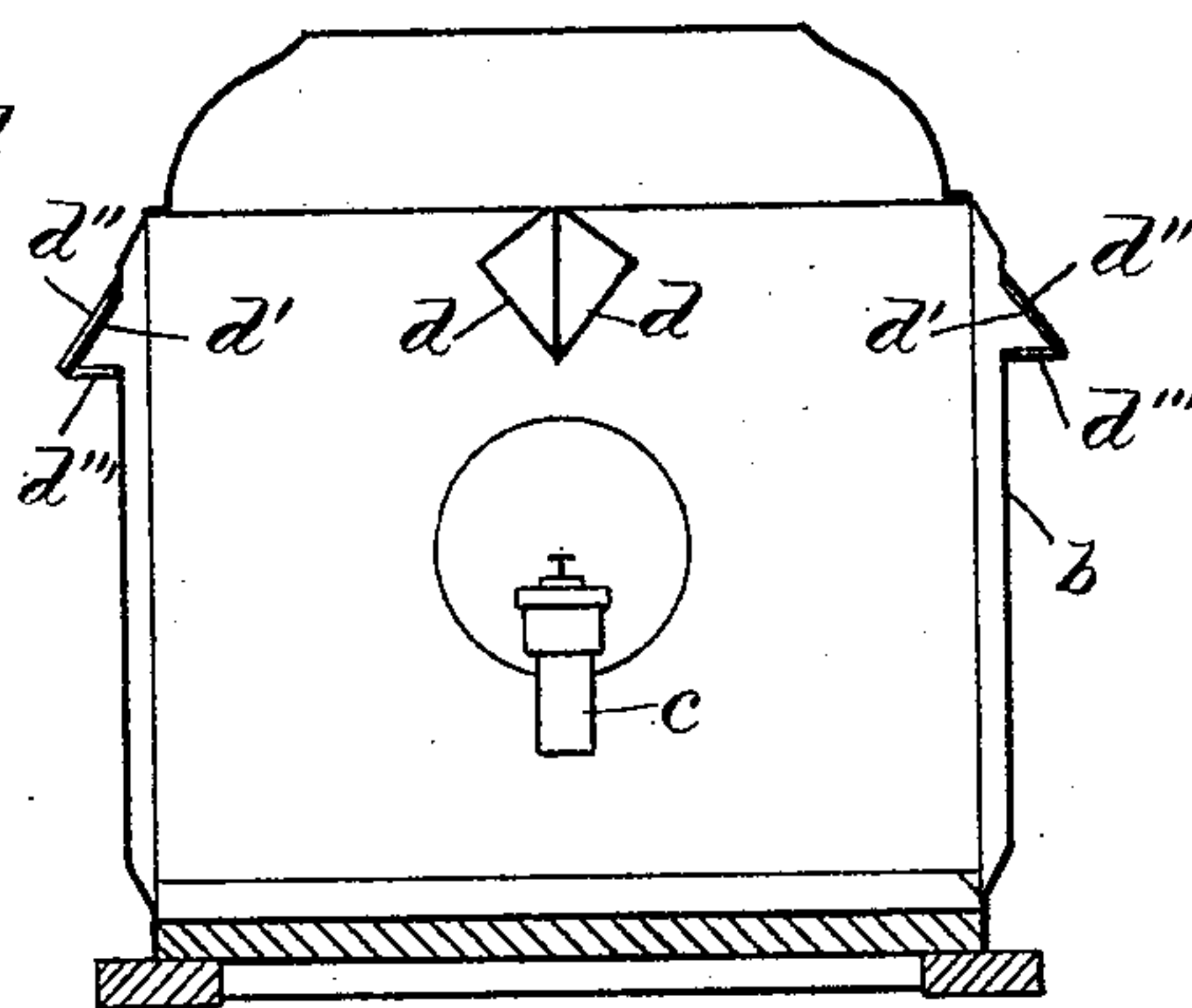


Fig. 2.



WITNESSES

W. T. Cole
E. L. White

INVENTORS,

Arthur Harris
George M. Clark,
by W. H. J. Howard
Attorney

UNITED STATES PATENT OFFICE.

ARTHUR HARRIS AND GEORGE M. CLARK, OF CHICAGO, ILLINOIS, ASSIGNORS
TO J. MCGREGOR ADAMS, OF SAME PLACE.

LOCOMOTIVE HEAD-LIGHT.

SPECIFICATION forming part of Letters Patent No. 270,794, dated January 16, 1883.

Application filed November 28, 1882. (No model.)

To all whom it may concern:

Be it known that we, ARTHUR HARRIS and GEORGE M. CLARK, both of Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Locomotive Head-Lights, of which the following is a specification.

This invention relates to means for displaying signals on locomotive head-lights; and, briefly considered, it consists in intensifying and transmitting the interior light of a head-light by means of a reflector or reflectors and casting it laterally to opposite sides of the head-light casing to angularly-projected flanges placed on a line parallel to the base of the head-light, said flanges forming hoods or covers, within each of which is a mirror or reflector, the light being thence cast upon the respective opaque sides of the casing, on which the signal-numbers are painted.

This invention differs from those inventions in which the light is transmitted through transparent surfaces bearing the signal numbers or marks.

In the accompanying drawings, Figure 1 is a side view of our improved head-light. Fig. 2 is a vertical section of the same on the line *xx* of Fig. 1.

Similar letters of reference indicate similar parts in both views.

A is the outer casing of the head-light or lantern, and *b* that portion of the side of the casing upon which the signal-number or other mark is painted. This portion may, if preferred, be painted in some color contrasting with the general color of the casing, and such as will best serve to receive the light thrown thereon and exhibit the signal.

The lamp is shown by *c*. The chimney of the lamp passes through the rear of the main reflector in the ordinary manner. That light which is transmitted through the part of the chimney above the main reflector is received upon reflectors *d d*, placed back of the chimney, and by them cast laterally to opposite sides of the casing *A* to reflectors *d' d'*. The reflectors *d' d'* are confined within outwardly-projecting flanges *d'' d''*, forming covers or

hoods, the lower or under portions of which are open and fitted with glasses *d'''*. The light thrown upon the reflectors *d'' d''* is cast upon the opaque surfaces *b*, on which are painted the number or marks to be exhibited.

This invention may be added at trifling cost to head-lights in ordinary use.

We do not confine ourselves to the shape or location of the interior reflectors shown in the drawings; but

We claim as our invention—

1. The outer casing of a locomotive head-light, combined with outwardly-projecting flanges forming hoods having their under sides open and their inner portions provided with reflectors, said hoods being arranged to receive light reflected from the interior of the head-light or lantern and cast it upon opaque surfaces at the outside of the case, substantially as set forth.

2. In a locomotive head-light, a reflector or reflectors situated back of the chimney, and receiving light from that portion thereof which projects through and above the main reflector, combined with side reflectors, and opaque surfaces exterior of the case bearing a signal number or mark, whereby the light is thrown by said side reflectors upon the said opaque surfaces at the outside of the case, substantially as set forth.

3. A locomotive head-light having exterior opaque surfaces containing a signal number or mark, combined with projecting hoods or covers, each having an interior reflecting-surface, and an open portion permitting light cast into the hoods or covers from the head-light lamp to be reflected or cast from the hoods or upon the said exterior opaque surfaces of the casing, substantially as set forth.

In testimony whereof we have hereunto set our hands and seals this 22d day of November, 1882.

ARTHUR HARRIS. [L. S.]
GEO. M. CLARK. [L. S.]

Witnesses:

LAURENCE BROWN,
OSBORNE SAMPSON.