

[54] **CORRUGATED METAL SIDING WITH LOOSE PLASTIC FILM FACING**  
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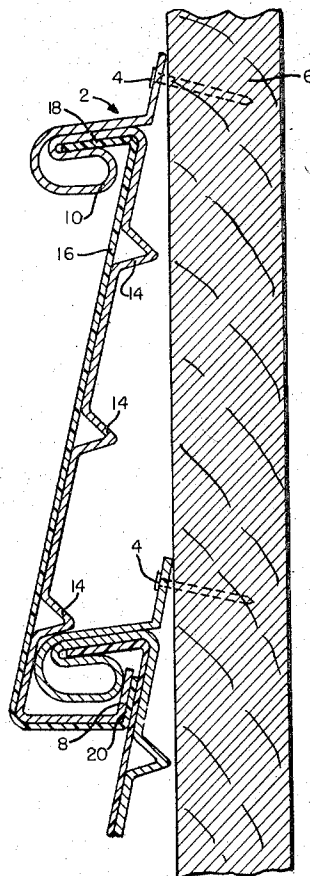
[57] **ABSTRACT**

An architectural siding for buildings is composed of metal siding strips which are corrugated for strength, the corrugations being concealed by a thin film of flexible plastic sheeting preferably secured to the siding only at unexposed edges or areas; this conceals the corrugations and presents a smooth surface appearance which is attractive and weatherproof, does not show dents, and permits the metal siding to expand and contract without marring the appearance of the siding.

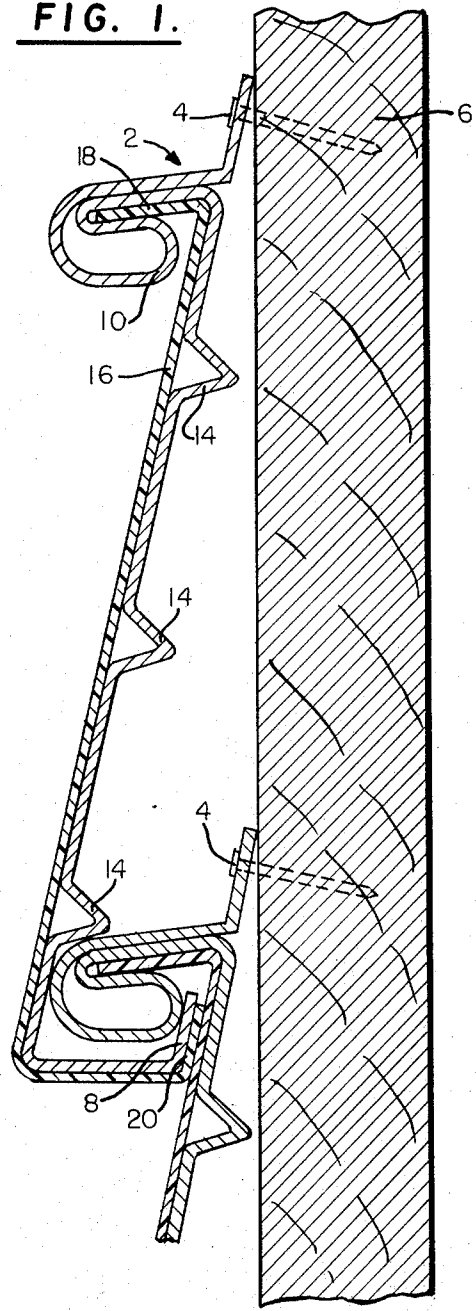
**3 Claims, 2 Drawing Figures**

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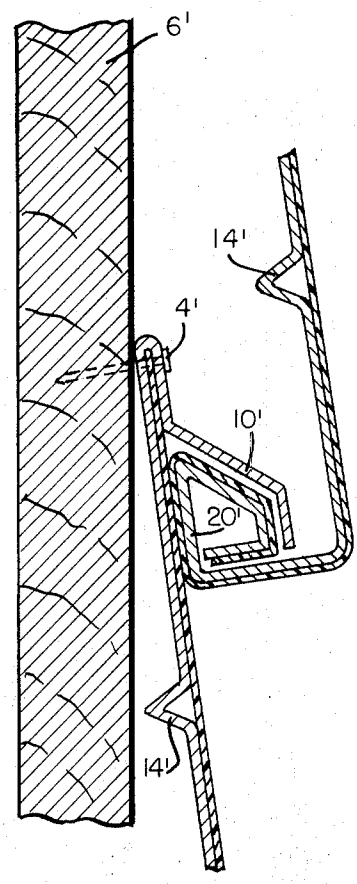
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**FIG. 1.**



**FIG. 2.**



## CORRUGATED METAL SIDING WITH LOOSE PLASTIC FILM FACING

Architectural siding, commonly known as clapboard, is widely used for building exteriors, being laid in courses with the lower edge of each course overlapping the upper edge of the next lower course so as to shed rain. Such siding has in the past been made of wooden strips which are applied horizontally to the exterior walls of the structure by nailing. However, wood has various disadvantages, among which is the need for periodic painting, and lately the use of other materials for siding has been increasing, such materials including cement-asbestos siding, which is fragile, a plywood backer-board covered with a tightly-adhered film of plastic, etc. Other types are rigid plastic siding and aluminum siding which is either painted with vinyl or acrylic paint or has a film of plastic material known as "Tedlar" laminated adheredly to the aluminum. In some cases, the "Tedlar" is laminated to the rigid backerboard of wood or other suitable material.

My copending U.S. Application Ser. No. 187,960, filed Oct. 12, 1971, now abandoned in favor of application Ser. No. 389,145 discloses an improved architectural siding which is composed of a rigid backerboard having at least the side which is exposed to the weather covered with an adhered film of thin, flexible plastic material, secured to the backerboard only at unexposed edges or areas. The present invention relates to an improvement over that disclosed in said application, which enables metal siding to be made much less expensively than has heretofore been possible, by taking advantage of the smooth surface afforded by surface covering of thin plastic sheeting stretched smoothly over the weather surface of the siding. At present, metal clapboard-type siding, usually of aluminum, is necessarily made with a smooth surface, since this is necessary to represent the smooth surface of the wooden clapboard which the siding simulates. In order to have the necessary strength, a fairly heavy gauge of metal must be used, typically in the case of aluminum of 0.019 - 0.026 inch. Due to the weight of expensive metal required, the metal clapboarding is necessarily rather expensive compared to some other types, and this has greatly restricted its use in practice. By the use of the present invention, a much thinner gauge of metal may be employed, which is given the required strength of corrugating the metal. As is well known, corrugating metal greatly increases its rigidity for a given thickness, but it has not heretofore been possible to use this expedient with metal siding because of the necessity of a smooth external appearance. However, by covering the weather surface of the siding with an unadhered plastic sheeting the smooth external appearance of the siding is maintained. Furthermore, this sheeting provides the same advantages as disclosed in my prior application Ser. No. 187,960 with regard to thermal expansion, denting, etc. What was not appreciated in the earlier application was that, when using the unadhered plastic covering, it was no longer necessary to provide a smooth outer surface as had heretofore been required, and that by corrugating the metal a much lighter weight of metal could be used which would still provide the same strength as before.

The specific nature of the invention, as well as other objects and advantages thereof, will clearly appear

from a description of a preferred embodiment as shown in the accompanying drawing in which:

FIG. 1 is a sectional view showing two courses of the new siding attached to a wall; and

FIG. 2 is a similar sectional view of a modified form of siding.

As shown in FIG. 1, the siding courses 2 are formed in the usual manner as long, relatively narrow strips adapted to be nailed as shown at 4 to a building wall 6, which may be exterior sheathing nailed to the joists of a house, or the clapboard may be nailed directly to the joists. The lowest course is nailed first, and each succeeding course is then interlocked to the preceding one by means of a re-entrant lip 8 which is slid upwardly into a lockstrip 10 formed by suitably bending the metal sheet which forms the siding course. The two courses are now tinterlocked and the upper course is fixed in place by nailing it similarly to the previous course. The operation is then repeated for as many courses as are required.

In order to enable a thinner gauge of metal sheeting to be used than would otherwise be required, each clapboard is reinforced by corrugating it as shown at 14. While horizontal corrugations are shown, the corrugations may also be in the form of staggered dimples and may include vertical corrugations or may be of any other configuration which will add the desired rigidity to the metal.

The weather facing of the clapboard is covered by a thin film of plastic 16 which is stretched smooth over the surface of the clapboard and is fastened to the clapboard only at its upper and lower edges, as at 18 and 20, in any desired fashion, for example, by the use of adhesives or by crimping it into the metal, which can be readily done by suitable machinery at the last stage of production or fabrication of the siding. Thus, the exterior surface presented to view is smooth and of conventional appearance, as the corrugations are concealed by the sheet of plastic.

FIG. 2 shows a different form of interlocking strip, merely to indicate the variations possible in the fabrication of the siding, corresponding parts being indicated by the same reference numerals as in FIG. 1, with a prime (') added.

I claim:

1. An architectural horizontally-extending siding board for the exterior wall surface of a building comprising

a. a metal siding board consisting of a single sheet of thin metal having reinforcing corrugations to increase its rigidity, and presenting the external appearance of a single course of flat-faced wood siding,

b. said board having a weather surface containing said corrugations which is normally exposed when the siding is in place on a building structure to provide overlapping courses,

c. a film of flexible plastic sheet material stretched flat against the weather side of the siding and lying in close contact with its major exposed surface and secured to said siding only at unexposed locations adjacent the top and bottom edges of the siding, thus concealing said corrugations.

2. The invention according to claim 1, said film lying unadheredly against the metal board at the exposed surface of the siding.

3. The invention according to claim 2, said corrugations extending horizontally along the length of the siding and rearwardly of the exposed flat face of the siding, leaving the major portion of said exposed flat face in said close but unadhered contact with said film.

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