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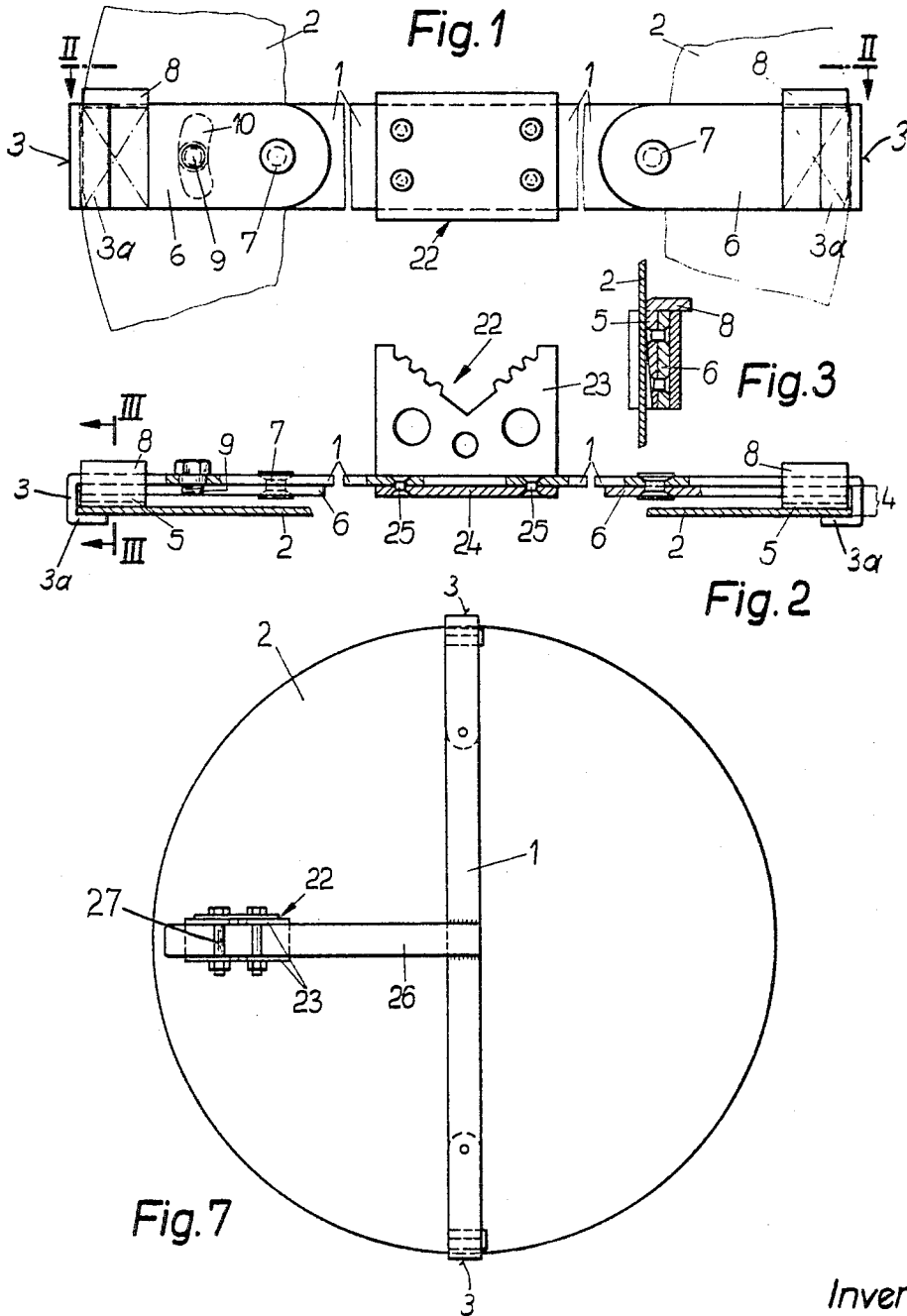
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3,473,248

DEVICE FOR HOLDING SIGNS, ESPECIALLY TRAFFIC SIGNS

Filed June 14, 1967

2 Sheets-Sheet 1



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Fig. 4

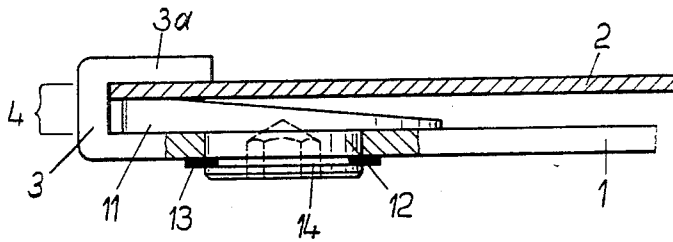


Fig. 5

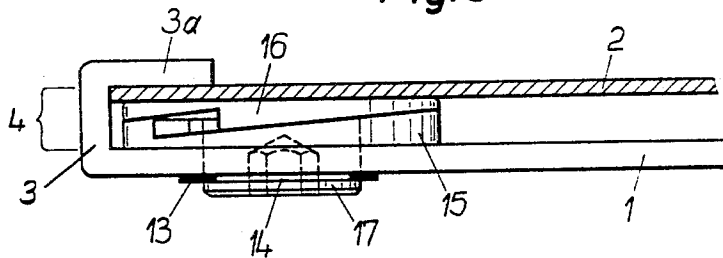
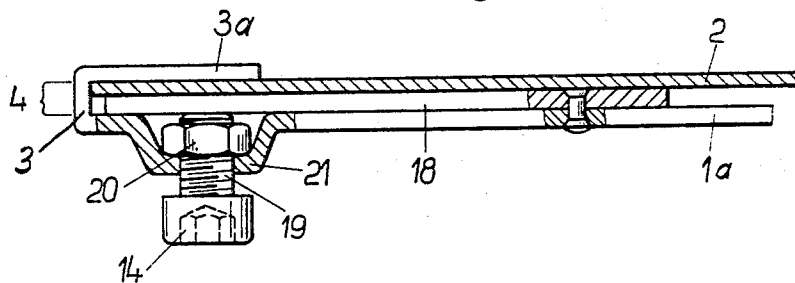


Fig. 6



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**DEVICE FOR HOLDING SIGNS, ESPECIALLY TRAFFIC SIGNS**

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10 Claims

**ABSTRACT OF THE DISCLOSURE**

A device for demountably holding signs such as traffic signs and the like, which comprises a rear carrier bar adapted to be secured to a post or similar structure. The ends of the bar extend past opposite edges of the sign and carry straps or fittings which extend forward past the sign edges, said fittings engaging front peripheral portions of the sign. The bar ends also have releasable clamp means which are engageable with the rear of said peripheral portions of the sign whereby the latter can be releasably clamped to the bar to enable its quick and easy removal and replacement.

**BACKGROUND**

The invention concerns a device for holding signs, especially traffic signs. It is known to provide for the holding of traffic signs a carrier or holding and supporting bar that extends across the reverse side of the sign and to which the sign is fastened by screws at its margin. This holding and supporting bar is fastened by means of a clamp, etc., to a post or pole in the known holding devices.

On account of the connection between sign and supporting bar by screws or rivets, the known holding devices have the drawback that the sign can be changed only together with the holding and supporting bar. To this end the clamp has to be loosened and thus the entire fastening of the sign has to be renewed. The known devices for holding signs are furthermore especially disadvantageous for the fastening of signs made of plastic, because the screw or rivet connection between the sign and its holding and support bar is easily torn from the plastic.

**SUMMARY**

The invention is therefore based on the task to provide a device for holding signs, especially traffic signs, that allows an easy changing of the signs, for example for signs erected at construction sites and that are to be changed, e.g., on Sundays. Furthermore, it is intended to provide a mode of fastening through the invention that is secure and at the same time protective for plastic signs.

This is accomplished by the invention by the fact that the holding and supporting bar extends beyond the edge of the sign and is provided at its ends with straps or fittings which engage front peripheral portions of the sign and against which the sign is pressed by clamping devices that act on its reverse side or peripheral portions. The connection or attachment between the sign and the holding and supporting bar that is accomplished by the invention is adequate for the required purpose and at least as secure as a screwed and riveted connection.

It has in addition the advantage that it acts on a far greater surface area of the sign and thus provides, especially for plastic signs, a gentle, but especially secure connection between the sign and the holding and supporting bar. Since plastic signs are being manufactured to an increasing degree in elastically yielding forms so that they can sustain light impacts without permanent defor-

mation, the fastening device according to the invention offers the special advantage that the area of engagement between the sign and its holding and supporting bar is protected at the front by the holding straps or fittings and at the back by the holding and supporting bar itself and is therefore not exposed to such elastic bending, destructive forces, etc.

In spite of the ease with which the clamping connection between sign and holding and supporting bar can be loosened, which makes the sign easily replaceable, the clamping connection can be secured against unauthorized loosening in a simple manner and with simple means.

There are different possibilities for the construction of the clamping connection, of these a few examples will be described with the aid of the drawings.

In the framework of the invention the holding and supporting bar can be arranged horizontally. In such a case a correct position of the sign in the lateral aspect can be secured in a simple manner by an arrangement in which the holding and supporting bar slides lengthwise or in a lateral direction within a clamp body with contractable flanges, and in which it can be locked in the desired position by the flanges.

For plastic signs, especially those that are elastically flexible, an essentially vertical arrangement of the holding and supporting bar is eminently suitable. In this case the lateral or horizontal adjustment of the sign can be accomplished by providing the holding and supporting bar that is in a substantially vertical position with a horizontal supporting arm, which supporting arm slides laterally or horizontally within a clamp body with contractable flanges in which it can be locked in the desired position by the contraction of the flanges.

A few examples of the design of the invention will be described in detail in what follows, with the aid of the drawings, wherein:

FIG. 1 shows a holding device according to the invention, in front view.

FIG. 2 shows the holding device according to FIG. 1 in plan view and partly sectioned.

FIG. 3 is a section along the line III—III of FIG. 2.

FIG. 4 is a fragmentary view partly in plan and partly in section of a holding device according to the invention, having a modified clamping device.

FIG. 5 shows a holding device with a clamping device that has been further modified, in a view corresponding to FIG. 4.

FIG. 6 shows a holding device with further modification of the clamping device, in a view corresponding to FIGS. 4 and 5.

FIG. 7 shows a holding device according to FIG. 1 with a vertically arranged holding and supporting bar in rear view.

In all the illustrated examples of holding device according to the invention there is a holding and supporting or carrier bar 1 or 1a that extends along the rear side of the sign 2 and beyond opposite edge or peripheral portion thereof. The carrier bar 1 is provided at both ends with the holding straps or fittings 3 that extend over the edge or peripheral portions of the sign on its front side. The holding straps or fittings 3 have front terminal portions 3a which extend towards each other and which form, with the front side of the carrier bar 1, receiving spaces 4 for the sign 2. Within the receiving spaces 4 are clamping devices that are carried on the carrier bar 1 and applied to the rear side of the sign.

In the examples shown in FIGS. 1 to 3 and 7, the clamping devices are formed by wedge pieces 5, which are to be introduced into the receiving spaces 4 behind the sign 2. The wedge piece 5 shown in FIG. 3 is fastened to a pivoted arm 6 as by riveting. The arm 6 is fastened to the carrier bar 1 by the pivot 7, which

may be either a rivet or a threaded bolt about which the arm 6 can pivot. The wedge piece 5 is formed at its rear edge into an actuating ledge or lug 8 that protrudes beyond the carrier bar 1 towards the back. On this actuating ledge 8 can be attached a suitable tool such as a pliers to move the wedge piece 5 inward, that is to lock it, or else to move it outward.

The arm 6 as seen in FIG. 1 can be swung upward about the pivot 7 to shift the wedge piece 5 out of the space 4 so as to release the sign 2. An exactly opposite movement, to the FIG. 1 position, will wedge the piece 5 against the sign and secure the same to the bar 1.

In order to make it possible to lock the wedge piece 5 with its pivoting arm 6 in the clamping position, the pivoting arm 6 can be provided with a threaded bolt 9, which moves in a curved slot 10 in the bar 1 and which can be tightened to lock the pivoting arm 6 in its particular position.

In the example of FIG. 4 the clamping device consists of a wedge plate 11 that can be rotated and is fastened to the bar 1. A part of the surface of this wedge plate extends into the receiving space 4 formed by the holding strap or fitting 3 and the bar 1. To clamp the sign it is only necessary to turn the wedge plate 11 so the thicker part of the plate moves further into the receiving space 4, according to the thickness of the inserted sign. The wedge plate 11 has on its rear side the pivot 12, which protrudes from the rear side of the bar 1, where a snapping 13 holds the wedge plate 11 in place. The pivot also has in its rear face an hexagonal hole for the insertion of an Allen wrench.

The example in FIG. 5 is a modification of the example according to FIG. 4 in so far as here there is used a pair of wedge plates 15 and 16 instead of the single wedge plate 11, which wedge plates 15 and 16 are provided with spiral ramps. The pair of wedge plates 15 and 16 offers the advantage that the clamp presses always with its full area of contact against the rear face of the sign. In the example shown, the wedge plate 15 is fastened to the front side of the bar 1, whereas the wedge plate 16 with its pivot 17 can be rotated in the stationary wedge plate 15 and the bar 1. The pivot 17 has a snapping 13, which must leave, however, a certain amount of play to allow for the axial movement of the wedge plate 16 when it is turned about the pivot 17. (FIG. 5 shows practically the anterior end position of the wedge plate 16 and its pivot 17.) The pivot 17 has in its rear face also an hexagonal hole as described for FIG. 4.

The clamping devices according to FIGS. 4 and 5 can be secured against loosening in a manner similar to that shown in the left hand parts of FIGS. 1 and 2, through the lock screw 9 and curved slot 10.

In the example of FIG. 6 the clamping device consists of a clamping strip 18 that bears against the rear face of the sign and a press screw 19 that pushes the clamping strip against the rear face of the sign. The clamping strip is fastened at one end to the bar 1a, e.g., by riveting. Its free end extends into the receiving space 4 formed by the holding strap 3 behind the sign 2. The nut 20 is inserted in the socket formation 21 that is stamped into the bar 1a. The clamping bolt 19 is screwed into the nut 20 and has in its head the hexagonal hole 14 for the insertion of an Allen wrench.

In the example of FIGS. 1 and 2 the connection between the bar 1 and the clamp bracket 22 has been effected in such a way that the bar 1 has been placed between the flanges 23 of the bracket body against the back of its front plate, to which it is fastened by the rivets 25. If provision is to be made for a lateral or horizontal adjustment of the sign, then the width of the carrier bar can be such that it will have a sliding fit between the flanges 23 of the bracket body. The bracket can then be locked on the carrier bar by drawing together the flanges 23 of the clamp body 22.

FIG. 7 shows an example in which the carrier bar 1 is arranged in a substantially vertical position. In such a case it is suitable to attach to the carrier bar a carrier arm 26, essentially at a right angle. This arm 26 can be fastened solidly to the front face of the bracket body 22, or the method described above whereby the bracket body is locked to the arm by drawing together the flanges 23 of the body 22 by bolts 27 can be used.

All features of the invention that have been mentioned in the description, the patent claims and the drawings can be of substantial importance for the invention either individually or in any imaginable combination.

What is claimed is:

1. A device for demountably holding traffic signs and the like comprising, in combination:
  - (a) a rear carrier bar adapted to be secured to a support and to extend across the rear of the sign, wherein the improvement comprises:
    - (b) said bar having sufficient length to enable its ends to extend past opposite edges of the sign,
    - (c) fittings at the ends of the carrier bar, having portions extending forward thereof and having terminal portions spaced from the bar and extending towards each other for engaging front peripheral portions of the sign, and
    - (d) releasable clamp means at the ends of the carrier bar, adapted for engagement with the rear of said peripheral portions of the sign whereby the latter is releasably clamped, by said clamp means, against the terminal portions of said fittings to thereby secure the sign to the carrier bar.
2. A holding device as in claim 1, wherein:
  - (a) the releasable clamp means comprises a wedge, and
  - (b) means including a pivot, mounting the wedge on the bar for movement in the space between the bar and the terminal portion of one of the said fittings.
3. A holding device as in claim 2, wherein:
  - (a) the wedge has, to facilitate its operation, a lug projecting past the carrier bar.
4. A holding device as in claim 2, wherein:
  - (a) releasable lock means are provided, for locking the wedge in adjusted position.
5. A holding device as in claim 1, wherein:
  - (a) the releasable clamp means comprises a wedge plate,
  - (b) a pivot inserted in the carrier bar, and
  - (c) means mounting the wedge plate for turning movement about said pivot to bring a portion of the plate into the space between the carrier bar and the terminal portion of one of the said fittings.
6. A holding device as in claim 5, wherein:
  - (a) the wedge plate is rigid with the pivot,
  - (b) said pivot passing through the carrier bar,
  - (c) means holding the pivot captive in the carrier bar, and
  - (d) said pivot having a socket to receive a turning tool.
7. A holding device as in claim 1, wherein:
  - (a) the releasable clamp means comprises a pair of mutually cooperable wedge plates,
  - (b) one wedge plate being rigid with the carrier bar,
  - (c) means turnably mounting the other wedge plate on the carrier bar,
  - (d) said plates being engageable with each other and relatively movable, and having portions disposed in the space between the carrier bar and the terminal portion of one of said fittings.
8. A holding device as in claim 1, wherein:
  - (a) the releasable clamp means comprises a clamp strip secured at one end to the carrier bar,
  - (b) the other end of the clamp strip extending into the space between the carrier bar and a terminal portion of one of said fittings, and
  - (c) a clamp screw carried on the carrier bar and en-

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gaging the clamp strip to press the other end of the latter against the rear of the sign.

9. A holding device as in claim 1, wherein:

(a) an adjustable mounting is provided for the carrier bar,

(b) said mounting comprising a bracket having spaced-apart flanges, <sup>5</sup>

(c) said carrier bar being insertable and movable between said flanges, and

(d) means for releasably clamping the flanges of the bracket against said carrier bar. <sup>10</sup>

10. A holding device as in claim 9, wherein:

(a) said carrier bar is horizontal,

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(b) said adjustable mounting including a second carrier bar disposed vertically and connected to the first-mentioned carrier bar to support the same.

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