Jan. 16, 1934. O. V. McGREW 1,943,686

METHOD OF SEALING BUILDING WALLS

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Fig. 2

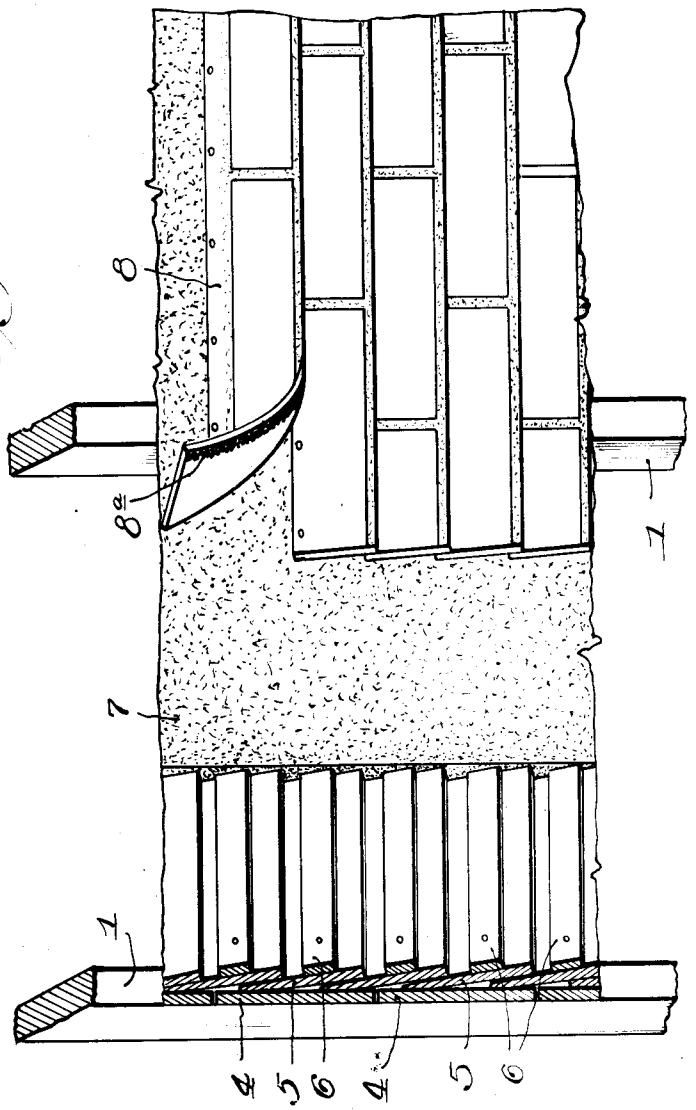
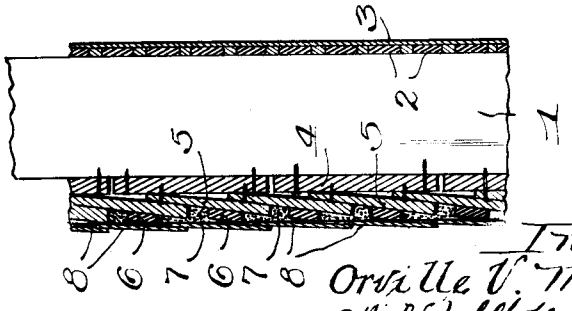


Fig. 1



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METHOD OF SEALING BUILDING WALLS

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3 Claims. (Cl. 20—5)

This invention relates to improvements in methods of sealing the walls of frame buildings and more particularly the outer walls of old houses constructed of wood and having the familiar clapboard exterior.

The object of the invention is to provide a comparatively inexpensive method of refinishing the exterior of frame houses, with the primary purpose of sealing or insulating the walls against excessive heat losses, without involving extensive remodeling operations. In the older types of construction, the factor of fuel saving was not given the attention that it is today, and as a consequence an old house, unless of an unusually massive construction, is difficult to heat economically or maintain at temperatures of comfort under extreme weather conditions of either heat or cold. This can be readily accounted for by the fact that as houses get old and the wood dries out, more or less warping and shrinkage take place, with the consequent forming of cracks and open seams, permitting the passage of air through the walls.

A further object of the invention is to provide a method of fireproofing the exterior of a house and giving it a more modern and up-to-date appearance by refinishing the surface in a faithful imitation of brick, stone or stucco, utilizing a composition sheet material having the requisite weather-resisting qualities.

A preferred embodiment of my invention is disclosed in the accompanying drawing, in which

Figure 1 is a view in cross section of a building wall showing the treatment of the original clapboard exterior; and

Figure 2 is a view in elevation showing adjacent sections of a wall in the several stages of the work of refinishing.

For the purpose of the disclosure, a typical clapboard wall construction has been illustrated, in which the usual studs 1 form the frame of the wall, the inner surface being covered with lath 2 and plaster 3, while the outer surface is first covered with horizontal rows of sheathing 4 nailed direct to the studs, and the clapboards 5 nailed to the sheathing with their edges overlapping in the usual manner. A layer of building paper may have been inserted between the sheathing and the clapboards, providing it was included in the specifications, but more often it was omitted, or if used, would in time deteriorate to such an extent as to be practically ineffective.

Such being the nature of the wall to be treated, the first step is to apply wood nailing strips 6 directly to each of the clapboards 5 parallel with and midway between the overlapping edges of adjacent boards. These strips are relatively thin and narrow, about the dimensions of the ordinary wood lath, so that spaces are left on either side of the strips, and their outer faces are practically flush with the outer edges of the clapboards, although preferably the strips project slightly beyond the clapboards. If desired, lath can be readily used for the nailing strips, being quite satisfactory for the purpose, since they are rough and hence offer a good surface for the plastic material to be applied over the surface.

Thus upon completion of the first step, the original clapboard wall surface appears as shown at the left in Figure 2, in which the irregularity of the surface has been increased many fold by the nailing strips.

The next step in the operation is the application of a layer 9 of plastic insulation material over the entire wall surface, this material being especially prepared for the purpose and termed an insulating mastic compound. While various compositions may be suitable for this purpose, one having an asphaltum base, together with other necessary ingredients, has been used with satisfactory results, since it can be easily spread over the surface as with a trowel and leveled to a smooth surface. Moreover, the material is comparatively light, elastic, fireproof and vermin-proof, and when it has set and dried out, forms a continuous layer over the entire surface over which it is spread and one entirely free from cracks and seams.

Having secure anchorage on the irregular surface offered by the overlapping clapboards and nailing strips, the mastic can be applied to the required thickness which, as shown, is just sufficient to cover the nailing strips and leave flat, smooth outer wall surface as shown by the intermediate section of Figure 2.

After the mastic or insulating composition has been allowed to set and harden, the wall is ready to receive the final and outside covering, which by preference is also a composition material in the form of asphaltum-impregnated sheets 8 of somewhat the same character as those used for composition shingles. As such these sheets are very durable and weatherproof, and so far as their outer surfaces are concerned, can be finished in a variety of colors, finishes and surface effects, such as stone, brick, stucco, etc. This outer covering material is preferably

applied in the form of long strips of any length laid shingle fashion, that is, with the lower edges of one row overlapping the upper edges of the row below. Thus one strip would be nailed along its top edge to the nailing strip just below, and the next strip nailed to the strip above, with its lower edge overlapping the previously laid strip so that the rows of nails are covered. In applying the strips a suitable sealing or adhesive compound is daubed along the lower inside edge surface as at 8^a, so that the overlapping portions are sealed or tacked down to prevent the strips from being torn loose and curling up by wind and weather.

According to this method of applying the outer strips or sheets, each nailing strip supports one horizontal strip, thus indicating that the spacing between nailing strips is approximately equal to the width of the strips. In this way, the haphazard nailing into or through the mastic on either side of the strips is thus avoided.

The method of insulating or sealing the outer walls of houses herein described has the advantage of providing a permanent and desirable insulating coverage over the original wall without removing or disturbing any of the old material, this covering being entirely weather-tight, fireproof and vermin-proof, extending over the surface in an unbroken layer without joints or seams to subsequently open. The cost of the materials and labor is comparatively low, with the result that an old house otherwise in good repair can be insulated and modernized at a comparatively small expense.

Having set forth the novel features of my invention, I claim:

1. A method of refinishing the exterior of frame building walls consisting of nailing thin wood strips horizontally to the surface of the original building wall and spaced apart at intervals, applying a plastic insulating compound to the surface to fill the crevices formed between said strips and after said compound has sufficiently set and hardened, to apply an outer weather coating of sheet material in the form of strips nailed along their upper edges to said wood strips with their lower edges overlapping the strip below.

2. A method of refinishing the exterior of frame building walls of a clapboard construction consisting of nailing thin strips of wood to the wall between the exposed edges of the clapboards, applying a plastic sealing compound over the surface to a depth sufficient to fill the crevices between said wood strips and the edges of said clapboards substantially flush with the outer faces of said strips and applying an outer covering of sheet material in the form of strips nailed along their upper edges to each of the wood strips with their corner edges overlapping the strip of covering material below.

3. A method of refinishing the exterior of frame building walls of clapboard construction consisting of nailing thin narrow wood strips substantially midway between the exposed edges of the clapboards with their outer faces substantially flush therewith, applying a plastic sealing compound over the wall substantially flush with the exposed surfaces of the wood strips, and after the compound has set and hardened to apply strips of a composition sheet material by nailing each strip of material along their upper edges to one of the wood strips with its lower edge overlapping the strip below, and sealing down the overlapping portions of the strips with an adhesive material.

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