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EP-A-0 011 385
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Description

This invention relates to sign constructions, and in a preferred embodiment it is a development of the type of sign disclosed in my Patent Specification GB 2034504. In that Specification, a number of parallel sign plates are a push fit onto clips which project from the mouths of channel shaped mounting members which are secured to a suitable support surface such as a wall. The present invention provides an improvement on this which enhances the visual attractiveness of the sign and also renders it less liable to vandalism or otherwise unauthorised interference.

According to the present invention there is provided a sign construction comprising a plurality of plates arranged edge-to-edge and attached to a pair of substantially rigid mounting bars extending transversely to the length of the plates, the plates being a removable push fit onto attachment elements on the mounting bars; characterised in that the mounting bars are located at the ends of the plates, each mounting bar comprising a generally L-shaped portion in cross-section formed from two limbs, of which a rear limb lies behind the plates and is adapted for securing to a support and carries said attachment elements, and a side limb extends alongside and effectively conceals the ends of the plates while allowing the plates to be mounted and demounted between the side limbs as a push fit from the front of the sign, the plates at the ends of the mounting bars being provided with extensions which project rearwardly and conceal the rear limbs of the mounting bars and the attachment thereto of the plates, the side limbs having end caps which are a push fit onto the ends of the side limbs to conceal those ends and also the ends of the extensions of the plates at the ends of the mounting bars.

Preferably forwardly projecting elements on the rear limbs of the mounting bars co-operate with rearwardly directed elements on at least some of the plates such that those plates are a push fit from the front of the sign onto said elements of the rear limbs of the mounting bars.

In order that the invention may be more clearly understood, various embodiments will now be described with reference to the accompanying drawings, wherein:

Fig. 1 shows a perspective fragmentary exploded view of part of a sign structure,

Fig. 2 shows an end view of a mounting channel of Fig. 1,

Fig. 3 shows a cross-sectional side view through part of a side mounting of the sign construction of Fig. 1,

Fig. 4 shows a front view of the sign of Fig. 1 under construction,

Fig. 5 shows a key for removing the sign plates,

Fig. 6 shows an end view of a second embodiment of mounting channel,

Fig. 7 shows a cross-sectional perspective view of part of a side mounting using the channel of Fig. 6,

Fig. 8 shows a perspective view of a form of sign, which in

Fig. 9 is modified in accordance with the present invention.

Referring to Figs. 1 to 5 of the drawings, a number of plate attachment members are injection moulded from plastics material, each comprising a generally flat base strip 10 from which project a number of heads 12 uniformly spaced apart along the strip. Each head comprises a pair of spaced elements 14, the mutually remote surfaces 16 of which are convex in cross-section. A sign plate 18, typically of extruded aluminium, is of shallow channel cross-section, having rearwardly directed flanges 20, the mutually facing surfaces 22 of which are concave. The flanges 20 are spaced apart by an amount corresponding to the unit centre-to-centre spacing of the heads 12 or a multiple thereof. In the plate shown in Fig. 1 the spacing of the flanges corresponds to three times this unit spacing, so that the plate embraces three heads on the strip. The plate is mounted to the strip by resiliently pushing the flanges 20 over the two outermost elements 14 of the set of three heads thus embraced, the concave surfaces of the flanges being retained by the convex surfaces of said elements.

The strip 10 is formed with grooves 24 between adjacent heads, which provide lines of weakening, whereby portions of the strip having one or more complete heads can be broken therefrom. In this way, suitable lengths of strip can be selected. The strip has an aperture 26 between each pair of head forming elements.

A mounting bar 32, for example of extruded aluminium, is of generally L-shape with two limbs 29, 31 at right-angles to each other. One limb 29 is formed with a channel 33 provided with inturned lips 34 at the mouth. The strips 10 of the attachment members project laterally a short distance beyond the heads 12, providing lateral flanges 36, so that the strips can be slid lengthwise into the channel 33, the flanges 36 being retained behind the lips 34. The strips can be retained lengthwise by punching indentations 35 in the base of the channel 33 in register with apertures 26, as shown in Fig. 3. The mounting bar 32 thus forms a carrier for an appropriate number of attachment members, and the length of the mounting bar is cut to match the combined length of the attachment members required to mount the various sign plates which are to form the sign.

A pair of mounting bars 32, carrying plate attachment members, are thus arranged parallel to each other, as shown in Fig. 4, and sign plates 18 are pressed onto the heads. The mounting bars project somewhat beyond the sign plates, as can be seen in Fig. 4, so that each provides two heads 12 respectively above the below the sign plates. The mounting bars are secured to a supporting surface, such as a wall 56 (see Fig. 3), by drilling through some of the still exposed apertures 26 and base of the channel in register with the apertures, and passing fixing screws 37 through them.

The other limb 31 of each of the mounting bars 32 has the form of a box section 50. These limbs 31 provide side walls which close and conceal the ends of the plates 18, as can be seen in Figs. 3 and 4. Also, as can be seen in Figs. 3 and 4, on the projecting pairs of heads 12 at the ends of the mounting bars are engaged special plate members 18' which resemble the plates 18, but have curved extensions 54 which enclose the ends of the channels, and meet the supporting surface 56 to which the channels are mounted, thereby effectively concealing the rear limbs 29 and the attachment members. The construction is completed by fitting end cap members 58, suitably made of injection moulded plastics material. These end caps have plug portions 60 which fit tightly into the open ends of the box-section wall portions 50 of the limbs 31, and can be secured in place by adhesive if desired. As can be seen from Fig. 3, the profile of the end cap matches that of the extension portion 54 of the plate 18', thus providing a matching extension of the wall 50.

By making the limb 31 of open, i.e. channel, box section 50, a flat panel 25 could be incorporated in the sign, with its edges 27, e.g. offset, engaged in the channel 50, provided the plate attachment members 10 were omitted in that region. Thus the sign could include both elongate plates 18, 18' and much deeper flat panels 25 of a size impracticable for extrusion. This could be useful, for example, for showing a floor plan of a building.

The completed sign thus presents a neat appearance with no visible fixing screws. Moreover, the close spacing of the plates 18 and 18', and the extension of the portions 54 of the upper and lower plates 18' to meet the supporting surface 56, does not provide any obvious means by which the sign can be removed from the wall. However, a special key device 62, comprising a prong 64 having a tang 66, as shown in Fig. 5, can be inserted between a pair of plates and then withdrawn, so that the tang engages behind a flange 20 of a plate and pulls the plate from its mounting.

Referring to Figs. 6 and 7, the construction resembles that of Figs. 1 to 4, except that the extensions 54 of the plates 18' are straight extensions of one of the flanges 20, so that externally a squared-off rather than a rounded appearance is presented. The end cap member 58 is correspondingly flat to match, and the limb 31 of the mounting bar 32 is somewhat narrower to be in proportion aesthetically.

In Fig. 8 the mounting bar 32 is still further abbreviated, so that the limb 31 is a simple flange without a box section. This is modified as shown in Fig. 9, the mounting bars terminating just short of the plate extensions 54, so that the edge of the rear limb 29 is hidden, and a slim end cap 58' is push fitted over the limb 31. This would result in the ends of the plates 18, 18' being slightly spaced from the limb 31, but this need not be a disadvantage as the prong 64 of the key 62 can be inserted in the gap to detach a plate rather than inserting it between adjacent plates which could

damage their surface appearance.

In the foregoing embodiments a particular preferred method of attaching the plates to the mounting bars has been described, using the system disclosed in GB 2034504, but other means of push-fit attachment could be employed.

Claims

1. A sign construction comprising a plurality of plates (18, 18', 25) arranged edge-to-edge and attached to a pair of substantially rigid mounting bars (32) extending transversely to the length of the plates, the plates being a removable push fit onto attachment elements (14) on the mounting bars; characterised in that the mounting bars are located at the ends of the plates, each mounting bar comprising a generally L-shaped portion in cross-section formed from two limbs (29, 31), of which a rear limb (29) lies behind the plates and is adapted for securing to a support (56) and carries said attachment elements (14), and a side limb (31) extends alongside and effectively conceals the ends of the plates while allowing the plates to be mounted and demounted between the side limbs as a push fit from the front of the sign, the plates (18') at the ends of the mounting bars being provided with extensions (54) which project rearwardly and conceal the rear limbs (29) of the mounting bars and the attachment thereto of the plates, the side limbs having end caps which are a push fit onto the ends of the side limbs to conceal those ends and also the ends of the extensions (54) of the plates (18') at the ends of the mounting bars.

2. A sign construction according to claim 1 wherein base elements (10) carry said forwardly projecting elements (14) and are slidably engaged in restricted mouth channels (33) extending lengthwise of the rear limbs (29) of the mounting bars (32).

3. A sign construction according to claim 1 or claim 2 wherein the side limbs (31) of the mounting bars are of box section (50) and the end caps (58) are a push fit into the ends of the box sections.

4. A sign construction according to claim 3 wherein the box section (50) is of inwardly opening channel form.

5. A sign construction according to claim 4 including at least one further sign plate in the form of a flat panel (25) whose edges engage in and are retained by the channel box sections (50).

Revendications

1. Construction d'enseigne comprenant un certain nombre de plaques (18, 18', 25) agencées bord-à-bord et attachées à deux barres sensiblement rigides de montage (32) s'étendant transversalement à la longueur des plaques, les plaques étant ajustées de manière amovible par poussée sur des éléments de fixation (14) sur les barres de montage; caractérisée en ce que les barres de montage sont placées aux extrémités

des plaques, chaque barre de montage comprenant une partie généralement en forme de L en section transversale formée de deux membres (29, 31), dont un membre arrière (29) se trouve derrière les plaques et est adapté à une fixation à un support (56) et porte lesdits éléments de fixation (14) et un membre latéral (31) s'étend le long de et cache efficacement les extrémités des plaques tout en permettant aux plaques d'être montées et démontées entre les membres latéraux sous la forme d'un ajustement en poussant à partir de l'avant de l'enseigne, les plaques (18') aux extrémités des barres de montage étant pourvues d'extensions (54) qui font saillie vers l'arrière et cachent les membres arrière (29) des barres de montage et leur fixation des plaques, les membres latéraux ayant des capuchons extrêmes qui sont ajustés en poussant sur les extrémités des membres latéraux pour cacher ces extrémités et également les extrémités des extensions (54) des plaques (18') aux extrémités des barres de montage.

2. Construction d'enseigne selon la revendication 1 où des éléments de base (10) portent lesdits éléments faisant saillie vers l'avant (14) et sont en engagement coulissant dans des profilés d'embouchure restreinte (33) s'étendant longitudinalement aux membres arrière (29) des barres de montage (32).

3. Construction d'enseigne selon la revendication 1 ou la revendication 2 où les membres latéraux (31) des barres de montage ont une section en forme de boîte (50) et les capuchons extrêmes (58) sont ajustés en poussant dans les extrémités des sections de boîte.

4. Construction d'enseigne selon la revendication 3 où la section de boîte (50) a une forme de profilé ouvrant vers l'intérieur.

5. Construction d'enseigne selon la revendication 4 comprenant au moins une autre plaque d'enseigne sous la forme d'un panneau plat (25) dont les bords engagent dans et sont retenus par les sections de boîte (50) du profilé.

Patentansprüche

1. Eine Anzeigetafelkonstruktion umfassend eine Mehrzahl von Platten (18, 18', 25), die Kante an Kante angeordnet und an einem Paar von im wesentlichen starren Montagestangen (32) befe-

stigt sind, die sich in Querrichtung zur Länge der Platten erstrecken, wobei sich die Platten in einem lösbaren Schiebesitz auf Befestigungselementen (14) auf den Montagestangen befinden; dadurch gekennzeichnet, daß die Montagestangen an den Enden der Platten angeordnet sind und jede Montagestange einen im allgemeinen im Querschnitt L-förmigen Teil umfaßt, der aus zwei Gliedern (29, 31) besteht, von denen ein hinteres Glied (29) hinter den Platten liegt und dazu ausgebildet ist, an einer Abstützung (56) befestigt zu werden und die genannten Befestigungselemente (14) trägt, und sich ein Seitenglied (31) entlang den Platten erstreckt und wirksam die Enden derselben verdeckt, aber es zuläßt, daß die Platten zwischen den Seitengliedern im Schiebesitz von der Stirnseite der Anzeigetafel her montiert und demontiert werden, die Platten (18') an den Enden der Montagestangen mit Verlängerungen (54) versehen sind, die nach hinten vorspringen und die hinteren Glieder (29) der Montagestangen und die Befestigung der Platten an denselben verdecken, und daß die Seitenglieder mit Endkappen versehen sind, die sich im Schiebesitz auf den Enden der Seitenglieder befinden, um diese Enden und auch die Enden der Verlängerungen (54) der Platten (18') an den Enden der Montagestangen zu verdecken.

2. Eine Anzeigetafelkonstruktion nach Anspruch 1, worin Basiselemente (10) die genannten nach vorne vorspringenden Elemente (14) tragen und verschiebbar in Kanälen (33) mit verengter Mündung im Eingriff stehen, die sich in Längsrichtung in bezug auf die hinteren Glieder (29) der Montagestangen (32) erstrecken.

3. Eine Anzeigetafelkonstruktion nach Anspruch 1 oder 2, worin die Seitenglieder (31) der Montagestangen einen Kastenquerschnitt (50) aufweisen und die Endkappen (58) in einem Schiebesitz in den Enden der Kastenquerschnitte angeordnet sind.

4. Eine Anzeigetafelkonstruktion nach Anspruch 3, worin der Kastenquerschnitt (50) die Form eines sich nach innen öffnenden Kanals aufweist.

5. Eine Anzeigetafelkonstruktion nach Anspruch 4, einschließend wenigstens eine weitere Anzeigeplatte in Form einer flachen Tafel (25), deren Kanten in die Kastenteile (50) des Kanals eingreifen und von diesem festgehalten werden.

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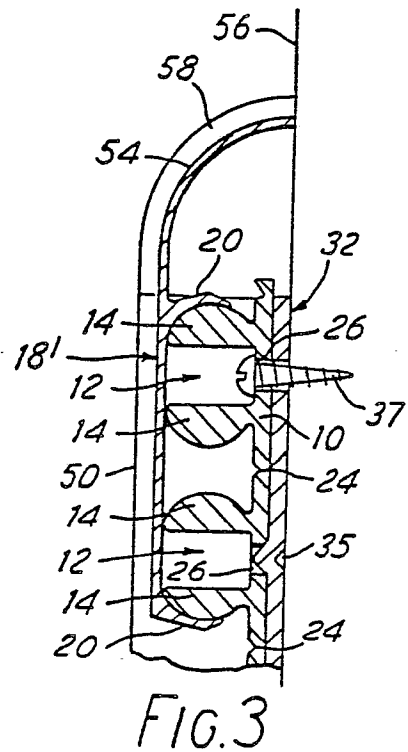
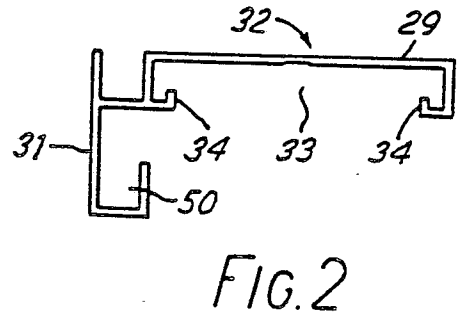
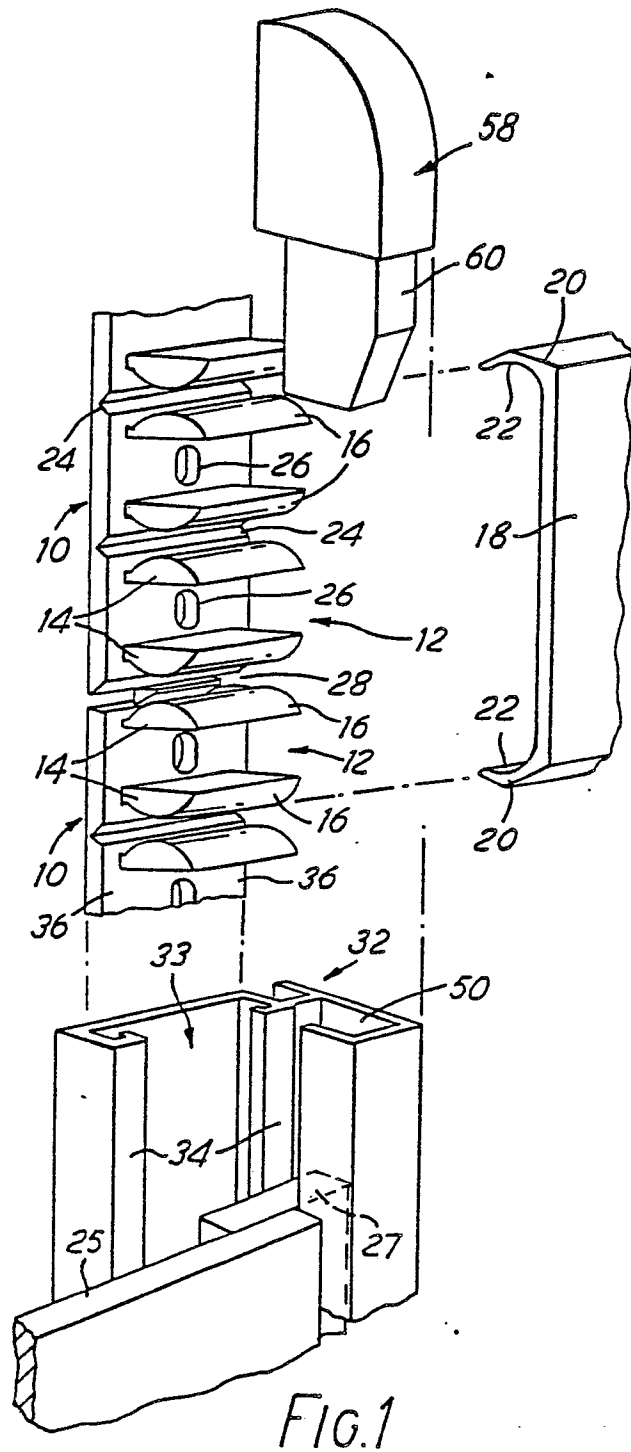
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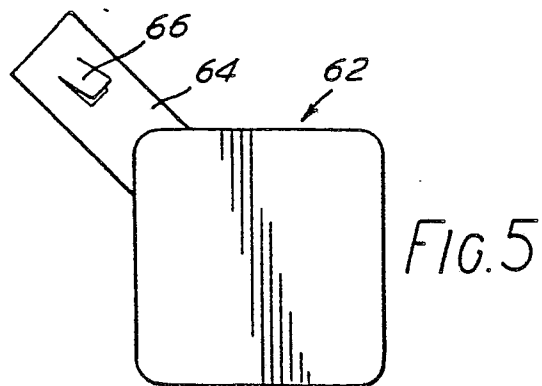
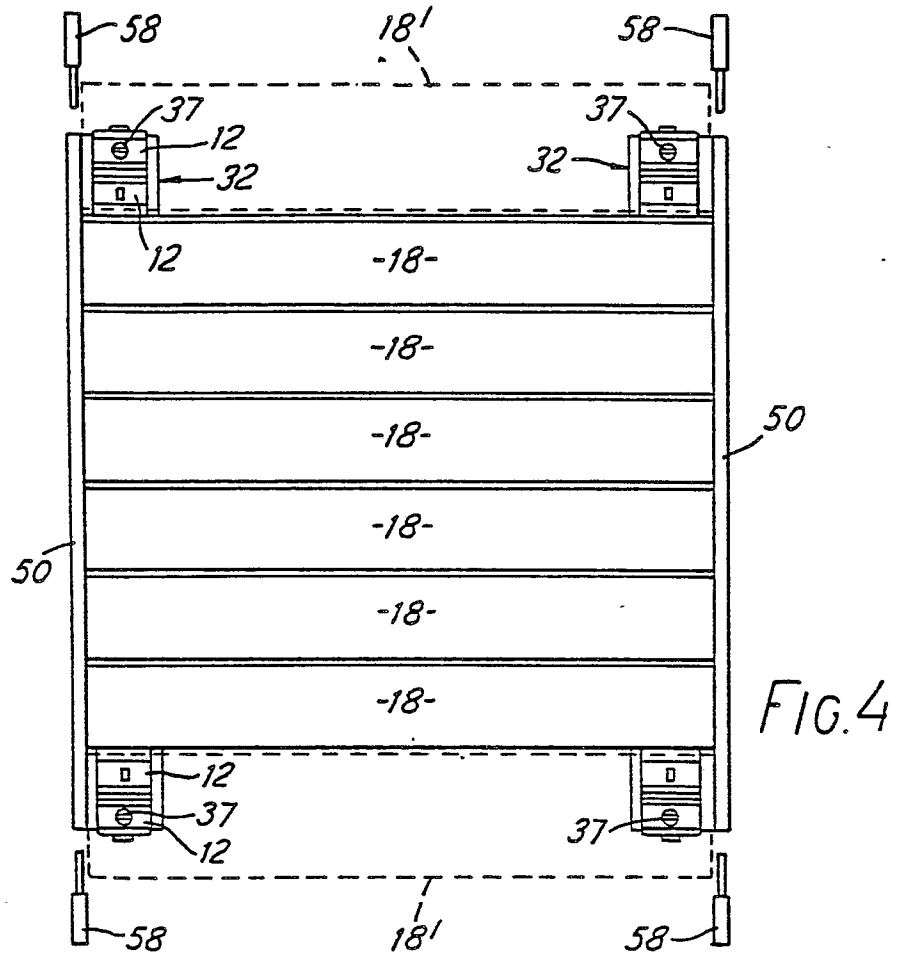
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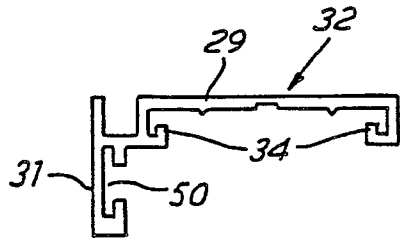


FIG. 6

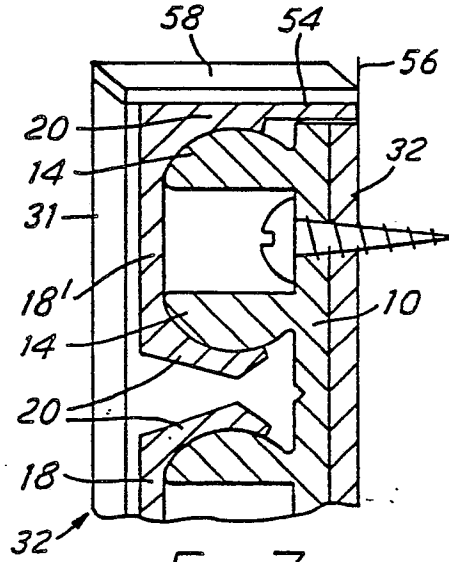


FIG. 7

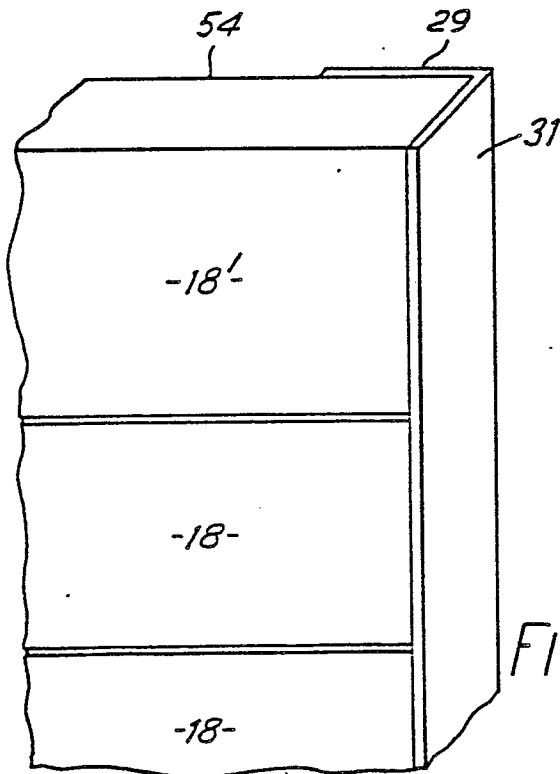


FIG. 8

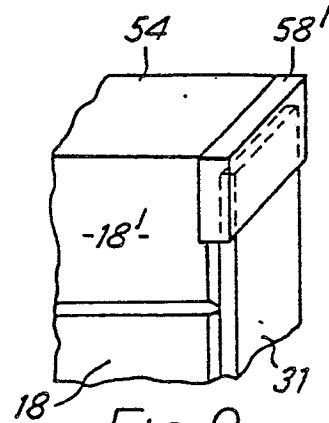


FIG. 9