

[54] **WALL AND CORNER GUARD ASSEMBLY**

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[58] Field of Search.....52/288, 254-257, 52/573, 213-217, 730, 210, 709; 248/345.1; 49/469, 470

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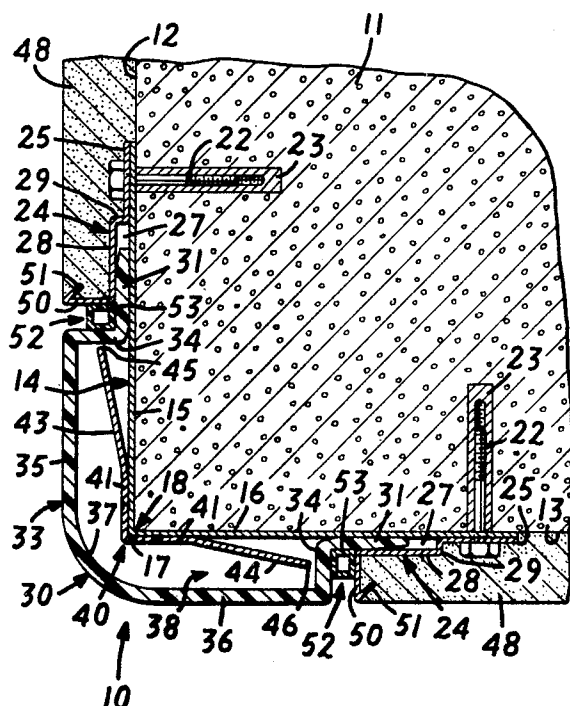
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[57] **ABSTRACT**

A wall protective assembly including a resilient protective strip with a central portion spaced from an underlying wall member to absorb and protect the wall from blows. The strip edges are received for limited movement in mounting recesses adjacent the wall. Movement of the edges out of the recesses is precluded by spring stops located under the central strip portion. A spacer conforming with the underlying wall member carries the spring stops and retainers which form the mounting recesses. The retainers are connected to, or formed integral with, the spacer, to run parallel to the strip edges. For wall ends, the central strip portion is U-shaped, and resilient bumper members are supported under the central portion to engage and restore the strip to its initial configuration upon impacting and to prevent wedging of the edges deeply within their recesses. Coordinated cap and base plates, conforming to the resilient strip, may close the assemblies at each end.

8 Claims, 7 Drawing Figures



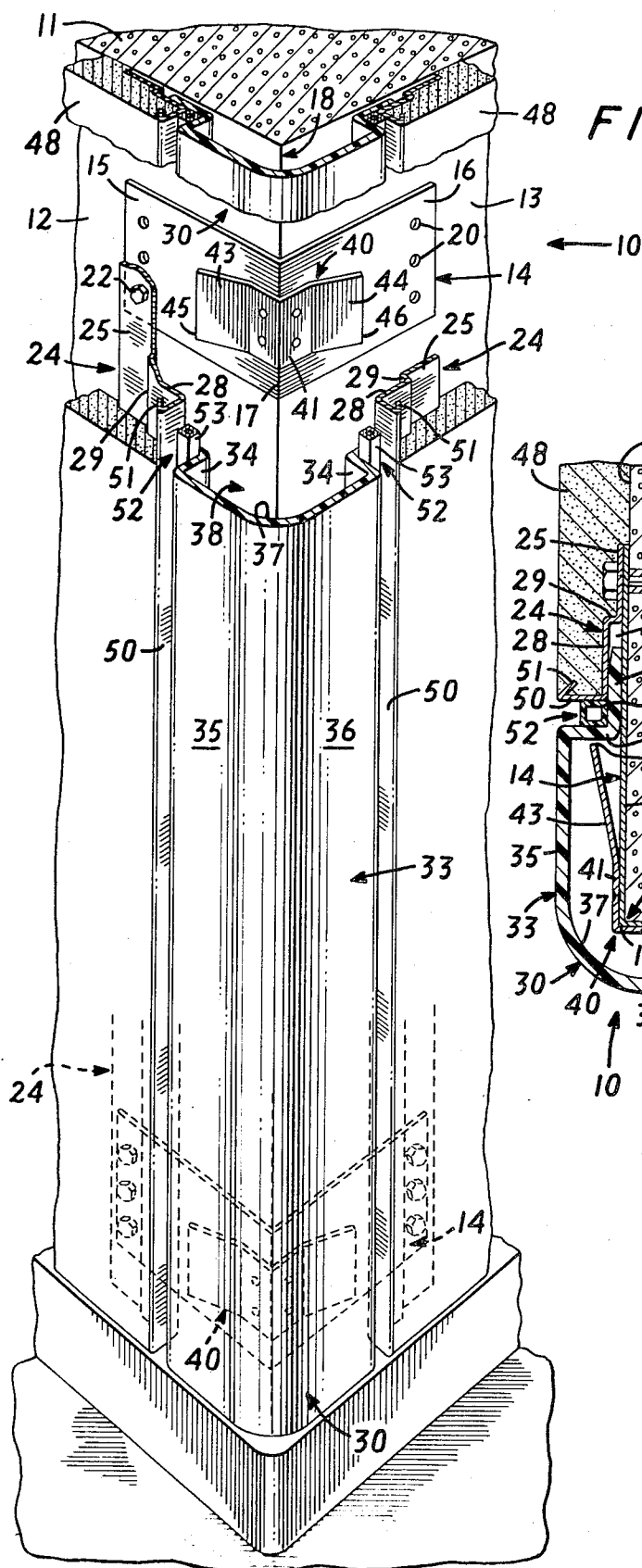


FIG. 2

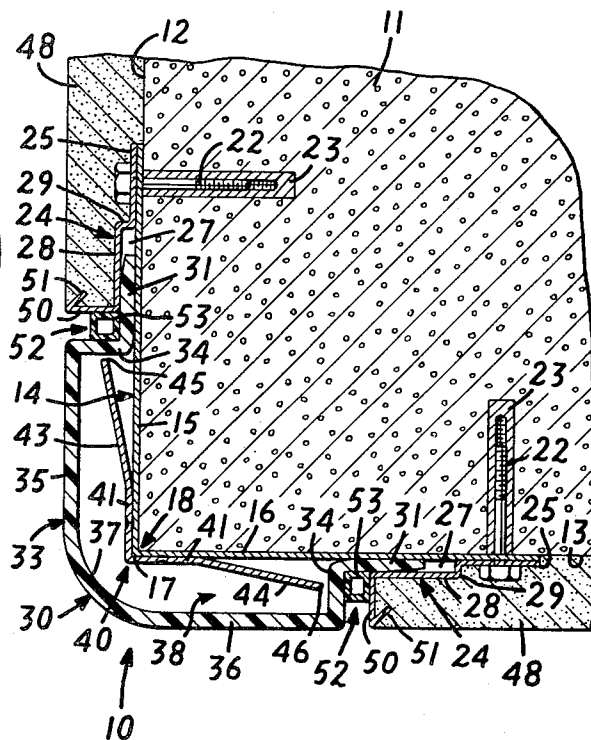


FIG. 1

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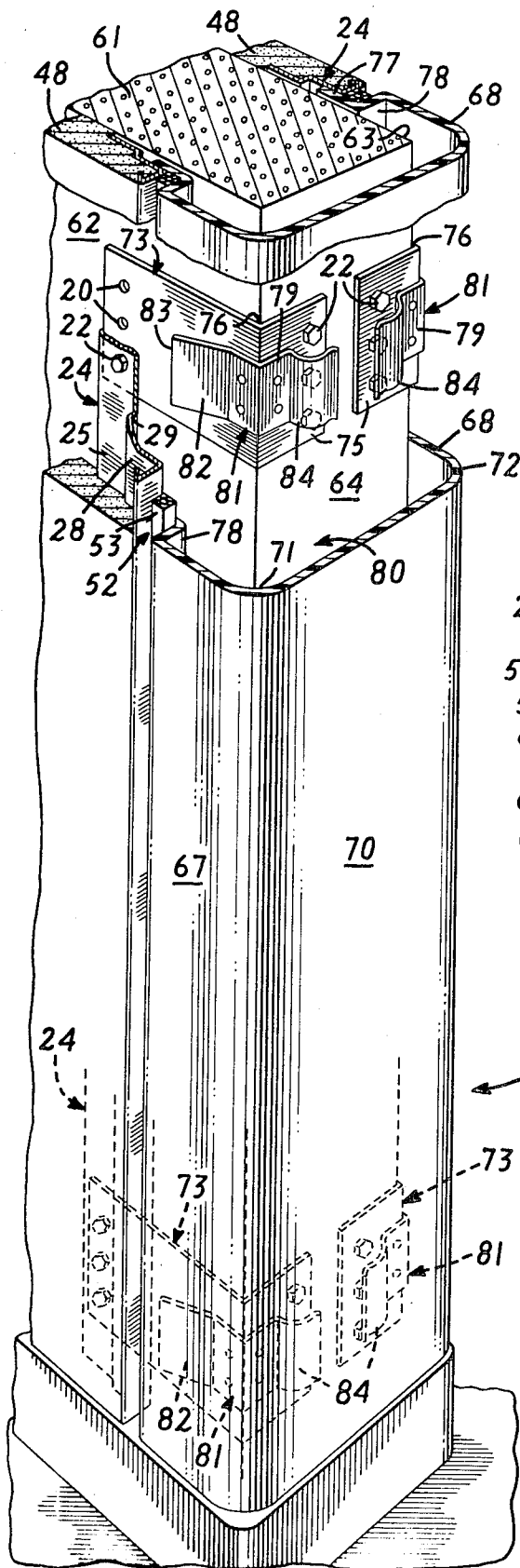


FIG. 4

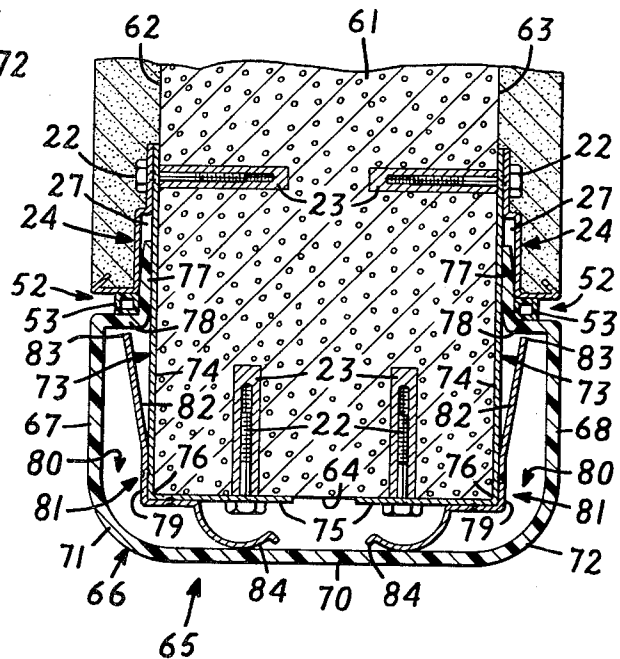


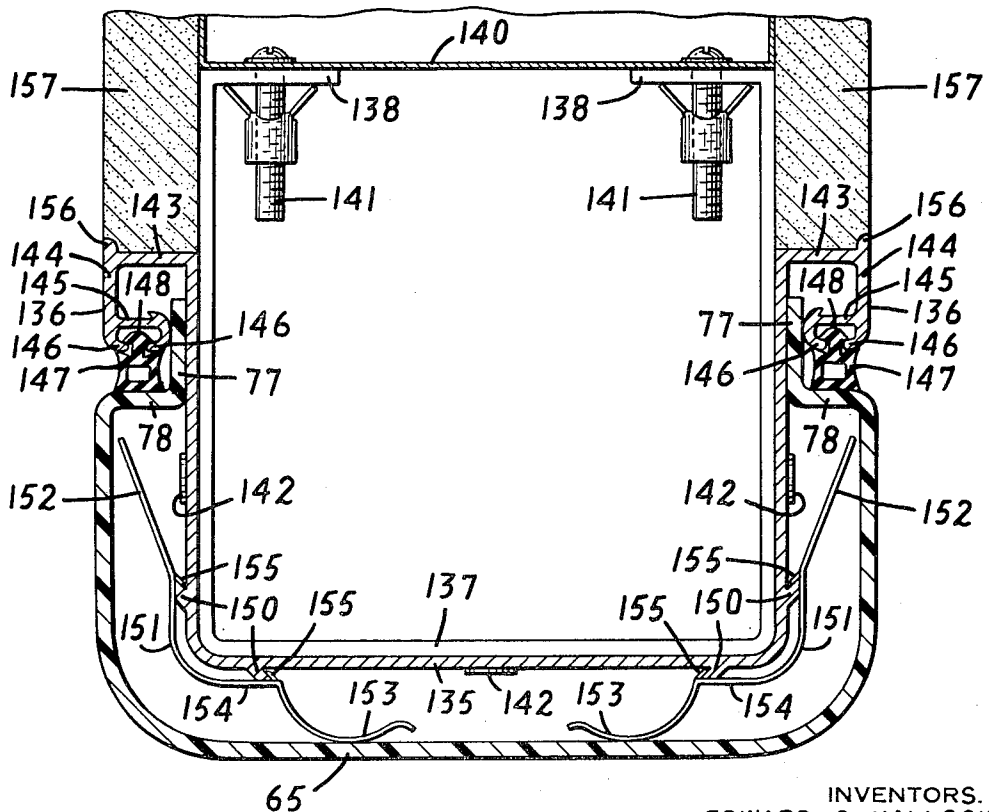
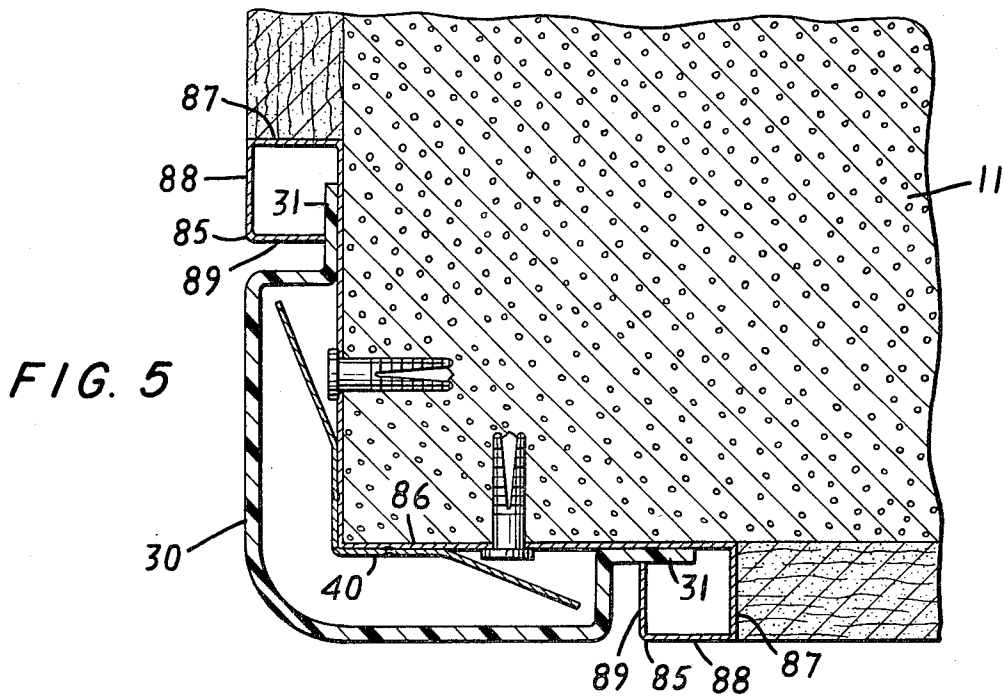
FIG. 3

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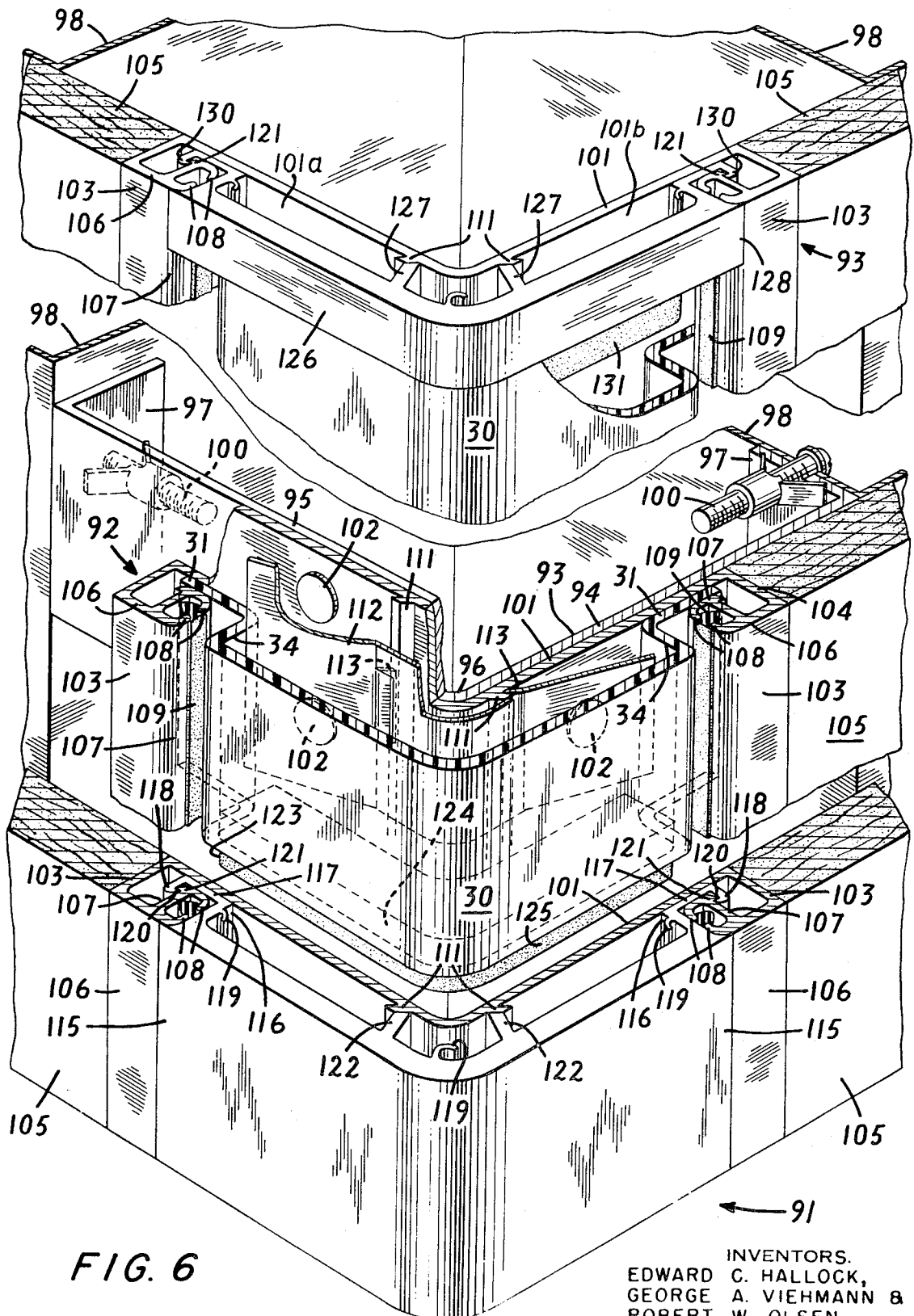


FIG. 6

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WALL AND CORNER GUARD ASSEMBLY

BACKGROUND OF THE INVENTION

This invention relates generally to wall guard assemblies and, more specifically, to assemblies wherein a resilient protective strip or member is supported with a portion in spaced relation to an underlying wall member for absorbing shocks without dislocation or deterioration.

Wall protective provisions have been suggested for the protective covering of wall areas particularly susceptible to abuse, such as exterior wall corners which are commonly accidentally rammed or bumped by objects, carts, and the like. The employment of an elongate resilient member having a portion supported in spaced relation to an underlying protected wall member has been suggested in the copending U.S. patent application Ser. No. 722,594 of Ephraim Koral, filed Apr. 19, 1968, assigned to the assignee of the instant invention and now.

The Koral application discloses the employment of socket or recess-defining mounting provisions receiving edges of an elongate resilient member for movement proximate the wall to be protected. The resilient member is shaped in conformity to a wall corner or wall end for resilient deformation toward and away from the underlying wall portion upon accidental impacting.

While the preformed resilient member or strip according to this invention is similar to that disclosed in the aforementioned Koral application, the protective arrangement provided herein is improved by the use of mounting provisions which may be applied quickly to an underlying member to locate positively all portions of the protective arrangement in alignment with the wall or protected member, and by the use of novel stop means substantially reducing the possibility of dislocation of the strip, while allowing mounting of the strip after the mounting of all further provisions of the protective arrangement.

The invention described herein also includes a base and an upper cap which close the strip at its opposite ends and which are formed to compliment the associated strip, forming a coordinated assembly, complete in all respects. A further improvement according to this invention is the inclusion, as a part of the protective assembly, of underlying wall parts, which are provided specially for cooperation with the strip mounting provisions.

Other known wall protectors have included strip material adhesively applied directly to a finished wall but incapable of substantial abuse without deterioration of the strip material or the adhesive bond. Also, substantially non-resilient members have been disclosed fixedly supported upon a wall, but these have been incapable of shock absorbing movement with respect to the wall without deformation of the outer protective member. The prior art has also disclosed relatively soft elastomeric bumpers which are to be retained adjacent wall members, but the bumpers have been characteristically easily dislocated, torn, or scarred when subjected to any substantial abuse. In contrast, the wall-protective assemblies according to this invention employ a protective member which is of hard, durable material, resistant to scarring under extreme abuse, yet sufficiently resilient to absorb applied shocks, and mounted for limited movement with

respect to the protected wall with little possibility of dislocation.

SUMMARY OF THE INVENTION

In view of the foregoing, it is an object of this invention to provide protective arrangements capable of substantial abuse without dislocation or deterioration and avoiding the disadvantages of the prior art.

Additionally, it is an object of this invention to provide protective arrangements which may be quickly and easily supported in predetermined alignment with an underlying member.

It is a further object of this invention to provide protector mounting provisions easily applied to a wall, assuring correct disposition of an outer protective member retained in place by the mounting provisions.

Another object of this invention is to provide improved means for stopping movement of a protective member out of association with protective member supporting or retaining provisions.

Yet another object of the invention is to provide members supportable beneath an outer movable protective member to aid return of the protective member to its initial disposition following impacting.

An additional object of the invention is to provide protectors which have complimentary terminal arrangements closing their ends.

Still another object of the invention is the provision of a protective arrangement which includes an underlying wall part especially adapted for use with protector mounting parts.

In the illustrated embodiments of this invention, there is provided a tough, resilient outer protective member having a central portion spaced from an underlying structural wall part, the protective member being retained at its edges for movement with respect to the associated wall upon impacting. The foregoing objects of the invention are achieved through interiorly located stops, locating straps or spacers, bumper members, terminal cap and base assemblies, and wall parts which are, themselves, part of the protector combination.

The stops or stop means are supported centrally beneath the resilient protective member or strip and extend for interior engagement with the strip upon movement of the strip edges away from their associated retaining provisions. Thus, substantial abuse or impacting of the exterior protective member results only in engagement of the stops and protective member, rather than in dislocation of that member.

The locating straps or spacers are preformed in conformity with the underlying member upon which they are mounted, and they precisely locate the protective member or strip retaining provisions, as well as the stops and bumper members. They may be a series of straps, spaced apart along the length of the protected wall section, or they may be long continuous members with retainers formed integrally at their edges. Once applied to the underlying member, the spacers preclude further concern with respect to alignment of the protective arrangement, eliminating the use of plumb lines or the like.

Bumper members, which assure return of the protective member or strip to its initial disposition, may be supported centrally beneath the strip for engagement

of the central portion. These members are preferably resilient, allowing the strip initially to deform and move to absorb shocks when impacted. Following impacting, the engagement of the resilient bumper members with the strip aids in the return of the strip and the movement of the strip edges to their initial locations.

The cap and base assemblies include terminal plates which are held in place by retainers and conform to the appearance of the resilient strip. These close the protector assembly at each end.

While the protector assemblies are suited for use with any conventional wall construction, the supporting wall parts may themselves form part of the protector. These parts, then, may be connected in place during initial wall construction, at the same time locating most of the protector parts.

With the above and further objects in mind that will hereinafter appear, the nature of the invention will be more clearly understood with particular reference to the following detailed description of preferred forms of the invention as illustrated in the figures of the associated drawings.

IN THE DRAWINGS

FIG. 1 is a sectional view of one embodiment of the invention and illustrates a resilient protective member in association with wall-supported stops, locating straps, and retainers.

FIG. 2 is a perspective view of the combination according to FIG. 1, with parts broken away for clarity.

FIG. 3 is a sectional view of a further embodiment of the invention, showing a resiliently deformable protective member, stops, spacers, bumpers, and retainers, all in association with a protected wall end.

FIG. 4 is a perspective view of the combination illustrated in FIG. 3, with parts broken away for greater clarity.

FIG. 5 is a sectional view illustrating a simplified mounting arrangement in which the retainers and the spacer are integrally formed.

FIG. 6 is an exploded perspective view with parts broken away for clarity and shows a complete protector combination including a base, an upper cap, retainers integrally extruded with the spacer, and especially adapted underlying wall parts.

FIG. 7 is a sectional view showing a further wall end protector with integral spacer and retainers, and especially adapted underlying wall parts.

DESCRIPTION OF PREFERRED EMBODIMENTS

In FIGS. 1 and 2, a protective assembly 10 is shown which is adapted for employment with an external wall corner defined by an underlying wall member 11 of any suitable material. The term "external corner" is intended to define a corner, be it within a building or on the exterior of a structure, wherein intersecting surfaces of the corner forming member or members define an angle of less than 180° therethrough, such corners being particularly susceptible to abuse by accidental abutment, particularly in public buildings, hospitals, office buildings, factories and the like.

Applied directly to the underlying wall member 11, along a pair of intersecting surfaces 12 and 13, are locating straps, or spacers, 14 which include angularly disposed first and second plate-like sections 15 and 16.

These sections are joined along a bend 17 which conforms to, and extends about, a wall corner 18 at the intersection of the surfaces 12 and 13.

Near the end of each spacer 14, a series of holes 20 receives a number of bolts 22, or other suitable fasteners, which support the spacer 14 upon the wall. If, for example, a block wall is employed, a plurality of sleeves 23 may first be inserted within bores in the wall member 11 for threaded engagement with the shanks of the bolts 22 to securely affix the bolts to the wall member 11.

Secured to each of the spacers 14 applied along the corner 18, each of a pair of longitudinally extending retainers 24 includes a supporting portion 25 held against the spacers 14 by the bolts 22. Retaining strip portions 28, supported outwardly from the spacers 14 by an offset connecting portion 29, define recesses 27 proximate the wall surfaces 12 and 13.

An elongate protector member or strip 30, which is formed of suitably selected, relatively hard, resilient material, includes longitudinal edges 31 for supporting it in place with respect to the underlying wall member 11. The edges 31 are received within the recesses 27, for movement therein upon impacting or bumping of the strip 30.

The resilient strip 30 includes a central portion 33 which extends centrally away from the edges 31 and which is shaped in conformity with the corner 18 of the underlying wall member 11. A pair of offsets 34 connects the edges 31 with the central strip portion 33, and supports the central strip portion in spaced relation to the underlying wall member. The central portion 33 includes, in the arrangement according to FIGS. 1 and 2, first and second angularly disposed planar sections 35 and 36, joined centrally along a radius 37 which may be of a greater or lesser degree of curvature than that shown in FIGS. 1 and 2, as desired.

Intermediate the central portion 33, and the underlying wall member 11, a space 38 is defined, into which the central portion 33 may resiliently move upon external impacting. A stop member 40 is supported within the space 38 upon each of the spacers 14. The stop member 40 includes a central mounting portion 41, conforming to the associated spacer 14 and affixed thereto as by spot welding. A pair of substantially flat integral extensions 43 and 44, supported by the stop member mounting portion 41, extends angularly away from the spacer 14 and wall member 11 to terminate in abutment ends 45 and 46 adjacent the strip offsets 34.

Upon application of an inwardly directed force to the strip 30, as by accidental impacting, the central strip portion 33 deflects inwardly, moving the edges 31 more deeply into their associated recesses 27. Following impacting, the strip 30, being substantially fully elastically returnable, reassumes its initial configuration, the edge portions 31 moving outwardly. Should a normally dislocating force be applied to the strip, a glancing blow for example, the stop members 40 prevent movement of the edge portions 31 out of their associated recesses by internally contacting the strip offsets.

The strip edges 31 may be located beneath an edge of an adjacent exterior wall panel 48, in which case the retainer 24 may terminate in an outwardly extending flange portion 50 and an inwardly turned terminal portion 51 to form an integral plaster stop over which plaster may be applied.

A gap or recess 52, occurring between the strip offset 34 and the retainer flange portion 50 may accommodate an elongate seal 53, preferably deformable towards its central axis for wedging engagement within the recess 52. The seal 53 is especially suitable for use in hospitals, restaurants and the like, where it is desirable to preclude the lodging of matter within the recess 52 for purposes of hygiene. The seal 53 may be formed of synthetic resilient material of tubular configuration to provide the desired ability to deform slightly upon insertion between strip and retainer and during flexure and return of the strip.

The embodiment shown in FIGS. 1 and 2 is particularly suitable for quick and easy application to an external wall corner and resists accidental displacement of the elongate resilient strip or member from its associated mounting provisions. Application of the spacers 14 along the length of the corner in spaced relation, as illustrated in FIG. 2, immediately locates all remaining provisions of the assembly, determining the relationships of the strip edges 31, the stop members 40, and the retainers 24, without further measurement or undue regard to the alignment of the protective provisions with respect to the wall member 11.

The resilience of the strip 30 allows its application to the retaining provisions after the retainers 24 have been located. A first of the strip edges 31 may be inserted within its associated recess 27, and the central portions 33 of the strip may then be deformed sufficiently to allow the remaining strip edge 31 to slip resiliently into the remaining recess 27. To this end, the stop members 40 are preferably resilient, allowing inward deflection of the extensions 43 and 44 during insertion of the strip edges. Thus, the strip mounting provisions may be completed, and the exterior wall panels 51 may be applied, before the strip 30 is mounted to complete the assembled wall.

Turning now to FIGS. 3 and 4, a further embodiment of the invention is illustrated in which similar provisions bear like reference numerals. This embodiment is shown in association with a wall end 61 having parallel surfaces 62 and 63 terminating in an end surface 64. An elongate resiliently deformable protective member or strip 65 is formed for extension about the wall end 61. A central strip portion 66 includes first and second generally parallel planar side sections 67 and 68 bridged by a web 70 extending generally parallel to the wall end surface 64. The sections 67 and 68 are joined with the web 70 at a pair of radii 71 and 72 which, again, may be of a greater or lesser degree of curvature than that shown.

Each of a pair of spacers 73 includes plate-like sections 74 and 75, joined along a bend 76 which is in alignment with one of the two external corners of the wall end 61. The spacers 73 are affixed to the wall end 61 by fasteners 22 like those of FIGS. 1 and 2. Retainers 24 are affixed to the spacers 73 at a predetermined distance from the two external wall corners and define the recesses 27 within which a pair of edges 77 of the strip 65 are received for movement upon flexure and return of the strip. Again, the central strip portion 66 is supported outwardly from the underlying wall part 61 by a pair of offsets 78. A space 80 is thus defined intermediate the central strip portion 66 and the wall end 61.

Within the space 80, a pair of combined stop member and bumper defining brackets 81 are supported on the spacers 73. These include a central mounting portion 79, spot-welded or otherwise affixed to the spacers 73 and extending about the bends 76 of the spacers. A pair of extensions 82, formed integrally with the brackets 81, extends angularly away from the underlying spacers 73 and wall end 61 to terminate in ends 83 adjacent the offsets 78 of the strip 65. Hence, upon outward movement of the resilient member edge portions 77 within their associated recesses 27, the ends 83 of the bracket extensions 82 abut against the interior surfaces of the offsets 78, preventing dislocation.

At the remaining ends of the brackets 81, a pair of bumper members 84 extends toward the interior surface of the web 70 of the strip 65. The bumper members 84 are integrally formed with the brackets 81, curving outwardly toward the web and presenting an outwardly convex surface adjacent the interior of the strip.

The bumper members 84 are resiliently movable inwardly toward the end surface 64 of the wall upon external impacting of the strip 65, and this resilience aids in the return of the strip to its initial position. The bumper members 84 resist the tendency of the strip edges 77 to be wedged more deeply within the recesses 27 upon impacting, by forcing the strip away from the wall end.

It will be seen, then, that the embodiment of FIGS. 3 and 4 also allows quick and easy mounting, while preventing dislocation of the strip or resilient member with respect to its support provisions by resilient reinforcement of the central strip portion which is most likely to be rammed accidentally.

Again, the strip 65 may be mounted following complete assembly of the mounting provisions and application of adjacent exterior wall panels. The extensions 82 of the brackets 81 are thus depressable inwardly during insertion of the strip edges 77 within their associated recesses 27. Once the strip 65 is in place, the bracket extensions 82 spring outwardly to their normal position shown in FIG. 3.

FIG. 5 illustrates a simplified protector mounting arrangement in which retainers 85 are integrally formed with a spacer 86. The spacer 86 extends along the length of the wall part 11. At each side, the spacer is reversely folded or rolled to form an outwardly extending section 87, an outer section 88, and an inwardly directed edge section 89 which terminates short of the central spacer portion it approaches. The spaces beneath the edge sections 89 open into the interior of the retainers 85 and receive the edges 31 of the strip 30.

The combined spacer and retainers eliminate the need to fasten separately the retainers to the straps. Accurate location of the retainers along the entire length of a protected wall section occurs merely by applying the single member along the wall corner or end. As in the embodiments shown in FIGS. 1 through 4, the stop members 40 prevent dislocation of the strip 30. These may be spot-welded or otherwise secured at spaced locations along the length of the spacer 86. The spacer 86 is, itself, secured to the underlying wall part 11 by any suitable fastening arrangement.

An entire corner guard assembly is shown in FIG. 6 which includes complimentary base assembly 91, central protector assembly 92, and an upper cap assembly 93. These three assemblies form an integrated unit which finishes an external corner attractively and simply.

The protector member or strip 30 shown in FIG. 6 is like the strip 30 discussed above and bears similar reference numerals. The underlying wall part upon which the corner protector is mounted may be of conventional structure, including for example, a wooden upright, masonry, or the like. However, in the arrangement illustrated in FIG. 6, a number of straps 93, spaced apart along the wall corner, forms a part of the protector combination while completing the wall corner structure. The resilient protective combination which includes such straps 93 is particularly well suited for incorporation into the wall structure when the wall is initially constructed.

Each strap 93 includes first and second angularly disposed sections 94 and 95 joined at a radius 96. In-turned mounting flanges 97 afford easy mounting of the straps 93. These flanges are attached to supporting uprights 98 at each side of the wall corner. As illustrated, the uprights 98 may be steel studs to which the flanges 97 are affixed by suitable fasteners, such as the dry wall fasteners 100.

A spacer member 101 is secured to the strap 93 by rivets 102. The spacer 101 is continuous along the length of the wall corner, forms a corresponding external corner at the juncture of the outer surfaces of two longitudinal panel sections 101a and 101b, and includes, at its sides, integrally formed recess defining retainers 103. The retainers 103 include an outwardly extending section 104 of suitable width to match the width of adjacent wall board sections 105 for dry wall construction. An outer section 106 provides an exterior retainer surface flush with the adjacent finished wall. The outer sections 106 terminate in inwardly directed sections 107, spaced from the underlying surface of the spacer 101 to accommodate the edges 31 of the strip 30. Facing the offsets 34 of the strip 30, a pair of opposed socket forming projections 108 extend along the length of the retainers 103. These projections 108 may be used to secure a seal (discussed below) between the offset 34 and the adjacent retainer 103. When no seal is desired, the socket formed by the projections 108 is closed by a conforming, elongate plug 109 inserted between the projections 108 along the length of the retainer.

The two angularly joined panel sections forming the spacer 101, and its integrally formed retainers 103 conveniently may be extruded from, for example, aluminum. A pair of angularly outstanding ribs 111 project from the spacer 101 on opposite sides of the corner beneath the resilient strip 30. The ribs 111 extend the length of the spacer 101 and may be integrally extruded.

A number of stop members 112 are supported in spaced relation along the length of the spacer 101 beneath the strip 30. These stop members, like the stop members discussed above, include a central mounting portion, and a pair of integral angular extensions extending laterally as shown and terminating in abutment ends or edges adjacent the strip offsets 34 and parallel

to the retainers 103. Here, however, the central mounting portion of the stop member 112 includes a pair of tabs 113 near each end of the central mounting portion. These spaced integral tabs may be stamped from the metal of the mounting portion, and they cooperate with the ribs 111 on the spacer to hold the stop member 112 in place. The stop member, which may be formed of spring steel or like resilient material, is, then, easily snapped in place and held by the tabs 113 which are resiliently biased against the ribs 111.

The base assembly 91 is suitable end means for the arrangement and includes the lower end of the integrally formed retainers 103 and spacer 101. A base plate 114 has an exterior surface which preferably conforms to the exterior surface of the resilient protector strip 30. At its edges, the base plate 114 contacts the retainers 103, flush with the exterior surfaces of the retainer sections 106. To meet the retainers 103 smoothly at each side, the base plate 114 is extended slightly past the socket forming projections 108 to form exterior tapered portions 115. A pair of offsets 116 projects inwardly from the base plate 114 to locate a pair of flanges 117 which seat against the face of the spacer 101. These flanges 117 extend into the recesses formed between the inwardly turned retainer sections 107 and the adjacent face of the spacer 101. The flanges 117 terminate in projections 118. Shoulders 120 on the projections 118 engage cooperating shoulders 121 on the associated retainer sections 107.

The integral spacer and retainers thus interlock with the base plate, and the base plate is easily slipped into place with the flanges 117, projections 118, and shoulders 120 properly located at the ends of the retainers 103. Internal bosses 119 receive bolts (not shown) to secure the base to the floor, when desired.

The base plate 114 is preferably abuse resistant rigid material and may, for example, be an aluminum extrusion. At its center, ribs 122 give the base 114 further structural support by engaging the sides of the spacer ribs 111. Thus, the base plate 114 is an attractive, durable lower terminal portion for the overall protector assembly and is particularly adapted for use with the integrally formed spacer 101 and retainers 103.

At the lower end of the resilient strip 30 where the strip meets the base plate 114, is a seal 123 of suitable compressible material. The shape of the seal 123 conforms with the interior surface of the strip 30. An upper portion 124 is bonded or otherwise secured within the strip 30. A lower portion 125 protrudes beyond the lower edge of the strip, meets the upper edge of the base plate 114, and is compressed to seal the junction of the resilient strip and the base plate.

The upper closure, cap assembly 93 is similar to the base assembly 91. A cap plate 126 is reinforced centrally by a pair of ribs 127 which engage the sides of the ribs 111 on the underlying spacer 101. Small tapered sections 128 at the exterior edges of the plate 126 give the appearance of a continuous surface between the plate and the retainers. A pair of shoulders 130 cooperates with the shoulders 121 of the retainers to lock the cap plate 126 in place, and a compression seal 131, like the seal 123, closes the junction of the resilient protective strip 30 and the plate 126.

At both cap and base, the exteriors of adjacent wall or wall board surface, the retainers 130, and the plate

114 and 126 appear as a continuous surface. Paint or wall paper applied over this apparent continuous surface gives an attractive finish, in which the resilient strip 30 is an attractive coordinated part, set directly into the apparently unbroken surface of the structure it protects. Also, trim may be applied over the base and cap assemblies 91 and 93 to continue the finish of adjacent wall surfaces. For example, the base assembly 91 allows the application of a continuous cove base or ter-
 5 razzo base, applied directly over the plate 114. If a recessed base is desired, the base plate 114 is reduced in height and disposed between the resilient strip 30 and a conventional recessed base to close the protector assembly.

FIG. 7 shows a wall end embodiment which incorporates a number of the features of the corner guard shown in FIG. 6. The protective strip 65 is similar to strip 65 of FIGS. 3 and 4 and is given similar reference numerals. A continuous, U-shaped spacer 135 has integral retainers 136 at each side. The spacer 135 and the retainers 136 lie along the length of the wall end and, again, may be a single piece extrusion of, for example, aluminum. The spacer 135 may be attached directly to a structural wall part of wood, masonry, or the like, or as shown in FIG. 7, a number of mounting straps 137 may be employed as a part of the wall end protective assembly while forming a part of the under-
 10 15 lying wall structure.

Each strap 137 is generally U-shaped with inturned mounting flanges 138. The mounting flanges 138 are secured to a wall upright, such as the steel stud 140 attached to the flanges by suitable fasteners 141. Each strap 137 is attached to the spacer 135 by, for example, rivots 142.

Each integrally formed retainer 136 includes an outwardly projecting section 143, an outer section 144 and an inwardly turned section 145 which, with the underlying face of the spacer 135, forms the recess which receives the strip edge 77. Again, a pair of projections 146 forms an elongate socket opening toward the offset 78 of the strip 65. A seal 147 of compressible tubular construction has a projection 148 integrally formed along its length. The projection 148 is received between the projections 146 to lock the seal 147 in place between the offset 78 and the retainer 136. The seal 147 is suitable for use with the arrangement shown in FIG. 6 as well, and conversely, where no seal is desired, the plug 109 of FIG. 6 may be used with the retainers 136 of FIG. 7.

Two sets of integral ribs 150 extend along the length of the spacer 135 near each corner beneath the strip 65. A series of combined stop and bumper member forming brackets 151 is supported spaced apart along the length of the spacer 135. Each bracket 151 provides stop means 152 terminating adjacent the strip offset 78 to prevent dislocation of the strip. Each bracket member 151 supports bumper means 153 beneath the central interior surface of the strip 65. The brackets 151 have central mounting portions 154, from which are formed tabs 155 cooperating with the ribs 150 of the spacer 135. Tabs 155 are snapped over the ribs 150 and are biased against the ribs by the resilience of the brackets 151.

The outwardly projecting sections 143 of the retainers 136 end at slight flanges 156 coplanar with

outer retainer sections 106. Retainer parts 143 and 146, then, form plaster stops which cooperate with adjacent plaster wall sections 157 engaging and retaining the adjacent external wall section. The plaster stops so formed also may be provided on the retainers 103 of FIG. 6 for plaster wall construction.

The wall end assembly of FIG. 7 provides the same advantages in wall end construction as the assembly of FIG. 6 provides for external wall corners. The underlying spacers, the integral retainers, and the combined stop and bumper brackets all are located merely by mounting the spacer 135 in place. If straps 137 are used, mounting of the spacer 135 and its associated parts may conveniently be completed during initial wall construction. The protective strip 65 may be snapped in place at any time. Also, cap and base assemblies, similar to those shown in FIG. 6, may be employed with the wall end arrangement of FIG. 6, in which case the cap and base plates are constructed to conform with the generally U-shaped wall end cross section of the resilient strip.

Wall corner and wall end protectors like those of FIGS. 6 and 7 may, of course, be constructed to conform to varying wall configurations. For example, a wall corner having surfaces intersecting at greater than 90° may be protected by an assembly of the type illustrated in FIG. 6 in which the continuous spacer has its sides disposed at the angle required by the particular wall corner.

While preferred embodiments of the invention have been illustrated and described, it will be apparent to those skilled in the art that alterations or modifications may be made within the spirit and scope of the invention as defined in the appended claims. For example, although the foregoing preferred embodiments have been described in relation to external wall corners and wall ends, it will be apparent that protective arrangements within the spirit and scope of this invention may be employed in combination with differing configurations wherever abuse of an underlying surface is of concern. One such alternative application is the provision of horizontally extending protective arrangements to provide "chair rails" engageable by chairs or other furniture for the protection of an underlying wall surface. By simple modification corners having three intersecting surfaces may be protected, and the spacers and stops described above might be integrally formed as a single member.

We claim:

1. A wall protector arrangement including a resilient protective member, an underlying spacer member, and a thin resilient stop member, said spacer member having retainers means defining a recess retaining each edge of the resilient protective member therein, the protective member having a central portion overlying and spaced from the spacer member, said spacer member having ribs thereon located under the central portion of the protective member and projecting into the space defined between the spacer member and the central protective member portion, said thin resilient stop member having spaced integral tabs protruding therefrom near the center thereof engaging the ribs and resiliently biased by the resilience of the stop member into firm interengagement with the ribs and holding the stop member in place, the stop member extending

laterally from the location of the tabs to a terminating edge near and parallel the recess to prevent movement of the protective member edge from within the retainer means.

2. The arrangement according to claim 1, wherein the spaced tabs on the stop member are located for cooperation with laterally outward sides of the ribs, the resilience of the stop member being sufficient to permit the projections to be spread to fit over and into firm engagement with the ribs.

3. A wall protector arrangement according to claim 1 for use in a wall section forming at least one external, protruding corner wherein said spacer member is longitudinally continuous along a major portion of the length of the protective member, and includes at least two integrally extruded-together elongate panel sections connected along an external corner of the spacer member conforming generally to the external wall corner and defining outer surfaces meeting along the external spacer member corner, the spacer member having integral, extruded retainers adjacent and continuous along longitudinal edges therefor defining recesses opening centrally toward the external spacer corner, each of said retainers having a first integrally extruded outwardly projecting section continuous along its length, a second, outer retainer section integrally joined to the first section along its length and projecting generally toward the external spacer corner, and a third retainer section integrally joined to the second section along its length and projecting toward and terminating short of a panel section outer surface, the first section of said retainer having integrally extruded means for engaging and retaining an adjacent external wall section, said resilient protective member having a central section spaced outwardly from and overlying the external spacer corner, and two longitudinal edges each extending between a respective third section of one of the retainers and an outer panel section surface, and each of said edges being slidable more

deeply into the recesses defined by one of the retainers to permit shock absorbent flexure and return of the strip, the spacer precisely locating the two integral retainers along a wall corner when mounted.

4. The combination according to claim 3, further including underlying wall parts connected with an underside of the spacer member on the opposite side of the spacer member from the external surface of the panel sections for supporting the spacer member along a wall corner in a predetermined position, said wall parts including a series of transverse straps affixed to the locating and retaining means and connected, near their ends, to the further wall structure.

5. The combination according to claim 3, further including seals between the retainers and the protective member, the integral retainers including seal mounting sockets integrally defined by said third retainer sections and maintaining the seals in place, the seals having an elongate rib therealong projecting into and retained in said sockets.

6. The combination according to claim 3, further including rigid protector end means disposed at least at one end of the protective member to terminate the protector combination, the end means including edge portions received by said retainers, locked therein and holding the end means in place.

7. The combination according to claim 6, including sealing means between and in contact with the end means and the resilient member for closing the junction of the resilient member and the end means.

8. The combination according to claim 6, in which the resilient member includes a central outstanding portion resiliently movable when contacted, and the end means includes a rigid plate having a central outstanding portion in substantial alignment with the resilient member central portion and edges aligned with the edges of the resilient member, said retainer means receiving the aligned edges of both the resilient member and the plate.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,712,003 Dated January 23, 1973

Inventor(s) Edward C. Hallock, Robert W. Olsen, George A. Viehmann

It is certified that error appears in the above-identified patent
and that said Letters Patent are hereby corrected as shown below:

Column 5, line 53, "that", 1st occ. should read -- than --
column 7, line 7 "protector" should be -- resilient
protective --; column 7, line 16, "resilient protective"
should be -- protector --; column 7, line 29, "101 is
secured" should be -- 101 underlying the strip 30 is
secured --; column 8, lines 3 and 4, "a pair of tabs"
should be -- a pair of spaced integral tabs --; column
8, line 4, "These spaced integral tabs" should be --
These tabs --; column 8, line 55, "assembly 93" should
be -- assembly or end means 93 --.

Signed and sealed this 20th day of November 1973.

(SEAL)
Attest:

EDWARD M. FLETCHER, JR.
Attesting Officer

RENE D. TEGTMEYER
Acting Commissioner of Patents