Oct. 25, 1966 W. M. BOOTH 3,280,790

SIGNAL DEVICE

Filed July 12, 1965

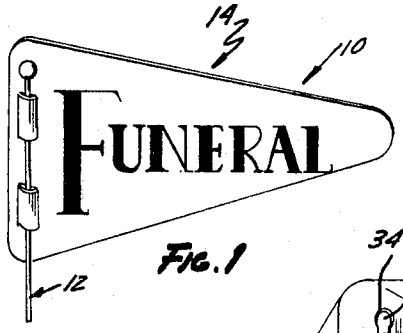


FIG. 1

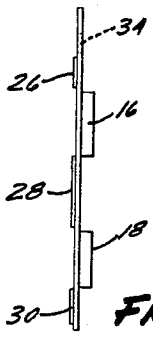


FIG. 4

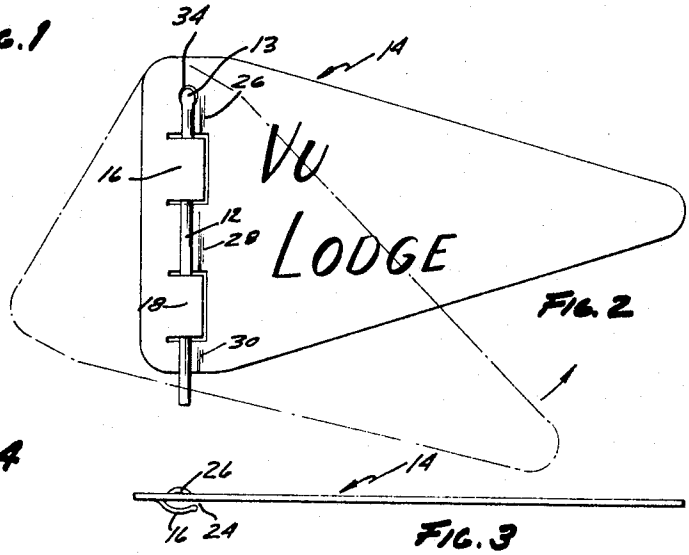


FIG. 2

FIG. 3

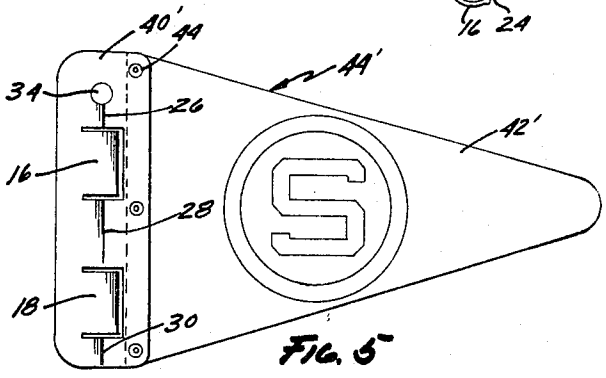


FIG. 5

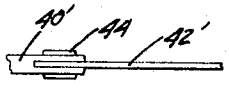


FIG. 6

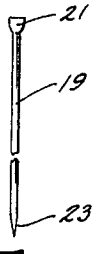


FIG 8

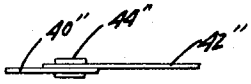


FIG. 7

INVENTOR.
WILLIAM M. BOOTH

BY Price & Heneveld

ATTORNEYS

United States Patent Office

3,280,790

Patented Oct. 25, 1966

3,280,790

SIGNAL DEVICE

William M. Booth, Grand Haven, Mich., assignor to Peerless Novelty Company, Grand Haven, Mich., a corporation of Michigan

Filed July 12, 1965, Ser. No. 471,353

2 Claims. (Cl. 116—173)

This invention relates to an attachable-detachable signal flag, and particularly to a signal flag for attachment to an elongated rod having an enlarged head, especially a vehicular radio antenna.

Signalling or identifying flags have been attached to many different types of vehicles for many different purposes. Typically, cloth flags are attached to boats, automobiles, motorcycles, bicycles, etc., for example, to designate automobiles in a funeral procession, to identify the school of students, to identify yacht clubs, or the like. In snow belt areas, pieces of cloth are tied to the tops of radio antennas on vehicles to signal the presence of one vehicle, to others meeting at an intersection. These are just a few of the illustrative adaptations of such signalling and/or identifying flags.

These flags are frequently temporarily attached to slow moving vehicles by suction cups. Another method of attachment is by tying cloth tabs to the antenna. Fast movement of the vehicles can easily cause detachment of suction cups. Where cloth flags are tied to the top of vehicle antennas, fast movement causes severe flapping of the flag, frequently resulting in cracking of the attachment insulators to the vehicle body. This of course causes shorting and static in radio reception.

Also, such flags tend to slowly slide down the antenna to a useless position.

As a consequence of these factors, although the idea of using an antenna flag is desirable and useful in many instances, this is normally not very practical due to the very real disadvantages concomitant with the use on antennas.

It is an object of this invention to provide an attachable-detachable flag unit for vehicles that is not only easy to attach and detach when necessary, but is also secure against accidental detachment. It moreover need not whip or flap uncontrollably to cause antenna insulator damage. It is not limited to suction cups, window clips, cloth ties, or the like.

Another object of this invention is to provide a novel combination of antenna and specially attached flag useful for decorative purposes, identifying purposes, signalling purposes, or the like.

Another object of this invention is to provide a novel combination snap-on flag and elongated headed support stem that can be an antenna or an elongated spike.

Another object of this invention is to provide a novel, non-flapping, attachable flag capable of mass-production by relatively inexpensive forming techniques, and capable of easy stable attachment. Its attachment means is formable from metallic components as by die stamping and forming equipment. It is attachable to an antenna with a simple snap action. It needs no threaded connectors. It is formable in a variety of different configurations, designs, styles. It is capable of receiving the selected type of decorative and/or identifying indicia and colors thereon for adaptability to particular usages.

Another object of this invention is to provide an attachable signal flag having a unique, snap-on, rigid, fastener strip which receives any of a variety of decorative insert portions.

Another object of this invention is to provide a unique signal flag concept enabling the fabrication of a flag that

may be completely unitary and rigid, or may comprise a rigid attachment strip and a flexible tail.

These and several other objects of this invention will become apparent upon studying the following specification in conjunction with the drawings in which:

FIG. 1 is a perspective view of the combination attachable flag and vehicular antenna;

FIG. 2 is an enlarged elevational view of flag and antenna;

FIG. 3 is a top plan view of one of the flags in FIG. 2;

FIG. 4 is an end elevational view of the flag;

FIG. 5 is an enlarged side elevational view of a modified form of the flag;

FIG. 6 is a fragmentary top view of a portion of the flag in FIG. 5 showing one means of connecting the components thereof;

FIG. 7 is a fragmentary top view of a similar portion to that shown in FIG. 6, showing a slightly modified manner of connecting the components; and

FIG. 8 is an elevational view of a beaded spike useful in combination with any form of the novel flag.

Referring now specifically to the first form of the invention shown in FIGS. 1 through 4, the combination **10** includes a vehicle radio antenna **12** having an elongated generally cylindrical portion with an enlarged bead or head **13** on the upper end. To this is attached flag **14**. The portion of the antenna near the head is of generally the same cross-sectional size, although it may taper slightly.

The flag, in its first form, is basically an elongated, generally rigid or semi-rigid, self-supporting, metallic or plastic element. It preferably is generally triangular in shape, and has vertical attachment means parallel to and adjacent the elongated vertical edge. If the element is formed of metal, the attachment means can be formed by conventional die stamping and cutting techniques. The attachment means includes a pair of adjacent, vertical spaced, vertically oriented, semi-cylindrical tabs **16** and **18**. These are die cut on the upper edge, lower edge, and one side edge, and are deformed into a generally semi-cylindrical configuration as shown in FIG. 3. The severed side edge of these tabs is spaced slightly from the main body of the flag to form an antenna receiving slot **24** for receiving an antenna with a snap action. The slot is of a smaller width than the normal antenna, requiring it to be spread slightly by temporary resilient deformation of tabs **16** and **18** with insertion of the antenna, followed by a return to the initial position for a gripping action. In order for the flag to have excellent retentive qualities on both sides of the antenna, the portions **26**, **28** and **30** of the flag astraddle and between tabs **16** and **18** are deformed in generally cylindrical fashion, aligned with tabs **16** and **18**, to form an elongated receiving pocket for the antenna. This pocket normally has a smaller diameter than the antenna. Thus, the antenna **12** is held tightly between these adjacent curvatures when tabs **16** and **18** are flexed slightly.

Spaced above the upper tab **16**, adjacent depression **26**, is an orifice **34** generally circular in configuration. This receives the enlarged bead **13** on the upper end of antenna **12**. The interfit of this bead within the orifice completes the smooth connection between the elements, so that, when the antenna is snapped into position, the two parts interfit tightly with maximum stability. This bead and orifice interfit serves to keep the flag from sliding down the antenna, thereby maintaining its useful position. The axis of the antenna is largely within the same plane as the flag, to provide optimum air flow characteristics, thereby preventing the flag from flapping or whipping, even at high speeds. The rigidity of the flag also tends to prevent flapping. The flag will not become detached even at high speeds, since the windage pressure merely forces the antenna deeper into the socket.

The flag may be attached to a boat or the like by using a spike like that at **19** in FIG. 8 if desired. The spike has an elongated configuration of generally uniform cross section in the portion near its end, and has an enlarged head **21**. The head serves the dual function of allowing the sharp opposite end **23** to be embedded in a support surface, such as a boat deck, and of interfitting with the flag orifice. The cross section is usually generally circular, although it may be polygonal or even ovular.

The flag may have any suitable indicia for identifying, signalling, or other purposes. This can be applied by silk screen techniques, as on metal, or by molding the color in, as on plastic, or applied in any other desirable way.

The rigid mounting strip portion may be an integral portion of the entire flag, so that the whole unit is rigid as in FIGS. 1–4, or it may alternately be connected to a semi-rigid or pliable tail portion as in flag **14'** in FIG. 5. More specifically, flag **14'** includes a rigid, vertically oriented mounting base **40'** containing the bead receiving opening **34**, depressions **26**, **28** and **30**, and oppositely bent tabs **16** and **18**, so that the attachment is just like that illustrated with respect to the first form of the flag shown.

The flexible, semi-flexible or rigid tail section **42'** attached to the rigid mounting base is secured by rivets **44** or other suitable means. The tail portion may be of a different material than the rigid mounting base, e.g. of plastic, cloth, laminated construction, or the like. It may be imprinted with any suitable insignia, color, identifying indicia, or the like, as illustrated by one example in FIG. 5. This two piece construction may be formed by having the mounting base of bifurcated construction as shown in FIG. 6 at **40'**, with rivets **44** extending through both spaced segments of the bifurcated portion and through the tail portion **42'** in the slot therebetween. Alternatively, as shown in FIG. 7, the tail portion **42''** may be attached to one side of the rigid base portion **40''** by rivets **44''**.

This second form of flag has the snap-on attachment and detachment features, and also is capable of relatively inexpensive construction. The mounting strip is capable of receiving any selected tail portion and mounting it securely. Its over-all structure does not have the rigidity of the first form.

Obviously, the two different forms each have their own distinct advantages and disadvantages, although both have certain characteristics in common.

It will be obvious to those having ordinary skill in the art, that the particular configuration of the flag may be widely varied. Also, the particular insignia place thereon can be of any chosen type. The flag could be useful as a snow signalling device on vehicles traveling between deep snow banks, could be used to designate funeral cars in a procession, could be used to designate a lodge, could be used as a stress signal, or to designate a particular college or university. It can be used on many different types of vehicles, including boats, cycles, automobiles, trucks or others.

It is attached merely by inserting the enlarged bead **13** of the antenna in opening **34** as shown in the phantom line unit in FIG. 2, then rotating the device as illustrated in the direction indicated by the arrow, to snap the antenna through the receiving slots **24** of tabs **16** and **18**. It is detached just as readily by rotating it in the opposite direction.

Certain additional advantages and/or modifications of this particular device may occur to those in the art upon studying these teachings. Hence, the invention is intended to be limited only by the scope of the appended claims and the reasonably equivalent structures to those defined therein.

I claim:

1. A flag for attachment to an elongated support having an enlarged head comprising: an elongated, generally planar body; at least a portion of said body at one end being of generally rigid sheet stock; attachment means cut and deformed from said portion, projecting laterally therefrom as aligned clip elements; said clip elements forming a concave, axially elongated recess having a receiving slot therein; said portion adjacent said clip elements being concavely deformed opposite said clip elements to form an elongated, axial, receiving socket complementary to said recesses; and a receiving pocket in said portion spaced from and in line with said socket to receive the enlarged end of the support.

2. A flag assembly comprising: an elongated support having an enlarged head; a flag having an elongated, generally planar body; at least a portion of said body at one end being of generally rigid sheet stock; aligned attachment elements cut and deformed from said portion, projecting laterally therefrom as clip elements; said clip elements forming a concave, axially elongated recess having a receiving slot therein; said portion adjacent said clip elements being concavely deformed opposite said clip elements to form an elongated axial receiving socket complementary to said recesses; and a receiving pocket in said portion spaced from and in line with said socket; said socket removably receiving said elongated support, and said pocket receiving said enlarged head.

References Cited by the Examiner

UNITED STATES PATENTS

1,672,134	6/1928	Pitt et al.	116—175
2,322,891	6/1943	Snyder	116—173
2,856,891	10/1958	Solomon	116—173
2,905,140	9/1959	Acklam	116—173
3,075,492	1/1963	Winfrey	116—28

FOREIGN PATENTS

505,675	9/1951	Belgium.
1,190,822	4/1959	France.

LOUIS J. CAPOZI, *Primary Examiner.*