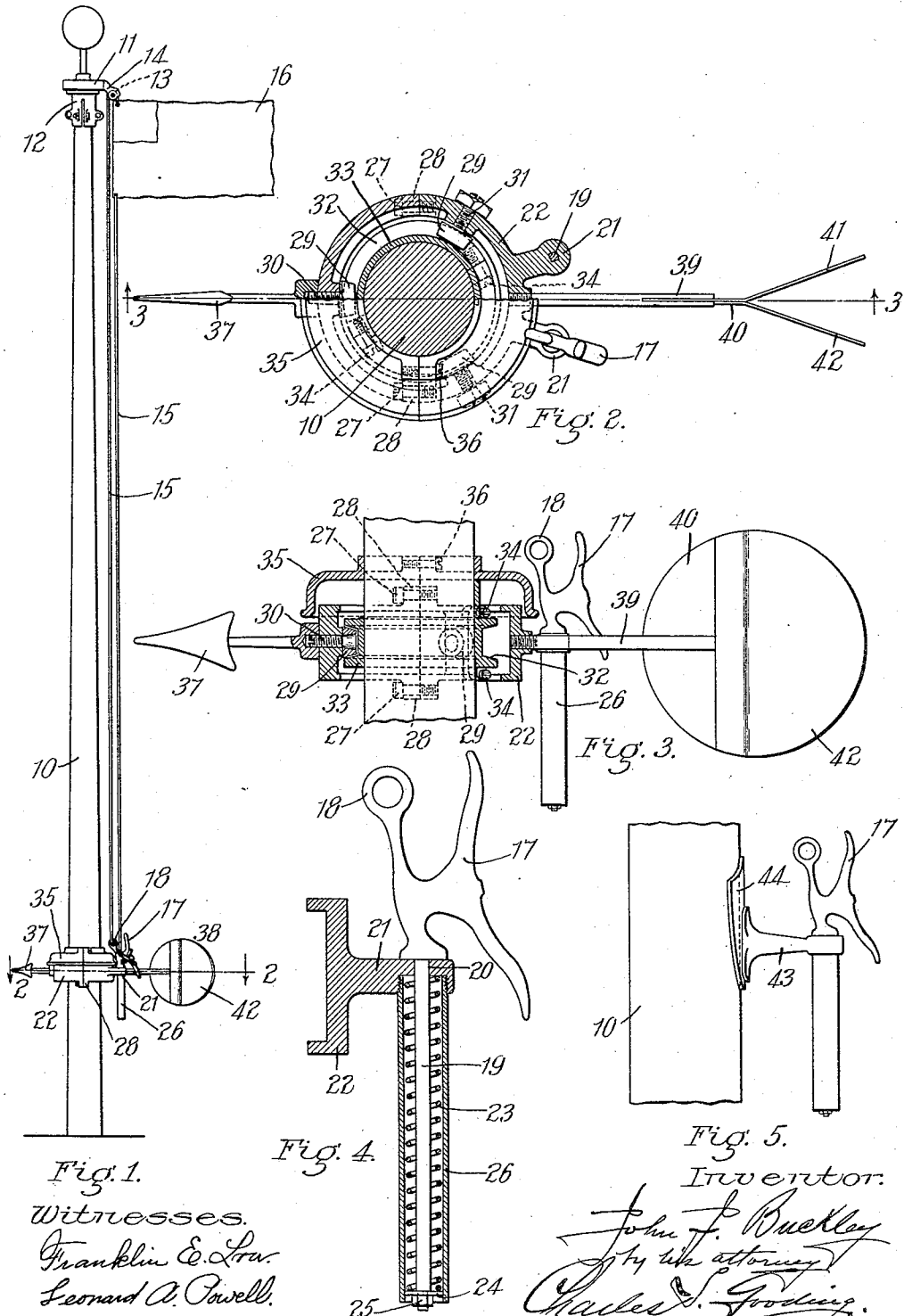


J. J. BUCKLEY.
 FLAG HALYARDS CLEAT AND CARRIER.
 APPLICATION FILED JUNE 26, 1912.

1,061,042.

Patented May 6, 1913.



UNITED STATES PATENT OFFICE.

JOHN J. BUCKLEY, OF LYNN, MASSACHUSETTS, ASSIGNOR TO BUCKLEY AUTOMATIC
FLAG-POLE COMPANY, A CORPORATION OF MASSACHUSETTS.

FLAG-HALYARDS CLEAT AND CARRIER.

1,061,042.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN J. BUCKLEY, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Flag-Halyards Cleats and Carriers, of which the following is a specification.

This invention relates to an improved cleat and carrier therefor for flag halyards, the same being particularly adapted to be used in connection with pennants, flags and halyards for the same, which halyards are supported upon a rotary truck at the upper end of a flag pole. Said cleat is mounted upon a carrier, which carrier is adapted to be mounted upon said flag pole, and a spring is interposed between the cleat and its carrier which yields when the flag is blown by the wind around the flag pole, but which acts to push the cleat downwardly and straighten out the halyards to bring the flag back from a twisted position into a normal or straight position, and when there is a lull in the wind, to allow the spring to act and thus bring the flag back to its normal position. Said cleat may be used in connection with a rotary carrier or with the carrier rigidly fastened to the pole.

In putting my invention into practical use, it is preferable to have the halyards extend over a sheave, the sheave being mounted on a rotary truck at the upper end of the flag pole, while the cleat and its carrier forming the subject matter of this invention is located upon the flag pole below said rotary truck.

The invention consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings: Figure 1 is a side elevation of a flag pole with my improved cleat and its carrier mounted thereon, said flag pole being illustrated as being provided with a rotary truck at its upper end and with a flag and halyards supported upon said rotary truck. Fig. 2 is a plan view, partly in section, on an enlarged scale taken on line 2—2 of Fig. 1. Fig. 3 is a sectional elevation taken on line 3—3 of Fig. 2. Fig. 4 is a detail sectional elevation of the cleat and a portion of the rotary carrier. Fig. 5 is a side elevation of a modified form of cleat and carrier, the carrier

in this instance being adapted to be rigidly fastened to the flag pole and having a single cleat mounted thereon, said carrier being shown attached to a portion of a flag pole.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, referring to Figs. 1 to 4 inclusive, 10 is a flagstaff; 11 is a rotary member of a truck, the stationary member 12 of said truck being fastened to the top of the flag pole. A sheave 13 is rotatably mounted upon an arm 14 fast to said rotary member 11 and halyards 15 extend over this sheave and are attached to a flag 16 in the usual manner. The free ends of the halyards 15 are wound about a cleat 17, said cleat also being provided preferably with an eye 18 through which one of the halyards extends. The cleat 17 has a rectangular stem 19 fast thereto and extending downwardly therefrom through a hole 20 formed in an ear 21 on the carrier 22. A spring 23 encircles the stem 19 and bears at its upper end against the ear 21. At its lower end it bears against a collar 24 fastened by a nut 25 to the stem 19. A tube 26 is fastened to the ear 21 by screw-threaded engagement therewith and incloses the spring 23 and stem 19. It will be seen that as the collar 24 is fastened to the stem 19 it forms, in effect, a part thereof, and that as the stem slides upwardly or downwardly relatively to the carrier 22, the square portion of said stem 19 slides in the hole 20, while the collar 24 slides in the tube 26 and in engagement therewith so that the stem 19 is guided at the top and bottom thereof to prevent any cramping in its operation. The carrier 22 is annular in form and has a plurality of ears 21 thereon in each of which is slidably supported one of the cleats 17. Said annular carrier 22 is made in two parts, said parts being joined together by screw 27 extending through ears 28 on said carrier. A series of rollers 29 are rotatably mounted upon studs 30 and 31 fast to the annular carrier 22, and these rollers are preferably conical in shape and project into an annular groove 32 formed in the annular track 33. The annular track 33 is formed in two parts and is clamped by screws 34 to the flag pole 10. An annular cap 35, made in two parts, is clamped to the flag pole 10 by means of screws 36 and extends outwardly over and downwardly adjacent to the upper edge of the

annular carrier 22, thus forming a shield to protect the same as well as the mechanism inclosed therein from the weather. A vane is preferably attached to the rotary carrier 22 consisting of a head 37 and tail 38. The part 37 is fastened to the carrier by the stud 30 with which it has screw-threaded engagement. The part 38 has a stem 39 which has screw-threaded engagement with the carrier 22, said part 38 consisting of the stem 39 and a disk-shaped part 40. The disk 40 is vertically disposed and has diverging wings 41, 42, said wings being located at the rear portion of the tail 38. The parts 37 and 38 of the vane are located on diametrically opposite sides of the carrier 22.

The object of the vane is to keep the carrier 22 and the cleat thereon in alinement with the rotary member of the truck 11, so that the vane and the flag 16 being in alinement one with the other, under normal conditions the halyards 15 will be kept straight and the flag will float in the direction of the wind straight out from the flag pole. It will further be noted that the arm 14 is of sufficient length to locate the sheave 13 at a substantial distance from the pole so that the flag will be acted upon by the wind to keep the same distended and straight without interference, by reason of the pole preventing the wind having the full effect upon the flag to hold it in its extended position. Furthermore, the arm 14 being of substantial length, the rotary member of the truck is easily moved by the wind when the same strikes against the flag 16. The vane is kept in alinement with the flag and, therefore each cleat is held in position in alinement, so that the halyards do not become twisted under normal conditions, and in order to make the vane and the carrier 22, to which it is attached, highly sensitive to light currents of air and wind and in order that the same may be moved quickly to keep in alinement with the flag and to keep the halyards from twisting, the disk 38 is split at the tail end of the vane and thus the disk 38 is bifurcated or provided with diverging wings at the rear end thereof, said wings intersecting preferably on a line between the center of the disk and the carrier. These diverging wings catch the full force of the wind or assume a position at an angle approaching a right angle to the direction of the wind much quicker than would be the case if the disk were flat throughout, so that for any change in the wind the vane is rendered much more sensitive by the diverging wings 41 and 42 than would be the case if the disk, as a whole, were flat.

The general operation of the device hereinbefore specifically described and illustrated in Figs. 1 to 4 inclusive, is as follows: As hereinbefore set forth the flag is sup-

ported by means of the halyards 15 upon a rotary truck at the top of the flag pole. The free ends of the halyards 15 are attached to the cleat 17 in the usual manner. When the flag 16 is blown by the wind in a direction tending to wrap the same around the flag pole, the truck 11 will rotate and the carrier 22 will also be rotated through the halyards in the same direction as the truck 11, so that under usual conditions the flag will always remain straight and pointing in the direction of the wind and will not become tangled with the halyards or with the flag pole upon which it is supported. If, through an unusually heavy or abrupt gust of wind, the truck 11 should be carried farther around on the pole than the carrier 22, that is, if said truck and the carrier should get out of alinement so as to partly twist the halyards 15 around the pole 10, the cleat 17 would be pulled upwardly, compressing the spring 23 for a short space of time. As soon, however, as there came a lull in the wind, the spring 23 would expand, pulling the cleat downwardly and straightening out the halyards, so that the truck 11 and carrier 22 would again be in alinement circumferentially with each other and the flag 16 would be in its normal position relatively to said truck and carrier as well as the halyards 15, 15. It will thus be seen that the flag will always be blown straight away from the flagstaff and not become coiled up on it and the same will be true of the halyards 15, 15 through the combined action of the rotary truck and carrier and also through the action of the slidably mounted cleat.

In Fig. 5 a modified form of my invention is illustrated in which the cleat 17 is provided with a stem 19 surrounded by a spring 23 and operated in substantially the same manner as that in which the cleat illustrated in Figs. 1 to 4 inclusive is operated. The carrier 43, however, upon which said cleat is mounted to slide embodies in its construction a plate 44 which is rigidly fastened to the flag pole 10 by screws. The rotary truck 11, the flag 16 and the halyards 15 are used in combination with this form of carrier and cleat in the manner illustrated in Fig. 1.

The general operation of the device illustrated in Fig. 5 is as follows: When the wind causes the flag and its supporting truck 11 to rotate around the flag pole 10, the halyards 15 are drawn upwardly and thus the cleat 17 is drawn upwardly in the same manner as hereinbefore described, and when the pressure of the wind is reduced upon the flag the spring 23 draws the cleat downwardly, straightens the halyards 15 and causes the truck 11 to resume its normal position in alinement with the cleat 17. Thus the flag will be held with the halyards in a substantially straight line, except momen-

tarily, when said flag is subjected to extraordinary wind pressure.

It will be understood that, in addition to the functions hereinbefore set forth as being performed by the spring-actuated cleat, in case the halyards shrink, as they often do, the spring 23 will yield and compensate for any shortening of the halyards due to this shrinking. This will prevent the pole from being bent or broken by the shrinking of the halyards and it will also prevent undue strain being brought to bear upon the halyards, whereby they are often broken, it being evident that when such strain is brought to bear upon the halyards when my improved cleat is utilized, the spring 23 will yield and compensate for any such undue strain.

Having thus described my invention, what I claim and desire by Letters Patent to secure is:

1. In combination, a carrier adapted to be mounted upon a flagstaff, a cleat for flag halyards with a stem extending downwardly therefrom into said carrier, said stem slidable in said carrier, means to prevent said stem from rotating on said carrier and a spring interposed between said stem and carrier adapted to exert a downward pressure on said stem.

2. In combination, a carrier adapted to be mounted upon a flagstaff, a tube fast to said carrier, a cleat for flag halyards, a stem extending downwardly from said cleat into said tube, a portion of said stem being rectangular in cross section and having sliding engagement with said carrier and a spring encircling said stem, one end engaging said stem, the other end engaging said carrier.

3. In combination, a flagstaff, a carrier rotatably mounted thereon, a cleat for flag halyards slidably mounted on said carrier and means to move said cleat downwardly on said carrier.

4. In combination, a flagstaff, a carrier rotatably mounted thereon, a cleat for flag halyards slidably mounted on said carrier, a spring interposed between said carrier and cleat and adapted to exert a downward pressure on said cleat and a vane on said carrier.

5. In combination, a flagstaff, an annular track fast thereto, an annular carrier, a series of rolls rotatably mounted on said carrier and projecting into an annular groove

in said track, a cleat slidably mounted on said carrier and a spring interposed between said cleat and carrier adapted to exert a downward pressure on said cleat.

6. In combination, a flagstaff, an annular track fast thereto, an annular carrier, a series of rolls rotatably mounted on said carrier and projecting into an annular groove in said track, a cleat slidably mounted on said carrier, a spring interposed between said cleat and carrier adapted to exert a downward pressure on said cleat and an annular cap fast to said flagstaff and extending over said track and carrier.

7. In a device of the character described, a carrier adapted to be rotatably mounted on a flagstaff, a cleat for halyards mounted on said carrier and a vane fast to said carrier, said vane comprising a vertically disposed disk, the rear portion of said disk consisting of two diverging wings.

8. In a device of the character described, a carrier adapted to be rotatably mounted on a flagstaff, a cleat for halyards mounted on said carrier and a vane fast to said carrier, said vane embodying in its construction two vertically disposed diverging wings located at the rear end thereof.

9. In a device of the character described, a carrier adapted to be rotatably mounted on a flagstaff, a cleat for halyards mounted on said carrier and a vane fast to said carrier, said vane embodying in its construction a stem and a vertically disposed disk, the rear portion of said disk separated into two diverging wings.

10. In a device of the character described, a carrier adapted to be rotatably mounted on a flagstaff, a cleat for halyards mounted on said carrier and a vane fast to said carrier, said vane embodying in its construction a head and a tail portion located on diametrically opposite sides of said carrier, said tail portion consisting of a stem fast to said carrier and a vertically disposed disk, the rear portion of said disk separated into two diverging wings.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN J. BUCKLEY.

Witnesses:

CHARLES S. GOODING,
SYDNEY E. TAFT.