

(No Model.)

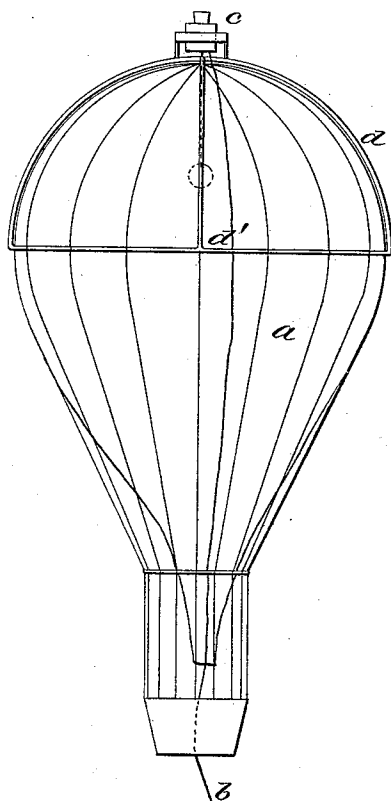
2 Sheets—Sheet 1.

N. BURGESS.
AEROSTATIC ADVERTISING APPARATUS.

No. 542,792.

Patented July 16, 1895.

Fig. 1



Witnesses:
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N. D. Polites

Inventor
Nelson Burgess
by Chas. L. Burden,
att'y

(No Model.)

2 Sheets—Sheet 2.

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AEROSTATIC ADVERTISING APPARATUS.

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Patented July 16, 1895.

Fig. 2

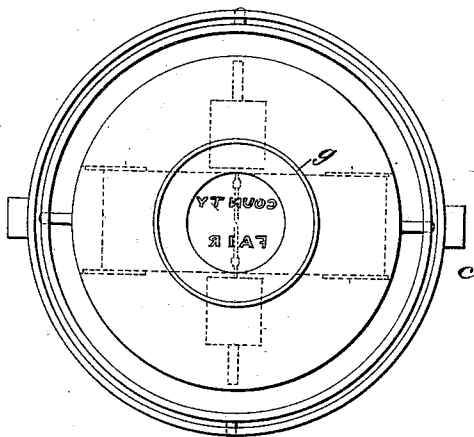
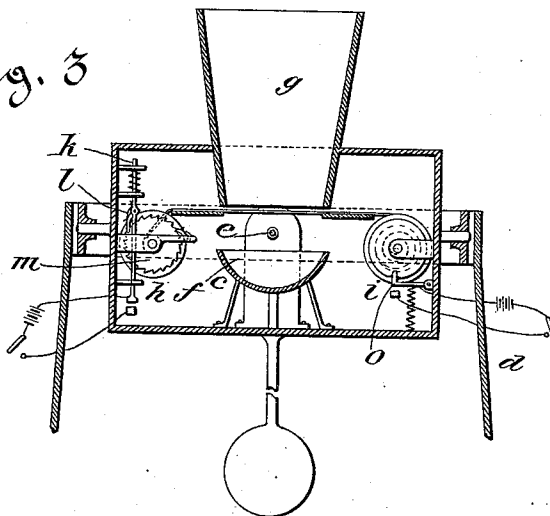


Fig. 3



Witnesses;

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UNITED STATES PATENT OFFICE.

NEILSON BURGESS, OF HIGHLANDS, NEW JERSEY.

AEROSTATIC ADVERTISING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 542,792, dated July 16, 1895.

Application filed March 3, 1894. Serial No. 502,299. (No model.)

To all whom it may concern:

Be it known that I, NEILSON BURGESS, a citizen of the United States, and a resident of Highlands, in the county of Monmouth and State of New Jersey, have invented certain new and useful Improvements in Aerostatic Advertising Apparatus, of which the following is a full, clear, and exact description, whereby any one skilled in the art can make and use the same.

My invention relates to the class of apparatus adapted to display, in a conspicuous manner, matter of advertisement in an elevated position where it may be seen by a large number of persons.

The object of my invention is to provide an apparatus which will enable any sign, lettering, or statement in the way of advertising to be displayed on the clouds as a screen; and to this end my invention consists in the details of the several parts making up the apparatus and means for supporting the display mechanism and in the combination of the several parts, as more particularly hereinafter described, and recited in the claim.

Referring to the drawings, Figure 1 is a view in elevation of an aerostat. Fig. 2 is a detail top or plan view of the lantern and its support on an enlarged scale. Fig. 3 is a detail view, in vertical section, of the lantern and its immediate support.

In the accompanying drawings the letter *a* denotes a balloon or like aerostat, intended to be held at the required elevation, as by means of an anchor-rope *b*, controlled from any suitable station, and in a position to enable the object of the apparatus to be carried out. It has been found that by means of a powerful search-light letters or the outlines of figures may be thrown upon the clouds as a screen; but the clouds vary so in altitude as to make it difficult to produce the desired result.

In carrying out my invention the balloon *a* is arranged to support a lantern *c* on top of the balloon, a frame *d* serving to hold the lantern in proper position, the frame being made preferably of a series of arches of rigid material, having a girdle *d'* arranged to encircle the body part of the balloon. The metallic parts of the frame and lantern are made preferably of aluminum, which is suffi-

ciently strong for the purpose, and so light as not to destroy the counterpoise of the balloon, but will permit it to float in a substantially upright position, the ballast in the basket being used, as usual, to provide for the maintaining of the upright position of the balloon.

The lantern is supported within the frame *d* on gimbals or a like universal joint, which enables a horizontal position of the supported part to be maintained. The lantern *c* includes an electric-arc lamp *e* and a powerful reflector *f*, which throw a powerful beam of light through a tubular opening *g* in the lantern. A slide or screen provided with any desired lettering is arranged to be drawn across the face of the lantern by mechanism *h i*, which is controlled by electricity, the wires for operating the mechanism extending to the station on the ground.

The mechanism for controlling the slide or screen consists of a rod *k*, suitably mounted in bearings in the frame *d*, a pawl *l* being pivoted to this rod, the outer end of the pawl being in engagement with the ratchet-wheel *m*. This ratchet-wheel is secured to a roll around which the screen is adapted to be wound. This mechanism just described is joined up in any well-known manner in an electric circuit to cause the rod *k* to be moved downward, as by the closing of the circuit, this causing the ratchet-wheel *m* and the roller-bearing screen to be rotated. A roll *n* is also mounted in suitable bearings in the frame on the opposite side from the rod *k*, and a releasing device *o* is also pivoted to this side of the frame, one end being in engagement with a notch in the edge of the roll *m*, this releasing device being also joined up in an electric circuit and operated simultaneously with the mechanism *h*, being released at the same time that the mechanism *h* is operated to wind the screen. The electric circuit controlling these mechanisms can be suitably operated from the ground.

A stereoscope supported within the lantern-body and having a continuous slide, arranged as described, affords a convenient device for displaying the matter to which attention is to be called.

The apparatus is operated by floating the balloon at such an elevation as will bring it at the necessary distance from the clouds to

enable a proper focus to be adjusted on the clouds. The elevation of the balloon may be changed from time to time in order to maintain the desired focal distance.

- 5 The main feature of my improvement resides in the particular arrangement of the aerostat and lantern rather than in any details of construction of the devices for producing the light or throwing the picture or
10 words upon the cloud-screen.

I claim as my invention—

- In combination with an aerostat, a lantern supported thereon, a lantern slide located in front of the lantern and bearing display mat-
15 ter, rolls supporting the lantern slide, a ratchet

secured to one of said rolls, a pawl held normally in engagement with the ratchet, a rod supporting the pawl, a stop device held normally in engagement with the opposite roll, and means for electrically reciprocating the 20 rod, and for disengaging the stop device the two adapted to be operated simultaneously, all substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

NEILSON BURGESS.

Witnesses:

FORD T. TOWERS,
MARY BURGESS.