United States Patent [19]

Barnett et al.

[11] **3,863,595**

[45] **Feb. 4, 1975**

[54] **GRASS GUARD DEVICE**

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[21] Appl. No.: **344,928**

[52] **U.S. Cl.** ..... **116/63 R,** 40/125 H, 40/125 N, 116/4, 404/10

[51] **Int. Cl.** **E01f 15/00,** G08b 7/00

[58] **Field of Search** ..... 116/63 P, 63 R, 28 A, 4; 40/125 N, 125 J; 404/10; 49/9; 246/272

[56] **References Cited**

UNITED STATES PATENTS

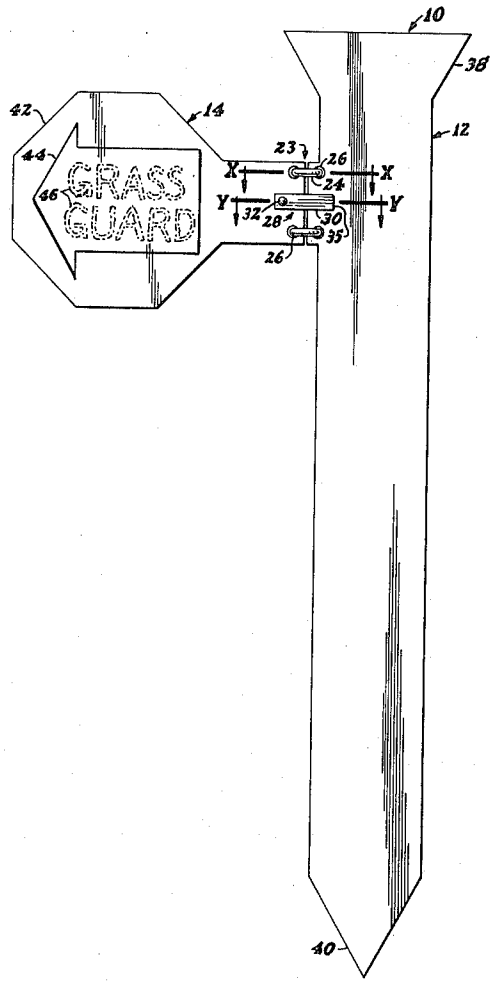
1,523,221	1/1925	Kendall	40/145 A
1,535,753	4/1925	Weiser	49/9 X
1,560,572	11/1925	Hatton	116/63 X
1,707,951	4/1929	Schleicher	404/10
2,986,113	5/1961	Frees et al.	116/28 A
3,085,546	4/1963	Pelletier	116/63 R
3,318,279	5/1967	Padilla	116/63 P

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Assistant Examiner—Daniel M. Yasich
Attorney, Agent, or Firm—Robert A. Spray

[57] **ABSTRACT**

A grass guard device having a supporting post member which carries adjacent its upper end a laterally-extending arm which extends over the edge of a roadway surface even though the supporting post member is thrust into the grassy area which is aside of the roadway surface, and providing that if the arm is engaged by a vehicle on the roadway surface the device audibly warns the driver of the vehicle of the closeness of the roadway edge and of the adjacent grassy area.

3 Claims, 7 Drawing Figures



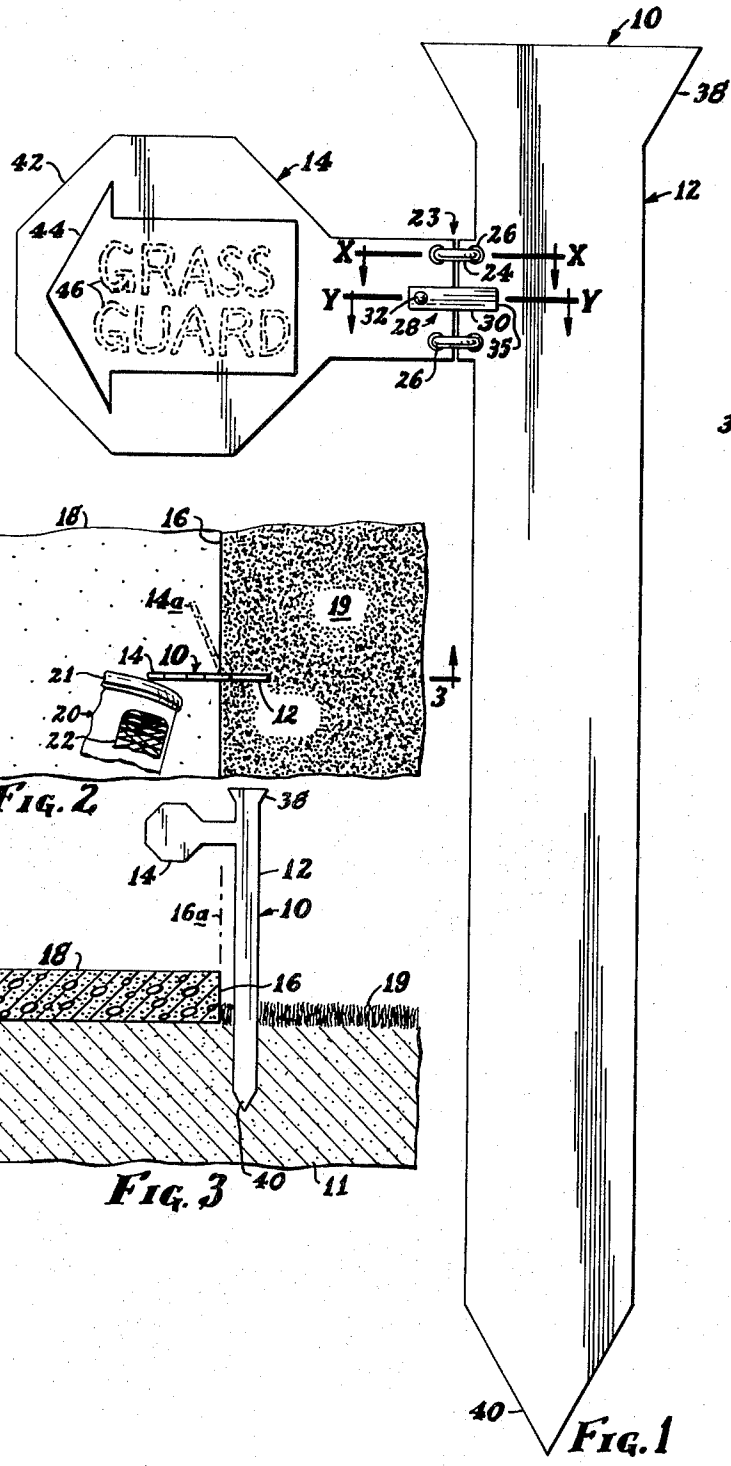


FIG. 1

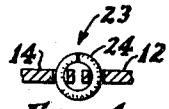


FIG. 4



FIG. 5

FIG. 2

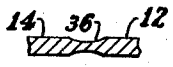


FIG. 6

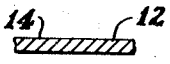


FIG. 7

FIG. 3

GRASS GUARD DEVICE

This invention provides an economical yet effective grass guard device; and, more particularly, the concepts of the invention provide a grass guard device adapted to be easily inserted into the relatively soft grassy area to be protected, yet extends over the adjacent roadway to provide an audible warning to the driver of the vehicle, on the roadway, of the closeness of the edge of the said roadway surface and of the grassy area, thus to warn the driver to change the vehicle course appropriately to prevent it from being driven onto the grass.

The above description is quite generalized and of introductory nature. More particular details, concepts, and features of the invention and the particular inventive concepts are set forth in the following more detailed description of illustrative embodiments, taken in conjunction with the accompanying somewhat schematic and diagrammatic drawings, in which:

FIG. 1 is an elevational view of a grass guard device according to a desired embodiment thereof.

FIGS. 2 and 3 are, respectively, a plan view and an elevational view as taken on View-line 3—3 of FIG. 2, taken on much smaller scale than FIG. 1, of a roadway and adjacent grassy area, with a grass guard device installed in the ground to provide protection of the grassy area from vehicles which are then being driven on the roadway but which are headed to go off the roadway onto the grassy area;

FIGS. 4 and 5, respectively, are detail sectional views taken along View-lines X—X and Y—Y of FIG. 1;

FIGS. 6 and 7 are, respectively, cross-sectional detail views taken along View-lines X—X or Y-Y of FIG. 1 but of embodiments in which the supporting post and lateral arm of the device are formed from a unitary body member.

As shown in the drawings, the present inventive concepts provide a new and useful grass guard device **10.**

This advantageous grass guard device as shown comprises, as basic components, a supporting post member **12** which is adapted to be forced, as by hitting or thrusting, into the ground **11**; and the supporting post member carries, adjacent its upper end, a laterally-extending arm means **14** which is adapted to extend over the edge **16** of an associated roadway surface **18** even though the supporting post member **12** is itself thrust into the ground **11** at a location in the grass area **19** which is aside of the roadway surface **18.**

(This is shown particularly in FIG. **3,** showing the arm **14** extending leftwardly past the reference line **16a** which is a schematic reference line upwardly of the roadway edge **16.**)

The supporting post member **12** and the arm means **14** provide that if the arm means **14** is engaged by a vehicle **20** on the roadway surface adjacent the edge **16** thereof, the arm means **14** will audibly warn the driver of the vehicle **20** of the close or adjacent proximity of the edge limit **16** of the roadway surface **18,** and thus warn the driver to exert some driving maneuver to the vehicle **20** to prevent it from being driven off the edge of the roadway surface.

(The vehicle **20** is schematically indicated in FIG. **2** by a bumper **21** and wheel **22.**)

It will be noted, particularly observing the positional differences of the arm **14** and its moved position **14***a* in FIG. **2,** that relatively movable means of the device **10** accommodate a substantial movement of the arm means **14** without altering the engagement of the supporting post-member **12** and the ground **11.**

More particularly as shown, it will be noted that the resilient deformation, occurring as an incident to movement of the arm means **14,** causes a return movement of the arm **14** subsequent to release of engagement thereof of the portion (that is the bumper **21**) of the vehicle **20** which had caused the initial movement of the arm **14,** said return movement of the arm **14** being of a quick or snap-like nature which provides an audible engagement of the arm **14** with another portion of the vehicle **20,** such other vehicle-portion being the tire or other portion of the vehicle wheel **22,** fender, etc.

(It is of course assumed in FIG. **2** that the vehicle **20** is being moved generally upwardly as shown in the drawing.)

In the embodiment shown in FIGS. **1, 4** and **5,** hinge means **23** interconnect, in a relatively movable manner, the supporting post member **12** and the said arm means **14,** the hinge shown by loops **24** respectively passing through holes **26** in the post **12** and arm **14**; and spring means **28** are shown operative between the supporting post member **12** and the said arm **14** to provide the resilient deformation which achieves that snap-like return movement of the said arm **14.** (The spring means **28** are shown in FIGS. **1** and **5** as leaf springs **30** held by a rivet **32** passing through the springs **30** and a hold **34** in the arm **14,** the spring-ends **35** which are remote from the rivets **32** freely overlying the post **12.**)

In the advantageous and particularly economical form of the invention, as shown in FIG. **3,** the supporting post member **12** and the arm means **14** are integrally formed from a unitary body member.

FIG. **6** illustrates the provision of surface recess means **36** being provided in the unitary body member, adjacent the intersection of the arm **14** and the post **12,** to provide a weakness portion providing for relative movement of the said arm means **14** with respect to the supporting post **12.** In the FIG. **7** embodiment, the body member, which unitarily provides both the post **12** and the arm **14,** is smooth-surfaced in contrast to being grooved as at **36** of FIG. **6**; but the body member material is thin enough, and flexibly resilient enough, that the movement of the arm **14** is accommodated by resilient deformation of the arm **14** and the upper portion of the post **12,** without disturbing the ground-engaging bottom of the post **12.**

Convenience of installation of the device **10** into the ground **11** is shown as provided by the supporting post member **12** being provided with an enlarged head member **38**; and the lower end of the supporting post member **12** is provided with a pointed extremity **40** fascillitating its being thrust into the ground **11.**

If desired, as shown in FIGS. **1** and **3,** the arm **14** is provided with an enlarged free end, such as is illustrated by the octagonal head **42** whose shape adds interest and acceptability to the device in that it corresponds to the octagonal nature of many "stop signs," and if desired the arm may contain a visual warning reminder such as the arrow **44** and an identification legend **46** such as the words "Grass Guard" shown in FIG. **1.**

It is thus seen that a grass guard device according to the inventive concepts provides a desired and advantageous device, providing economically and not unattractively a grass guard which easily is installed into the soft

grassy ground adjacent a roadway surface, but which warningly protects the grassy ground against vehicles being driven onto it, by a warning prior to the vehicle getting to the roadway edge. No installation skill or special tools are required; and one or more may be used depending on the user's choice, without causing unsightliness of the area.

Accordingly, it will thus be seen from the foregoing description of the invention according to these illustrative embodiments, considered with the accompanying drawings, that the present invention provides a new and useful grass-guard having desired advantages and characteristics, and accomplishing its intended objects, including those hereinbefore pointed out and others which are inherent in the invention.

Modifications and variations may be effected without departing from the scope of the novel concepts of the invention; accordingly, the invention is not limited to the specific embodiment or form or arrangement of parts herein described or shown.

What is claimed is:

1. A grass guard device, comprising, in combination:

a supporting post member adapted to be forced into the ground;

the supporting post member carrying, adjacent its upper end, laterally-extending arm means adapted to extend over the edge of an associated roadway surface even though the supporting post member is thrust into the ground at a location aside of said roadway surface;

the supporting post member and the arm means providing that if the said arm means is engaged by a vehicle on said roadway surface adjacent the edge thereof, the said arm means will audibly warn the driver of the vehicle of the adjacent proximity of the edge limit of the said roadway surface, and thus warn the driver to exert some driving maneuver to the vehicle to prevent it from being driven off the edge of the roadway surface;

the audible sound being produced by the said engagement of the arms means with a component of the vehicle such as its bumper, fender, tire or paneling, either by the relative movement thereof by the engagement thereof as the below-mentioned return-bias or return-movement of the arm means causes it to forcefully encounter one of said vehicle-components;

in which relatively movable means of the arm means and/or the supporting post member accommodates a substantial movement of the said arm means without altering the engagement of the supporting post-member and the ground;

and in which a relative resilient deformation, of the arm means and/or the supporting post member, occurring as an incident to movement of said arm means, causes a return-bias of the arm means and subsequently a return movement thereof subsequent to release of engagement thereof of the portion of the vehicle which had caused said movement;

in a combination in which the said supporting post member and the said arm means are integrally connected in a unitary body member, which is of sufficient flexibility to provide the aforesaid relatively movable means resiliently accommodative of the said arm means movement without altering the ground engagement of the supporting post-member.

2. The invention as set forth in claim 1 in a combination in which surface recess means is provided in said body member to provide a weakened portion providing for relative movement of the said arm means with respect to said supporting post member.

3. The invention as set forth in claim 1 in a combination in which the supporting post member is provided with an enlarged head member accommodating convenient thrusting of the supporting post member into the ground, and the lower end of the said supporting post member is provided with a pointed extremity facilitating its being thrust into the ground, the said head member and the said lower end post-portion being likewise integral portions of the said unitary body member.

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UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,863,595 Dated February 4, 1975

Inventor(s) Eugene R. Barnett et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 4, line 1, after "thereof" insert -- or --.

Signed and Sealed this

second Day of March 1976

[SEAL]

Attest:

RUTH C. MASON
Attesting Officer

C. MARSHALL DANN
Commissioner of Patents and Trademarks