Fireproof Gypsum

BESTWALL

BUILDING PRODUCTS

1955

Bestwall Gypsum Plaster • Bestwall Lite-Mix Plaster • Bestwall Satin Spar Gauging Plaster • Bestwall Sunflower Molding
Bestwall Common Gauging • Bestwall Keene's Cement

Bestwall Builder's Lime • Bestwall Smooth Lime • Bestwall Speedy Lime • Bestwall Mason's Lime

Bestwall Metro-Mix • Bestwall Gypsum Form Board • Bestwall Gypsteel Plank

Bestwall Gypsum Lath • Bestwall Gypsum Wallboard • Bestwall Firestop Gypsum Wallboard • Bestwall Weathershield Gypsum Sheathing

Bestwall Joint Systems • Bestwall Certex Texture • Bestwall Olsen Clips

and others

PLAINTIFF'S EXHIBIT

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BESTWALL

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BESTWALL GYPSUM COMPANY

GENERAL OFFICES: [illegible]FFE, PENNSYLVANIA

SGP 0026190

BESTWALL

Since this brochure was published, the gypsum division of Certain-teed Products Corporation has been segregated and organized into a new, separate corporation known as the Bestwall Gypsum Company which will manufacture all the gypsum products formerly available through Certain-teed Products Corporation.

As a result, some brand names mentioned herein have been changed to tie in with the new BESTWALL company and product name.

A revised edition of this brochure, now in the hands of the printer, will be available soon.

THANK YOU BESTWALL GYPSUM COMPANY
GENERAL OFFICES • ARDMORE, PA.

BESTWALL® GYPSUM WALLBOARD

FIRESTOP BESTWALL® GYPSUM WALLBOARD

WEATHER-SHIELD GYPSUM SHEATHING

CERTAIN-TEED HUMMER SYSTEMS

WALLBOARD ACCESSORIES

CERTAIN-TEED PRODUCTS CORPORATION

ARDMORE, PENNSYLVANIA

SGP 0026191

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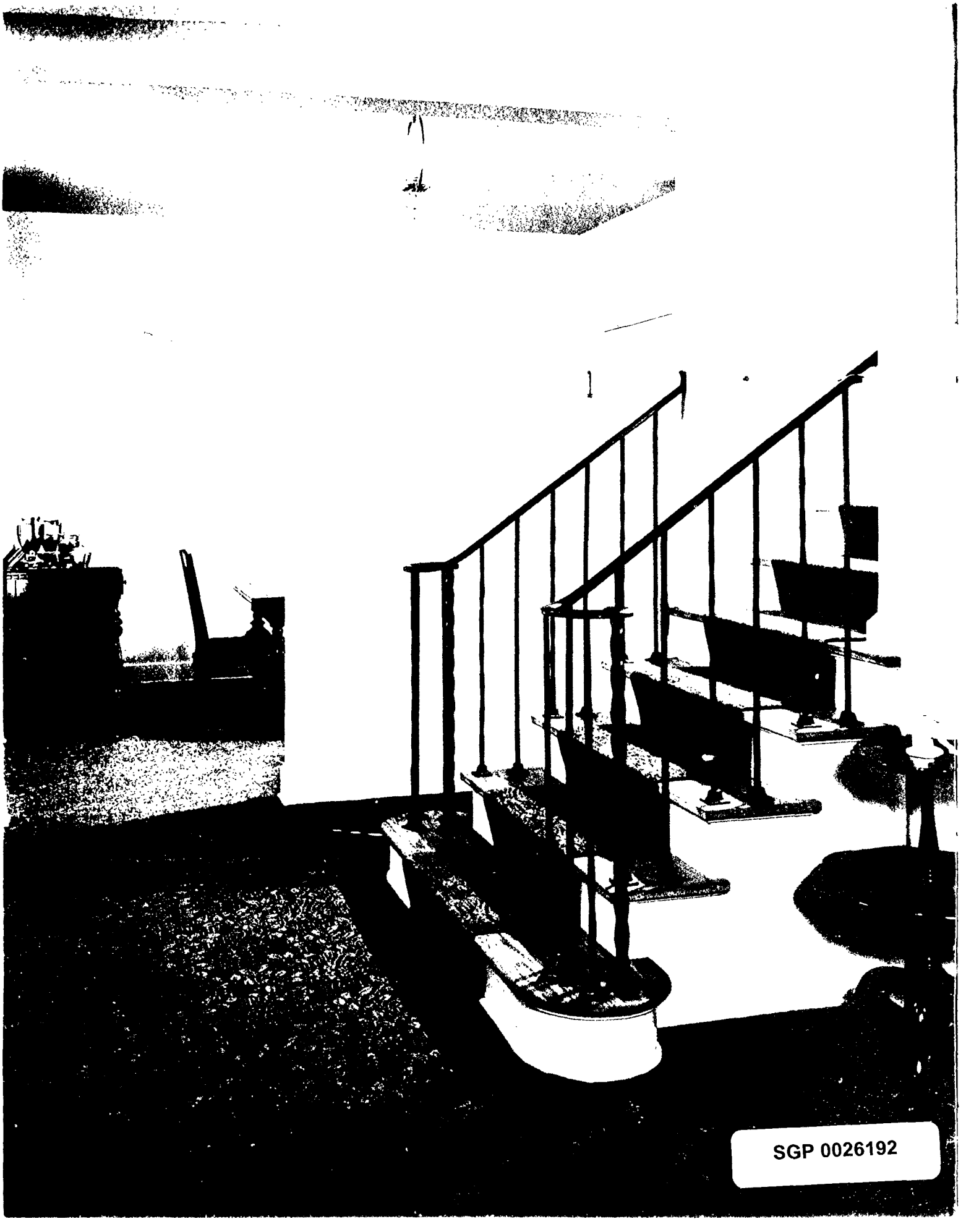

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For beautiful, modern interiors, use

BESTWALL PAINTS

Write Certain-teed for color cards and information.

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NOW reinforced with FIBER GLASS

BESTWALL

the Original Gypsum Wallboard

OWENS-CORNING FIBERGLAS *T.M. Reg. U.S. Pat. Off.

★

WEATHER-SHIELD

the fire-proof and water-repellent Gypsum Sheathing

Certain-teed does it again — improves gypsum board quality and on-the-job performance — by reinforcing the gypsum core with textile glass fibers.

It's an exclusive Certain-teed development — the result of the careful research that produced the first single layer construction, one-hour fire-rated gypsum wallboard, Certain-teed's Firestop Bestwall.

The secret of Certain-teed's improved gypsum boards is in the core. Strong, resilient, incombustible glass fibers are carefully blended into the core to assure good dispersion. This results in a reinforcing network that adds to the board's flexural strength. The textile glass fibers give Certain-teed's gypsum boards better nailing qualities, and increases resistance to cracks, shattering and breakage during application, handling and service.

New, improved Certain-teed gypsum boards have been thoroughly field tested (after extensive laboratory tests, of course) under actual job conditions. Builders who are using them report decided savings in time, money and trouble.

Ask your Certain-teed representative or building materials dealer about the improved Certain-teed gypsum boards — Bestwall Gypsum Wallboard and Weather-Shield Gypsum Sheathing. They mean better, faster construction for builders — more satisfied customers and profits for dealers.

WHAT A DIFFERENCE THE FIBER-GLASS-REINFORCED CORE MAKES

FEWER NAILING TROUBLES — Certain-teed fiber-glass-reinforced gypsum boards nail better, and nails hold better. Less brittle than conventional gypsum boards, the new improved Certain-teed gypsum boards have great resistance to impact. The textile glass fibers help knit the gypsum core together.

FEWER HANDLING TROUBLES — The glass fiber reinforcement in Certain-teed's new, improved gypsum boards increases the boards' resilience. The boards easily resist the stresses and strains of handling in transit, application and use.

LESS SHATTERING — Laboratory tests showed a gypsum board core reinforced with glass fibers had up to 80% more resistance to shock. New, improved Certain-teed gypsum boards resists shattering under the shock of hammer blows, for instance.

BREAKS CLEAN — Of course, Certain-teed's Fiberglas-reinforced gypsum boards still can be quickly scored and snapped — or sawed. They break clean — especially advantageous when trimming out for door and window openings.

SGP 0026194

ADVANTA



FIRE-RESISTANCE

Gypsum will not burn and will not transfer heat in excess of 212° F. until all its water of crystallization has been driven off in the form of steam. This is a slow process which enables gypsum products to protect combustible materials from fire. Certain-teed Gypsum Wallboards and Sheathing have qualified for fire resistance ratings as reviewed in the individual product descriptions.

STRUCTURAL STRENGTH

Specially manufactured surface papers are securely bonded to both the face and back of the gypsum wallboard. The papers are tough and have high tensile strength and provide important resistance to transverse stresses that bear on the wallboard. Bestwall will not sag when applied to ceilings in the specified manner. They will withstand normal settling and shocks without cracking.

DIMENSIONAL STABILITY

Changes in temperature and relative humidity will not cause these gypsum products to warp or buckle; they will not expand or contract appreciably. They will not decay or harbor vermin.

CORE STRENGTH

The cohesion provided by the glass fibers affords great resistance to cracking and breaking in application and use. Clean cut-outs and good nailability are assured.

ECONOMY

The large, light-weight panels are quickly applied in one easy operation. They may be sawed or "scored and snapped" to size. Wallboard joints may be treated with Bestwall Joint System to present smooth surfaces.

SPECIAL PACKAGING

A special, sized paper is bonded to the face of Certain-teed's wallboards and is tucked under the back paper at the two long edges. To protect the wallboard faces, two pieces of $^{3}/_{8}$" thickness, and larger, are "twin-mounted" — placed face to face and bound across the cut ends by strong paper tape. Three pieces of $^{1}/_{4}$" thickness are packaged together by being bound by paper tape at the cut ends.

SPECIAL JOINT TREATMENT

The wallboards are finished with square, beveled or tapered edges; each edge having its use. The tapered edge is shaped to accommodate the Bestwall Joint System. This System cements the joints to form strong, seamless wall or ceiling areas.

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BESTWALL

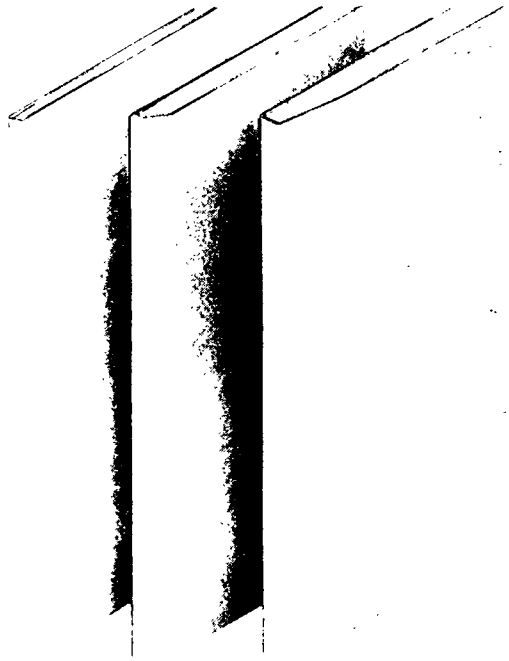
...THE ORIGINAL GYPSUM WALLBOARD

Bestwall is used for walls and ceilings in both new construction and remodeling. It is strong, yet flexible enough to conform to moderately curved surfaces. Ease of application makes excellent results commonplace.

Tapered edge Bestwall should be used with the Bestwall Joint System when smooth, jointless surfaces are desired. Square edge Bestwall is recommended for use where exposed joints are satisfactory (garages, etc.). Any type of decorative treatment may be applied to the gypsum wallboards (see the paragraph, "Decoration", under "Application Instructions").

Wood stud load-bearing partitions faced on both sides with ½" Bestwall Gypsum Wallboard have a fire endurance of 40 minutes, as tested in accordance with the Standard Method of Fire Tests of Building Construction and Materials specified by the American Society for Testing Materials. When faced with ⅜" Bestwall, the fire endurance is 25 minutes.

EDGES	Tapered, Square; Beveled (Special order only).
THICKNESSES	¼", ⅜", ½"
WIDTH	4'
LENGTHS	6 to 12' in even feet



Square edge Beveled edge Tapered edge

SGP 0026196

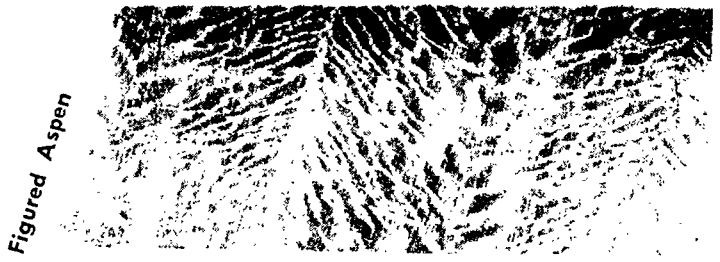
BESTWALL

GRAIN BOARDS

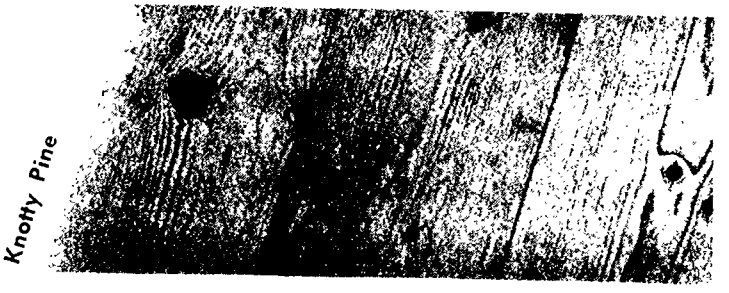
Bestwall Grain Boards give every appearance of being actual Knotty Pine, Figured Aspen or Ribbon Mahogany. Photographic reproductions of these woods are printed on special paper, finished with a durable transparent coating, and cemented to the face of regular Bestwall Gypsum Wallboard.

The Aspen and Mahogany Grain Boards are supplied with beveled edges and the Knotty Pine has square edges. Thus, the joints present a pleasing paneled effect when left unfinished; or, they may be covered with wood strips to make the effect more pronounced.

EDGES . . . . . Beveled (Figured Aspen, Ribbon Mahogany)
Square (Knotty Pine)
THICKNESS . . . . . $\frac{1}{4}$"
WIDTH . . . . . 4'
LENGTHS . . . . . 8', 9', 10'







BESTWALL

INSULATING GYPSUM WALLBOARD



Aluminum foil is laminated to the back of regular Bestwall Gypsum Wallboard to provide good insulation value. However, in order to realize the insulation potential, the panels must be installed with the foil side against the studs and facing a minimum air space of $\frac{3}{4}$". The foil also serves as a highly efficient vapor barrier, preventing condensation within the exterior wall construction.

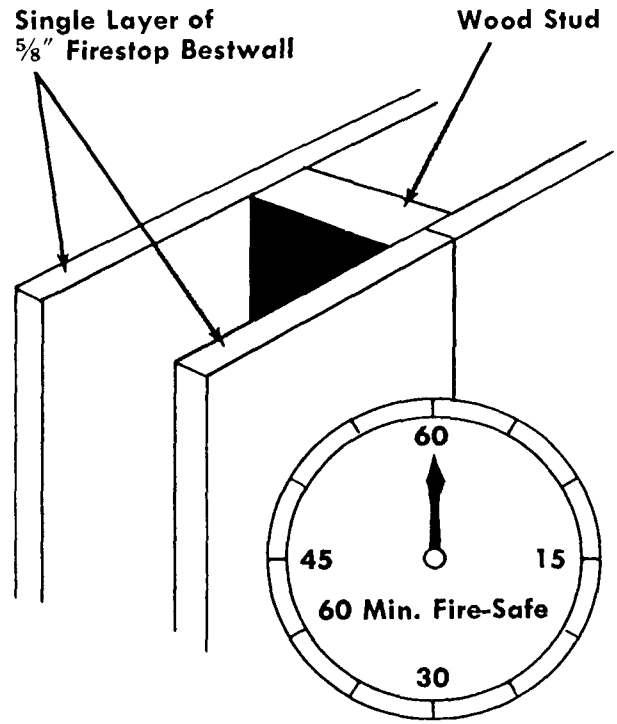
According to U. S. Bureau of Standards tests, aluminum foil reflects 90% of radiant heat. And the F.H.A. has accepted foil-back gypsum wallboard as having insulation value approximately equal to $\frac{1}{2}$" thick fiber insulation board, when installed as directed above. Thus, Bestwall Insulating Wallboard offers the advantages of regular Bestwall plus effective thermal insulation and a vapor barrier.

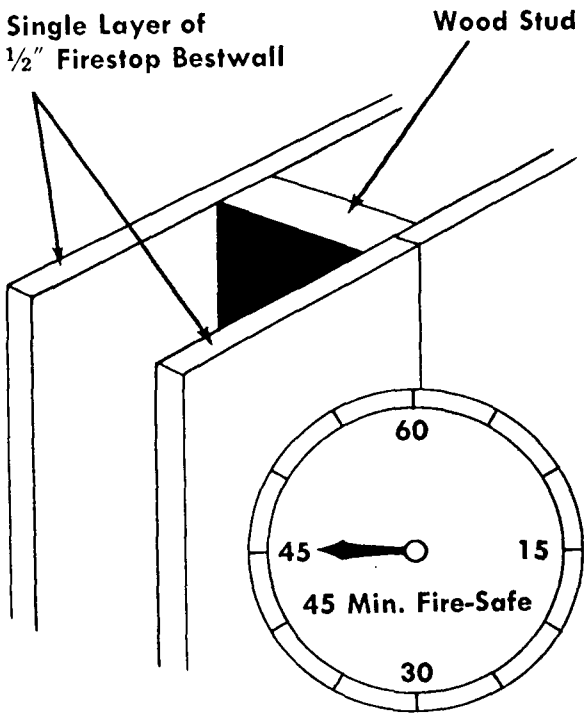
EDGES . . . . . Tapered, square
THICKNESSES . . . . . $\frac{3}{8}$", $\frac{1}{2}$"
WIDTH . . . . . 4'
LENGTHS . . . . . 6' to 12' in even feet

SGP 0026197

FIRESTOP BESTWALL

GYPSUM WALLBOARD





Superior fire protection with drywall construction is possible with Firestop Bestwall, an original development of Certain-teed laboratories. Two core additives provide the extra qualities. Small amounts of incombustible textile glass fibers supply strength. And unexpanded vermiculite is added to the gypsum core to furnish an expansion factor to balance the shrinkage of the gypsum under high temperatures. The reinforced thermo-stabilized core increases Firestop Bestwall's insulation value at high temperatures and provides up to three times more fire resistance than conventional gypsum wallboard.

Great economies can be realized by using Firestop Bestwall Gypsum Wallboard where extra fire resistance is required. Only one layer of 5/8" thickness need be applied to either walls or ceiling to obtain a one-hour fire rating for the construction, rather than two layers of 1/2" conventional gypsum wallboard. One layer of 1/2" Firestop Bestwall on the framing provides 45 minutes of fire protection.

FIRESTOP BESTWALL
FIRE RESISTANCE RATINGS

(Compared with Required Regular Gypsum Board Construction)

RATINGS	PARTITIONS — LOAD BEARING OR NON LOAD BEARING — WOOD FRAME — 2" x 4" Wood Studs, 16" on centers. Both Sides of Partition Covered with		FLOOR AND CEILING CONSTRUCTION — WOOD FRAME — 2" x 10" Wood Joist Covered with Wood Sub-flooring, Building Paper, and Wood-finish Flooring. Ceiling Surfaced with	
	Firestop Bestwall (Official Underwriters' Laboratories test)	Regular Gypsum Wallboard	Firestop Bestwall (Official Underwriters' Laboratories test)	Regular Gypsum Wallboard†
45 Minutes	1 layer ½" thick	2 layers—each at least ⅜" thick	1 layer ½" thick	2 layers ½" thick plus wire mesh between layers plus special nailing
60 Minutes (1 hour)	1 layer ⅝" thick	2 layers ½" thick	1 layer ⅝" thick	
120 Minutes (2 hours)	2 layers ⅝" thick*			
	STEEL FRAME — Steel Studs** — 24" (Max.) on centers. Both Sides of Partition Covered with		STEEL FRAME — 12" Steel Bar Joists 24" on centers. Covered with 2" Concrete Floor Slab. Ceiling Surfaced, through Metal Furring, with	
60 Minutes (1 hour)	1 layer ⅝" thick Firestop Bestwall*		1 layer ⅝" thick Firestop Bestwall	

* Independent Laboratory Tests (Name on request). **Stran-Steel Studs used in test.
† Note: One layer of ½" thick regular gypsum wallboard on ceiling only gives 25 minutes resistance.
Nails for ½" thick boards — 5d c.c. 13½ ga. flat head 1⅝" long, 6" on centers in ceiling, 7" on center in walls.
Nails for ⅝" thick boards — 6d c.c. 13 ga. flat head 1⅞" long, 6" on centers in ceiling, 7" on center in walls.
Nails for second layer in two layer application of ⅝" thick board — 8d c.c. 11½ ga. flat head 2⅜" long, 7" on centers in walls. These nailing specifications apply also to nailable steel framing with a nailing line or groove.

Firestop Bestwall is manufactured under the Label Service of Underwriters' Laboratories, Inc., and carries their manifest on the twin mounting tape that binds two panels at the cut ends. Each panel can be identified easily by the words "Firestop Bestwall" and "½"" or "⅝"" that are branded every few feet down the center of both surfaces.

After erection, the tapered joints should be treated with the Bestwall Joint System. Then, after priming properly, any decoration can be applied.

EDGE . . . . . Tapered
THICKNESSES . . . . ½", ⅝"
WIDTH . . . . . 4'
LENGTHS . . . . . 6' to 12' in even feet

SGP 0026199

CERTAIN-TEED HUMMER SYSTEMS

Certain-teed Hummer Systems are especially designed methods for erecting gypsum wallboard in multiple layer applications. They may be used with conventional framing or without framing in non-load-bearing partitions to provide low-cost, high-quality wall and ceiling surfaces.

First considered in the early 1930's, the various systems are the result of extensive laboratory and field research and testing. They have been proved under competitive conditions in several sections of the country. The methods of construction are covered by patents or have patents pending.

Laminated gypsum wallboard constructions provide sturdier, stronger walls and consequently less maintenance cost, greater resistance to sound and heat transmission, and better fire protection. Most interior framing can be eliminated when these constructions are combined with trussed roof construction in residential work, and with flat slab or beam and girder construction in commercial and industrial buildings.

Thin wall sections — in the range of from 2″ to 2½″ thick — make it possible to use many standard thin wall-opening details. Modern, thin trim fits in with these thin laminated gypsum wallboard partitions.

Note: Certain-teed Hummer Systems are available only through licensed applicators, whose mechanics are thoroughly trained in the patented construction processes.

CERTAIN-TEED HUMMER SYSTEM A

This is the oldest and simplest laminated wallboard construction. Application is over conventional, framed walls and ceilings. The first layer is nailed (spot nailed only) and the second layer is applied with adhesive and nailed.



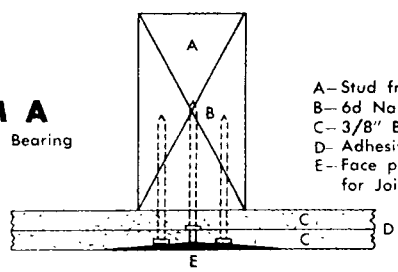
CERTAIN-TEED HUMMER SYSTEM B

System B was developed to provide walls without frame or support of any material other than gypsum wallboard. Several sheets of 4′ wide board are laminated; narrow strips being used between outer layers to reduce bulk, weight, cost, and provide space for wiring, and to reduce sound transmission. A single layer of ½″ board — the thickest gypsum board made when this construction was first developed — was not strong enough for the purpose.

The improved construction combines two sheets of ⅜″ board laminated on each side of three strips of two thicknesses of ⅜″ board which serve much as gypsum studs. This panel has proved excellent for interior non-load-bearing partitions.

The two-layer laminated application of System A is the accepted way to finish framed ceilings and framed exterior walls. In buildings with solid masonry walls, a refinement of the non-load-bearing partition (System B) makes a simple self-furring,

SYSTEM A
Bearing or Non Bearing Partition



KEY
A– Stud framing
B– 6d Nails
C– 3/8″ Bestwall Gypsum Wallboard
D– Adhesive
E– Face panel is tapered edge board for Joint Treatment

SGP 0026200



free-standing wall surfacing. Essentially this variation in construction detail omits the two full sheets on one side of the panel.

CERTAIN-TEED HUMMER SYSTEM B Modified

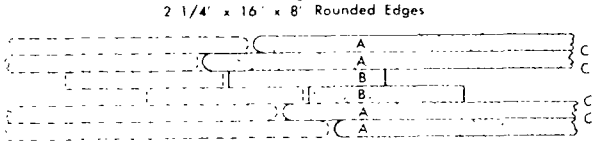
When the non-load-bearing wall section was being developed, $\frac{1}{2}$" gypsum wallboard was the thickest made. A single layer of $\frac{1}{2}$" board was not considered strong enough for the surface, hence the necessity for laminated construction as used in System B.

More recently $\frac{5}{8}$" Firestop Bestwall has been introduced by Certain-teed. This board consistently shows a flexural strength, in the direction parallel to the folded paper edges of the board, of 250 lbs. (plus) against a Federal Specification (SS-W-51a) requirement of 105 lbs. for $\frac{1}{2}$" regular gypsum wallboard. Tests have shown that a single layer of Certain-teed $\frac{5}{8}$" Firestop Bestwall is a satisfactory substitute for the two layers of laminated $\frac{3}{8}$" board in the non-load-bearing interior partition.

The interior partition and interior self-furring section for the exterior wall in System B can therefore, consist of one layer of Certain-teed $\frac{5}{8}$" Firestop Bestwall for the surfacing material and two strips of $\frac{1}{2}$" regular gypsum board laminated for the spacers or studs. The overall thickness of $2\frac{1}{4}$" is the same for System B and System B Modified.

Conventional 4' wide, tapered-edge gypsum wallboard is used for the surface in Systems A and B. Both systems are designed to have the joints treated with a paper tape and cement and to present a clean, unbroken surface. The size, weight and

SYSTEM C
Non Bearing Partition
2 1/4" x 16" x 8' Rounded Edges

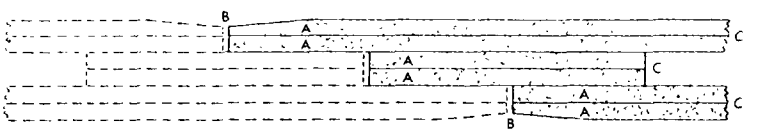


KEY

A 3/8" Bestwall Gypsum Wallboard 16" x 8'
B 3/8" Bestwall Gypsum Wallboard 4" x 8'
C Adhesive

Dotted outlines show how panels lap in section partition

SYSTEM B
Non Bearing Partition
2 1/4" x 4" x 8' Sections



KEY

A—3/8" Bestwall Gypsum Wallboard
B—Face panel is tapered edge board for Joint Treatment
C—Adhesive
Dotted outlines show how panels lap in section partition

finishing of joints make pre-fabrication of the panels for both B Systems at the gypsum plant impractical. Neither do these panels lend themselves for use as a movable partition or for one where joints are left exposed.

CERTAIN-TEED HUMMER SYSTEM C

This factory-fabricated narrow panel is ideal for walls where joints are left unfinished and for movable wall construction. Special lapped edges give a good-looking paneled effect.

The panel can be used in homes, apartments, offices and factories. It can be erected in the morning and trimmed and painted in the afternoon, since there are no nails in the surface and no joints to be treated.

The panels are made of two full sheets and two strips of $\frac{3}{8}$" thick by 8' long Bestwall Gypsum Wallboard. The edges are arranged to provide a tongue and groove type of joint. The basic units are fabricated at Certain-teed's gypsum plants, which results in a minimum amount of labor in the field.

Two types of panels are available. In one type, the full sheets are 16" wide with round edges. The other is made with 24" wide sheets with beveled edges. Neither type panel is recommended for use where joints are to be treated.

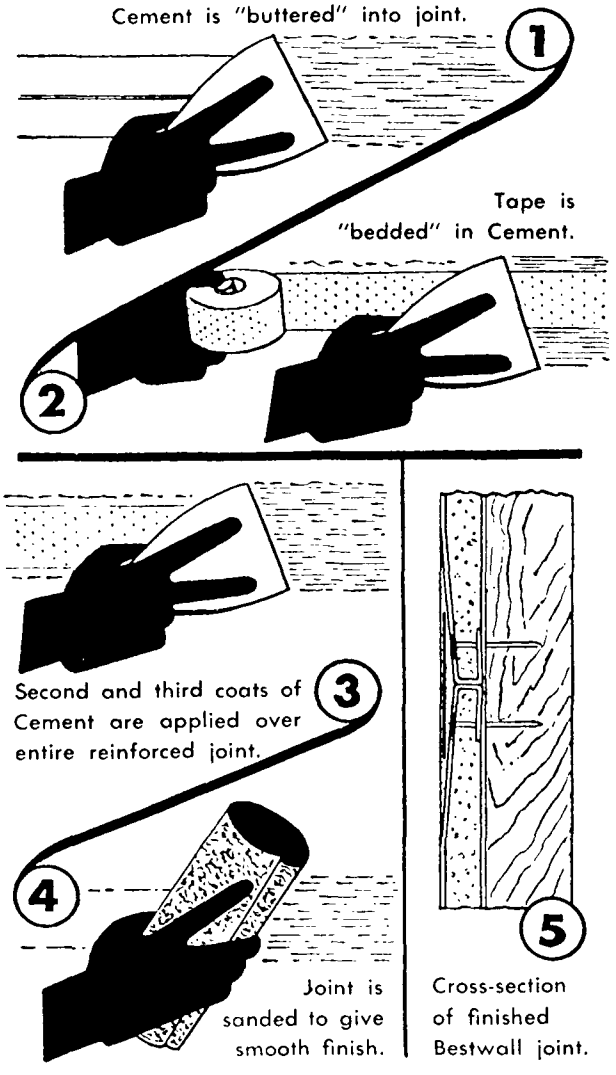
For further information, write for the Certain-teed Hummer Systems Catalog.



SGP 0026201

BESTWALL JOINT SYSTEM

This system enables the end and edge joints of gypsum wallboards to be concealed by cement and tape. This provides not only smooth, uninterrupted walls but also joints that are as strong as the wallboard.



There are two separate joint treatments, each one performing the function of concealing the joint.

One treatment is comprised of Certain-teed Bestwall Bedding Compound, Certain-teed Bestwall Topping Compound and Tape. This treatment is designed for use on large projects so that excellent results are obtained with a minimum of time and labor. The Bedding Compound is a casein-base dry-powder material that is mixed with water to make the cement that is used to bed the tape in the joint and to cover nail heads in the field of the panel. The Topping Compound is a similar material that is mixed with water to make the cement that is used to cover the bedded tape and to finish off the joints and nail heads.

The other treatment employs one material — Certain-teed Bestwall Joint System Cement — and Tape. This material, also, is a casein-base dry powder that is mixed with water. It is used both to bed the tape and finish the joints and nail heads. It is easier for an amateur to use and can give just as good results as the first treatment.

The Tape used is designed to permit air to escape through it during application, and to provide maximum adhesion of cement to the joint.

Another product, Bestwall Joint Filler, is a gypsum material that is used to mend damaged areas and to fill spaces where panels are not butted.

PACKAGING DATA

Joint System Cement
- Package No. 1....18 lbs. cement, 250 ft. tape
- Package No. 2....4 lbs. cement, 60 ft. tape; 12 packages per case
- Package No. 3....4 lbs. cement, 60 ft. tape; 1 broad plastic knife; 12 packages per case

Bedding Compound....25 lb. bags
Topping Compound....25 lb. bags
Joint System Cement....25 lb. bags
5 lb. boxes; 12 boxes per case
Joint Filler.....5 lb. boxes; 6 boxes per case

SGP 0026202

Wallboard corners and edges around openings can be permanently protected with Certain-teed Metal Corner and Metal Casings. They are installed quickly and easily, saving time, labor and expense. The flanges are knurled and perforated to provide good cement adhesion, and paint readily adheres to the surfaces. All are made of galvanized steel.

Certain-teed METAL CORNER METAL CASINGS

No. 1004 — Round Nose Metal Casing — Sizes for ⅜", ½", and ⅝" wallboards. Furnished in 7', 8' and 10' lengths, 100 pieces per carton.

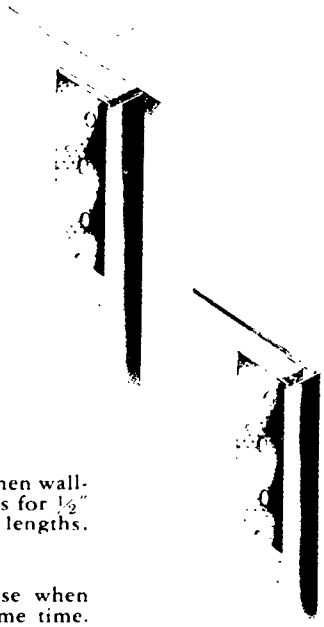
No. 1000 — Metal Corner — Size 1" x 1". Furnished in 8' lengths, 100 pieces per carton.

No. 1004



No. 1000



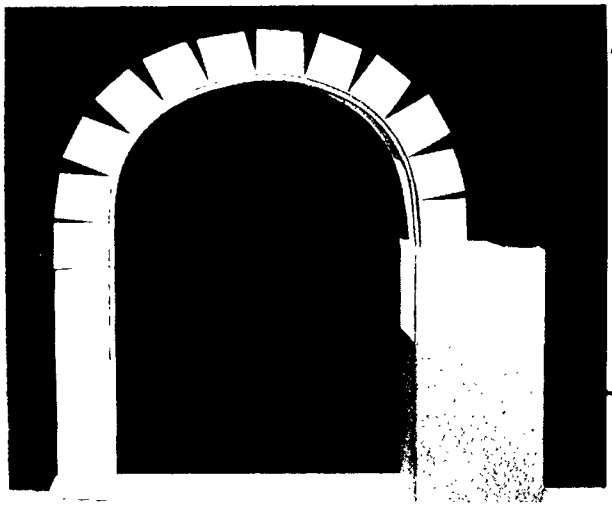


No. 1002

No. 1002 — Angle Edge Metal Casing — For use when wallboard is nailed first and casing applied later. Sizes for ½" and ⅝" wallboards. Furnished in 7', 7'3" and 10' lengths, 100 pieces per carton.

No. 1001 — Channel Edge Metal Casing — For use when wallboard and casing are both nailed at the same time. Sizes for ½" and ⅝" wallboards. Furnished in 7', 7'3" and 10' lengths, 100 pieces per carton.

No. 1001



SAMPLE MODEL

CORNER BEAD

The edges of arches or of any surface can be protected with Certain-teed Corner Bead — the paper flanges need only be cut for it to conform to any design. Waste is minimized because concealed pins splice bead lengths. There is no need to miter at right angles. The bead is rust-resistant metal.

Furnished in 8' lengths, 50 pieces (400') per carton.

SGP 0026203

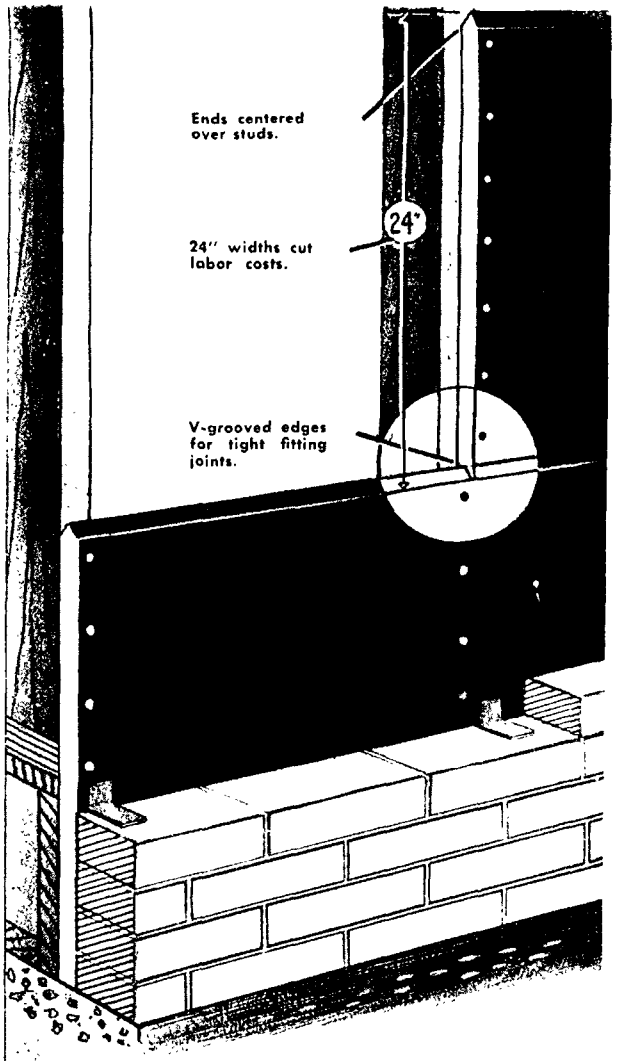
WEATHER-SHIELD GYPSUM SHEATHING

Weather-Shield Sheathing can be stored outside on the job without any damage — exposure to weather that is more severe than any on-the-wall conditions. This is made possible by the treated, scuff-resistant surface paper and a special ingredient in the slurry that forms the core.

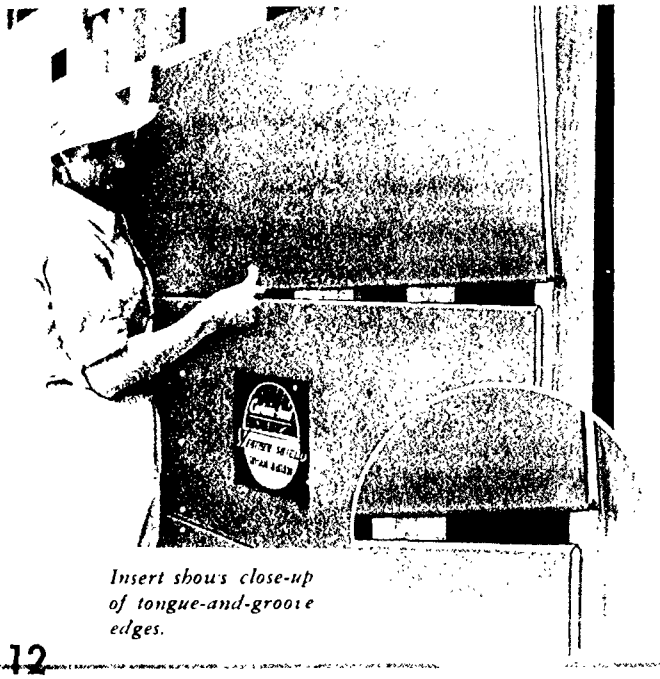
Tongue and groove V edges form tight horizontal joints. And since the cut ends occur only on studs, Weather-Shield keeps out wind or dirt.

The preceding qualities eliminate the need of an under-layer of treated building paper (except where local building codes require it) since Weather-Shield provides the necessary barrier to moisture, wind and dirt while being permeable to vapor — a requisite for efficient sheathing.

Fire endurance and hose stream tests were conducted on wood stud exterior walls with ½" gypsum sheathing covered with wood drop siding on the exterior and the interior faced with ½" sanded gypsum plaster (1:2) on ⅜" perforated gypsum lath. The tests were made in accordance with the Standard Methods of Fire Tests of Building Construction and Materials, ASTM E119, and resulted in a fire rating of one hour for a load-bearing wall exposed to fire on either side.



Weather-Shield Sheathing application under Brick Veneer. May also be used under Wood Siding; Stucco; Asbestos-Cement, Wood or Slate Shingles.



Insert shows close-up of tongue-and-groove edges.

Secure sheathing to studs with nails spaced approximately 4" on center, 7 nails per 24-inch sheathing width per support. Where exterior finish is secured to the frame with nails driven through the sheathing into the stud, sheathing nails shall be spaced approximately 8 in. on center, 4 nails per 24 inch sheathing width per stud. Nails shall be not less than ⅜ in. from edges or ends of sheathing.

Furnished ½" thick by 2' wide by 8' long, packed 2 panels per bundle.

SGP 0026204

WALLBOARD APPLICATION INSTRUCTIONS

GENERAL INSTRUCTIONS

Plan the job beforehand.

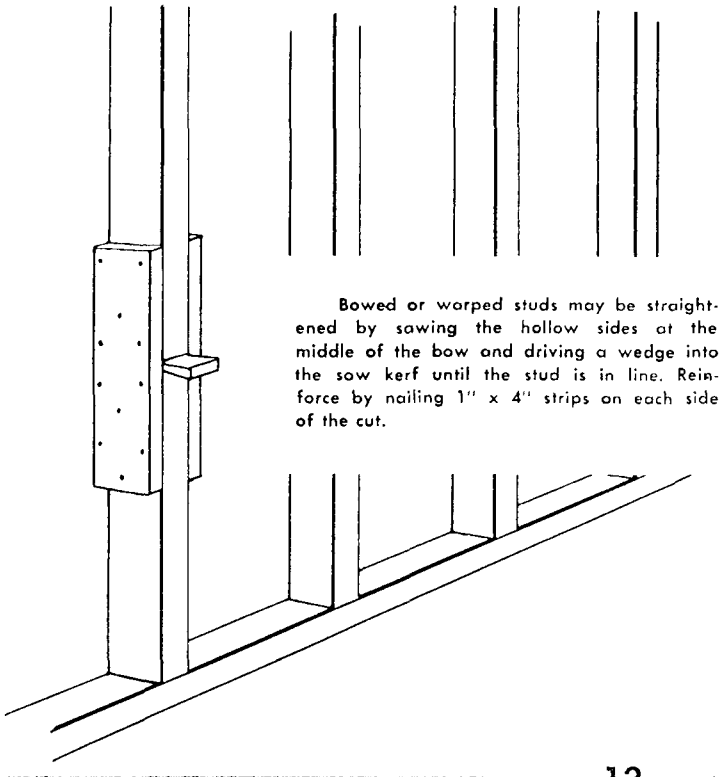
To obtain the best results, the job should be planned so that there are a minimum number of joints, thereby keeping the treatment of joints to a minimum. Example: in covering a 14′ wide wall with a 3′ window or door occurring 5′ from one end, use 8′ and 6′ lengths applied horizontally so that joints occur above and below opening rather than running the full height of the wall. Joints must always occur over a stud. To do this, plan to use full size boards where practical and order the required number of 6′ to 12′ lengths.

While the following instructions apply generally to all types of Bestwall, specific references to a particular type of board and type of edge should be read carefully before proceeding. Note that the thicker the board used, the stronger, more durable and more fire-resistant the walls and ceilings will be. Also, in wall construction horizontal application is recommended where joints are to be concealed, while vertical application is used where joints are to be left exposed or to be finished with metal or wood trim. In ceiling application, the boards should always be applied at right angles to the joists.

PREPARATION OF FRAMING

Before applying board, framing should be carefully examined to be sure that all studs and joists are true, firmly nailed and in a plane. Nailing headers should be provided for all fixtures. Plumbing and electrical connections should be completely roughed in and inspected. In applying over existing walls and ceilings, loose material should be tightened or removed; where the surfaces are badly damaged or very uneven, furring strips should be used. As with new work, furring strips should be true, solid and in the same plane.

While best results are obtained when studding, joists and or furring strips are spaced 16″ on centers, $\frac{1}{2}$″ or $\frac{5}{8}$″ thick wallboards may be applied horizontally to framing 24″ on center.



Bowed or warped studs may be straightened by sawing the hollow sides at the middle of the bow and driving a wedge into the saw kerf until the stud is in line. Reinforce by nailing 1″ x 4″ strips on each side of the cut.

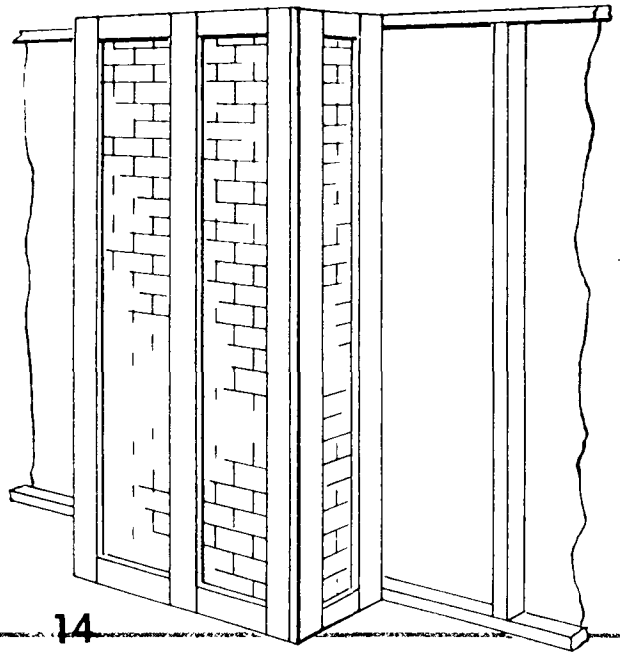
APPLICATION INSTRUCTIONS CONTINUED

FRAMING AT OPENINGS

See that there is a backing around openings for nailing of all ends of the wallboard. In new construction, order millwork with grounds the same thickness as the Bestwall board used. Where window frames are not cut down to correct depth, a wood filler strip should be nailed either on back of outside trim of window casing or on covering boards. This saves building-out on the inside studs for proper clearance of standard frames. Door frames should be cut to size. If not, a moulding strip must be used.

FRAMING FOR CHIMNEYS

Never nail directly to chimney. Fur with 1″ x 4″ lumber to provide nailing surface, nailing these furring strips together at the corners, to the floor and ceiling and to the wall, but not to the chimney itself. This will allow free movement of the chimney.

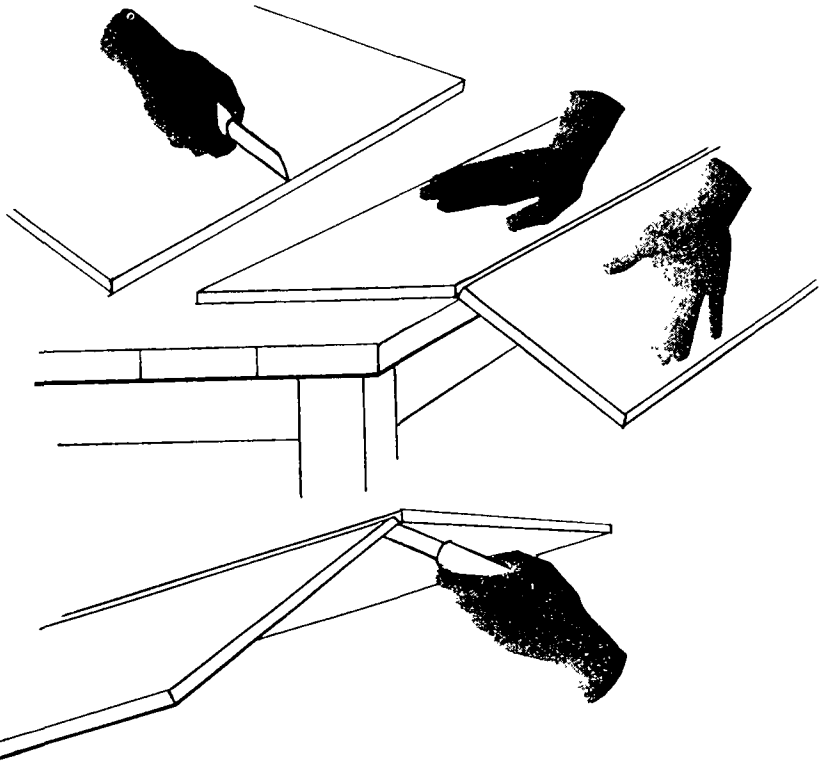


BRICK WORK

In applying Bestwall on brick walls, anchor nailing plugs in the mortar joints to provide for nailing of strips. To furnish a nailing surface, 1″ x 3″ lumber may be used for furring strips, placed on 16″ centers.

CUTTING

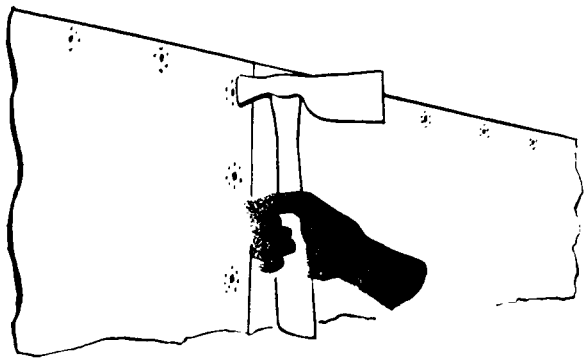
The wallboard may be cut to fit by scoring it on the face side with a sharp knife (using a straight edge) so that the surface paper is parted. Then lay the panel over a solid support with the scored side up. Snap the sheet backward, away from the scored face. Then score the back surface along the break. This method is fast and clean; however, the panel may also be cut with a saw.



NAILING

Be sure that wallboard edges are butted, but not forced into place. Nail panels to intermediate joists first, from the center to the edges; then nail the ends. Nails should be not less than $\frac{3}{8}$″ from edges and ends and should be spaced 5″ to 7″

apart on ceilings and 6″ and 8″ apart on walls. Leave nails in a "dimple", formed by the last blow of crowned-face driving tool. Do not use a nail set or break the face paper in nailing. Nail adjoining edges and ends so that nails are opposite each other, not staggered.



The nails to be used with each thickness of wallboard are:

$\frac{1}{4}$″ thick — Flat head, diamond point nails, $1\frac{1}{4}$″ long.

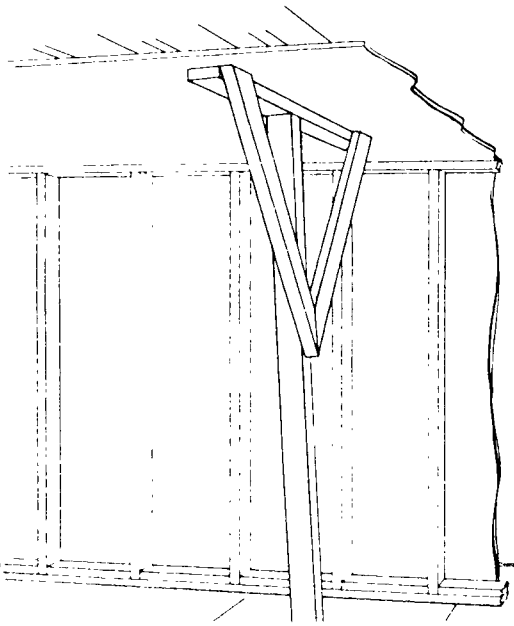
$\frac{3}{8}$″ thick — 4d, cement coated, 14 gage, flat head nails, $1\frac{3}{8}$″ long.

$\frac{1}{2}$″ thick — 5d, cement coated, 13½ gage, flat head nails, $1\frac{5}{8}$″ long.

$\frac{5}{8}$″ thick — 6d, cement coated, 13 gage, flat head nails, $1\frac{7}{8}$″ long.

CEILINGS

The ceiling should be completed first, the panels being applied at right angles to (across) the joists. The recommended method calls for two men, on staging, supporting the board on their heads; one end should be slid on to a 3′ crosspiece which has been nailed across the studs about $\frac{3}{4}$″

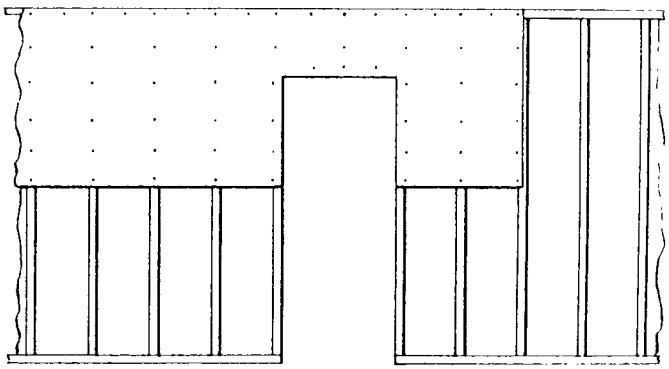


APPLICATION INSTRUCTIONS CONTINUED

below the ceiling. This releases one man to nail the other end of the board in place as the second man supports it. Where one man is working alone, a "T Buck" and staging should be used. The upright of the "T Buck" being 1″ longer than the height of the ceiling. For staging, two ordinary saw horses and planking are used. As described above, one end of the Bestwall panel is slid on to a 3′ crosspiece, the other end being raised into position by the use of the "T Buck" and nailed in place. If possible, span the entire width (or length) with one panel, to eliminate end joints that would require treatment. Otherwise, stagger end joints.

WALLS

HORIZONTAL APPLICATION — When joints of wallboard are to be concealed by the Bestwall Joint System, horizontal application is recommended. Longer panels can be used and the fewer joints can be treated easier by being at waist level. Tapered edge wallboards should always be applied horizontally. Other type edges may be so applied even though joints are exposed.



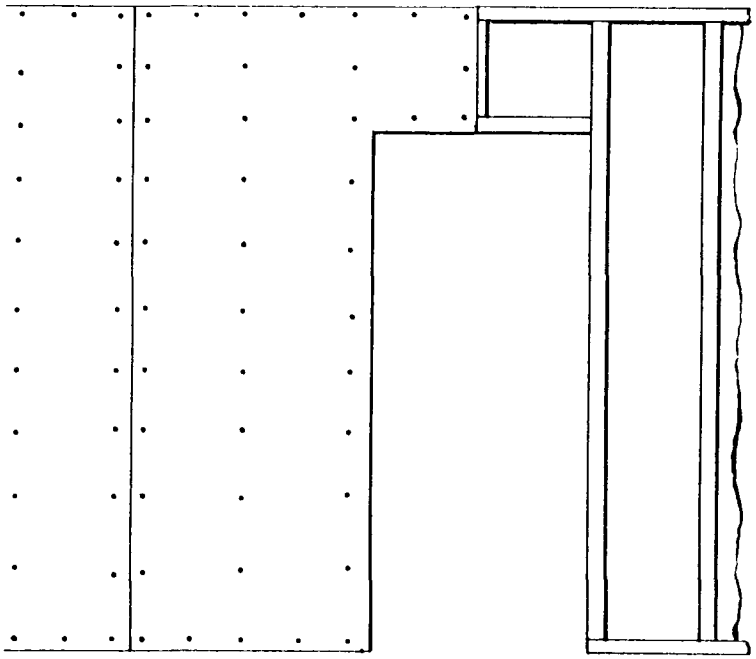
Apply wallboard to upper corner first and work across and down wall. Vertical joints should be staggered. Wall joints should never meet ceiling joints at ceiling line. Avoid vertical joints at edges of openings. Either cut opening out of a full panel or plan joint to occur on the stud nearest to the center of opening; the former being preferred.

SGP 0026207

APPLICATION INSTRUCTIONS CONTINUED

WALLS continued

VERTICAL APPLICATION — Bestwall Wallboards with square or beveled edges, such as Bestwall Grain Boards, present a more attractive appearance when applied vertically. The joints may be covered with wood trim, or left exposed. In either case, the joint pattern should be planned carefully before installation is begun.

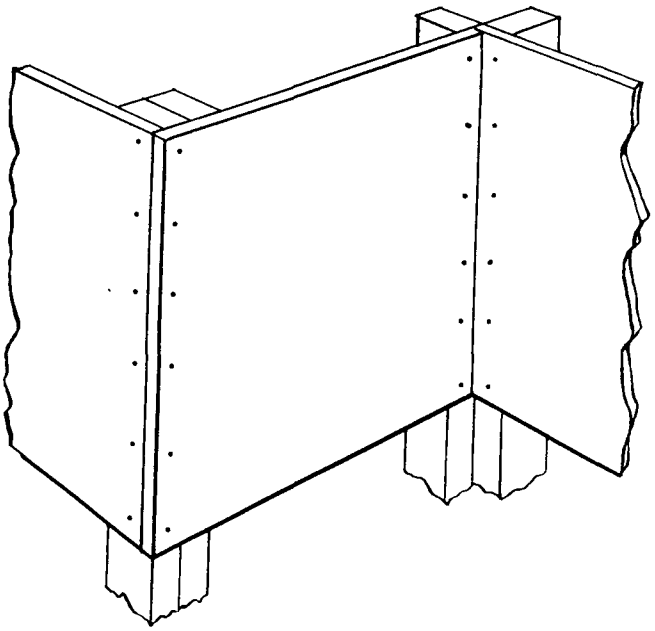


The wallboard panels are furnished in lengths that will reach from floor to ceiling of most rooms. When applied vertically, there are no horizontal joints. If the panels do not quite reach the ceiling, baseboards and mouldings could be used to cover the remaining height. Avoid vertical joints at edges of openings; they should occur on stud nearest the center as shown above.

CORNERS

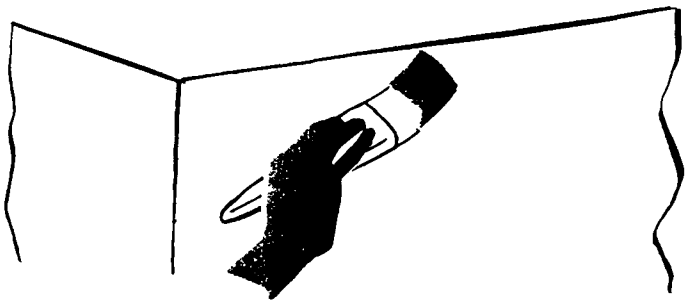
Double studs should be provided at all wall intersections. Wallboard corners are formed by lapping one panel over the edge of the other panel.

Certain-teed Corner Bead, Metal Corners and Metal Casings may be used for stronger and neater installations.



DECORATION

Bestwall Wallboards may be decorated as soon as erection is completed. Paint, enamel, wallpaper or any other treatment may be applied. However, it is recommended that Bestwall Primer Sealer first be applied to provide an even suction over the paper and joint cement. Then follow the application recommendations of the manufacturer of the decorative material.



Bestwall Grain Boards may be given a glossy finish by painting with a clear shellac or by varnishing and then waxing.

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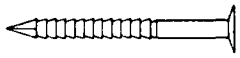
PRODUCT DATA

	Edge	Thickness	Width	Length	Weight lbs. per 1,000 sq. ft.	Framing width Recommendations	Nail Size	Nails lbs. per 1,000 sq. ft.	Nail Spacing	Panels per Bundle
BESTWALL GYPSUM WALLBOARD	Square	1/4"	4'	6' to 12'	1075	16" o.c.	4d	3.8	6" o.c. ceilings 7" o.c. walls	3
	Square or Tapered	3/8"	4'	6' to 12'	1525	16" o.c.	4d **	3.8	"	2
	Square or Tapered	1/2"	4'	6' to 12'	2050	16" or 24" o.c.	5d **	5	"	2
BESTWALL INSULATING* GYPSUM WALLBOARD	Square	3/8"	4'	6' to 12'	1525	16" o.c.	4d **	3.8	"	2
	Square or Tapered	1/2"	4'	6' to 12'	2050	16" or 24" o.c.	5d **	5	"	2
BESTWALL GRAIN BOARDS	Knotty Pine—Square	3/8"	4'	8', 9', 10'	1525	16" o.c.	4d	3.8	"	2
	Figured Aspen—Beveled	3/8"	4'	8', 9', 10'	1525	16" o.c.	4d	3.8	"	2
	Ribbon Mahog.—Beveled	3/8"	4'	8', 9', 10'	1525	16" o.c.	4d	3.8	"	2
FIRESTOP BESTWALL GYPSUM WALLBOARD	Tapered	1/2"	4'	6' to 12'	2150	16" or 24" o.c.	5d c.c.	5	"	2
	Tapered	5/8"	4'	6' to 12'	2600	16" or 24" o.c.	6d c.c.	6.5	"	2
WEATHER-SHIELD GYPSUM SHEATHING	V Edge Tongue & Groove	1/2"	2'	8'	2050	16" or 24" o.c.	11 gage Large hd. galv.	4.6	8" on centers	2
								11.3	4" on centers	

BESTWALL JOINT SYSTEM	Packaged	Approx. Shipping Weight
Package No. 1 18 lbs. Cement, 250 ft. Tape	Bags	20 lbs.
Package No. 2 4 lbs. Cement, 60 ft. Tape	12 Packages to Case	60 lbs.
Package No. 3 4 lbs. Cement, 60 ft. Tape plastic knife	12 Packages to Case	61 lbs.
B.J.S. Cement 25 lbs. cement	Bags	25 lbs.
B.J.S. Cement 5 lbs. cement	12 Boxes to Case	61 lbs.
B.J.S. Bedding Compound 25 lbs.	Bags	25 lbs.
B.J.S. Topping Compound 25 lbs.	Bags	25 lbs.

*Any of the gypsum wallboards are available with insulating foil back on special order.

Data on wallboard accessories are presented with the product description.



**Gypsum Association recommends this nail where conditions exist that produce nail popping. 1¼" long; .098 gage; ¼" flat, slightly countersunk head; diamond point; annular threads. 362 per lb.

Fireproof Gypsum

BESTWALL

BUILDING PRODUCTS

Bestwall Gypsum Plaster • Bestwall Lite Mix Plaster • Bestwall Sanded Spar Gauging Plaster • Bestwall Sunflower
Bestwall Common Gauging • Bestwall Keene's Cement

Bestwall Builder's Lime • Bestwall Smooth Lime • Bestwall Speedy Lime • Bestwall Mason's Lime

Bestwall Metro-Mix • Bestwall Gypsum Form Board • Bestwall Gypsteel Plank

Bestwall Gypsum Lath • Bestwall Gypsum Wallboard • Bestwall Firestop Gypsum Wallboard • Bestwall Weathershield Gypsum

Bestwall Joint Systems • Bestwall Certex Texture • Bestwall Olsen Clips

and others

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