Yale's Payne Whitney Gymnasium is framed in passage between dining halls of Saarinen's colleges.

57 SAARINEN COLLEGES OPEN AT YALE
61 JOHNSON REDESIGNS MUSEUM ADDITION
62 P/A BUSINESS FORECAST FOR 1963
74 WASHINGTON/FINANCIAL NEWS
77 NEW PRODUCTS
85 MANUFACTURERS' DATA
A Robbins hardwood floor stands up to most any kind of punishment you throw at it. Reason? — *Northern Hard Maple*—world's finest flooring material, combined with time-tested installation systems and techniques.

However, even quality flooring and a Robbins-engineered floor system are no better than the men who install it. Accept any low bid for a "look-alike" substitute by an unqualified installer, and chances are your client will end up with an unsatisfactory floor.

To assure proper performance, insist on installation by an experienced, competent, and reliable floor contractor. A Robbins floor specification authorizes installation exclusively by approved installers. It's a planned program of putting quality flooring in the hands of reliable craftsmen. Of course, every competently installed Robbins floor is fully guaranteed by both the manufacturer and floor contractor.

For information on Robbins floors and the name of your closest approved installer, write Robbins Flooring Company, Reed City, Michigan, attention PA-1163.
A walk through the older colleges and quadrangles of Yale University reveals buildings and vistas that are eminently "collegiate" in feeling: James Gamble Roger's eclectic Harkness Quadrangle and the rich grab-bag of the Old Campus, for instance.

To this New Haven scene have been added Eero Saarinen's Ezra Stiles College and Morse College. Situated on a catenary site between the neo-Gothic Payne Whitney Gymnasium and the equally neo-Gothic Graduate School, the colleges are a triumph of (1) exploration of new forms for collegiate living, and (2) blending of an exciting new concept with older styles for an admirable homogeneity. The buildings, which on casual viewing might seem a somewhat histrionic tour de force, are really a most carefully thought-out design that has already become of a piece with its surrounding, more traditional milieu. That this solution should appear decidedly "in place" and yet bear the unmistakable mark of its talented creator is not surprising in view of the fact that, after fundamental education in the atelier of his father Eliel, Saarinen went to Yale, and was acquainted with its warmth and charm.

In writing about the Stiles-Morse project during the design phase, Saarinen said, "Somehow, the architecture had to declare them as colleges, not as dormitories. The more we studied and thought about their function and purpose, the more convinced we became that their emphasis as colleges must be clearly on the individual as an individual, not as an anonymous integer in a group." This emphasis has been realized in grouping the Continued on page 60
Saarinen's plan for Ezra Stiles and Morse colleges joins them in a giant arc facing Payne Whitney Gymnasium. At the center of the plan, the two dining halls share a common, underground kitchen. Each college has a tall dormitory building, conforming to the Yale tradition of a tower or belfry for each building group. Saarinen stated that "it seemed right that these two colleges should also raise their heads high." Occurring close by the towers at either end of the crescent are buildings containing offices and living quarters for the masters of the colleges. The new Yale Co-op store is situated at the rear of the site on Broadway. Saarinen thought that if Tower Parkway, between the colleges and the gymnasium, is ever closed, a third college could be placed near Morse College to extend the great arc.

Plan is from the new Yale University Press book Eero Saarinen on His Work, edited by Aline B. Saarinen. Photographs at left are keyed in the plan.
Ceilings of the lofty dining halls are exposed concrete grid. Saarinen indicated that he intended the majority of the rooms are for single occupancy. They all view one of the three courts or the main plaza through ceiling-high, narrow slit windows equipped with dark-stained, slatted wooden shutters. Saarinen sought for a variety of individual room shapes, "as random as those in an old inn."

Study rooms or libraries use the major materials of all interiors at the colleges: stone, plaster, and wood. Furniture consists of segmented study desks, modified "captain's" chairs, and the occasional grace note of a tufted leather Eames lounge chair. Lighting is by ceiling spots and chandeliers.

The detail photograph of wall and window shows the interesting texture Saarinen achieved with his stone-in-concrete technique. He intended ivy to be planted to grow over these walls as in the older Yale colleges. The sculpture, as is all sculpture and exterior light screening at the colleges (p. 60), is by Costantino Nivola.
rooms in long buildings, short buildings, medium-tall buildings, and two tower buildings, using a varying plan of polygonal spaces. Most rooms are single, four grouped on either side of an interior toilet and shower area. Masters of the colleges occupy their own structures containing apartments and offices at either end of the long axis of the site. The colleges meet at the center of the site to form a long crescent facing Payne Whitney Gymnasium. The approach between them, past the respective dining halls, to the rear court, evinces the spontaneous exclamation, "San Gimignano!"; and the feeling is indeed there, with rough stone-in-concrete walls on rising and falling levels pierced by narrow windows. Students have already realized the informal, "village" aspects of living in Stiles-Morse. We observed one student enter his ground-floor room by casually stepping through the window. In addition to the common, rear courtyard, each college envelopes its own court, the one at Morse relating to the rear of the Graduate School and the Stiles court forming its own, cloistered expression. At the rear of the site is Broadway, a main access street into New Haven, and here Saarinen has placed the new, more simply designed Yale Co-op. Walking through these unique spaces, one feels more than ever the great loss to architecture of Saarinen. To this viewer, the colleges stand as one of his very finest achievements, and it is good to know that, in one of his last comments on them, he said, "The colleges are looking strong, as I had hoped they would, and they really work with the other buildings."
NEW YORK, N.Y. Two new wings and an enlarged sculpture garden sheltering a studio and study center have been designed for the Museum of Modern Art by Philip Johnson Associates (successing his preliminary design: p. 73, December 1959 P/A). Ground is being broken this month for the first phase of building: the east wing and the garden wing. Since current activities in museum properties to the west of the present museum will be shifted to the garden wing, construction of the west wing must wait until it has been finished.

The garden wing (above, top right) will have two levels, one underground and containing studios and study and research spaces, the other containing galleries and a hall for temporary exhibits. The roof of this building will be developed as an extension of the sculpture garden and will be approached via a long flight of stairs up the west facade. This building will be the quarters of the Art Center of the Institute of Modern Art, a school for 800 children and adults that is affiliated with the museum.

With the construction of the 50' wide east wing and the 100' wide west wing, the museum will have a completely redesigned entrance (above) and immensely increased floor space. The ground floor will contain a glass-walled lobby, permitting the visitor to see through from the 53rd Street entrance to the sculpture garden, two large galleries for temporary exhibitions, two small galleries, publications desk, and service facilities. Collections will occupy the second and third floors, and libraries and archives will be on the fourth. Administrative offices will be on the fifth floor; members' facilities on the sixth.

The expanded Architecture and Design collection will be housed in its own gallery, named the Philip L. Goodwin Gallery in honor of the late architect who designed the present museum (with Edward D. Stone) and was chairman of its Department of Architecture and Design, 1935–40.
The year 1963 should bring good but not fabulous business to architects, according to the results of PROGRESSIVE ARCHITECTURE's annual business survey. In the largest return of business questionnaires to date—1460—respondents indicated that work currently on the boards to be built next year will represent a levelling off, at least in the early months, from the upward leaps reported in the past two surveys. That this occasions no cause for alarm can be seen by considering the average dollar volume per office since 1966, a year some economists consider the beginning of the development of the current building economic picture and also the first year the P/A study was reported in its present form. This eight-year average figure comes to slightly over $4.6 million per average office. Comparing it to the average dollar volume per office of $4,636,007 expected in 1963, it will be seen that a comfortably profitable year can be forecast.

After two years, building for education regains its position as the top earner in the average office. In 1961, commerce was the leader, and projects for multiple residences showed an amazing rise in the 1962 survey (in 1963, multiresidential will return to normal as the third most profitable type, after commerce). Categories which will show increases in 1963 are health, urban design, industry, and defense. This augurs well for a possible increase in business in the latter part of 1963, since each of these is a category requiring large outlays.

Education not only represents the highest dollar-volume in the average office, but it also is the leading category in six out of the ten (plus...
Regional spread remains about the same as in past, indicating nationwide distribution of architectural practitioners.

**TABLE 1**
Number of firms reporting and regional distribution

<table>
<thead>
<tr>
<th>Region</th>
<th>% of Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>4.6</td>
</tr>
<tr>
<td>North Central</td>
<td>10.6</td>
</tr>
<tr>
<td>Great Lakes</td>
<td>8.8</td>
</tr>
<tr>
<td>Northeast</td>
<td>26.3</td>
</tr>
<tr>
<td>Southeast</td>
<td>10.6</td>
</tr>
<tr>
<td>Gulf States</td>
<td>7.2</td>
</tr>
<tr>
<td>Central States</td>
<td>6.3</td>
</tr>
<tr>
<td>Texas</td>
<td>6.7</td>
</tr>
<tr>
<td>Western Mountain</td>
<td>5.5</td>
</tr>
<tr>
<td>California-Nevada</td>
<td>12.8</td>
</tr>
<tr>
<td>Alaska-Hawaii-Puerto Rico</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total Returns:</strong></td>
<td><strong>1460</strong></td>
</tr>
<tr>
<td><strong>National Average:</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**TABLE 2**
Average dollar volume by regions

<table>
<thead>
<tr>
<th>Region</th>
<th>Average $ Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>$1,861,806</td>
</tr>
<tr>
<td>North Central</td>
<td>$937,947</td>
</tr>
<tr>
<td>Great Lakes</td>
<td>$931,372</td>
</tr>
<tr>
<td>Northeast</td>
<td>$6,951,765</td>
</tr>
<tr>
<td>Southeast</td>
<td>$2,846,760</td>
</tr>
<tr>
<td>Gulf States</td>
<td>$3,185,656</td>
</tr>
<tr>
<td>Central States</td>
<td>$4,651,098</td>
</tr>
<tr>
<td>Texas</td>
<td>$3,331,402</td>
</tr>
<tr>
<td>Western Mountain</td>
<td>$2,599,100</td>
</tr>
<tr>
<td>California-Nevada</td>
<td>$4,925,575</td>
</tr>
<tr>
<td><strong>Alaska-Hawaii-Puerto Rico</strong></td>
<td><strong>2,875,667</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$6,536,007</strong></td>
</tr>
</tbody>
</table>

Regional $ volume lead returns to the Northeast after a year on West Coast.

**TABLE 3**
Dollar-volume averages and % distribution of work by types of buildings in all regions

<table>
<thead>
<tr>
<th>Type</th>
<th>% of Average Firm's Type</th>
<th>$ Volume in Average Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>21.1</td>
<td>$ 976,936</td>
</tr>
<tr>
<td>Commerce</td>
<td>16.0</td>
<td>744,933</td>
</tr>
<tr>
<td>Residential (Multiple)</td>
<td>15.7</td>
<td>778,930</td>
</tr>
<tr>
<td>Health</td>
<td>11.4</td>
<td>528,990</td>
</tr>
<tr>
<td>Public Use</td>
<td>10.3</td>
<td>476,499</td>
</tr>
<tr>
<td>Industry</td>
<td>7.6</td>
<td>351,687</td>
</tr>
<tr>
<td>Defense</td>
<td>5.5</td>
<td>288,282</td>
</tr>
<tr>
<td>Religion</td>
<td>4.3</td>
<td>148,923</td>
</tr>
<tr>
<td>Urban Design</td>
<td>4.2</td>
<td>149,066</td>
</tr>
<tr>
<td>Recreation</td>
<td>1.9</td>
<td>89,593</td>
</tr>
<tr>
<td>Residential (Private)</td>
<td>1.6</td>
<td>74,304</td>
</tr>
<tr>
<td>Other</td>
<td>.3</td>
<td>13,664</td>
</tr>
<tr>
<td><strong>Total (average of all regions)</strong></td>
<td><strong>100.0</strong></td>
<td><strong>$4,536,007</strong></td>
</tr>
</tbody>
</table>

**TABLE 4**
Activity of architectural firms in types of buildings

<table>
<thead>
<tr>
<th>Types of Buildings</th>
<th>% Firms Reporting Current Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commerce</td>
<td>49.9</td>
</tr>
<tr>
<td>Education</td>
<td>47.6</td>
</tr>
<tr>
<td>Religion</td>
<td>39.0</td>
</tr>
<tr>
<td>Residential (Private)</td>
<td>38.2</td>
</tr>
<tr>
<td>Residential (Multiple)</td>
<td>34.2</td>
</tr>
<tr>
<td>Health</td>
<td>28.8</td>
</tr>
<tr>
<td>Public Use</td>
<td>25.9</td>
</tr>
<tr>
<td>Industry</td>
<td>21.2</td>
</tr>
<tr>
<td>Recreation</td>
<td>15.1</td>
</tr>
<tr>
<td>Urban Design</td>
<td>6.7</td>
</tr>
<tr>
<td>Defense</td>
<td>6.6</td>
</tr>
<tr>
<td>Other</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Most U.S. practices have several types of projects on the board, as indicated by activity percentages.

**TABLE 5**
Specialization of architectural firms

<table>
<thead>
<tr>
<th>Types of Buildings</th>
<th>% of Firms Doing Only This Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>3.3</td>
</tr>
<tr>
<td>Commerce</td>
<td>2.7</td>
</tr>
<tr>
<td>Residential (Private)</td>
<td>3.8</td>
</tr>
<tr>
<td>Residential (Multiple)</td>
<td>1.4</td>
</tr>
<tr>
<td>Religion</td>
<td>1.4</td>
</tr>
<tr>
<td>Health</td>
<td>1.1</td>
</tr>
<tr>
<td>Industry</td>
<td>.6</td>
</tr>
<tr>
<td>Public Use</td>
<td>.5</td>
</tr>
<tr>
<td>Recreation</td>
<td>.1</td>
</tr>
<tr>
<td>Defense</td>
<td>.1</td>
</tr>
<tr>
<td>Urban Design</td>
<td>.87</td>
</tr>
</tbody>
</table>

Total: 12.87

Specialization has decreased since last forecast, but all types are represented.

Small to medium-sized firms doing up to $10 million are in the majority.

Alaska-Hawaii-Puerto Rico regions. Commerce leads in the Central States, and multifresidential is the top type in the Northeast, Southeast, Gulf States, and California-Nevada. Dollar signs on the map (facing page) indicate the dollar volume per average office in each region; the human figures represent number of employees in the average firm. The pie-chart at the bottom of the page gives the percentage distribution of design categories on the boards of the average office.

Work for private clients will account for 64.8% in the average office in 1963, and public work, 35.2%. This represents a rise for public work, conceivably because of the increases in defense, health, and urban design work. Status of work in preliminary design and that in working drawings is practically half-and-half, preliminaries accounting for 50.7% of the dollars, and working drawings for the remaining 49.3%.

Architects specializing in one category of design will represent 12.87% of total firms (as compared to 1962's 14.78%). All categories will be represented by specialists, urban design being the latest addition to the list. As in the past, firms employing up to nine employees with work of up to $10 million will make up the majority of offices. However, percentages on offices of all sizes have increased.

Factors which will affect architectural practice in 1963 — as opined by respondents to the survey — include, first and foremost, the general economic picture and availability of money, costs of materials and labor, and Government support of construction projects. Other factors named were expanding architectural practice as described at the last AIA Convention, the continuing threat of package dealers in some regions, better architectural public relations, revised tax laws, and availability of materials. Amazingly, the world picture did not come in for much mention.

Considerations likely to influence future design led off with a strong vote for concrete in its many plastic forms: prestressed, precast, reinforced. Structural forms and more embellishment on buildings came in for praise, as did the design possibilities of new and improved materials and application techniques. According to those answering the survey, clients are becoming more and more design conscious, making it simpler to do a good job with less time wasted in client education.

Architects see new dimensions in design opening through urban planning and design — the design of the "total environment." Leading the "sensual" design trend still leads the "box" group by a ratio of about five to three.
Cincinnati Result:
No Awards Given

The jury for the Cincinnatus Competition met last month in Cincinnati to judge approximately 60 submissions for that city's proposed riverfront memorial [p. 63, April 1962 P/A]. After a day's deliberation, the judges announced that there would be no first, second, or third prizes, or honorable mentions. In a prepared statement, the jury said that it "unanimously agreed that none of the submissions met the quality of design expected by them as an interpretation of the program." Jurors included P/A Editor Thomas H. Creighton, Jury Chairman; Architects Gordon Bunshaft and Douglas Orr; Paul Rudolph, Chairman, Department of Architecture, Yale University; Ernest F. Pickering, Dean, College of Design, Architecture and Art, University of Cincinnati; Grady Clay, author and journalist; and Cornelius J. Hauck, President, Cincinnati Board of Park Commissioners.

Jury members were reluctant to discuss the unexpected result beyond the prepared statement, to which they had agreed. However, there are suggestions that among the difficulties that brought down the number of final submissions—and apparently also lowered their quality—were the closeness of the site to proposed additional new buildings as yet unplanned; the inability of competitors, following the program literally, to use the waterfront in any important way; and the indefiniteness of the subject of the symbol that was required ("the character of the present city and its future," the program said).

There have been other recent national competitions the results of which have been controversial, but it is believed that this is the first in which there have been no prizes awarded.

Lafayette Square Development Set

WASHINGTON, D.C. The General Services Administration has unveiled John Carl Warnecke's designs for the redevelopment of Lafayette Square to the accompaniment of cheers from President Kennedy.

Chief aim of the plan has been to preserve the scale of the 18th- and early-19th-Century buildings which face the square on its Madison Place and Jackson Place sides, while at the same time providing two large new buildings—one for executive office space and one for the Court of Claims and the Court of Customs and Patent Appeals. These buildings, on either side of the square, will be set in garden courts behind the old residential-type buildings that line the square. Warnecke has deliberately kept the architecture "anonymous" so as not to overpower the older structures. Approach to the new buildings will be, for the executive office building, from 17th Street and from a court at the rear of the houses on Jackson Place; for the courts building, through a new arched structure on Madison Place. Whenever new structures are required on the square, Warnecke has tried to "match" them with existing buildings (see Jackson Square facade sketch above). Entrance to the new buildings can be made through these structures.

Commenting on the preliminary designs, the President wrote GSA, "I am particularly pleased that... [GSA] and the architects were able to express in the new buildings the architecture of our times in a contemporary manner that harmonizes with the historic buildings."

Major Interiors Exhibit

Decoration and Design 1963, the interior furnishings exhibition sponsored by the American Institute of Interior Designers, the Resources Council, and The New York Herald Tribune, was on view for 11 days in New York. This third presentation of the annual event was generally saner and less frivolous than its predecessors and gave promise of becoming the nation's most important interior design exhibition.

Around 100 room settings, vignettes, and displays were arranged in the
...because V-LOK® interlocks!

V-LOK steel framing speeds up finishing work and advances occupancy. A hammer blow securely seats interlocking deep end connections. And exclusive V-Section chords are nailable for faster decking. Result: A stronger, more rigid frame, built faster, at less cost per square foot.

Quality-controlled, too. Produced under resident inspection of Pittsburgh Testing Laboratory. Plants in Los Angeles; Rock Island, Illinois; and Canton.

For FREE 48-page design manual, return this coupon today.
Quality lighting and operating economy with
Dome skylights of Plexiglas® acrylic plastic provide natural lighting of the highest quality at the O’Gorman High School, Sioux Falls, South Dakota. In classrooms, corridors, gymnasium, auditorium, cafeteria, library and lobby, the high-level daylighting is uniform in distribution and free of glare. In addition, an appreciable saving in electric power costs is realized because the school’s incandescent and fluorescent lighting is needed only on the relatively few days when the sky is totally cloudy.

This daylighting installation was engineered to control the sky and sun conditions of its geographical location —through selection of the proper density of white translucent Plexiglas® for the diffusing domes of the skylights. Five densities of white translucent Plexiglas® are available for skylights, a choice that insures successful daylighting under any sky and solar conditions.

Through the use of the proper density of white translucent Plexiglas® the following interior lighting goals were achieved at O’Gorman High School:

- The predetermined light level for the visual task involved—an average reading of 60 foot candles in the case of classrooms—is attained during at least 75% of the school year through the skylights alone.
- Daylight is distributed uniformly throughout the skylighted areas.
- Brightness of the light source—the skylight opening in the ceiling—is controlled to insure visual comfort.
- Output of heat per foot candle is lower with the skylights than the output produced by either incandescent or fluorescent light alone.

You can obtain these advantages through Daylight Engineering with dome skylights of Plexiglas®. Our engineering services and those of skylight manufacturers are available to help you. We will be pleased to send you the names of dome skylight manufacturers who use Plexiglas®.
be won for our time, the manufacturers of modern furnishings had better get into exhibitions such as the D&D show to illustrate to the traditionalists how comfortable the designs of our time can look when used by progressive interior designers and architects.

Conferees See Expanding Construction of Shells

Over 700 enthusiasts of shell construction crowded the Grand Ballroom of the Sheraton-Palace Hotel in San Francisco last month to exchange up-to-minute knowledge of topical developments in this method of building. Sponsored by the University of California, BRAB of the National Academy of Sciences-National Research Council, and the International Association for Shell Structures, participants at this conference represented at least two dozen countries. They presented more than 60 papers on the theory, design, environment, computation and analysis, construction, and economics of shells in four consecutive days of intensive sessions.

The need for a World Conference on Shell Structures was suggested by the late Eduardo Torroja, three or so years ago, while on his last visit to the University of California. Although he was unable to share in the success of this meeting, he would undoubtedly have agreed with A. M. Haas, President of the International Association for Shell Structures, who in the opening ceremonies said that its purpose was "to understand as well as to help to inspire." Even though the depth of material presented at the sessions reflected a tremendous growth in the knowledge of shells, A. L. Parme, Vice-President of IASS, reminded the conferees that "we are but at the threshold of this construction system."

The renowned Brazilian architect Oscar Niemeyer was forced to cancel his visit at the last minute. However, Frei Otto, Felix Candela, Mario Salvadori, Anton Tedesko, Milo S. Ketchum, Boyd G. Anderson, J. A. Torroja, and Robert B. Newman were among many other internationally known professionals connected with the building of shells who were in attendance.

Most of the presentations were made from papers, Candela's being a refreshing exception as he extemporaneously explained that in his opinion "too many papers and books have already been written by too many people." Most of the deliveries, however, were flexible and the speakers freely applauded or contradicted comments that preceded their own. For example, Candela questioned Otto's philosophical explanation that "structures were developed by similar methods found in nature"; and, in his turn, William Caudill took exception to Candela's "nonfunctional approach to shells." Caudill predicted that "shells for future use in schools will be limited to one large unit, taking maximum advantage of visual space separators." Uniquely, one of the most analytical presentations was by an architect, Seymour Rutkin of New York, who spoke on "A Shell of Variable Thickness with a Middle Surface Not Expressible Analytically." Although almost all of the discussions were concerned with the application of concrete to shells, there were also reviews of timber, plywood, steel, ceramic, and plastic shells.

An expanding acceptance and use of shells was the inescapable consensus of this eminently successful conference, which was chaired by Prof. E. P. Popov, of the University of California. Proceedings of all discussions will be published.

SKIDMORE DIES

Following a long illness, Louis Skidmore, FAIA, a founding partner of Skidmore, Owings & Merrill, died in Winter Haven, Florida, on September 27. He founded the firm with his brother-in-law Nathaniel A. Owings in 1935, and they were joined by John
Incor® Shortens Construction Time for Longest Single-Span Folded Plate Roof

Concrete with 2 to 2½-inch slump is placed from 1½-yard bucket on forms for folded plate roof. Roof is made up of 8 Y-sections 26 ft wide and 11½ ft deep, each post-tensioned with 12 tendons.

The longest single-span folded plate roof ever constructed in the United States is Indiana State College's answer to the need for column-free space in its spectacular new gymnasium.

The contractor's answer to the problem of fabricating the giant 157½-ft post-tensioned members was an ingenious combination of advanced handling techniques and "Incor" high early strength portland cement. As one section of concrete cured, supporting scaffolds were skidded ahead, leaving forms hanging from the ceiling. Forms were then lowered to the ground by crane with lines worked through blocked out holes in the concrete, then cleaned and raised again to the next position. With 7 sacks of "Incor" cement per yard, the concrete attained a strength of 4000 psi in 4 days. For all other concrete requirements, Lone Star Portland Cement was used.

Whether it's a case of putting expensive forms to most profitable use or expediting for faster follow-up operations to meet an early deadline, wrap up your problems quickly with "Incor"—the nation's first high early strength portland cement.

LONE STAR CEMENT CORPORATION, New York 17, N.Y.
of Hugh Stubbins & Associates, F. A. Stahl & Associates, and William J. LeMessurier & Associates. Twenty-six office floors will rise from a two-story base having four projections providing space for stores, banks, and other public-use areas. Terraces will occur atop these sections, and there will be a rooftop terrace and restaurant. Use of major cantilever beams will provide large, column-free interior spaces.

Other building, a two-story unit, will contain offices and conference rooms. Outdoor courts and patios designed by Royston, Hanamoto & Mayes will enhance the project, and there will be parking for 172 automobiles.

Library Addition for Civic Center

Major public library addition for Grand Rapids, Michigan, features a roof pleated on the edges of both its long sides. The 800,000-volume capacity structure will be part of the new Grand Rapids Civic Center development. Public areas and open shelves will be on the first two floors; stacks will be in the basement and on the third floor; fourth floor will house book repair and service departments plus mechanical equipment. There will be a 300-seat auditorium at street level with its own separate entrance. Architect: Ralph R. Calder & Associates; Associate Architect: Robinson, Campau & Crowe, Inc.

Placid and Profound

Christ Church Episcopal in Whitehaven, Tennessee, by Wadlington & Marshall of Memphis, will be a structure at once dignified and imaginative. The structure will feature brown brick walls with white stone edging and entrance roof facings, with a dark roof. The interior will have a central altar plan, the altar being surrounded on six of its octagonal sides by the congregation and on the rest back-stopped by the choir. Parallel concrete roof beams will intersect over the altar. Natural lighting will come from translucent clerestories and from recessed colored glass panels over each entrance. Lighting of the choir screen will control the congregation's view of the singers.

Stanford's Computer Center

Architect Claude Oakland has designed the proposed Stanford University Computation Center for Eichler Homes, Inc., the builder. IBM 7090-1401 and Burroughs 5500 computers will be housed in one of two related buildings having a total of 33,000 sq ft. The

Caribbean Condominium

What is said by the architect to be the first FHA condominium to be built in the U.S. under the new FHA Section 234 will be erected in San Juan, Puerto Rico. Designed by E. William Thun, the Torre Alta will be a 14-story building containing 70 apartments. Prices of the apartments begin at $16,500. Martinez & Costa is Structural Consultant, and Fred S. Dubin & Associates is Plumbing and Electrical Consultant.

New Design for Boston Anglo-American Project

Pearl Street Associates, the combine of architects and engineers designing the British-owned 50 Pearl Street, Boston, has advanced a new design making the project bigger and taller than it was when first shown [p. 88, March 1962 P/A]. PSA is composed

O. Merrill in 1936. Skidmore received the Gold Medal of the American Institute of Architects (1957), the Medal of Honor of the New York Chapter AIA (1949), and an honorary LLD from Bradley University (1962). Among his notable works are the town site for the Atomic Energy Commission at Oak Ridge, Tennessee; the Creole Petroleum town site in Amuay Bay, Venezuela; Terrace Plaza Hotel in Cincinnati; and the H. J. Heinz Building, Pittsburgh. He co-authored Tudor Architecture in England with Samuel Chamberlain.
Burke designs a variety of fully upholstered chairs (featuring shells covered in a selection of duPont Kensington or Torino fabric in decorator colors on bases of coated epoxy or polished aluminum. Literature on request.) to tempt you to design buildings around them.

A chair... to use... in the Sargent house...

the airport in Rio... and... this one for my study.
Flex!

Flex!
Flex!

This insulated expansion joint handles the tough ones without leaking—even continuous large movements between building sections. It's field-fabricated quickly, economically, with Saraloy® 400 elastic flashing and Ethafoam® polyethylene foam.

Saraloy 400 flashing conforms to any contour, adheres or fastens to most building materials—metal, glass, masonry, wood. It flexes year after year without failing; won't crack, peel, chip or check. And Saraloy 400 flashing is workable. It's cut with a roofing knife or scissors, fitted and installed in minutes. No preforming!

Insulating the joint is Ethafoam closed-cell expanded polyethylene. It's flexible over a wide temperature range, nonabsorbent and an excellent vapor barrier. Lightweight Ethafoam is easy to handle, cut and use. Virtually inert, it's long-lasting.

You no longer need adapt your design to the limitations of conventional flashings. Whatever the contour or the building components, Saraloy 400 tailors flashing performance to design—by itself or used with other materials. For technical Data Sheet 7-2 on roof expansion joints, or details about Saraloy 400, write us in Midland, c/o Plastics Sales Department 1303EB11.

It's Saraloy 400 and Ethafoam!

For more information, turn to Reader Service Card, circle No. 337.

THE DOW CHEMICAL COMPANY
Midland, Michigan
$1250 Tax Exemption for Retirement Funds

After years of debate, Congressional action approving tax-exemptions for the self-employed (HR 10) may prove to be the most important news of the final session of the 87th Congress, so far as architects' businesses are concerned.

In a nutshell, the bill permits a self-employed person to deduct half the cost of a self-financed retirement program (up to $2500) directly from his income for tax purposes. Thus, if an architect contributes to a bona fide retirement plan for himself, he could deduct a total of $1250 for his contributions to the plan, plus the standard $600 personal exemption—a total of $1850 in all—before computing the taxes he owes the Federal Government.

Congress hedged the provision slightly, stipulating that, among other things, retirement plans must be provided for certain employees as well as the owner. But in general, it is intended to give the self-employed some of the advantages that have accrued for many years to officers of major corporations with respect to corporate retirement programs.

Passage of the new measure wasn't achieved without a bitter opposition, though it didn't show in the lopsided votes favoring the bill. Opponents argued that extending this deduction to the estimated 7 million self-employed (architects weren't mentioned, though doctors and lawyers were) was, in effect, extending help to "those who don't need it."

In deference to this opposition and the Treasury's fears of a major loss of revenue, the deductible amount was cut from an original maximum of $2500 to the approved $1250. Even so, potential loss to the Treasury is estimated at about $125 million.

Up Technology

If it carries out in detail the directives of Congress, that new Commission on Science and Technology could do some good for architects and the construction industry, after all. As you may know, Congress okayed the appointment of the twelve-man commission (to include four members appointed by the President, eight by Congress). Six members would have

Government (or political) backgrounds as qualifications; six would be "eminently in one or more fields of science or engineering to be qualified solely by reason of administrative work..."

Make no mistake about the general purposes: Congress is thinking most about the "glamor" sciences like aeronautics, physics, and chemistry.

But there's a provision that the new Commission may appoint an advisory panel—including members of the "scientific and technical communities" of the U.S. to serve as consultants. Conceivably, these could include some architects.

One objective of the Commission: Reorganization of Federal departments that finance, operate, or conduct scientific programs or basic research in science and technology; conservation and utilization of scientific manpower.

FDR Report

Working under forced draft as the remaining days of the session were gradually dwindling away, the House was in no mood for another round in the long and often bitter battle over the prize-winning Pedersen-Tilney design for a Franklin D. Roosevelt Memorial on the banks of the Potomac.

After listening to Rep. James Roosevelt say that his family would have no objection to a restudy, the House adopted a watered-down resolution that gave the Memorial Commission another $25,000, and told it, in effect, to have another look at the design, see if one of the other designs considered in the final judging wouldn't be more suitable, or at least if the design couldn't be modified for the Fine Arts Commission.

Architectural Washington

Washington's own private architectural pot—long on the back burner as national issues overshadowed it—was again coming to a boil.

For one thing, the General Services Administration said it would develop what will be the umpteenth "comprehensive plan" for development of Lafayette Square—the block of park and its surrounding buildings that face the north portico of the White House. The new plan was to be developed by the San Francisco firm of John Carl Warnecke & Associates, which will design two projects scheduled for construction facing the square (The Executive Office Building and the Court of Claims), attempt to maintain the historic character of the square, nevertheless.

Second, the House District Committee approved bills that would give the staid Fine Arts Commission new authority to "preserve the old Federal City character" of fashionably Georgetown by requiring the city's government to follow Commission recommendations in issuing permits for demolition, new construction, or alteration of buildings in the Georgetown area.

Third, President Kennedy ended a long battle over construction of a "Junior Pentagon"—a $42 million structure flanking both sides of the new Tenth Street Mall in the Southwest redevelopment area. Private developers had fought the building (which will also bridge the Mall at upper levels) as a "Chinese Wall" that would block their works.

And the House of Representatives opened itself up for a new economy debate, when it was revealed that the $100-million-plus Third House Office Building (the Sam Rayburn Building) will include a plush marble swimming pool, and gymnasium.

FINANCIAL

With the exception of private, nonfarm housing (which held to a sudden gain), construction industry indicators remained at a virtual plateau as of the beginning of October.

Housing, so it appeared, was holding up the rest of the construction economy.

In September, the Department of Commerce estimated that the value of total new construction put in place was $5.9 billion—practically unchanged from August. Total new public construction spending was $1.8 billion—same as August, but up 2 percent over a year ago. Total private construction spending also matched August, at about $4.1 billion.

But housing, which took a 15 percent jump over the previous year in August, continued to run at that level: an expenditure of about $2.3 billion to maintain a rate of 1,521,000 units on a seasonally-adjusted basis.

Passage by Congress of the long-argued tax revision bill, which includes an added 7 per cent credit to business for investment in new equipment (but not new buildings), wasn't expected to have much effect on the construction market.

Many financial experts, noting the plateau on which business seemed to have levelled out, thought that the November elections would be a better indicator of the trend of future investment than most normal statistics.
Glass that can do the twist has been announced by Corning. A new process called “Chemcor,” which involves the application to special glass compositions of a broad system of different chemical strengthening solutions, produces glass sheets that can be repeatedly bent in a short radius without failure; glass rods with flexural strength up to 100,000 psi (as compared to 20,000 psi in tempered rods); and glass containers that can be dropped 100' onto a steel plate without breakage. Corning Glass Works, Corning, N. Y.

New viewing instrument, customarily used in medical examinations and surgery, finds a use in architecture. “Modelscope” is ideal for viewing architectural models from “eye level,” to simulate the feeling of being in the project. The instrument is composed of a wide-angle lens of short focal length at the end of a slim repeater-system telescope. Modelscope is also appropriate for photographic attachment, to take pictures within a model. Special styles of greater or shorter length than the standard 12" instrument are also available. D. A. Bruce & Co., Inc., 11 Broadway, New York, N. Y.

Peter Muller-Munk has designed a new all-glass building unit having central recessed areas of translucent pattern glass surrounded by a textured finish with a fired-on opaque concrete-gray ceramic color. The blocks, which provide exterior and interior finishes simultaneously, have an insulation value equal to 12" of concrete. There are four patterns: three in 8"-sq units and one 8" x 4". All are 4" thick. Pittsburgh Corning Corp., 1 Gateway Center, Pittsburgh 22, Pa.
Luxurious Steam Bath at Low Cost

New "Thermasol" unit transforms any bathtub or stall shower (new or existing) into a complete steam room without altering ordinary use of these fixtures. The steam-generating unit is a compact 20" x 8" x 11", to be concealed above a stainless-steel ceiling in tub or shower stall, or to be installed at any convenient spot for remote-control operation. Enclosure of the cabinet is completed with specially designed glass doors that slide or hinge on special track. Steam cannot escape from the enclosure; bathroom walls remain dry and mirrors unclouded. Inside the cabinet are a foldaway wall bench, recessed ceiling light, and waterproof switches (UL-approved) to regulate flow of steam. Cost of the unit is a low $400-600, depending upon type of installation. Thermasol units are currently featured in homes, apartments, motels, executive offices, clubs, and institutions. Thermasol, Ltd., 702 E. 12th St., New York 9, N.Y.

Thermal Control with High-Level Lighting

Three years in development, new "Clymatron" fluorescent fixture provides simultaneous air supply and return, exhaust of fixture heat before it enters room, and increased lighting efficiency. By removing the heat generated by fluorescent lamps and ballasts before it can enter the room, the Clymatron: (1) makes it possible to double or triple the present average lighting level without overburdening air-conditioning systems; (2) provides approximately 15% more light and greater color stability of lamps; (3) cuts equipment and operating costs of heating-cooling systems; and (4) provides greater flexibility and economy in modular planning. "In effect," say the manufacturers, "the Clymatron reverses the energy-distribution pattern of conventional troffers. More light energy, but less heat—radiant, convected, and conducted—enters the room. The conditioned space receives only 1/3 of the heat energy normally introduced into it, while receiving approximately 15% more light." Day-Brite Lighting, Inc., 6280 N. Broadway, St. Louis 15, Mo.

New Impulse for Vertical Blinds

A greater variety in vertical blind installations is made possible by a collection of new weaves and colors in vertical louvers designed by Matias Lozano. One group is woven with a double face: inside of Roman-striped wool, outside of U.S. Rubber's natural colored asbestos-glass fiber, which is sun resistant and prevents colors from fading. Other louvers are of a vinyl coated glass yarn by Owens-Corning Fiberglas, and Rovana plastic yarn by Dow Chemical. Both can be wiped clean with a damp cloth. Broad stripes in earth tones might be the solution for a copy study with a glass wall. Verti-Color Blinds, Inc., 64 E. 55 St., New York 22, N.Y.

Composite Beam of Steel and Wood

New beam of steel and wood makes it possible to increase load-bearing capacity of ridge beams, floor and roof joists, and columns without increasing lumber size. A special cold-formed steel core is faced with 2" lumber in depths from 4" to 14", giving the
appearance of a conventional wood member but with the strength of steel. The wood is nailed securely in place through prepunched holes. At bearing points, 1/4" steel plate is welded between steel chords so that full bearing load is on steel members. The "Chase Composite Beam" utilizes the full structural value of the wood, and because of the steel core, the progressive sagging common to wood supports is eliminated. The Chase Foundry & Manufacturing Co., 2319 Parsons Ave., Columbus 7, Ohio.

On Free Data Card, Circle 110

Superior Protection Against Corrosion

A series of silicone metal protectants to prevent corrosion and tarnish on a variety of metals has been developed by Union Carbide. The general-purpose protectant, "UCAR 101," has a number of outstanding qualities. It provides long-lasting protection on any type of metal (bronze, copper, brass, aluminum, etc.); it adheres to metal with unusual tenacity, forming a stronger bond than any organic film-to-metal bond yet observed; it is highly resistant to corrosive attack in various atmospheres; it is particularly inert to the common contaminants, whether in liquid, solid, or gaseous form; it makes an extremely thin film (1/10,000 in.) that does not affect the color of the substrate; and it gives a surface that is pin-hole free and impermeable, thereby resisting underfilm corrosion. A high-temperature version, "UCAR 104," is also available. Silicones Div., Union Carbide Corp., 270 Park Ave., New York 17, N. Y.

On Free Data Card, Circle 111

New from Thaibok

Thaibok, long known for its elegant, handwoven silks from Siam, also has a growing collection of American textures for upholstery and drapery. The striated casement cloth (illustrated) is a natural-color mixture of linen, cotton, rayon, and goats' hair. A wicker-weave upholstery of all nylon is available in basic shades of blue,
Filing Units
Save Space

"Verti-File" shelf filing system takes only 3.7" of aisle space per filing inch as compared to the 8.4" per filing inch taken by standard four-drawer files. System is appropriate for all types of filing from "live" to "dead," comes in five different heights for secondary use as room divider, credenza, work surface, back-to-back files. Neat lines and clean, flush sides, plus variety of colors available, makes Verti-File desirable for many types of commercial installation. Royalmetal Corp., 1 Park Ave., New York 16, N. Y.

Space Needle Plastics

Decorating the elevator cabs in Seattle's Space Needle are translucent fiber glass reinforced plastic panels featuring a variety of embedments and textured effects. The designer and manufacturer of the panels, employing hand-decorated "Glacite," achieves a number of effects suitable for room dividers, ceilings, wall panels, screens, lighted murals, and doors and windows. Material is manufactured in panels up to 3' 10" x 8' 0"; larger panels are available at an extra 20% charge. Favrex Designs, 97 State St. S., Hackensack, N. J.

Trowelled Marble

Marble applied by a trowel, said to be "neither an imitation nor a man-made synthetie" but an "entirely new form of real marble," has recently been introduced here after some years of use in Europe. "Granolux" is available in a large range of colors and allegedly has the permanence, beauty, and utility of solid marble slabs. This installation is a new shopping center in Pontiac, Mich. Granolux Div., Cement Enamel Development, Inc., 18656 Fitzpatrick St., Detroit 28, Mich.

Luminous Ceiling with Swing-Down Features

"Infinifex," a luminous ceiling system which presents an undisturbed appearance when in place, actually permits each panel to swing down for cleaning and/or relamping. Using noncombustible metals and self-extinguishing plastics, the ceiling should pass most stringent fire codes. The panels are supported by a T-bar grid, and have concealed joints on the under side. Color inserts, new shapes, and textures and contours add to the design flexibility of the system. Integrated Ceilings and Grilleworks, Inc., 11766 W. Pico Blvd., Los Angeles 64, Calif.

Electronic Switchboard
Is Lightweight, Compact

A commercially feasible electronic private automatic telephone exchange—it is competitive in price with existing equipment—weighing about 400 pounds and measuring 71" high x 27" wide x 17¾" deep has been introduced. The fully transistorized switchboard is about ¼ as large as the smallest electromechanical equipment now available. Having no moving parts, gears, or contact points, and relying on an easily replaceable printed circuit board, the system can be maintained by switchboard operator or office secretary. Installation time is approximately ¼ of that of current methods. "Kelex" system has provisions for connection to public address systems, for telephone conferences numbering more than two, for automatic paging via visible and/or audible signals, restricted service on some lines, and stand-by service. International Telephone and Telegraph Corp., 320 Park Ave., New York 22, N. Y.

Gray Glass Block

"Royal Gray" is the latest addition to Owens-Illinois's line of color-in-the-glass blocks, joining "Shade Aqua" and "Shade Green." Glare-reduction properties are notable, O-I claiming that, "This product achieves the lowest brightness level ever produced in building glass." Available in 12"-sq size, in both clear and patterned glass. Kimble Glass Co., subsidiary of Owens-Illinois, Toledo 1, Ohio.

Brown, gold, beige, olive, and orange; the orange colorway is laced with dull mustard to achieve a vibrant effect. Also in the firm's line is the ThaiBok-Mauretania Collection, a group of handwoven drapery and upholstery fabrics—wils and woods—from North Africa. ThaiBok Fabrics Ltd., 16 E. 52 St., New York 22, N. Y.

Electronic Switchboard
Is Lightweight, Compact

A commercially feasible electronic private automatic telephone exchange—it is competitive in price with existing equipment—weighing about 400 pounds and measuring 71" high x 27" wide x 17¾" deep has been introduced. The fully transistorized switchboard is about ¼ as large as the smallest electromechanical equipment now available. Having no moving parts, gears, or contact points, and relying on an easily replaceable printed circuit board, the system can be maintained by switchboard operator or office secretary. Installation time is approximately ¼ of that of current methods. "Kelex" system has provisions for connection to public address systems, for telephone conferences numbering more than two, for automatic paging via visible and/or audible signals, restricted service on some lines, and stand-by service. International Telephone and Telegraph Corp., 320 Park Ave., New York 22, N. Y.

On Free Data Card, Circle 116

On Free Data Card, Circle 117

On Free Data Card, Circle 118

On Free Data Card, Circle 114
is what Flintkote Monoform roofing system can do!

U. L. APPROVED FOR NEW CONSTRUCTION
• Class B for 20 Year Bondable Application

THE SEALZIT GUN IS MANUFACTURED UNDER THE FOLLOWING U.S. PATENTS: 3,501,314; 2,933,128 AND 2,613,751. OTHER U.S. PATENTS PENDING. PATENTED IN CANADA. WORLD-WIDE PATENTS PENDING.

THE FLINTKOTE COMPANY
30 Rockefeller Plaza, New York 20, N.Y.
or Box 2218, Terminal Annex, Los Angeles 54, Calif.
Please send information on Monoform System.

NAME:
FIRM:
ADDRESS:
CITY, STATE:

For more information, turn to Reader Service card, circle No. 343
Look again! Now glass and grill are one: **INTAGLIO** glass wall units

Think of the ideal wall for today's buildings. Take the grace of the grill. Add the classic benefits of glass. Blend the two in one material. **Now you've got INTAGLIO**, new all-glass wall units by Pittsburgh Corning...

Three 8 x 8 x 4" units and one unit 4 x 8 x 4". Each combines in a single, integral unit—on both faces—the graceful, pierced pattern of the grill; the beauty of artfully antiqued glass; the texture of masonry; and the visual, thermal, acoustical properties of double glazing.

One material, one unit does it all. One trade installs it in a single operation.

**PITTSBURGH**

The wall is finished inside and out.

The exciting design possibilities are endless.

Let us send you sketches showing just a few... along with complete product details. Write for our new INTAGLIO brochure. **Pittsburgh Corning Corporation**, Dept. IP-112, One Gateway Center, Pittsburgh 22, Pa.

---

Seen above left to right are INTAGLIO designs II, I, IV, III

For more information, turn to Reader Service card, circle No. 408
DEPTH OF EXPERIENCE

IN SOUND AND COMMUNICATION SYSTEMS

Experience counts—count on DuKane!

Thousands of DUKANE commercial sound and communication system applications are turning in enviable daily records of efficiency, dependability, low maintenance and long life. All of this experience is as near as your telephone.

A call to your local DUKANE distributor provides you with a sound and communication system expert completely familiar with paging, program distribution, internal communications, clock signals, private telephones and many more. Your DUKANE distributor is fully trained to assist you in planning and selecting an appropriate system to meet all sound and communication needs, supervising its installation for maximum life, serviceability and good looks and following up the system installation with service to maintain complete customer satisfaction in the years to come.

Schools, hospitals, churches, industrial, business, institutions, hotels, motels, recreation and sports areas, etc., rely on the local DUKANE distributor for Depth of Line, Depth of Experience and Depth of Services. Contact him—get his know-how working for you now.

WRITE TODAY FOR FULL DETAILS & SPECIFICATIONS ON ALL DUKANE SOUND AND COMMUNICATION SYSTEMS

NAME

TITLE

FIRM

STREET

CITY STATE

DuKANE CORPORATION
COMMUNICATIONS SYSTEMS DIVISION

DEPT. PA-112 / ST. CHARLES, ILLINOIS

For more information, turn to Reader Service card, circle No. 339
AIR/TEMPERATURE

Heat Exchanger Reclaims 80% of Wasted Heat

"Therm-O-Wheel" rotary air-to-air heat exchanger, as described in new 8-page bulletin, is a rotating cylinder packed with a heat-absorbing metal fabric that transfers heat from a contaminated exhaust-air stream to an adjacent fresh-air or make-up air stream. It reclaims up to 80% of the thermal energy normally wasted by exhaust air. Potential applications exist wherever air is thrown away and replaced by air of another temperature. Bulletin discusses major benefitssavings in fuel and/or power, reduction in boiler-capacity requirements, etc. Performance data and specifications are included. Therm-O-Wheel Dept., Continental Copper & Steel Industries, Inc., 100 E. 42 St., New York 17, N.Y.

Fireproofing with Expanded Perlite

Economic fireproofing with "Permalite" plaster aggregate is described in new 8-page brochure. Fire ratings available with these expanded-perlite plasters are given for 38 typical constructions among their structural-steel columns, curtain walls, partitions, floors, roofs, and ceilings. Constructions diagrams illustrate each situation. A major advantage of the material is that it weighs less than half as much as ordinary sanded plaster, permitting a large reduction in dead weight. Thermal insulation is excellent because of the sealed cells of the expanded-perlite particles. Perma Products Dept., Great Lakes Carbon Corp., 612 S. Flower St., Los Angeles 17, Calif.

Quality-Control Program

Quality Standards for Laminated-Timber Construction, 4-page folder, explains the AITC's new quality control and inspection program for structural glued laminated timber. By a system of licensing qualified laminators, and periodically inspecting the quality of their work, the Institute insures that all labeled work will conform to the Commercial Standard recently proposed. A guide form for specifying glued laminated construction under the new quality-control program is included. American Institute of Timber Construction. 1757 K St., N.W., Washington 6, D.C.

Curtain-Wall Panels Faced with Ceramic Tile

Folder, 6 pages, shows series of insulated curtain-wall panels that are faced with ceramic tile and can be fabricated to fit any curtain-wall system. Thicknesses are from 5/8" to 4 1/4"; "U" values are as low as .08. Skins are available in a choice of concrete, aluminum, steel, asbestos-cement board, or plywood, and there are four types of insulating cores. Tiles are grouted with a specially formulated, flexible grout for durability and weather resistance. For a finished interior, panels can be fabricated with tile on both sides. Atlantic Panels, Inc., 199 Dexter Ave., Watertown 72, Mass.

Precast Elements of Outstanding Quality

Brochure, 4 pages, gives complete specifications for Schokbeton precast-concrete elements. According to the brochure (and verified by an editor of P/A who had occasion to visit the Schokbeton plant), quality and appearance of the units are excellent. The exclusive process, originally developed in Holland, places a scientifically designed zero-slump mix into molds of intricate form. This is accomplished by a low-frequency vertical "shock" or impact, which consolidates without segregation. Since the entire element is simultaneously processed, conflict-
and recommendations are provided for glazing aluminum, steel, and wood sash. The properties and purposes of Tremco products are briefly described. The Tremco Manufacturing Co., 10701 Shaker Blvd., Cleveland 4, Ohio. On Free Data Card, Circle 208

First Industry Specs for Sliding Glass Doors
The first industry-wide specifications for sliding glass doors has been published, the result of 4 years' work by the Sliding Glass Door & Window Institute and the Aluminum Window Manufacturers Assn., who merged early this year to form the AAMA. The 16-page publication gives general requirements applicable to all aluminum sliding glass doors, plus specific requirements applicable to particular types of doors (for regular residential and limited commercial use, for applications where increased size or better performance is a factor, and for hurricane conditions). A short-form specification is also included. Architectural Aluminum Manufacturers Assn., 35 E. Wacker Dr., Chicago 1, Ill. On Free Data Card, Circle 209

Automatic Door Operators
Complete Fact File on automatic door-operating equipment is available from Stanley. Detail drawings at quarter scale show the three types of "Magic-Door" equipment—hydraulic, electric, and pneumatic—designed to meet any requirement of doors that swing, slide, or fold. A 22-page catalog describes the various models, and full specifications are provided. The Stanley Works, 195 Lake St., New Britain, Conn. On Free Data Card, Circle 212

Electrical Equipment

Exterior Wall Bracket
Exclusive quality features of McPhilben's new "Delta 7" exterior wall bracket are illustrated in a 4-page brochure. The fixture is fully enclosed and gasketed for weathertight, vapor-tight, and bugtight operation. The prismatic refractor is impact-resistant and heat-resistant, and is designed to exact efficiency and performance characteristics. Housing is corrosion-resistant aluminum, satin-finished, with a weather-resistant protective coating.
try our concrete muffin test...

HILLYARD CEM-SEAL makes concrete denser, stronger. CEM-SEAL works three ways: Retards evaporation of moisture to prolong curing time...prevents dusting which occurs when moisture evaporates too rapidly...protects against staining during construction.

To assure greater density for the concrete in structures you design, specify CEM-SEAL, the one-step curative agent which prolongs natural chemical action.

CEM-SEAL makes fresh concrete ready for traffic hours earlier without cumbersome, costly, inconvenient covering...simply spray it on at a fraction of a cent per foot. CEM-SEAL adds years to the life of old concrete, too...a one-coat application resists the natural dusting of age and renews the surface for easier maintenance.

Test CEM-SEAL yourself. We'll send you concrete muffin samples for comparison, plus our CEM-SEAL brochure with technical data. Write, wire or call collect today.

"On your staff, not your payroll" / PROPRIETARY CHEMISTS SINCE 1907
An integral cast guard is available for locations where added protection against vandalism is needed. Brochure lists suggested applications (interior and exterior), and gives optical data. McPhilben Manufacturing Co., Inc., 1329 Willoughby Ave., Brooklyn 37, N.Y.

Sound-Transmission Loss Explained on Record

Prepared through the co-operation of Riverbank Acoustical Laboratories, a special 33-rpm recording explains how sound-transmission loss is measured and reported. Recorded office noise, speech, and music are treated to acoustical isolation at various noise levels from 20 to 40 db. Accompanying the recording is a booklet, Freedom from Distraction, that provides a concise report on the new ASTM acoustical standard and serves as a guide for effective acoustical performance specifications. For free booklet, and opportunity to hear recording, write to: Hough Manufacturing Corp., 1023-1059 S. Jackson St., Janesville, Wis.

School Lighting Data

American Standard Guide for School Lighting, 40 pages, is available from the IES for 60e. Other sponsors of the work are the AIA and the National Council on Schoolhouse Construction. The new Guide, replacing the 1948 American Standard Practice, sets forth much new knowledge concerning light and vision. Sections discuss variables of visibility and their implications, systems of illumination, maintenance, and special applications. Not highly technical, the Guide is intended for use by school boards and educators as well as architects and engineers.

Also published by the IES, at 20e, is School Lighting Application Data, 20 pages. This booklet is intended for those who are professionally concerned with the design of lighting systems—illuminating engineers, lighting specialists, consulting engineers, etc. The material has been extracted from the IES Lighting Handbook and gives a detailed treatment of subjects which the designer must consider. Write (enclosing money) to: Illuminating Engineering Society, 345 E. 47 St., New York 17, N.Y.

Safety Lighting for Underwater

Planning guide for underwater lighting installations is available from Stonco Electric Products Co. Included in the 24-page catalog are diagrams and charts on wiring methods, circuit sizes, and voltage supply; also layouts and application ideas for the complete Stonco line of fountain lights, swimming-pool lights, deck boxes, and low-voltage transformers. Stonco Electric Products Co., 333 Monroe Ave., Kenilworth, N.J.

Insulating Board

New 12-page catalog, entitled Insulating Board Products, contains complete technical information and specifications on Simpson's line of structural insulating board, roof insulation, and acoustical insulating roof deck. Appli-
The enduring beauty of brick

Silaneal® preserves it against efflorescence, dirt staining

The mellow charm of the brick specified for this distinguished new church won't be marred by unsightly discoloration from dirt, rain or efflorescence. The architect's assurance: this brick was factory-treated with Silaneal, the sodium silicate treatment that so effectively helps brick repel water.

Silaneal Preserves Your Concept Light and pastel shades of brick are being specified more than ever before. Many such brick, however, have high suction rates and offer little resistance to water penetration. And water discolors brick by carrying dirt into the brick, causing its color to dull and darken; and by leaching water-soluble salts out of brick, causing ugly efflorescence. But Silaneal treatment slows and controls the absorption rate of even highest suction brick... dirt is kept outside, where it's rain-washed away, and efflorescence caused by leaching is minimized.

Walls Go Up Easier, Stay Stronger Brick treated with Silaneal don't require time-consuming soaking at the job site; water absorption rate is already controlled. This also permits proper mortar hydration; the fresh mortar dries more slowly, without leaving hairline shrinkage cracks at the brick-mortar interface. Transverse pressure tests—and tests simulating wind-driven rain—have demonstrated repeatedly that wall sections built of Silaneal-treated high suction brick prove stronger and resist leakage better than similar, but untreated, brick.

To Get More Information Wouldn't it be wise to have on hand more detailed information about brick-improving Silaneal treatment? Just write Dow Corning, Dept. 8711, for further data including a list of brick manufacturers who supply Silaneal-treated brick.

For more information, turn to Reader Service card, circle No. 338
SANITATION/PLUMBING

**Epoxy Pipe**

“Resistochem” epoxy pipe for chemical-process systems installs at a lower cost than stainless steel, tempered glass, and many other corrosion-resistant materials, manufacturer states. A 12-page catalog lists properties, dimensions, weights, and resistances to a lengthy list of chemicals. Resisto Chemical, Inc., Box 1945, Wilmington 99, Del. On Free Data Card, Circle 219

**Plumbing Fixtures and Fittings**

Residential, commercial, and institutional plumbing fixtures by Crane are illustrated in new 44-page catalog. Products shown are those most frequently used in the majority of installations and do not encompass the entire Crane line of specialized equipment. Catalog includes a number of new fixtures catalogued for the first time—8 new lavatories, 6 new baths, and 8 new water closets. The three different lines of plumbing trim (for luxury, quality, or economy installations) also appear for the first time. Plumbing-Heating-Air Conditioning Group, Crane Co., Johnstown, Pa. On Free Data Card, Circle 221

**Safe Shower Systems**

Product specifications and roughing-in layouts for thermostatically controlled shower systems are contained in new Engineer’s Manual. Basic to all the shower systems is the “Hydroguard” thermostatic water controller, which keeps bath and shower water at a safe temperature even when accidentally turned to full hot. Hydroguard immediately senses and corrects fluctuations in temperature or pressure; a special safety feature cuts off water delivery if hot or cold water supply fails. The 40-page manual includes information on tub-shower combinations, group showers, progressive showers, multiple shower systems, coin-operated showers, and group wash fountains. Installations with either concealed or exposed piping are presented. Dept. PA-10, The Powers Regulator Co., 3400 Oakton St., Skokie, Ill. On Free Data Card, Circle 220

**SPECIAL EQUIPMENT**

**Hospital Casework**

Complete catalog on hospital casework and laboratory furniture by Blickman is available. The 40-page booklet de-Continued on page 95

**H&K**

Perforated Metal Decorative Materials

H & K grilles are furnished in accordance with your specifications...in practically any type and gauge of metal...and in the finish desired. Perforations are clean and burr-free, margins are in alignment, and each grille is leveled and inspected before shipment. H & K decorative patterns, from a vast selection of existing dies, are serving architects in many new and unusual ways. If your plans call for perforated materials, depend on H & K!

Harrington & King has been serving architects for 75 years with a wide selection of classic and modern designs in grilles and decorative materials. H & K grilles are furnished in accordance with your specifications...in practically any type and gauge of metal...and in the finish desired. Perforations are clean and burr-free, margins are in alignment, and each grille is leveled and inspected before shipment. H & K decorative patterns, from a vast selection of existing dies, are serving architects in many new and unusual ways. If your plans call for perforated materials, depend on H & K!

Harrington & King has been serving architects for 75 years with a wide selection of classic and modern designs in grilles and decorative materials. H & K grilles are furnished in accordance with your specifications...in practically any type and gauge of metal...and in the finish desired. Perforations are clean and burr-free, margins are in alignment, and each grille is leveled and inspected before shipment. H & K decorative patterns, from a vast selection of existing dies, are serving architects in many new and unusual ways. If your plans call for perforated materials, depend on H & K!

See Sweet’s File — 301/HK

See Sweet’s File — 301/HK

**For more information, turn to Reader Service card, circle No. 381**
The story behind the conquest of sound and vibration at Lincoln Center's Philharmonic Hall lies in acoustical research. Before the foundations were laid, the firm of acoustical engineers, Bolt Beranek & Newman Inc., intensively surveyed the area to record underground vibration levels. Acting on their recommendations, lead-asbestos pads were installed at the base of the hall's supporting columns. Acting as vibration isolators, these pads help to block out all but a sub-audible trickle of the groundborne ruckus from a subway only 65 feet away. Similar lead pads help solve the same problem for a host of new buildings. In New York alone, the Pan Am Building, Union Carbide Building, Motel City and others rest on lead. All silently testify to lead's outstanding capacity to effectively eliminate noise and vibration. And lead offers more. It bears up under the heaviest loads, costs relatively little, lasts forever. If you are anxious to keep in tune with modern, economical, and permanent solutions to the problems of vibration suppression or sound attenuation—in architecture or heavy machine design—definitely look into lead.


For more information, turn to Reader Service card, circle No. 355
NOW!

3 NEW
P&S ROCKER-GLO
SWITCHES!

LOREN COOK PRESENTS...

SPUN-TIER

A NEW FAMILY OF ROOF VENTILATOR STYLES DESIGNED FOR HARMONIOUS APPEARANCE

1. LIGHTED HANDLE ROCKERS-GLO
Pinpoints switch location in darkened rooms or hallways. Tiny, long-life neon lamp softly glows in OFF position only. Single pole or three-way. Rating: 15 Amperes, 120 Volts, A.C.

2. PILOT LIGHT HANDLE ROCKERS-GLO
Instantly shows when appliances or lights are on. Tiny red plastic jewel in rocker button lights in ON position only. Single pole only. Rating: 15 Amperes, 120 Volts, A.C.

3. REMOTE CONTROL ROCKERS-GLO
Momentary contact, center "off" switch. Designed especially for low voltage remote control applications - controlling large banks of lighting, operating stage curtains, etc. Single pole, double throw. Rating: 10 Amperes, 48 Volts, A.C.

For more information write Dept. PA-1162

PASS & SEYMOUR, INC.
SYRACUSE 9, NEW YORK

THE LOREN COOK COMPANY
BEREA, OHIO

Member AMCA

Copyright 1962 The Loren Cook Co.

For more information, turn to Reader Service card, circle No. 372
COPPER ARMORED SISALKRAFT

A DEVELOPMENT OF AMERICAN SISALKRAFT COMPANY / DIVISION OF ST. REGIS PAPER COMPANY

For more information, turn to Reader Service card, circle No. 325
Window Washing Systems

FEATURES: Carriage—Swing Platform runs on narrow gauge continuous track around perimeter. Track switches for roof storage.
WRITE FOR POWER SCAFFOLDING and "ROOF RAILER" brochures, engineering data and installations.

Bally Walk-In Coolers and Freezers
are now made with science's wonder insulation...Urethane "foamed-in-place"

The advantages of this new insulation represent a major design achievement that obsoletes all conventional insulated Walk-Ins. With 97% closed cells it cannot absorb moisture...maintains peak efficiency, indoors or outdoors...Insulating value is double...Bally 4" urethane equals 8½" of conventional insulation. Standard models ideal for use as minus 30º freezers...Urethane, poured as a liquid, foams in place and binds tenaciously to the metal for great strength. Eliminates need for structural members. Replaces that space with insulation...Lightweight urethane reduces weight to one-third for big freight savings...makes erection fast and easy...Foamed door is extremely light in weight to open and close with little effort. Magnetic gasket provides positive seal...Thinner walls increase usable space.

Your choice of Aluminum or Galvanized as standard finishes. Sections have Bally's Speed-Lok for quick and accurate assembly. Easy to add sections to increase size...easy to disassemble for relocation. Hermetically sealed refrigeration systems eliminate installation problems...reduce service costs.


Bally Walk-In Coolers and Freezers are now made with science's wonder insulation...Urethane "foamed-in-place"

Bally Case and Cooler, Inc.
Bally, Pennsylvania
Write Department PA

Bally Case and Cooler, Inc.
Bally, Pennsylvania

For more information, turn to Reader Service card, circle No. 329
FOLDING WALLS
and
MOVABLE WALLS

... custom engineered to meet your exact design requirements

R-W Folding Walls are produced to fulfill the exact functional requirements of your design and provide sound-retarding qualities compatible with the surrounding construction... the design does not have to be compromised to accommodate a standard product. Both R-W Folding and Movable Walls provide a practical and effective method of solving the problem of dividing space and sound to meet changing space requirements.

R-W FOLDING WALLS... consist of a series of panels hinged together that move back and forth on a ceiling track from a storage pocket by manual or electric operation. As they reach the fully extended position a Perimeter Seal Mechanism is automatically actuated to stabilize the partition and retard sound transmission. Recommended where you require a space and sound divider for a specific location.

R-W MOVABLE WALLS... consist of a series of individual panels that are moved into position via ceiling tracks to form a solid wall. Manually actuated Floor-Seal Mechanism locks the panel in position and retards sound transmission at the floor level. Recommended where great flexibility is required. Tracks and switches can be located in such a manner that the Movable Wall panels can be utilized to form a multitude of various sized rooms, hallways, etc.

Partitioning Systems

New catalog of the "Aetnawall" line of movable partitions has been published. The catalog, 32 pages, illustrates and details six basic partitioning types—three standard, three custom. General information is also given on special components, door types, hardware, and wiring. Specifications and detailed sound-control data are included. Aetnawall Dept., Aetna Steel Products Corp., 730 Fifth Ave., New York 19, N. Y.

On Free Data Card, Circle 223
SPEEDRAMP PASSENGER CONVEYOR SYSTEMS
move pedestrians effortlessly, safely and conveniently up and down hill!

Two SPEEDRAMP Passenger Conveyor Systems, part of an eight unit series, are shown above sparing residents of Tacoma, Washington, the heart-taxing climb up and down steep hills in the major business area. SPEEDWALK and SPEEDRAMP Passenger Conveyors have captured the imagination of city planners and architects, who are striving to bring modernization and rejuvenate new life in "downtown" shopping areas. SPEEDWALK and SPEEDRAMP Passenger Conveyor Systems are providing convenience, safety, showcase beauty, low initial cost and minimum maintenance economy in installations across the nation and abroad. Investigate the advantages of SPEEDWALK and SPEEDRAMP Passenger Conveyor Systems in answering your pedestrian traffic problems. Full details are available upon request. Contact Stephens-Adamson, the leader in passenger conveyor belt systems today.

WRITE FOR BULLETIN 1060