

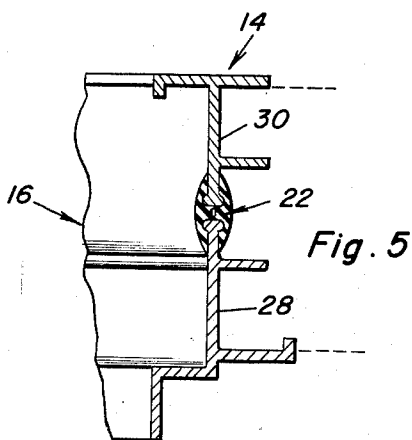
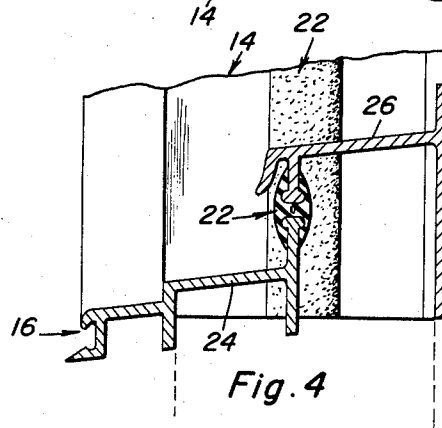
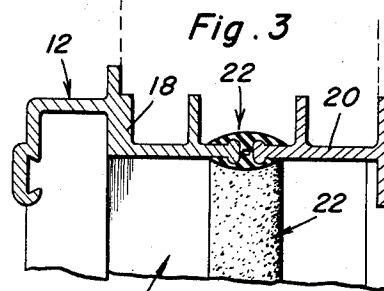
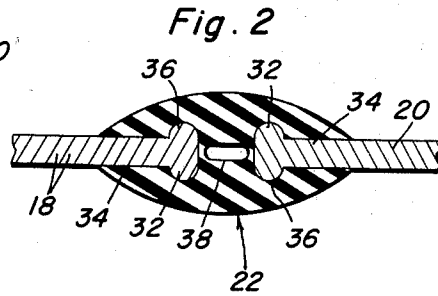
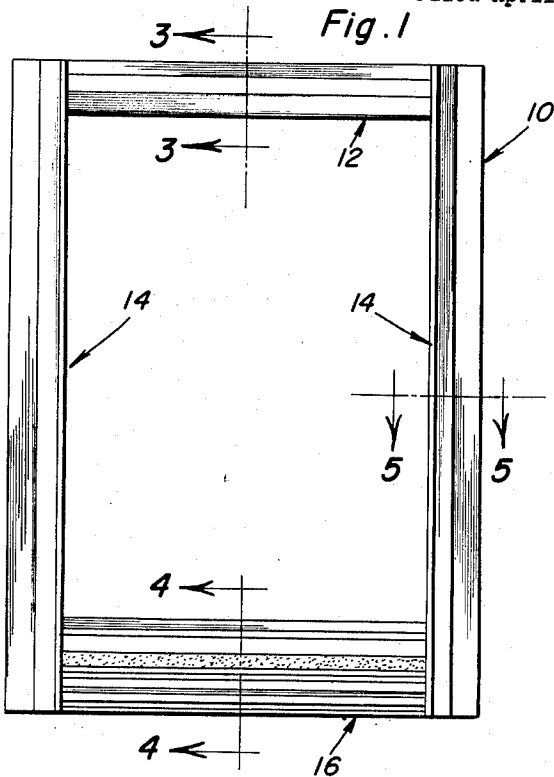
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INSULATED NON-HEAT CONDUCTING METAL WINDOW FRAME

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2,835,360

INSULATED NON-HEAT CONDUCTING METAL WINDOW FRAME

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2 Claims. (Cl. 189—75)

This invention relates in general to new and useful improvements in window construction, and more particularly to an improved window frame.

When used in northern climates metal windows have one major disadvantage over wooden windows. No matter how tightly the individual sashes or window sections are sealed with respect to their frames, a certain amount of heat is conducted through the frames of the windows. This is particularly true in the case of aluminum window frames, aluminum being a relatively high conductor of heat.

It is therefore the primary object of this invention to provide a window frame for metal windows, such window frame being also formed of metal and being so constructed whereby the outer part thereof is insulated from the inner part thereof to prevent the direct conducting of heat between the inner and outer parts of the window frame.

Another object of this invention is to provide an improved metal window frame having inner and outer sections connected together in insulated relation whereby the inner section remains substantially at room temperature thereby eliminating the condensation of moisture on the inner part of the frame.

Still another object of this invention is to provide an improved window frame which is constructed of inner and outer sections, the sections being connected together by an insulating strip whereby although the window frame is formed of metal, heat is not conducted between the outer and inner parts thereof.

A further object of this invention is to provide an improved metal window frame formed of a plurality of frame members joined together to form a lintel, jambs and a sill, each of the frame members being formed of an inner and outer section disposed in spaced relation and being connected together by an insulating strip, the insulating strip preventing the conducting of heat between the inner and outer sections thereby providing an insulated metal window frame.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is an elevational view of a metal window frame conforming to the spirits of this invention as is viewed from the exterior thereof;

Figure 2 is an enlarged fragmentary sectional view taken through adjacent parts of sections of one of the frame members of the window frame of Figure 1 and shows the manner in which they are joined together in insulating relation;

Figure 3 is an enlarged fragmentary vertical sectional view taken substantially upon the plane indicated by the section line 3—3 of Figure 1 and shows the details of the lintel of the window frame, the building wall being shown in dotted lines;

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Figure 4 is an enlarged fragmentary vertical sectional view taken substantially upon the plane indicated by the section line 4—4 and shows the details of the sill; and

Figure 5 is an enlarged fragmentary horizontal sectional view taken substantially upon the plane indicated by the section line 5—5 of Figure 1 and shows the details of one of the jambs.

Referring now to the drawings in detail, it will be seen that there is illustrated in Figure 1 an insulated metal window frame, which is the subject of this invention, the window frame being referred to in general by the reference numeral 10. The window frame 10 is formed of a plurality of frame members joined together, the frame members including a lintel 12, a pair of jambs 14 and a sill 16.

Referring now to Figure 3 in particular, it will be seen that the lintel 12 includes an outer section 18 and an inner section 20, these sections 18 and 20 being disposed in spaced relation and being connected together by an insulating strip 22.

Referring now to Figure 4 in particular, it will be seen that the sill 16 includes an outer section 24 and an inner section 26. The sections 24 and 26 are disposed in overlapping relation and have opposed vertical portions disposed in spaced relation and connected together by another insulating strip 22.

As is best illustrated in Figure 5, the jamb 14 is also formed in sections and includes an outer section 28 and an inner section 30. The sections 28 and 30 are disposed in spaced opposed relation and are connected together by one of the insulating strips 22.

Referring now to Figure 2 in particular, it will be seen that there is illustrated a specific detail of the connection between the insulating strip 22 and the sections 18 and 20. It is to be noted that the opposed edges in the sections 18 and 20 are provided with enlargements 32. The sealing strip 22, which may be formed of a suitable plastic, rubber or the like, is provided with oppositely directed slots 34 which have enlarged inner portions 36 receiving the projections 32. Each insulating strip 22 also includes a central opening 38 to increase the resiliency thereof and to facilitate flexing thereof for the reception of the projections 32.

The details of the lintel 12, the jambs 14 and the sill 16 will, of course, vary depending upon the particular type of window for which the frame 10 is intended. However, it is to be understood that irrespective of the details of the window frame, each of the frame members thereof will be formed with an inner and outer section and that the sections will be disposed in spaced relation and connected together by a sealing strip, such as the sealing strip 22, in the manner illustrated in Figure 2.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A window frame comprising a plurality of frame members joined together to form a lintel, jambs and a sill, each of said frame members including an inner section an outer section, an insulating strip for each frame member, said sections being disposed in spaced relation and connected together by said insulating strips, said sections having opposed edges, oppositely directed slots in each insulating strip receiving said opposed edges, said opposed edges terminating in enlargements, said enlargements being interlocked with said insulating strip.

2. A window frame comprising a plurality of frame members joined together to form a lintel, jambs and a sill, each of said frame members including an inner section and an outer section, an insulating strip for each frame member, said sections being disposed in spaced relation and connected together by said insulating strips, said sections having opposed edges, oppositely directed slots in each insulating strip receiving said opposed edges, said opposed edges terminating in enlargements, said enlargements being interlocked with said insulating strips, each of said insulating strips having a central longitudinally extending opening disposed intermediate said slots to in-

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crease the flexibility of said insulating strip and facilitating the engagement of said enlargements within said slots.

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