

# PATENT SPECIFICATION

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## DRAWINGS ATTACHED

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### (54) SEALING STRIP FOR SEALING GAPS BETWEEN ABUTTING EDGES OF WALL PANELS

(71) I, KUNIO ISAMATSU, a subject of Japan, of 11-4, 5-Chome, Sekimae, Musashino-Shi, Tokyo-To, Japan, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to a sealing strip for sealing gaps between abutting edges of wall panels widely used in a prefabricated building, for the purpose of preventing leakage of draughts, sounds, heat, or other elements past the gaps at the corners of the panels, and imparting a neat and aesthetically pleasant appearance.

Heretofore, the commonly accepted practice in preventing the leakage of draughts, sounds, heat, or other elements past the gaps between wall panels has been to provide sealing strips in the gap portions. In almost all cases however, the gap between these panels and the space adjacent the gap are too narrow for the attachment of a sealing strip of suitable configuration by means of screws or nails and the like.

In another commonly accepted practice, a prefabricated sealing strip having a narrow and solid cross-section is applied at the corner or in the gap between the panel walls. However, if there is a difference in the panel thickness or in the gap measurement, or in the way of application, a special type or size of the sealing strip adapted for each application must be selected, which makes this kind of work extremely troublesome and time-consuming.

Furthermore, most of the conventional sealing strips have not been satisfactory because of their unsightly appearance, comparatively short life, complicated application, and relatively high cost.

According to the present invention, there is provided a sealing strip for sealing gaps between abutting edges of wall panels com-

prising an elongate resilient strip having a body portion with a transversely arcuate surface, the edges of which are bridged by at least one flat surface, for engaging adjacent surfaces of the abutting wall panels, and at least one flexible flange portion extending from the or a flat surface and integral and contiguous therewith for mounting and securing the strip in engagement with the abutting wall panels, the surfaces of the strip which are exposed when the strip is sealingly mounted between two panel walls being covered with a pile.

Various sealing strips in accordance with the present invention will now be described, by way of example only, with reference to the accompanying drawing, in which:—

Figure 1 is a plan view in section showing panel walls and one type of sealing strip according to the invention applied at the corners between these panel walls;

Figure 2 is a plan view in section, similar to Figure 1, wherein a sealing strip of another type is applied to gaps at the corners formed between these panels;

Figure 3 is a plan view in section showing a corner formed between two panel walls of reduced thickness to which a sealing strip according to the invention is applied and

Figures 4 and 5 are enlarged sectional views of preferred embodiments of the sealing strip in accordance with the present invention.

Referring now to Figure 1, there is shown an embodiment of the invention where a sealing strip 3 of the type shown in Figure 4 is applied to an outer corner between panel walls 1 and 2, with both legs 4 and 5 of the sealing strip opened and fixed to the surface of the panels by means of an adhesive. The same type of sealing strip 9 having legs 7 and 8 is applied to an inner corner between the panel walls 2 and 6 by means of an adhesive. The outer surface of the sealing strip is covered by an electrically or adhesively implanted pile which can effectively protect the sealing strip from direct exposure to sunlight, snow, or dust,

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and the life of the sealing strip is thereby prolonged.

In another embodiment of the invention, as illustrated in Figure 2, a sealing strip 12 of the type shown in Figure 5 is applied to a gap formed between panel walls 10 and 11, with its legs 13 and 14 clamped together and inserted into the gap portion between the panel walls. Another sealing strip 16 is applied to a gap formed between panel walls 11 and 15 with one leg 17 inserted into the gap and adhered to the edges of the panel walls 11 and 15.

In this case also, the outer surface of the sealing strip is covered by an electrically or adhesively implanted pile so that the life of the strip is prolonged.

Figure 3 illustrates another embodiment of the present invention where a sealing strip 3 as shown in Figure 4 is applied to an outer corner formed between two panel members 1 and 2 of reduced thickness.

In all of these cases, the sealing strips consist of the body portions 3 and 12 and flexible flange portions 4, 5, 13, and 14 as shown in Figures 4 and 5. The body portions 3 and 12 play the principal role in the sealing of the corners against the draughts, sounds, heat, or other elements and also serve to ensure a neat and aesthetically pleasant appearance.

In addition, the flange portions 4, 5, 13, and 14 provide a larger surface area for applying an adhesive agent, thereby ensuring a solid and unpeelable joint between the sealing strip and the panel walls. In certain cases where gaps are caused between panel walls, the flange portions can be, partly or as a whole, inserted into the gaps, and advantageous effect in sealing these portions can be obtained.

In all of these cases, the outer surface of the sealing strip in accordance with the present invention is covered by an electrically or adhesively implanted pile. As described above, this pile can effectively shield off the sealing strip from direct exposure to sunlight, snow, dust, or other elements, and the life of the sealing strip is thereby substantially prolonged.

Furthermore, in an application where the thickness of the panel walls is not of the standard size, the flange portions of the strip can adapt to the variation of the sectional con-

figuration, and versatile utilisation of this sealing strip is afforded.

It is to be observed that the unique cross-sectional form of the sealing strip according to the invention affords full and advantageous utilisation of the sealing strip, which, together with the function of the implanted pile, is highly effective in sealing the gaps between the panel walls against leakage of draughts, rain, sound, heat, or other elements.

#### WHAT I CLAIM IS:—

1. A sealing strip for sealing gaps between abutting edges of wall panels comprising an elongate resilient strip having a body portion with a transversely arcuate surface, the edges of which are bridged by at least one flat surface, for engaging adjacent surfaces of the abutting wall panels, and at least one flexible flange portion extending from the or a flat surface and integral and contiguous therewith, for mounting and securing the strip in engagement with the abutting wall panels, the surfaces of the strip which are exposed when the strip is sealingly mounted between two panel walls being covered with a pile.

2. A sealing strip as claimed in claim 1, in which the body portion is quadrant shaped and has a flange portion extending from one flat surface in the plane thereof and away from the arcuate surface.

3. A sealing strip as claimed in claim 1, in which the body portion is quadrant shaped and has a flange portion extending from each flat surface at the point where each flat surface meets the arcuate surface.

4. A sealing strip as claimed in claim 1 having one flat surface bridging the ends of the arcuate surface and a flange portion extending from the flat surface substantially perpendicular thereto.

5. A sealing strip for sealing gaps between abutting edges of wall panels substantially as described herein with reference to the accompanying drawings.

BROOKES & MARTIN,  
Chartered Patent Agents,  
High Holborn House,  
52/54 High Holborn,  
London W.C.1.  
Agents for the applicants.

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