July 19, 1927. 1,636,222

M. G. FOX

ATTACHING MEANS

Filed Nov. 9, 1926

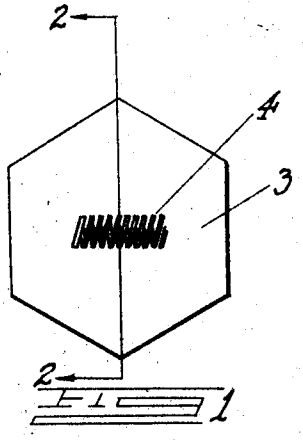


FIG 1

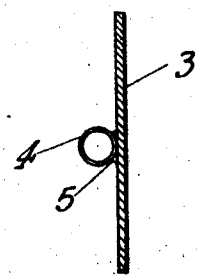


FIG 2

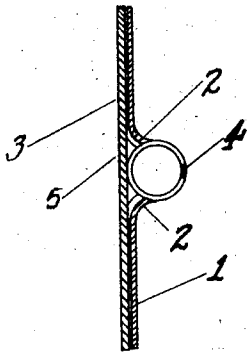


FIG 4

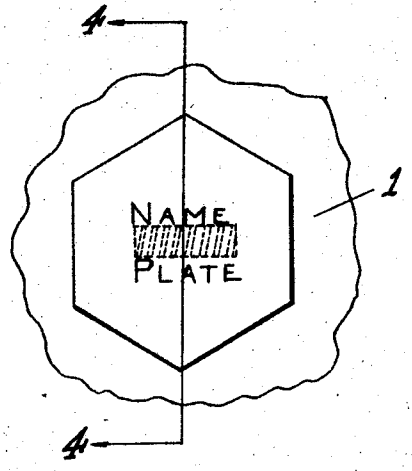


FIG 3

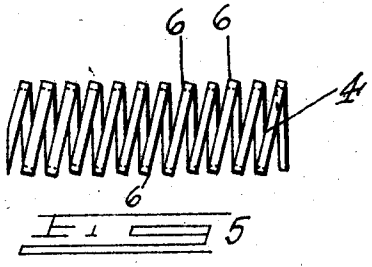


FIG 5

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Patented July 19, 1927. 1,636,222

UNITED STATES PATENT OFFICE.

MILFORD G. FOX, OF CINCINNATI, OHIO, ASSIGNOR TO THE GUSTAVE FOX COMPANY, OF CINCINNATI, OHIO, A PARTNERSHIP COMPOSED OF LEONARD J. FOX AND MILFORD G. FOX, BOTH OF CINCINNATI, OHIO.

ATTACHING MEANS.

Application filed November 9, 1926. Serial No. 147,333.

My invention relates to attaching means for securing objects together, and specifically to means for attaching a name plate within an orifice in a conspicuous part of an automobile, such as in the front of the radiator shell, in the tire carrier plate in the back of the machine, or on a license plate holder.

It is the object of my invention to provide an attachment consisting of a spirally wound spring of such shape as will fit snugly within an orifice in another member, and to attach the spring to the name plate or other object to be secured in position prior to the insertion of the spring into the aperture. Depending on the shape of the aperture within which the spring is to be inserted, I shape my spring and the loops thereof so that the spring will fit laterally within the aperture.

Referring to the drawings in which I have shown a preferred type of plate with a spring attached thereto:—

Figure 1 is a rear elevation of a name plate to which has been attached a coiled spring.

Figure 2 is a section along the lines 2—2 in Figure 1.

Figure 3 is a front elevation of the name plate in position retained within a slot in a supporting member.

Figure 4 is a section along the lines 4—4 in Figure 3.

Figure 5 is a side elevation of one type of coiled flat spring which is shown for purposes of illustration.

Referring first to Figures 3 and 4, I have shown the backing member 1 which is, in the illustration, a flat plate, with lips 2 punched inwardly as noted. The name plate 3 has a spring 4 composed in the illustration of a rectangular piece of spring metal bent into a coiled shape. The spring in this form is soldered with solder 5 to the back of the name plate. It will be noted that in the spring illustrated, the bending of the rectangular strip of spring metal results in sharp corners 6 presenting themselves in such manner that with the insertion of the name plate against the supporting member with the loops of the spring 4 extending laterally across between the opposed lips 2 of the supporting member, that the corners 6 will frictionally engage within the lips 2. This tends to prevent displacement of the spring within the slot. Triangular wire or wire having a corner which would extend outwardly, may also be used. However, in its broader aspects, my invention consists of the use of any type of spring wire, be it rounded or otherwise.

While I have disclosed a specific structure, it is immaterial what shape or what thickness is provided in the aperture in the supporting member. As an example in contrast to the thin plate with punched in lips, my spring holding means will function satisfactorily in a punched out oval hole in a thick plate, in which the opposed walls have no resilience. I may further mount a name plate to a member having only a recessed orifice. If the hole in the plate which is to retain the spring is of different shape than square or rectangular, I provide a coiled spring having loops of different diameters.

In using a coiled spring open at the ends, I may obtain some resilience longitudinally of the spring which will increase the holding power of the attachment but this is a feature independent of the invention disclosed herein. In installing a name plate equipped with a coiled spring having the loops individually either soldered or otherwise firmly attached to the name plate which it is desired to mount, all that is necessary is to push the spring within the slot or countersunk portion and at least a plurality of the turns are sprung out of round which provides a series of spring holders which will very efficiently secure the name plate. In a name plate attachment, the tension of the springs is such that by wedging a sharp instrument behind the name plate, it is possible to remove the plate. I may, however, in some instances as in a proposed use for a radiator cap, provide a spring which will not lock within the orifice, but will be fit snugly enough to seat firmly and at the same time, be adapted for manual removal without a wedging instrument.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:—

1. An attaching device for a member to be attached to another member having an orifice with two lateral opposed walls forming a support for said first named member, said attaching device comprising a coiled spring having loops of slightly greater diameter than the distance apart of the op-

posed walls, the outer peripheral edges of the loops of said spring being adapted to frictionally engage said walls, and the loops being individually secured to said first named member whereby insertion of the spring within the orifice will tension the loops out of round, which will form a firm frictional engagement regardless of longitudinal compression of said spring.

2. Means for securing one object to another object, having opposed walls comprising a spring composed of series of loops, said loops attached to the first named object, and a substantial number of said loops being of such size as to frictionally engage the opposed walls, and said spring secured to said first named object as an entirety, and with the loops thereof individually secured to said first named member.

MILFORD G. FOX.