

J. A. SCOTT.
AERIAL ELEVATOR.
APPLICATION FILED JULY 16, 1909.

943,572.

Patented Dec. 14, 1909.

Fig. 2.

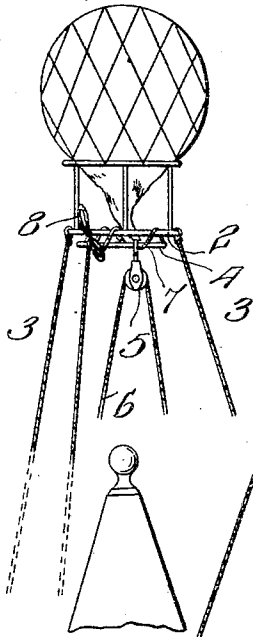
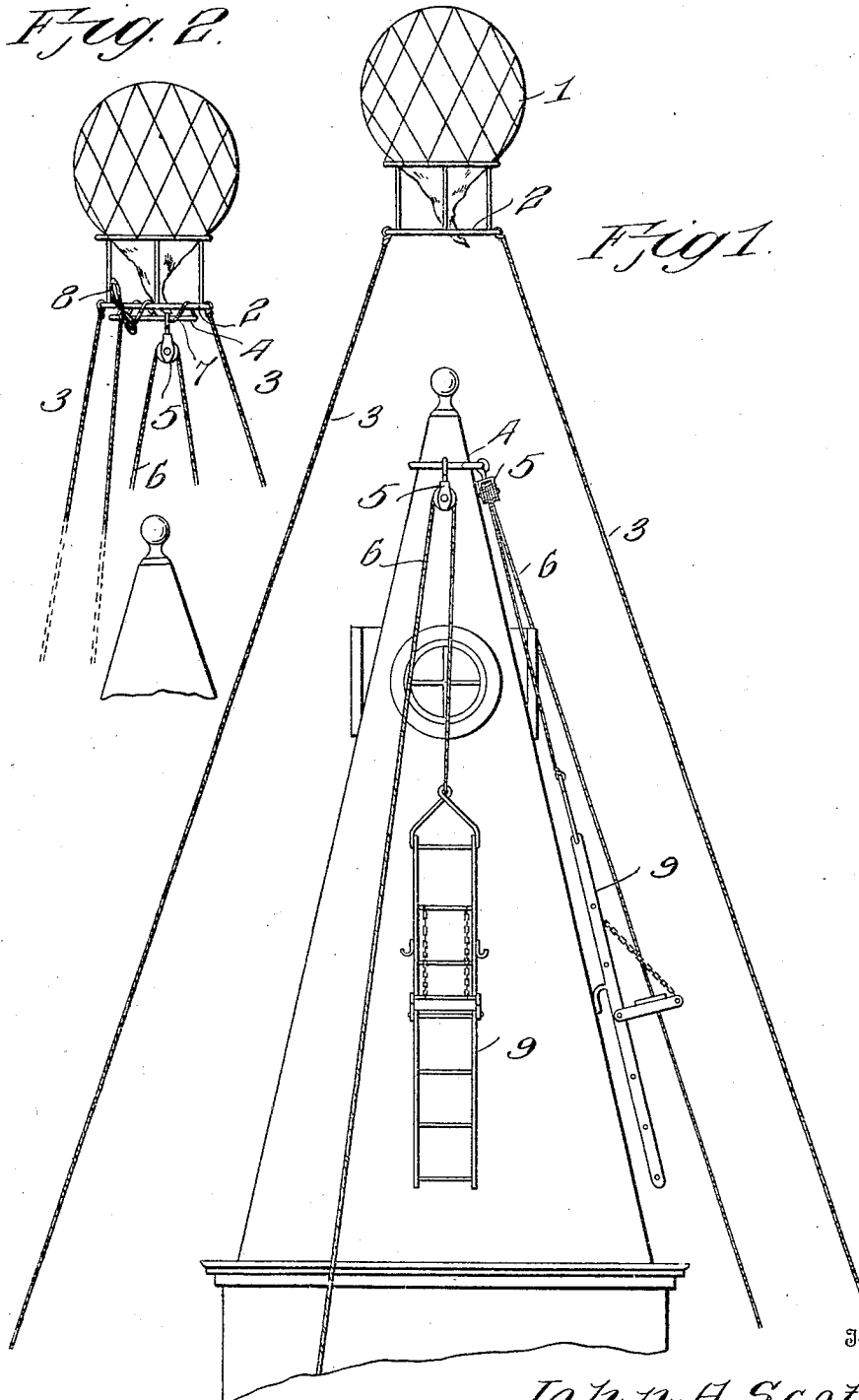


Fig. 1.



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JOHN A. SCOTT, OF ROOSEVELT, OKLAHOMA.

AERIAL ELEVATOR.

943,572.

Specification of Letters Patent.

Patented Dec. 14, 1909.

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To all whom it may concern:

Be it known that I, JOHN A. SCOTT, a citizen of the United States, residing at Roosevelt, in the county of Kiowa and State of Oklahoma, have invented new and useful Improvements in Aerial Elevators, of which the following is a specification.

The invention relates to an improvement in aerial elevators, being more particularly directed to the use of such elevator in connecting to spires, cupolas or other ordinarily inaccessible places a support for the use of workmen in repairing or painting the same.

The main object of the present invention is the use of an aerial elevating element with which a support is removably connected, the elevator being provided with directing means so that it, together with the support, may be properly positioned with relation to the spire or cupola and the support released when in proper position to engage said spire or cupola and form a hanger to which the usual cables for carrying the scaffolding or the like may be connected.

The invention will be described in the following specification, reference being had particularly to the accompanying drawings, in which:—

Figure 1 is a view in elevation, illustrating the device, the supporting element being shown as having been released from the elevator and in position on the spire. Fig. 2 is a similar view, showing the supporting element connected with the carrier.

Referring particularly to the accompanying drawings, my improvement comprehends the use of a buoy carrier 1, such as a small balloon or the like, which, for the purpose of the present invention, is provided with a ring 2 which may or may not form a part of the cage-like structure of the balloon from which ring depends what I term guide or controlling cables 3. These cables are so connected to the ring 2 that from the surface of the ground the position of the buoy carrier may be accurately determined or adjusted at will.

For use with the carrier 1 and as a means for more or less permanently engaging the spire or cupola to be repaired I provide a ring 4, hereinafter termed the supporting member and, of course, of such size as to readily pass over the upper end of the spire and of such strength as to readily support the necessary apparatus. This ring is pref-

erably provided with a series of sheaves 5 through which are passed elevating cables 6.

In initial operation the supporting element 4 is secured to the ring 2 of the carrier by means of the cable 7, preferably by wrapping one end of the cable 7 about the supporting element and ring 2 and connecting said end to the remaining section of the cable by an ordinary bow-knot 8, so arranged that it may be readily released by that section of the cable 7 which depends from the carrier to the ground. After thus connecting the supporting element the carrier is released and by means of the guide cables 3 is directed so that it is immediately above the upper end of the spire. It is then drawn down until the spire passes through, to some extent at least, the supporting element 4, whereupon the cable 7 is operated to release the supporting element 4 from the carrier ring 2, permitting said element to fall until it reaches a position on the spire or cupola where it is retained by impinging the walls of said part. The cables 6 are then drawn upon, having been previously connected to scaffold ladders or other supporting apparatus 9. Such apparatus is then drawn to an appropriate point on the edifice to be prepared and the work proceeded with. When it is desired to remove the device the carrier is again directed above the spire and drawn down until one of the workmen on the scaffolding apparatus can secure the supporting element to the ring of the carrier. The workman returns to the surface of the ground, the scaffolding apparatus is lowered and the pulley upon the carrier released, causing the latter to elevate the supporting element 4 from the spire and beyond the same after which it may be readily drawn to the ground.

The connection of the supporting element to the ring of the carrier may be of any desired form, requiring only that it be capable of release from the surface of the ground. The device is particularly effective as the only weight required to be lifted thereby is that of the sheaves and of the cable 6, and so far as the latter are concerned very light cord may be initially used and the supporting cable 6 secured to said cords and drawn through the sheaves after the supporting element is in position. Of course, the supporting element 4 is in an appropriate form for the use to which it is to be put, that is it

may be a ring or a rectangular section, or even a hook to engage a projection on the edifice, as the salient feature of the present invention resides in the connection between
5 a buoyant carrier and an element designed to engage an elevated structure to support scaffolding or other working apparatus, which connection is releasable at will from a remote point, the elevated carrier being
10 capable of control and guidance from a remote point.

Having thus described the invention what is claimed as new, is:—

1. An aerial elevator comprising a buoy-
15 ant carrier, a supporting element adapted to engage an elevated structure, means for directing the carrier from a remote point, means for connecting said supporting element to the carrier, and means for releas-
20 ing the connecting means from a remote point.

2. An aerial elevator comprising a buoy-
ant carrier, means for directing said carrier from a remote point, a structure engaging
25 supporting element, and means operable

from a remote point for removably connecting said element and carrier.

3. An aerial elevator comprising a buoyant carrier, a ring connected therewith, guide cables extending from the ring, a
30 structure engaging supporting element, means for removably connecting said element to the ring and carrier, and cable sheaves carried by the element.

4. An aerial elevator comprising a buoy- 35
ant carrier, directing cables secured to the carrier to direct the latter from a remote point, a structure engaging supporting element, cable sheaves carried by the element, cables passed through said sheaves, and a
40 cable securing the supporting element to the carrier, said cable being operable from a remote point to release the cable from the carrier.

In testimony whereof I affix my signature 45
in presence of two witnesses.

JOHN A. SCOTT.

Witnesses:

W. T. COUCH,
M. HOLLAND.