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W. T. GIBSON ET AL

2,544,530

LUG PROTECTOR

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FIG. 1.

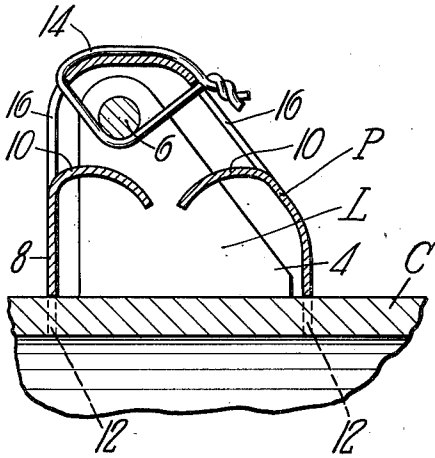


FIG. 2.

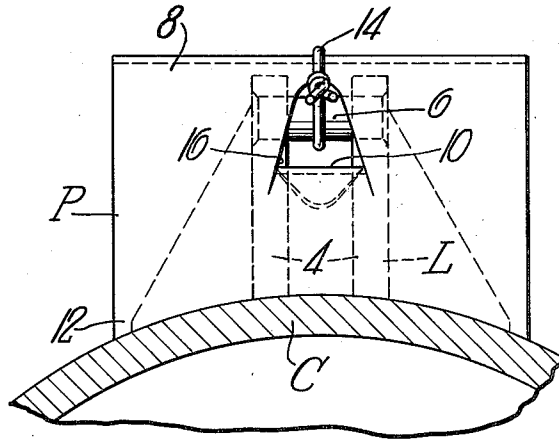


FIG. 3.

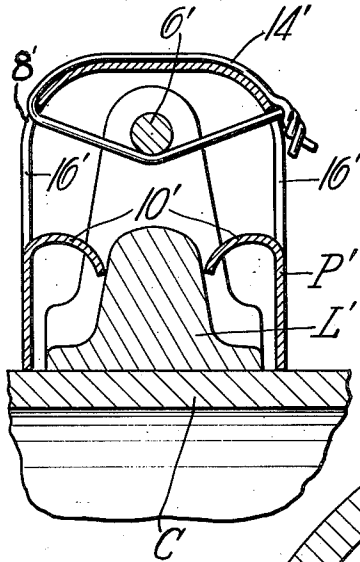
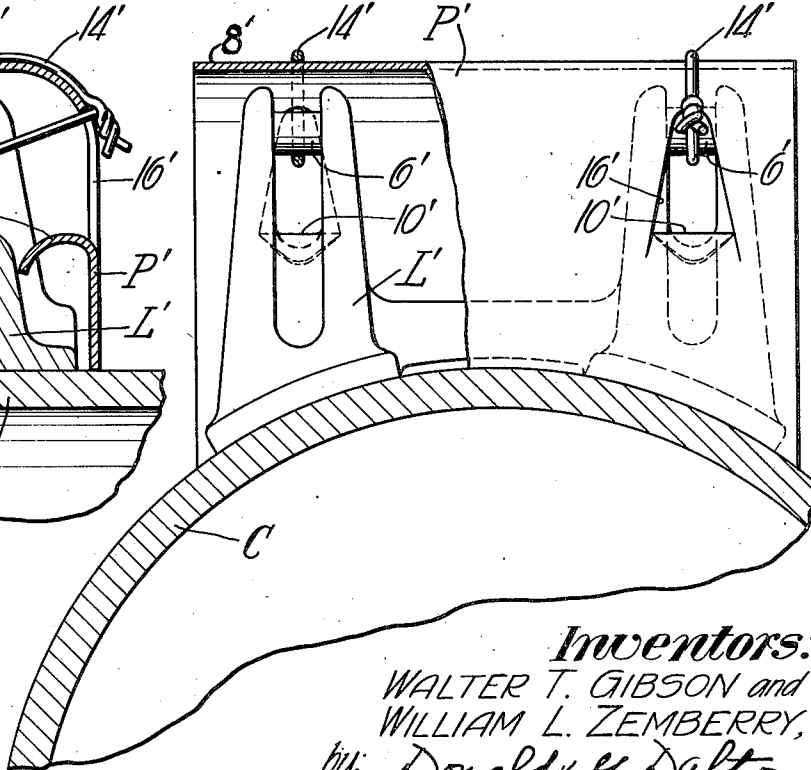


FIG. 4.



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UNITED STATES PATENT OFFICE

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LUG PROTECTOR

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1 Claim. (Cl. 220—85)

1 This invention relates to lug protectors and more particularly to protectors for lugs on cylinders and the like.

Attaching lugs are frequently welded to cylinders, such as aerojet cylinders which are secured to the fuselage or underside of aeroplane wings to assist heavily loaded planes in taking off from short fields or carrier decks. In such cases, there are two sets of lugs secured to each cylinder. A single lug at the forward end, and a double lug at the rearward end. Since damage to such lugs necessitates discarding the cylinders, it is essential that they be well protected. In addition, since such articles are shipped long distances and frequently in carriers wherein space is at a premium, it is very desirable that the protectors do not add appreciably to the weight or size of the article.

It is accordingly an object of the present invention to provide a light weight protector for cylinder lugs.

It is another object to provide a cylinder lug protector which is simple in design and reliable in use.

It is a further object to provide a cylinder lug protector which is economical to manufacture and which occupies a minimum of space.

The foregoing and further objects will be apparent from the specification and drawing, wherein:

Figure 1 is a longitudinal section of our improved lug protector;

Figure 2 is an end view;

Figure 3 is a longitudinal section of a modification; and

Figure 4 is an end view thereof.

Referring more particularly to the drawing, the letter C designates a cylinder to which is welded a lug L composed of two outwardly projecting leg portions 4 having a bolt 6 cross-connecting the outer ends thereof.

Disposed about the lug L is the protector P of our invention consisting of a generally U-shaped cover portion 8 from which inwardly projecting tongues 10 have been punched. The lower ends 12 of the legs of the U-shaped cover are provided to fit the circumference of the cylinder C. The tongues 10 are adapted to fit between the leg portions 4 of the lug and prevent transverse or lateral movement of the protector. The protector is held on the lug by looping and tying a strand of wire 14 around the top of the protector through the holes 16, resulting from punching out the tongue, so as to engage the

2 underside of pin 6 connecting the outer ends of the leg portions 4 of the lug. Thus, the protector is securely held over the lug by the tie wire 14 and is prevented from transverse movement by the tongues 10 engaging the legs 4.

A modified form of protector is shown in Figures 3 and 4, which is adapted to fit over the double lugs used on the rear end of aerojet cylinders. This protector P' is generally similar to the protector P for single lugs except that it is longer and has two pairs of inwardly struck tongue portions 10' adapted to engage the legs of the lugs L'. As in the single protector, it is held on the cylinder by tie wires 14'.

In both cases, the cover members 8 and 8' are formed of sufficiently heavy sheet metal to absorb shock incident to rough handling or dropping and thereby prevent any damage to the lugs.

While we have shown and described two specific embodiments of our invention, it will be understood that these embodiments are merely for the purpose of illustration and description and that various other forms may be devised within the scope of our invention, as defined in the appended claim.

We claim:

In combination with a cylinder having U-shaped lugs mounted transversely thereof, a sheet metal protector for said lugs comprising a U-shaped piece of sheet metal having upstanding legs, the closed end of said U-shaped piece of sheet metal forming a cover portion for said lugs, inwardly struck tongues on said leg portions extending between the legs of said lugs, the lower ends of said legs being profiled to engage said cylinder and means extending through the struck out portions of said legs engaging a pin extending between the legs of said U-shaped lugs to hold said protector on said cylinder.

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