Sept. 28, 1971 L. R. SKLAMBERG ET AL 3,608,254

SELF ADJUSTING FILLER STRIP FOR WALL GAP

Filed April 24, 1969 2 Sheets-Sheet 1

Fig. 1

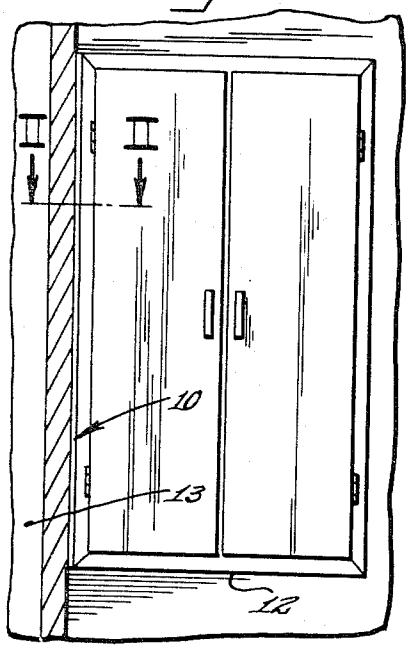


Fig. 2

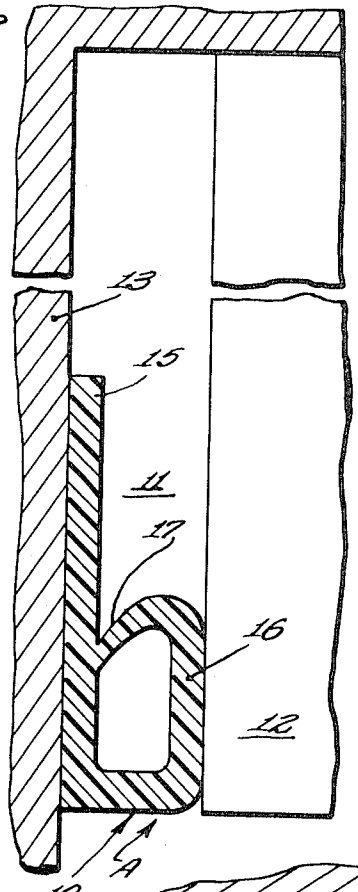


Fig. 3

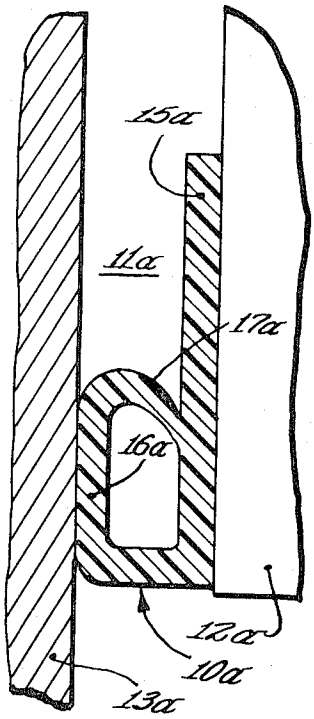


Fig. 4

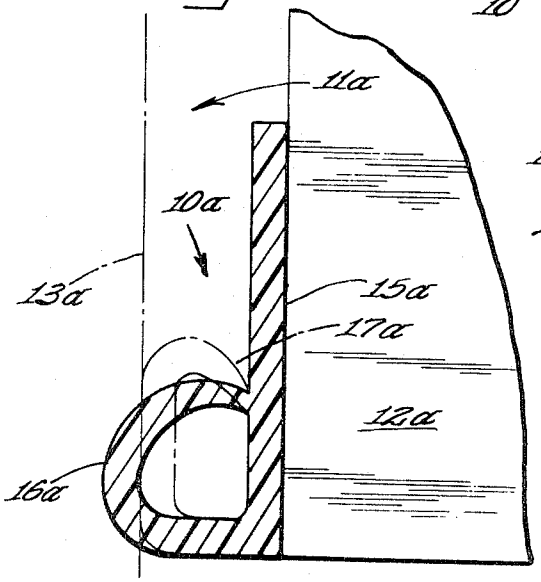
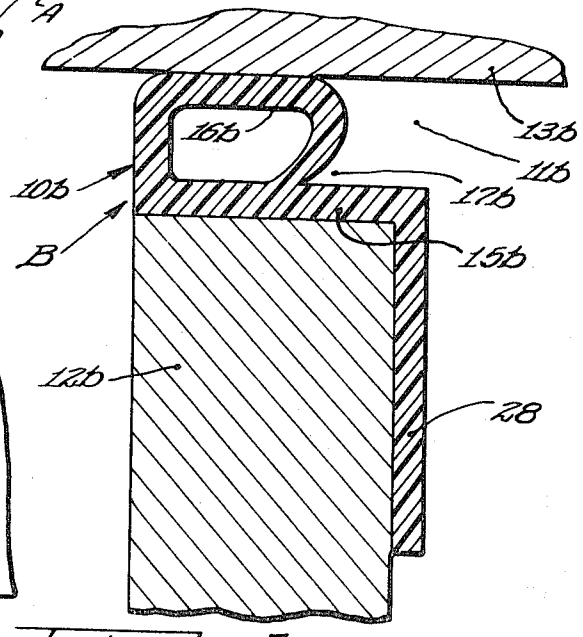


Fig. 5



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SELF ADJUSTING FILLER STRIP FOR WALL GAP

Filed April 24, 1969 2 Sheets-Sheet 2

Fig. 6

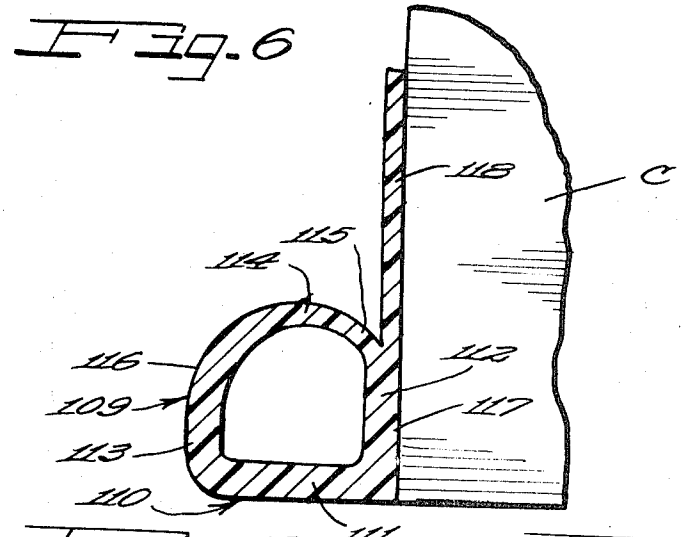


Fig. 7

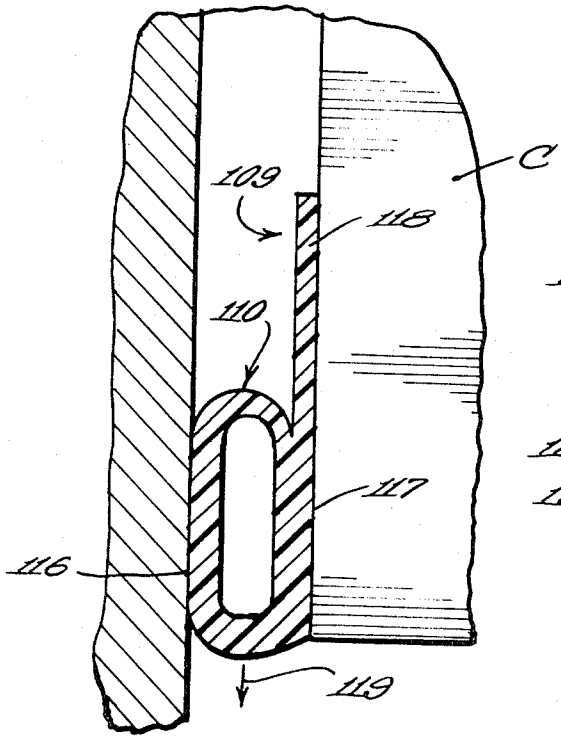
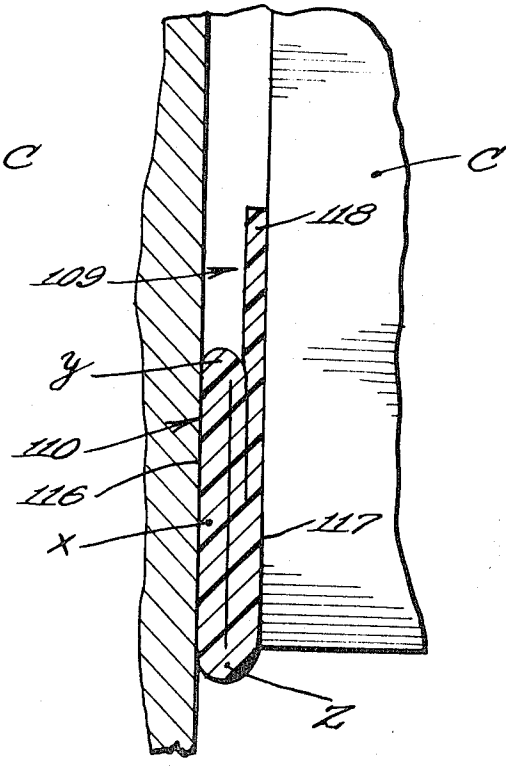


Fig. 8



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3,608,254

SELF ADJUSTING FILLER STRIP FOR WALL GAP

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Int. Cl. E06b 7/16
U.S. Cl. 52—27 7 Claims

ABSTRACT OF THE DISCLOSURE

For use with a wall gap present in the mounting of wall cabinets, panels and the like, an elongated yieldable filler strip having a hollow bulge portion resiliently and wedgingly deformable rearwardly in the gap from being wedged between the surfaces defining the gap.

SUMMARY OF THE INVENTION

This invention relates to the mounting of cabinets, panels and the like on the wall, and more particularly, to the provision of a simple way of eliminating unsightly gaps occasioned by irregularities in the surface of the wall.

In the mounting of cabinets and wall panels on a wall, carpenters will quite frequently cut or scroll out a filler strip to fill an unsightly gap between the cabinet or panel and a side wall occasioned by irregularities in the surface of the wall. This, of course, requires considerable skill, as well as time and expense.

It is an object of this invention to provide a simple filler structure for quickly filling up an unsightly gap in a wall between an end wall and the cabinet or panel and which does not require any particular skill as the strip will be self-adjusting to the irregularities in the wall.

Another object of this invention is to provide a filler strip for attaining the foregoing objective of filling a wall gap which can be economically extruded in the form of a continuous plastic strip cut into suitable lengths, such as 8 to 12 feet, for use on the carpentry job.

One of the major objects of the self-adjusting filler strip is to take up the irregularities in the wall but to provide yieldable means capable of moving in order to fit variable sized gaps or variable irregularities which occur due to wall movement such as in high rise apartment buildings, etc.

In accordance with the general features of this invention another object is to provide for the general use of a wall, a filler strip for use with a wall gap such as is present in mounting of cabinets, wall panels and the like, comprising an elongated resiliently yieldable strip for attachment to one given surface defining a wall gap and a hollow bulge projecting laterally from the strip at one edge of the same for wedgingly engaging the other surface defining the gap, said bulge comprising at said one edge a visible surface for bridging the gap and inwardly thereof in the gap being progressively distortable rearwardly by virtue of it being wedged between the gap defining surfaces.

Another feature of the invention relates to having a bulge at its concealed side disposed at a reentrant angle to the strip proper so as to predetermine the direction of the movement of the bulge when it is wedged between gap defining surfaces.

Still another feature of the invention relates to the strip being formed of a cross section that is either b-shaped or d-shaped for selective application in the gap.

Yet another object of the invention relates to the provision of a form of strip wherein a major edge of the strip opposite the bulge edge is angled so that such edge presents a right angle for receiving and having seated therein a wall panel or the like.

DESCRIPTION OF THE DRAWINGS

Other objects and features of this invention will more fully appear from the following detailed description taken in connection with the accompanying drawings which illustrate several embodiments of the invention in which:

FIG. 1 is a fragmentary front view of a wall cabinet against an end wall, partially in section, showing a filler strip with the features of this invention in a gap between said end wall and a cabinet;

FIG. 2 is a fragmentary enlarged cross-sectional view taken along the line II—II of FIG. 1 looking in the direction indicated by the arrows and showing a filler strip of generally b-shaped cross section;

FIG. 3 is a fragmentary cross-sectional view similar to FIG. 2 showing a filler strip of generally d-shaped cross section, it being reversed in position in the gap from that shown in FIG. 2;

FIG. 4 is a fragmentary cross-sectional view similar to FIG. 3 but illustrating the condition of the bulge portion of the strip to being wedgingly flattened and showing by dotted lines how the strip is progressively deflected inwardly when wedged against the side wall also shown in dotted lines;

FIG. 5 is a fragmentary cross-sectional view of a still further modification of the invention illustrating a substantial portion of the strip being formed into a right angle so as to fit around the back side of a wall panel between which and the wall, the strip is wedged; and

FIGS. 6, 7, and 8 illustrate a further modified form with the strip being shown in three positions.

DETAILED DESCRIPTION

The reference character **10** in FIGS. 1 and 3 designates generally a filler strip embodying the features of this invention after it has been wedged into position in a gap **11** between an end surface of a cabinet **12** and an end wall **13**.

The filler **10** may be made of any resiliently yieldable material. We found it to be very economical to have it extruded in an elongated form from a plastic composition such as vinyl, polyvinyl or the like. Such strip can be cut into any convenient lengths that are easy to handle on the job such as 8 to 12 feet.

The pre-cut filler **10** thus comprises an elongated strip **15** having a hollow bulge **16** at the outer end or side of the strip when it is mounted in the gap **11**. The strip may have any suitable color or finish and so that its exposed surface on the outer side of the gap designated at A in FIG. 2 may present an appearance complementary to that of the finish on the cabinets. For illustration, it could have a wood finish similar to that of the wall panel as the case may be.

In the first form of the invention we have illustrated the filler as being of a general b cross section with the elongated strip suitably fastened to the end wall **13**. This strip may be cemented, stapled or otherwise fastened to the irregular surface of the wall. By virtue of it being resiliently yieldable it will accomplish relatively great surface irregularities in the wall **13**.

If it is so desired, the bulge and strip may be reversed as in FIG. 3 where the filler **10*a*** is disposed in the gap **11*a*** between the end of the cabinet **12*a*** and the wall **13*a***. Here, the strip **15*a*** is reversed in position from that of strip **15** and is suitably fastened to the end wall of the cabinet **12*a***. Its flexible bulge portion **16*a*** readily accommodates itself to irregularities in the surface of the wall **13*a***.

In both forms the bulge portion is at a reentrant angle **17–17*a*** with the strip **15–15*a***. Accordingly, although FIG. 4 is a sectional view of the filler **10*a*** of d-shaped cross

section shown in FIG. 3, it is in reality representative of both forms. That is to say, the reentrant angle of the bulge with the strip portion permits the bulge to flex from the full line position shown in FIG. 4 to the dotted line position when wedged or cammed between the cabinet and the end wall. In other words, by virtue of the reentrant angle the movement of the bulge as it is wedged into position in the gap **11–11***a* is rearwardly into the gap of filler may have a finished outer or exposed surface as at A in FIG. 2.

Further in all forms of the invention the upper and lower ends of the bulge of the filler are open so that as the filler is deflected into wedged position air can readily escape from the hollow in the filler.

In FIG. 5 we have illustrated a modified form of a filler **10***b* disposed in a gap **11***b* between an edge of a wall panel **12***b* and an end wall **13***b*.

Here, as in the other forms, the filler **10***b* comprises a strip **15***b* with a hollow bulge **16***b* at an outer edge of the filler adapted to be wedgingly displaced rearwardly into the gap by virtue of the reentrant angle **17***b*.

This form differs primarily from the others in that its other edge portion of the filler strip is formed at right angles as indicated at **28** to the inward direction of the filler strip proper. This provides an angular portion **28** which serves as a seat for the panel **12***b* whose back side and edge will rest in the angular portion of the filler strip **10***b*. It will be noted that the depth of the strip **15***b* between its outer surface and angular portion **28** is such that the outer surface of the panel can be flush with the outer surface of the strip as shown at B.

In use the installer of the cabinet or panel secures the strip to the end wall or to the end of the cabinet or panel, as the case may be, and then upon the mounting of the cabinet or panel in position the bulge on the strip is wedgingly compressed to fill the gap. Air in the hollow of the bulge of the filler is readily displaceable and endwise out of the same as the ends of the bulge are formed opened.

It will be noted that FIGS. 6, 7, and 8 show a modified strip **10***g* in three different positions. FIG. 7 shows the strip **10***g* in a partially compressed position and FIG. 8 shows the strip **10***g* and its total loop **110** in a totally compressed position. Normally, it is not desired that the strip when installed, be in a totally compressed position as shown in FIG. 8. If it is desired that the strip be a yieldable self-adjusted structure and if the strip is totally compressed, then the strip is no longer capable of being further compressed to any substantial extent. FIG. 6 shows the strip **110** suitably attached to a cabinet or other suitable structure.

With regard to the relationships that very desirably exist in the embodiment illustrated in FIGS. 6, 7, and 8 it will be noted in FIG. 6 that cross sectional loop portions **111** and **112** approximately the same thickness, that is, a thickness greater than the thickness at points **113, 114** and **115** which collectively constitute a progressive tapering area with the thickest portion being at **113** and the narrowest portion being at **115** whereby when a load is applied to opposite surfaces of the strip, such as **116** and **117** the portion which will flow or move in a direction toward tail or attachment portion **118** of the filler strip rather than bulge outwardly or forwardly of the strip in the direction indicated by arrow **119** which is regarded as an undesirable result. As a consequence, if the surfaces **116** and **117** are compressed together by reason of providing tapering loop portions or sections **113, 114** and **115** all having thicknesses less than sections or loop portions **111** and **112**, the looped portions of the strip can at least partially collapse in a controlled manner. Should the loop **110** be totally collapsed the shape of the strip **109** shown in FIGS. 6, 7, and 8 enable the loop **110** to be flattened in such a way that opposite ends of flattened portions X at Y and Z are approximately the same thickness across its entire dimension from the front edge of the flattened loop portion to the rear end of the flattened bulge portion. The tail

or rearward end **118** provides an attachment leg which can be attached to any other surface in any suitable manner. It is particularly significant to note that the tail **118** has a dimension or thickness approximately one half the thickness of the loop portions **111** and **112** and this relationship together with the progressively tapering shape of the loop portion at points **113, 114** and **115** permits the loop **110** to flow in a controlled manner previously described. The purpose of the controlled deformation is to prevent an excessive forward bulge at Z.

In one of the preferred forms of our invention the strip may comprise a 60 durometer vinyl material. Other suitable materials might be employed including ethyl cellulose, ethyl butylate and polypropylene. The durometer of the material would vary depending on conditions and the results sought to be attained.

It will be understood from the description of FIGS. 1 through 5 that the filler may be varied in use or application without departing from the spirit and scope of the novel concepts of the several forms of the invention.

The dimensions of the strip can be varied, but nevertheless certain basic relationships must be present in order to obtain the end result desired.

We claim as our invention:

1. A filler strip for use in closing a wall gap such as is present in the mounting of cabinets, wall panels and the like, comprising a resiliently yieldable strip-from member having

an attachment leg configured for attachment to one of a pair of surfaces defining a gap to be filled by the filler strip; and

a hollow bulge projecting laterally of said attachment leg at a side edge thereof, said bulge comprising

a first portion formed as a lateral extension of said attachment leg,

a bridging portion extending substantially perpendicularly from a distal end of said first portion in a direction to bridge the gap to be filled, and

a connecting portion extending from said bridging portion and being attached to said attachment leg,

said connecting portion being formed at a reentrant angle with said attachment leg and having a progressively tapered cross-section with a narrowest portion being at an inner junction of said connecting portion and said attachment leg so that, as said hollow bulge is wedged between said gap defining wall portions, said connecting portion folds inwardly of the gap and rearwardly onto said attachment leg to cause said bridging portion to distort only inwardly into said gap.

2. The strip of claim **1** further characterized by said strip being generally b-shaped in cross section with the bulge forming the loop of the b.

3. The strip of claim **1** further characterized by said strip being generally d-shaped in cross section with the bulge forming the loop of the d.

4. The strip of claim **1** further characterized by the other edge of said attachment leg being at substantially right angles to the direction of the bulge of the strip so as to extend around the back side of a wall panel or the like engaged by the filler strip and thus to cause the edge of the panel to sit and nest in the angular strip.

5. The strip of claim **1** further characterized by said attachment leg having a thickness sized relative to the thickness of said bulge portions to permit said hollow bulge to completely collapse rearwardly onto said attachment leg when wedged between the gap defining surfaces to form a flattened section wedged between the gap defining surfaces and having an equal thickness from a front edge to a rear end of the flattened bulge.

6. The strip of claim 5 further characterized by said first portion and said bridging portion of said bulge having a thickness of approximately twice the thickness of said attachment leg.

7. The strip of claim 1 further characterized by:

said first portion and said bridging portion having a thickness of approximately twice that of said attachment leg and said connecting portion tapering from a thickness approximately equal to that of said bridging portion to that of said bridging portion to that of said attachment portion,

whereby said hollow bulge will progressively distort only rearwardly onto said attachment leg when wedged between the gap defining surfaces and when fully compressed said rearwardly distorted bulge portions and said attachment leg will form a flattened section having a substantially constant thickness throughout its length.

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FRANK L. ABBOTT, Primary Examiner

S. D. BURKE, Assistant Examiner

U.S. Cl. X.R.

49—498; 52—396, 403

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,608,254 Dated September 28, 1971

Inventor(s) Lawrence R. Sklamberg, et al

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

Column 1, line 51, read "present in mounting" as --present in the mounting--.

Column 4, line 28, "from" should read --form--.

Column 5, line 10, delete the second occurrence of "to that of said bridging portion".

Signed and sealed this 18th day of July 1972.

(SEAL)
Attest:

EDWARD M.FLETCHER,JR.
Attesting Officer

ROBERT GOTTSCHALK
Commissioner of Patents

FORM PO-1050 (10-69)

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