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FIXTURE FOR SUPPORTING FENCE RAILS OR THE LIKE

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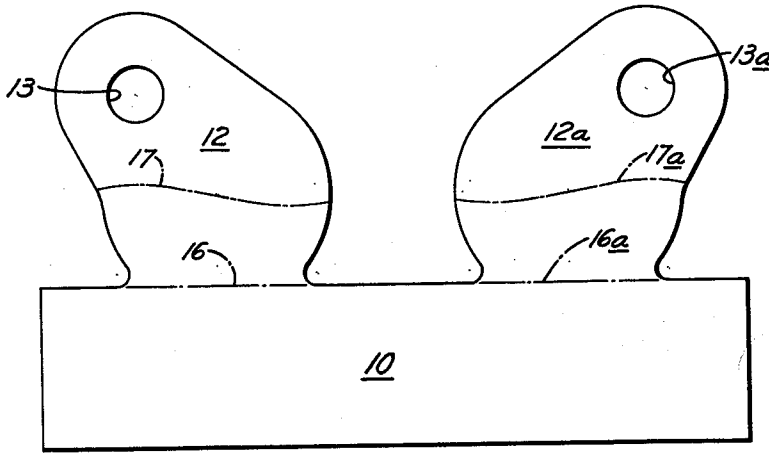


Fig. 1

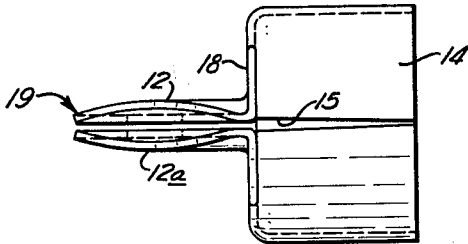


Fig. 2

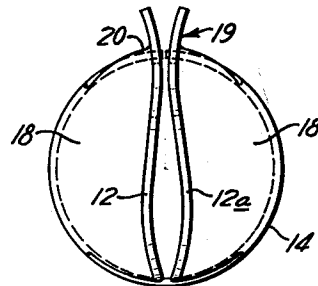


Fig. 3

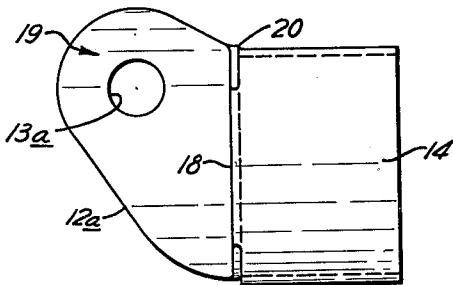


Fig. 4

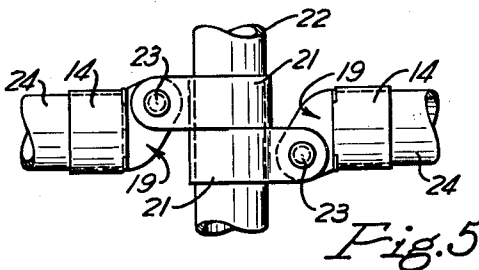


Fig. 5

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FIXTURE FOR SUPPORTING FENCE RAILS OR THE LIKE

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This invention relates to an improved fixture for supporting the end of a fence rail or the like.

An object of the invention is to provide a fixture of simplified and less costly construction than those used heretofore, yet equivalent in function and strength.

A more specific object is to provide a fixture which is punched in one operation from a sheet metal blank and is of a configuration to withstand compressive loads and also to furnish its own locking action when bolted to a cooperating clamp.

In the drawing:

FIGURE 1 is a plan view of the blank from which the fixture is punched;

FIGURE 2 is a plan view (top or bottom) of the fixture;

FIGURE 3 is an end elevational view;

FIGURE 4 is a side elevational view; and

FIGURE 5 is a side elevational view on a reduced scale showing two of the fixtures installed to support the ends of fence rails.

As FIGURE 1 shows, the fixture is formed from a flat sheet metal blank which includes an elongated rectangular body portion 10 and two ears 12 and 12a extending from one edge of the body portion. The ears diverge outwardly from the transverse center line of the body portion and they are somewhat enlarged adjacent the body portion and taper toward their ends. They have bolt holes 13 and 13a near their ends. With suitable dies (not shown) this blank is punched to the configuration shown in FIGURES 2, 3 and 4 in a single operation.

The punching operation bends the body portion 10 of the blank to form a cylindrical cup 14, as shown in FIGURES 2 and 4. One end of the cup is open and the other closed, as hereinafter explained. The edges of the cylindrical wall of the cup are in contact at the open end, but they diverge and are slightly out of contact to provide springiness at the closed end, as shown somewhat exaggerated at 15 in FIGURE 2. The punching operation also bends the ears 12 and 12a inwardly at right angles to the body portion 10 approximately on the dot-dash lines 16 and 16a shown in FIGURE 1, and the outer portions of these ears outwardly approximately on the dot-dash lines 17, 17a. Thus the enlarged portions of the ears immediately adjacent the body portion 10 of the blank together form an end wall 18 for cup 14, while the outer portions come together to form a lug 19. The end wall 18 overlaps the cylindrical wall of the cup at the diverging edges 15, the overlap being shown somewhat exaggerated at 20 in FIGURE 4. This overlap provides compressive strength in the fixture. The punching operation also bends the outer portions of the ears to opposed shallow S-shape in cross section, as shown in FIGURE 3, to strengthen the lug and provide springiness. The two bolt holes 13 and 13a register and are offset from the center line of the cup as shown in FIGURE 4. Preferably the blank is of steel and the fixture is galvanized after the punching operation.

FIGURE 5 shows the way the fixture is installed to support fence rails. One or more conventional clamps 21 are mounted on a post 22. The lugs 19 of the fixture fits

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between ears on the clamp. A bolt 23 is inserted through the clamp ears and lug. When tightening a nut on this bolt, springiness in the lug and cup wall provides a locking action between the lug and clamp ears and also applies tension to the bolt and thus tends to lock the nut thereon. This springiness also enables the lug to compensate for variation in spacing between the clamp ears. The offset in the lug enables the cups 14 of two fixtures to be at the same height when attached to the same post. One lug projects upwardly and the other downwardly. Fence rails 24 are inserted in the cups. When stringing wire fencing under tension, the fixtures are subjected to a considerable compressive load; hence the need for the overlap 20.

From the foregoing description, it is seen that the invention affords a fixture of simple construction and economical to manufacture. Springiness in the parts provides a locking action that eliminates any need for separate lock washers. Although the fixture is described for use in supporting fence rails, it is apparent it can be used for supporting other members where analogous problems arise.

While there has been shown and described only a single embodiment of the invention, it is apparent that modifications may arise. Therefore, the invention should not be limited to the disclosure set forth but only by the scope of the appended claims.

What is claimed is:

1. A fixture comprising a sheet metal body portion originally of elongated rectangular outline bent to form a substantially cylindrical cup, the ends of said body portion coming together at one end of said cup and diverging toward the other end, and a pair of ears extending from one edge of said body portion bent toward each other at right angles to said body portion to form an end wall for said cup and reversely bent at right angles to said end wall together to form a lug projecting from said end wall, said end wall overlapping the diverging ends of the bent body portion to provide compressive strength, the lug-forming portions of said ears being closely adjacent at one point and diverging in each direction to provide springiness.

2. A fixture comprising a sheet metal body portion originally of elongated rectangular outline bent to form a substantially cylindrical cup, the ends of said body portion coming together at one end of said cup and diverging toward the other end, and a pair of ears extending from one edge of said body portion and being enlarged adjacent the body portion and tapering outwardly from their enlargements, said ears being bent toward each other at right angles to said body portion with portions of their enlargements together forming an end wall for said cup overlapping the diverging ends of said body portion, said ears being reversely bent at right angles to said end wall with their tapered portions together forming a lug projecting from said end wall, the tapered portions of said ears being bent to opposed shallow S-shape in cross section to provide springiness.

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