

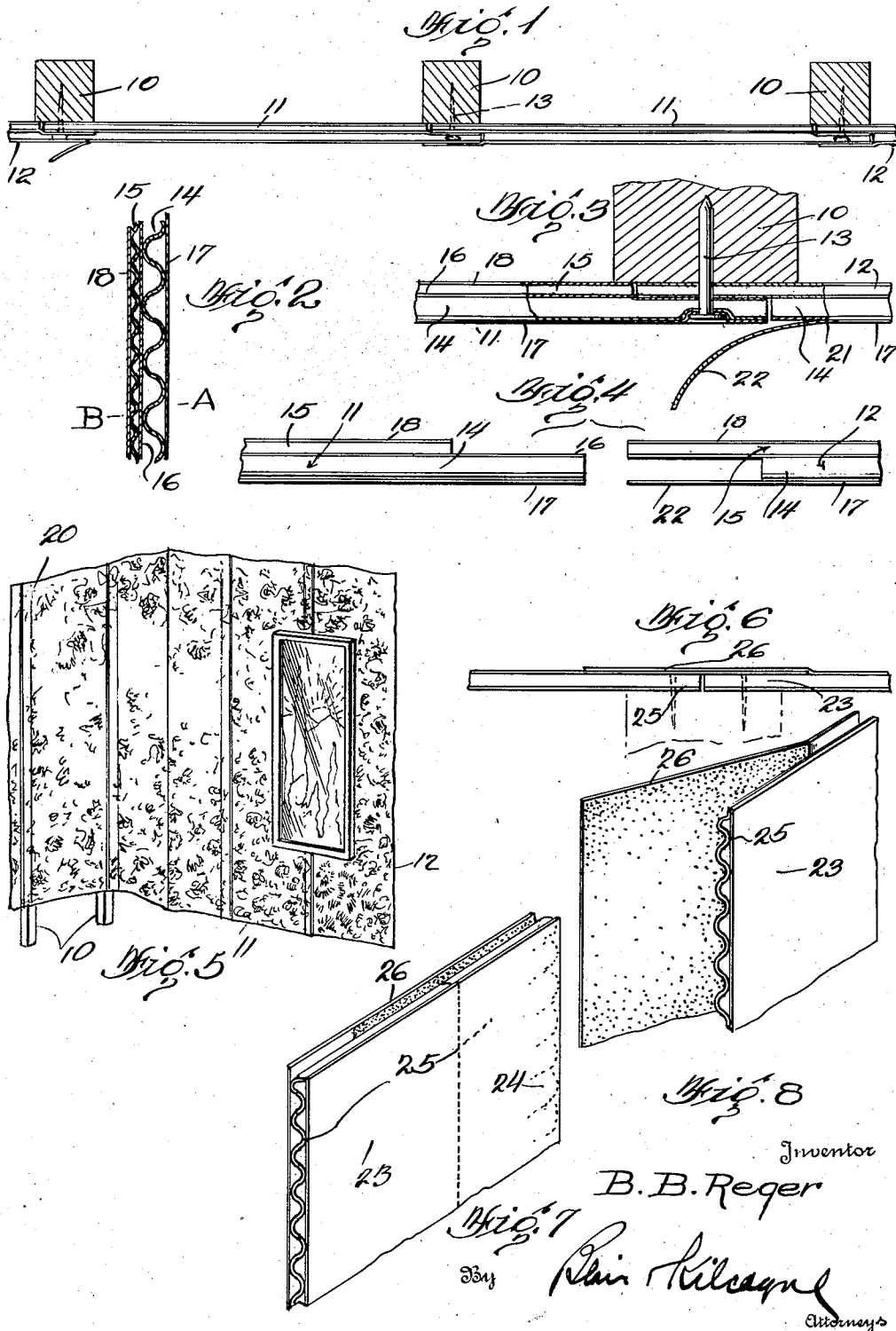
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B. B. REGER

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WALLBOARD CONSTRUCTION

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WALLBOARD CONSTRUCTION

Burt B. Reger, Parkersburg, W. Va., assignor to
The Deco-Board Corporation, Parkersburg,
W. Va.,

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This invention relates to improvements in wallboard constructions and more particularly to wallboard units made primarily from corrugated paper and adapted for use in finishing the interior of rooms in lieu of plaster.

One of the objects of the present invention is to provide an improved wallboard unit which will be strong and durable in construction and relatively inexpensive to manufacture. A further object is to provide improved wallboard units of standard sizes which may be easily and quickly installed. A further object is to provide a unit of the above character having a decorative appearance and with all unsightly securing means, such as nails and the like, concealed at the joints. A further object is to provide a wallboard unit adapted adjustably to overlap an adjacent similar unit and be secured with that unit to the frame of the building by common fastening means. A further object is to provide an improved building and insulating unit which may be packed and shipped in compact form and so constructed as to reduce, to a minimum, danger of injury to the exposed surface and edges during transportation.

Other objects will be in part obvious from the annexed drawing and in part hereinafter indicated in connection therewith by the following analysis of this invention.

This invention accordingly consists in the features of construction, combination of parts, the unique relation of the members, and in the relative proportioning and disposition thereof, all as more completely outlined herein.

To enable others skilled in the art to fully comprehend the underlying features of the invention, that they may embody the same by the several modifications in structure and relation contemplated by the invention, a drawing depicting preferred forms have been annexed as part of this disclosure, and in such drawing like characters of reference denote corresponding parts throughout the views, in which—

Fig. 1 is a horizontal sectional view illustrating the manner in which two or more units are positioned with respect to the framework of the building.

Fig. 2 is a detail sectional view through a portion of one of the units showing a preferred form of construction.

Fig. 3 is an enlarged detail sectional view illustrating the overlap and securing means of two units.

Fig. 4 is a view showing the two units prior to their positioning as shown in Fig. 3.

Fig. 5 is a detail perspective view of a corner of a room with the units applied thereto.

Fig. 6 is a view similar to Fig. 3 showing a modified form.

Fig. 7 is a detail perspective view of one edge of a unit in its condition for shipment.

Fig. 8 is a similar view with the protecting marginal edge of the board removed.

Referring now to the drawing in detail and more particularly to Fig. 1, 10 indicates vertical studs or like framework of a building. These joists, as is well-known, are usually "2 x 4's" and have their centers spaced apart either sixteen inches or twenty-four inches, according to the type or size of building. Therefore, it is preferred that the present units be made in corresponding standard sizes of sixteen or twenty-four inches in total effective width, thereby to fit conveniently between the centers of the studs, according to the distance between studs in the actual construction. Their actual width is, however, about 17" or 25" because of the telescopic assembled relation. Their length is also of standard construction, such as eight, ten or twelve feet, representing approximately the usual heights of rooms.

As shown in Fig. 1, there are two complete units 11 and the adjacent edges of two other similar units 12. These units are secured by a common fastening means such as nails 13, as herein shown, which by reason of the overlap features hereinafter described in detail permit any two adjacent units to be secured by a single fastening means. "Single" is of course to be understood as meaning nails spaced apart in a single row vertically from the floor to the ceiling, the nails being perhaps six or seven inches apart as desired or necessary.

In Fig. 2 there is shown a section of the insulating wall unit preferably made up of two sheets of corrugated board secured together throughout their entire area. It is also desirable to have these corrugated boards of different thickness, that is, in terms of the trade either A flute or B flute, being designated by reference characters 14 and 15, respectively. It is to be understood that both corrugated parts may be of the same grade, if desired. These two corrugated boards are separated by an intervening sheet 16 to which the flutes are connected. Their outer faces, being indicated at 17 and 18, are of relatively thick paper, the exposed surface being preferably provided with an irregular or mottled design, as shown at 20 in Fig. 5. The purpose of this design is important for the reason that

any two units may be adjustably placed side by side without matching.

The majority of wooden frame buildings are irregularly constructed and it frequently happens that a room will have a side wall perhaps as much as an inch longer at the bottom than at the top and also the height of the wall may vary a corresponding amount or more. Consequently, in order to accommodate these units to such irregular structure, it has been found that a mottled irregular design is highly desirable in that no matching is required and the units may be accommodated to such variations, as well as blend perfectly with a wall portion at an angle to the wall being covered, or to the ceiling.

With reference to Fig. 4, it will be noticed that in one of the forms herein illustrated, the B flute or corrugated board 15 is cut away along one of the marginal edges for approximately one inch. The cooperating adjacent unit indicated at 12, Fig. 4, preferably has the A flutes 14 cut away as shown for a corresponding amount, but the exposed surface 17 remains and is unsecured to the fluting 14 to approximately the point 21 in Fig. 3, thereby to permit the same to be turned back, as shown, while applying the securing means or nails 13 which, when the parts shown in Fig. 4 are telescoped into the assembled arrangement shown in Fig. 3, this single securing means 13 passes through the underlap part of unit 12 and the overlap part of the unit 11. The corrugations of these boards permit a certain amount of compressibility, thereby to allow the head of the nail to be substantially flush with the exterior surface of the board. After being secured in this manner, then the flap 22, Fig. 3, swings downwardly into position over the securing means, thus to conceal the unsightly appearance of the row of nail heads and present a smooth even wall substantially as shown in Fig. 5. The under surface of this flap 22 may have a coating of water soluble adhesive applied thereto, like the flap of an envelope, which merely necessitates the moistening of the marginal edge with a damp sponge and then pressing it down into the desired position. This is not necessary but merely desirable for ordinary wall paper paste may be used if preferred.

It will be noted particularly that the extent of telescopic movement of the two units 11 and 12 may be varied to some slight extent thereby to adjust the units to an overlapping relation substantially centrally with respect to the joist 10 to which the units are secured and to accommodate the units to slight irregularities in construction as may occur.

In order to protect these units during shipment, it has been found desirable to leave the fluting of board 14 and/or 15 at both edges in place but secured to the body of the units by a weakening line whereby these marginal protecting edges may be quickly broken off and removed without the use of any tools whatsoever. This idea and construction is perhaps better illustrated in Fig. 7 showing a simplified board made from a single sheet of corrugated board interposed between two relatively stiff pieces of paper, as shown. The body of the board proper is indicated by the numeral 23 while the marginal protective edge about one inch in width is indicated at 24, these parts being separated by a weakening line 25 extending through to the surface sheet 26 which may be considered the outer or exposed surface corresponding to the surface

20 in Fig. 5. It will be noted that the protective marginal edge 24 extends slightly beyond the edge of the part 26 thereby to prevent injury, during transportation, to this subsequently exposed edge.

Referring to Fig. 8, this may be considered as showing either the same edge or the opposite edge but with the marginal protecting strip having been removed along the weakening line 25, thereby leaving the decorative overlap 26 intact but separated from the corrugations, as shown. This inner surface of flap 26 may be coated with a water soluble adhesive, for a distance of about two inches although, as before, ordinary paste may be used.

If both of the opposite side edges of a unit are made in this manner, it will be found convenient to bring the abutting lines 25 substantially into engagement, as shown in Fig. 6, with one of the overlaps 26 (at the left) extending inwardly across the exposed part 23 of the unit at the right, for example. Nails may be passed through the parts as shown in Fig. 6 into a joist or, if preferred, one nail may be omitted and the adhesively coated under surface of one flap 26 may be secured to the corrugated board, whereupon the outer flap 26 overlaps the adjacent marginal edge of the other unit and is similarly secured in place, although both nails are preferred for better security. Owing to the compressibility of the material, the outer or exposed overlap may be pressed down into the board, thereby to provide an almost invisible junction between the two units.

If only one of the lateral edges of each unit is provided with a detachable protecting strip 24, as shown in Fig. 7, then the overlap 26 of Fig. 8 will pass over the adjacent unbroken or unweakened edge of the adjacent unit and may be secured thereto after the adjacent edges of both units have been tacked in place.

The construction and operation will be clear from the above disclosure. It is particularly noted, however, that the units are practically constructed in such a manner that a single row of securing means or equivalent adhesive means will hold the edges of two adjacent boards in position in adjusted overlapped relation with the final or outside overlapping edge concealing the securing means when the units are installed. By having the mottled exterior exposed surface of the units arranged as herein indicated, the units may be easily and quickly assembled and installed without any particular effort as to matching adjacent portions. The single row of securing means greatly reduces the expense in material and labor required for such installation and the protective marginal unit illustrated in Fig. 7, which is applicable to the several forms, may be detached and thrown away without substantial loss, that is, in comparison with the loss that would otherwise be sustained were it not for this protective strip used in transportation. It is thus seen that the invention is simple and the units may be inexpensively manufactured, assembled and installed and when assembled are well adapted to accomplish, among others, all the objects and advantages herein set forth.

I claim as my invention:

1. A building unit of the wallboard type comprising two adjacent corrugated layers between two outside sheets of relatively thick paper all permanently secured together throughout the major portion of the unit area, one margin of the exposed or outer sheet when installed being

free from its adjacent corrugated layer, the other or inner sheet and its adjacent corrugated layer being scored together by a weakened line along the same margin whereby the margin of said latter or inner sheet and layer may be easily and quickly removed from the unit prior to installation, thereby to provide an overlapping connection with an adjacent unit and to permit a single fastener to secure both units to a stud with the free margin of the exposed outer sheet covering the connection and single fastener.

2. A construction according to claim 1, in which the corrugated layers are of different thickness, with the thicker layer adjacent the outside sheet into which the ends of the fastener

may be depressed when applied prior to being covered by said outer free margin.

3. A construction according to claim 1, in which the outer exposed surface of the unit is decoratively and irregularly mottled whereby any two units or sections may be placed edge to edge and eliminate the line separating any two units.

4. A construction according to claim 1, in which the outer exposed margin is coated on its inner side with a water soluble adhesive whereby it may be moistened and stuck to the adjacent unit without other fastening means.

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