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S. O'HARA

MEANS FOR ATTACHING NAME PLATES AND THE LIKE TO RADIATORS

Filed July 15, 1927

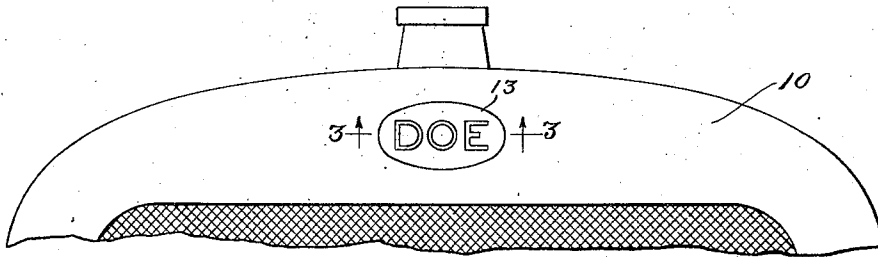


Fig. 1.

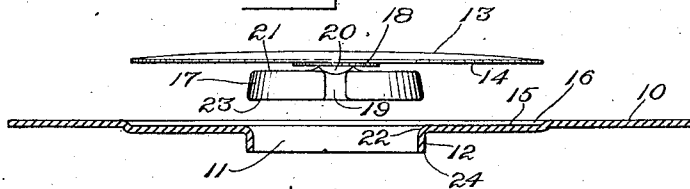


Fig. 2.

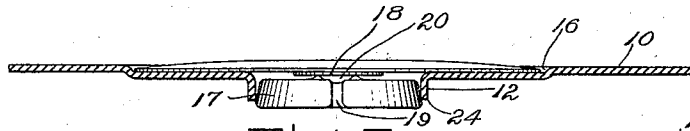


Fig. 3.

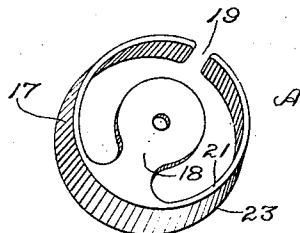


Fig. 5.

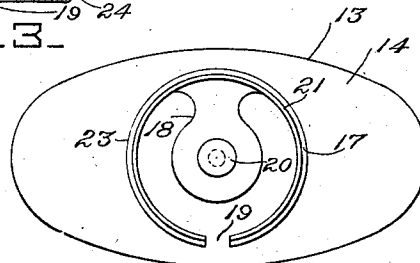


Fig. 6.

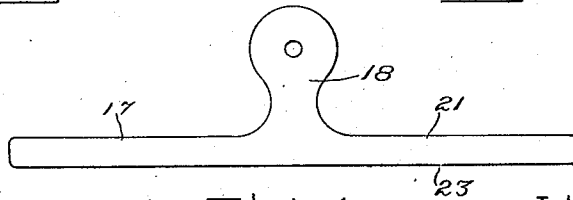


Fig. 4.

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MEANS FOR ATTACHING NAME PLATES AND THE LIKE TO RADIATORS.

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The invention relates to means for attaching together two metal parts. It especially relates to means for attaching together two members in which one of them is formed with a hole having an annular flange projecting from the periphery thereof, and the other member has attached thereto a member having a flange which is adapted to engage with the tubular flange of the first member.

It is especially intended for use in attaching to the shell of an automobile radiator a name plate or a plate containing other insignia but is not limited to such use.

The object of the invention is to provide a simple form of attaching device by which the name plate can be readily connected with the shell.

The invention will be more fully understood, from the following description when taken in connection with the accompanying drawings and the novel features thereof will be pointed out and clearly defined in the claims at the close of this specification.

In the drawings:

Fig. 1 is a fragmentary view of the portion of the radiator shell having the name plate attached thereto embodying the invention.

Fig. 2 is a side elevation, partly in section, showing a fragmentary portion of the radiator shell in section and showing in full lines the name plate with the attaching means in position about to be connected with the radiator shell.

Fig. 3 is a view of the same parts shown in Fig. 2, showing the name plate connected up with the radiator shell.

Fig. 4 is a detail plan view of the strip of spring metal before it is bent to form the spring.

Fig. 5 is a perspective view showing the blank of Fig. 4 bent into form ready to be attached to the name plate.

Fig. 6 is a bottom view of the plate with the spring attached thereto.

Referring to the drawings there is shown at 10 a portion of a radiator shell having an opening 11, preferably circular surrounded by a flange 12 formed by bending in the metal immediately surrounding the said hole 11. At 13 is shown a name plate which is to be attached to the radiator shell.

Preferably this is formed with a flat inner surface 14 which, when the parts are fitted

together, is adapted to lie against the flat surface 15 on the outer face of the radiator shell.

Preferably also the radiator shell is formed with a depression 16 of suitable depth so that when the two members are connected together the name plate will fit snugly within said recess as shown in Fig. 2.

The securing device for uniting together the name plate and the radiator shell is shown at A. This securing device is preferably formed out of a thin piece of spring metal as shown in Fig. 4, having a body or band portion 17 and an arm or ear 18 integral therewith and projecting laterally therefrom intermediate its ends as shown in Fig. 4. The said body or band portion 17 is bent into semi-cylindrical or split ring shape as shown in Fig. 4, leaving a space between the two ends.

The ear 18 is bent into a plane at right angles to the plane of the band 17 as shown in Fig. 5, said ear 18 extending radially inward from the edge 21 of the ring 17 and forming an arm to be attached to the name plate as will be hereinafter described. Preferably the face of the said ring member 17 flares outwardly from the edge 21 with which the ear 18 is connected after said device has been bent into final shape as shown in Fig. 5 so that said ring is of somewhat frusto conical shape.

The said arm 18 is then attached to the inner face of the name plate, as shown in Figs. 2 and 6 at a point which will be at the centre of the ring. It may be fastened in any suitable way. One method is to solder or to spot weld it as shown at 20. Another method is to rivet the two members together.

Preferably the rim of the hole 11 in the radiator shell will be bevelled or rounded off as shown at 22 to form an easy entrance of the spring 17 into said hole.

The said spring 17 is entirely free from the name plate except at the single point 20 of attachment of the arm 18 by the welding or other means of detachment employed so that the band is free to be contracted to insert it into the hole 11.

In attaching the name plate to the radiator shell the said spring will be compressed slightly to allow it to be inserted into the aperture 11 in the radiator shell, the space between the two ends of the spring permit-

ting such compression. Preferably said spring is offset from the face of the name plate and is of sufficient width so that when it is forced home through the annular flange 12 the inner face of the name plate will lie flush against the face of the radiator shell and the edge 23 will project somewhat beyond the edge 24 of the flange 12 around the aperture 11 of the radiator shell as shown in Fig. 2.

As the spring ring is compressed when it is forced through the aperture 11 in the radiator shell it tends to expand and by reason of its outward pressure it is held firmly attached to the radiator shell, sufficiently so to be held against displacement by any ordinary usage.

If for any reason it is desired to detach the name plate it can be removed therefrom by the use of a suitable tool to pry it out as it is not positively locked to the shell.

What I claim is:

1. In combination with one member to be attached to another member having an aperture therein, a transversely split ring of spring metal having a space between its ends, an arm extending radially inward from one edge of said ring intermediate its ends, said arm being secured to said first member at a point substantially co-axial with said spring, the outer periphery of said spring being normally of a slightly larger diameter than the inside diameter of the aperture in said second member.

2. In combination with one member to be attached to another member having an aperture therein and an annular flange projecting therefrom, a split tubular member of spring metal having a space between the adjacent edges of the split, an arm extending radially inward from one edge of said tubular spring member and at a plane at substantially right angles to the face of said tubular spring member, said arm being secured to said first member at a point substantially co-axial with said spring, the outer periphery of said spring being normally of a slightly larger diameter than the inside diameter of the tubular flange on said second member and adapted to be contracted in diameter when forced into said aperture.

3. In combination with one member to be attached to another member having an aperture therein, a semi-annular spring of flat metal bent into tubular form with an open space between its proximate edges and having integral therewith an arm extending radially inward from one edge thereof sub-

stantially at right angles to the face of said tubular portion, said arm being secured to said first member at a point substantially co-axial with said tubular portion of the spring.

4. In combination with one member to be attached to another member having an aperture therein, a semi-annular spring of flat metal bent into tubular form with an open space between its proximate edges and having integral therewith an arm extending radially inward from one edge thereof substantially at right angles to the face of said tubular portion, said arm being secured to said first member at a point substantially co-axial with said tubular portion of the spring, said tubular portion of the spring being entirely free from said first member except through said arm.

5. In combination with one member to be attached to another member having an aperture therein, a semi-annular spring of flat metal bent into tubular form with an open space between its proximate edges and having integral therewith an arm extending radially inward from one edge thereof substantially at right angles to the face of said tubular portion, said arm being secured to said first member at a point substantially co-axial with said tubular portion of the spring, said tubular portion of the spring flaring outwardly toward the edge which is farther away from the member to which it is attached.

6. In combination with an insignia plate to be attached to the radiator shell of an automobile, an attaching means consisting of a semi-annular spring composed of a band of spring metal, the said spring having a short open space between the ends thereof and an arm projecting radially inward from one edge of said spring, said arm being attached to the insignia plate at a point substantially co-axial with said spring.

7. In combination with an insignia plate to be attached to the radiator shell of an automobile, an attaching means consisting of a semi-annular spring composed of a band of flat spring metal, the said spring having a short open space between the ends thereof and an arm projecting radially inward from one edge of said spring, said arm being attached to the insignia plate at a point substantially co-axial with said spring, said spring being free from connection with said insignia plate except where said arm is connected with said plate.

In testimony whereof I affix my signature.
SKIDMORE O'HARA.