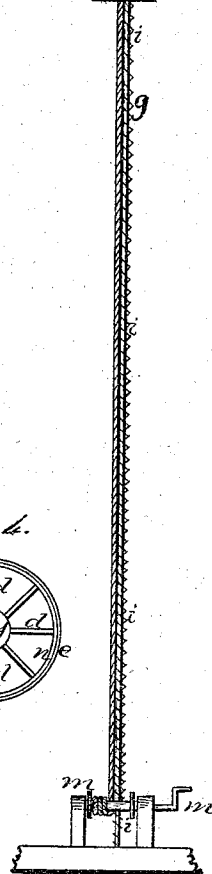
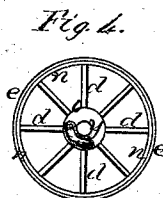
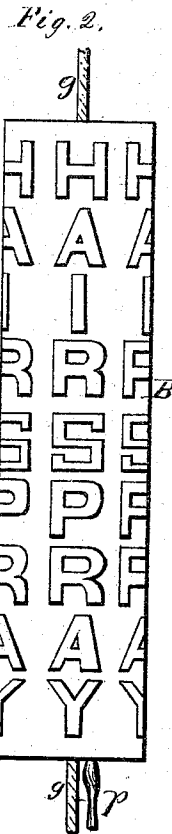
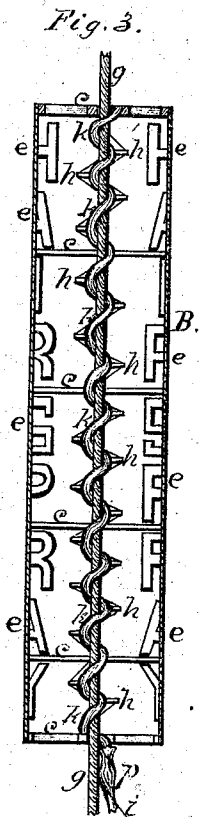
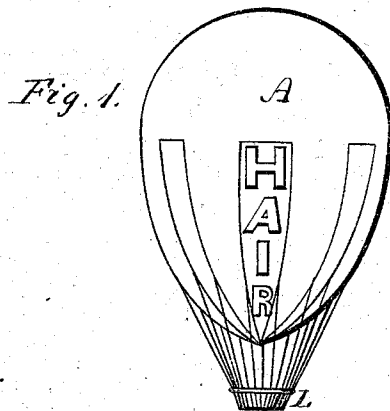


E. Le B. MOODIE.
Balloon-Advertisers.

No. 136,930.

Patented March 18, 1873.



Witnesses
Wm. Frank Browne
C. M. Gallaher.

Inventor
E. Le B. Moodie

UNITED STATES PATENT OFFICE.

ELHANAN LE BURTON MOODIE, OF NEW YORK, N. Y.

IMPROVEMENT IN BALLOON-ADVERTISERS.

Specification forming part of Letters Patent No. **136,930**, dated March 18, 1873.

To all whom it may concern:

Be it known that I, ELHANAN LE BURTON MOODIE, of the city, county, and State of New York, have invented a new and useful Balloon-Advertiser; and I do declare that the following is a full and exact description thereof, reference being made to the accompanying drawing making a part of this specification.

Figure 1 is a view of the balloon-advertiser in suspension. Fig. 2 is an enlarged view of the cylindrical part of the advertiser. Fig. 3 is a vertical section of the cylinder. Fig. 4 is an end view of the cylinder.

Like letters designate corresponding parts in all of the figures.

My balloon-advertiser is composed of two prominent and conspicuous parts, described as follows: A represents a balloon in suspension. B represents the cylindrical portion of the balloon-advertiser suspended beneath the balloon. *g* represents a rope, one end of which is attached to the balloon and its other end attached to a common windlass.

In Fig. 3, *eeee* represent a section of canvas or cloth, on which letters are shown: *kk* represent a spiral gas-pipe passing through the cylinder. *hhhh* are gas-burners screwed into the pipe. *iiii* represent an insulated wire for lighting the gas-jets. *p* is a section of the rubber gas-pipe attached to the spiral pipe within the cylinder. *gggg* represent a rope passing through the central opening of the spiral pipe. *cccc* are wheels or forms placed at suitable intervals along the spiral pipe, over which the canvas is stretched.

In Fig. 4, *nnnn* represent the rim of a wheel; *dddd*, the spokes thereof; *o*, the hub; *y*, a hole, through which the rope *g* passes; *eee*, the canvas or cloth, which is secured to the rim of the wheel.

That others may be well versed in the construction of this novel invention, I will describe it as follows:

In the first place I employ a balloon of sufficient capacity for the purpose employed. From beneath this balloon I suspend a basket, L, or any other suitable contrivance, as may be deemed proper, for holding weights or ballast. At the bottom of the basket I attach a strong rope, *g*, which reaches to the ground, and is secured to a windlass, *m*, said windlass being employed in raising and lowering the balloon

as occasion requires. The cylindrical part B of my invention is secured firmly to the rope *g* beneath the basket L.

Fig. 2 is an enlarged external view of the cylinder B, showing the arrangement of the letters thereon. As represented in the vertical section, Fig. 3, I employ a spiral gas-pipe, *kkkk*. To this pipe I attach gas-burners *hh*. To these gas-burners I affix an insulated wire, *iiii*, for the purpose of igniting the gas with an electric spark when desirable. To this spiral gas-pipe *kkkk* I attach wheels or braces *cccc*, for the purpose of securing and supporting the cloth or canvas and keeping it in the form of a cylinder. The wheels or braces may be made like any ordinary wheel, with a hub, spokes, and rim, as shown in Fig. 4. The gas-pipe *kkkk* is made spiral for the purpose of allowing the rope *g* to pass through the center of the cylinder, thereby preventing the rope from vibrating about in the cylinder; also from coming in contact with the flame from the gas-jets.

That there may be no undue draft of air through the cylinder, which may be caused by the burning of the gas, I employ a head or covering at the bottom of the cylinder B sufficiently tight or close to prevent any undue circulation of air within the cylinder, thereby giving a steady light at all times when in use. To the lower end of the spiral gas-pipe *kkkk* I attach an India-rubber gas-pipe, *p*, of sufficient length to reach the ground from whatever altitude I may deem desirable. The lower or ground end of the rubber gas-pipe is attached to a gas-pipe, or to some gas-generating apparatus which supplies the gas-burners within the cylinder B. Around the rubber gas-pipe I coil an insulated wire, *iiii*. I connect this wire in a proper manner with all of the burners within the cylinder B. The ground end I connect with an electrical battery for the purpose of lighting the gas within the cylinder when necessary. When gas is not obtainable I can use other light-producing substances, such as candles, oils, &c.

The following is a description of my method of advertising: I employ a balloon or any other contrivance that will rise in the air by virtue of its own buoyancy, or from the cause of its being of less specific gravity than the air which surrounds it. On my balloon or aerial

vehicle I cause letters, words, signs, &c., to be fixed in a showy and attractive manner. To the balloon or vehicle I attach banners and streamers, on which appropriate devices may be arranged. At the bottom of the balloon, and around the rope which anchors the balloon to the earth, I suspend a cylinder of suitable diameter and length, and to that I affix appropriate letters, words, signs, &c., said letters, words, signs, &c., to be of such dimensions that they may or can be read at long distances—say from two to five miles.

Various forms can be used on which the letters, words, and signs may be fixed; but I prefer the cylindrical form, for the reason that the letters, words, and signs can be written from top to bottom, in vertical lines, and at various points around the circumference of the cylinder, thereby giving the observers an opportunity to read the letters, words, or signs from whatever locality they may happen to be in, providing they are within reading distances.

On the cylindrical part of my apparatus I propose to paint the canvas black, or with some opaque color, leaving the letters, words, and signs white, or the natural color of the cloth or canvas, thereby rendering them visible by

daylight, and visible at night when illuminated from within the cylinder.

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

1. The combination of the balloon A, advertising-cylinder B, and rope or cord *g*, substantially as and for the purpose herein specified.

2. The advertising-cylinder B, when composed of the wheels or forms *c c c*, constructed as described, and cloth or equivalent covering *e*, in combination with the rope or cord *g*, substantially as and for the purpose herein specified.

3. The combination of the spiral gas pipe *k*, burners *h h*, and rope or cord *g*, substantially as and for the purpose herein specified.

4. The combination, with the gas pipe *k*, burners *h h*, and rope or cord *g*, of the flexible pipe *p*, for the purpose herein specified.

5. The combination, with the gas pipe *k*, burners *h h*, and rope or cord *g*, of the electric conducting-wire *i*, for the purpose herein specified.

E. LE BURTON MOODIE.

Witnesses:

JONATHAN MARSHALL,

WM. FRANK BROWNE.