

\$AVE INCHES AND MONEY

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FIG. 1

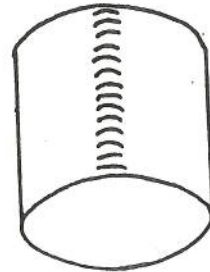


FIG. 2

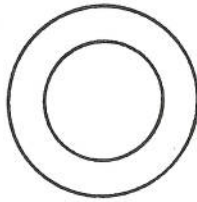


FIG. 3



FIG. 4

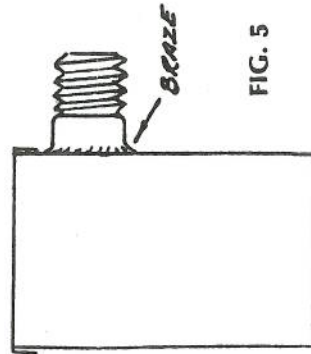
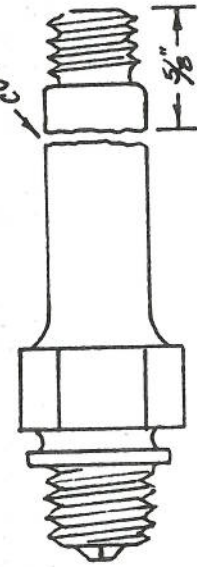


FIG. 5

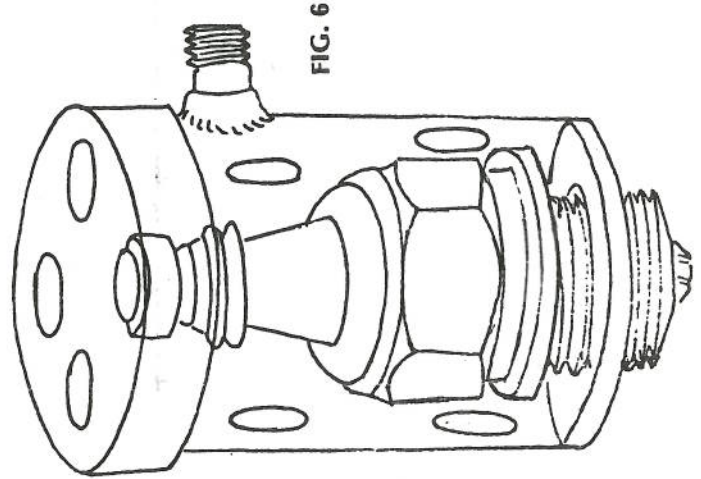


FIG. 6

Some antiques want to use shielded sparkplugs because of radio interference but cannot because of too close cowlings. The following idea which solves this problem may have been used before but I am not aware of having seen it published.

The standard C-26 sparkplug is considerably shorter than the regular shielded plug so it lends itself well to building a shield.

Using .030 or .040 mild steel, I first constructed a loose cylinder around my deep socket that fit the C-26 plug. I removed the socket and then welded the seam so that I had a closed cylinder. (Figure 1).

Using the same material, I next made a washer with an inside diameter the same as the spark plug copper gasket and an outside diameter slightly larger than the previously constructed cylinder. This washer was welded to one end of the cylinder. (Figure 2).

A cap was next made to fit over the cylinder.

I cut a disk slightly larger in diameter than the cylinder and I also cut a piece of metal one-fourth inch wide just long enough to go around the outside of the cylinder. This piece was welded as a skirt to the disk so that the completed unit formed a cap to fit over the outside of the cylinder. The cylinder was trimmed to extend approximately $\frac{1}{4}$ to $\frac{3}{8}$ inches higher than the C-26 plug. Two short number 4 sheet metal screws hold the cap on. (Figure 3).

I next went to the local airport and begged several discarded shielded plugs. I cut the next of one of these off $\frac{3}{8}$ " from the end. (Figure 4).

I carefully cut the porcelain inside so it could be used as an insulator. A triangular file works well for this cutting.

The C-26 spark plug has a rounded terminal on top. I put the plug in the shield and opposite the center of this rounded terminal I drilled a hole the same outside diameter as the porcelain.

The cut-off neck was then brazed to the cylinder side thus: (Figure 5).

The cut off porcelain was then slipped into the neck by inserting it from the inside of the shield. This porcelain does double duty as insulation and also support for the "cigarette".

The next problem to be considered was that of heat. From my ham radio experience I knew that the maximum hole size recommended for ventilation was one-fourth inch, so I drilled three or four $\frac{1}{4}$ inch holes in the cap and eight or nine in the body.

I got field approval from our local FAA GADO office to use it on an 85 horse Taylorcraft with an electrical system.

There may be shorter shielded plugs on the market but for price you can't beat a \$1.00 C-26 plug and some scrap material!