United States Patent [19]

Carroll

[11] **3,903,835**

[45] **Sept. 9, 1975**

[54] **GRADE INDICATOR STAKE FLAG HOLDER**

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[73] Assignee. **Robert A. Smith**, Odessa, Tex. ; a part interest

[22] Filed: **Feb. 19, 1974**

[21] Appl. No.: **443,296**

[52] **U.S. Cl.** ..... **116/114 R**; 248/39

[51] **Int. Cl.**[2] **G01D 21/04**

[58] **Field of Search** ..... 116/173, 174, 175; 24/259 C, 81 PH; 248/39

[56] **References Cited**

UNITED STATES PATENTS

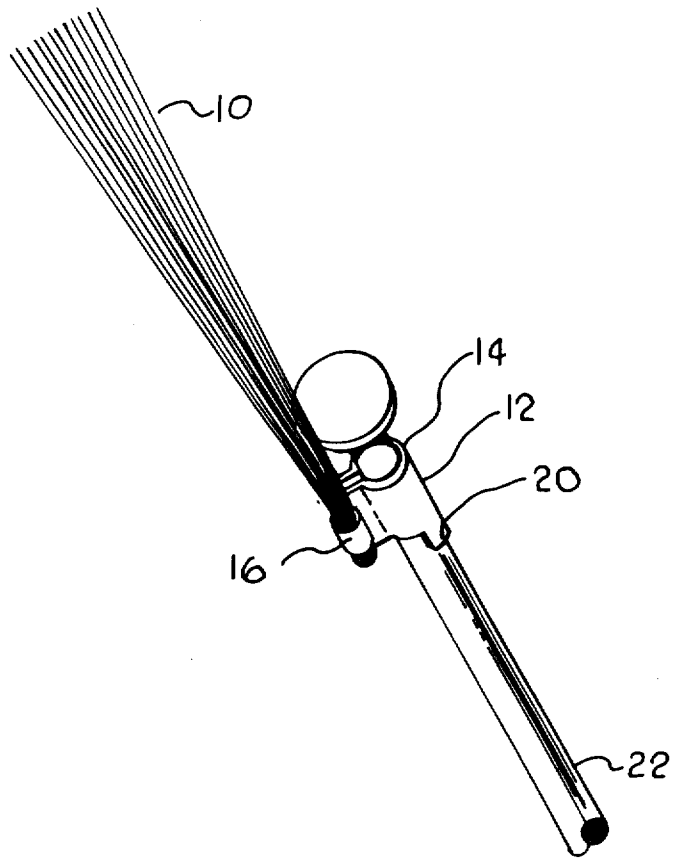
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2,550,023	4/1951	Reilly	248/39
3,267,901	8/1966	Carroll	116/114 R

Primary Examiner—Richard C. Queisser
Assistant Examiner—Daniel M. Yasich
Attorney, Agent, or Firm—Wendell Coffee

[57] **ABSTRACT**

A bundle of stiff, resilient strands form a flag to be attached to the top of a grade stake for use in construction work such as road building. The cluster of strands are folded into a bight and held in two loops of a metal strip which also has a large loop which may either encircle a large nail or be driven into a wooden stake without splitting the stake.

7 Claims, 5 Drawing Figures



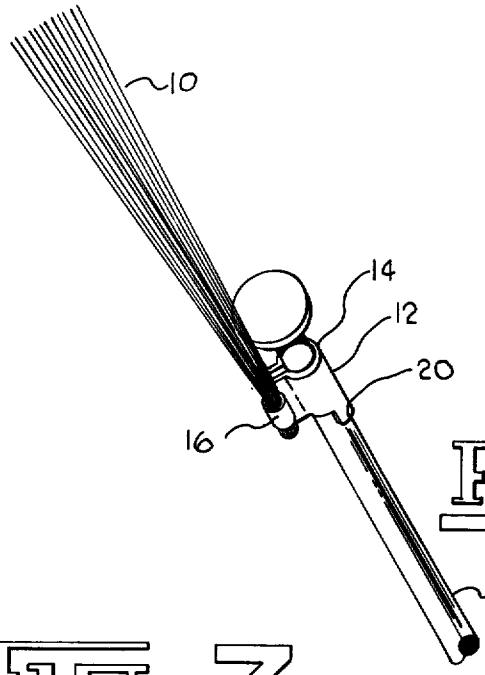


FIG-1

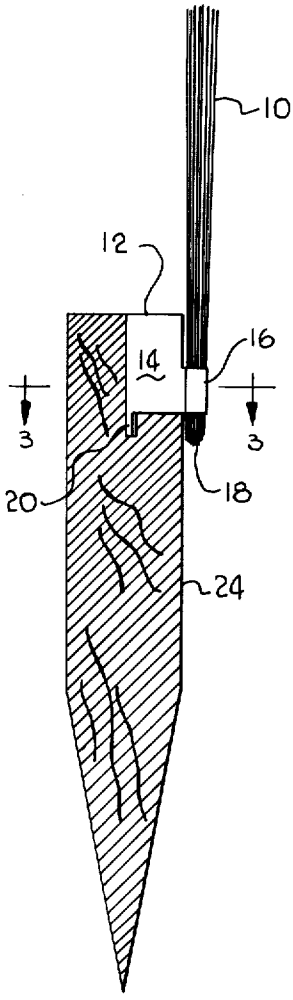


FIG-2

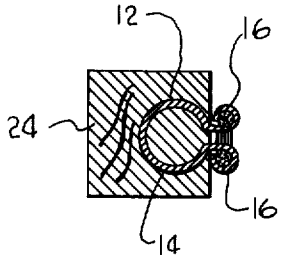


FIG-3

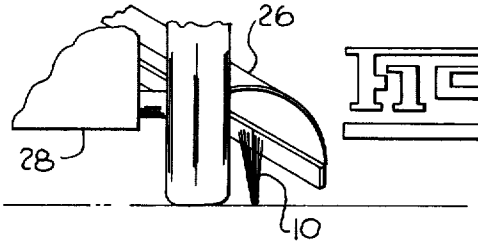


FIG-4

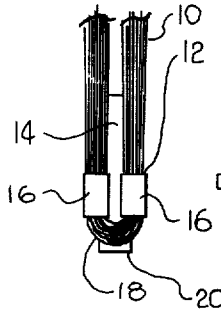


FIG-5

GRADE INDICATOR STAKE FLAG HOLDER

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to flags or indicators to indicate the top of a grade stake. (116/114)

2. Description of the Prior Art

My prior U.S. Pat. No. **3,267,901,** issued Aug. **23, 1966,** described how a cluster or bundle of stiff, resilient strands may be attached to the top of a stake to aid in finding the top of a grade stake, commonly called a "blue top". These indicators are commonly called "flags". That patent described the attachment of the bundle of strands by a staple nailed into the top of a wooden stake. A large stake was required to avoid splitting the stake with the staple.

SUMMARY OF THE INVENTION

New and Different Function

I have found a better way to attach the bundle or cluster of strands to a grade stake. I attach the strands within a flag holder having loops of a strip of metal. This is advantageous from the point of manufacture, shipment and assembly.

More important, the flag holder does not split a wooden stake so readily. The flag holders of this application can be used commercially on wood stakes having ⅝ × ⅝ inch cross section.

Objects of this Invention

An object of this invention is to increase the visibility of grade markers.

Another object is to improve the attachment of a flag to the top of a grade stake.

Other objects are to achieve the above with a device that is sturdy, compact, durable, lightweight, simple, safe, efficient, versatile, and reliable, yet inexpensive and easy to manufacture, store, ship, and install.

The specific nature of the invention, as well as other objects, uses, and advantages thereof, will clearly appear from the following description and from the accompanying drawing, the different views of which are not necessarily to the same scale.

BRIEF DESCRIPTION OF THE DRAWING

FIG. **1** is a perspective view of an embodiment of this invention attached to the top of a large nail.

FIG. **2** is an axial sectional view of a wood stake with the same embodiment of this invention as seen in FIG. **1** attached in the top of the stake.

FIG. **3** is a cross-sectional view taken substantially on line **3—3** of FIG. **2** showing attachment of the flag holder in the stake.

FIG. **4** shows a grader blade as the grader blade would be before it passed over the flag in use.

FIG. **5** is a front elevational view of the embodiment of this invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring more particularly to the drawing, a flag is formed of a bundle or cluster of stiff, resilient strands **10.** As set forth in my previously mentioned patent, I have found synthetic monofilament well adapted for this purpose. Nylon is a suitable material. I have found that either blue or red provides good visibility.

The strands are attached within bent strip **12** of metal. The strip as seen in FIG. **3** has a shape somewhat resembling the Greek letter omega. I.e., the strip has large cylindrical loop **14.** On each end of the strip **12,** there is small cylindrical loop **16.** The metal in the small loops **16** is bent or circled in the opposite direction from the large loop **14.** The bundle of strands **10** is bent, forming bight **18** and the bundle is encircled by each of the small loops **16** immediately adjacent the bight **18.** Spur or starting point or tang **20** extends axially downward from the center of the large loop **14.** The axes of the three loops are substantially parallel.

As seen in FIG. **1,** the flag with holder may be attached to large nail **22,** such as a **60**p nail, by telescoping the shank of the nail through the large loop **14** with the flag extending above the head of the nail as illustrated. The shank of the nail and the large loop **14** are about ¼ inch diameter.

Using wooden stake **24,** the flag holder or the strip of metal **12** is driven with a hammer into the flat top of the wooden stake. In this instance, the starting point **20** helps start the holder to be driven into the top of the stake.

Although the description of the strip of metal **12** and holding of the strands is somewhat difficult to describe in words, the item is manufactured according to the drawing. In this regard, it is noted that the bottom of the small loops **16** are flush with the bottom of the large loop **14** except for the spur **20** which extends therebelow. However, the top of the small loops **16** are not as high as the top of the large loop **14.** In fact, the large loop **14** is approximately twice the length measured axially thereof as the length of the small loops **16** measured axially. This permits the strands to be bent away slightly when driving the holder into the stake and gives the strands more flexibility when a grader blade **26** on machine **28** scrapes across. Stated another way, the top of the small loops **16** is about halfway up of the large loop **14.** The strip is readily stamped from **24** gauge sheet metal and the strip is **2-1/16** inches long before bending.

Thus, it may be seen, I have provided a "blue top flag" that is easy to manufacture, ship and readily attached to a stake or nail in the field immediately before use.

The embodiment shown and described above is only exemplary. I do not claim to have invented all the parts, elements or steps described. Various modifications can be made in the construction, material, arrangement, and operation, and still be within the scope of my invention. The limits of the invention and the bounds of patent protection are measured by and defined in the following claims. The restrictive description and drawing of the specific examples above do not point out what an infringement of this patent would be, but are to enable the reader to make and use the invention.

SUBJECT MATTER CLAIMED FOR PROTECTION:

I claim as my invention:

1. A flag holder for holding a flag made of a bundle of stiff, resilient strands comprising:

a. a strip of metal having

i. a large loop with

ii. two small loops on either side thereof

iii. side by side,

b. the small loops encircling the bundle of strands immediately adjacent to a bight in the bundle of strands,

c. the axes of the three loops pointing the same way, and

d. a wooden stake having a flat top,

e. the large loop of the flag holder driven into the flat top of the wooden stake.

2. The invention as defined in claim **1** with an additional limitation of

d. a starter point in the form of a tang extending from the center of the large loop.

3. The invention as defined in claim **1** wherein

d. the top of the small loops are below the top of the large loop.

4. The invention as defined in claim **1** wherein the holder is formed with

d. one small loop formed at one end of the strip,

e. the other small loop formed at the other end of the strip, and

f. the large loop formed therebetween.

5. The invention as defined in claim **4** with an additional limitation of

g. said strip bent in the opposite direction for each small loop from the large loop.

6. The invention as defined in claim **5** with an additional limitation of

h. a starter point in the form of a tang extending from the center of the large loop.

7. The invention as defined in claim **6** wherein

j. the top of the small loops are below the top of the large loop.

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