Sept. 16, 1952 R. M. ISENBERG 2,610,548

AIRPORT TAXIWAY REFLECTOR

Filed Sept. 1, 1950

Fig. 1

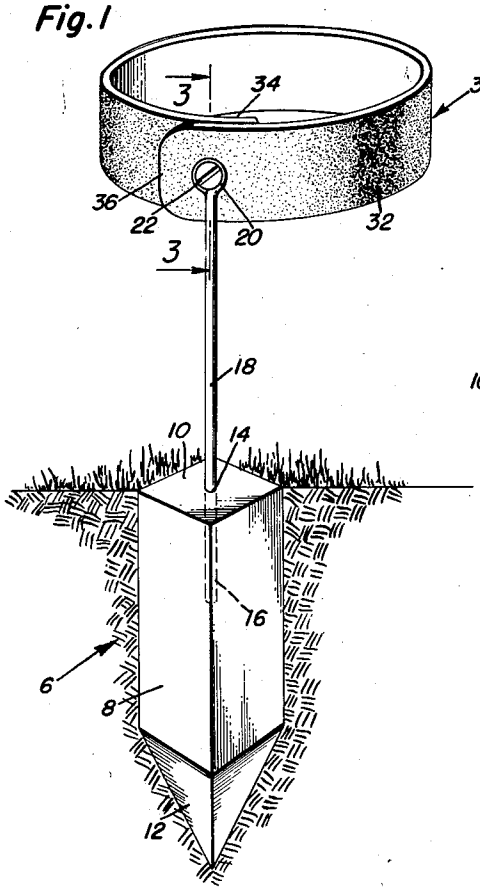


Fig. 2

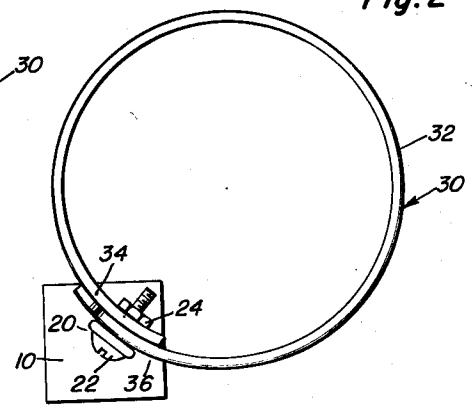
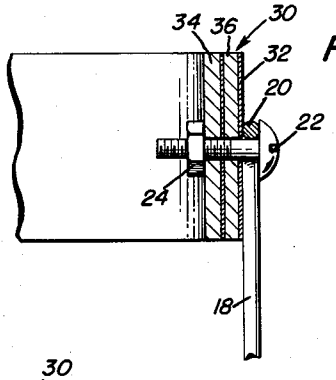


Fig. 3



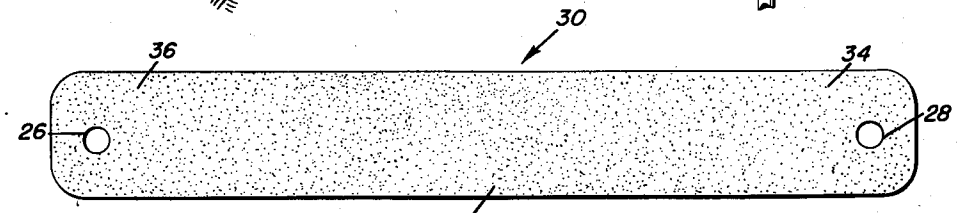


Fig. 4

Robert M. Isenberg

INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson Attorneys

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AIRPORT TAXIWAY REFLECTOR

Robert M. Isenberg, Fort Mitchell, Ky.

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3 Claims. (Cl. 88—78)

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The present invention relates to an improved safety-type runway marker and reflector which is expressly, though not necessarily, adapted for practical and reliable use on the margin of an airport taxiway.

It is a matter of common knowledge that flags, marker blocks, and many other styles and forms of airplane landing and take-off markers are in use at airfields, airports, and the like. More specifically, one of the better known markers in common use is an inverted U-shaped frame which has its limbs anchored in the ground along the edge of the taxiway, said frame being provided with a flat banner-like reflector.

There has long been a need for a taxiway reflector having a greater range of utility. It is, therefore, the object of the instant invention to provide a reflector which is more satisfactory and desirable because it takes the form of an endless annular band or ring providing reflective facilities from all angles throughout approximately 360 degrees.

More specifically, the instant invention has to do with a metal strap which is some 16 inches more-or-less in length and 2 inches in width and which has its ends overlapped and formed into a ring and fastened together, the exterior surface of the strap being coated with reflective media, whereby to provide a reflector in which manufacturers, users and pilots will find their essential needs fully met, contained and successfully available.

Another desirable aspect of the invention has to do with the aforementioned endless reflector band or strap which is provided with a stake, said stake being adapted to be removably fitted in a socket in an anchoring block which is embedded in the ground along the edge of the taxiway. This arrangement is advantageous in that the anchor stays put and permits the grass to be mowed during which interval the stake and reflecting band, as a unit, are detached and set aside.

Additional novelty is predicated on a simple metal or equivalent stake having an eye at one end, said eye being adapted to accommodate a bolt and nut, which latter is used to fasten the ends of the reflecting band together and also to detachably mount the band on the stake.

Other objects and advantages will become more readily apparent from the following description and the accompanying sheet of illustrative drawings.

In the accompanying sheet of drawings, wherein like numerals are employed to designate like parts throughout the views:

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Figure 1 is a perspective view of the combination marker and reflector constructed in accordance with the principles of the present invention and showing the manner in which the same is intended to be used;

Figure 2 is a top plan view of the assemblage shown in Figure 1;

Figure 3 is an enlarged fragmentary sectional and elevational view taken approximately on the plane of the vertical line 3—3 of Figure 1, looking in the direction of the arrows; and

Figure 4 is an elevationaial view of the strap from which the reflecting band is fashioned, said strap being depicted in flat form.

Referring now to the drawings by lead lines and numerals, the anchoring unit is denoted by the numeral 6 and this comprises, by preference, a wooden or equivalent peg 8. The peg is preferably rectangular in cross-section and has a flat top 10 and a pointed ground-penetrating bottom 12. The latter is driven down into the ground so that the top is flush with the approximate surface of the ground. The point of location is, of course, at some predetermined place in relation to the marginal edge of a runway or so-called taxiway (not shown). At its center, the peg is provided with a vertical bore constituting a socket 14 for reception of the lower end portion 16 of the metal or equivalent stake 18. The upper end of the stake is provided with an eye 20 which serves to accommodate a bolt 22 and an assembling and clamping nut 24. In practice, the bolt is passed through bolt holes 26 and 28 in the end portions of the marking and reflecting strap 30. This is a metal strap which, in practice, may be some 16 inches in length and approximately 2 inches in width. The strap is bent upon itself into an endless ring and functions both as a day-time marker as well as a night-time reflector. The outer or visible surface thereof is coated with appropriate reflecting media or means 32. Obviously, by bringing the holes 26 and 28 into alignment and overlapping the ends 34 and 36, an endless reflecting band is thus provided. The band is usually maintained on and forms a part of the stake and the lower end of the stake is removably fitted into the socket in the anchoring peg or block 6.

In practice, the wooden peg, which functions as an anchor, is driven into the ground alongside of the margin of the runway or taxiway in an obvious manner. The flat top is made substantially flush with the ground or other surface. This anchor is left permanently in place. On the other hand, the lower end portion 16 of the

metal rod or stake 18 is removably fitted into the socket 14 in the anchor. The upper end of the stake projects above the surface to a desired elevation and carries and displays the combination marker and reflector ring. It will be evident that the chief reason for adopting and using a ring is that the reflecting facilities are available throughout the 360 degrees, as is obvious. Therefore, good reflecting results are attainable from any angle.

It will be evident that the reflector herein disclosed is simple in construction, effective, economical and of great and safe utility. It provides a source of effective guidance and reflection of lights coming from airplanes ranging from the smallest to the largest in size. It will be clear, therefore, that this band or ring-type reflector fulfills a long felt need for better night markers at airports and flying fields.

Novelty is predicated in addition on the permanently embedded anchor, the insertable and removable stake and the use of a strap which is bent upon itself and bolted to the eye on the upper end of the stake. All of these features singly and collectively are thought to present distinctive and novel characteristics.

Having described the invention, what is claimed as new is:

1. A combination marker and reflector of the class shown and described comprising an annular band having its exterior surface coated with reflection means, the ends of said band being overlapped and provided with aligned bolt holes, a stake having an eye in alignment with said bolt holes, a bolt passing through said eye and bolt holes, and nut means on said bolt joining said overlapped ends together and also fastening same to said eye.

2. A runway marker of the class described comprising a peg adapted to be driven and anchored in the ground, said peg having a flat top surface which is intended to be flush with the ground, said peg being further provided with a vertical axial socket, a stake telescopically and removably fitted in said socket, said stake being provided at its upper end with an eye, a marker, bolt and nut means mounted in said eye and removably connected with said marker, said marker being of annular form and exteriorly provided with reflective media.

3. An airport taxiway reflector in the class described comprising a peg adapted to be driven and anchored in the ground at a prescribed place, said peg having a flat top surface which is adapted to be arranged so that it is flush with the ground, said peg being further provided with a socket, an annular band having its exterior surface coated with light reflecting means and its interior surface being non-reflective, a vertical stake, means separably attaching said band to the upper end of said stake, the lower end of said stake being blunt and said lower end portion being removably fitted into said socket.

ROBERT M. ISENBERG.

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