## **United States Patent**

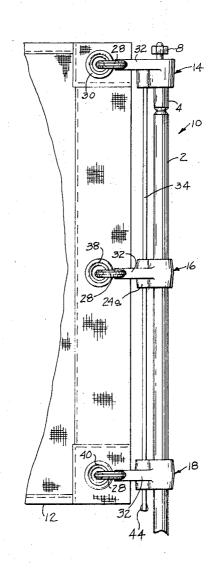
## Voorhees

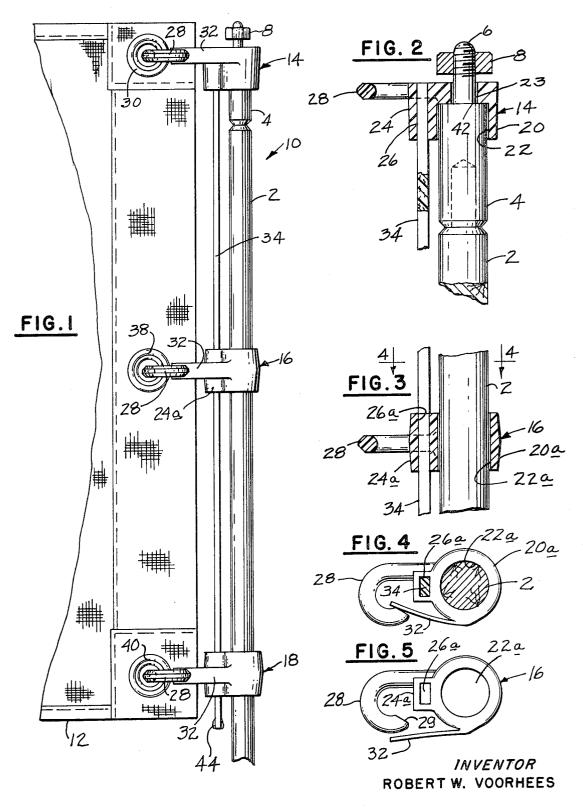
Dec. 19, 1972 [45]

| [54]                  | FLAGST           | AFF SWIVEL   | 2,493,855 1/1950 Bucks116/173   |  |
|-----------------------|------------------|--|---|--|
| [72]                  | Inventor:        | Robert W. Voorhees, Cedar Falls, Iowa                  | 3,183,886 5/1965 Moffitt, Jr  |  |
| [73]                  | Assignee:        | Standard Manufacturing Company,<br>Cedar Falls, Iowa   | Primary Examiner—Louis J. Capozi Attorney—Olson, Trexler, Wolters & Bushnell                                    |  |
| [22]                  | Filed:           | June 28, 1971  | [57] ABSTRACT   |  |
| [21]                  | Appl. No.:       | comprises a rod that supports a plurality of one piece |   |  |
| [52]                  | 52] U.S. Cl      |  | plastic members. Each member has a first bore and a   |  |
| [51] Int. Cl          |                  |  | second bore for receiving the rod. The rod positions the several members so that the aforesaid first bores      |  |
| [58]                  | Field of Se      | 24/236, 237  | are in alignment for swivel engagement with the flag-   |  |
|                       |                  |  | staff. Each member also integrally includes a hook  |  |
| [56]                  | References Cited |  | with a spring tongue for opening and closing the hook.  |  |
| UNITED STATES PATENTS |                  | TED STATES PATENTS                                     | The hooks are engageable with eyelets on a flag, and a<br>number of the members are relatively adjustable along |  |
| 1,306                 | •                |  | the lengths of the rod to accommodate varying eyelet  |  |
| 1,360                 | •                |  | spacings of different flags.  |  |
| 1,855<br>2,336        | •                |  | 5 Claims, 5 Drawing Figures   |  |

## ACT

## 5 Claims, 5 Drawing Figures





Olsow, Treyler, Wolters & Bushnell By Attys This invention relates to improvements in devices for swivelly mounting flags to flagstaffs.

It is an object of this invention to provide a device of the type stated which is of relatively simple construction and which permits the flag to shift directions with the wind without fouling or binding on the pole or staff upon which the flag is mounted. The device is particularly suitable for flags and flagstaffs of the type ordinarily found on golf courses, but as the description proceeds it will be apparent that the invention is useful for other types of flags as well.

It is a further object of this invention to provide a device of the type stated which can be easily mounted in place on a flagstaff and readily attached to the flag at the grommets or eyelets thereof.

Another object of this invention is to provide a device of the type stated that has swivel members fabricated of plastic whereby the swivel connections of the device with the flagstaff are unlikely to be fouled despite prolonged exposure to atmospheric contaminants.

In accordance with the foregoing objects, a preferred embodiment of the present invention comprises a plurality of one piece plastic members having sleeves with cylindrical bores for swivel connections to a flagstaff at spaced regions thereof. The sleeves have radial projections that define non-circular bores, eccentric to the 30 bores of the sleeves, for receiving a rod of like non-circular cross section, whereby the bores of the sleeves are kept in axially aligned relationship. This allows the entire device to swivel as a unit about the flagstaff. Each of the aforesaid members also includes a hook for 35 engagement with the eyelet or grommet of a flag, the hook being provided with a spring tongue for opening and closing the same. The uppermost of the members is fixed on the rod and has a counterbore for receiving the end of the flagstaff. The remaining members are slida- 40 ble along the rod so that the spacing of the members, and hence the spacing of the hooks, may be varied in accordance with the spacing of the eyelets of the flag. The fact that each of the aforesaid members is a one piece plastic element, contributes to the simplicity of 45 use and low cost of the device of the present invention.

The attainment of the above and further objects will be apparent from the following detailed description taken in conjunction with the accompanying drawing forming a part thereof.

In the drawing:

FIG. 1 is an elevational view of the upper end of a flagstaff and a portion of a flag mounted thereon by the swivel device in accordance with the present invention;

FIG. 2 is a partial sectional view, on an enlarged 55 scale, of the upper end of the structure shown in FIG. 1;

FIG. 3 is a partial sectional view, on an enlarged scale, of the central portion of the structure shown in FIG. 1:

FIG. 4 is a sectional view taken along line 4—4 of <sup>60</sup> FIG. 3: and

FIG. 5 is a top plan view of one of the swivel members after molding thereof but prior to assembly with the supporting rod.

Referring now in more detail to the drawing there is shown a flagstaff 2 of generally cylindrical shape having an upper cylindrical end portion that is coupled to the subjacent portion in a known manner. The upper end portion 4 has a diametrally reduced tip 6 having a thread for receiving a hand nut 8, as best shown in FIG. 2.

A device 10, in accordance with the present invention, is provided for swivelly mounting a flag 12 on the flagstaff 2. The device 10 comprises a plurality of one piece plastic members 14, 16, 18. The members may be molded of any suitable plastic, such as polyethylene. Three such members are herein shown, but it will be apparent that a greater or lesser number of such members may be used, depending upon the width of the flag 12. The lower two members 16, 18, or as many such members below the top member 14 as there may be, are of identical construction. Thus, a description of the member 16 will suffice, it being understood that the member 18 has like features.

The member 14 includes a sleeve 20 having a 20 downwardly opening cylindrical bore 22 for slidably receiving the upper end portion 4. The sleeve 20 also includes at its upper end a diametrally reduced counterbore 23 for loosely receiving the threaded tip 6. Formed on the periphery of the sleeve 20 is a radially outwardly extending generally rectangular projection 24 having a bore 26 which is of rectangular cross section and runs parallel to but eccentric from the cylindrical bores 22, 23. Also integrally formed with the sleeve 20 and projection 24 is a radially outwardly extending hook 28 for engagement with the upper grommet or eyelet 30 of the flag 12, as shown in FIG. 1. Formed on the periphery of the sleeve 20 is a flat spring tongue 32 that opens and closes the hook opening 29 (FIG. 5) which is radially outwardly of the bore 26. The spring tongue 32 and hook 28 are the same for each of the members 14, 16, 18.

When the several members 14, 16, 18 are molded, the tongue 32 will appear outside of the hook, as shown in FIG. 5. Thereafter, the tongue 32 may be flexed laterally to snap past the end of the hook 28 so that the tongue 32 is self-biased by its own spring action to lie against the free end of the hook, as shown in FIG. 4. It is then a simple matter to depress the tongue 32 toward the projection 24 to allow the hook 28 to pass through the eyelet 30.

The member 16 has a sleeve 20a with a cylindrical bore 22a, and a projection 24a with a bore of rectangular cross section 26a, all similar to the corresponding 50 elements in the member 14, previously described. A rod 34 of rectangular cross section is disposed within the bores 26, 26a. The rod may be plastic or fiber reinforced plastic. At its upper end, the rod 34 is suitably bonded or rigidly held in a frictional fashion in the bore 26. However, the rod 34 is slidable in the bore 26a of the members 16, 18. Thus, the members 14, 16, 18 are mounted on the rod 34 with the bores 22, 22a in alignment, and with the members 16, 18 being capable of relative sliding movement along the rod 34. As a result, the hook 28 of the members 16, 18 may be vertically adjusted to position the hook in accordance with the spacing of the grommets 38, 40 of the flag 12. Because of the fact that the rod 34 and bores 26, 26a are of noncircular cross section, the sleeves of the members are kept aligned prior to installation of the device. The upper end wall 42 (FIG. 2) of the bore 22 acts as a thrust bearing for the device 10 while the cylindrical portion of the bore 22 and the bores 22a act as journals. The lower end 44 (FIG. 1) of the rod 34 may have a suitable enlargement to prevent the slidable members 16, 18 from being withdrawn from the rod 34. This enlargement 44 may be formed by providing a small plastic coating onto the rod 34 after assembly of the members 14, 16, 18 therewith.

Installation of the device 10 on the flagstaff 2 may be effected by first removing the nut 8. Thereafter the members 16, 18 are slipped over the upper end of the 10 flagstaff with the latter passing through the bores 22a. The top portion 4 of the flagstaff is seated in the bore 22 with the tip 6 projecting through counterbore 23. The nut 8 is then replaced on the tip 6. Thereafter the hook 28 of the member 14 may be inserted through the 15 eyelet 30. Then the members 16, 18 are shifted along the shank of the flagstaff to proper positions for inserting the hooks thereon into the eyelets 38, 40.

The invention is claimed as follows:

1. A device for swivelly mounting a flag on a flag-20 staff, said device comprising at least two one-piece members having sleeves for swivel connections to a flagstaff at spaced regions thereof, elongated means for supporting said members such that the bores of the sleeves are in axially aligned relationship, each member 25 having means forming a bore eccentric to the bore of its sleeve for receiving said elongated means, and at-

taching means projecting generally radially of each sleeve for retentive engagement with an eyelet of a flag, said sleeve, said attaching means, and said means forming the eccentric bore constituting each one-piece member, at least one of said one-piece members being slidable along said elongated means, and another of said one-piece members having its sleeve shaped to be journaled in the upper end of the flagstaff to provide a thrust bearing for the device and the flag carried thereby.

2. A device according to claim 1 including a spring tongue for opening and closing each attaching means, each spring tongue being integral with its associated member.

3. A device according to claim 2 in which said elongated means comprises a rod, and said rod and eccentric bores are of non-circular cross section.

4. A device according to claim 1 in which said member having the thrust bearing is at an end of said rod, the rod and eccentric bore having cooperating means for retaining said one member thereat, and said last-mentioned member has a reduced diameter bore portion for receiving a reduced end of the flagstaff.

5. A device according to claim 1 in which each member is a plastic structure.

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