

ARCHITECTURAL

RECORD



MAY 1954

HOUSES

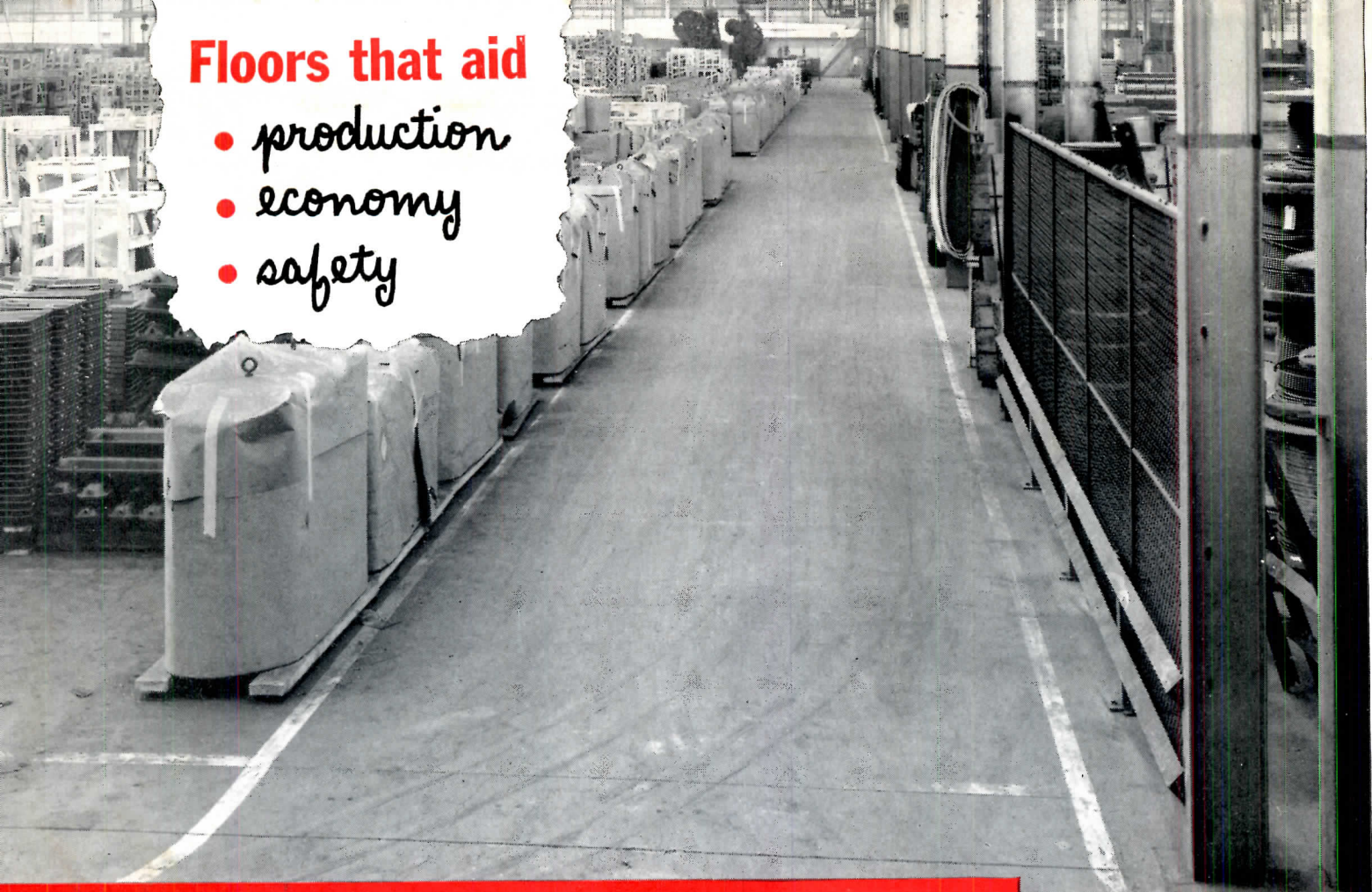


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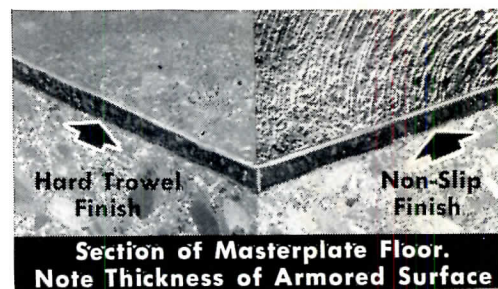
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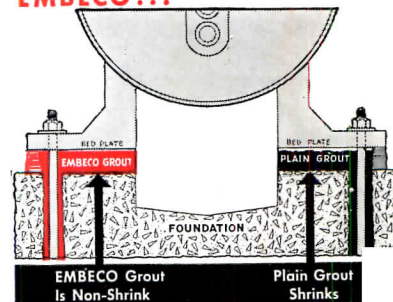
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May 1954 Vol. 115 No. 5

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House Design: Stressing "Delight"



COVER: House for Mr. and Mrs. James Parton, Dorset, Vt. Carl Koch and Associates, Architects; Photo © Ezra Stoller

Of the famous triad of "commodity, firmness and delight" the last item takes the center of the stage in house design. It has perhaps been the least popular of the trio because of some villainous acts committed in its name in the past. But it nevertheless manages to capture the client audience, and is in the spotlight here.

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Architectural Interiors

To divide or not divide the room, is frequently compromised with a semi-divider of some sort, some device calculated to provide merely a psychological division. Here is a group of a dozen or so ideas architects have used with good effectiveness

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Full Circle or Decentralization?

Somebody is doing something about the dissatisfaction with our large cities. It goes without saying that the operation must be on a huge scale. Also that rebuilding our cities is a task architects have itched to accomplish. Many cities

Full Circle or Decentralization? (Continued)

are making "big plans," of which a few are quickly shown here, just to start some more thinking.

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Building Types Study Number 210 — Suburban Branch Department Stores

The suburbs are acquiring new retailing facilities, urban in character, semi-rural in location, with few of the disadvantages of either. An appraisal prepared in collaboration with Daniel Schwartzman, A.I.A.

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THE RECORD REPORTS

P E R S P E C T I V E S

AN ARCHITECTURAL STUDENT describing a house: "It's an old house with hand-hewn timbers and amortised joints."

CONSTRUCTIONDISING: Taking a tip from other fields and their approach to a returning "buyer's market," the Associated General Contractors of America has coined a word and plans to put it to work. "Constructiondising," A. G. C. explains, is a name applied to the process of construction merchandising in competition with other items for the purchaser's dollars. A. G. C. has been sponsoring a competition among its members in search of the best plan for an all-out constructiondising program — although the construction industry, which set an all-time record for the first quarter of 1954, seems to be doing all right anyway.

ARCHITECTURE FOR ADOLESCENTS: The jury for the third annual school building competition of *The School Executive Magazine* (see page 24) remarked "a sharp difference in the quality of design between elementary schools [84 of them] and secondary schools [38]" submitted in the competition. Why? — the jury thought lack of clear educational leadership in the field of secondary programming might be the most significant reason: "While the substantial number of large secondary buildings were contemporary (in the sense that they were free from traditional detail and formalized plan), very few showed substantial difference in program concept from the high schools of the mid-1920's. They are basically conventional buildings — big, impersonal ones at that — in reasonably modern dress." Another suggestion was that the greater dollar importance of the secondary building might make for approach "in a spirit of greater caution." Finally: "Perhaps still another explanation is our greater affection for and understanding of children than of adolescents." Lawrence B. Perkins of the Chicago architectural firm of Perkins and Will was chair-

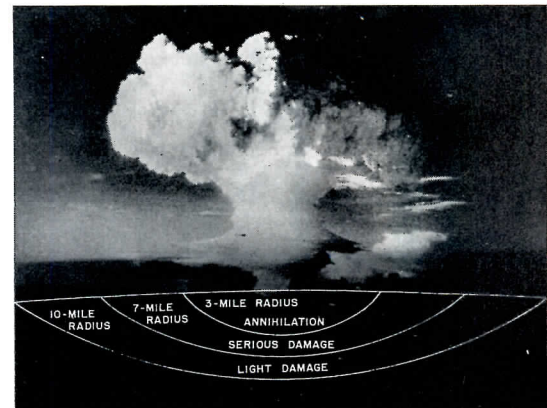
man of the jury, which included Donald Barthelme, of Donald Barthelme and Associates, Architects, Houston; John S. Cartwright, Allentown, Pa., Superintendent of Schools; Assistant Superintendent of Schools Wilfred F. Clapp, State Department of Education, Lansing, Mich.; and J. Stanley Sharp, of Ketchum, Giná and Sharp, Architects, New York.

ATOMIC POWER DEVELOPMENT is the only way "to balance the energy books, to close the gap between what we have and what we need," and commercial development must be undertaken despite the high initial costs, the recent annual American Power Conference in Chicago was told. A. C. Monteith, vice president in charge of engineering for the Westinghouse Electric Corporation, pointed out that present world energy consumption shows a 400 per cent increase over the average rate of energy used in the period from 1860 to 1947 — and in those 87 years consumption was roughly half the amount consumed during the entire preceding 1860 years. Mr. Monteith, whose firm is building the atomic reactor for the nation's first civilian atomic power plant, warned that "we can sink into primitivism through exhaustion of power resources as well as through war."

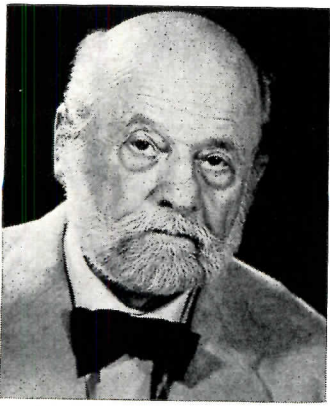
ARCHITECTURAL INTELLIGENCE: "The foremost disciples of the brownstone school of architecture, near as Mr. De Koven could pin it down, were a Calvin Pollard, who did loads of brownstone fronts from 1830 to 1850, and a Henry Hobson Richardson, who did brownstone Romanesques in the Seventies and Eighties." — *The New York Times*, March 15, 1954.

AUGUSTE PERRET died in Paris on February 25. His passing was not much noted in this country — indeed, two weeks after his death *The New York Times* solemnly assured a caller that according to *its* records he

was still alive — but in his own, where he had during the last war achieved belated official recognition, it was treated as a national bereavement. From the apartment house in the Rue Franklin to his latest work in the rebuilding of Le Havre, he had produced a monumental bibliography (see pages 10-11) on the uses of reinforced concrete. Writing in the English weekly, *The Architects' Journal*, the commentator Astragal says: "He was a giant figure, who towered above official neglect and the occasional spite of those who owed much to his inspiration and influence. He believed passionately in the future and in the beauty of the concrete frame, and has left an indelible mark on the architecture of this century. He has been *with*, rather than *of*, the Modern Movement, and although he had clearly little sympathy with some of the more vehement of his pupils, that does not make him a member of the reactionary camp." Or, as Turpin Bannister has put it, "He was a rugged individualist, who, even while accepting modern programs and materials, never sacrificed the integrity of his designs to mechanistic clichés." The American Institute of Architects, giving him its 1952 Gold Medal, hailed him as "great master of architecture whose resounding fame echoes to honor all members of our profession; firm disciple of the creed of truth to materials, honesty of structure, sincerity of form. . . ." There was a briefer tribute last month from Antonin Raymond: "The last great architect died six weeks ago."



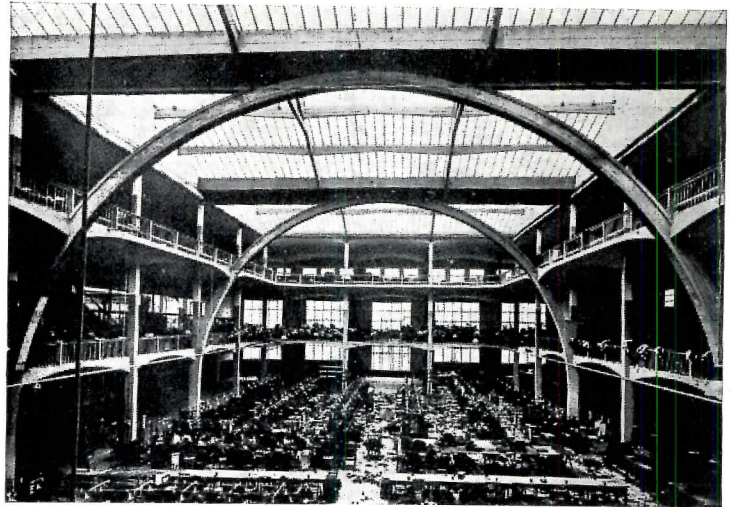
Perspective of the present: the great mushroom of the hydrogen blast in the 1952 Pacific tests; and the shadow it cast on the future



AUGUSTE PERRET: 1874-1954

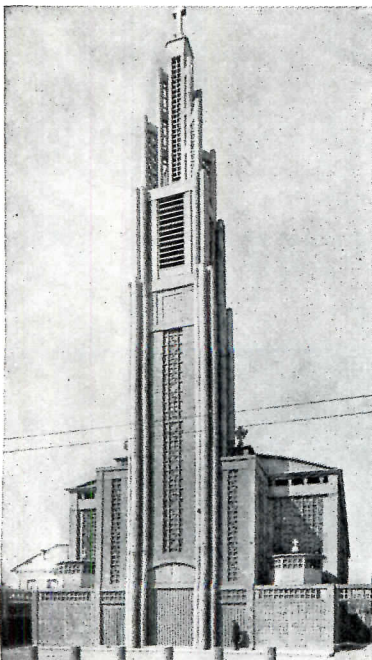
Architect, Teacher, and — Not Least — Aphorist, Pioneer in Reinforced Concrete Construction — His Buildings and His Maxims Speak For Him

1903 — 25 bis Rue Franklin, Paris (the first all-reinforced concrete building)
"Construction is the mother tongue of the architect. An architect is a poet who thinks and speaks in terms of construction"

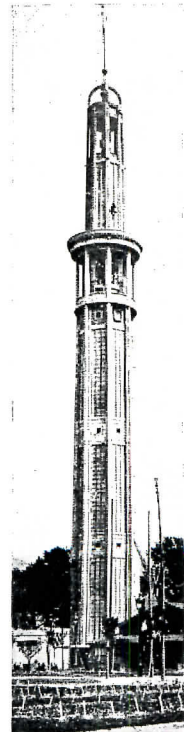
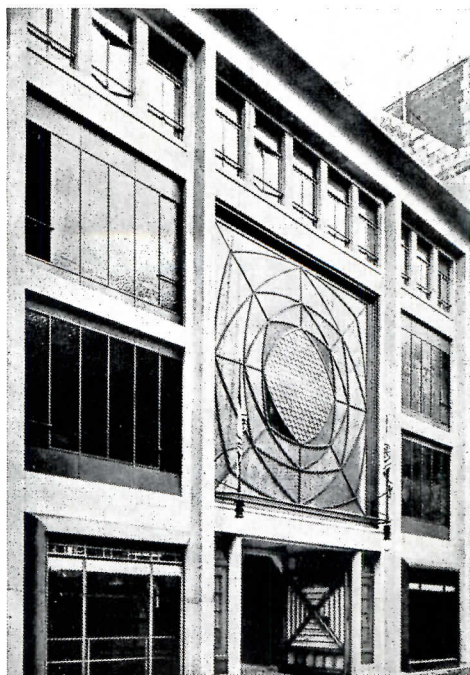


1919 — L'Atelier Esders (sewing factory)
"Architecture is the art of dramatizing the point of support"

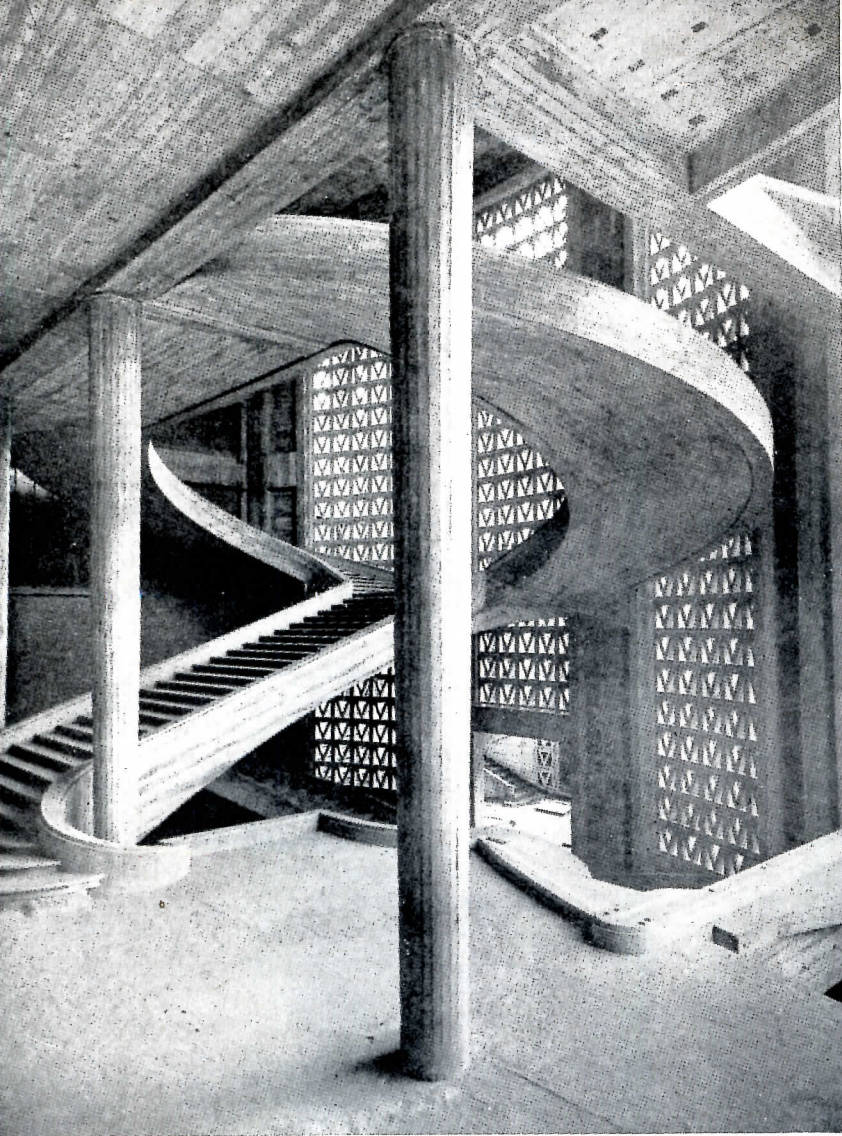
1923 — Notre Dame du Raincy
"It is by the splendor of truth that a building attains beauty"



1905 — Garage, Rue de Ponthieu, Paris
"Movable or immovable, everything which occupies space belongs in the realm of architecture"

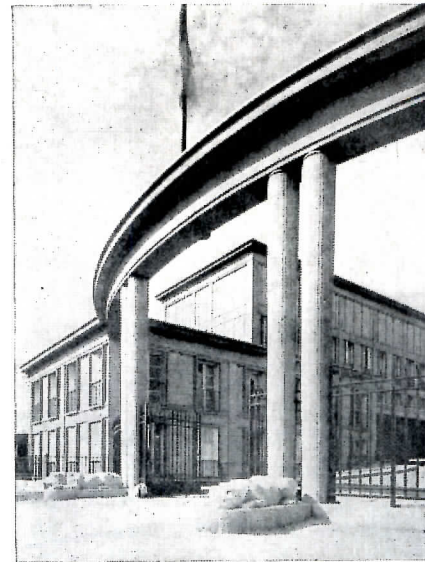
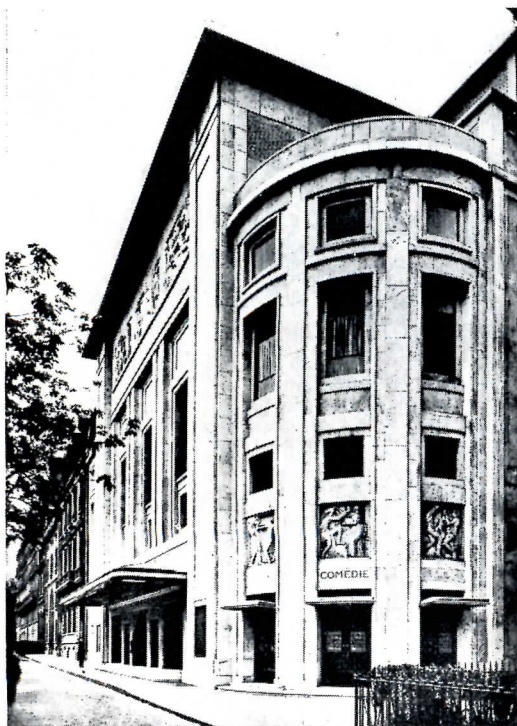


1924 — Tower, Grenoble
". . . to create from new materials buildings that would seem to have existed always"



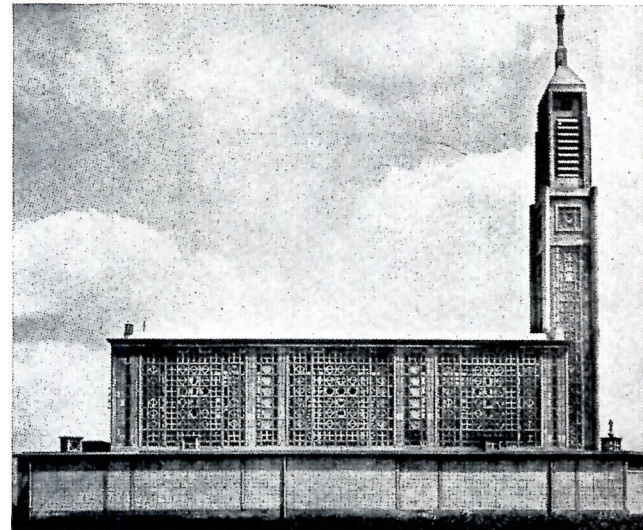
1937 — Museum of Public Works, Paris
"Stairways are the criterion of a civilization"

1913 — Théâtre des Champs Elysées, Paris
"We wanted this theater to be a jewel-case to set off the women, their dress, their jewels"

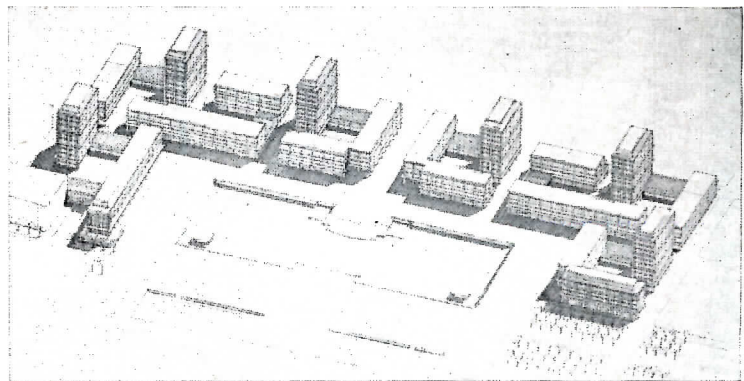


1930 — National Museum, Paris
"That which is beautiful does not need to be decorated: beauty is its own decoration"

1925 — Ste. Thérèse, Montmagny
"One who disguises any part at all of a structure deprives himself of the only legitimate and the most beautiful ornament of architecture"



1949 — Reconstruction of Le Havre
"Architecture, of all expressions of art, is the one most subjected to material conditions. The conditions imposed by nature are permanent. Those imposed by man, temporal"



PRIVATE FIRMS MAY HELP TO SET CRITERIA FOR MILITARY BUILDING

Defense Department Seeks Benefits of Industry Experience In Formulating Standards for Various Building Types

THE FREQUENTLY-EXPRESSED DETERMINATION of the Eisenhower Administration to bring the benefits of private business experience to the government and to use private resources whenever possible is beginning to be reflected in military construction planning. The Defense Department's new construction standards for barracks and bachelor officers' quarters are about to be promulgated as a military directive — they are being reviewed by the three services now; and the next set of standards, for warehouses, will be based on detailed studies of warehouse construction and use being made for the Department by the private firm of Giffels and Vallet, L. Rossetti, Inc., Architects and Engineers, of Detroit.

The present approach to formulation of military construction standards came in with the advent last fall of Admiral Joseph F. Jelley Jr. as director of construction for the Department of Defense and follows the concept of learning as much from industry experience as possible before drafting the military standards in final form, according to Fred Poorman, senior assistant to Admiral Jelley and chief of his technical division.

The division may make more contracts with private firms later on for similar studies on other building types, Mr. Poorman says, again to gain the benefits of industry experience. The areas showing greatest promise for this sort of treatment are being explored first, with the idea of moving into other types later on.

The Giffels and Vallet warehouse survey will be based largely on site studies and will contain firm recommendations for the Defense Department to follow in drafting the final standards. It is emphasized, however, that the actual construction standards will be prepared by Admiral Jelley's staff and not by the contracting firm.

The Jelley office recognizes that warehouses and warehousing cannot be separated in deciding on the new criteria,

Mr. Poorman said, with an intimation perhaps that long-range use had not always been sufficiently taken into account in preparation of military construction standards. So the Giffels and Vallet survey will study the effects of various warehousing methods on requirements for everything from column spacing and aisle arrangement to fire resistance.

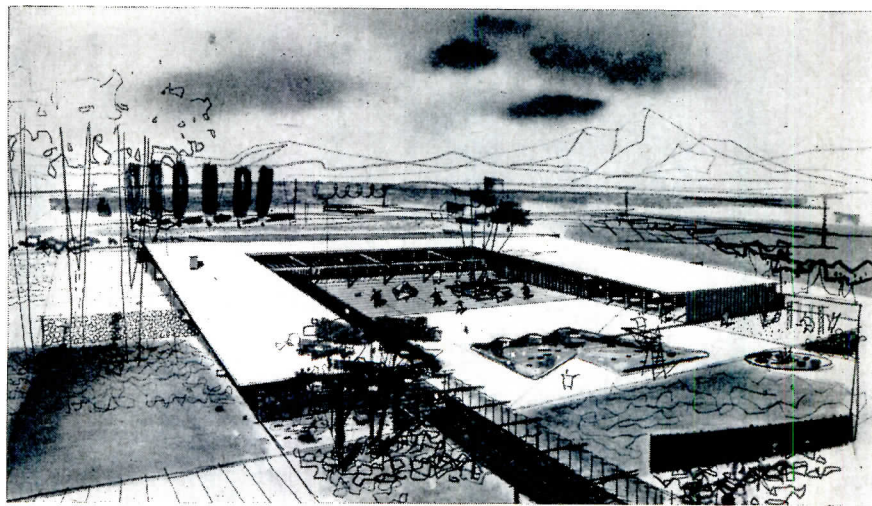
Officials do not expect to come up with a rigid standard for all warehouses, or for all types of structures for all the services. A structure for storing caterpillar tractors and a structure for storing medical supplies will not, they promise, be required to meet identical specifications.

There has been considerable emphasis throughout the standards project on leaving the architect on the spot enough flexibility for adaptation to local conditions. Admiral Jelley told ARCHITECTURAL RECORD last fall that he had no intention of freezing design, that he

wanted to standardize not style but space requirements. "You must be careful not to tie the local man down with fixed criteria," he said then. Admiral Jelley's boss, Franklin G. Floete, Assistant Secretary of Defense in charge of Properties and Installations, has even said he thinks all military buildings of a given type ought not to look alike. All the Department is after, he notes, is to make general standards applicable to all services in the interests of saving money.

The forthcoming standards for living quarters have been nearly two years in preparation. They were the initial project of the Defense Department's first Director of Construction, Frank R. Creedon, after the office was established in the Department at the urgent direction of the Congress to attempt to coordinate the construction activities of the three services. Two sets of standards were originally prepared — one on three-story permanent structures and one on one- and two-story types. The final version, now circulating among the services for comment, covers two-story barracks only.

Admiral Jelley's office emphasizes that all criteria have been worked out in cooperation with representatives of each of the services and will be issued in cooperation with them. No major obstacles in the nature of inter-service differences are anticipated.



The ultimate in economy is to be achieved in the project shown above, a mess and recreation building at the California Air National Guard base at Van Nuys, Cal., designed by Welton Becket. The architect has contributed his services, and construction funds are to be raised through public subscription and industrial contributions

A.I.A. ANNOUNCES 1954 HONORS: NO GOLD MEDAL

THE AMERICAN INSTITUTE OF ARCHITECTS has announced the 1954 Medal Awards to be presented at its 86th annual convention in Boston June 15-19, and the Gold Medal will not be given this year. Highest honor the A.I.A. can give an architect, the Gold Medal has been awarded 19 times since the first award, in 1907, to Sir Aston Webb of London, and most recently, in 1953, to William Adams Delano of New York. A list of 21 members to be advanced to Fellowship in the Institute has also been made public.

This year's Fine Arts Medal, the A.I.A.'s top award in the fine arts other than architecture, will go to Sculptor Julian Hoke Harris of Atlanta, himself an architect and member of the Georgia Chapter of the A.I.A., "in recognition of his notable contribution towards furthering the alliance of sculpture and architecture."

The Craftsmanship Medal, the Institute's highest award for craftsmanship in metal, wood, glass, ceramics and allied arts, will go to Maria Montoya Martinez, "the potter of San Ildefonso," a Pueblo Indian who, with her late husband, Julian Martinez, "not only revived the ancient forms and skills of

their forebears, but added to them."

Honorary memberships will be awarded to Morton O. Withey of Madison, Wis., immediate past dean of the School of Engineering at the University of Wisconsin and chairman of the State Board of Registration for many years, and Dr. Richard Eugene Fuller, director of the Seattle Art Museum.

Report on the Program

Edward A. Weeks, editor of *The Atlantic Monthly*, will be the convention's "keynote" speaker. Highlights of the five-day program as so far arranged include:

Architectural education — Carl Feiss and Dean William Wurster of the School of Architecture of the University of California.

Hospital design trends — Marshall Shaffer, chief architect of the U. S. Public Health Service, moderator; Dr. Albert W. Snoke, Vincent G. Kling, A.I.A., Philadelphia, and Aaron N. Kiff, A.I.A., of York & Sawyer, New York.

School design trends — John W. McLeod, A.I.A. School Buildings Committee chairman, moderator; Educator Charles S. Gibson, John S. Sharp, A.I.A., of Ketchum, Giná & Sharp,

New York, and Samuel E. Homsey, Wilmington.

Government impact on architecture — Douglas Orr, A.I.A., New Haven, presiding; Michael Waterhouse, a past president of the Royal Institute of British Architects; and Miles Colean.

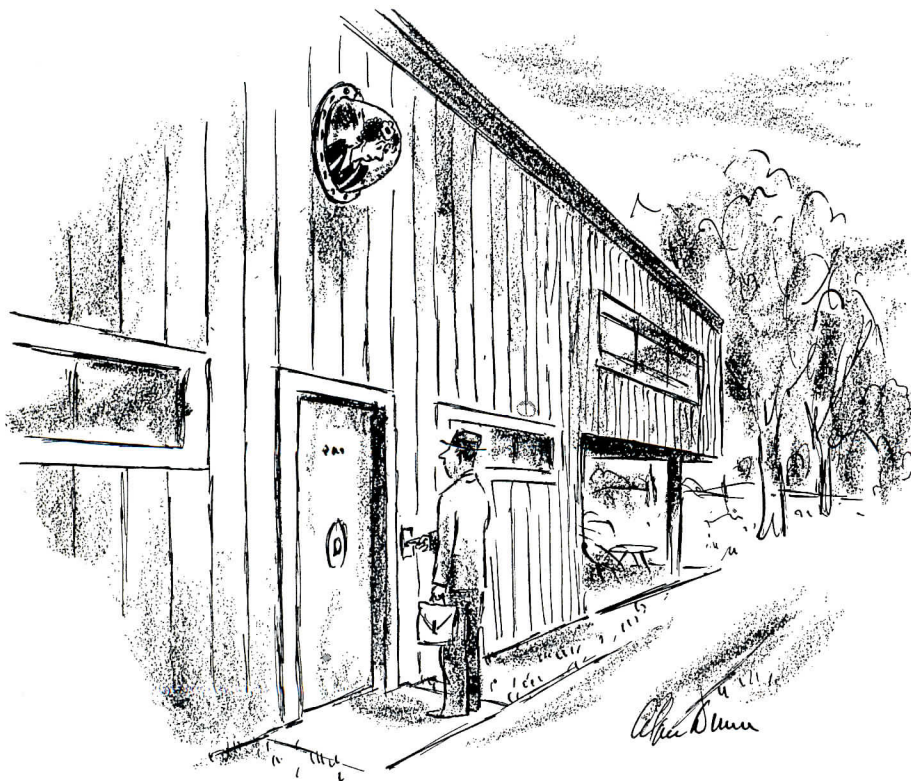
Changing philosophy of architecture — John S. Harbeson, of Harbeson, Hough, Livingston & Larson, Philadelphia, moderator; Eero Saarinen, Ralph Walker, Dean José Sert of Harvard's Graduate School of Design, Paul Rudolph.

What's New — Structural developments, Paul Weidlinger; Materials, Ben John Small; Lighting, C. L. Crouch; Homebuilding, Leonard Haeger.

The prospective Fellows are:

Roger Allen, *Grand Rapids* — *Service to the Institute and Public Service*; Adolph Otto Budina, *Richmond* — *Public Service*; J. Roy Carroll, Jr., *Philadelphia* — *Design and Education*; Harry Royden Dowsell, *New York* — *Science of Construction*; Sanford Williams Goin, *Gainesville, Fla.* — *Service to the Institute and Public Service*; Percival Goodman, *New York* — *Design and Education*; Walter Gropius, *Cambridge* — *Education and Design*.

Also Samuel Eldon Homsey, *Wilmington* — *Design*; Eugene F. Kennedy, Jr., *Boston* — *Design*; Juan F. Nakpil, *Ermitta, Manila* — *Public Service*; Donald Siegfried Nelson, *Dallas* — *Design*; George Holmes Perkins, *Philadelphia* — *Education*; Harry Irvin Schenck, *Dayton* — *Public Service*; Irving G. Smith, *Portland, Ore.* — *Service to the Institute*; Stanley Albert Smith, *Pullman, Wash.* — *Education*; Louis Philippe Smithey, *Roanoke* — *Service to the Institute and Public Service*; Herbert Madison Tatum, *Dallas* — *Design and Service to the Institute*; Ludwig Mies van der Rohe, *Chicago* — *Design*; Royal Barry Wills, *Boston* — *Design*; William Wilson Wurster, *San Francisco* — *Design and Education*; Marion Sims Wyeth, *Palm Beach* — *Design*.



— Drawn for the RECORD by Alan Dunn

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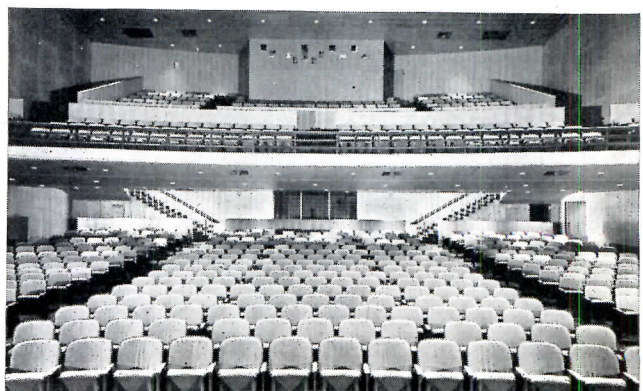
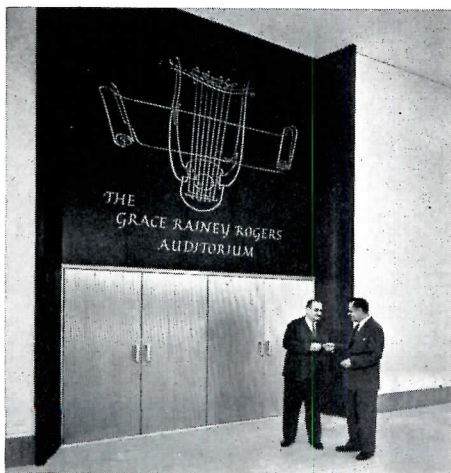
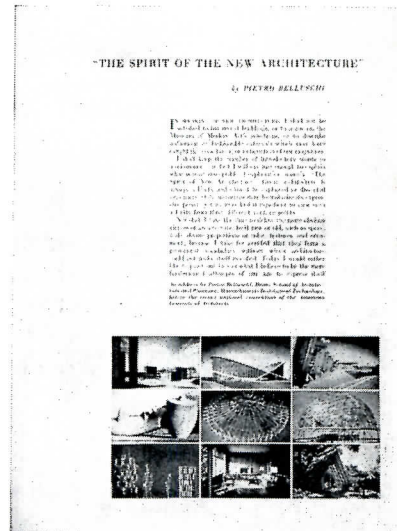
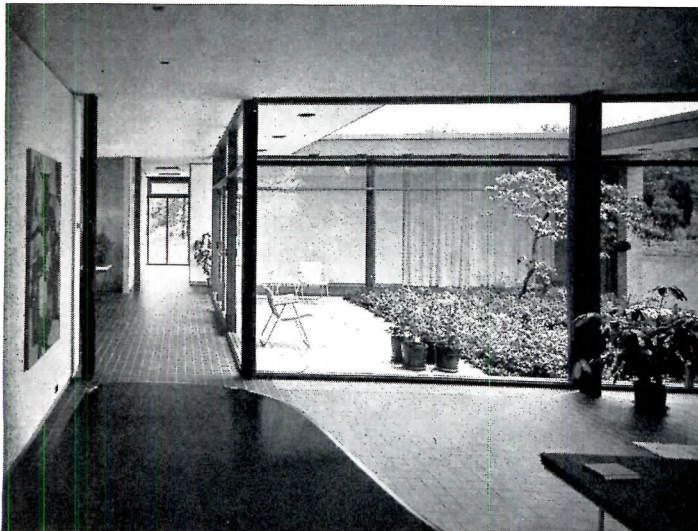
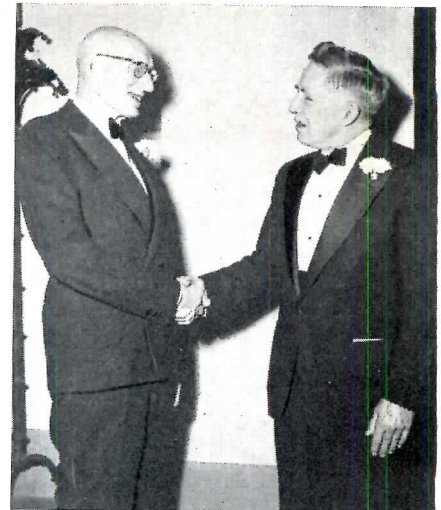
"Heating, Ventilating and Air Conditioning" is the correct title of the talk given before the Real Estate Board of New York by Alfred L. Jaros Jr., Jaros, Baum & Bolles, Consulting Engineers, New York City, as noted on page 195 of the April issue of the RECORD. The proportion of construction cost of air conditioning, heating and ventilation in the average New York office building in 1953 should have been given as 15 to 20 per cent.

(More news on page 16)

THE RECORD REPORTS:

A.I.A. NIGHT AT THE METROPOLITAN

New York's Metropolitan Museum of Art was host to the 85th anniversary dinner of New York A.I.A., when awards were presented to New York publication winners in the first national A.I.A. journalism competition. Right, Pietro Belluschi receives top award for professional architectural magazine article for "The Spirit of the New Architecture" in ARCHITECTURAL RECORD, October 1953 (first page reproduced below right). Below: photograph of Philip Johnson's house for Richard Hodgson, New Canaan, Conn. (ARCHITECTURAL RECORD, March 1953), won top architectural photography award for Ezra Stoller. Far right: 81-year-old Harvey Wiley Corbett felicitated by Chapter President Hugh Ferriss on receiving Chapter's 1954 Medal of Honor; the presentation preceded Mr. Corbett's death by just three weeks



Architects got first look at Metropolitan's new auditorium, to be dedicated May 11. Voorhees, Walker, Foley and Smith were the architects; Bolt, Beranek and Newman, acoustical consultants. Above: Metropolitan Director Francis Henry Taylor gets key from Neil Horgan of the George A. Fuller Construction Co., builders

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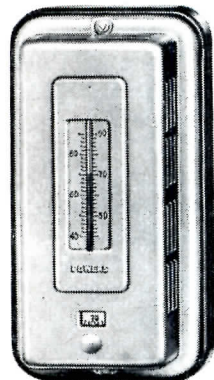
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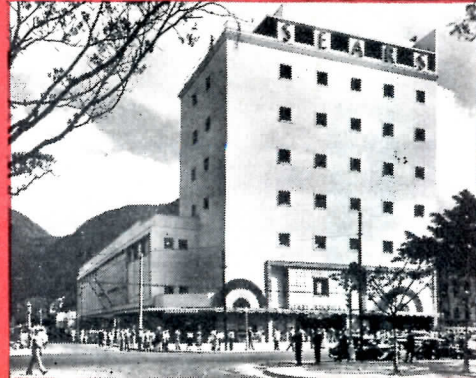
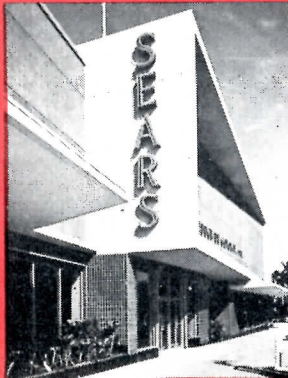


TORONTO

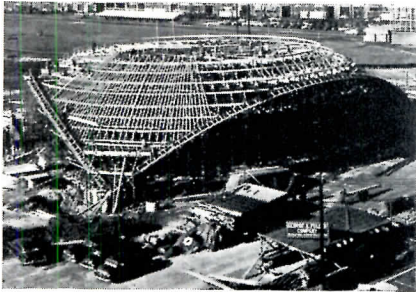


REGINA

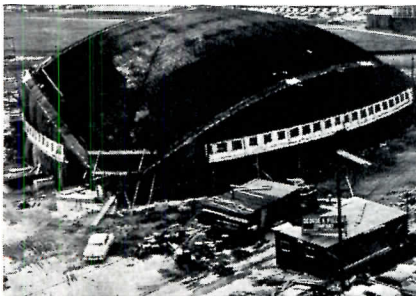
POWERS Controlled SEARS Stores in SAO PAULO, BRAZIL • BARRANQUILLA, COLOMBIA • RIO DE JANEIRO, BRAZIL



THE SAARINEN DOME — A YEAR LATER



1, 2



3, 4



1. Formwork partially completed. Edge beam forms were erected, then timbers forming concentric rings, followed by stringers from bottom to top. 2. Matched lumber was nailed to stringers to receive concrete. 3. Reinforcing in place. 4. Double forms with ports were used on steep slopes near supports; above these forms are platforms for workers. Below: the dome after stripping of forms

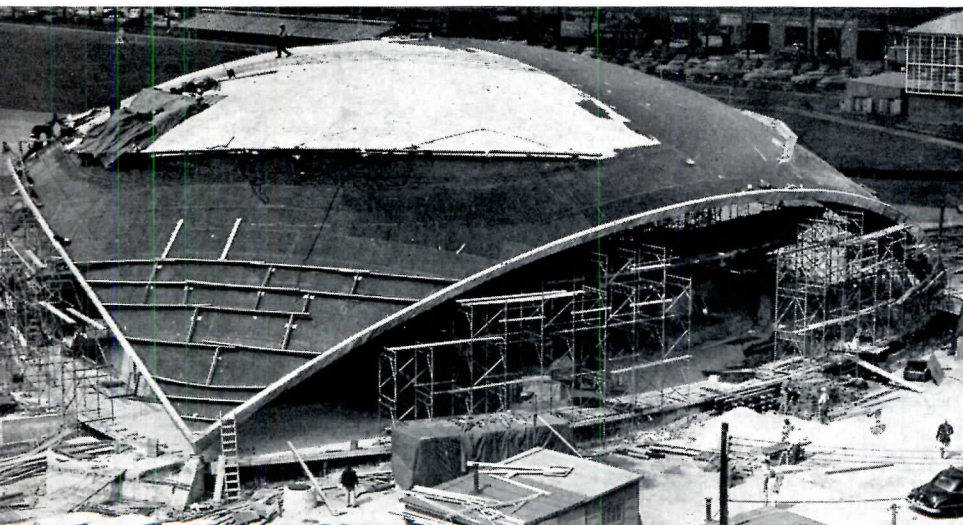
THERE ARE NO TWO PARALLEL LINES in it." This remark, while said half-facetiously by one of the men on the construction work of Eero Saarinen's M.I.T. auditorium, appears to reflect fairly well the major problems a new structural conception has presented for the builder from the time the foundation lines were laid out, starting in April of last year.

Oddly enough, according to the construction superintendent for George A. Fuller Co., Douglas Bates, erecting the thin-shell dome (actually it's one eighth of a sphere) was easier than the rest of the superstructure. Establishing reference points — an exercise in spherical geometry — for putting up formwork for the floor of the main auditorium, its supporting structure, and the laying out of the small auditorium and rooms on the lower level, seems to have been the most difficult task.

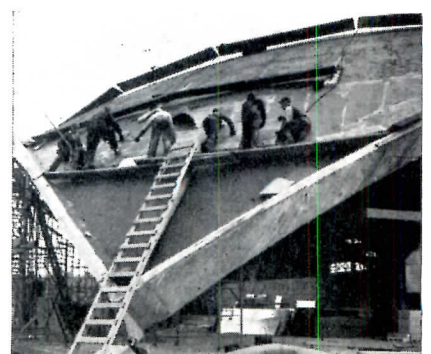
The center of interest, though, is still the dome which has about 640 tons of structural concrete and 100 tons of reinforcing steel to support at only three small points. For 80 per cent of the dome, concrete is only 3½ in. thick. Next to the abutments it is nearly 36 in. thick.

Actually the dome, for which structural engineering was done by Amman and Whitney, only rests on the abutments, and is not directly connected to them. A bearing arrangement is employed which has two castings shaped like inverted saucers, one fitting over another. The casting set into the dome is ground to a radius of 120 in. and the casting in the abutment has a 100-in. radius curve. The weight of the roof will keep the top casting bearing on the bottom one. This was done to take care of any movement of the dome due to changes of temperature, and possible settling of the dome when the forms were removed.

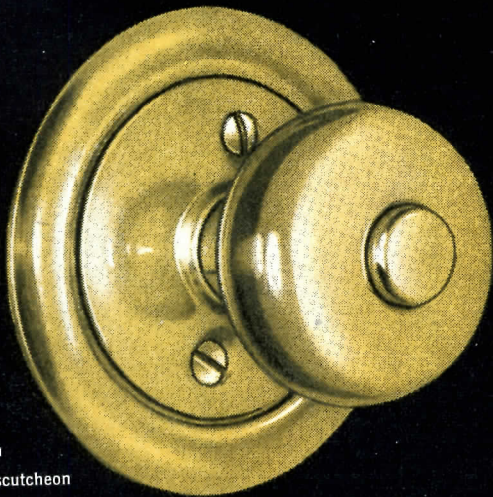
(Continued on page 318)



Near right: crane placing concrete in double forms from a hopper. Far right: strips of felt being mopped with asphalt to dome



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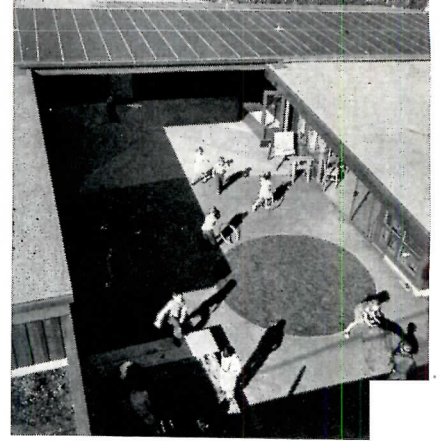
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**FOR BETTER SCHOOLS:
SEVEN WINNERS**

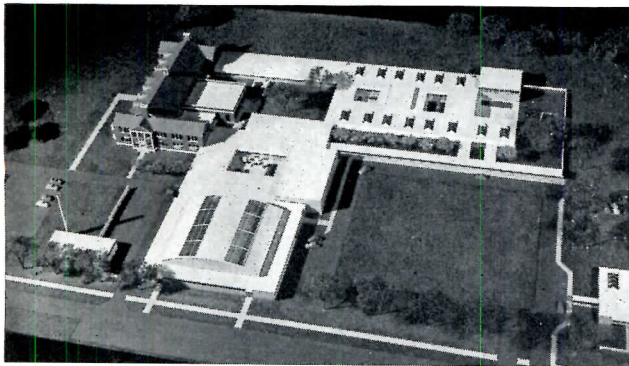
FROM A FIELD OF 139 ENTRIES a five-man jury headed by Lawrence B. Perkins of the Chicago architectural firm of Perkins and Will picked seven projects by five firms (photos on this page) to receive the top awards in the third annual competition sponsored by *The School Executive*

Magazine "for better school design." The awards were announced and the winning designs exhibited at the annual convention of the American Association of School Administrators at Atlantic City in February (ARCHITECTURAL RECORD, April 1954, page 20).

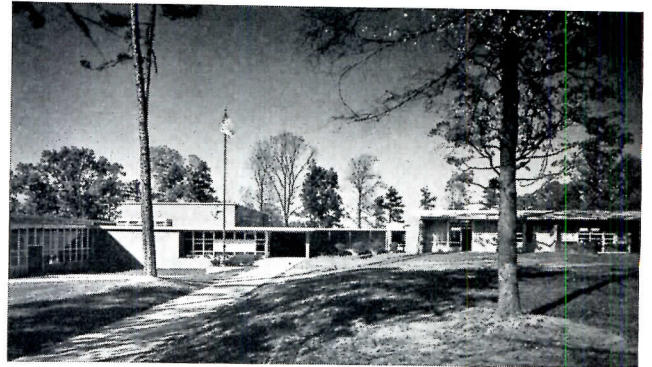


Ronda Parridge

White Oaks Elementary School Annex, San Carlos, Cal.; John Carl Warnecke, architect. Each classroom has its own patio

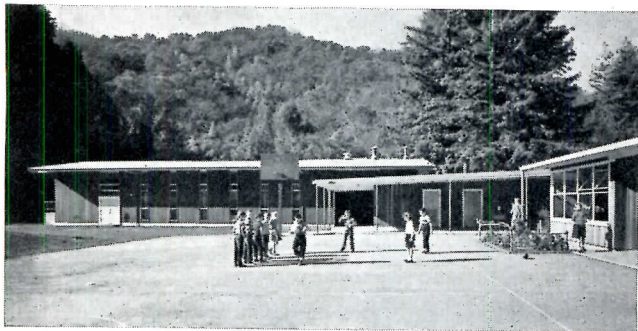


Detroit University School and Grosse Pointe Country Day School, Grosse Pointe Woods, Mich.; Leinweber, Yamasaki & Hellmuth, architects. A nursery-through-12th-grade addition to existing school



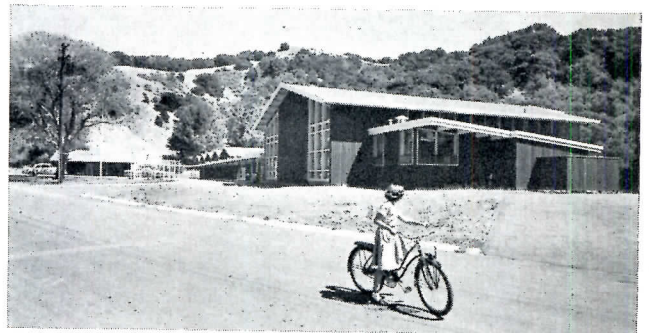
Joseph W. Mollitor

Double Oaks Elementary School, Charlotte, N. C.; A. G. O'Dell Jr., architect. This school for an extensive Negro housing development provides separate yards for glass-walled classrooms and library



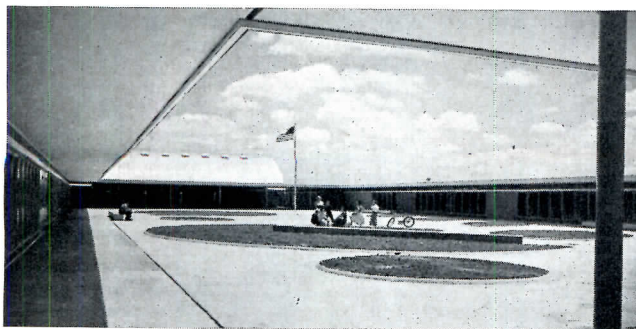
Roger Sturtevant

Deer Park School, Fairfax, Cal.; John Lyon Reid, architect. The beautiful site, a park of redwoods, oaks and bay trees, was a problem as well as an asset: limited level area, trees to block daylight



Roger Sturtevant

Manor Elementary School, Fairfax, Cal.; John Lyon Reid, architect. Gabled roof provided fresh approach to bilateral lighting, gave each class a "house" of its own in structure designed for strict economy



Ulric Meisel

Mirabeau B. Lamar Junior High School, Laredo, Tex.; Caudill, Rowlett, Scott & Associates, architects. Large-area structures keep indoor-outdoor relationship without sacrificing sun control

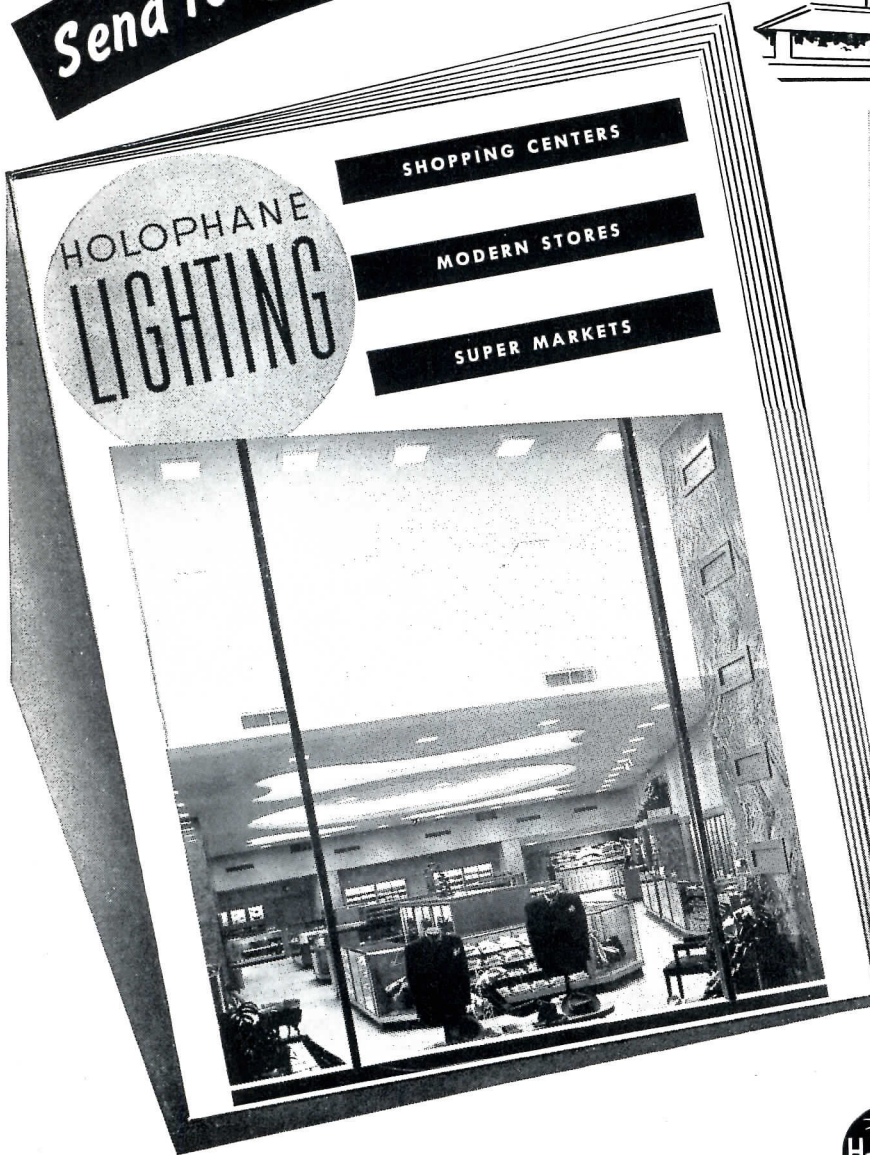
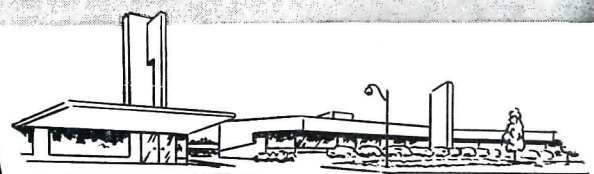


Ulric Meisel

Sam Houston Elementary School, Port Arthur, Tex.; Caudill, Rowlett, Scott, Neff & Associates, architects. Brick is left exposed on interiors for ease of maintenance

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| Chain Stores | Lamp Depreciation |
| China, Glass Stores | Lamp Sizes |
| Coat Shop | Lamp Store |
| Color | Light Control |
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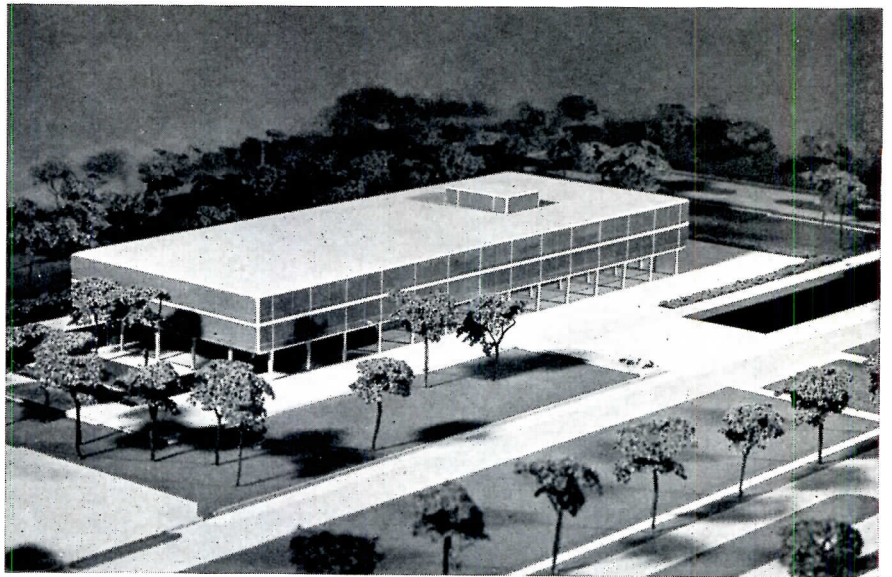
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 THE HOLOPHANE COMPANY, LTD., THE QUEENSWAY, TORONTO 14, ONTARIO

WINNERS ANNOUNCED IN GALLERY COMPETITION

THE COMMISSION FOR CANADA'S projected National Gallery in Ottawa went to the Winnipeg firm of Green, Blankstein, Russell and Associates, winners of the competition held by the Department of Citizenship and Immigration. The architects were awarded \$10,000 as initial payment on the contract.

The winning design is for a three-story building (shown at right) which will cost an estimated \$5 million. The site faces the banks of the Rideau River.

Judges for the competition were Alfred Barr, Director of the Museum Collection at New York's Museum of Modern Art; John Bland, Director of the School of Architecture at McGill University; and architect Eero Saarinen of Bloomfield Hills, Mich. The jury's report on the design said: "The design shows an extraordinary sense of unity and feeling of classic calm achieved through contemporary architectural means. The simple, rectangular building mass, set upon a colonnade, stands upon an impressive stone terrace. This fine architectural concept is carried through with control and sureness and a feeling for detail and proportion. The scale of

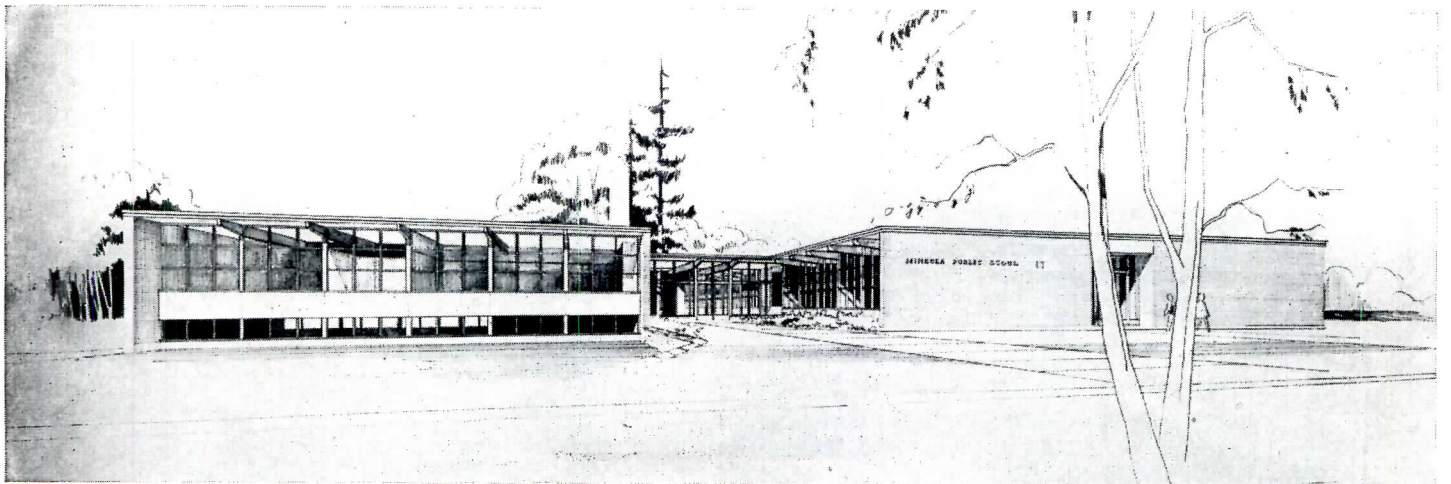


the structure gives a sense of power and dignity. It is consistent, and there is no doubt the building will have great architectural distinction."

Situated on the first floor of the building are a foyer, gallery, auditorium and cafeteria. The second floor, scheduled to

hold the gallery's painting collection, is a completely open area, where exhibits will be mounted on partitions. Administrative offices are located on the third floor, along with the library, the department of prints and drawings, and a 100-seat lecture room. A large part of this

(Continued on page 30)

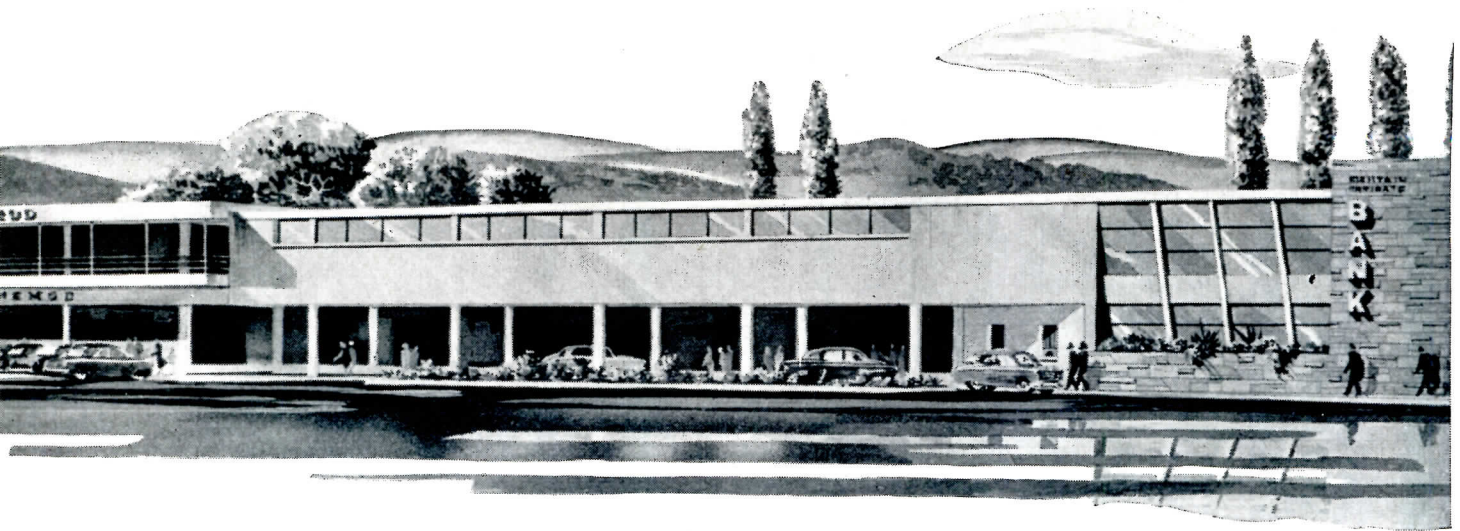


NEW SCHOOL DESIGNED FOR DOUBLE DUTY

MINEOLA PUBLIC SCHOOL, to be built at Port Credit, Ont., has been planned to fulfill two functions — one wing is intended to accommodate 11 classrooms and offices for the school staff, the other

is for the administrative offices of the local Board of Education. If further space for classes is required, however, the office wing can be converted for this use. Both wings can be expanded.

It is expected that the building will cost about \$214,744, giving a per sq ft cost of \$8.75. The architects, Craig and Madill, report that this figure is a new low for schools in this locality.



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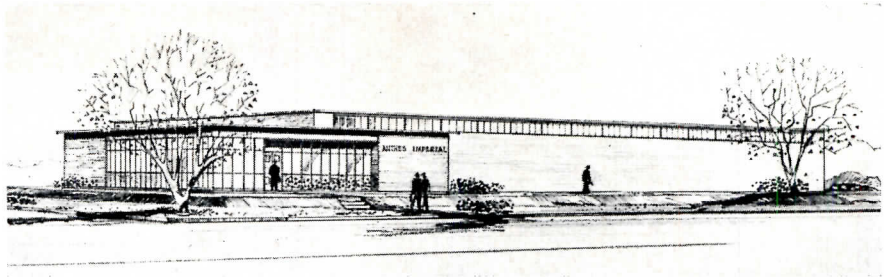
THE RECORD REPORTS

CANADA

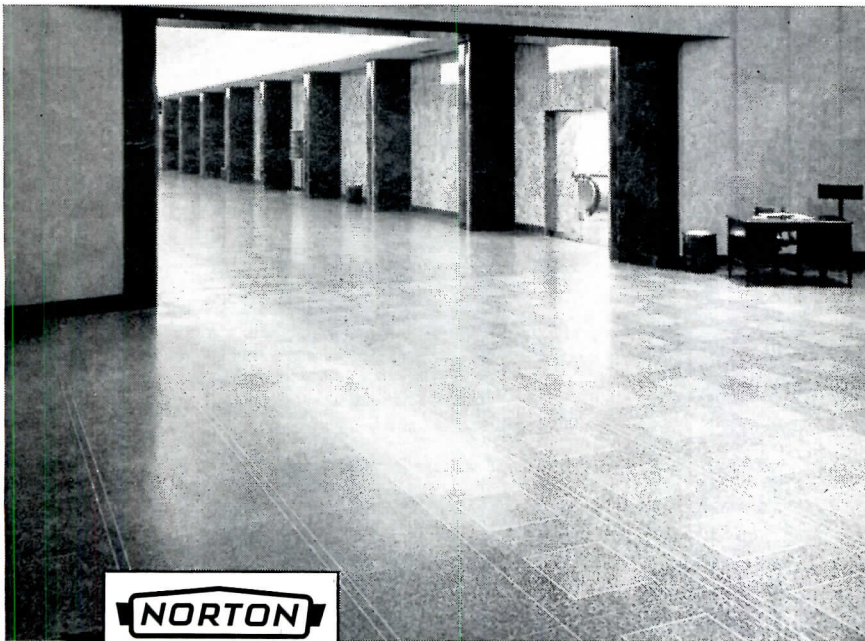
(Continued from page 26)

floor will be devoted to the reserve collection. The design also takes into account the possibility of future expansion.

Two other finalists in the competition — Smith, Carter, Katelenikoff and Ian Brown, of Winnipeg, and Vincent Rother of Montreal — each received awards of \$5000 for their entries.



Above: 20,000 sq ft warehouse and office designed by Marani & Morris, Toronto architects, for the Anthes-Imperial Co., Ltd., manufacturers of hot-water heating equipment, North York, Ont.



TERRAZZO made non-slip by ALUNDUM AGGREGATE provides walking safety even on stormy days in this lobby of the John Hancock Insurance Company building, Boston.

COMPETITION GETS BIG INTERNATIONAL RESPONSE

Intention to participate in the \$12,000 International Calvert House Competition has been announced by 644 architects. A breakdown of the contestants' home countries shows that the competition is indeed "international" — European entries outnumber Canadians by more than three to one. Responses were received from architects in these nations: Austria, 29; Belgium, 11; Canada, 148; Denmark, 24; Finland, 9; France, 31; Germany, 44; Great Britain, 190; Greece, 4; Holland, 35; Ireland, 14; Italy, 20; Norway, 8; Portugal, 13; Spain, 2; Sweden, 23; and Switzerland, 19. McGill University's School of Architecture is handling the competition.

Members of the jury, who will probably begin selecting the winners about May 20, include, as the European mem-

(Continued on page 32)

Announcement—

The continually increasing popularity of terrazzo as a flooring material has resulted in increasing use of non-slip ALUNDUM AGGREGATE to insure walking safety even when floors are wet. Also the large expansion in industrial plant construction has brought widening use for ALUNDUM (C.F.) AGGREGATE to add safety and durability to cement floors.

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Mosaic Tile and ALUNDUM Stair and Floor Tile.

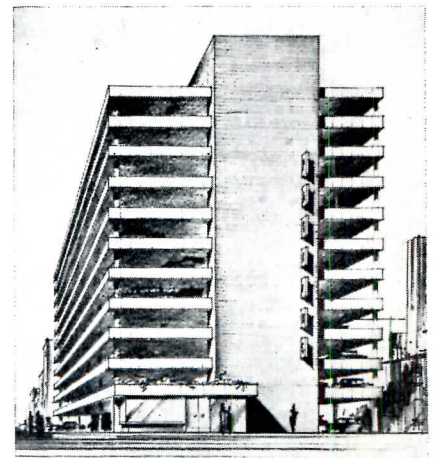
Production of ALUNDUM Stair and Floor Tile but not mosaics will be continued, however, at the Norton Company plant in Hamilton, Ontario, Canada so architects may continue to specify these ALUNDUM non-slip tiles and obtain them from this source.

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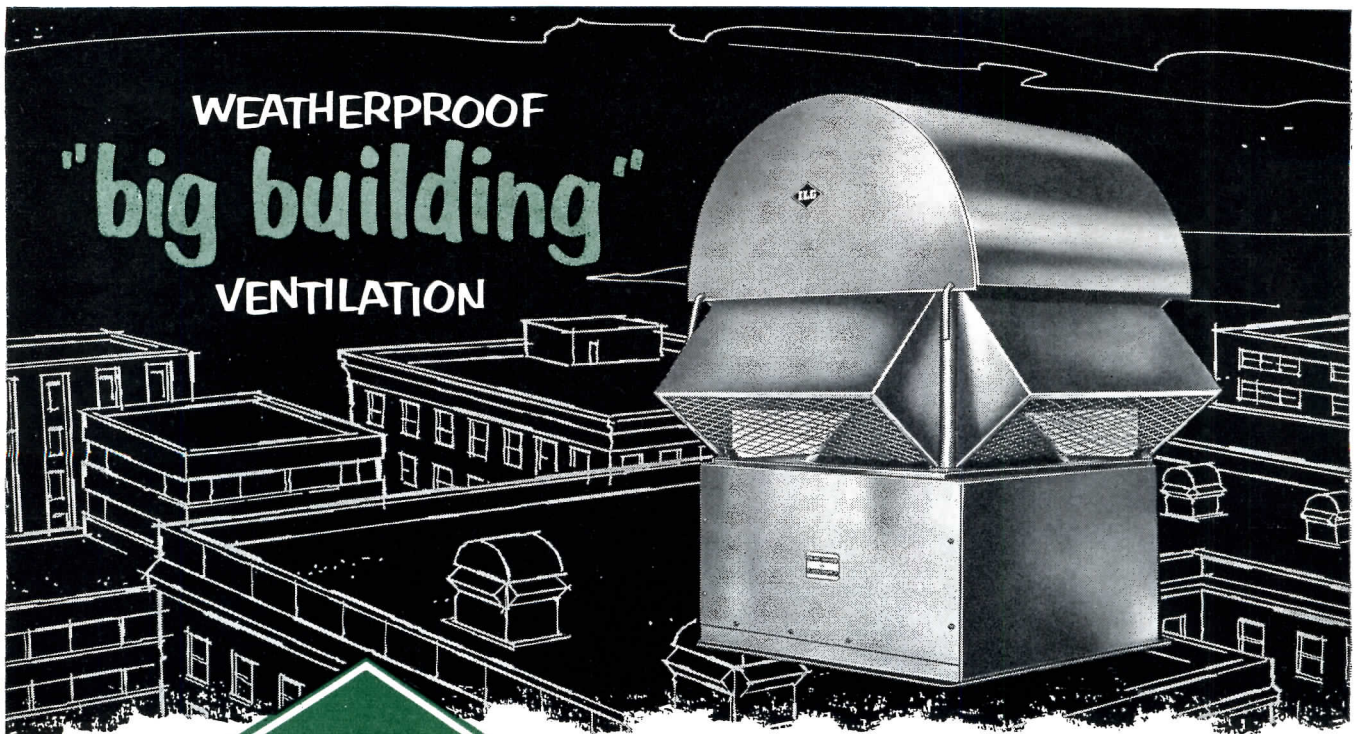
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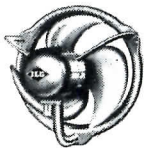
In an attempt to solve the familiar downtown parking problem, the Toronto Parking Authority plans two garages — above the 575-car version; not shown, 400-car model. Blake H. M. Tedman, architect

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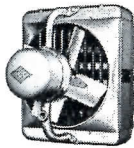


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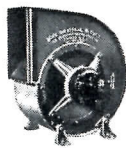
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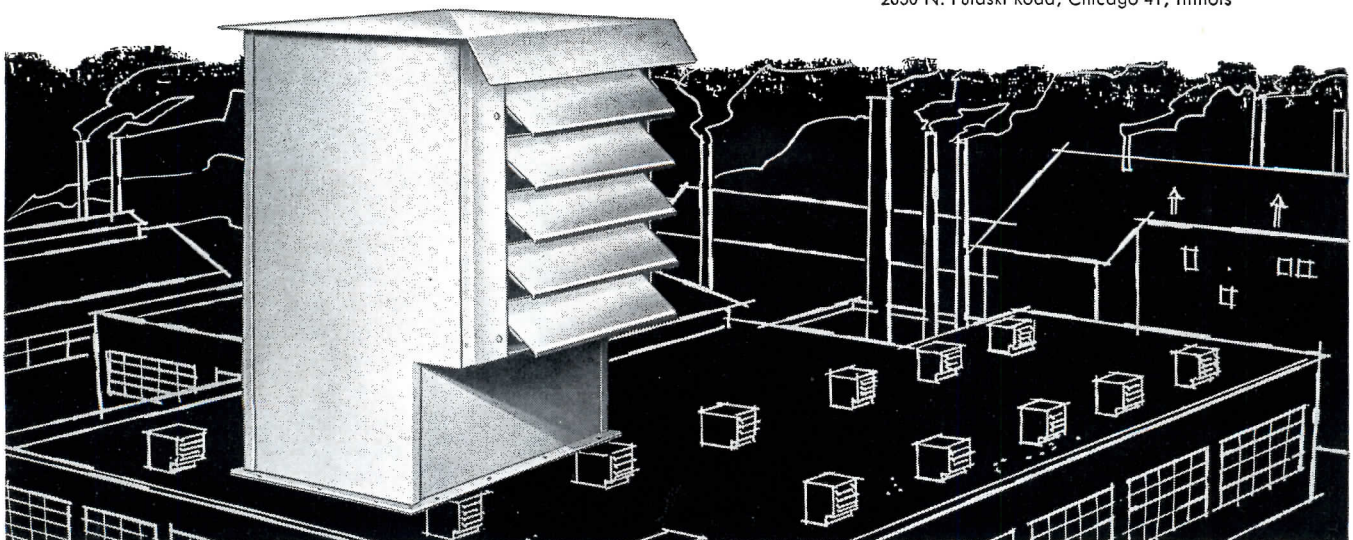


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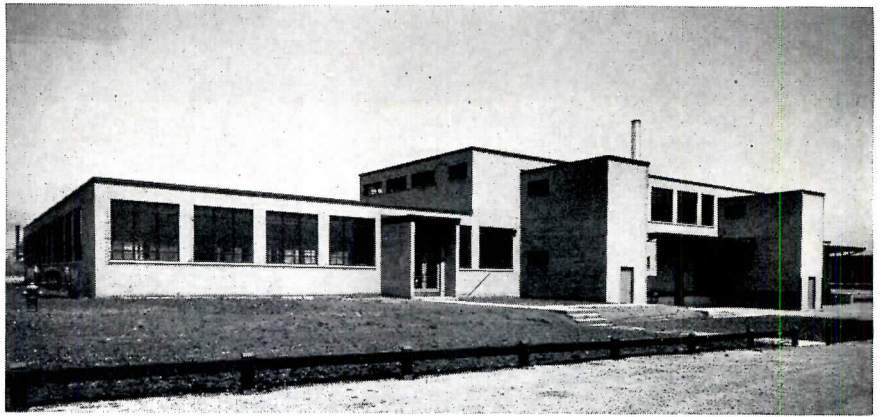


THE RECORD REPORTS

CANADA

(Continued from page 30)

ber, Gio Ponti, Italian architect-designer and editor of the architectural magazine *Domus*; Canadian members are Professor Eric Arthur, of the School of Architecture at the University of Toronto, and Humphrey Carver, of Central Mortgage & Housing Corporation.



Recently completed near Toronto was this factory for the Canadian Hanson & Van Winkle Company, Ltd. Shore and Moffat, Toronto, were architects

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ALBERTA ARCHITECTS HOLD 43RD ANNUAL CONVENTION

Alberta architects met recently in Edmonton for a two-day meeting of the Alberta Association of Architects. Members elected K. C. Stanley, of Edmonton, to the presidency; he succeeds George W. Lord in the office. Other officers elected were V. F. R. Berton, Calgary, first vice president; G. W. Lord, Edmonton, second vice president; H. L. Bouey, Edmonton, honorary secretary; and G. R. Ascher, Edmonton, honorary treasurer.

It was announced at the meeting that the association had opened an office in Edmonton.

FEBRUARY 1954 CONTRACTS TOP 1953 BY \$6 MILLION

Construction contracts awarded in February swung up \$6,491,000 over the same month last year, according to the figures of the MacLean Building Reports, which give a total for the month of \$91,904,000.

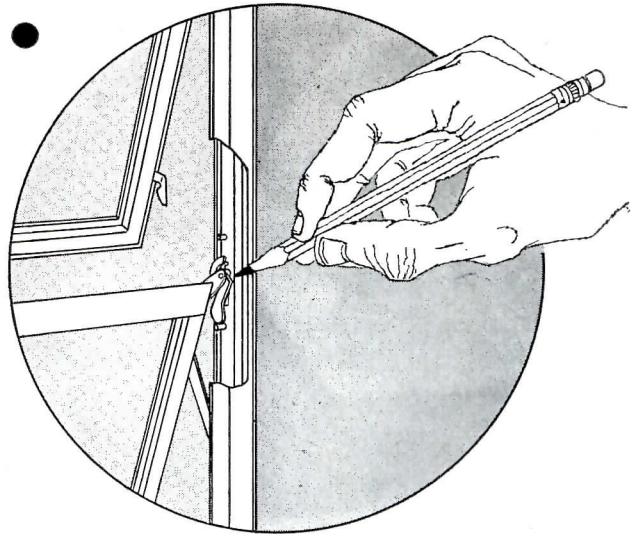
Though not a substantial upsurge, the trade publication points out this increase should reassure those who may have been apprehensive at the drop of \$20 million reported for January. This decrease was attributed to the severe winter conditions prevailing across the country. As the weather moderates, suggests MacLean, work-start hold-backs should pick up and balance out the cumulative deficit for the new year.

(Continued on page 36)

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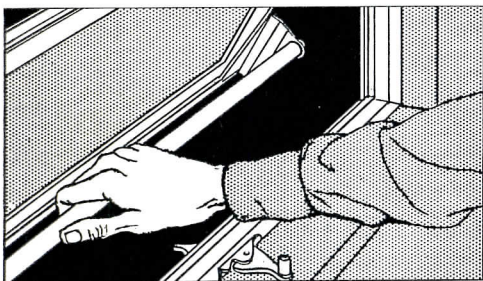


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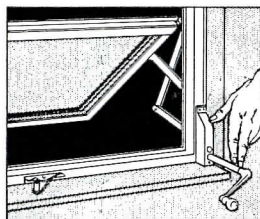
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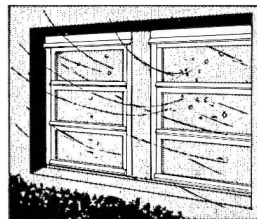
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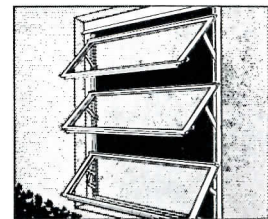
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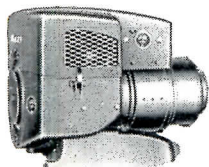
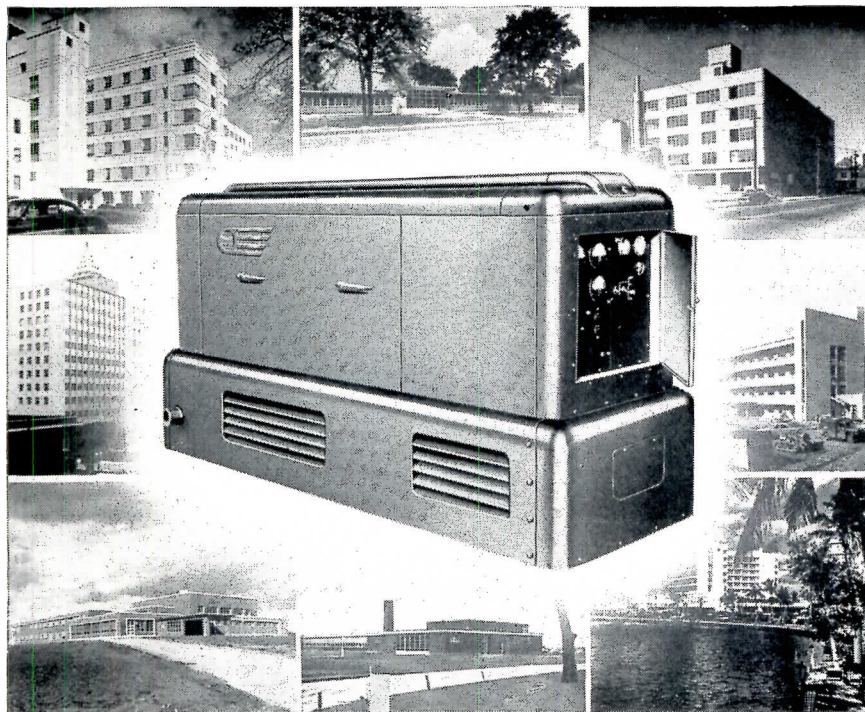
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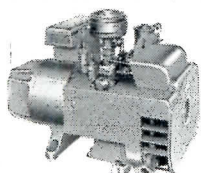
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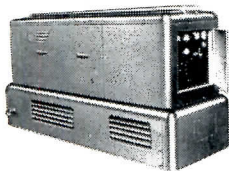
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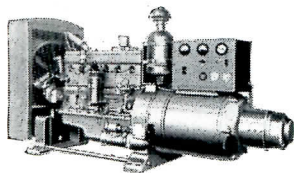
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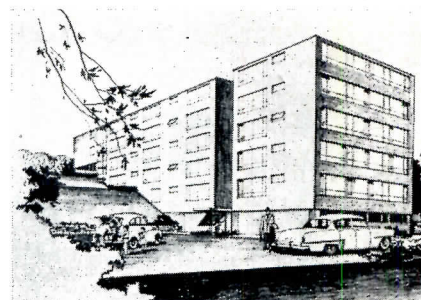
First . . . in Standby Electric Power

THE RECORD REPORTS

CANADA

(Continued from page 32)

The month's increases showed up in three categories — industrial building, up 50 per cent; residential, up 14 per cent; and business building, up about 10 per cent. Engineering construction, however, showed a drop of about 49 per cent from last year's total for the month.



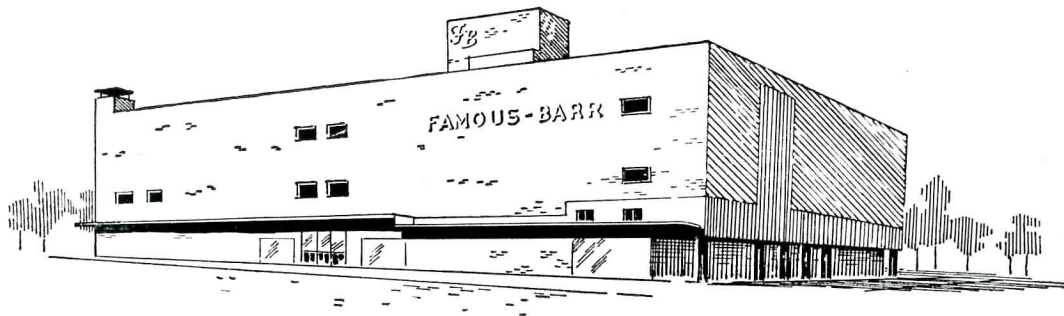
Deploing a tendency in some recent Toronto apartment developments to "scrape" a site clean before construction, Venchiarutti & Venchiarutti designed this apartment development near Toronto with special attention to the natural features of the location. Buildings are planned to follow the contours of the site, and the road is placed to spare as many trees as possible

NEWS NOTES

A **Coronation Medal** was awarded by the Queen to George Englesmith, Toronto architect, for his services in the Association of Canadian Industrial Designers, of which he is the founder; Mr. Englesmith is with the firm of John B. Parkin Associates . . . W. F. Holden has been appointed **Commissioner of Buildings** by the Toronto Board of Control; Mr. Holden, who is an architect, was formerly deputy commissioner of buildings . . . "Italy, Ancient & Modern" was the title of a feature presented recently to the Toronto Chapter of the Ontario Association of Architects; the presentation consisted of color slides taken by architects on trips abroad, and was prepared by W. M. Greed, a member of the chapter. . . Toronto's new **\$50 million** subway had its first run on March 30; traffic capacity of the four-and-a-quarter-mile tube is 40,000 passengers per hour.

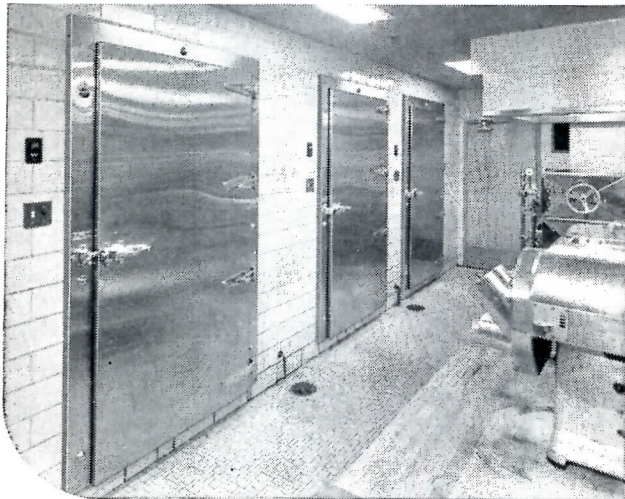
(More news on page 38)

JAMISON Stainless Doors Selected For Store Setting Pattern For Future Building

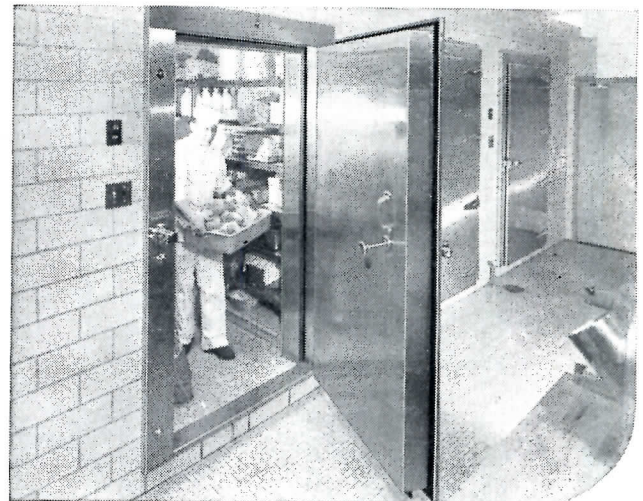


Famous-Barr's new Southtown store in suburban St. Louis may prove to be a pattern for future store builders. Of an advanced design, the store contains every convenience for shoppers and employees, including a large dining deck, coffee shop, restaurant, employees cafeteria and a

kitchen, which is the last word in modern efficiency and sanitation. Jamison stainless steel clad cold storage doors in this kitchen combine "hospital spotlessness" with a maximum of cold-sealing efficiency. Jamison Cold Storage Door Company, Hagerstown, Md., U. S. A.



EFFICIENT DOOR HARDWARE . . . Adjustoflex Hinges combine spring tension regulation and automatic self-adjustment. Wedgetight Fastener and Adjustoflex Hinges assure tight seal of gasket against frame.



DOORS OPEN EASILY . . . The Wedgetight Fastener provides the utmost ease in opening door from either side. Tight door seal can be released with minimum effort.



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WHITHER HOUSING? FUTURE GOVERNMENT POLICY IN DOUBT AS FHA INVESTIGATION ROCKS NATION

THE FUTURE of government housing programs — and, indeed, of some other programs of government aid to construction — appeared to be in question as an early result of the Eisenhower

Administration's decisive expose of Federal Housing Administration "scandals" that bridged the Truman era and its own.

Hearings on the Eisenhower housing

legislation by the Senate's Banking Committee were immediately "postponed" for two weeks to allow the Committee's full-scale investigation of FHA irregularities to get under way and it was not hard to find Capitol Hill prophets who saw a clear possibility that the new Administration program might get entirely lost, for this session at least, in the shuffle.

The Administration-sponsored lease-purchase bill, under which public buildings would be constructed by private builders for lease to the government on a long-term purchase arrangement, also ran into trouble in the Senate immediately after the FHA imbroglio began, but in the end it was passed.

The abrupt announcement by Housing and Home Finance Agency Administrator Albert M. Cole that the resignation of FHA Administrator Guy T. O. Hollyday had been "accepted" by the Eisenhower Administration so that "another man" could lead an investigation of "alleged serious irregularities and abuses" in the FHA Small Property Improvement Insurance Program (Title I) and "evidence of illegal or unethical actions" in the financing of privately-owned rental housing projects (Section 608, which expired in 1950) was followed by an investigative flurry notable even in present-day Washington. Within a week, at least six separate investigations were under way.

Norman P. Mason, treasurer of the William P. Proctor Company, Chelmsford, Mass., a widely-known leader in the construction industry, was expected to play a key role in the HHFA investigation as the acting FHA administrator appointed to succeed Mr. Hollyday.

The housing bill embodying the new Eisenhower program had passed the House of Representatives after a bitter fight on public housing provisos without the authority asked by the Administration for construction of 104,000 new units of low-rent public housing in the next four years. By what amounted to a parliamentary accident, the bill did permit the Public Housing Administration to proceed with the 35,000 units already under contract with local authorities.

(Continued on page 282)

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CONSTRUCTION COST INDEXES
 Labor and Materials U. S. average 1926-1929 = 100
*Presented by Clyde Shute, manager, Statistical and Research Division,
 F. W. Dodge Corp., from data compiled by E. H. Boeckh & Assocs., Inc.*

NEW YORK

ATLANTA

Period	Residential		Apts., Hotels Office Bldgs. Brick and Concr.	Commercial and Factory Bldgs. Brick and Concr.		Brick and Steel	Residential		Apts., Hotels Office Bldgs. Brick and Concr.	Commercial and Factory Bldgs. Brick and Concr.		Brick and Steel
	Brick	Frame		Brick	Brick and Steel		Brick	Frame		Brick	Brick and Steel	
1930	127.0	126.7	124.1	128.0	123.6		82.1	80.9	84.5	86.1	83.6	
1935	93.8	91.3	104.7	108.5	105.5		72.3	67.9	84.0	87.1	85.1	
1939	123.5	122.4	130.7	133.4	130.1		86.3	83.1	95.1	97.4	94.7	
1940	126.3	125.1	132.2	135.1	131.4		91.0	89.0	96.9	98.5	97.5	
1946	181.8	182.4	177.2	179.0	174.8		148.1	149.2	136.8	136.4	135.1	
1947	219.3	222.0	207.6	207.5	203.8		180.4	184.0	158.1	157.1	158.0	
1948	250.1	251.6	239.4	242.2	235.6		199.2	202.5	178.8	178.8	178.8	
1949	243.7	240.8	242.8	246.4	240.0		189.3	189.9	180.6	180.8	177.5	
1950	256.2	254.5	249.5	251.5	248.0		194.3	196.2	185.4	183.7	185.0	
1951	273.2	271.3	263.7	265.2	262.2		212.8	214.6	204.2	202.8	205.0	
1952	278.2	274.8	271.9	274.9	271.8		218.8	221.0	212.8	210.1	214.3	
1953	281.3	277.2	281.0	286.0	282.0		223.3	224.6	221.3	221.8	223.0	
Dec. 1953	286.1	280.6	292.6	298.5	295.2		223.7	224.1	225.7	226.7	226.6	
Jan. 1954	285.2	279.5	292.2	298.2	294.8		221.8	221.9	224.1	225.4	225.2	
Feb. 1954	284.1	278.2	291.6	297.7	294.2		220.0	219.7	223.3	224.8	224.4	
Feb. 1954	% increase over 1939			% increase over 1939			% increase over 1939			% increase over 1939		
	130.0	127.3	123.1	123.2	126.1		154.9	164.4	134.8	130.8	137.0	

ST. LOUIS

SAN FRANCISCO

1930	108.9	108.3	112.4	115.3	111.3	90.8	86.8	100.4	104.9	100.4	
1935	95.1	90.1	104.1	108.3	105.4	89.5	84.5	96.4	103.7	99.7	
1939	110.2	107.0	118.7	119.8	119.0	105.6	99.3	117.4	121.9	116.5	
1940	112.6	110.1	119.3	120.3	119.4	106.4	101.2	116.3	120.1	115.5	
1946	167.1	167.4	159.1	161.1	158.1	159.7	157.5	157.9	159.3	160.0	
1947	202.4	203.8	183.9	184.2	184.0	193.1	191.6	183.7	186.8	186.9	
1948	227.9	231.2	207.7	210.0	208.1	218.9	216.6	208.3	214.7	211.1	
1949	221.4	220.7	212.8	215.7	213.6	213.0	207.1	214.0	219.8	216.1	
1950	232.8	230.7	221.9	225.3	222.8	227.0	223.1	222.4	224.5	222.6	
1951	252.0	248.3	238.5	240.9	239.0	245.2	240.4	239.6	243.1	243.1	
1952	259.1	253.2	249.7	255.0	249.6	250.2	245.0	245.6	248.7	249.6	
1953	263.4	256.4	259.0	267.6	259.2	255.2	257.2	256.6	261.6	259.7	
Dec. 1953	265.8	259.3	263.2	271.9	264.7	258.6	251.0	264.4	271.2	266.5	
Jan. 1954	263.8	257.0	261.5	270.6	263.3	255.8	247.8	262.3	269.6	264.7	
Feb. 1954	262.0	255.8	260.7	270.0	262.5	254.0	245.6	261.5	269.0	263.9	
Feb. 1954	% increase over 1939			% increase over 1939			% increase over 1939			% increase over 1939	
	137.7	139.1	119.6	125.4	120.6	140.5	147.3	122.7	120.7	126.5	

The index numbers shown are for combined material and labor costs. The indexes for each separate type of construction relate to the United States average for 1926-29 for that particular type — considered 100.

Cost comparisons, as percentage differences for any particular type of construction, are possible between localities, or periods of time within the same city, by dividing the difference between the two index numbers by one of them; i.e.:

index for city A = 110
 index for city B = 95
 (both indexes must be for the same type of construction).
 Then: costs in A are approximately 16 per cent higher than in B.

$$\frac{110-95}{95} = 0.158$$

Conversely: costs in B are approximately 14 per cent lower than in A.

$$\frac{110-95}{110} = 0.136$$

Cost comparisons cannot be made between different types of construction because the index numbers for each type relate to a different U. S. average for 1926-29.

Material prices and wage rates used in the current indexes make no allowance for payments in excess of published list prices, thus indexes reflect minimum costs and not necessarily actual costs.

These index numbers will appear regularly on this page.

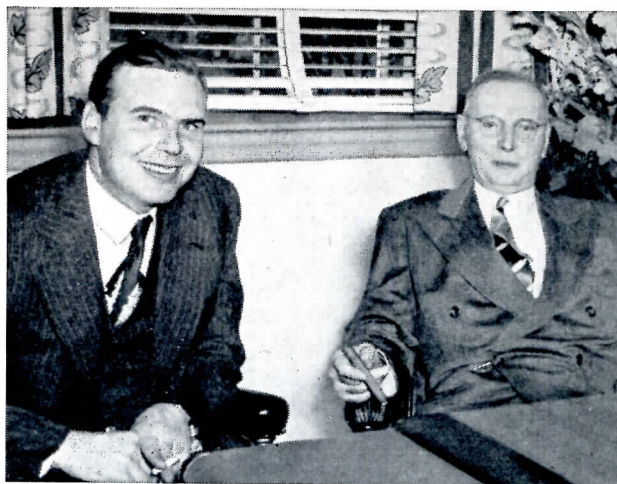
(year after year) in Washington, D.C.

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At right: Messrs. M. T. Broyhill, Jr.; Mr. M. T. Broyhill, Sr. →



“Sold 1500 Houses with G-E Kitchens”



“Our houses sell in the price range of \$13,950 to \$35,000.

“Regardless of price class, however, we find that most women want all-electric, timesaving appliances in their new houses today—and I don’t blame them.

“Above all, they express an overwhelming preference for General Electric appliances. Our custom-type General Electric Kitchen is one of our most potent sales features.”

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MRS. L. V. DRAVENTSADT in the G-E Kitchen of her new home. Mrs. Draventsadt is mighty pleased with her General Electric appliances for she knows how efficient and dependable they are, having just moved from a previous home, built by Mr. Broyhill, which also was General Electric equipped.

GENERAL  ELECTRIC

REQUIRED READING

“JUST GIVE ME THE FACTS, MA’AM”

(an editorial note)

WE'RE in a house-building boom, and a lot of house books have been published in the past few years. Almost all of these, and shelter magazines too, are aimed at selling contemporary design to the house-buying public — which is larger than ever, or we wouldn't be having the boom or the books. These books do a pretty thorough job of presenting the FACTS: cost per square foot; the many technical innovations created to “save” the housewife; the advantages of convertible rooms; new cost-saving construction methods. These are techniques which we recognize as essential today; nobody really wants to return to the black iron kitchen sink or the 1910 heating system. These facts are also thrust at the public by radio and TV home shows, ladies' home magazines, home furnishing shows and daily newspapers; the completely modern house just isn't traditional. The facts are generally accepted, but even in sum they seldom give prospective home owners the reassurance they need. The shutters on a Cape Cod house, divorced from modern function, retain a meaning for many people; for many they are part of the alphabet of grace, gentility and a connection with tradition. The glassed-in house, designed on a basis of formula and utility, is strange. The

home buyer wants to appreciate it — often the very vigor of his defense of an uncertain choice betrays this; but what have architects contributed to help him transfer his understanding and affection from the old to the new? This need for identity with a tradition is not easy to satisfy honestly. The suburban movement in this country, now at a peak, is at least as old as Jefferson's belief in the desirability of every family having its own house on a plot of ground on the fringe of the city. Our society has forced its growth, though we may now question the rightness of either agrarian austerity or quaintness as its characteristic domestic expression: the palatial Greek Revival, the gingerbreaded Queen Anne, the garden cottages of Andrew Jackson Downing. These are hardly compatible with the American ingenuity that also produced the central-chimneyed New England house plan or the Louisiana dog-trot house, the balloon frame or even the simple clapboard.

Of course the home buyer needs books on today's techniques. Perhaps even more, though, he needs — and he wants, judging by personal and reported experience — books that will help him understand and like more than the mere techniques of the modern house. He wants to feel at home in it.

Quality Budget Houses. By Katherine Morrow Ford and Thomas H. Creighton. Reinhold Publishing Corp. (New York, N. Y.) 1954. 8½ by 10½ in., 221 pp, illus. \$4.95.

Practical Houses for Contemporary Living. By Jean and Don Graf. F. W. Dodge Corp. (New York, N. Y.) 1953. 8½ by 10½ in., 165 pp, illus. \$6.95.

Homes of the Brave. By T. H. Robsjohn-Gibbins, drawings by Mary Petty. Alfred A. Knopf, publishers (New York, N. Y.) 1954. 6¼ by 9½ in., 113 pp, illus. \$3.50.

REVIEWED BY

JOHN HANCOCK CALLENDER, A.I.A.

The latest additions to the current crop of books about houses are all aimed at the public rather than the profession. But architects practising in this field usually find it advisable to keep abreast of their clients' reading, and should add these three books to their list. The first two books are aimed at those people who are intending to build houses. Both do a workmanlike job of presenting many examples of reasonably well designed houses, salted with brief but sage advice to the prospective home builder. These books are practical, impersonal and non-critical, and they perform a useful service to the public. The third book has no such utilitarian purpose. It is intensely personal and unhesitatingly critical and

is intended to be highly entertaining and incidentally instructive.

QUALITY BUDGET HOUSES “is a book about the things you have to know — and the things you have to do — to get a good . . . house on a limited budget.” The text includes chapters on the Site, Use of Space, Expansion, Structure, Materials and Equipment, Ready Built Houses, Cooperatives, the Owner as a Builder, the Architect as a Builder. The text runs continuously through the book on the right hand pages. The examples are uniformly presented on the left hand pages and usually carry over to the facing page. Information about the houses is far more complete than is customary in books of this type. This data is organized under the following headings: Cost Facts (cost, date, area, cost per square foot); Materials; Plan Facts (the owner's requirements, nature of site, etc. described in detail); Economies; Budget Suggestions (possible further economies).

The authors are commended for their courage in tackling the troublesome cost problem and for the care they have taken to do it as fairly as humanly possible. They carefully explain what is included

and what is not included. Cost figures are always accompanied by the date, and conversion factors are given for correcting to 1954 costs. The reader is also told how to correct (in a very rough way) for regional cost differences. The area of basements, porches, carports, etc. is given separately from that of the main house and an explanation is made of how the cost per square foot is derived.

The architectural quality of the houses is remarkably high, considering the \$30,000 cost limit. This reviewer particularly liked the examples by Henry Hill, Richard Neutra, Hugh Stubbins, Crombie Taylor and Gyo Obata, Robert Rosenberg and Craig Ellwood. Some of the houses have been published before, but not so many as to make the book seem warmed over. The book is, incidentally, a remarkable bargain, offering 100 houses at five cents per house, if you want to look at it that way.

PRACTICAL HOUSES FOR CONTEMPORARY LIVING offers fewer houses (40) but presents them much more fully. Each house gets an average of four pages on which occur some eight photo-

(Continued on page 48)

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METAL WALLS

for INDUSTRIAL and COMMERCIAL BUILDINGS

ALUMINUM, STAINLESS or GALVANIZED STEEL



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Here is another excellent example where Stainless Steel Metal Walls have been employed to good advantage in dressing up a building which, because of its functional characteristics, would otherwise have been rather prosaic in appearance. The architects have achieved in this structure a result in modern design which has attracted much interest and many enthusiastic comments. The advantages of Metal Walls, however, are not confined to appearance and design effects obtainable . . . important building economies are realized through lower material cost, lower labor cost, and the cumulative savings resulting from reduced construction time . . . buildings can be quickly enclosed with Insulated Metal Walls—even under extreme low temperature conditions which would preclude masonry construction. Other important factors to be considered are the light weight of these modern curtain walls and the maintenance-free permanence of Stainless Steel or Aluminum exterior surfaces. Mahon Insulated Metal Walls are available in three exterior patterns . . . the Mahon "Field Constructed" Fluted or Ribbed Wall can be erected up to sixty feet in height without a horizontal joint—a feature of Mahon Walls which is particularly desirable in auditoriums, powerhouses and other types of buildings where high expanses of unbroken wall surface are common. See Sweet's Files for complete information or write for Catalog No. B-54-B.

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New Greyhound Terminal, Chicago, Illinois.
17,200 Sq. Ft. of Mahon Stainless Steel Metal
Walls were employed in exterior surfaces.
Skidmore, Owings & Merrill, Architects. John W.
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MAHON

PATTON MEMORIAL POOL

Outdoor Use In Summer Indoor Use In Winter



Architect—Giffels & Vallet, Inc.
L. Rosetti—Associated Engineer & Architect
Detroit, Michigan

General Contractor—
The Kriehoff Company
Detroit, Michigan

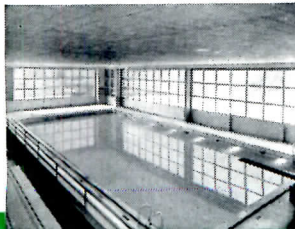
... Swimming pool has unequalled versatility with Byrne Aluminum Sliding Doors!

The General George S. Patton Memorial Pool located at Patton Memorial Park in Detroit, Michigan was conceived with the thought of constant use 12 months per year.

It was desired that the pool would approximate, as nearly as possible, an outdoor pool during summer time use . . . yet be weather tight and condensation free, for operation during the winter.

The architects, working with the Byrne engineering staff, developed the idea of using large sliding doors which nest in pockets to permit wide, unobstructed openings on two sides of the pool for summer swimming freedom. Aluminum, as a building material, was selected because of its non-corrosive qualities. Two sets of doors with heating space between them were constructed and these provide weather-tight condensation-free, winter operation. Bottom wheels, rolling on tracks, and freely running head guide rollers assure smooth, easy operation.

The pool was dedicated by General Patton's widow, Mrs. George S. Patton. It has been in constant use for several years, averaging over 90,000 patrons per year.



Unique in its field, it is felt that this new conception of an outdoor, indoor swimming pool will serve as a model for similar installations throughout the country.

For information regarding Byrne doors and facilities you may consult Sweet's Catalog or write direct for our brochure.

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REQUIRED READING

(Continued from page 46)

graphs and a plan. Photographs are of good size and show to advantage on the coated paper. Informative captions tell most of the story.

The book is organized into six sections. Each section is headed by a nugget of wisdom from the authors and a bright drawing by Lowell Hess. A brief, well-written introduction is the only formal text. It includes remarkably apt quotations from Shakespeare and the Bible warning the man who intends to build to be sure to keep within his budget.

It is apparent from the above that this book, without placing any special emphasis on low cost, covers very much the same field as **QUALITY BUDGET HOUSES**. It is remarkable therefore that only one house appears in both books. Many architects' names appear in both books. Nevertheless the general architectural level is not quite as high and the stylistic center is definitely to the right of the Ford-Creighton line. **PRACTICAL HOUSES** includes Royal Barry Wills' own house, complete with old ship's knees and barn sash that have been chewed by a horse! It is only fair to note that this is the only aberration of this type in the book. At the other end of the scale are houses by Kirk, The Architect's Collaborative, Matsumoto and Keck.

The editors of **PRACTICAL HOUSES** are commended for including full index service: by architect, by owner, by geographical region and by photographer; addresses are given for both architects and photographers. This in itself is rare enough, but another and unique type of index has been supplied. The "Concordance," as it is called, is an index of building details which lists everything from balconies and bars to window treatments and yards.

Both **BUDGET HOUSES** and **PRACTICAL HOUSES** were written by architects and published by architectural publishing houses. Yet the word "beauty" does not appear in either book. If architects themselves have forgotten or are ashamed to say, that beauty is their prime stock in trade, who can blame the public for not knowing it? One would gather from reading these books that an architect is an ingenious cost-cutter or a clever tailor who makes houses fit families. No where, even in-

(Continued on page 344)



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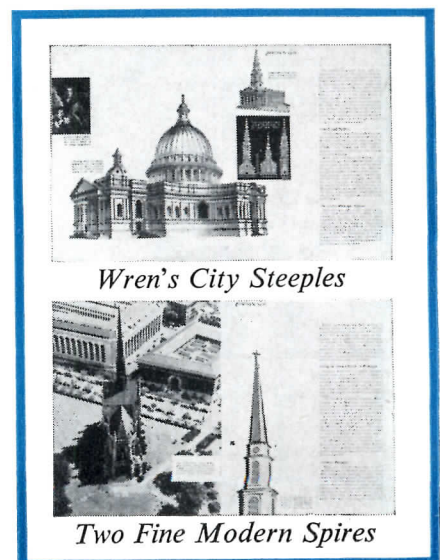
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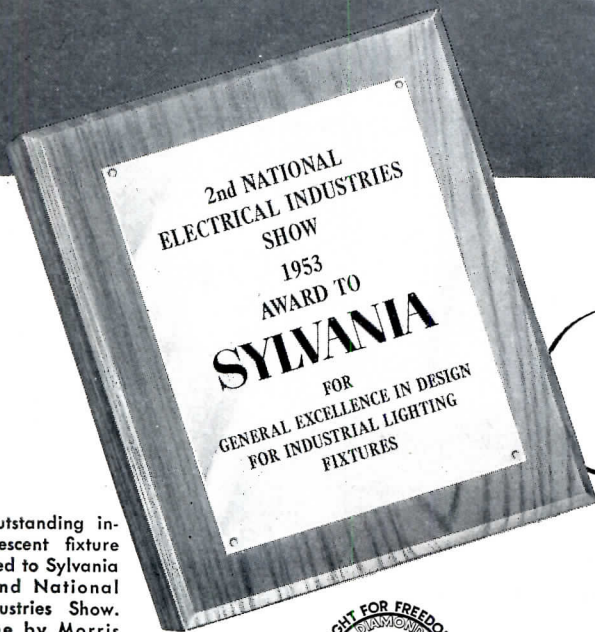
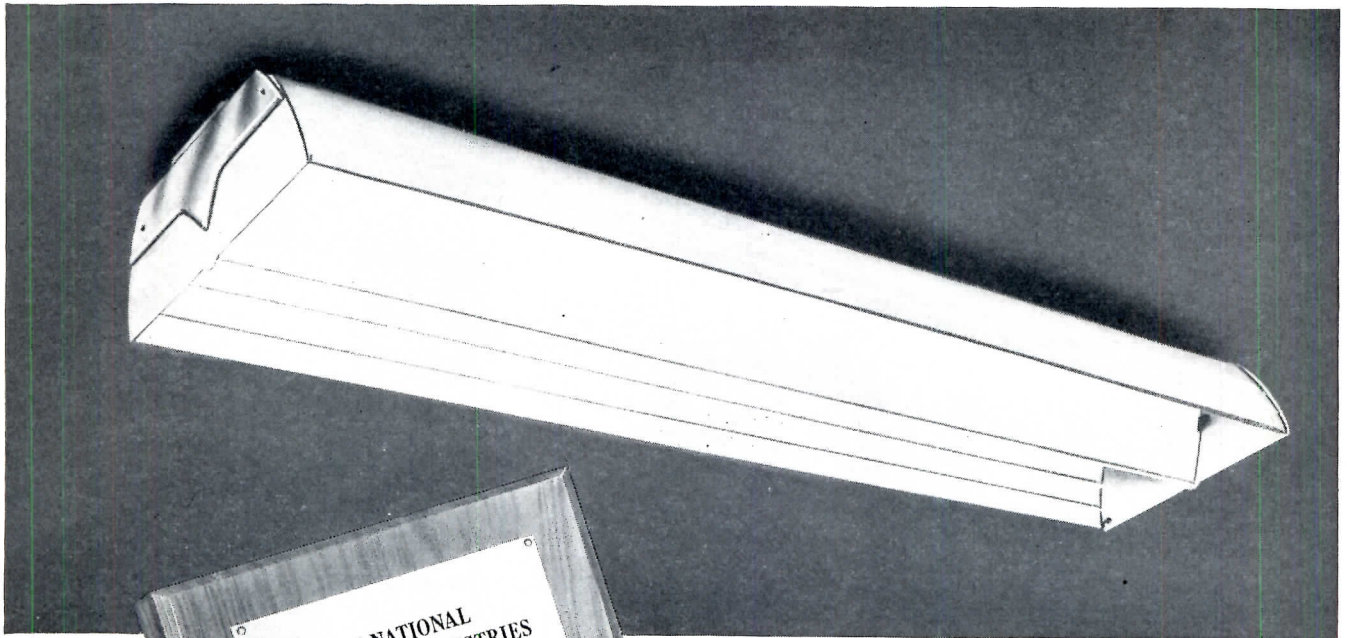
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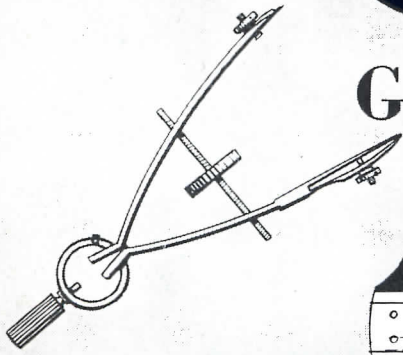
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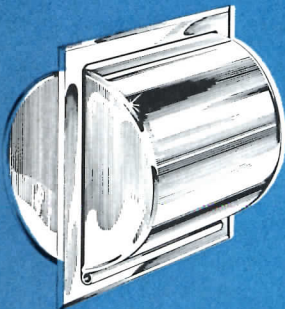
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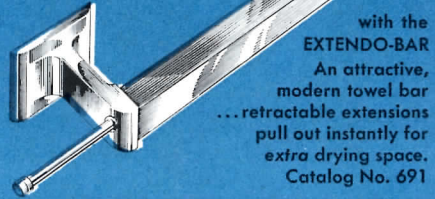


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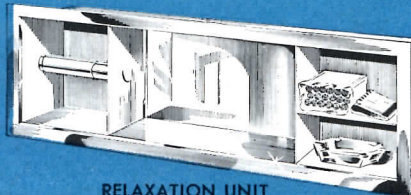


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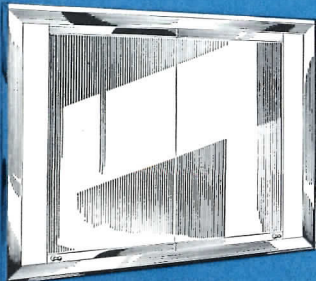


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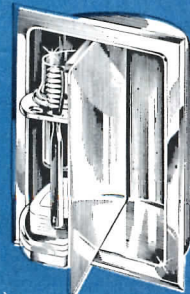


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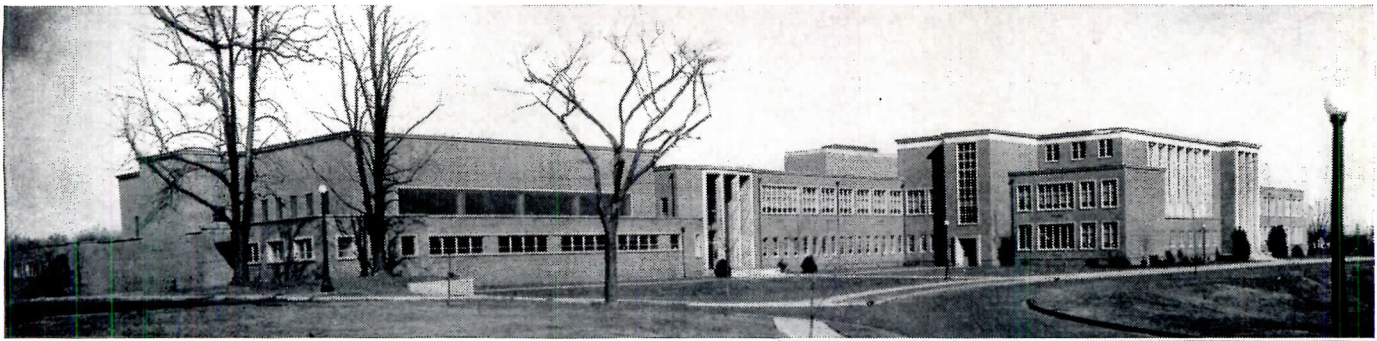
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Lynchburg, Virginia

Architect:

Pendleton S. Clark

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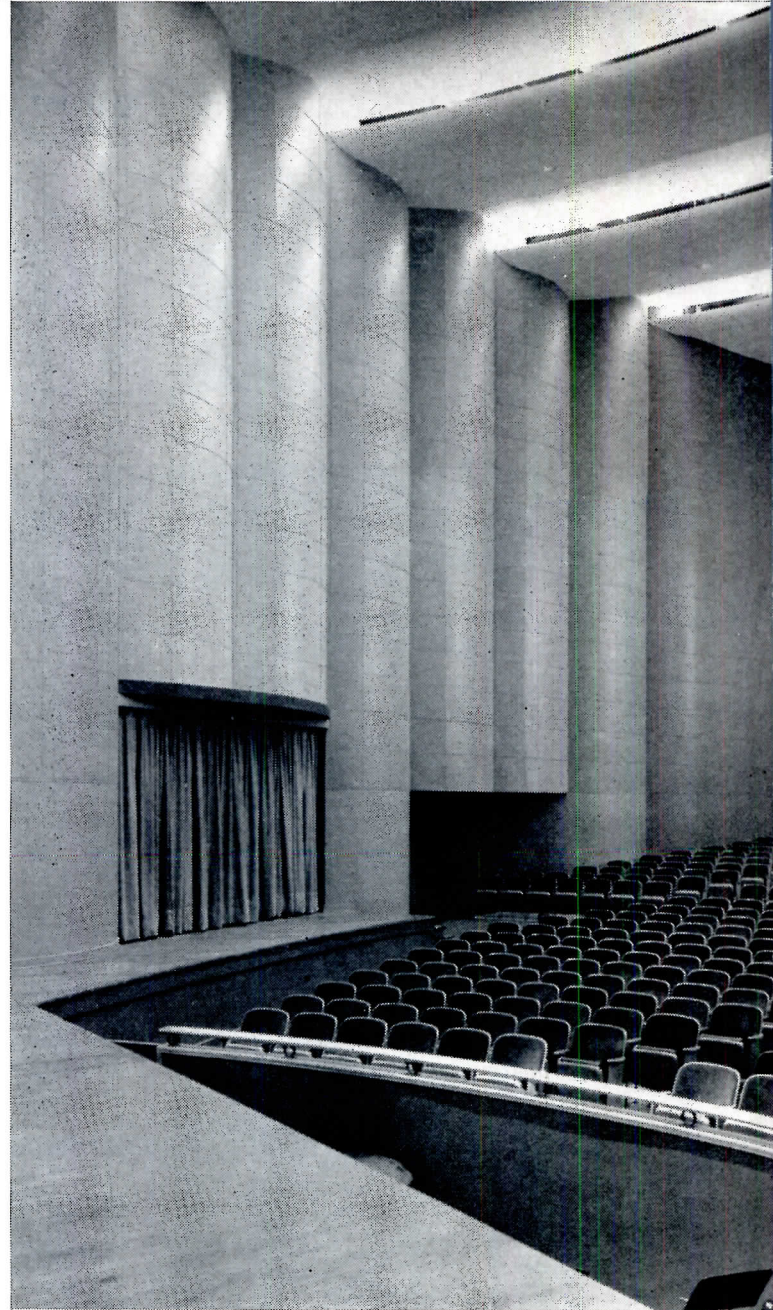
The new E. C. Glass High School in Lynchburg, Virginia, is an impressively large building. In its thoroughly up-to-date design, architect Pendleton S. Clark has reflected the dignity and charm of this conservative southern city.

The school's quiet atmosphere is largely due to careful planning before construction. Foreseeing the possibility of serious noise problems, the architect selected sound-absorbing ceilings of Armstrong's Perforated Asbestos Board, Perforated Hardboard, and Cushiontone.

Perforated Asbestos Board and Perforated Hardboard, backed by mineral wool, are unusually efficient noise absorbers. Used in the auditorium, they were especially adaptable to the complex acoustical treatment this area required.

In the school's three cafeterias, band room, library, and corridors, ceilings of highly efficient Cushiontone absorb as much as 75% of the noise that strikes its surface. Surprisingly low in cost, Cushiontone is a logical selection where large areas must be sound conditioned economically.

No single material can solve every kind of sound-conditioning problem. That's why Armstrong offers a complete line of acoustical materials, each with its own special features. For full details, call your Armstrong Acoustical Contractor. For the free booklet, "How to Select an Acoustical Material," write Armstrong Cork Company, 4205 Rock Street, Lancaster, Pennsylvania.



Seating over 2100 people, the main school auditorium is acknowledged to be one of the finest in the world. Treated with Perforated Hardboard around the radial surface of the sidewalls and Perforated Asbestos Board on the rear wall, it has almost perfect acoustics.



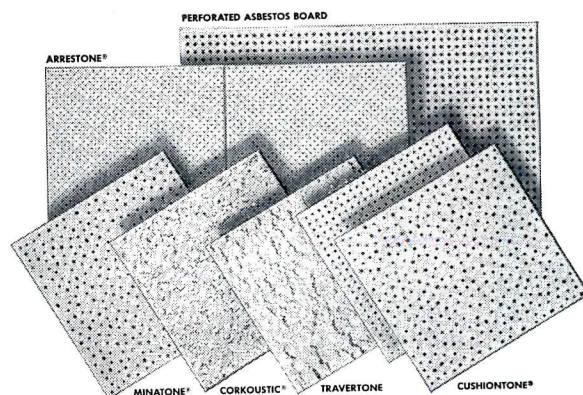
In the band room, sound-absorbing Cushiontone covers the ceiling and upper walls. This acoustical treatment helps prevent build-up of distracting noise levels and provides proper acoustics.



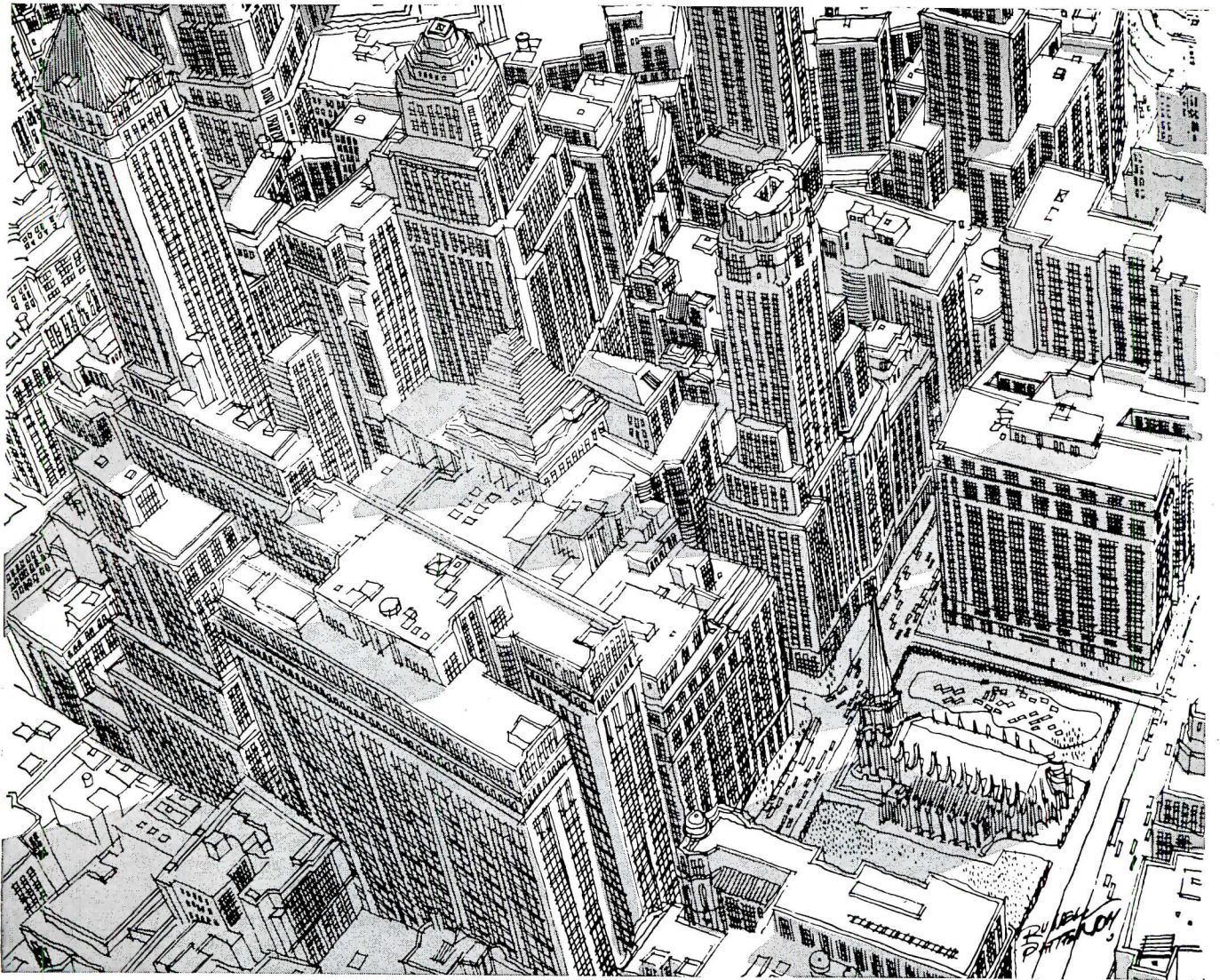
Undisturbed quiet in the library is essential to concentration. This quiet is assured by the Cushiontone ceiling. Easily nailed or cemented in place, Cushiontone does not interfere with the installation of recessed lighting and air conditioning.



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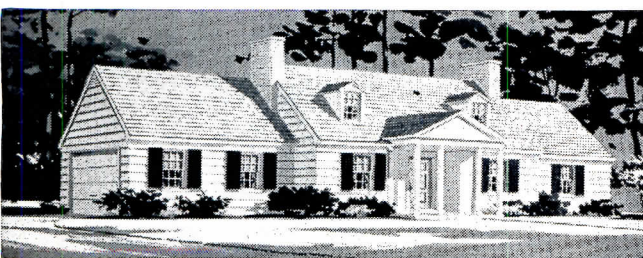
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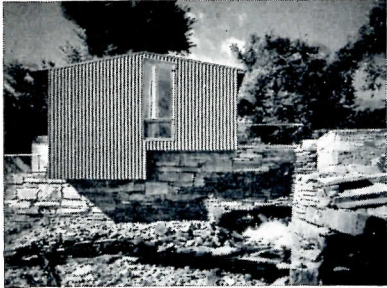


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1
Carl Koch and Associates (see page 140)

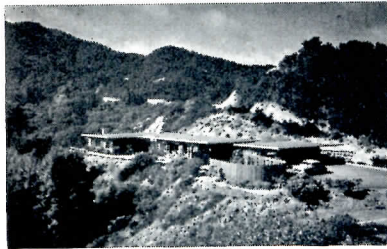
VIEWING CURRENT house architecture in a broad, objective sense one could easily find himself mumbling about "confusion." And, if he happened to feel in a negative mood, he could dwell upon certain inadequacies in the "modern" approach to house design; he might cite, with wrinkled nose, the supine acceptance of the cliché, and work himself into a nice tizzy.

On the more positive side, were he disposed toward cheerfulness, he might find much to nourish that mood. He might observe, for example, that the cliché work was done, as always, by the followers, not the leaders; he might even find grounds for encouragement in the fact that new ideas were

HOUSE DESIGN: STRESSING "DELIGHT"

gaining ground in this familiar way. He might then observe that much creative work was also being done. With his eyes thus turned upward, he would certainly find architects to whom the principles of contemporary design meant creative freedom, not restrictive dogma. He could find architects to whom the sweeping away of Victoriana did not mean sterile emptiness but rather preparation for new delights to go along with the "commodity and firmness." He might then, in exalted mood, mount his soapbox and proclaim that modern architecture was moving forward in many new and exciting and delightful paths. He might even shout, "Confusion? Let's have more of it."

For the following pages, RECORD editors have selected houses that must give their owners a full measure of "delight."



Morley Baer

2
John Funk, Lawrence Halprin (page 144)



Hedrich-Blessing

3
George Fred Keck, William Keck (page 150)

Edward D. Stone, Karl J. Holzinger, Jr. (page 154)

4



Ben Schmal

Richard Gordon (page 158)

5

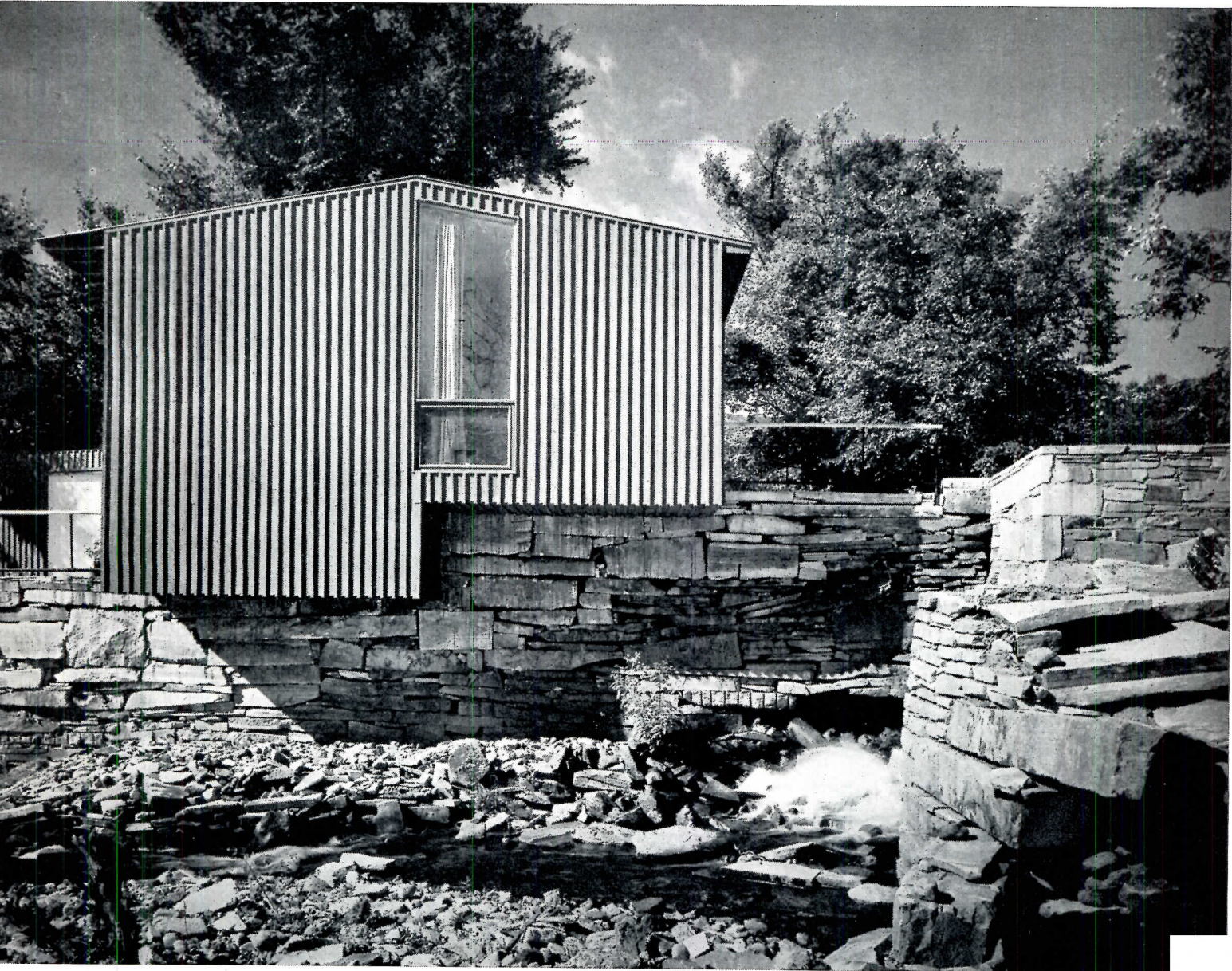


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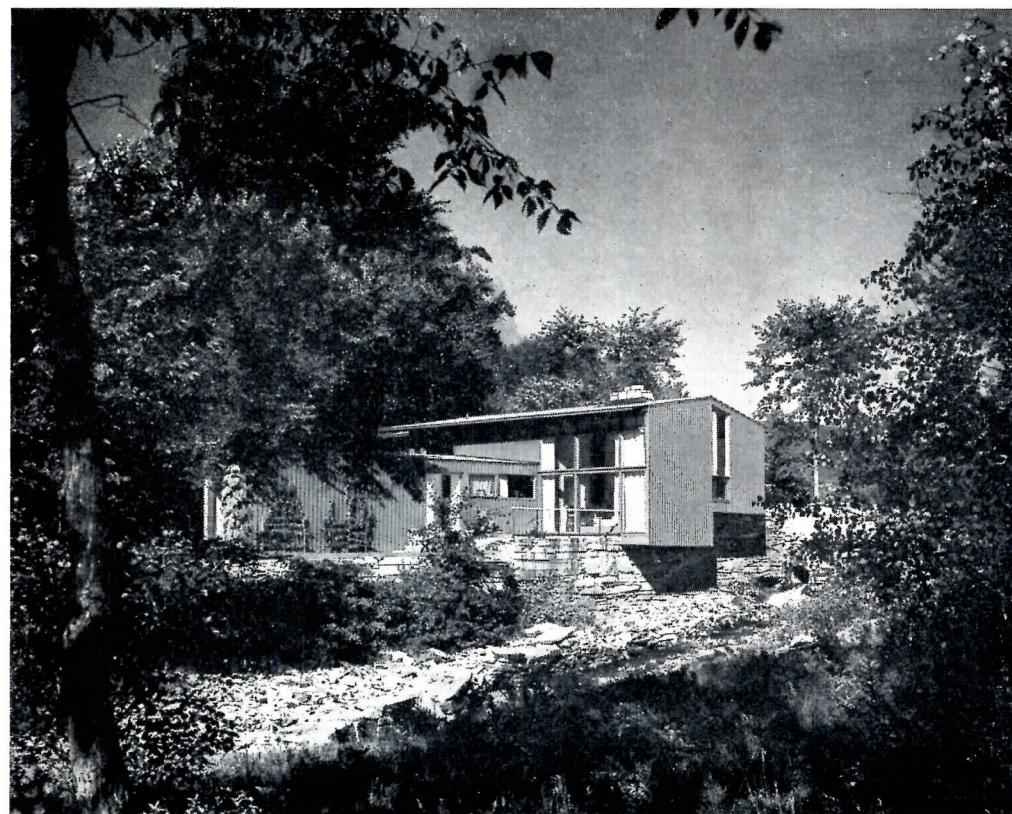
DEVELOPING THE "DELIGHT" OF A VERMONT SITE

Residence for Mr. and Mrs. James Parton, Dorset, Vt.

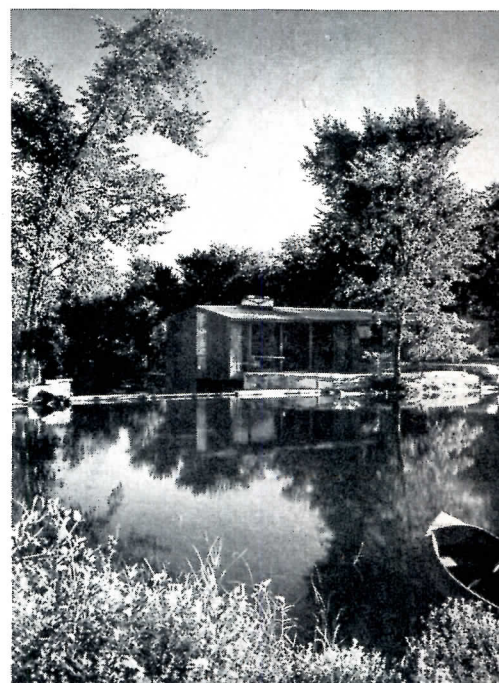
Carl Koch and Associates, Architects



IT WOULD BE DIFFICULT to find a house that better illustrates the freedom of the contemporary architect to develop the theme of "delight" with full sympathy for the wishes of the owner and the assertive regional character of the site. The "restriction" placed by the owner was "that the house should not conflict in its appearance too radically with its local surroundings or in such a way that the conservative Vermont residents would throw up their hands in horror." The architect continues, "the house was designed to fit the slope of the existing mound to the southwest of the dam and was to be built on three levels. . . . We used a slightly pitched roof and board and batten siding both because of our own preference and in order to give the house a Vermont character."



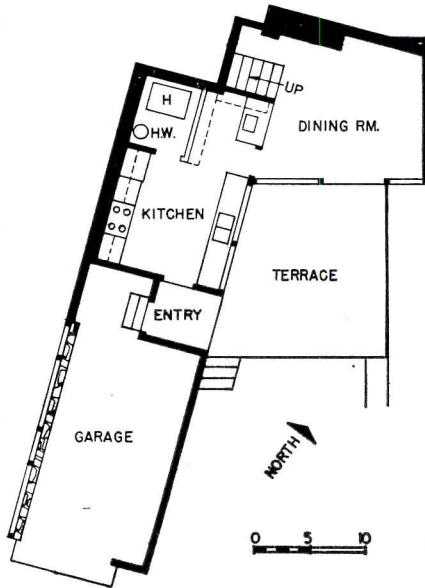
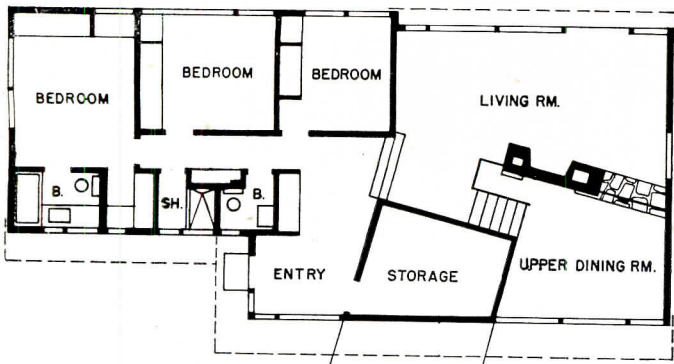
Property is the site of an abandoned marble-cutting mill, comprising six and a half acres at the south end of a 15-acre pond. Mill is long since gone, but the dam of marble remains, and brook is faced with marble blocks



At upper level, living room is cantilevered out over the brook. House follows contours as it recedes from the dam, dining room and kitchen being a few steps lower than living room, bedrooms at a still higher level



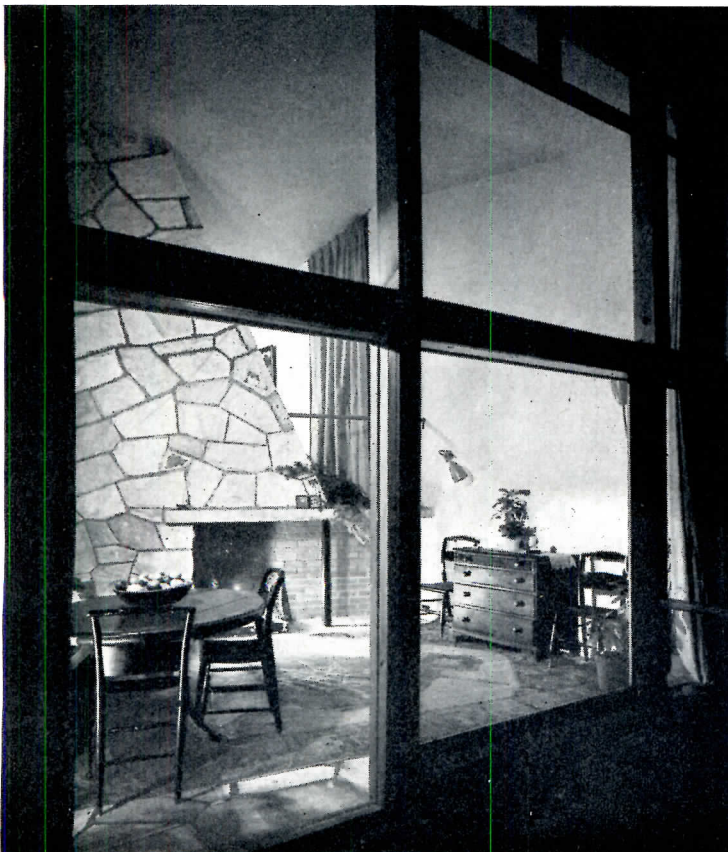
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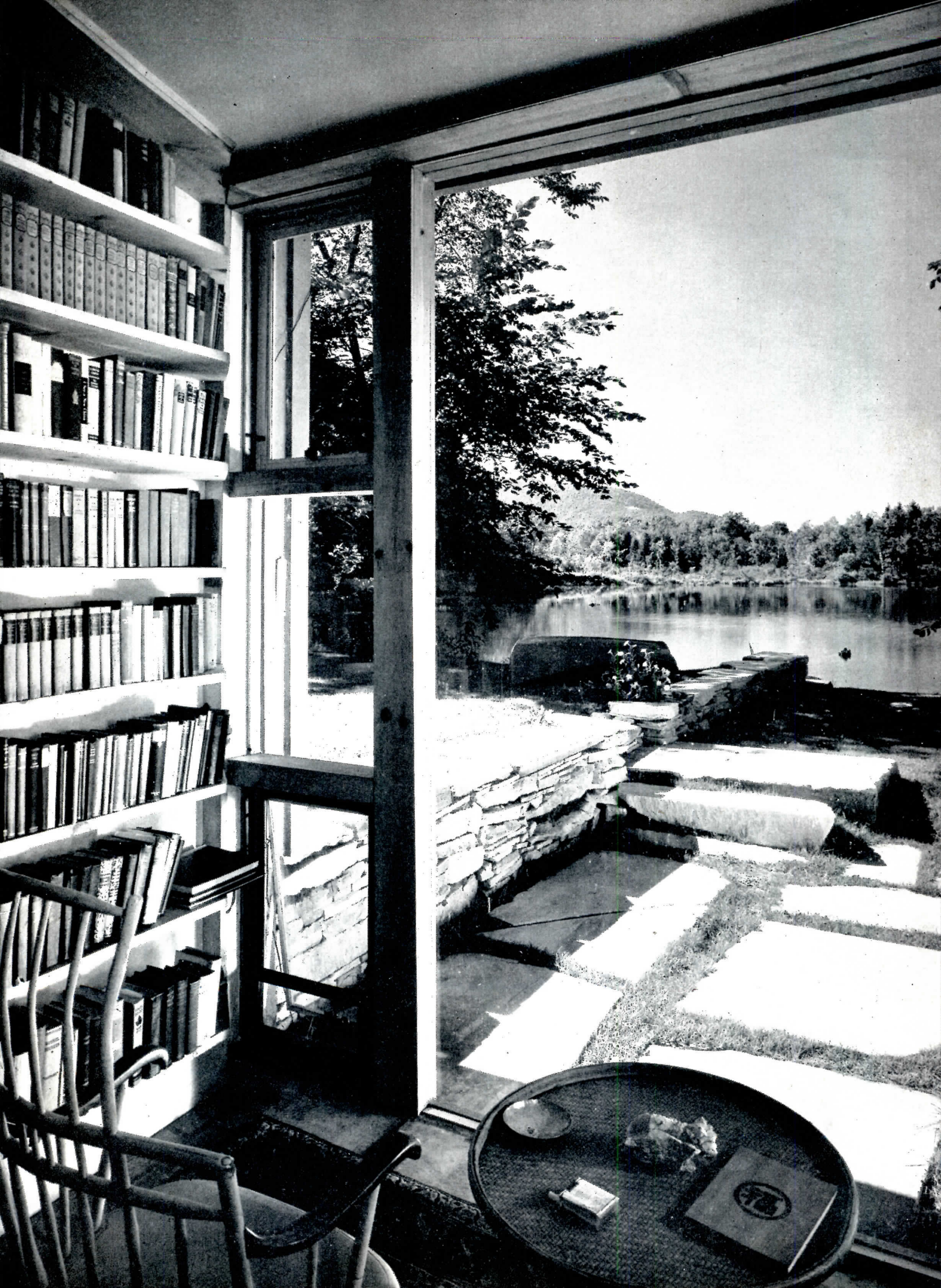


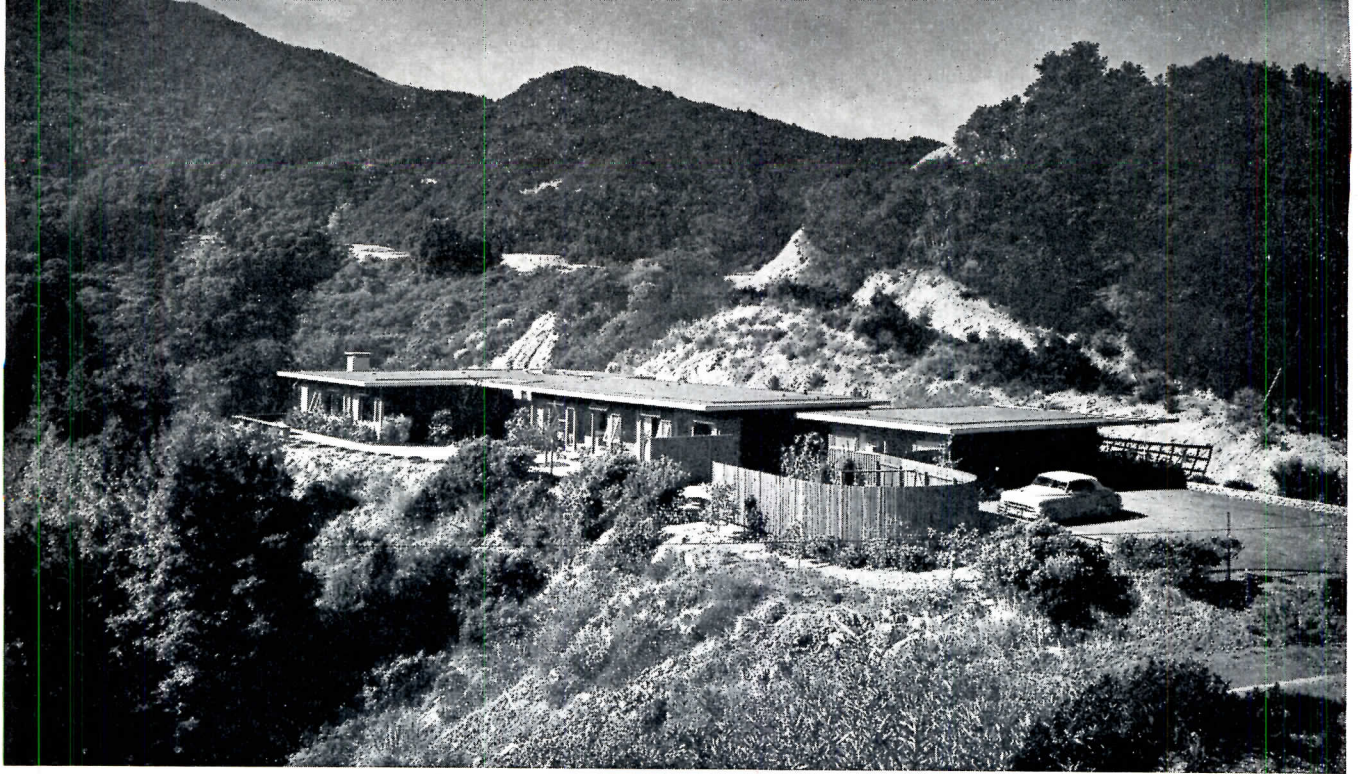
Fireplaces and floors in dining and living rooms are of native marble from the site, also the terrace at dining-room level. House is for a retired couple whose desire for a contemporary house did not extend to stylistic notions such as throwing away their furnishings and possessions

PARTON HOUSE; CARL KOCH AND ASSOCIATES

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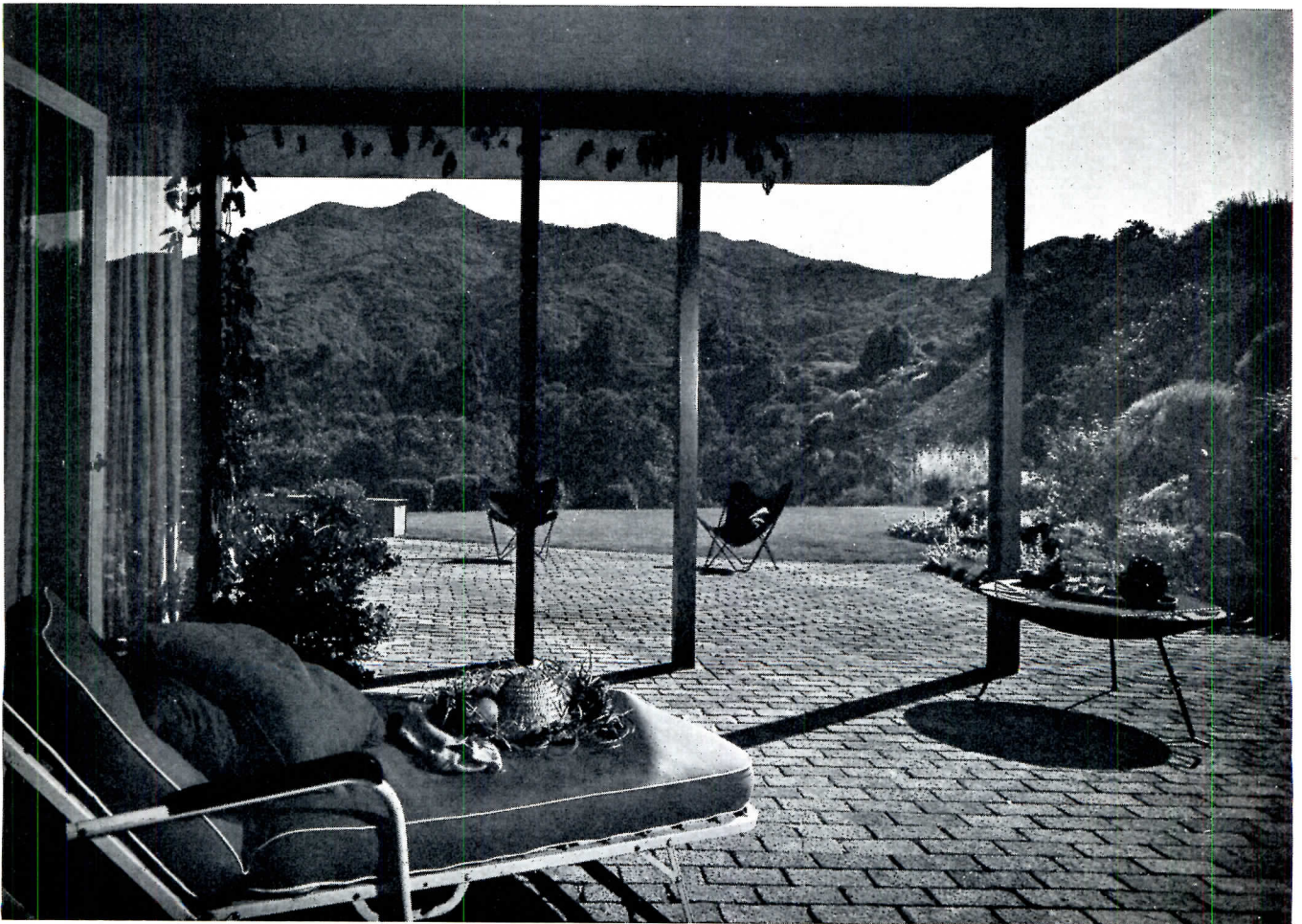


DESIGNED FOR BOTH FOREGROUND AND BACKGROUND

Residence for Mr. and Mrs. John Woerner, Kentwoodlands, Cal.

John Funk, Architect; Lawrence Halprin, Landscape Architect

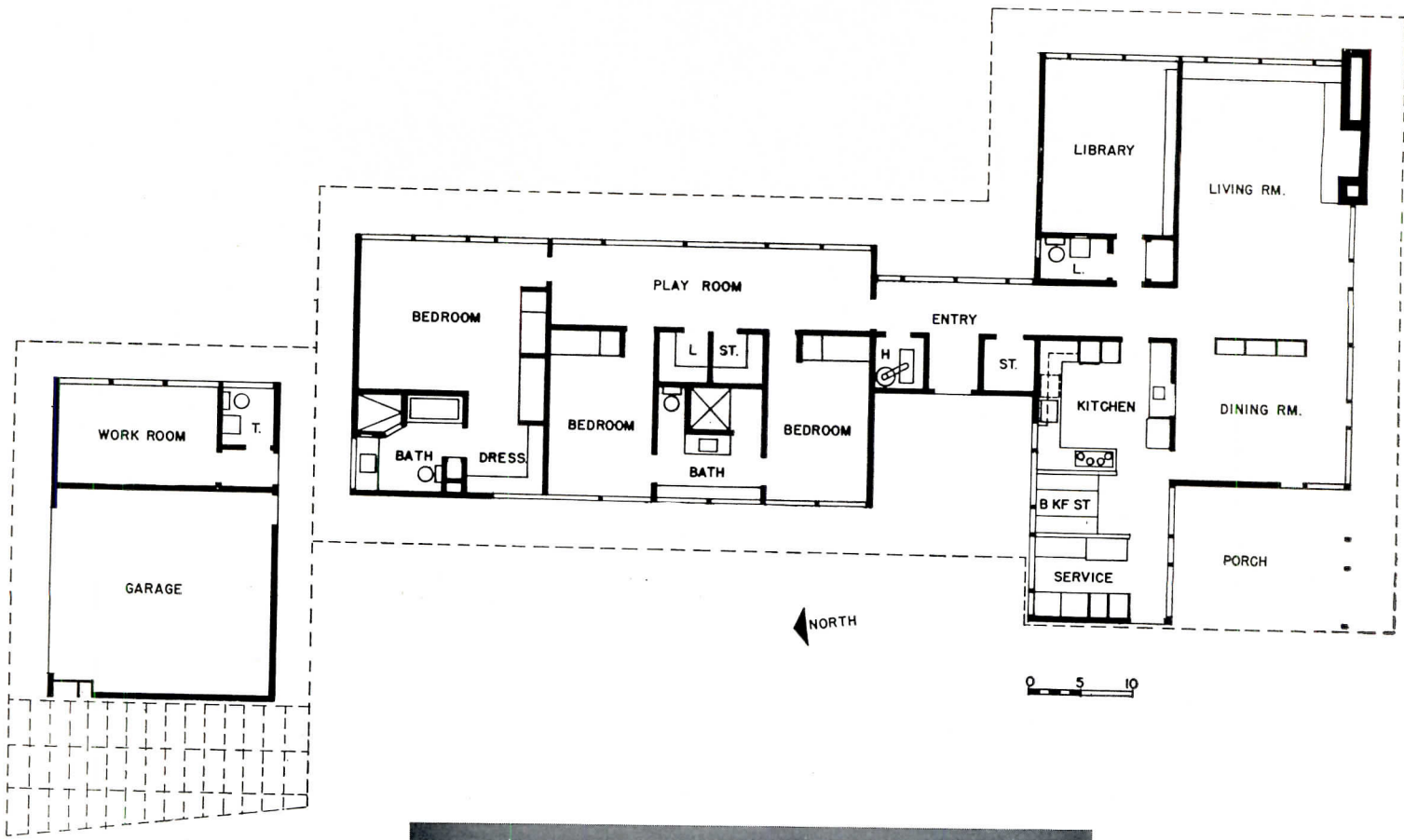
A. Curley Henrickson, General Contractor





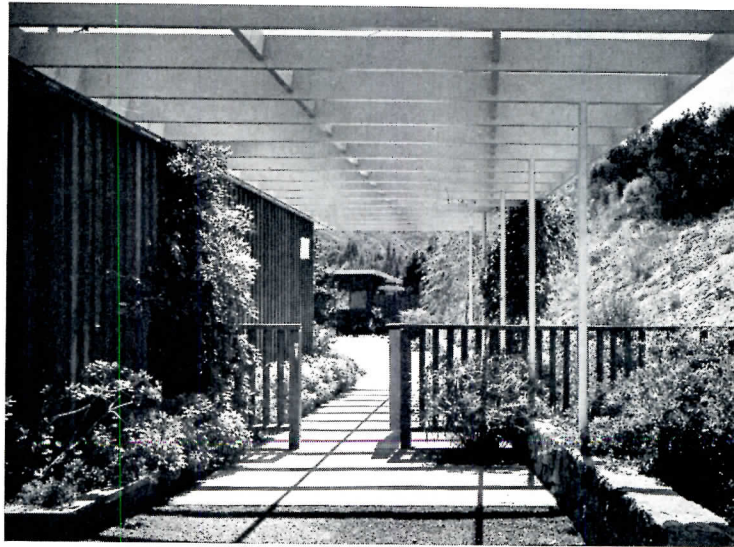
This house both defies its overwhelming site and defers to it, while developing its scenic possibilities to the full. The defiance may be seen in the assertive manner in which the house takes its own form, perhaps also in its insistence on a close-in landscaped beauty spot for outdoor living as well as for bowing to Mt. Tamalpais or scanning San Francisco Bay. The distant views are nevertheless terrific, and the house and its gardens together certainly do not neglect those stimulating items. The landscaping still develops the pleasures of myriad growing things, of paved terraces for both adult and children's outdoor enjoyment, for full participation with the outdoors. The landscaping offers both profusion and variety to delight the eye, and then, working outward from the house, tends to blend imperceptibly with the distant landscape.





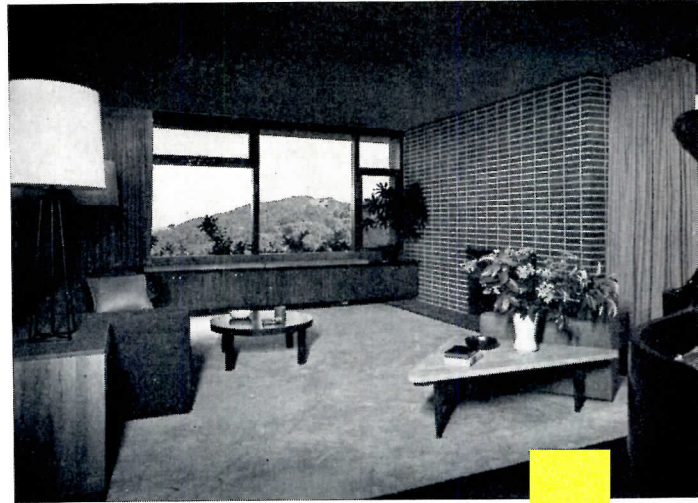
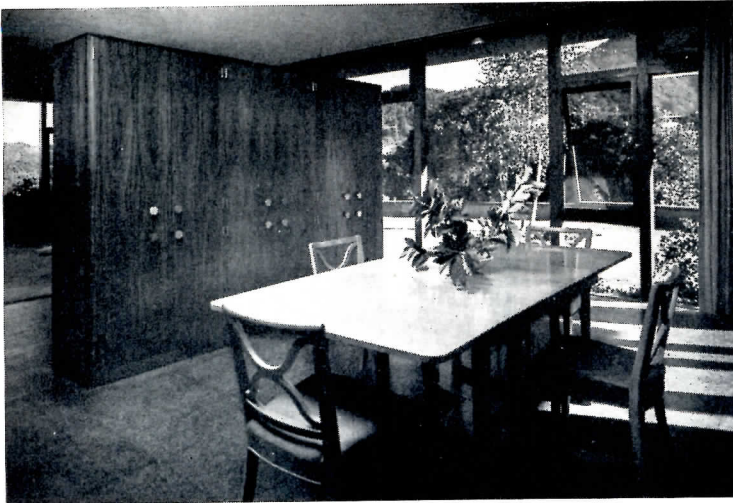
WOERNER HOUSE: JOHN FUNK

Marilyn Beyer

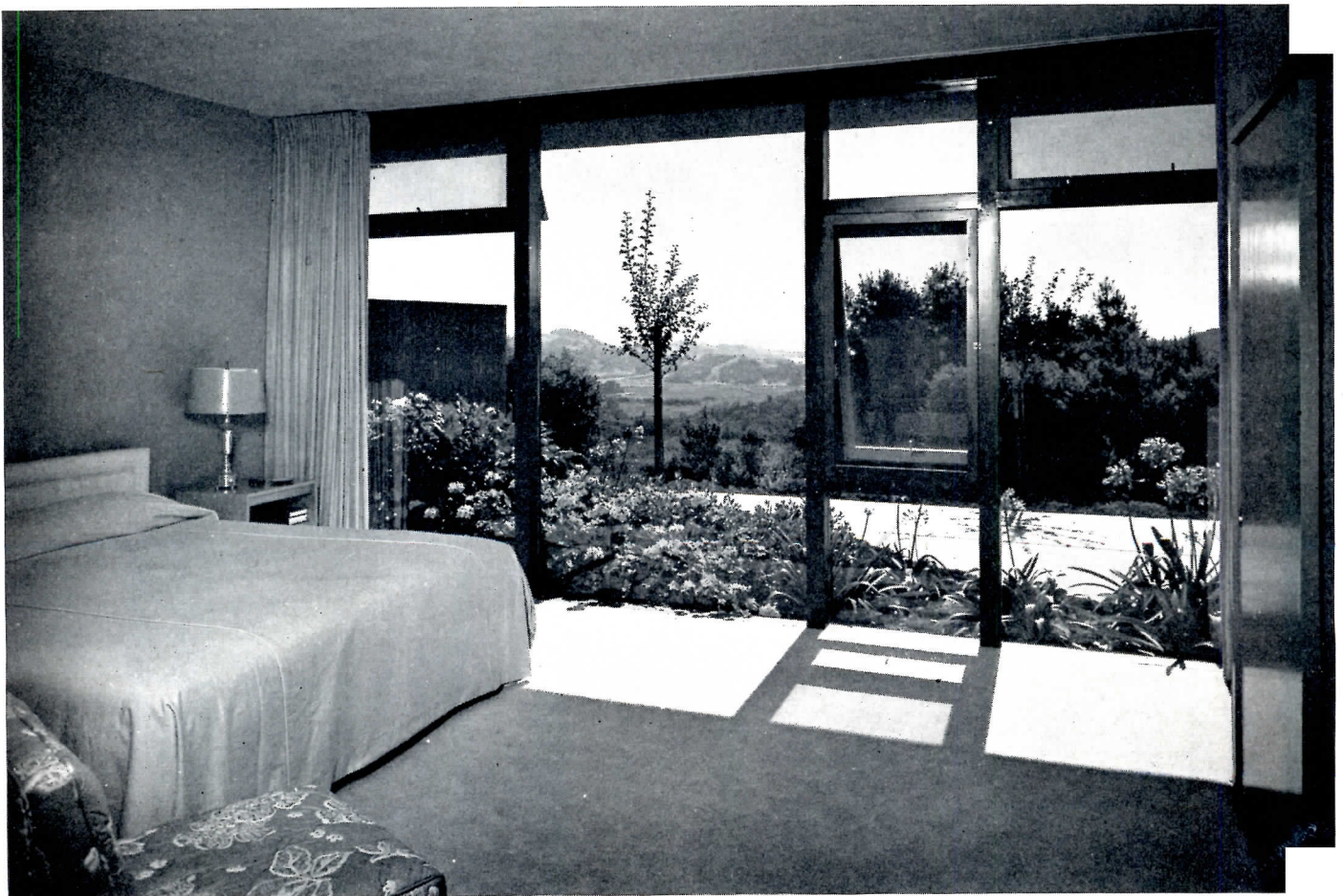


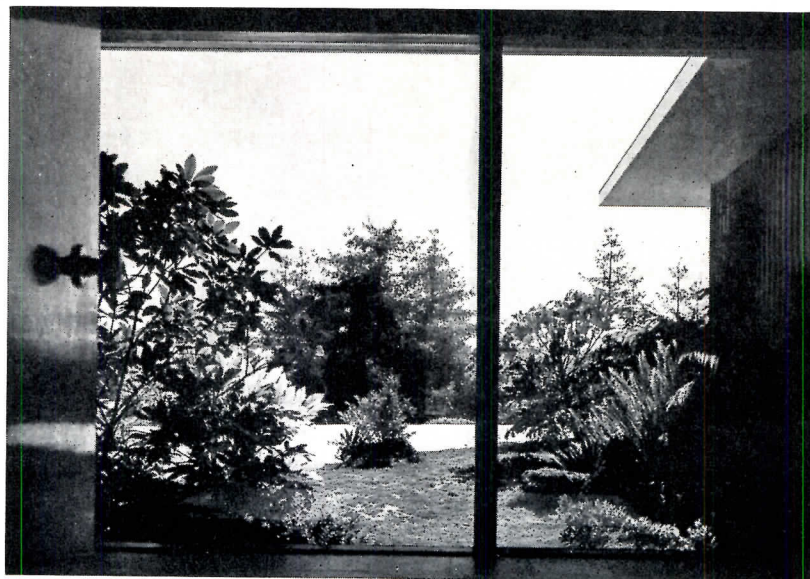
A partly sheltered walkway leads (above) from parking court to entrance, with wisteria climbing the garage wall. Closer to the entrance (below) the walk widens into landscaped court



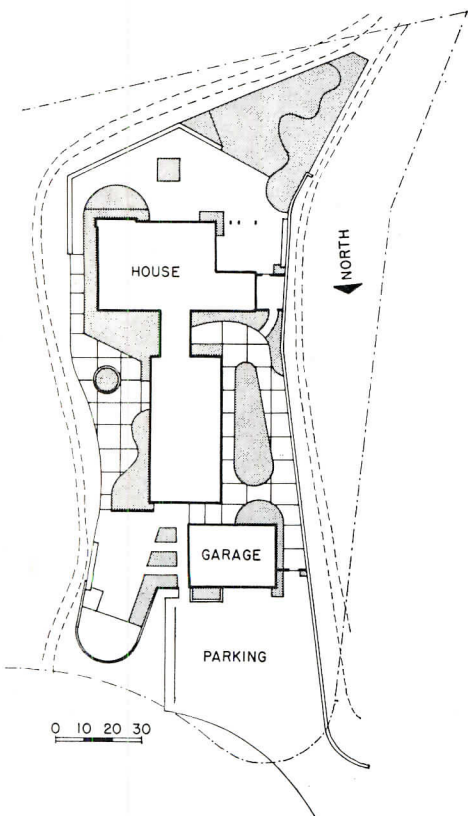


House interiors, if more formal and severe than the gardens, have the graciousness of great spaciousness. Living room looks out at that all-pervading mountain, is partially screened from dining room by cabinets. Both dining and living room have plenty of glass facing the views. Bedroom wing faces the Bay, with low plantings in foreground, small trees off a bit farther to frame the view toward the water





Morley Baer



Glass walls open the house to an intricate arrangement of paved terraces and garden beds and lawns. Many of the outdoor "rooms" are connected, sometimes by walks, sometimes only by planting boxes or beds. Other areas are closed off for privacy or for utilitarian purposes by board fences. There is seemingly endless variety in the plantings — flowers, shrubs, trees, grasses, vines. There is variety, too, in paving materials, in garden rocks and walls, in beds and stands, in colors and textures of inert and growing materials. But the varieties are blended and integrated by choice of textures and forms. Colors are also used in continuous blends and gradations to achieve continuity and to make the whole recede gradually into the hillsides.



Morley Baer



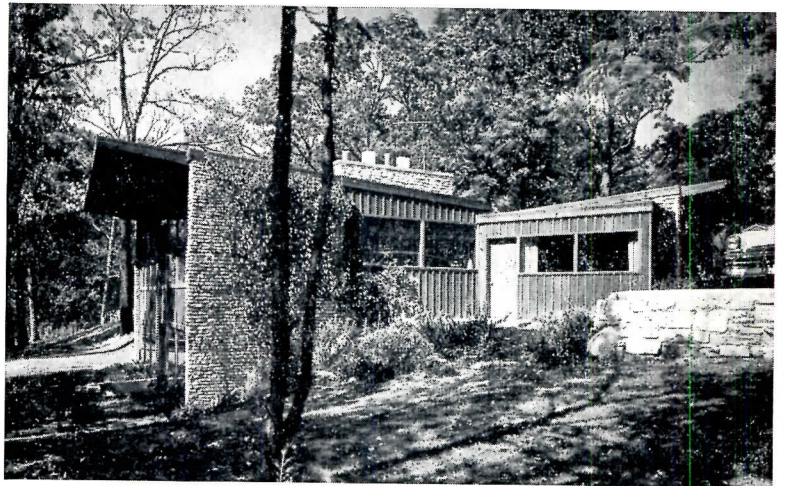
AN INNOVATION IN OPEN PLANNING

Residence for Mr. and Mrs. John C. Telander, Hinsdale, Ill.

George Fred Keck, William Keck, Architects

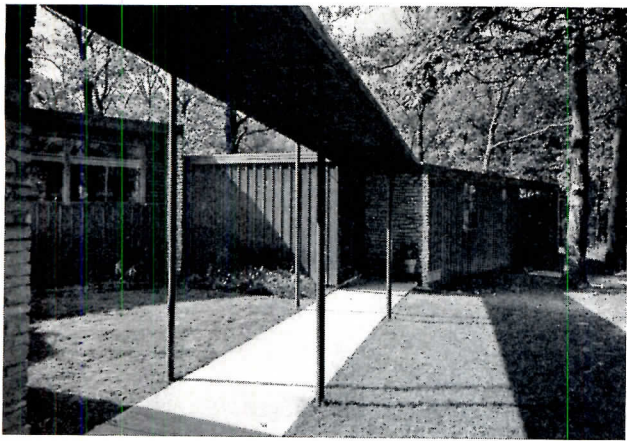


If anybody doubted the "delights" of modern architectural thinking, a single feature of this house might dispel his gloom. The view opposite shows the lower portion of a two-level living room, with a playful stairway joining the two portions, and with a two-story glass wall offering a truly huge view of the woods. This innovation in open planning the architect designates in his notes as two different spaces — living room and recreation room. One can imagine, however, that on occasion the two would flow together more actively than in the visual sense only. In general the house does not seem to bow to style, unless creativeness itself is a style.

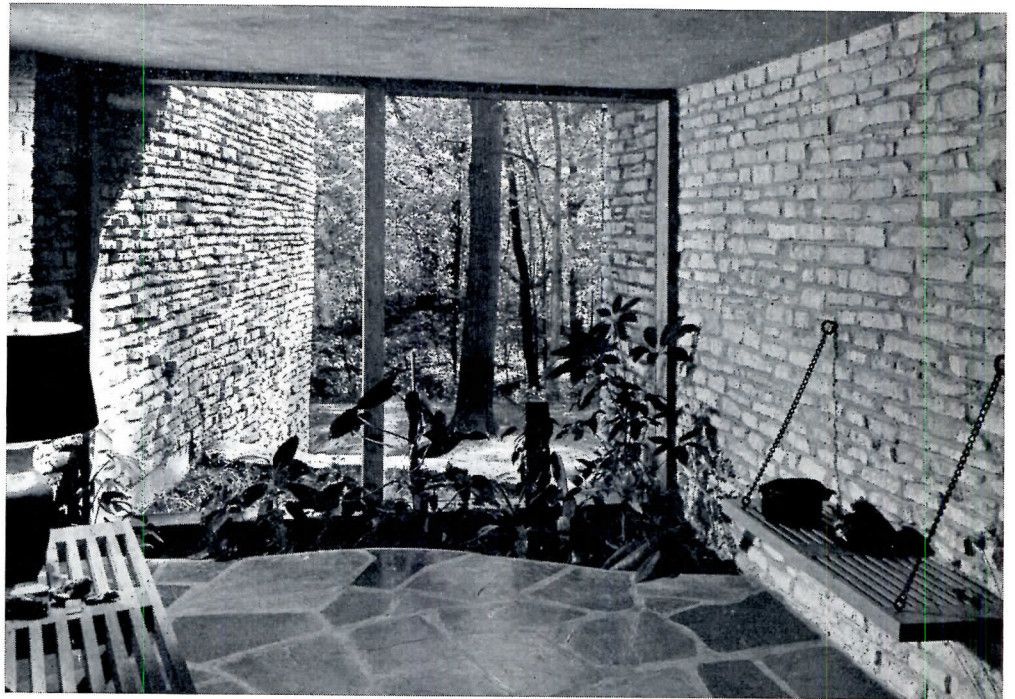


Hedrich-Blessing

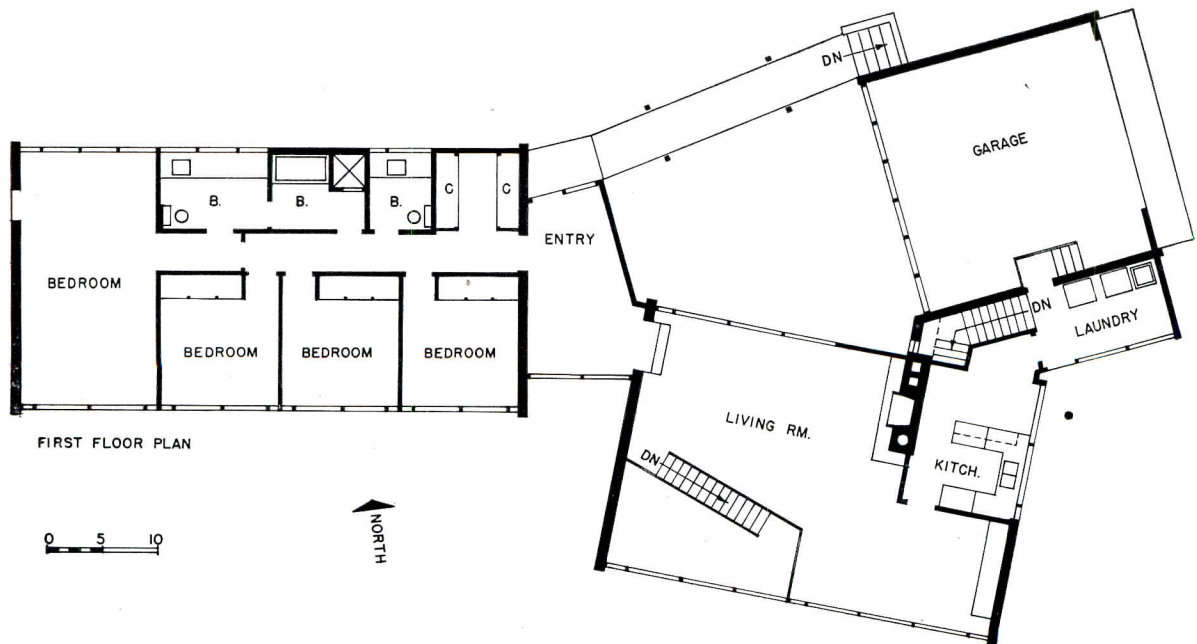


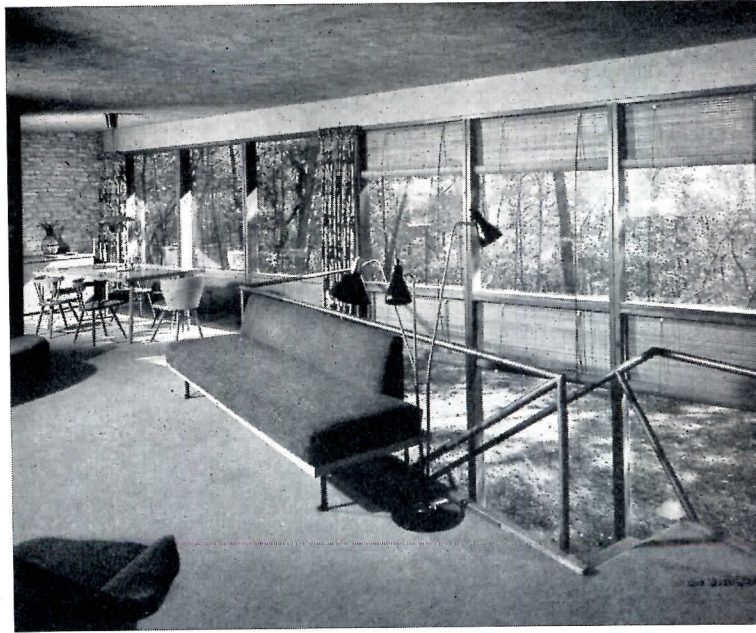


TELANDER HOUSE: GEORGE FRED KECK, WILLIAM KECK



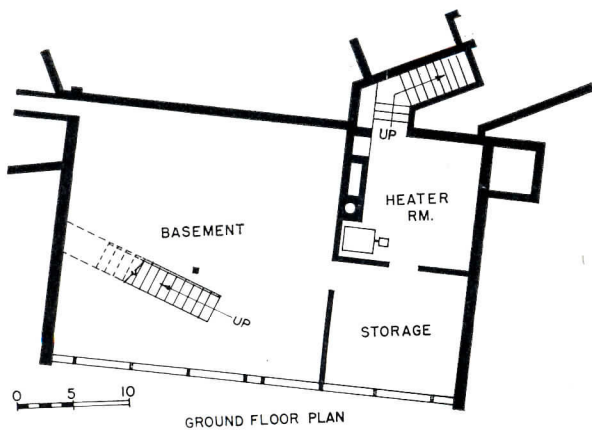
Bedroom wing is isolated from the rest of the house by a large entrance foyer (above) which, with its brick walls, stone floor, and planting, gives a sense of being outdoors, strengthening the feeling of separation





Hedrich-Blessing

Dining room, as an open extension of the living room, has its own identity, but still adds to the spaciousness of the living room. Thus three spaces — dining, living, recreation — flow together spatially but still maintain their individual purposes



HOUSE DESIGNED TO WARM THE WINTER SCENE

Residence for Mr. and Mrs. Fred Maduro, Great Neck, Long Island

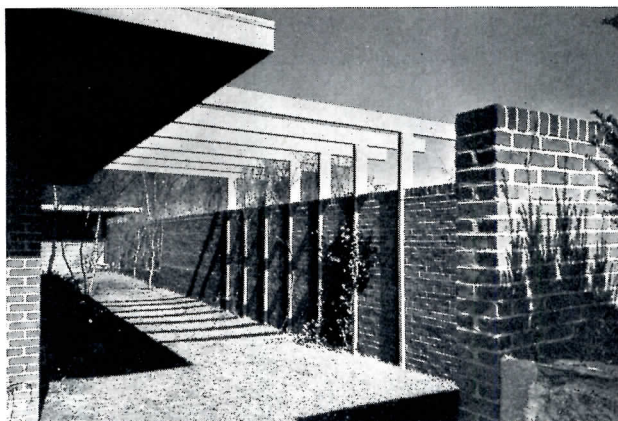
Edward D. Stone, Architect; Karl J. Holzinger, Jr., Associate

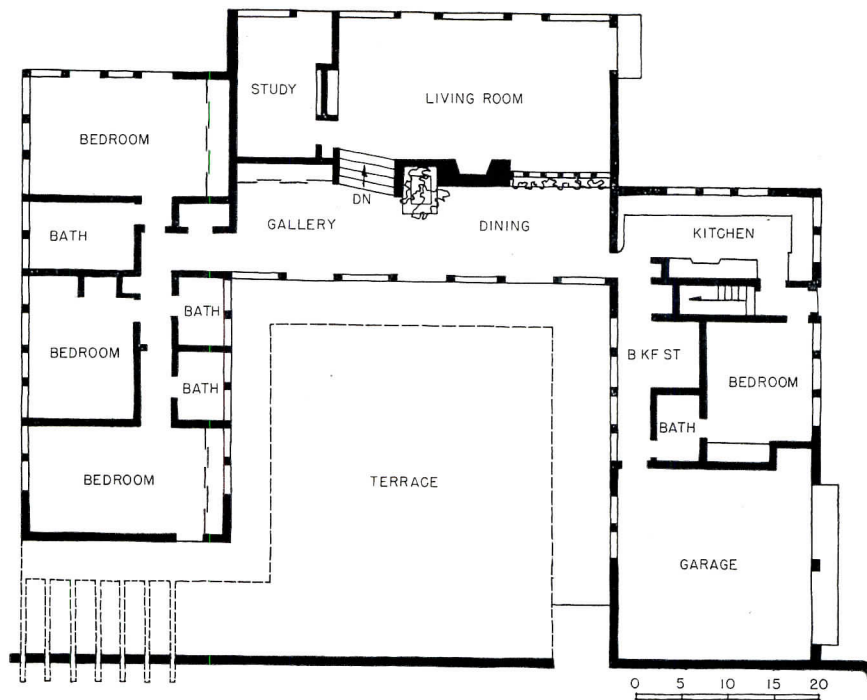


What the client really wanted here was a tropical house on Long Island, and the architects have managed to transplant a number of tropical features, or at least reminders, without doing violence to the essential conditions. Without, moreover, merely contriving a stage setting. The owners, born in Panama, found New York winters especially trying, and the house subtly woos them to an enjoyment of the winter scene. There is a sense of protection, for example, in wide overhangs, which, psychologically if not physically, keep the snow and ice farther from the house. There is the same sense in the enclosed patio, itself a feature dear to the Latin-American heart. Radiant heat made its own contribution. And indoor planting certainly is a subtle reminder of a warmer clime. Perhaps more important than these more tangible things, however, is a general charm in the interiors — the fireplace wall, for example — which could scarcely be called romantic but which are obviously warm and appealing.



Main entrance is through enclosed patio. House has many subtle features to remind owners of their birthplace, Panama

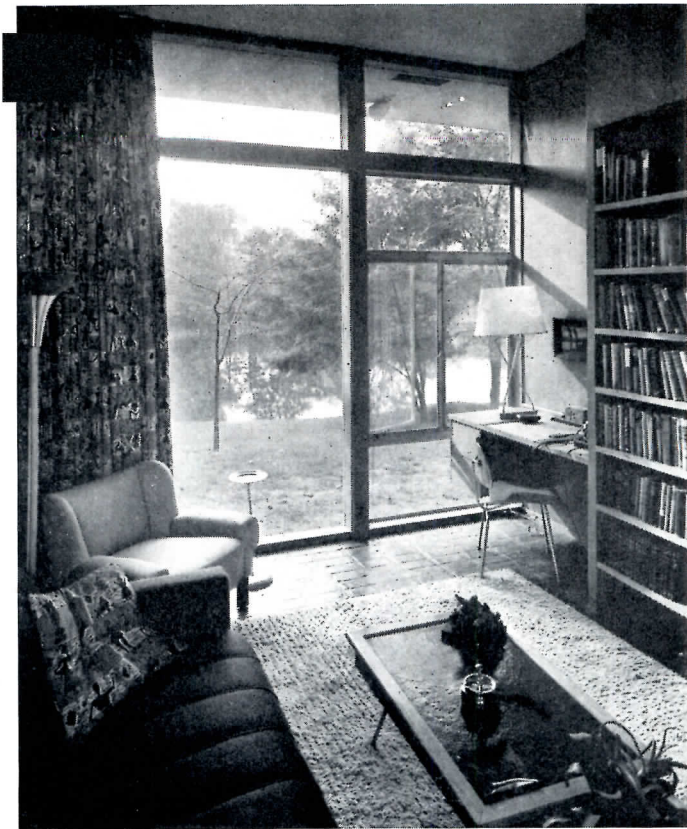




Patio enclosed at the front by 6-ft brick wall provides a sheltered area for outdoor living as well as privacy from driveway. Full height windows are used along dining gallery, high windows for bedrooms and bathrooms. Wide overhang is reminiscent of Latin-America, tends to keep snow away from glass walls



Library and living room look out toward pond. A frozen pond makes a cold winter scene, but the Latin-American owners say that in their new house they enjoy cold winters for the first time in the years they have lived in the north



Ben Schnell



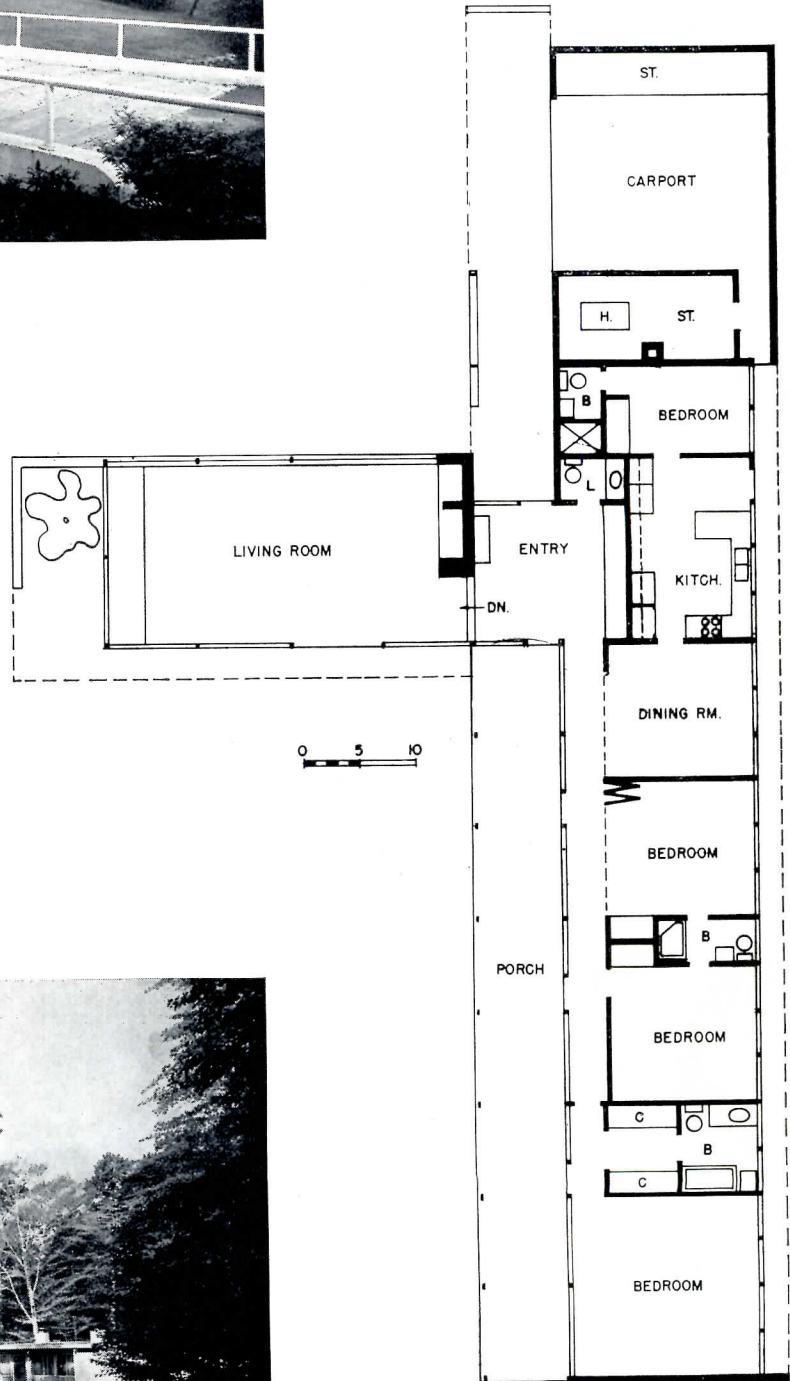
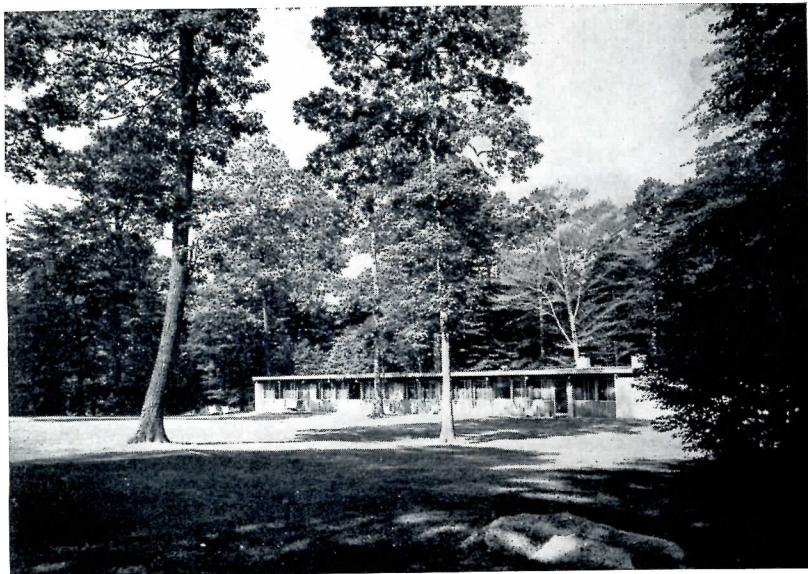
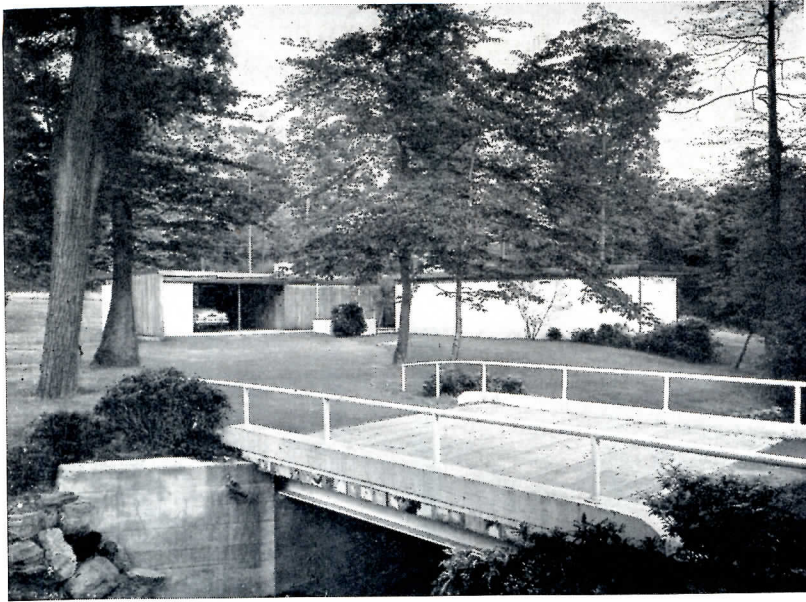
CONTEMPORARY HOUSE IN COLONIAL SETTING

Residence for Mrs. Edward Pearson, Mamaroneck, N. Y.

Richard Gordon, Architect



The house pictured above does not look Colonial, and it certainly makes no pretenses in that direction. However, from the other side (opposite page, top) all one sees from the road is a carport and a blank white brick wall, this in deference to a generally Colonial neighborhood. The other side (above) is virtually all glass, facing a river that runs through the property. Here the house develops its own delights. The architect explains that the owners asked him to act as contractor in order to use some fairly inexperienced carpenters who were available. Thus the house is designed for especially simple construction. It is laid out on a 4-ft 3-in. module, with 6 by 12-in. long leaf yellow pine beams. The beams rest in steel straps welded to light structural steel T columns imbedded in the poured concrete foundation. Beams are 8 ft 6 in. on center, so that 4 by 8-ft mahogany ceiling panels would go in place without cutting.



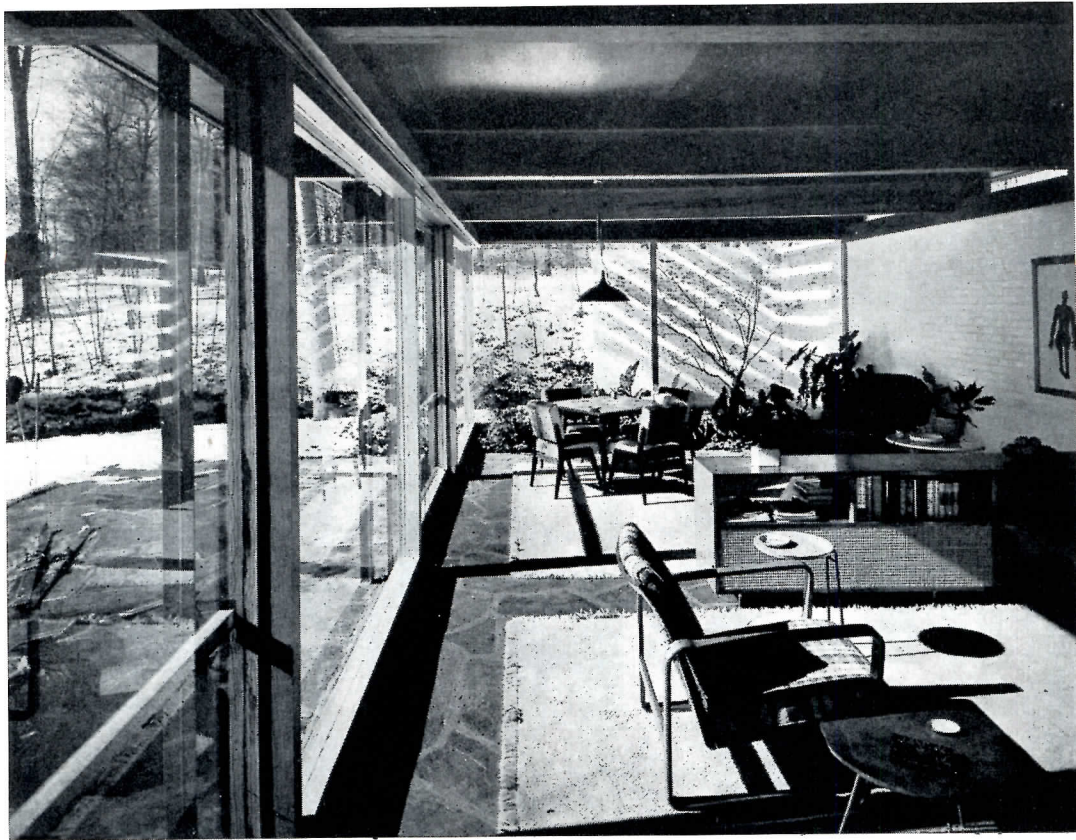
© Ezra Stoller



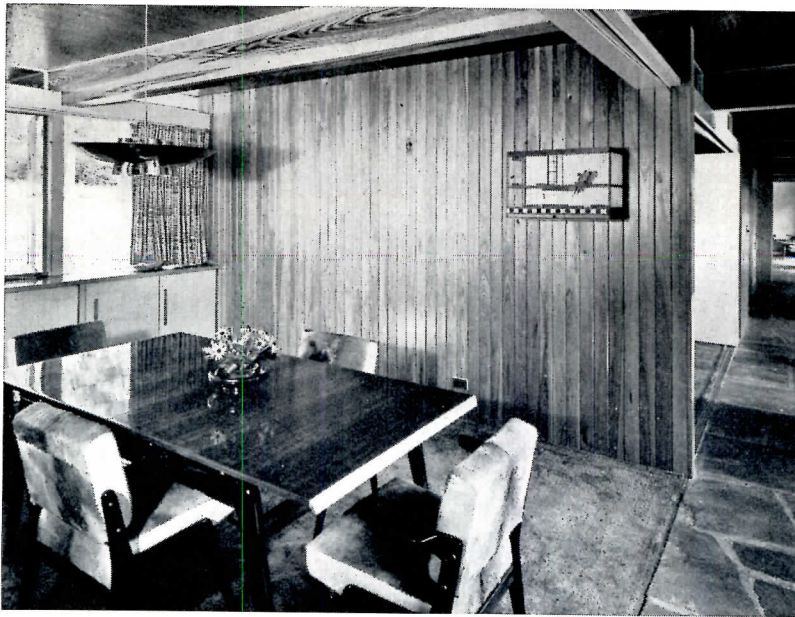
L-shaped form of house screens terrace at living room and lawn sloping down to the river that runs through the property. Long porch on bedroom wing with trellis-type roof is useful for outdoor dining or for any other purposes that porches are for



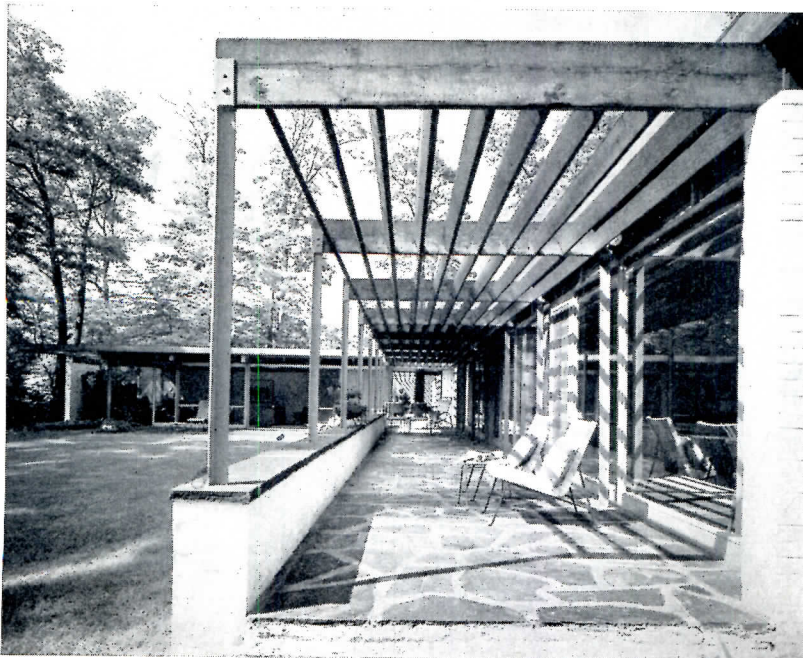
Living room is completely open on river side, completely closed on road side, with only shallow light windows between the roof beams

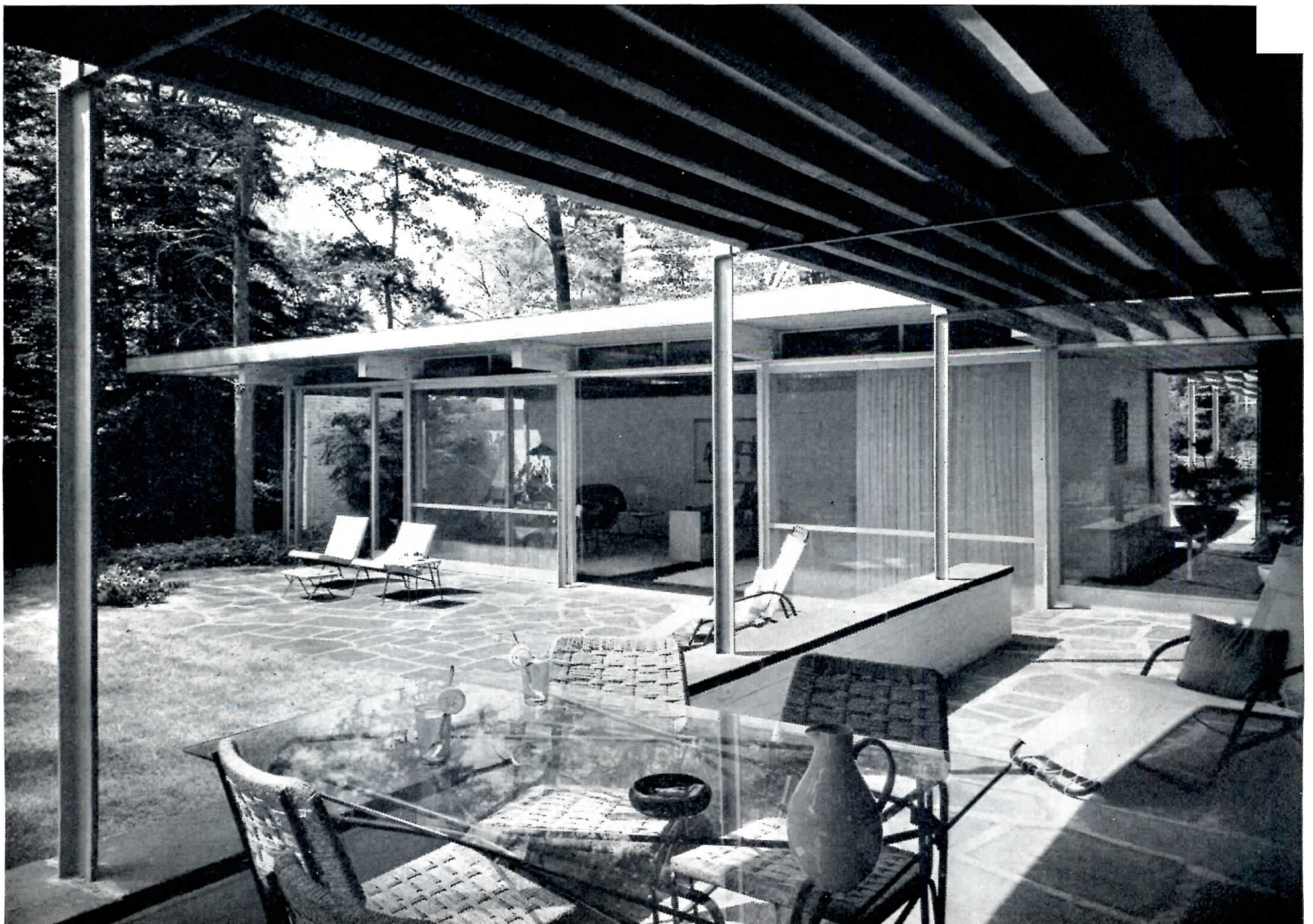


Planting bed at far end of living room merges the indoors with the outdoors. Living room wall extends beyond and makes turn to screen room fully from road



Dining room is positively removed from living room, is in fact part of bedroom wing; kitchen is behind entrance foyer without a door, thus disposing of any idea of eating in living room



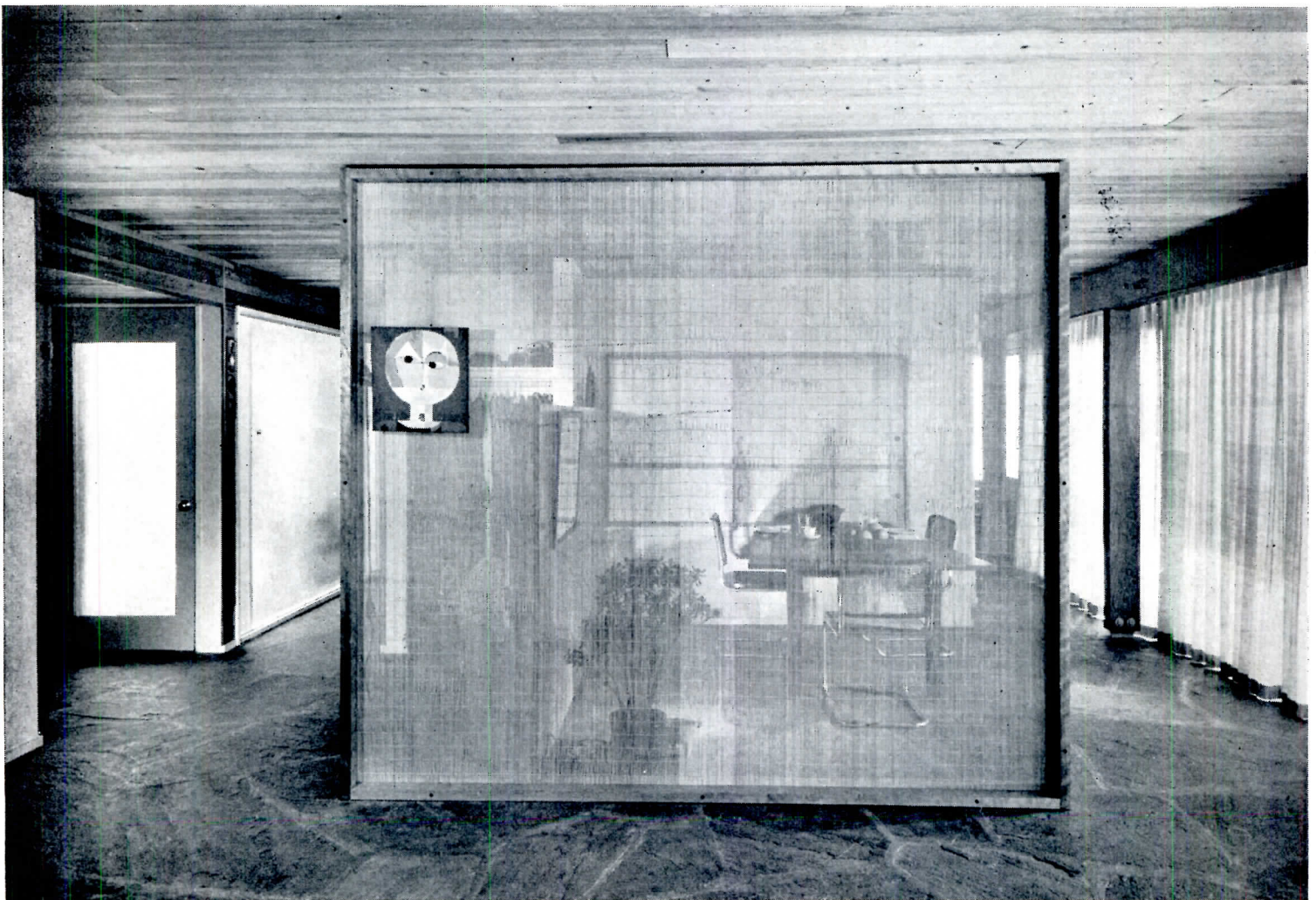


SPACE DEFINITION WITHIN THE HOUSE

ARCHITECTURAL INTERIORS

Design | Details | Materials | Equipment

THE CONTEMPORARY PROBLEM of handling living space is paradoxical. At one extreme the open plan confronts the architect with a large volume which, if not thoughtfully subdivided, assumes a barn-like character devoid of domestic scale and lacking in a sense of privacy and shelter. Contrariwise, a heavy-handed spatial division can result in a series of areas depressingly cramped and discontinuous. The solution frequently lies between these extremes, achieving a flowing succession of articulated

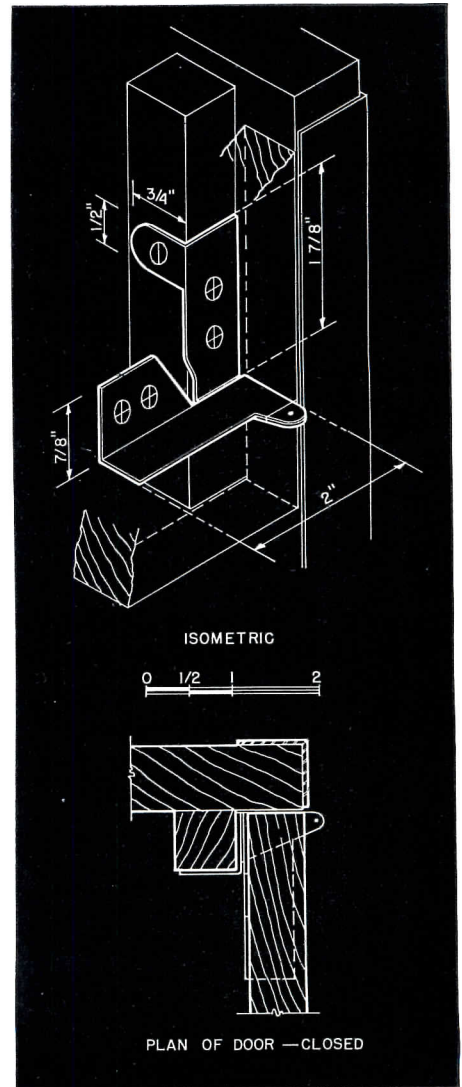


Due to its semi-transparent quality, the split bamboo screen by Architect Marcel Breuer, above, incorporates a strong element of intrigue as well as separation for the dining area. Result is a feeling of greater spaciousness with privacy

spaces each defined yet part of the whole; each in scale and character with its function. The technology is usually very simple; the successful concept often subtle. On the next six pages are presented several adroitly managed examples, not a complete selection, but each successful for its specific purpose.



This teakwood unit by Ward Bennett actually serves as furniture for a one room apartment. Drop-down desk on near side; foam rubber sofa on far side



Storage cabinet unit by Alvin Lustig (detail above) also serves to conceal undesirable elements at right. The black metal channel houses fluorescent light tubes



ARCHITECTURAL INTERIORS

Design | Details | Materials | Equipment

RESIDENTIAL SPACE DEFINITION

By employing a freestanding walnut cabinet for dining separation, top, Philip Johnson has avoided the box-like character an entrance foyer so often assumes.

The center picture shows one of a series of wall-storage units devised for builders houses by Designs for Business. As shown, it is placed between breakfast room and living area. The pass-through shelf is of plastic; door pulls and hinges are black metal. Other units in the series contain storage space or bar or television set.

The bottom picture shows deft handling of interior space by Architect Carl Koch which employs a change in level, a fireplace, built-in furniture with opening above and pass-through. The general effect is one of both spaciousness and defined use



The New York Times Studio

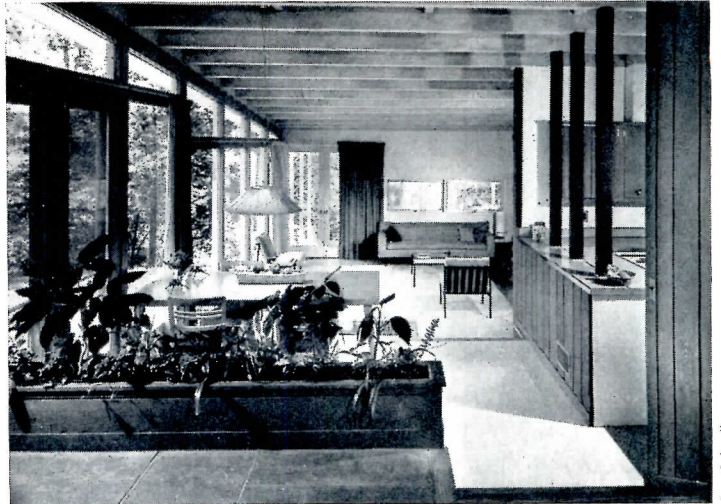
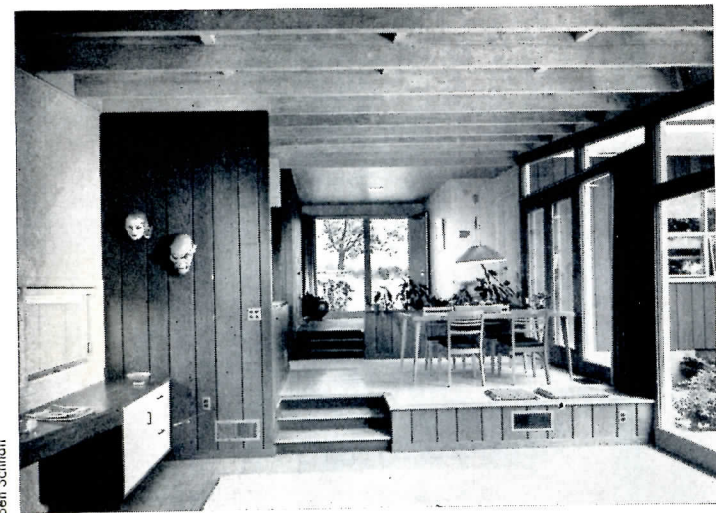


Ben Schnoll



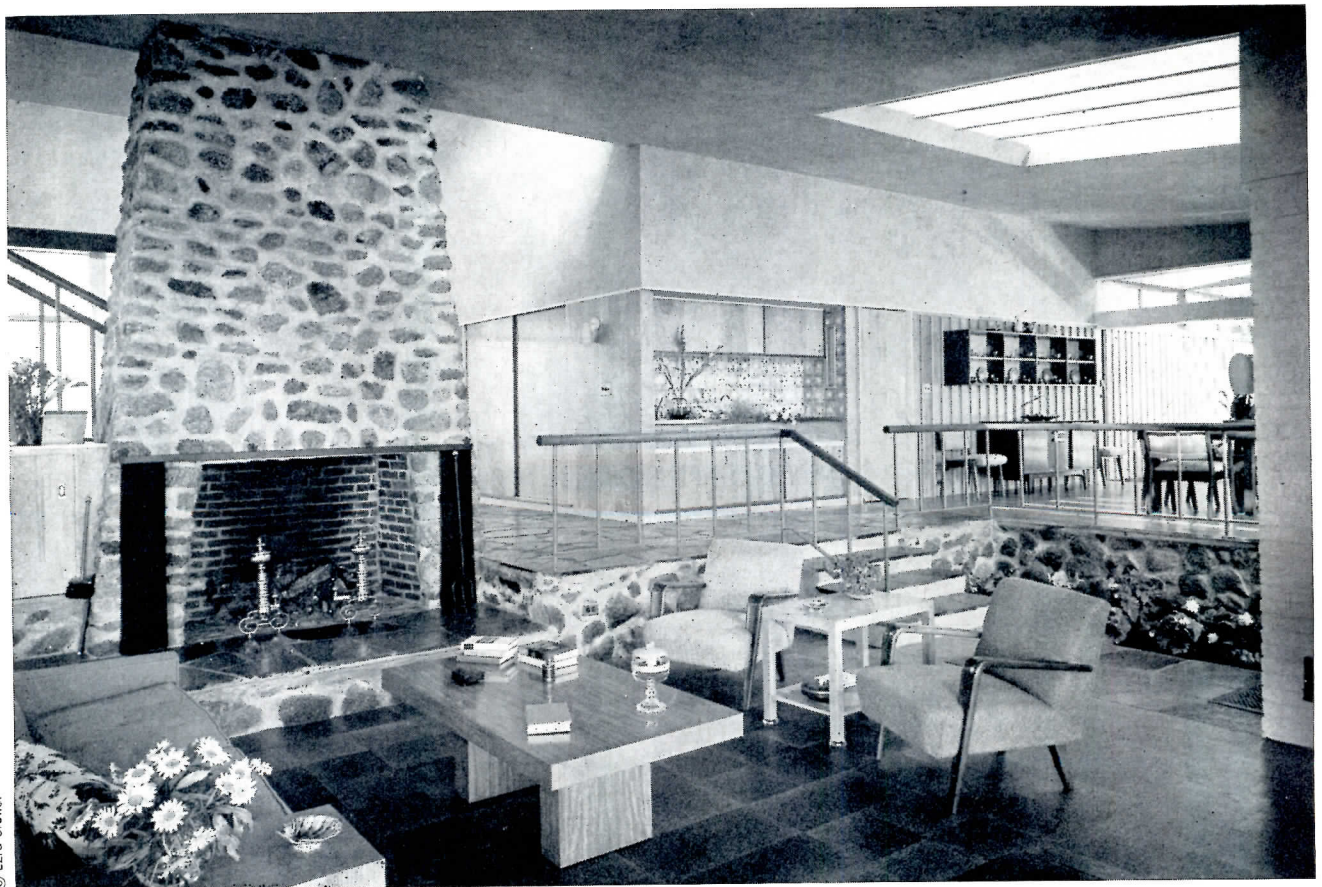
© Ezra Stoller

The two photos below look from different directions at the dining space in Architect George Cooper Rudolph's own house. The space is marked by changes in level, by planting, and by the open screen at right



Ben Schmitt

A subtle change in character between open informality and a more sheltered kind of formality results from Carl Koch's interior arrangement below. The fireplace, low stone wall, railing, change in flooring, and skylight all contribute to the effect



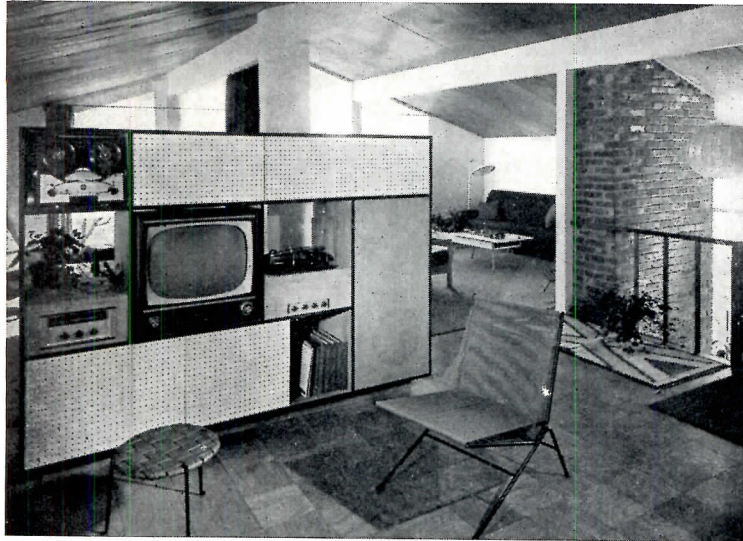
© Ezra Stoller

ARCHITECTURAL INTERIORS

Design | Details | Materials | Equipment

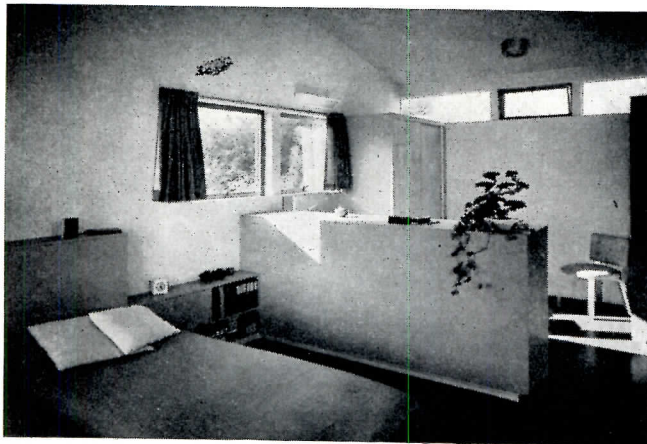
Ben Schnall

Cortland V. D. Hubbard



In the two examples above, furniture has gained in stability; the living area has gained in neatness and order through organization. Interior at left by Carl Koch; at right by Oskar Stonorov

RESIDENTIAL SPACE DEFINITION

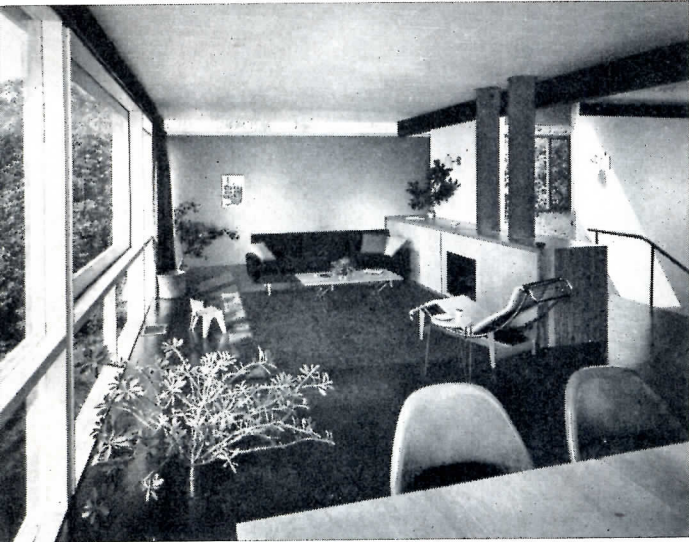


The simple device of a painted chest of drawers in a bedroom by Carl Koch provides an effective and pleasing separation of areas for sleeping, dressing



© Ezra Stoller

The two fireplaces below offer an interesting contrast in concept. The one at left by John Johansen has brightly painted asbestos flues and a feeling of lightness as opposed to the more massive, almost traditional yet contemporary character of that at right by Nemeny & Geller



Robert Damora

In the house by Walter Bogner pictured below the tall, free-standing storage wall provides an unusual screen for the stair



© Ezra Stoller

Lionel Freedman



CITIES NOT FOR DYING: REDEVELOPMENT BOOM

URBAN RENEWAL is the heart of the new housing program President Eisenhower has put before the Congress: and the President and his Housing Administrator, Albert M. Cole, have said repeatedly that the first test for Federal aid to any community that needs it will be the evidence of that community's determination to help itself. Evidence of such determination has been turning up lately in so many big redevelopment schemes that it amounts to a nationwide trend. Two of the latest — and biggest — would transform vast areas of Chicago and Washington, D. C. St. Louis has a proposal for a huge central parkway in the downtown district, underground parking for 49,332 cars, a Federal office building, merchandise mart, bus terminal and helicopter taxicab landing port. Another elaborate scheme, announced late last year, would turn a 28-acre railroad yard in Boston's exclusive Back Bay section into a Boston version of the Rockefeller Center concept. In New York, the latest of seven slum clearance projects has been planned to include a long-sought exhibition hall and an office building as well as housing. Philadelphia, Baltimore, Detroit, San Francisco, Indianapolis and Norfolk are among other cities which have projects well beyond the planning stage. The Federal government, which has authorized funds totaling \$1 billion for land clearance loans and \$500 million in cash grants for city slum aid under Title I (slum clearance and urban redevelopment) of the soon-to-be-defunct Housing Act of 1949, estimates 81 cities are in the final planning stage of urban redevelopment projects and 28 actually have projects under way. The dawn of the Hydrogen Age finds American cities at last coming to grips with the urban problems that arose in the wake of the Industrial Revolution.

Chicago Aerial Survey Co.



CHICAGO: \$400 MILLION PROJECT FOR 151-ACRE SITE *Fort Dearborn Project Would Rejuvenate Area Just North of Loop*

A MONUMENTAL SCHEME for redevelopment of a 151-acre "blighted" area in the heart of Chicago has been proposed to city officials by a group of civic and business leaders headed by Real Estate Developer Arthur Rubloff, who conceived the project, and Nathaniel A. Owings, of the architectural firm of Skidmore, Owings and Merrill, who worked with him on design and development.

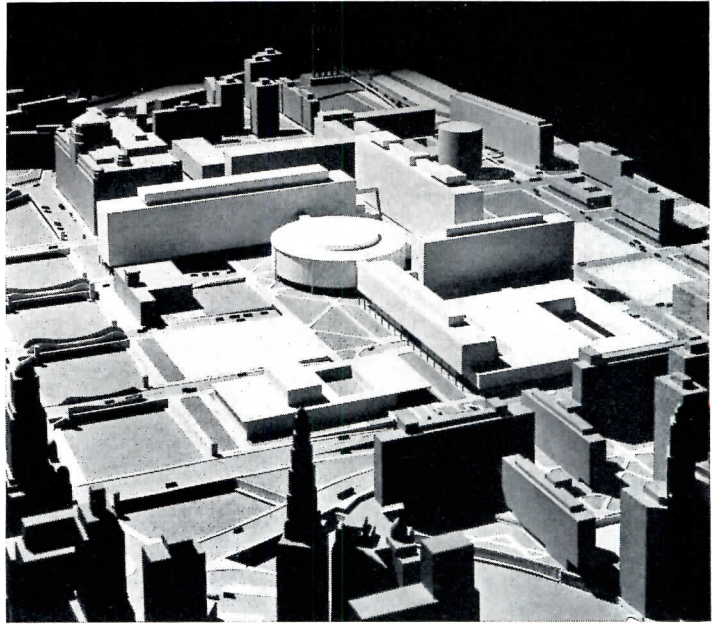
The "Fort Dearborn Project" would include a 62-acre government administration center, a 33-acre downtown campus for the University of Illinois, 5000 apartments in high-rise elevator buildings and covered parking for 6000 cars.

The site, on the north bank of the Chicago River, bounded by Rush Street on the east, the river and historical Wolf Point on the west, and Ontario Street on the north, was selected, say the sponsors, "after exhaustive studies proved conclusively that there was no other direction in which the Loop could be expanded and anchored at the same time."

Financing of the project, to cost an estimated \$400 million, would be arranged through private investors, except for site acquisition and clearance, which it is believed will qualify for Federal assistance under Title I of the Housing Act of 1949 and state and city assistance

under the Illinois Housing and Redevelopment Legislation of 1947. The Chicago Land Clearance Commission, which would be expected to handle this phase, has already authorized an investigation of the project to determine its eligibility for such aid.

The local excitement generated by mere announcement of the proposal appeared to provide a contemporary endorsement of the well-known axiom of Chicago's first master planner, Daniel A. Burnham — whom no Chicago newspaper failed to quote — "Make no little plans: they have no magic to stir men's blood."

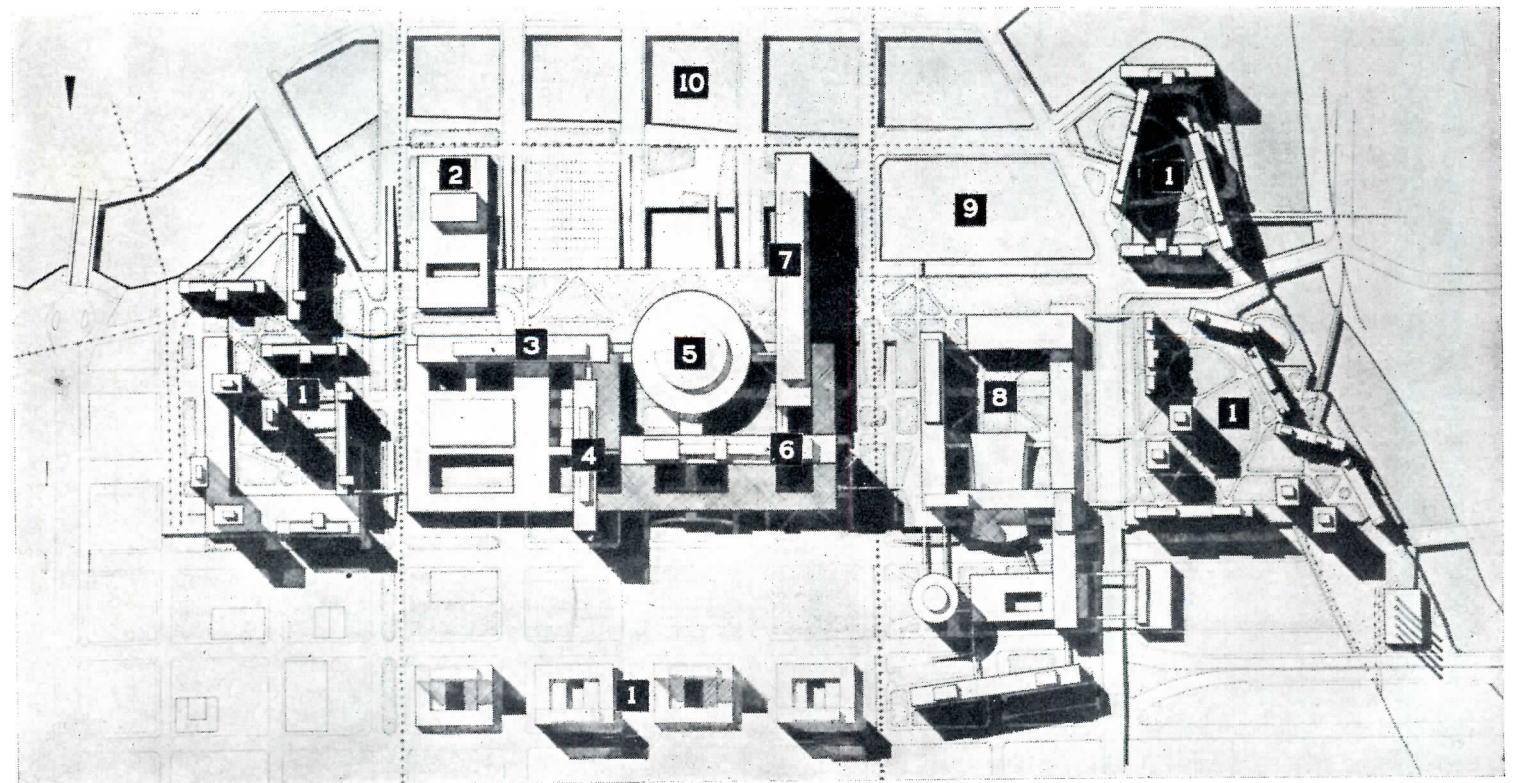


Hedrich-Blesing

Above: photograph of Fort Dearborn Project model, looking northwest across Chicago River. Left: project drawn in place on proposed site in aerial photograph of Chicago. Below: development site plan

LEGEND

- 1. Apartment Buildings
- 2. Library
- 3. State Building
- 4. County Building
- 5. Consolidated Courts Building
- 6. City Building
- 7. Federal Building
- 8. University Center
- 9. Merchandise Mart
- 10. Chicago River



WASHINGTON: \$500 MILLION PROJECT FOR 427-ACRE SITE

Zeckendorf Sees Southwest Area as Social and Cultural Heart of Nation

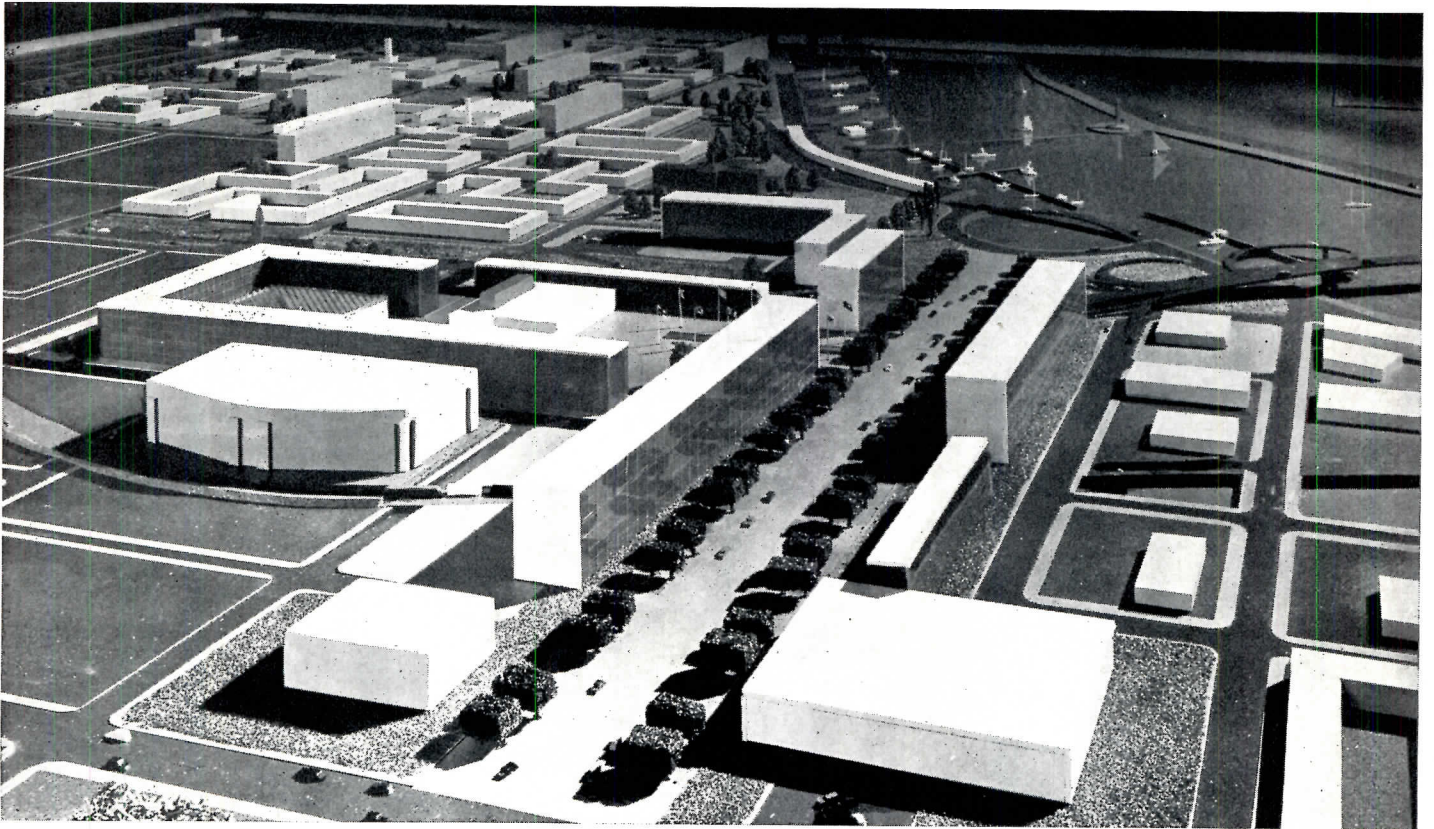
THE FABULOUS WILLIAM ZECKENDORF has turned his attention to the nation's capital and from one of the worst slum areas in that slum-ridden city proposes to create a cultural, shopping and residential center which would make Washington a center of amusements and the arts, the social and cultural as well as the political heart of the nation.

A "memorandum of understanding" signed in March by Mr. Zeckendorf's real estate firm, Webb & Knapp Inc.,

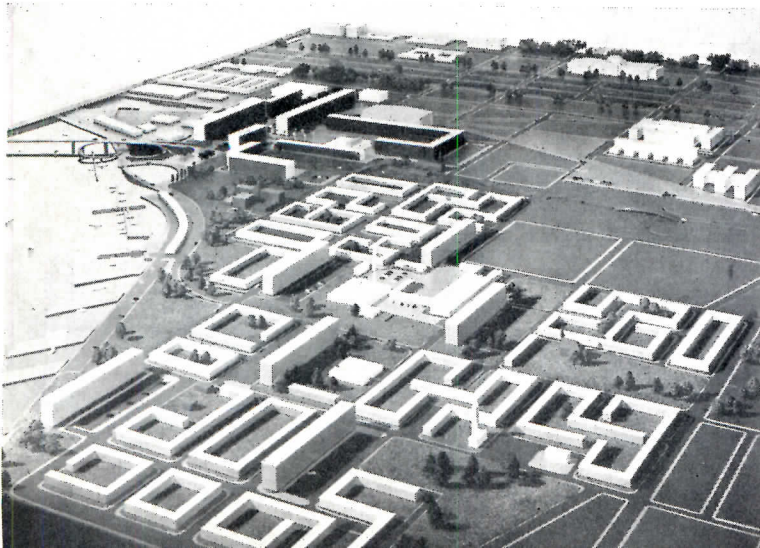
of New York, and the Redevelopment Land Agency of Washington, commits both parties to 12-month studies based on a Webb & Knapp proposal for a \$500 million project that would include a residential area of "Georgetown-type" row houses and garden apartments to house 21,000 persons, a monumental South Mall to "reintegrate" the Southwest area and the greater city, a 20-acre "L'Enfant Plaza" for a national opera house, symphony, theaters and conven-

tion hall, and even an outdoor ice-skating rink.

The Webb & Knapp concept includes 330 acres of the 427-acre "Southwest Survey Site" as designated by the RLA — the area bounded on the north by the elevated tracks of the Pennsylvania Railroad, on the south by Fort McNair, on the west by the Washington Channel and on the east by South Capitol Street — plus 18 acres north of the railroad which will provide the north end of the new



Lionel Freedman



South Mall over the railroad tracks. Not included are 76 acres already committed to "Project B," a \$30 million project which was the first to be undertaken by RLA, and 22 acres in the southeast portion of the site developed with housing of recent date in good condition.

Except for the Mall and the public buildings on L'Enfant Plaza, the entire redevelopment would be privately financed under arrangements to be made by Webb & Knapp.

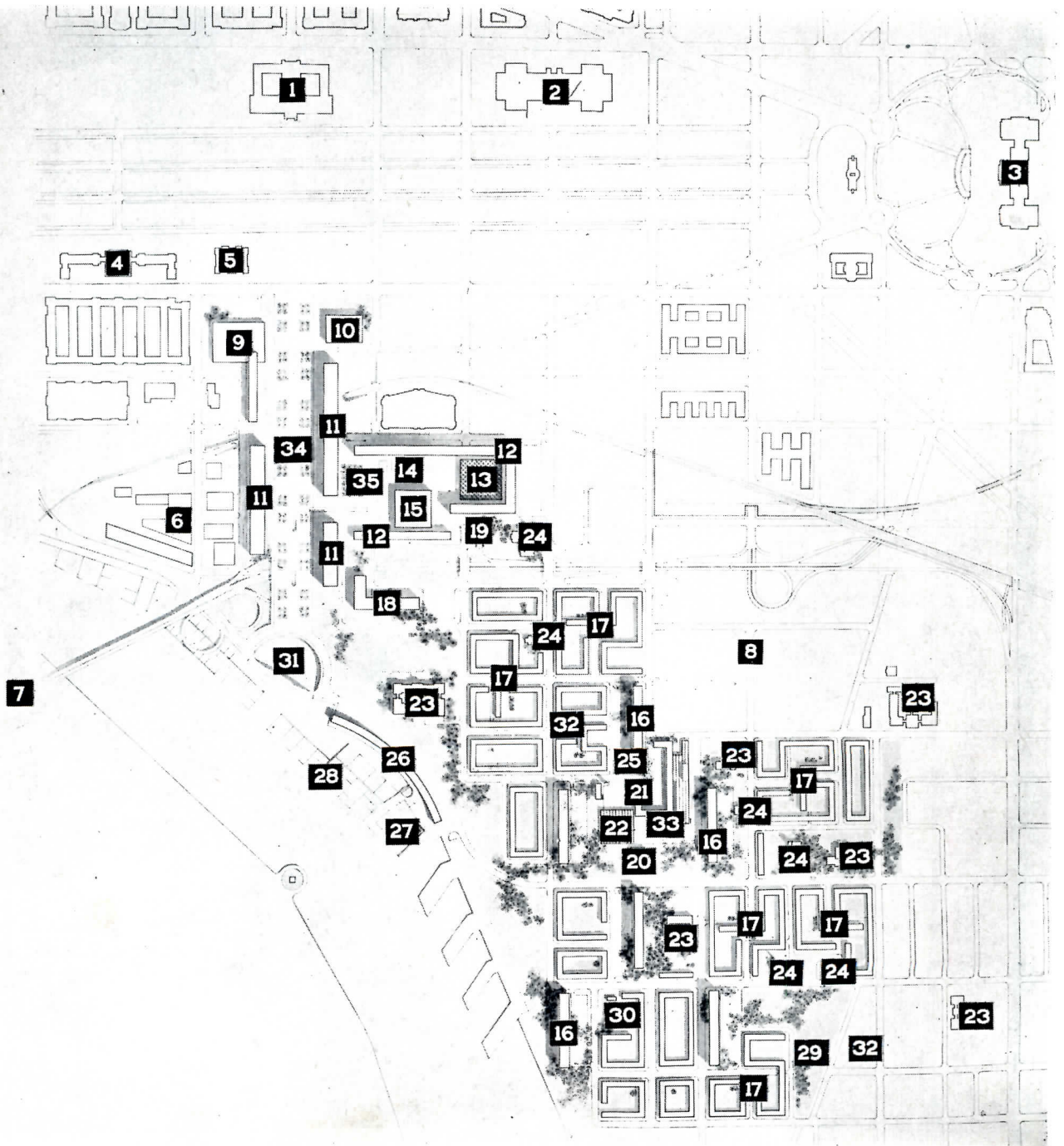
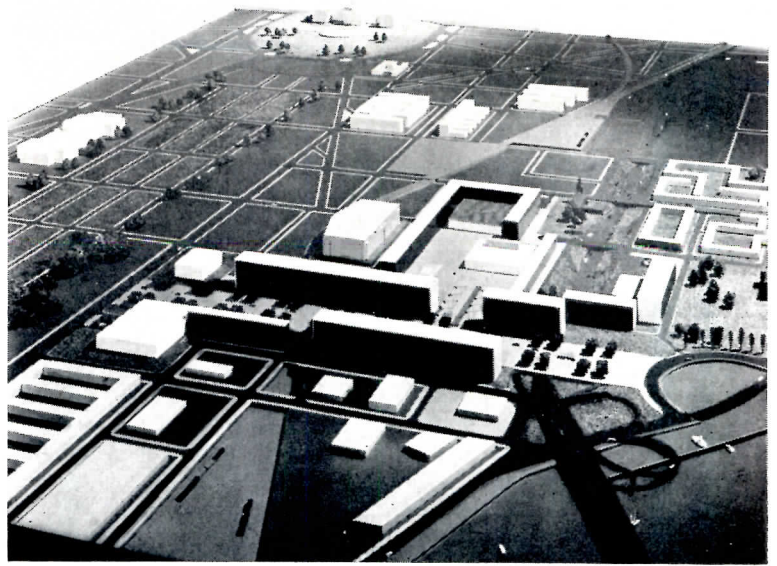
LEGEND

Existing Buildings

- 1. National Museum
- 2. National Gallery of Art
- 3. Capitol
- 4. Department of Agriculture
- 5. Freer Gallery

Proposed Project

- 6. Produce Center
- 7. Proposed Expressway
- 8. Project Area "B"
- 9. Museum
- 10. Institutional
- 11. Quasi-Public Offices
- 12. Office Buildings
- 13. Exposition Hall
- 14. Outdoor Restaurants
- 15. Opera House
- 16. Apartment Buildings
- 17. Residential Squares
- 18. Hotel
- 19. To Underground Parking
- 20. Library
- 21. Apartments Above Stores
- 22. Shopping Areas
- 23. Schools
- 24. Churches
- 25. Community Building
- 26. Waterfront Shopping Areas
- 27. Concessions
- 28. Wharves
- 29. Hoover Playground
- 30. Historical Buildings
- 31. Pool
- 32. Street Squares
- 33. Town Center
- 34. South Mall
- 35. L'Enfant Plaza



LONDON—SOUTH BANK: ESTHETICS IS RESPECTABLE

Development Joins Commerce and Culture for Public Enjoyment

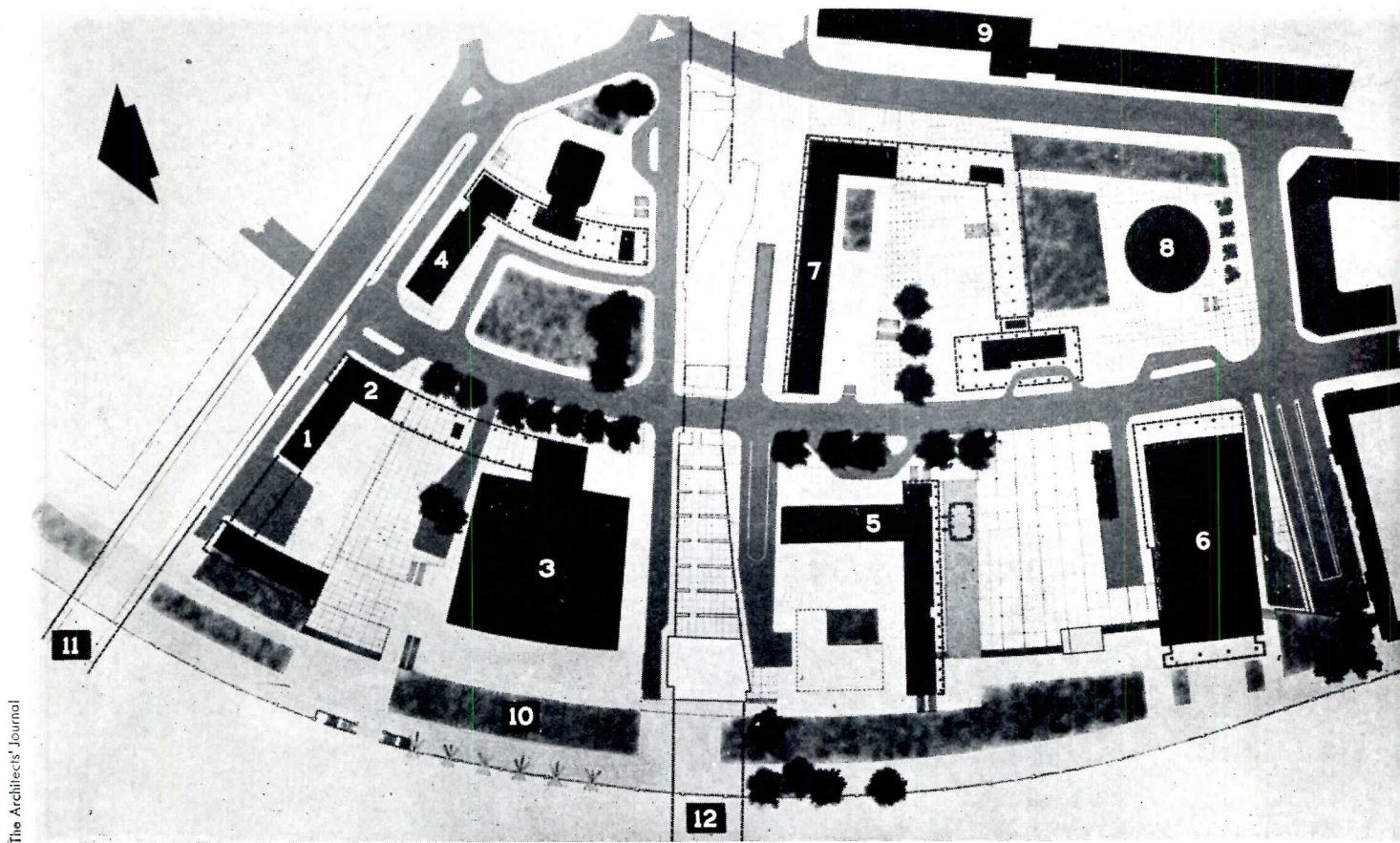
THE PROPOSALS of the London County Council for permanent development of the "South Bank" of the Thames — blighted first by slums and then by war, later site of the 1951 Festival of Britain, since a public park — illustrate the boldness with which a public agency in England may speak of matters that prudent public officials in this country most often feel must be swept under the carpet. "The basic conception of the scheme," the Council notes, "is the grouping of a number of large public and office buildings in such a way as to give a feeling of spaciousness and vitality at a focal point on the south bank of the river, and

to present to the roving eye of the Londoner a continuously interesting series of visual compositions, both in height and in depth. The buildings on the riverside in particular have been chosen for their liveliness in the evening so as to avoid the 'dead' character so often associated with central office areas."

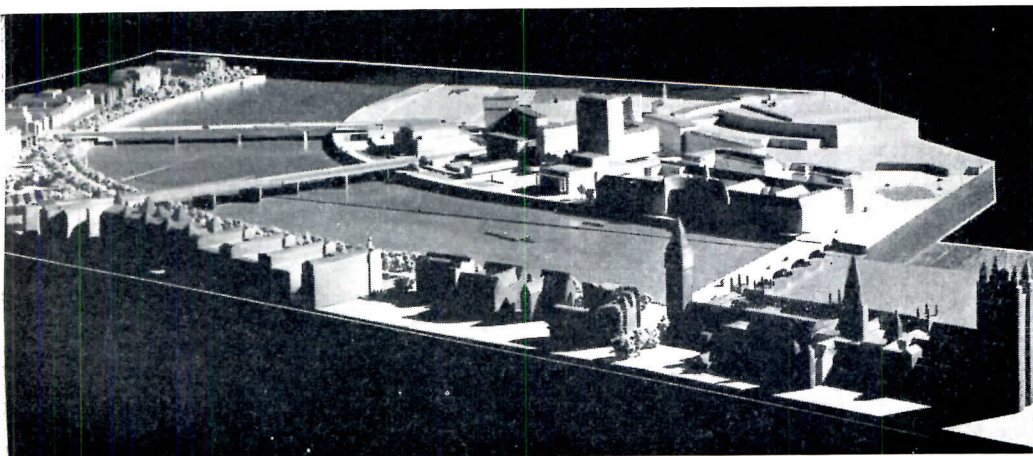
The present proposals are for an area bounded by Waterloo Bridge, York Road, Chicheley Street and the river and zoned for public buildings as the predominant use. Included in the development are a National Theater, a hotel, an office block to be built by the Shell Petroleum Company Ltd. as its

main international headquarters — a 25-story tower with three 11-story wings, a central air terminal for London to be built by British European Airways, another office block to include ground level shops and underground parking, an international conference center and exhibition gallery, the existing Royal Festival Hall and underground quarters for the London Transport Executive.

The scheme has the general approval of the Royal Art Commission; the speed with which it is developed "depends mainly on the extent to which the Government will permit capital expenditures of this nature."

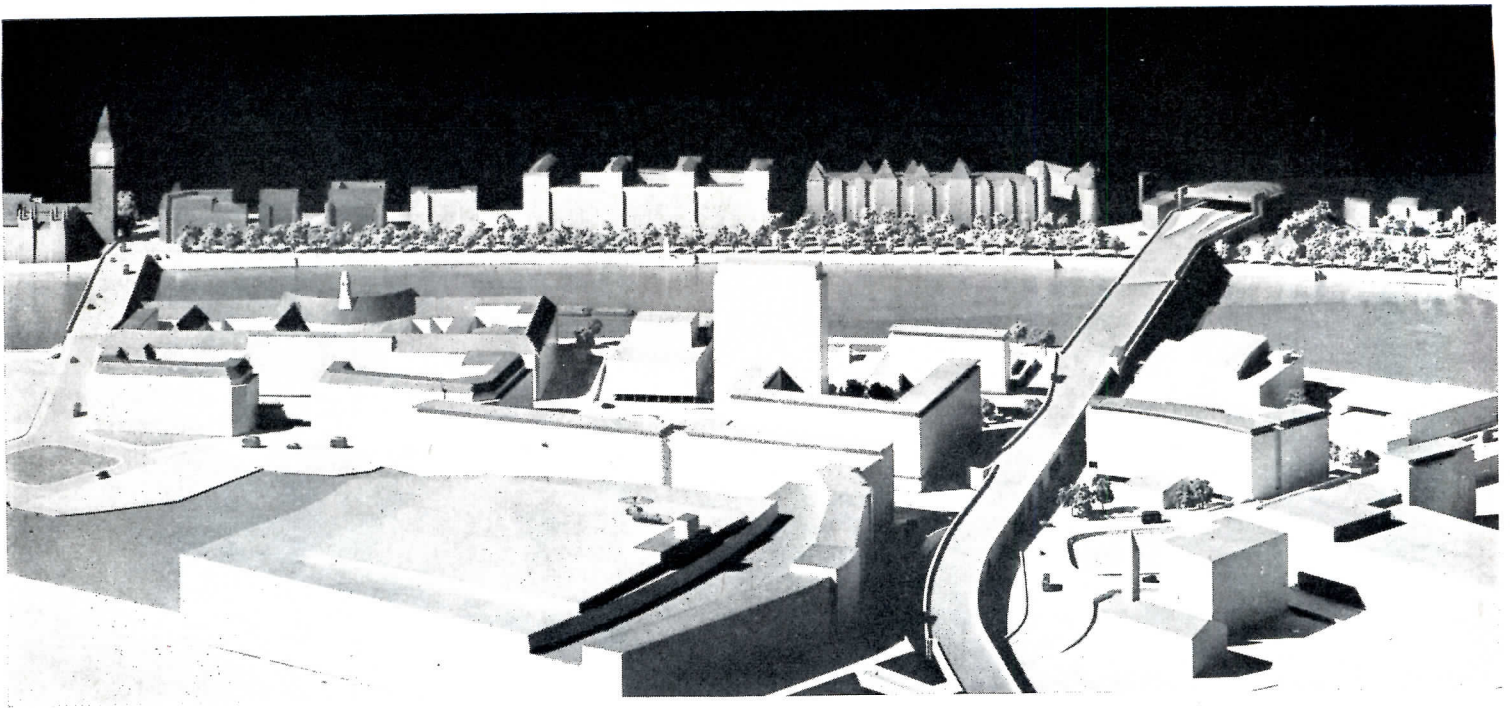


The Architect's Journal

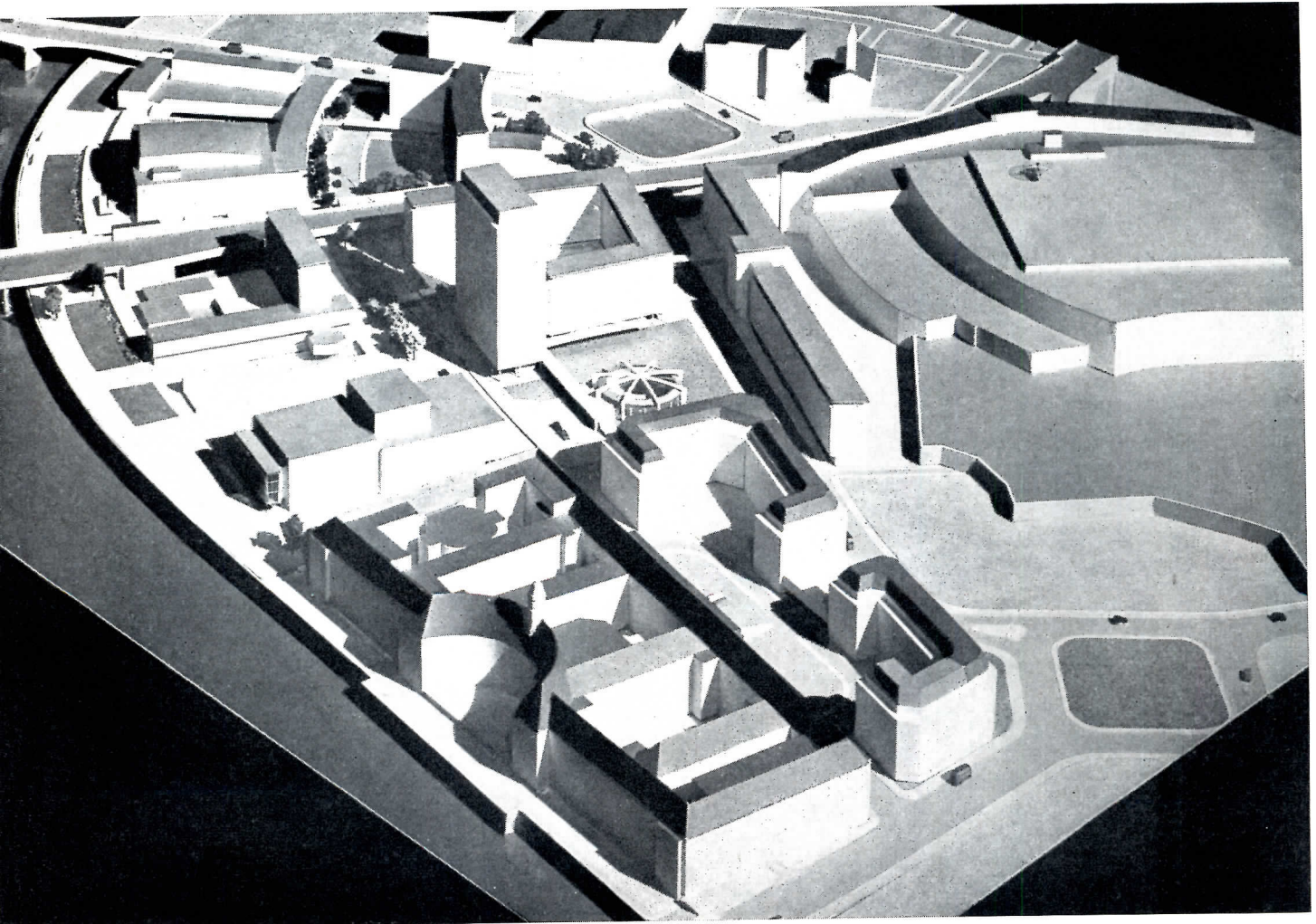


LEGEND

1. Conference Center
2. Exhibition Gallery
3. Royal Festival Hall
4. Offices
5. Hotel
6. National Theater
7. Offices
8. Airways Terminal
9. Offices
10. Riverside Walk
11. Waterloo Bridge
12. Hungerford Bridge



The overall scheme for the South Bank Permanent Development (model photos above, below and across-page) was prepared by a Reconstruction Group team in the Town Planning Division of the London County Council under the direction of the Architect to the Council, J. L. Martin; the Senior Planning Officer, Arthur Ling; and the Assistant Planning Officer, P. Johnson-Marshall



Dr. H. Zirram, © London County Council

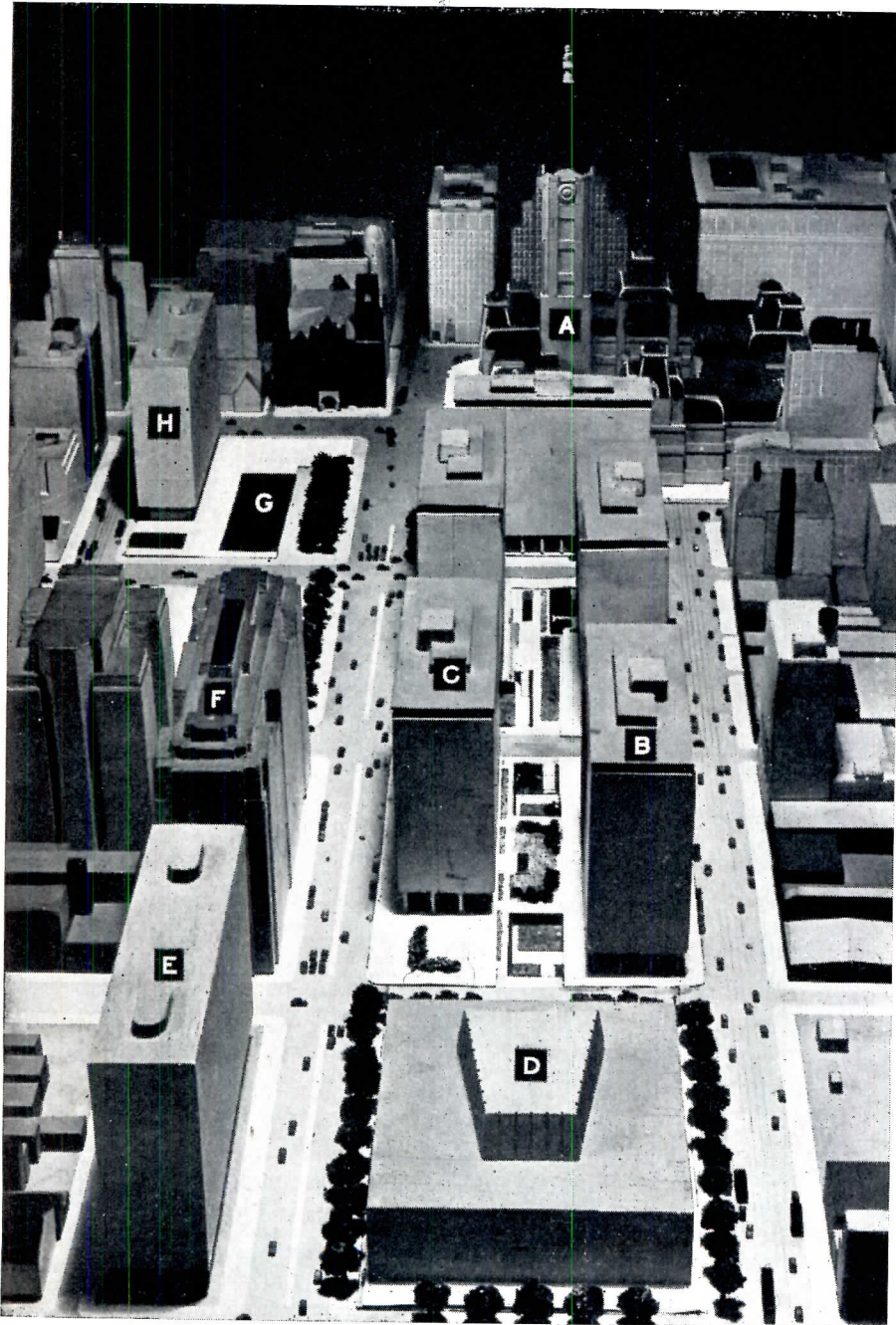
PHILADELPHIA'S PENN CENTER GETS UNDER WAY

\$100 Million Project in Rockefeller Center Tradition

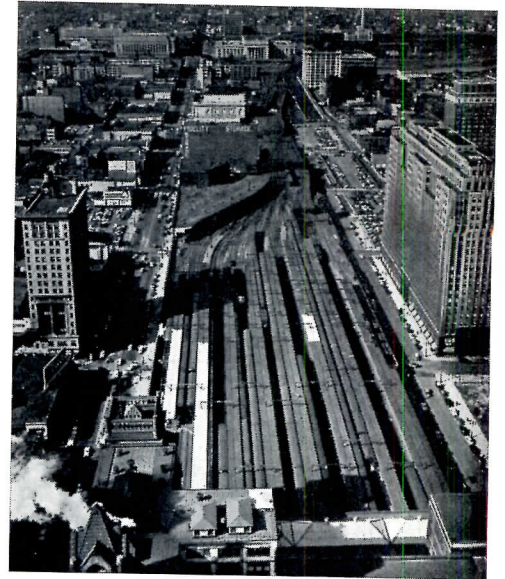
PHILADELPHIA'S long-cherished dream of a "Penn Center" to rival New York's Rockefeller Center began to take shape last summer when a 20-story office building designed by Emery Roth and Sons for Uris Brothers, New York builders, got started on one block of the eight-acre site left vacant by demolition of the

"Chinese Wall" — the old Broad Street station and tracks of the Pennsylvania Railroad. An architectural advisory committee consisting of George Howe, Philadelphia architect and former chairman of Yale's Department of Architecture, New York Developer Robert Dowling and Executive Director Ed-

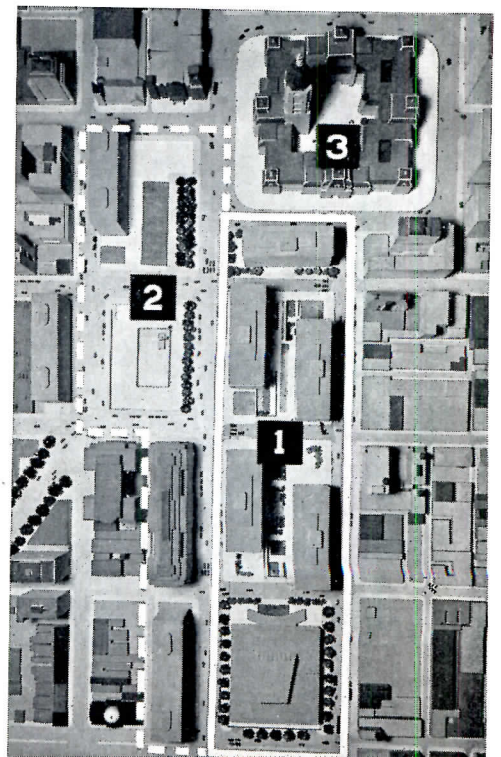
mund Bacon of the Philadelphia City Planning Commission assists the Pennsylvania Railroad in supervising overall architectural development and planning in accordance with the Dowling scheme for Penn Center, which grew out of the original plan by the City Planning Commission.



Closeup of model shows 1000-ft esplanade 80 ft wide that will be heart of project and (a) City Hall; (b) office building now under construction for Uris Brothers; (c) future Uris Brothers office building; (d) Walter H. Annenberg site once planned as transportation terminal, now being restudied for possible office use; (e) hotel; (f) Pennsylvania's suburban station; (g) city's future Rayburn Plaza and (h) offices



Above: "Chinese Wall" — view from City Hall dome just before demolition began. Below: model view of eight-acre Penn Center site 1. Between Pennsylvania Boulevard and Market Street, Broad and 18th streets. 2. Pennsylvania Railroad property across Pennsylvania Boulevard is being developed as complementary area. 3. City Hall



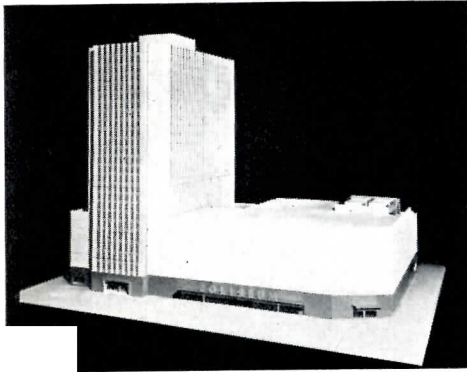
NEW YORK: COLISEUM PLANS IN "FINAL" VERSION

Project Now Includes Offices as Well as Housing and Parking

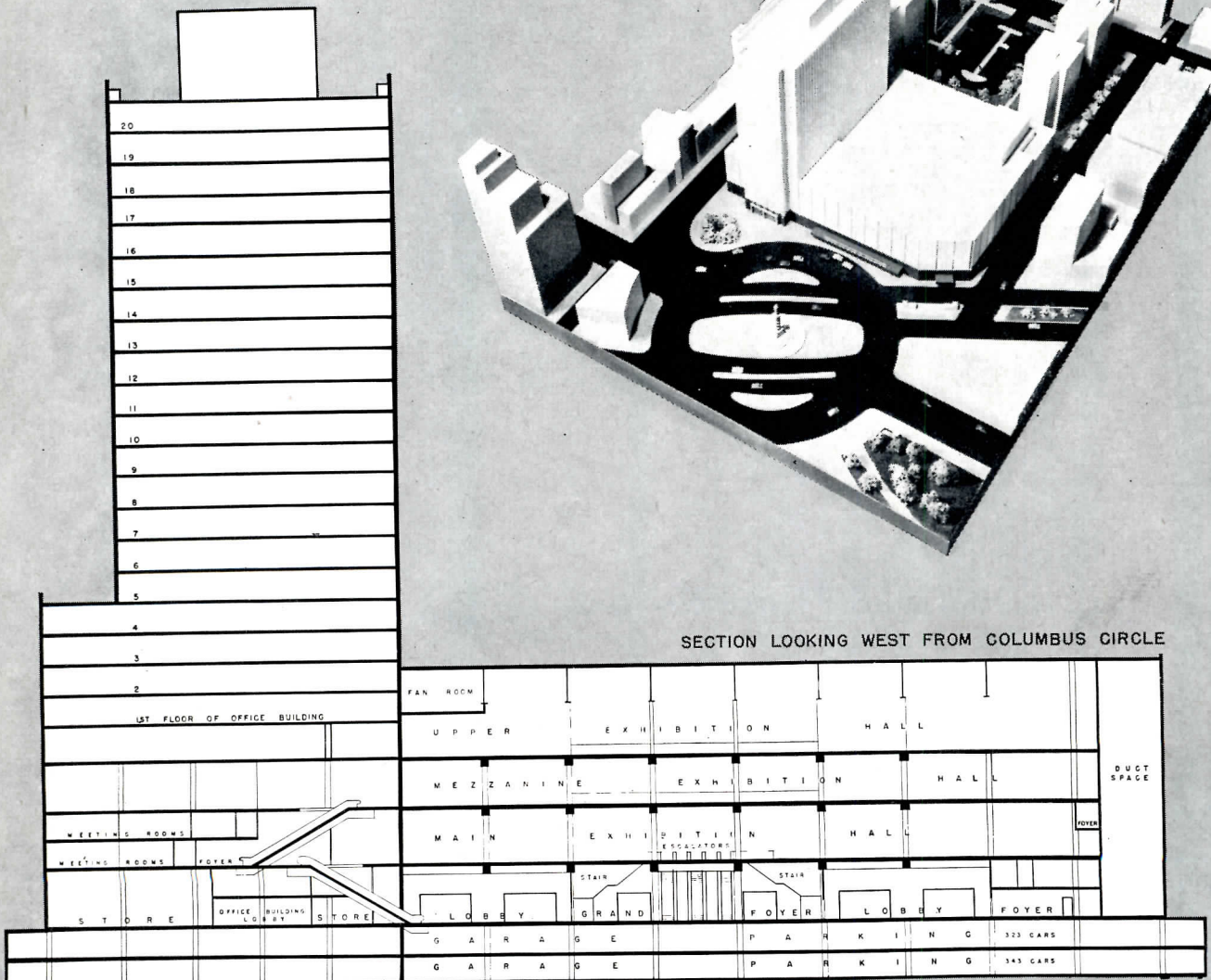
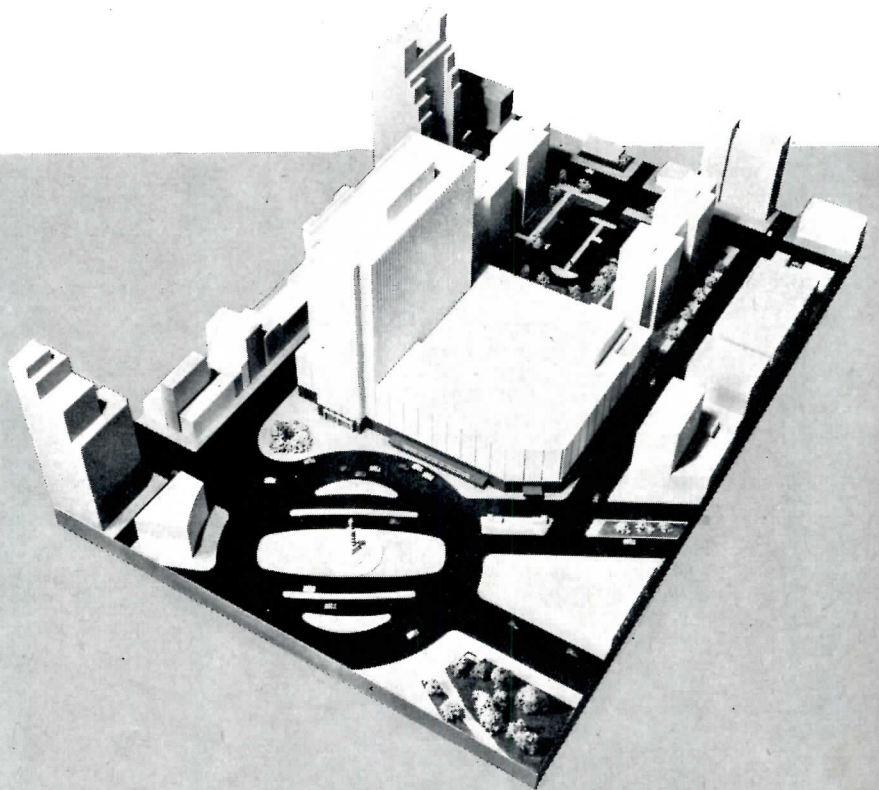
NEW YORK'S Triborough Bridge and Tunnel Authority, as personified by Chairman Robert Moses, has announced "final" plans for its oft-modified Coliseum project at Columbus Circle. As now presented, the Coliseum will be a vast four-level exhibition-convention hall with a 20-story office building

and public parking garage adjoining and two 14-story apartment buildings opposite. Earlier plans for elaborate convention facilities fell by the wayside as "uneconomic." Triborough will underwrite the \$30 million Coliseum-office structure; private developers are erecting the apartment buildings. Cost of the

6.3-acre site was \$9.5 million — \$2,182,000 from the city, \$6 million from the Federal government in a slum clearance grant and \$1,110,000 from Punia and Marx, the private builders of the apartment houses, for their 147,874 sq ft. Architects for the Coliseum are Leon and Lionel Levy.



The 6.3-acre site is bounded by Columbus Circle, West 60th Street, Columbus Avenue (Ninth Avenue) and West 58th Street. Views here are looking westward from Columbus Circle, with 58th Street at left and 60th at right. Left: Coliseum is the low building, tower the "integrated" office structure. Inset: model view of overall site; apartments at center rear





Main Street, Small Town, U.S.A., is pretty well filled with small local shops

SUBURBAN BRANCH DEPARTMENT

Main Street, Big Town, was once the only possible big-store location



Wide World

ARCHITECTURAL RECORD'S BUILDING TYPES STUDY NUMBER **210**

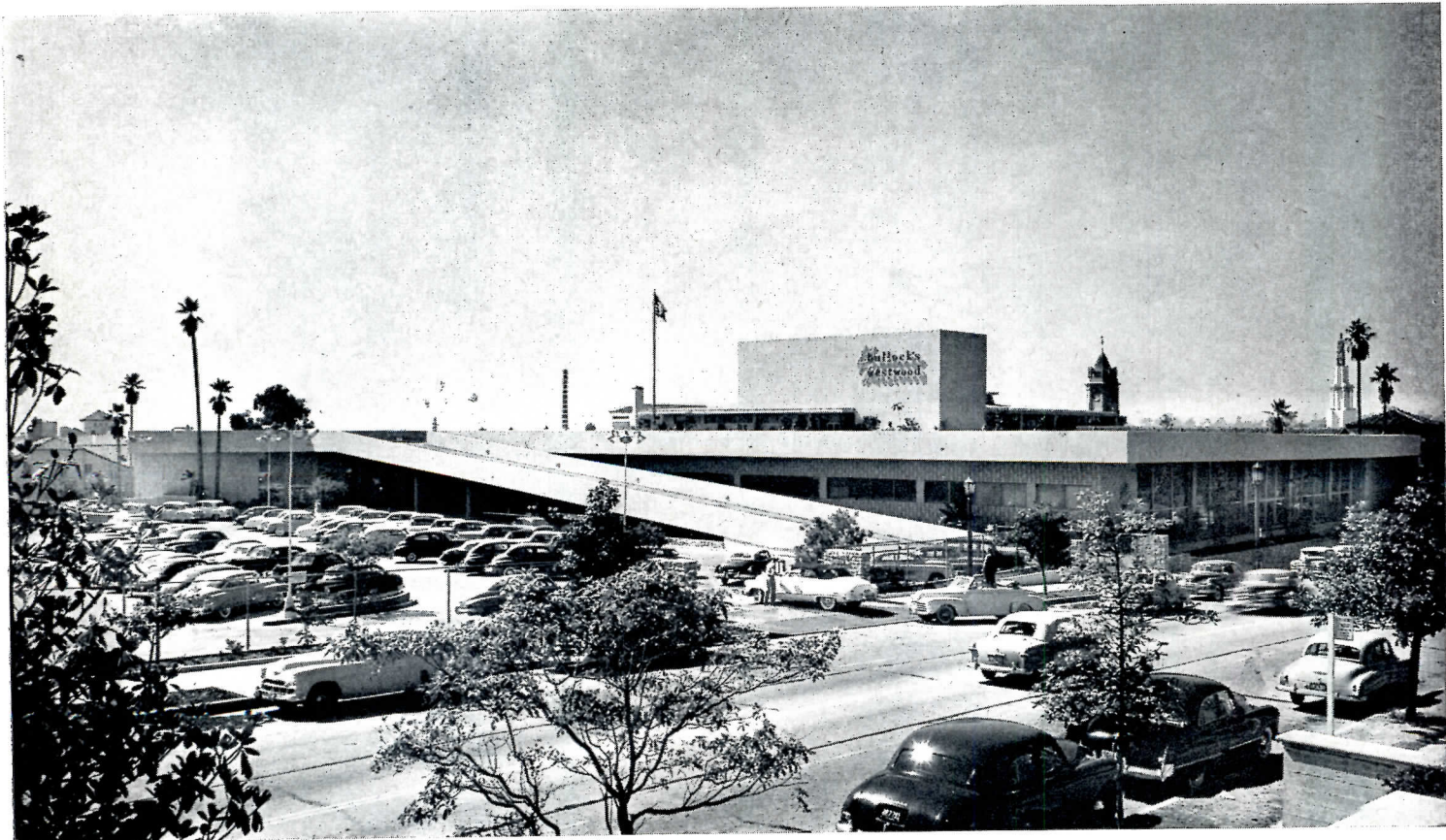
The suburbs are acquiring new retailing facilities, urban in character, semi-rural in location, with few of the disadvantages of either. An appraisal prepared in collaboration with Daniel Schwartzman, A.I.A.

STORES

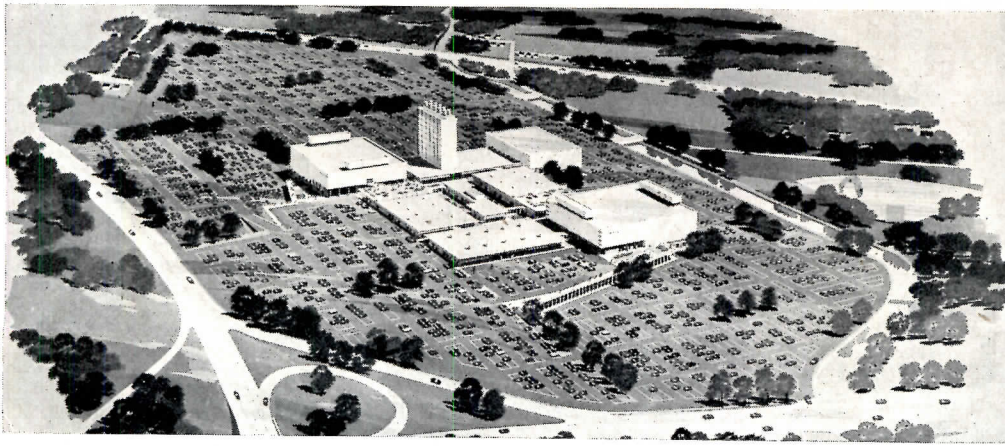
SINCE WORLD WAR II the suburban branch department store has become established as an important retail facility. There are several reasons for its growth. The 1950 census showed that suburban population was then increasing five times as fast as urban, a rate that has since accelerated. Greater use of motor vehicles has made suburban stores easier to reach and shop in — and more profitable; at the same time it has helped to compound urban congestion and make downtown shopping less simple.

The U. S. Department of Commerce reports that store construction of all types is most active where population is growing fastest, in the suburbs. Considering also that in the period 1946–1952 this country's total store construction (in dollar volume) was 10 percent of private house construction whereas in the 1920's it was 14 percent, store building should remain active. In this activity the suburban department store is new. The store with a wide variety of merchandise for all members of the family and for the home, within a short driving distance of a suburban neighborhood, was until recently a luxury. Now, however, responsible planners and developers consider it an essential community facility; and — given reasonable sales goals, intelligently designed buildings and sites of reasonable size — it has established a pattern of success. Even when it has been part of a regional shopping center which may as a whole be something less than successful, the branch department store itself has done well. It would appear to be financially more sound than either the small individual shop or the very large shopping center. It has attracted the attention of most of the conservative operators of large department stores, and there are still many hundred downtown department stores in cities with growing residential

Typical suburban branch department store: Bullock's Westwood, Westwood Village, Calif.



Wellton Becket & Associates, Architects; photo by Douglas M. Simmonds



Out-of-town site near super-highways: Bamberger's in Paramus, N. J.; Abbott, Merkt & Co., Engineers

SUBURBAN

suburbs which could profitably build branches in the suburbs, where operating costs are low and net returns high.

BRANCH

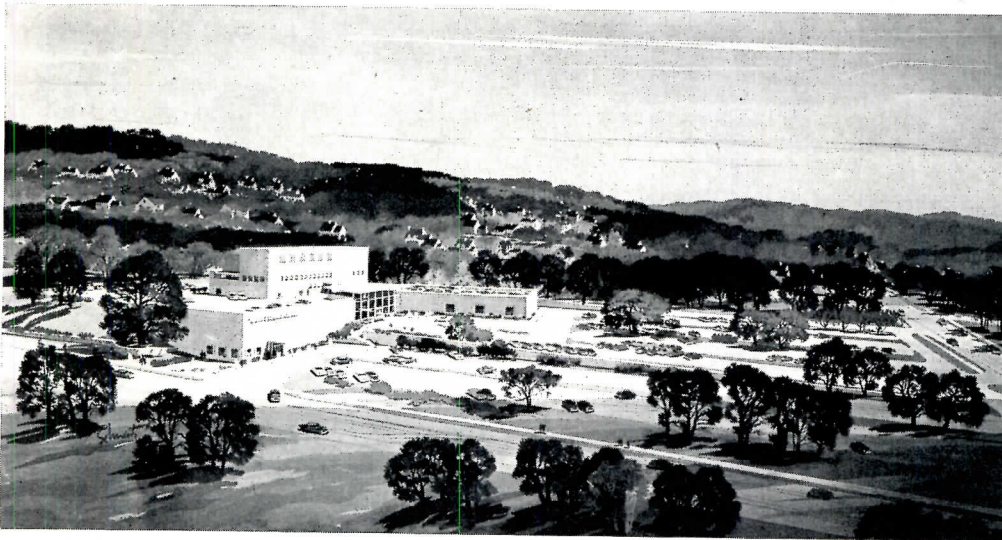
This study is not a detailed critique, but an appraisal of trends in design and of certain points on which operators and designers agree. Many of the examples, existing and proposed, in the following pages have a striking similarity. This reflects their common purpose and conservative ownership.

DEPARTMENT

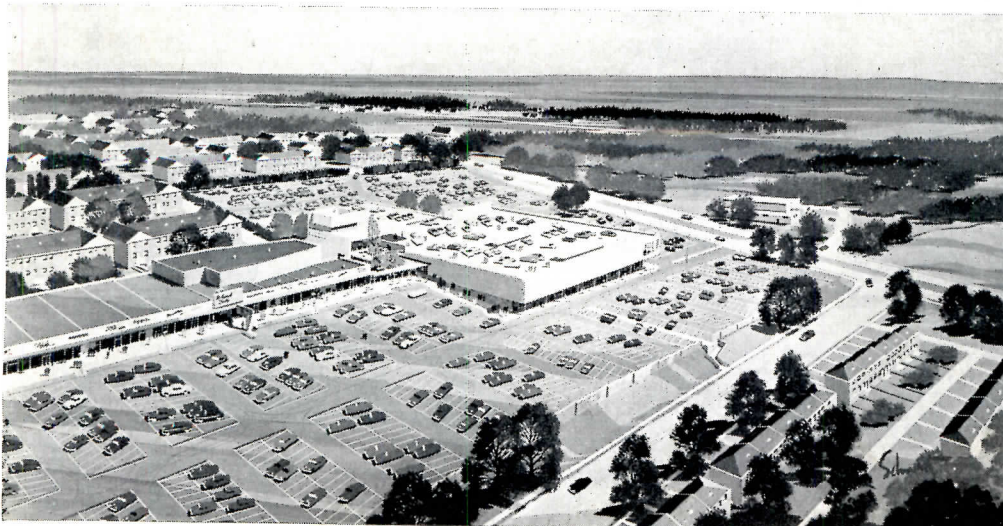
On the other hand there are some vigorous design innovations, based, as they must be in this field, on hard economic facts.

STORES

Saks White Plains, N. Y., on edge of town near highway, has 3-level parking; Kahn & Jacobs, Architects



Hecht Co., Northwood Shopping Center, Baltimore, Md.; Abbott, Merkt & Co., Engineers; Daniel Schwartzman, Architect

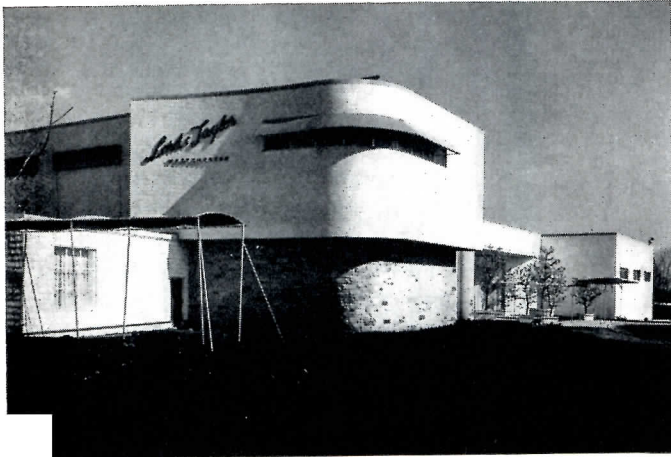


Julius Shulman



Julius Shulman

Robinson's, Beverly Hills; Pereira & Luckman, C. O. Matcham, Archts.; Bullock's Pasadena; Welton Becket & Associates, Archts.

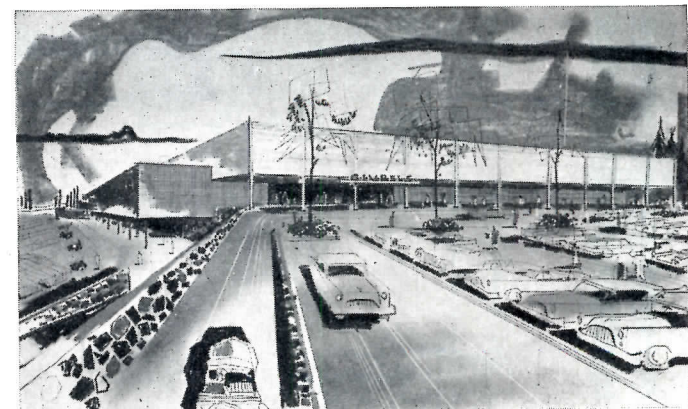


Hedrich-Blessing

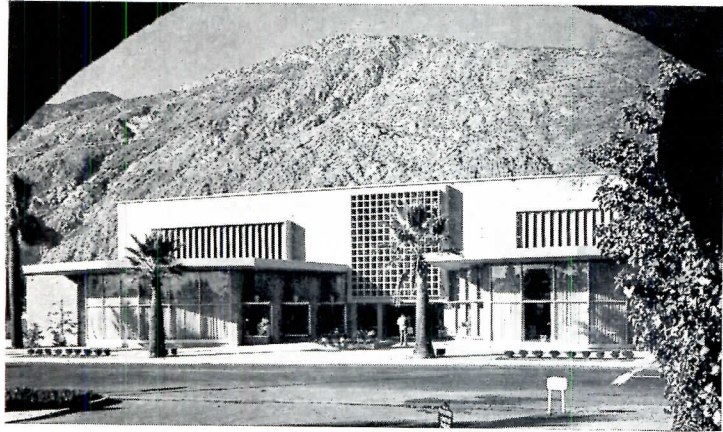
Lora & Taylor, Westchester, N. Y.; Starrett & Van Vleck, Archts.; Wieboldt's, Evanston, Ill.; Holabird & Root & Burgee, Archts.



Bamberger's, Plainfield, N. J.; Abbott, Merkt & Co., Engrs.; Gimbel's, Cross County Shopping Center, Yonkers, N. Y.; L. Douglass, Archt.



Gimbel's Southgate, Milwaukee, Wisconsin; Welton Becket and Associates, Archts.; Gimbel's Cheltenham, Philadelphia, Pa.; Welton Becket & Assoc., Howell Lewis Shay, Archts.



Bullock's Palm Springs, Calif.; Wurdeman & Becket, Archts.



Lytton's, near Chicago, Ill.; Shaw, Metz & Dolio, Archts.



Emporium, Stonestown, Calif.; Welton Becket & Associates, Archts.

A FEW GENERAL RULES of thumb help to define the typical suburban branch department store. These cannot be considered more than approximations, since each store and each trading area varies. Of course parking space is required; what may be called the optimum parking area ratio is $2\frac{1}{2}$ times the gross floor area of the store building, although the exact amount desirable in any given case may differ, depending on such items as accessibility of the site to residential areas within walking distance, or nearness to public transportation. The value of each car stall to the store can be estimated at \$7200 of annual sales, a figure arrived at from the following formula: average unit sale \times customers per car \times minimum car turnover \times selling days per year. In the average case this becomes $\$4.00 \times 1\frac{1}{2} \times 4 \times 300 = \7200 . However, these figures vary radically and must be used with caution.

A suburban branch should carry a representative selection of all merchandise handled by the main store. It should have enough stock — which means storage space — to be self-sufficient for a period of time whose length depends on distance from the main store and warehouse, or on whether the branch will have facilities for receiving shipments directly from the manufacturer. If some major categories of merchandise are not carried the prestige of the main store may be lost to the branch, or the branch may lose its identity as a department store and become vulnerable to vigorous competition from neighboring specialty shops. The major classifications normally handled in a department store are:

- Women's wear: dresses, coats, suits, etc.
- Accessories: handbags, shoes, hosiery, lingerie, etc.
- Men's wear: complete
- Children's wear: complete
- Dry Goods: linens, fabrics
- Small wares: notions, stationery, etc.
- Housewares
- Home furnishings: rugs, draperies, lamps, etc.
- Furniture
- Miscellaneous: toys, luggage, etc.
- Beauty salon
- Restaurant

Size, Capacity, Costs

Suburban branches which qualify as department stores with minimum adequate assortments of most kinds of merchandise usually have not less than 50,000 sq ft of total floor area. A more complete store has about 150,000 sq ft in a moderate-sized community or 200,000 sq ft in a larger community. In the most active trading areas branches of very high-volume stores are now providing over 300,000 sq ft. In all of these, the sales area (including behind-the-scene stock area immediately adjacent to selling) is usually 60 to 70 percent of total floor area, depending on amount of self-selection fixturing and volume of shipments directly from manufacturers. Average finished heights for ceilings are 13 ft for the street floor and 11 ft 6 in. for other floors.

The average branch store has annual gross sales amounting to \$70 to \$100 per sq ft of selling area, includ-

ing forward stock areas. Cost of the building, at current levels, varies generally from \$15 to \$20 per sq ft; cost of fixtures, \$8 to \$10 per sq ft. The typical suburban branch department store, then, has \$7,500,000 of annual sales, 150,000 sq ft of area, a site providing 375,000 sq ft of parking space for 1250 cars. Variations from this average are as many as the various philosophies of merchandising and the sizes and types of communities.

Location, Site

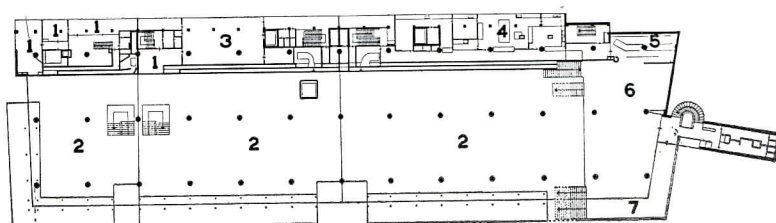
Ideally the suburban branch is located in an area covered by the established prestige and reached by the advertising of the downtown store. This strengthens the obligation to carry a good selection of merchandise of most kinds carried by the downtown store. Ready interchange of items between branch and downtown helps but does not solve the problem; the suburban

Abraham & Strauss, Hempstead, N. Y.; Daniel Schwartzman, Peter Copeland, Marcel Breuer, Architects.

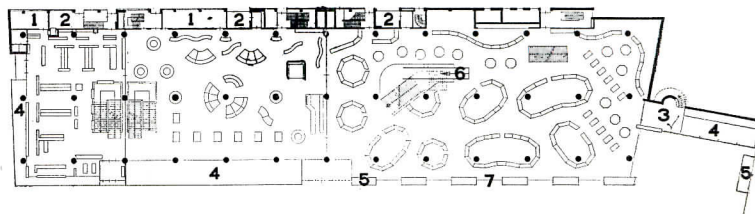


Jan Versnis

In Rotterdam, Holland, with little auto traffic, the ter Meulen, Wassen en van Vorst department store has greater window area than American counterparts; van den Broeck & Bakema, Architects.



MEZZANINE: 1, office; 2, open; 3, service dept.; 4, kitchen; 5, cafeteria; 6, restaurant; 7, balcony



GROUND FLOOR: 1, storage; 2, shipping; 3, entry to restaurant; 4, show window; 5, show case; 6, moving stair; 7, vertical sliding door

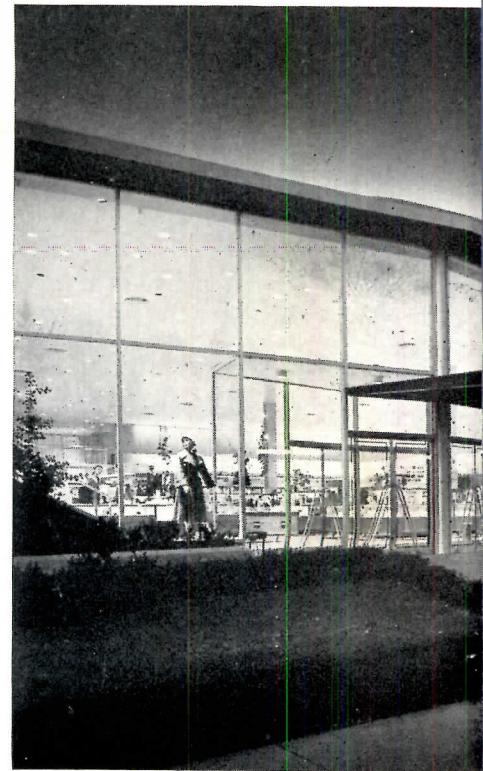
customer is a "take-with" shopper. When the size of the plot — and hence of the store — is restricted, this has led many operators to limit the categories of branch store merchandise to those which can be stocked in sufficient width and depth. A branch in a suburb which is primarily a dormitory for city workers does tend to draw some business from the main store, particularly if the residents are established customers or have the same buying habits as main store patrons. But the larger department stores with more than one branch are finding that their main city plants, with merchandise handling facilities and highly skilled executive talent, can serve the branches with only minor adjustments and become more productive pieces of real estate when the sales volume of the branches is added. Sometimes main store sales have actually increased as prestige of the branches has grown.

Branch locations are of three principal kinds: 1,



Abraham & Strauss, Great Neck, N. Y.; Lathrop Douglas, Architect.

Edgar Hymen

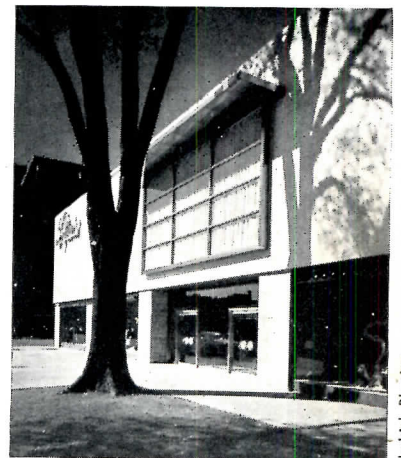
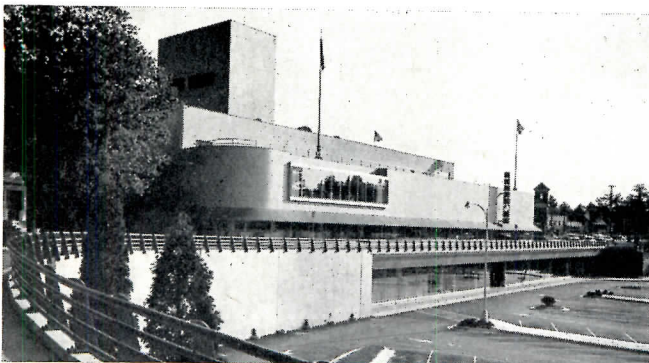


Saxone Shoe Shop, left, London, England (Michael Egan, Archt.) proclaims itself a small shop by nature of marquee, show windows, etc. Center,

BRANCH DEPARTMENT STORES: Entrances, Show Windows, Façades

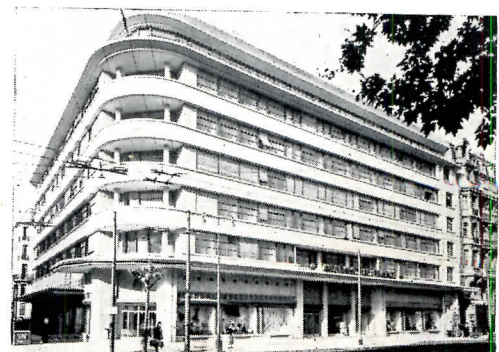
Photos below: top left, Hutzler Bros., Towson, Md. (Office of J. R. Edmunds, Jr.; Ketchum, Giná & Sharp, Archts.) has two entry levels created by elevating a cross street and building out under it. Bottom left, see-through façade and sidewalk show cases, Bullock's Westwood (Welton Becket & Assoc.) Top right, large window accenting the entrance is heavily curtained; Lytton's (Shaw Metz & Dolio). Bottom right, Aux Dames de France, department store in Toulon, France, has the generous fenestration which Europeans prefer (de Montaut, Gorska, Lajarrige, Poutu, Architects)

© Ezra Stoller



Hedrich-Blessing

Douglas M. Simmonds



Andre Perrinat



Center, Julius Shulman; right, Goitscho-Schleisner

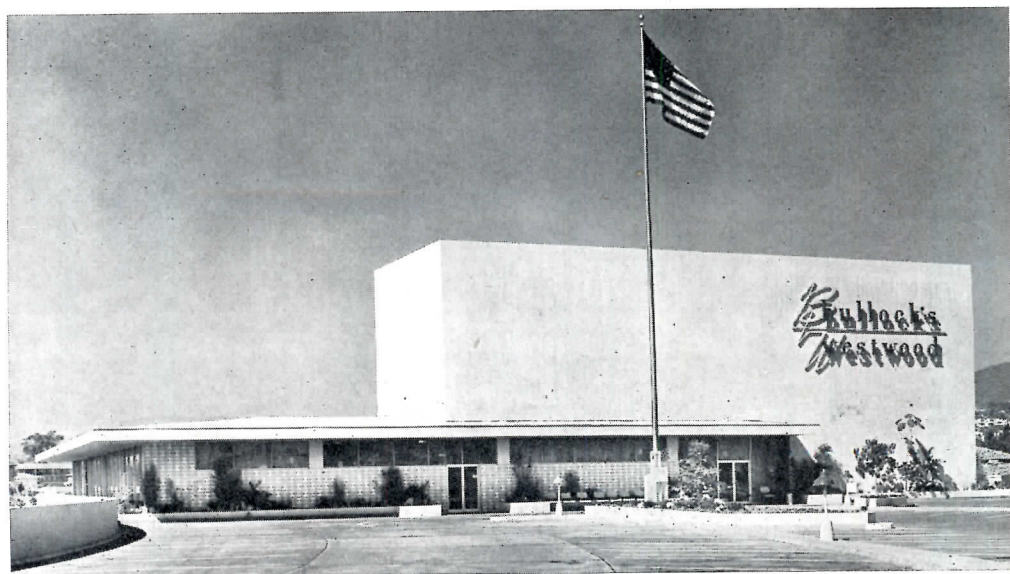
floating marquee, Scruggs in Clayton, Mo. (Harris Armstrong, Archt.) Right, fabric marquees, Lord & Taylor Westchester (Starrett & Van Vleck)

center-of-town in a smaller community; 2, independent location in a suburban area; 3, key location in a shopping center. Parking space is essential to all three. Of the first two types, the most successful examples have profited from a prominent site on the main street or thoroughfare with parking contiguous to the building on one or more sides. When the site has permitted, roof parking or adjacent multi-story parking has been used successfully. The third type, the key unit in a shopping center, requires extremely careful evaluation of potential customer traffic, both directly from the parking area and secondarily from adjacent stores.

Entrances, Show Windows, Facades

When the building fronts on a main street or thoroughfare, or when the parking plan places the building in back of an area of parked cars, monumental entrances are often employed. Sometimes this has been done by combining a two-story glass area with the entrance and obtaining an impressive night effect; but considering that, indoors, the store is simply a selling mechanism, the strong daylighting is disadvantageous; it tends to backlight and silhouette the merchandise so that color and texture are difficult to discern without excessive

Bullock's Westwood, Westwood Village, Calif. (Welton Becket & Associates, Archts.) has the windowless façade demanded by most American merchandisers, multiple entrances immediately accessible from the parking area



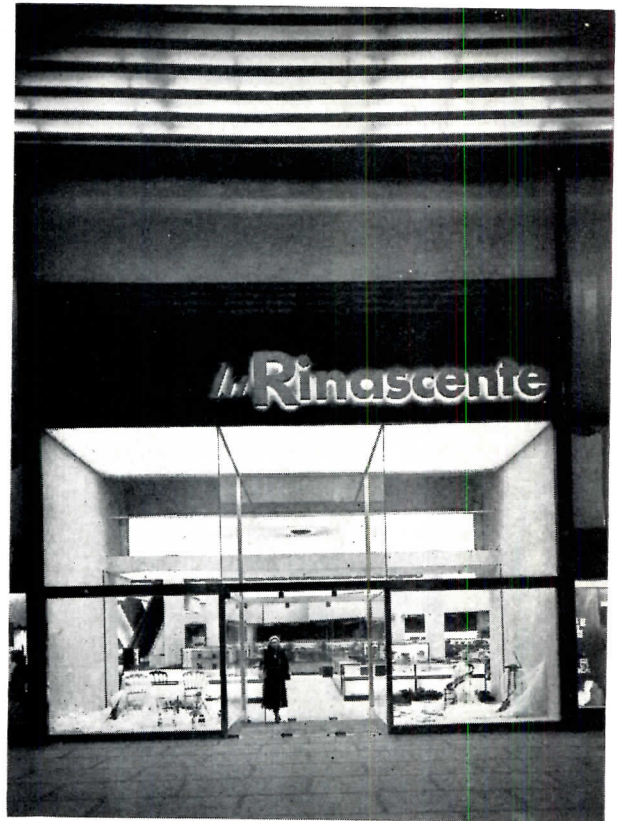
Douglas M. Simmonds

artificial lighting. Yet generous, gracious entrances consistently characterize successful stores. The combination of show windows, both look-through and closed back, horizontally with the glass area of the entrances, has been used to this end. So also have inviting, protective entrance canopies which emphasize and identify the isolated store, and continuous covered walks which direct traffic and terminate logically at the main entrance. "Floating" marquees, supported at transom level, let daylight enter the store above them or provide a view out from within. The colorful laced awning has been used as a marquee to create an informal, gay atmosphere.

In suburban stores, display staffs are necessarily limited, non-selling area must be severely restricted, and the customer, who arrives by car, has little interest in window-shopping. The look-through window which makes the store interior the display is appropriate. When enclosed show windows seem advisable, the trend is to construct them as demountable units so they can be removed inexpensively when the space may be wanted for selling or for a look-through window. The free-standing show window, detached from the building, permits a free integration of the rich landscaping that is usually desirable with the store itself. The look-through window with a floor at selling floor level requires a sill or bulkhead at the minimum height needed for good maintenance; the partial look-through or enclosed window has a floor at bulkhead height, usually 12 to 20 in. Shadow boxes or freestanding show windows follow no set dimensional pattern, varying according to site or type of merchandise to be displayed. For all types the serious problem is lighting. In look-through windows, since lighting fixtures must be seen from all sides without glare, they are usually recessed in ceilings, which limits possible effects even if wide-angle equipment is used, and makes floor-lighting of low backgrounds essential. For enclosed windows, a sturdy, open, metal grid ceiling, preferably 2-way louvered, affords the needed flexibility for overhead lighting and for suspending props. Wing shields at both sides of the

(Text continued on page 191)

Simple aisle layout, Scruggs, Clayton, Mo.; Harris Armstrong, Archt.



Fortunati

La Rinascente in Milan has many of the characteristics of American stores in its different traditional setting, many of them differently handled than they would be by American architects. The principal entrances permit the buying public to look through into the store's interior; show

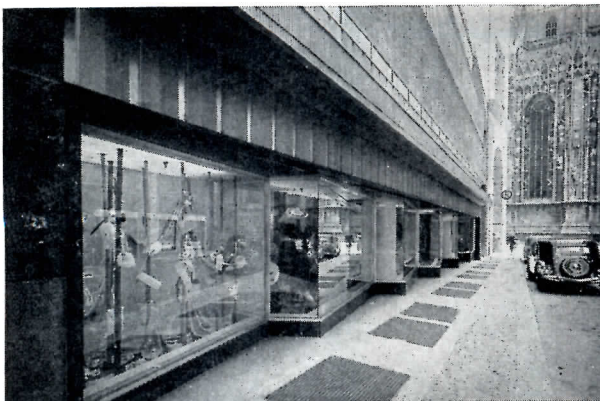
DEPARTMENT STORE IN MILAN,

windows and the entrance on the opposite page are angled to relieve monotony and catch the eye of approaching shoppers. Above the entrance, opposite page, is a mosaic mural by Massimo Campigli, and above that, an over-all grid shielding fluorescent lights. The 9-meter-high arcade (far right) shelters windows composed in horizontal bands to preserve human scale; windows are protected by aluminum blinds which slide down from above to cover them

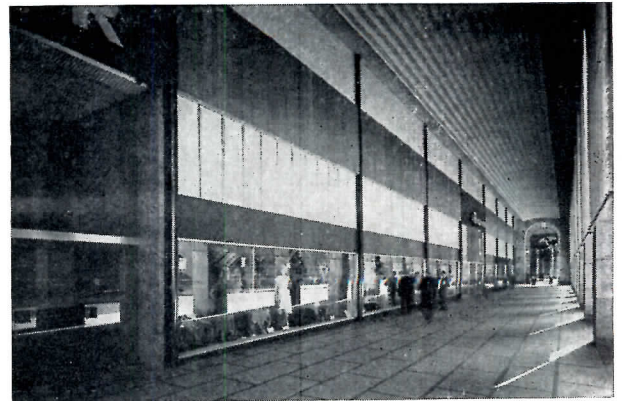


Fortunati

ITALY; CARLO PAGANI, Architect



Mario Zucchetti

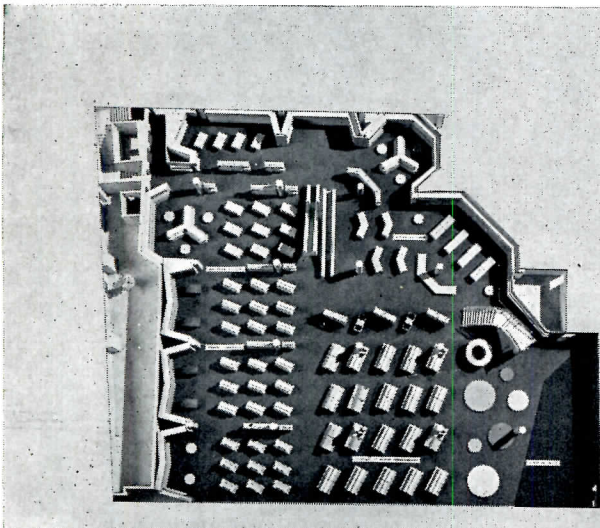


Fortunati

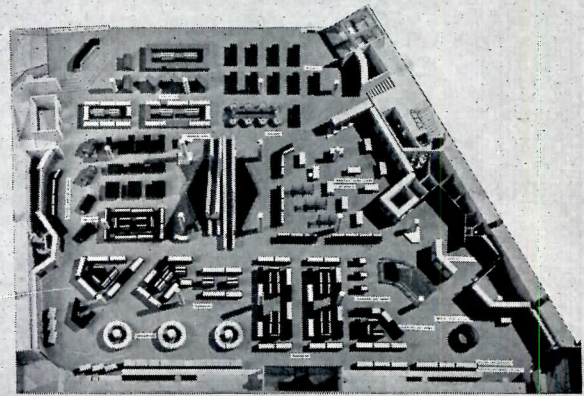


DEPARTMENT STORE, MILAN, ITALY

Plan models below show housewares in the basement, in a free arrangement of the gridiron plan; ground floor with 5 entrances, one at each corner and one in center of main front, wide aisles for free circulation, escalators in middle; first floor with piece goods, luggage, toys, charge accounts, etc.; second, tea room, beauty parlor, fashion theater, etc.



BASEMENT



GROUND FLOOR

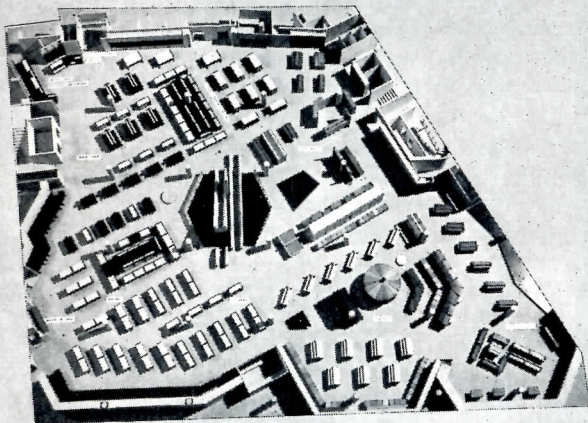


Bottom, left to right: Simple housewares imaginatively displayed; china department, continuous lights on inner and outer edges of shelves; second floor, continuous storage mezzanine; millinery on second floor

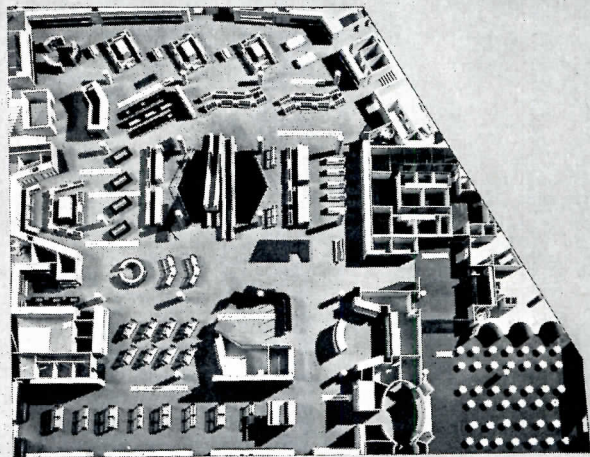




Top photos, left to right: An entrance; merry-go-round in toy department; ground floor with bright yellow counter for special sales in foreground; slanted mirror allows full view of the body; pattern department with storage, desk and shelf for customers' parcels. Ceilings are usually darkest in tone, floors lightest; rich, sophisticated colors are used



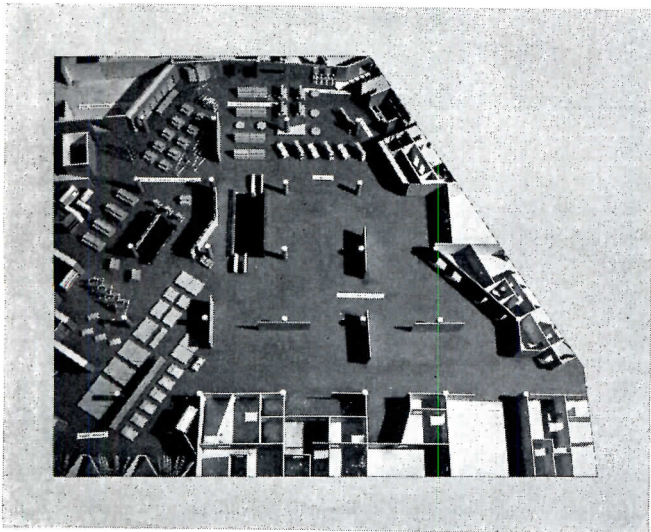
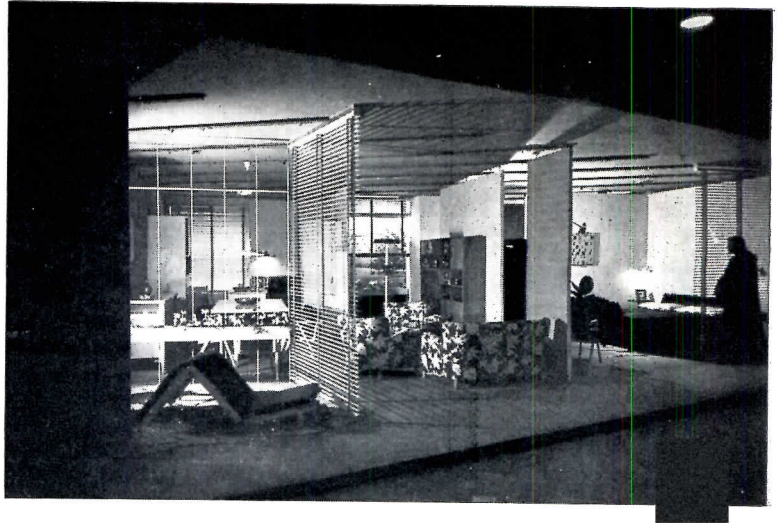
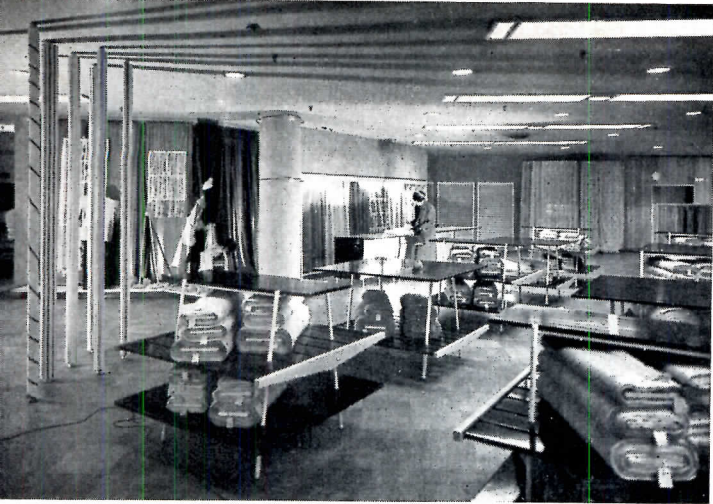
FIRST FLOOR



SECOND FLOOR



DEPARTMENT STORE, MILAN, ITALY

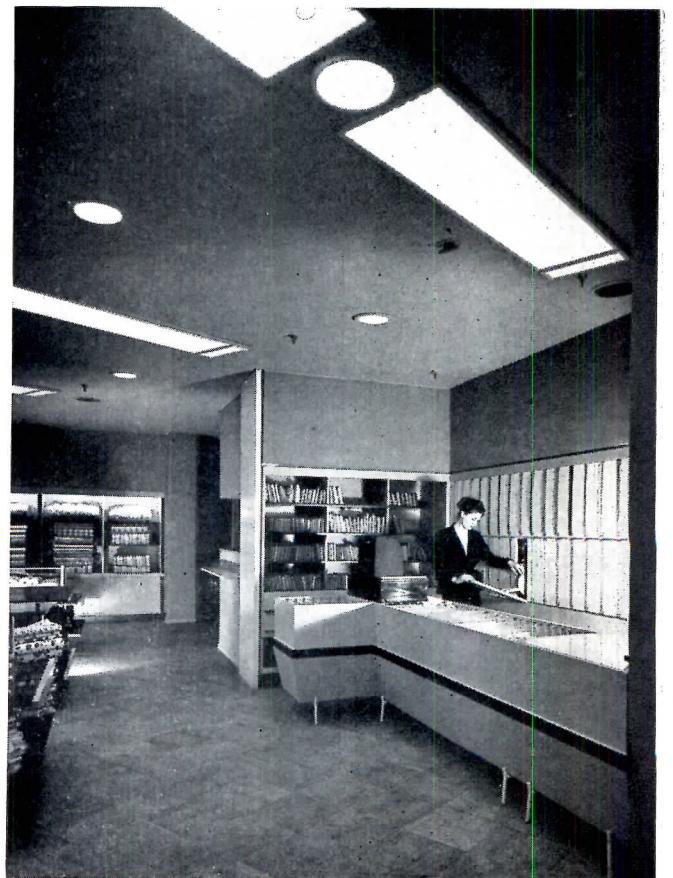


THIRD FLOOR

Open area in center of third floor (plan model at left) is for furniture pieces. Around this are flats for permanent displays which are changed periodically. Remaining area is for other household equipment. Photos, top: left, upholstery fabrics in open shelved fixtures whose tops are kept free for cutting; storage is behind curtain display in background. Right, model apartment, one of the permanent displays. Below, left, space around escalator kept free, not used for sales; right, fixture and counter for selling upholstery findings



Fortunati



Diagonal and rectangular aisle layout, Abraham & Straus, Hempstead, N. Y. Daniel Schwartzman, Peter Copeland, Marcel Breuer, Architects



Alexandre Georges

Generous space in gift section of home furnishings floor, Bullock's Palm Springs, Calif. Wurdeman & Becket, Architects



Julius Shulman

SUBURBAN BRANCH DEPARTMENT STORES

(Text continued from page 186)

window are also desirable for vertically adjustable lighting.

Opinion varies as to the value of window areas not used as show windows or combined with entrances. Color-corrected artificial lighting makes it unnecessary for the customer to see merchandise under actual daylight, but in some localities this habit persists. Where it does not, problems of fixturing and lighting are not complicated by the brightness differential between natural and artificial light; architects have welcomed the resulting windowless solutions, using uninterrupted masonry facades, introducing patterned relief in brick and concrete, and color in tile and richly veined marble.

Circulation, Vertical Transportation

A gridiron of aisles between fixtures is doubtless orderly but it does not always provide direct, graceful access from entrances and it is difficult to coordinate with the curving or angled walls often used to add interest or flexibility to the interior. In multi-floor stores the shortest possible aisles, generously wide, from entrances to escalators will increase customer traffic to other floors and add substantially to their sales. The completely "free-flow" plan complicates the fixtures, requiring costly wedge-shaped fillers for standard units or specially formed fixtures; it has been abandoned in most recent examples. Occasionally we find a curved

aisle, introduced to meet a special condition in an otherwise straightforward pattern. Diagonal main aisles superimposed on a gridiron of minor aisles are now customary on street floors when entrances are at building corners; these are also used on other floors to feed customers directly into corner areas. Individual shops enclosed in high walls are used in stores designed for leisurely shopping and for such intimate departments as Maternity or exclusive salons for high-priced merchandise in high sales-volume stores.

The trend toward greater amounts of forward stock in reserve areas next to sales spaces, to enable the store to meet peak seasonal demands easily, affects circulation planning and increases the opportunity to create interesting interiors. Since these reserve areas are usually at the rear of the selling space, away from the aisle, and since their size varies according to the type of merchandise, the back wall of fixtures must change position from department to department. The resulting variety in depth of departments can be helpfully utilized in design.

In most large branch stores escalators are depended on for customer use. A passenger elevator is included only for the aged, the disabled, or the young mother with a baby buggy; many store operators believe the freight elevator can also serve these customers. Open stairways between floors now appear in smaller stores intended for leisurely shopping.

(Text continued on page 193)



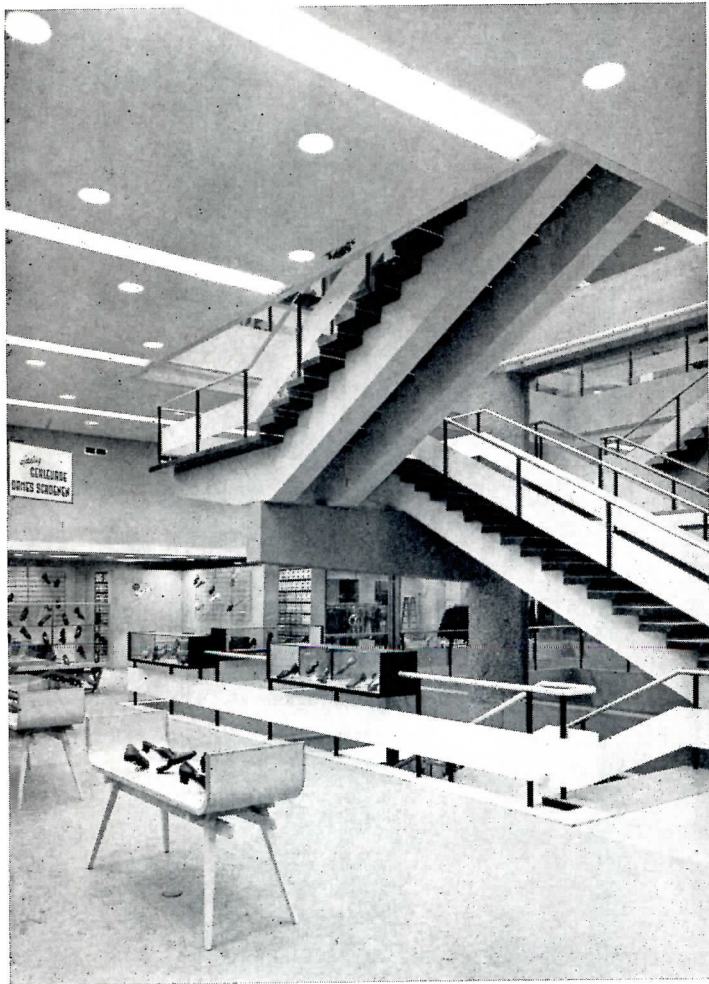
BRANCH DEPARTMENT STORES: Vertical Circulation



*Photos above, left to right: stair to mezzanine, **Ciro's of Bond Street, San Francisco, Raphael Soriano, Archt.**; stair to mezzanine, **Scruggs, Clayton, Mo., Harris Armstrong, Archt.**; reinforced concrete stair, **ter Meulen, Wassen en van Vorst Store, Rotterdam, Holland, van den Broek & Bakema, Architects.** Below, escalators in (left) **La Rinascenti, Milan, Carlo Pagani,***



*Archt.; and in **Martin's, Garden City, N. Y., Frank Majer, Archt., Morris Lapidus, Assoc. Archt.**; note selling fixtures. Two photos right, changes in level integrated by stairs and escalators. **Harris Armstrong, Archt.***



J. A. Vruhof

Lighting

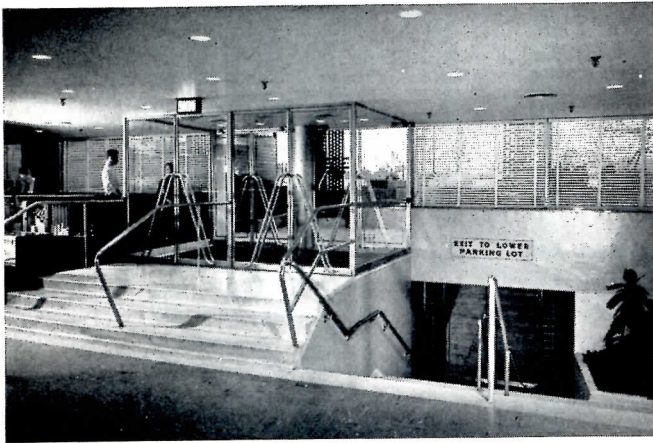
Store lighting schemes today are varied and ingenious; few designers agree on methods. However, there is a recognizable trend toward reducing the insistent patterns of directional lighting. Fully recessed circular and square fixtures accomplish this successfully. When rectilinear fixtures are employed, many designers recess them above the finished ceiling to reduce their dominance and reduce the contrasting brightness between the darker ceiling and the light source. This requires careful coordination with mechanical lines above the suspended ceiling or additional space, which can add expensive cubage to the building.

Color-corrective lighting is wanted by most store operators; they have accepted the cost of combining fluorescent and incandescent sources in the same or adjoining fixtures. Also to be considered are the increased yearly cost of electricity and the cost of the additional load on the air conditioning system due to extensive use of incandescent lamps which emit more heat than fluorescent. Yet, though fluorescent lamps are economical, they are not now available in fully color-corrected types. Many architects, feeling that incandescent general lighting is the only means of providing flattering illumination of merchandise, are using it entirely for general lighting, with a minimum of fluorescent in show cases and baths of light on back walls.

Medium-level general lighting, combined with a few small departmental areas of high intensity where it is appropriate to the merchandise, is increasing. This helps to make the store interior more interesting in design and produces a desirable over-all economy. Strong spotlighting from hidden sources, so essential to good store illumination, requires careful planning of fixture layouts at the earliest stage of design of the building. The suspended, dry, acoustic ceiling has come into use as its flexibility and compatibility with changing lighting needs, its low first cost and other virtues, have become apparent.

Fixture Design

Recently completed stores are being evaluated on the quantity of self-selection fixturing they have used. These methods make it easy, through fixture design, for the customer to appraise, compare and select the exact size and pattern wanted, and to help complete the sale with a minimum of sales clerk assistance. There are as many opinions on the desirability of these various methods as there are store operators. There is nothing new about the technique. It dates back to the earliest market place or bazaar and was widely re-introduced by our most famous variety store operator at the turn of the century. The only new aspect is to make it graceful and acceptable to the department store customer who is used to full sales clerk assistance. It does require, however a re-study of the capacity, requirements and distribution of fixtures as well as proper use of signs, without which self-selection is ineffective. These in turn have affected the general appearance of the individual fixtures and can immeasurably affect the total appearance of the store. After some relatively timid introductions



Julius Shulman



Julius Shulman

of self-selection into new stores, we are beginning to see some violent swings in both directions, from wide general use in "high-volume" stores, to complete absence in the "prestige" store.

It is fortunate that the advantages of utmost flexibility and orderliness of merchandise display in fixtures have long been recognized by store architects. It takes a skillful designer to overcome the tendency to an over-mechanized appearance and yet to retain the efficiency and flexibility that are essential.

The influence of good architectural design, which employs structural materials to their full strength and expresses them frankly wherever possible, is being logically applied to fixture design and has an enormous effect on the general appearance of the store interior. Natural wood has been recognized as a precious material to be used in moderation and in sharp contrast with large areas of solid colors. Plastic laminates, which are more durable than natural wood for wearing surfaces and permit the use of light colors and subtle textures, have also strongly affected the design of fixtures.

Air conditioning and dust filtering devices now in almost universal use in retail stores have reduced the need for glass protection of even that merchandise which is normally accessible to the customer, and has simplified the details of fixturing, permitting more continuity of design and lightness of sections.

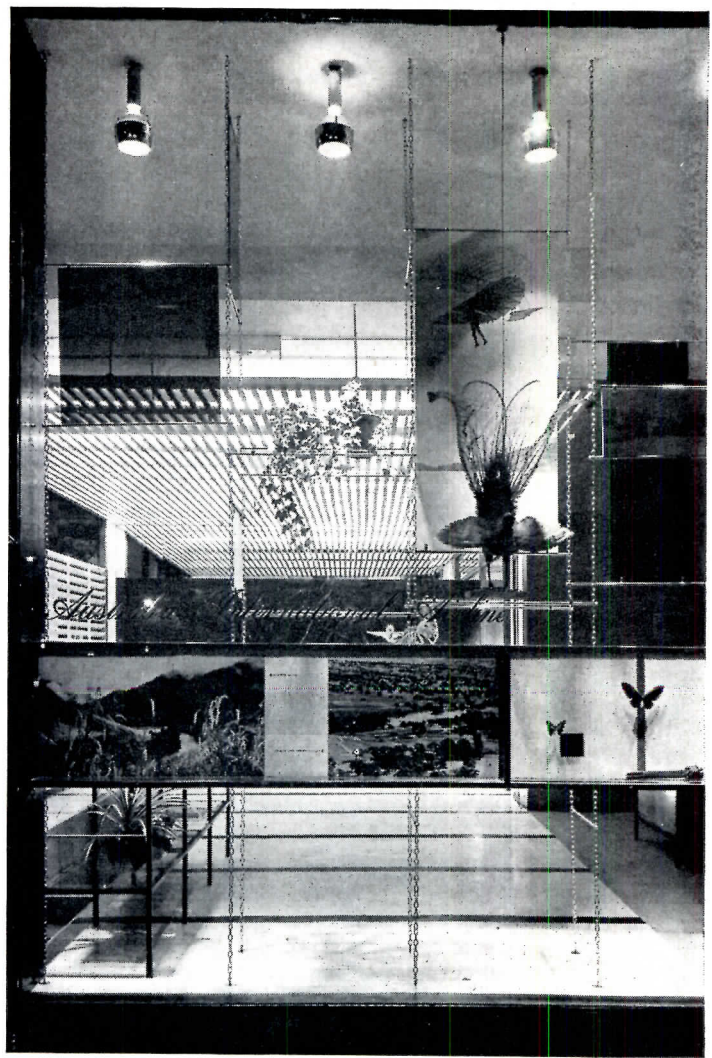
Character and Design Quality

This has become a matter of concern for the store executives as well as for architects. There is a strong wish to express the prestige and merchandising philosophy of the management and the nature of the community in the architecture of both exterior and interior.

Informality is the keynote of suburban store design, with a conscious attempt to express the difference between building for the casual living habits of the car-driving suburbanite and building for the city store where the only customers arriving by car are the chauffeur-driven "carriage trade." Landscaped areas are being used to give relief from the inevitable sea of asphalt resulting from the necessary parking requirement, and stores on restricted plots which have sacrificed all green areas to parking suffer badly in comparison. When the site permits, a small garden area for quiet relaxation will be deeply appreciated by the footsore shopper.

Interior merchandising departments should each be identified as separate entities, but at the same time should be in harmony with adjacent departments. Variety and change of pace can be obtained by judicious use of color, texture and materials.

In all these matters the architect has an important function. While his skill is no substitute for sound merchandising policy, the alert store operator today recognizes the value of the architect's contribution, of his resolution of the problems implicit in mercantile philosophy, operating policy, and the owner's desire for a totally successful establishment.



Alfred Cranknell

SUBURBAN BRANCH DEPARTMENT STORES: Lighting



Julius Shulman

Far left, decorative downlights and slatted wood ceiling, Qantas Imperial Airways office, London, England; James Cubitt and Partners, Archts. Left, top, Lightrend Shop, Los Angeles, Calif., Pereira & Luckman, Archts., center, Barton's candy shop, New York, N. Y., Victor Gruen, Archt. Immediately below, downlights, Wilson's Gift Shop, Statler Hotel, Los Angeles, Holabird



Julius Shulman



Julius Shulman

& Root & Burgee, Archts. Bottom row, left, fluorescent fixtures, appliance department, May Co. Wilshire, Calif., A. C. Martin Associates, Archts.; center, circular covers and incandescent downlights, French, Shriner & Urner Shoe Store, New York, N. Y., Olindo Grossi, Archt. Right, lighted clothing display, Fedway Stores, Wichita, Kans., Meyer, Katzman, Archt.



Robert Damora

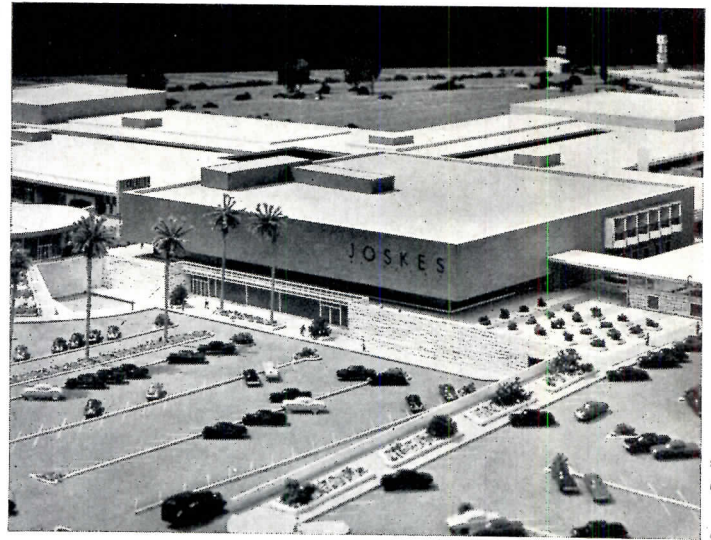


Ben Schnell



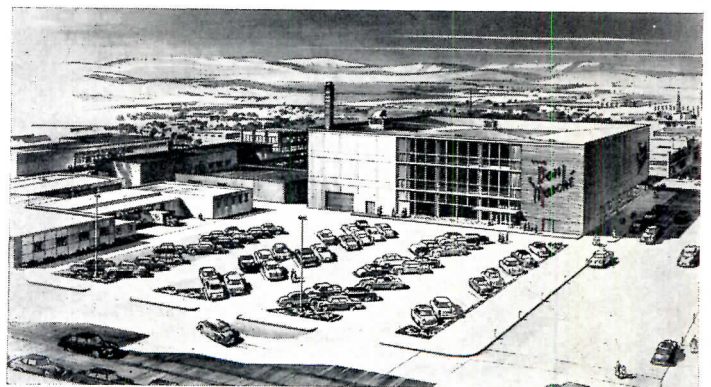
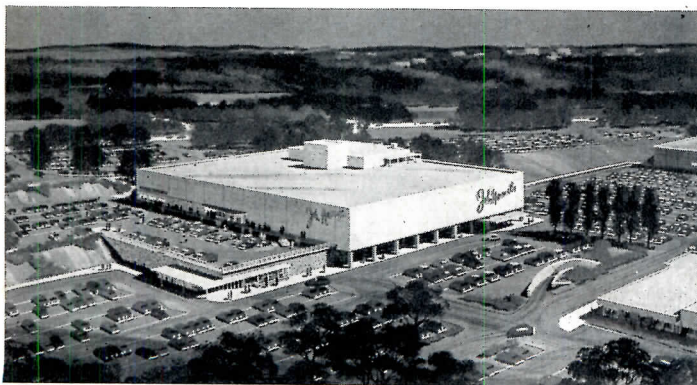


The branch department store of the immediate future exhibits few fundamental differences from its predecessors. The pattern is strongly established, so strongly that its effects are apparent in the very few downtown stores of recent construction, such as the new Macy's in



Roger Dudley

Kansas City, Mo. (Daniel Schwartzman, Kivett & Meyers, Gruen & Krummeck, Archts.) Perhaps, as in Joske's store in Gulfgate Shopping City, Houston, Texas (John Graham & Co., Architects & Engineers), several levels may be used for parking and for access directly to selling floors; however, this, too, has been done before. Graham also designed the Stix, Baer & Fuller store at Richmond Heights, St. Louis County, Mo., which employs brilliant color and a delicately framed entrance motif to relieve the otherwise severely economical exterior; yet its shape is no less austere than the Altman White Plains, N. Y. store, top right (Kahn & Jacobs, Archts.) Bottom row, left to right: John Wanamaker Westchester, N. Y., is being built on 15 acres of the large Cross County Shopping Center, Yonkers, N. Y., will have multi-level parking (Lathrop



Douglass, Archt.); Bon Marché Store, Eugene, Ore. (another by John Graham) is being built for \$7.13 per sq ft including general contract, mechanical, electrical and sprinkler systems, elevators and escalators. At right are two views of J. W. Robinson's, Beverly Hills, Calif.; a bronze and brass fountain by Bernard Rosenthal in sunken garden, and Wilshire Blvd. entrance (Pereira & Luckman, Charles O. Matcham, Archts.)

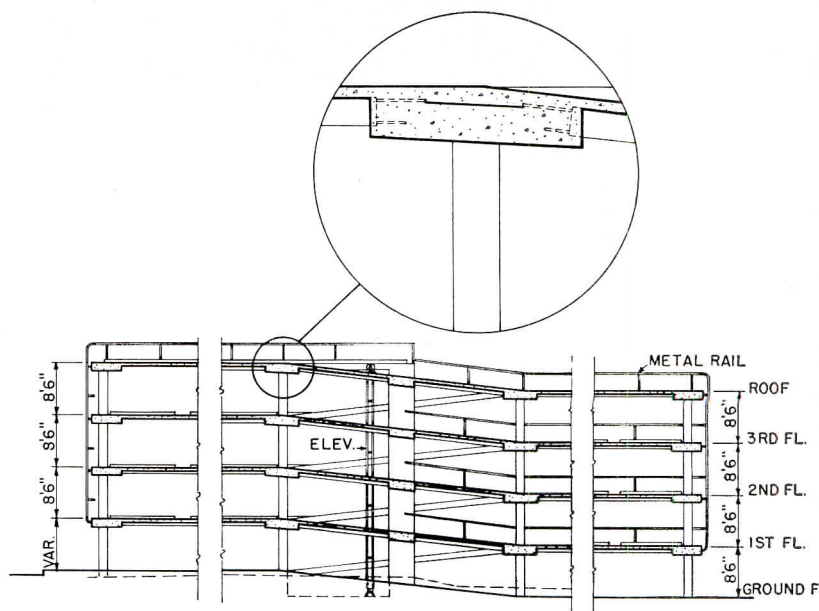
SUBURBAN BRANCH DEPARTMENT STORES



Merrc Neathof



ultran



Precast joist-slabs — they make a quick floor

Precast concrete joist-slabs are shown on the facing page for a small portion of a typical floor. The rest of the plan—of the ground floor—indicates spacing of columns. Precast joist-slabs are not used on the ground floor. First-floor offices are under ramp on the ground floor; man-lift elevator rises between ramps. Cross section above illustrates how the split levels are put to advantage for ramps. Magnified section shows 2-in. projection of precast joist-slabs into beam

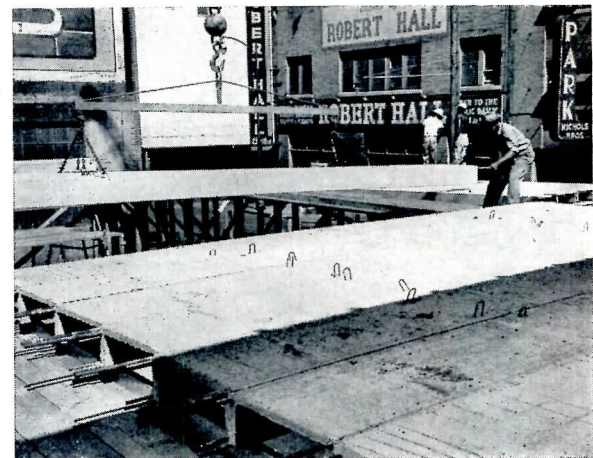
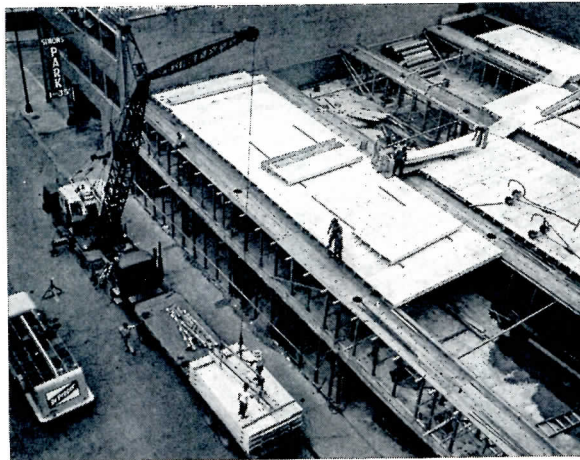
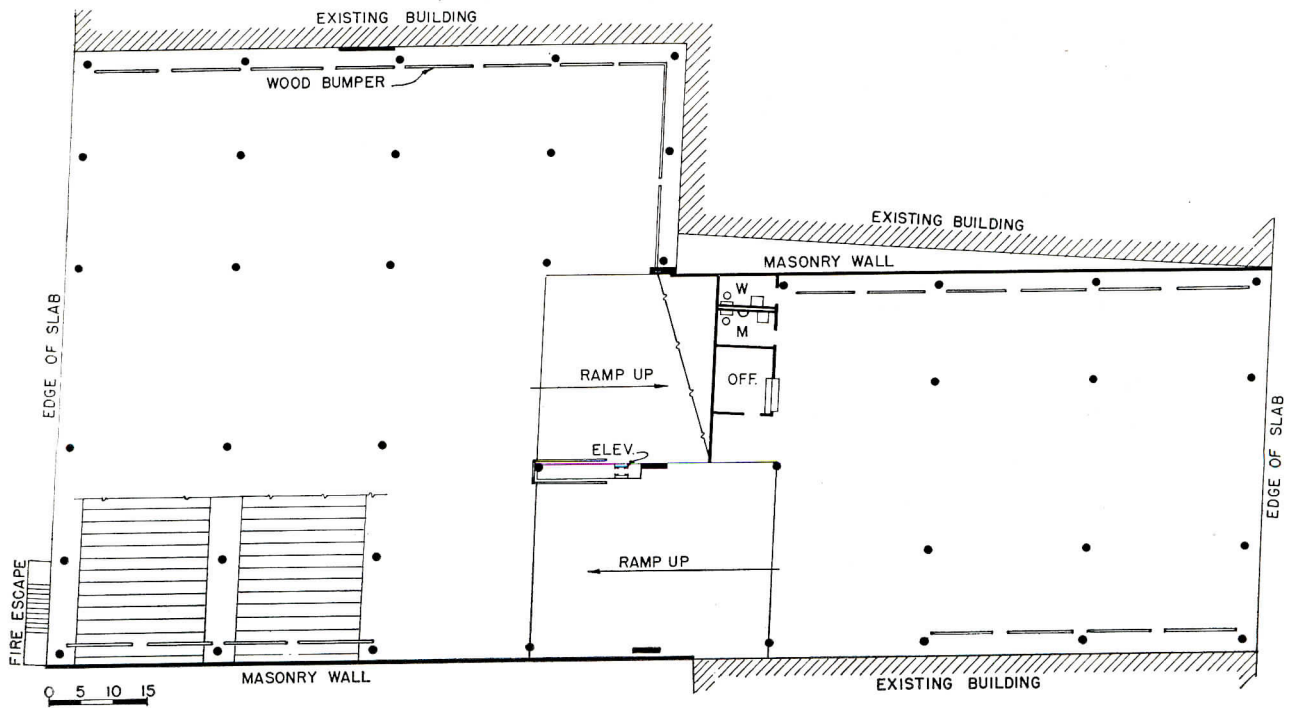
PARKING GARAGE DESIGNED FOR FAST, LOW-COST CONSTRUCTION

Jacob E. Anderson, Architect
 John A. Murlin, Structural Engineer
 James Stewart Company, Contractors



WHETHER or not an off-street parking garage pays off as a private venture depends largely — disregarding land cost — on how inexpensive the construction can be kept. A successful effort in this direction was this parking garage in Dallas, Texas, which was built primarily of precast concrete floor units. Once the foundation was in, the garage proper was put up in only 27 days — some sort

View into ramp between two levels in the completed garage. Bottom of the precast joist-slabs can be seen extending into the beams. Note the wiring for electrical fixtures



Prenumbered joist-slabs are hoisted and placed two at a time

of a record for speed, says the structural engineer.

Construction costs were cut by three simple time- and money-saving methods:

1. Precast, lightweight concrete floor units combining joists and slabs trucked to the site and hoisted by crane.
2. Lightweight concrete beams, poured into formwork built of standard-size lumber.
3. Lightweight concrete columns, poured into tubular fiber forms.

Since the main part of the open-construction garage is ramps and floor, the use of long-span precast concrete joist-slab units accounted for the principal

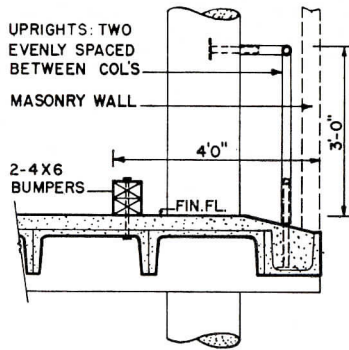
savings. The prenumbered lightweight units, only 20 psf, were trucked to the site and hoisted two at a time in the exact order in which they were to be positioned on each floor.

In order that a nominal 20-ft-long concrete joist could be used, 5-ft 3-in.-wide beams were spaced a distance of 20 ft between sides. Each 20-ft precast joist-slab, actually 20 ft 4 in. long by 9 in. deep, extends 2 in. at each end into the supporting beam, tying the floor structure together.

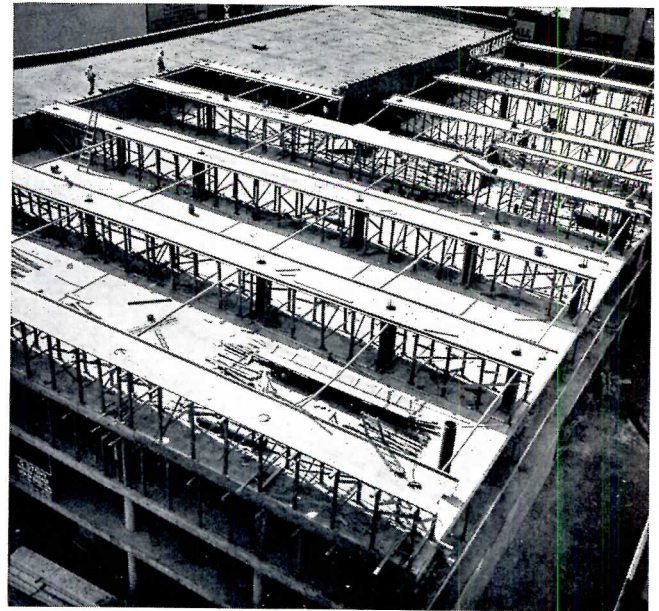
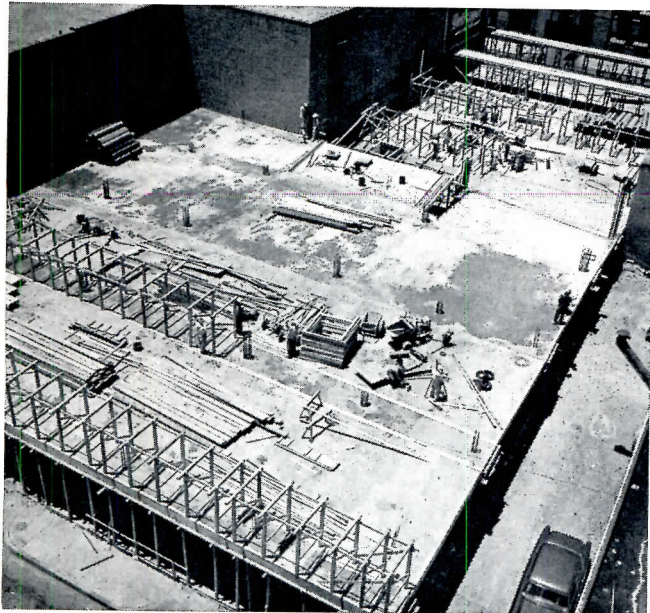
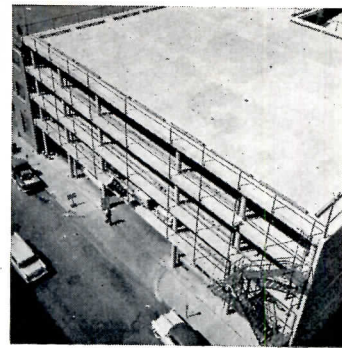
Beams of lightweight concrete were poured into formwork of standard-dimension lumber, thus eliminating time-

consuming on-site carpentry. The depth of the wide, flat beams was determined from the worst span condition, and that depth was maintained throughout the building. Dimensioned lumber was brought to the site and the formwork erected across the width of the garage on each floor. Beam lumber was disassembled and re-used on alternate floors. Finished beams leave a minimum clearance of 7 ft 2 $\frac{3}{8}$ in.

All columns, except the three supporting the center beam in the ramp, were poured into round beam fiber tubes, which were dropped over vertical and spiraled reinforcing steel rods. Holes to receive



Detail from upper right corner of garage shows steel railing, wooden bumper as well as cross section of concrete joist-slabs



Standard-size lumber cuts form costs

Standard-size lumber being assembled for beam formwork on second level. Fiber tubes are piled against existing building ready for insertion. Ramp to lower section of third level is being built

Lumber that was used for beams on second level is re-used for beams on fourth level. Most column tubes have been dropped over reinforcing steel rods and beam formwork is ready for joists

these tubes were precut in the beam formwork. The three columns supporting the center beam of the ramp are 48 in. wide by 14 in. deep to support the extra load of the ramp.

The concrete pour was the last step on each floor after the framework of lumber, precast joist-slabs, and fiber tubes was positioned. The lightweight concrete used for beams, columns and topping was poured monolithically. Approximately 1265 yards of lightweight concrete were used in the entire superstructure, covering 64,000 sq ft of floor area. Six ounces of a vinsol resin air entraining agent, plus 1/2 lb of a retarding agent were used per sack of cement. The weight of the reinforcing steel, including the wire mesh in the topping, was less than 1 1/2 psf of floor area.

Some juggling was necessary in order to lay out the garage for the most efficient use for parking cars, and at the

same time to satisfy the demands of the structural components. Extending through a complete block between two existing buildings, the garage was planned in two rectangular sections: the larger 100 ft by 96 ft 5 3/4 in., and the smaller 62 ft by 96 ft 9 7/8 in. The ramp at the mid-section, joining the two sections of the garage, turned to advantage the 3-ft difference in elevation between the two streets.

Construction of the lightweight concrete superstructure took only 27 days from completion of the foundation and ground floor slab. And the garage was open for business just two months and a few days from the time the first corner stake was driven into the foundation. Today, according to the designer, the operation is proving the worth of the planning: A simply designed, simply constructed off-street parking garage is paying for itself.

Fiber tubes mold columns

Close-up shows fiber tube being dropped over steel reinforcing rods. Lightweight concrete will be poured into form monolithically with beams and topping



BASIC ELEMENTS IN THE PLANNING OF ELECTRICAL SYSTEMS

By Felix B. Graham
Chief of Electrical Department
Syska & Hennessy, Inc.,
Consulting Engineers

ARTICLE 3: STORES—WITH EMPHASIS ON SHOPPING CENTERS

Future articles in this series will be on industrial buildings, schools and hospitals. Article 1 in February covered general principles, and Article 2 in March, office buildings.

THE ULTIMATE GOAL of a store's electrical system is to help provide an environment of sales stimulation, convenience and pleasantness. The components that make this possible, including lighting and all sorts of powered equipment are discussed in the text and listed in the check list, "Electrical Requirement for a Hypothetical Shopping Center," pp. 202-204.

Electrical System Characteristics

Here is a suggested order of importance of electrical system qualities:

1. Safety (minimum hazard to life and property);
2. Flexibility;
3. Reliability;
4. Appearance;
5. Ease of maintenance;
6. Low initial cost;
7. Durability;
8. Small space requirements;
9. Adherence to owner's standards.

By way of explanation—the top importance of safety, flexibility and reliability are obvious. Appearance—meaning lighting effects and concealment of equipment—rates near the head of the list. Durability is not so important, since store interiors are frequently changed. In chain stores, adherence to owner's standards is important, since these standards are established to fit particular needs.

Size of Electrical Loads

Electrical demand loads for stores vary greatly. A small apparel store may require only 3 watts per sq ft. Chain variety stores and department stores take about 7 w per sq ft. A men's wear store, a large drug store, and a jewelry store with elaborate lighting have loads of about 10 w per sq ft. (Air conditioning is not included in the above values.)

What Does the Owner Install?

There is no set pattern for how much electrical work is furnished by the owner. It varies not only with each shopping center, but even with different tenants

in the same center. Occasionally this has caused misunderstandings and bad feelings. This can be avoided if each lease states clearly where the owner's obligations end and the tenant's begin. In practice there are three basic stages of completeness:

Stage 1: Owner furnishes all electrical work for shopping center public spaces, and an electrical distribution system which terminates with feeder conductors brought into the store. The tenant installs everything inside.

Stage 2: The owner installs items in Stage 1 plus distribution panels and complete wiring of receptacle, ceiling and floor outlets. Since the location of these outlets is usually unknown when drawings are being done, the owner sets aside a sum of money for this work based on a predetermined schedule of a certain number of outlets per square foot of floor space. Unit prices are requested in the bid so that adjustments can be made if the tenant needs more or less outlets than the plans indicate. The tenant furnishes his own lighting fixtures and auxiliary systems.

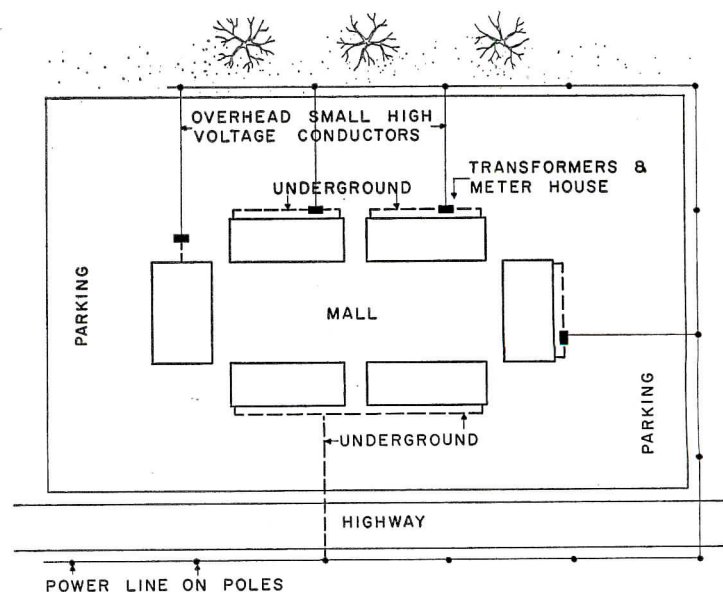
Stage 3: Stages 1 and 2 plus all other

electrical work. This is rarely done.

Pointers on Electrical Distribution

These systems take various forms, depending on the practices and rules of the power company. Here, however, are some basic recommendations that apply to all systems:

1. *Keep the low voltage runs short.* These lines require a lot of copper. It is more economical, and more reliable, to distribute a number of transformers over a large area, each serving a small section, than to try to concentrate voltage transformation in a few spots. The 277/480-v system described in the previous article, although offering economies in office and industrial buildings, does not appear well suited to stores. This is because a large amount of power at 120 v is required for the abundance of incandescent show window, flood and spot lighting, as well as all fluorescent lighting less than 8 ft above the floor. Much confusion and error could occur in initial and future installations with a mixing of 120 and 277 v. Also, the 277/480-v system probably would not save much

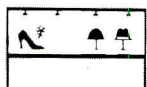


Economical compromise for outside wiring of a shopping center. Opposite highway, all wires are underground, for appearance. At sides and at rear (poles blend with trees) only high voltage conductors are overhead

POWERED EQUIPMENT
**DEPARTMENT
STORE**


Power outlets spaced high and low on columns • Floor outlets at selected counters • Audible paging system • Store opening and closing bells • Alarms: burglar, sprinkler, fire • Transportation: elevators, moving stairways, conveyors • Telephones: booths, telephones at selected counters.

NOTES: (1) Provide circuiting for maximum flexibility.
(2) Provide spare capacity for temporary high-intensity displays.

**WOMEN'S
AND MEN'S
APPAREL SHOPS**


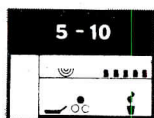
Power outlets in tailor shop.
Burglar alarm.

**HOME FURNISHINGS
STORE**


Floor outlets for lamps.
Alarms: burglar, sprinkler.

**APPLIANCE
STORE**


Power outlets for appliance demonstration.
Amplified antenna system for TV.
Burglar alarm.

**VARIETY
STORE**


Floor outlet for each sales counter • Multiple floor outlets for lamp sales
Soda fountain—see drug store • Sound system for music and announcements
Record players • Power for materials handling • Moving stairways
Alarms: burglar, sprinkler.

FOOD MARKET


Power outlets for: Cash registers • Check-out conveyors, bulk conveyors
Door openers • Refrigerated cases • Meat preparation • Coffee grinder
Soft drink machine
Sound system, for music, announcements • Burglar alarm.

DRUG STORE


Power outlets for: Food and drug refrigeration • Food preparation and
serving equipment • Dish washer • Cash register
Phone booths • Burglar alarm.

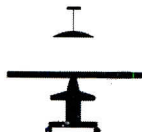
**BARBER SHOP—
BEAUTY SHOP**


Outlets
Barber shop: 3 receptacles on one circuit per chair; outlets for sun-lamp
and dryer.
Beauty shop: separate heavy-duty circuit for dryer.

RESTAURANT


Power outlets for each appliance (correct voltage, phase and capacity)
Infrared food warmers • Music distribution • Phone booth • Burglar alarm.
Separate circuit for cash register.

NOTES: (1) Heat-resistant exhaust hood wiring.
(2) Refrigeration power independent of master switch.
(3) Handy location for exhaust hood fan switch.

**PROFESSIONAL—
OFFICE BUILDING**


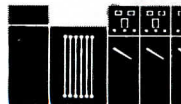
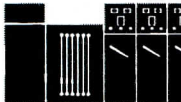
For basic requirements, see chart pages 206-207 March, 1954.

Loads to be added
For doctors: sterilizer, X-ray, diathermy, equipment for specialized medicine.
For dentists: dental chair, X-ray, sterilizer.
Loads to be subtracted
Heating, cooling, water circulation if provided by a central plant (shopping
center).

HYPOTHETICAL SHOPPING CENTER

LIGHTING

TYPES AND LOCATIONS	EFFECTS AND RECOMMENDATIONS
Lighting for circulation areas. Lighting for sales areas. Lighting for featured displays.	10 to 15 ft-c 40 to 60 ft-c 80 to 150 ft-c
General lighting. Concealed lighting (fluorescent) in racks, shelves, show cases and niches. Downlights (incandescent). Floods and spots. Mirror lighting.	Soft, warm for women's shops; soft, cool for men's shops. For color rendition. For highlights on selected displays. Well diffused, warm.
General lighting. Downlights. Valance lighting.	Indirect, incandescent, augmented by floor lamps to simulate home conditions. Highlights for interest, sparkle. Warm white for draperies.
General lighting. Floods and spots. Wall lighting.	High intensity, glare free. For use on feature displays. Cool light. Illumination of 10 ft-c
General lighting. Floods and spots. Jewelry counter lighting. Stock room lighting.	High intensity, special emphasis on shelves. Deluxe cool white fluorescent best. Deluxe warm white fluorescent best.
General lighting. Perimeter lighting. Concealed lighting in refrigerated cases. Baked goods lighting. Downlights over fruits and vegetables.	General lighting. Continuous strips concealed in wall cabinets. Spots on featured displays. Floor outlets for illuminated section signs. Lighting for food preparation and clean-up.
General lighting.	High intensity, cool white illumination; large area, low brightness, semi-indirect luminaries to avoid uncomfortable glare.
General lighting. Valance lighting.	High intensity, warm white illumination; luminaries similar to barber shop.
General lighting.	Low to medium intensity. Incandescent lighting suited for atmosphere; warm fluorescent lighting suited for high traffic. Avoid high intensity, glare, bright spots on diners.
Display lighting. Spotlights for planting areas. Kitchen and dishwashing area.	Adds life to green plants. Cool white fluorescent, recessed fixtures, with flat glass bottom and gaskets for easy cleaning.
Vapor-proof hood lights.	



ELECTRICAL REQUIREMENTS FOR A HYPOTHETICAL SHOPPING CENTER

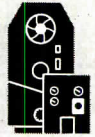
POWERED EQUIPMENT

**LIGHTING—TYPES AND LOCATIONS
EFFECTS AND RECOMMENDATIONS**

**BOILER AND
REFRIGERATION
PLANT**

Cooling, heating, water circulation.
Equipment control and alarms of equipment.

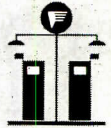
(For complete list refer to page 206, March, 1954)



**SERVICE
STATION**

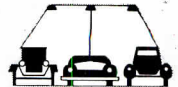
Outside service area: gasoline pumps, car entrance bell.
Inside service area: garage door operators, fume exhaust fan, outlets for portable equipment, air compressor, battery charger.
General: vending machines, unit heaters, phone booths.
NOTES: (1) Waterproof wiring for car washing.
(2) Observe code requirements for hazardous locations.

Pump island lighting.
Explosion-proof pit lights.
Signs.



**PARKING
AREA
LIGHTING**

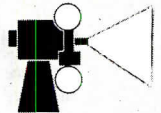
Floods on towers directed toward buildings.
Street lighting standards: Incandescent, fluorescent or color-corrected mercury vapor.



THEATER

Projection booth: projection machines, film rewinding machines, amplifiers, TV projection.
Auditorium: hearing aid system.
Stage: loudspeakers, curtain operators.
Lobby: vending machines, phone booths.
Lounge: music system, coffee maker, clock.
General: electric heater for ticket booth; vacuum cleaner system; telephones in ticket booth, office, projection room; fire alarm.
NOTES: (1) Provide for relamping in high ceilings.
(2) Observe code requirements in projection room.

Dimmer controlled house lighting.
Aisle and step lights. • Stage lighting.
Clean-up lighting. • Signs. • Exit lights.
Emergency lighting.



**MALL AND
WALKWAYS
LIGHTING**

Incandescent, weather resistant, rust-proof; accurately aligned. Sufficient illumination for circulation, but not too much to detract from show windows.



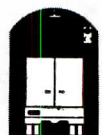
**CENTRAL
FEATURE**

Water fountain, sculpture, etc.:
dramatic, colorful illumination.

**DELIVERY
TUNNEL**

Traffic signals at entrance and exit.
Power for ventilation.
Carbon monoxide alarm.

Illumination of 5 to 10 ft-c throughout.
100 ft-c at entrance decreasing toward inside.



**PUBLIC
TOILETS**

Outlets for hand dryers.
Toilet germicidal lamps.
Air germicidal lamps.

Glass bottom fluorescent recessed in ceiling over sinks and stalls. Good lighting promotes cleanliness.

because of the additional transformers required to supply 120 v.

2. *Keep outside wiring underground.* Nothing makes a more shabby, haphazard looking shopping center than a flock of utility poles with their cross-arms, insulators and dangling wires. For a small cost, much of this could be eliminated by placing wiring underground.

3. *Keep the system expandible.* Oversize the conduits feeding each store so that unforeseen increases in load can be supplied merely by increasing wire sizes. Provide empty spare conduits for future stores.

Lighting

Show Windows. Attraction through lighting, except for signs, begins with show windows. A problem here is the visual barriers caused by reflections from sky, ground and street objects. These barriers can be overcome partially by overhangs to keep out direct sun. Lighting aids if it is at a very high illumination intensity and backgrounds are kept light in color.

Appearance of Stores in Groups. It is common practice in high-traffic stores to use fluorescent fixtures with bare lamps exposed. When stores are grouped closely, the brightness of these lamps may cause an annoying contrast between stores. The eyes of passersby are drawn to the apparent brilliance of a mass of bare lamps, and stores with shielded or concealed luminaires appear relatively dark.

This problem should be considered in the layout of stores for a shopping center. In addition, the owner of a shopping center may want to incorporate certain brightness limitations in the leases, with the idea of achieving a more coordinated appearance. The same applies to signs.

General Interior Lighting. On the inside of the store, high brightness on relatively small displays gains attention. A shopper will be drawn to a display with 200 ft-c lighting placed near an aisle with 20 ft-c of general lighting.

There are many factors which influence the choice of the type, intensity and color of a lighting system. To be considered are the size, color, form, texture and finish of merchandise.

In general, uniform, fluorescent lighting will result in a flat, monotonous appearance, while direct downlighting alone will create too much brightness and shadow. But the two together augmented by show case, valance and cove lighting will give good color and sparkle.

The trend away from even, overall illumination has been demonstrated in the new Hutzler Brothers department store near Baltimore, designed by Ketchum, Giná and Sharp. Morris Ketchum says, "Why supply a high level of general illumination and then build up still higher levels on displays of merchandise to make them stand out?" In this store there are 60 ft-c directly on the merchandise, and the aisle receives 8 to 10 ft-c of spilled light. There is also niche, cove and perimeter lighting.

Luminous and louverall (egg-crate) ceilings have become very popular, but if used indiscriminately with large, unbroken expanses of the same material, they tend to become monotonous, and even hard on the eyes. Such areas should be broken up into large elements with solid ceiling separating them.

Luminous elements of different corrugation sizes and louverall fixtures with different louver sizes can be mixed to add interest.

In order to avoid reflections of light sources in show cases or counter tops,

Parking areas should have from 1 to 2 ft-c. Lighting should not be aimed from roofs of low buildings at the parking area, as this will blind shoppers walking toward the stores. Poles or towers 40- to 60-ft high with 750- to 1000-watt floodlights are effective and inexpensive. If individual street lighting standards are desired, for appearance, more will be required than of poles, and cost will probably be higher.

Light poles can be connected by neoprene-jacketed cable, without conduit, buried under the parking lot. The inherently long cable runs result in high voltage drops, but this is not objectionable if kept within 10 per cent. Lamp life will be lengthened, although light output is reduced.

For example, with a 120-v supply voltage and a 10 per cent drop, light output will be cut 25 per cent, but lamp life will be increased 250 per cent.

Freight Tunnel Lighting. Where freight is delivered to stores above ground, bracket lights above or adjacent to delivery doors are sufficient.



Uniform general lighting combined with valance and shelf-rack lighting prevents a flat, monotonous appearance. Photo, left, shows effect with overhead lights off; photo, right, all lights on. Lerner's, New York City. Cordes, Bartos and Minhos, Architects

fixtures should not be located directly over them.

When bare lamp fixtures are used, as in supermarkets, the lighting quality is better if fixtures are suspended rather than surface mounted (less brightness and shadow).

Outside Lighting of Shopping Centers.

Walkway lighting should aid in unifying the shopping center. It should be sufficient for safety and comfort, but not too much to detract from show windows.

In a shopping center with a truck tunnel, lights will be operating almost continuously, so fluorescent units are recommended over incandescent for their lower power consumption.

If the tunnel is used at daytime, illumination at the entrance should be 100 ft-c or more, decreasing to normal inside intensity. If used at nighttime, intensity at the tunnel entrance should be reduced, or else the area outside the entrance should be intensely lighted to make the transition gradual.

PORCELAIN PANELS AND LIGHTWEIGHT CURTAIN WALLS EASE BUILDING LOAD

Texas Company Office Building
New Orleans, Louisiana

Claude E. Hooton, Architect

D. M. Cornblatt and Associates, Consulting
Structural Engineers

Haase Construction Company, Inc., General
Contractors



Frank Lotz Miller

AN 85- BY 114-FT SITE of soggy New Orleans soil posed a difficult problem to the planners of the new Texas Company office building. Since the site was so small and narrow, a tall building had to be built to meet space requirements, adding to the difficulty. Lightening of the load on the foundation was accomplished by enclosing the building with curtain walls of aluminum and glass, and by facing with porcelain enamel panels the vertical section of the 17-story building which displays the Texaco sign.

The lightweight curtain walls are almost entirely of glass, with opaque spandrels, in some of which are aluminum air-intake louvers. Special windows for the air-conditioned building pivot vertically between aluminum mullions.

Aluminum Sunshades

On exposures subject to extensive periods of direct sunlight, the aluminum window mullions project to form 1¼-ft-deep fins. These fins reduce glare, while affording maximum light, and decrease the heat load, affecting savings in air conditioning. The windows are specially designed, vertically pivoted sash, which permit cleaning from inside the building.

Porcelain Enamel Panels

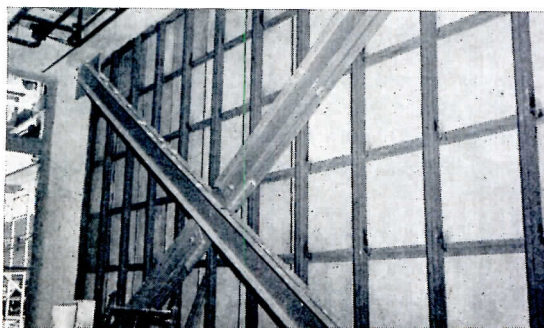
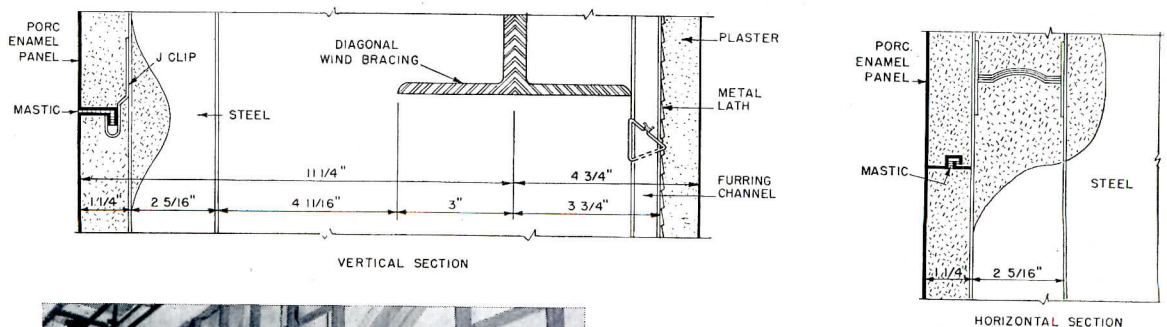
The 22-ft-wide vertical sweep of green porcelain enamel panels displays the trade name "Texaco" at the top in 15½-ft letters of red plastic. The Canal St. side of the curtain wall, is outlined in porcelain enamel, and the penthouse is also faced with the panels.

As shown in section, the panels are secured very simply to special J-type furring strips which are attached to light-gauge steel studs. A mastic caulk seals the self-flashing panels together for watertightness.

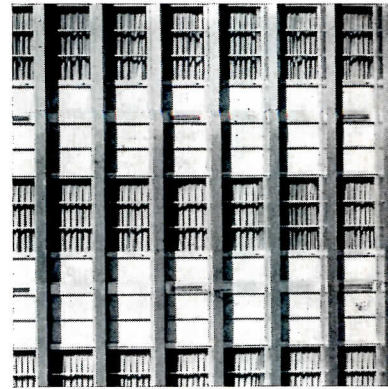
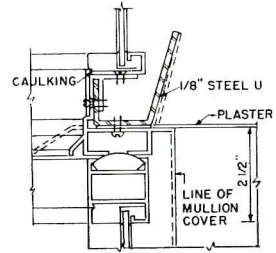
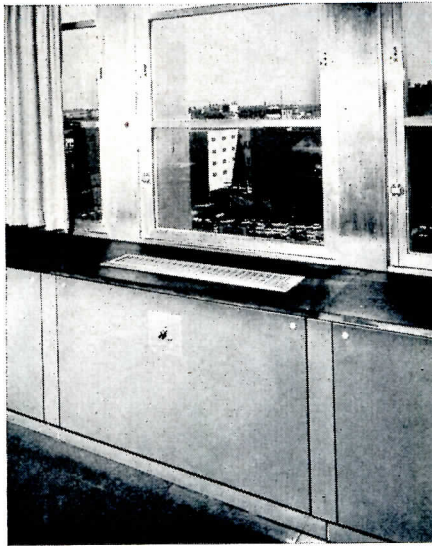
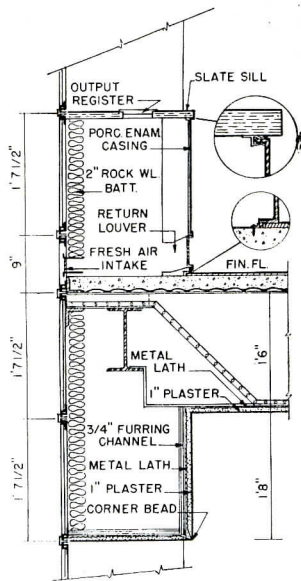
As part of the all-welded steel framing, the diagonal wind bracing forms trusses at critical points of loading. At the narrow end walls, where the wind bracing is located, brick and concrete back-up form the curtain walls.

Heating and Air Conditioning

Porcelain enamel panels are used in the interior to encase the individual air conditioning units which are located beneath the window sills. As shown in the sectional drawing, fresh air is supplied to each unit through intake louvers



Porcelain enamel panels are held by special J-type furring strips which are attached to light-gauge steel studs. Panel joints are caulked with mastic. Studs and furring strips holding panels are shown behind diagonal wind bracing in photo at left



Porcelain enamel is employed also for covers of the individual window air conditioning units. Fresh air from aluminum intakes (photo right) is heated or cooled in window unit, then discharged through grille in slate sill. Small aluminum baffle at each window level (small sketch) catches any water seepage through casement and channels it into mullion

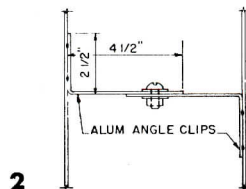
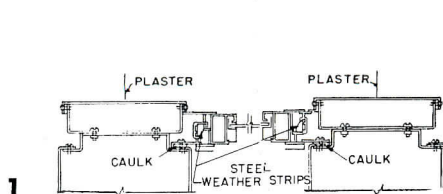
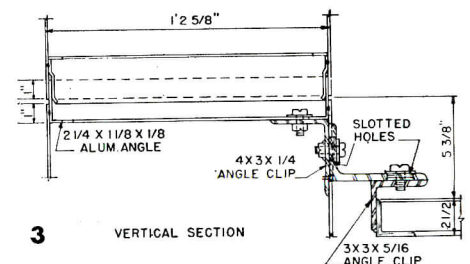
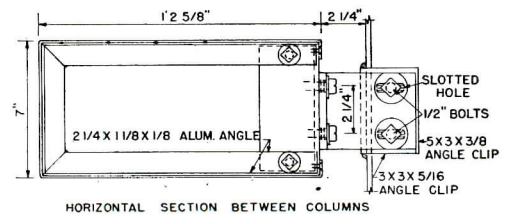
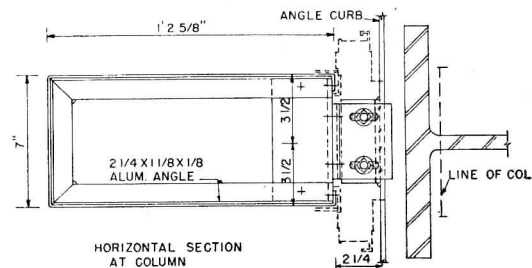
mounted on the exterior face of the building. Chilled water is distributed to the unit from two 200-ton refrigerating machines, which may be operated together or independently, and hot water is produced by two gas-fired, low-pressure steam boilers.

The cooled or heated air is discharged through grilles installed in the slate sills. Air temperatures from the air-conditioning units are controlled automatically by a pneumatic control system. Each building exposure is considered a zone, and the temperature of the water supplied to each zone is varied with changing exposure and heat load. In addition to separate zone control, each of the fan-coil window units has a local three-speed switch which permits some individual variance.

Basementless Foundation

Even with the load savings resulting from the use of lightweight aluminum and porcelain enamel, a high-capacity foundation was a requirement. Cast-in-place concrete pilings were driven to a depth of 85 ft through two secondary sand strata and into a third extremely dense sand strata offering the required bearing capacity. Each piling was designed to withstand a 50-ton loading. Groups of pilings are concentrated in areas of heaviest anticipated load.

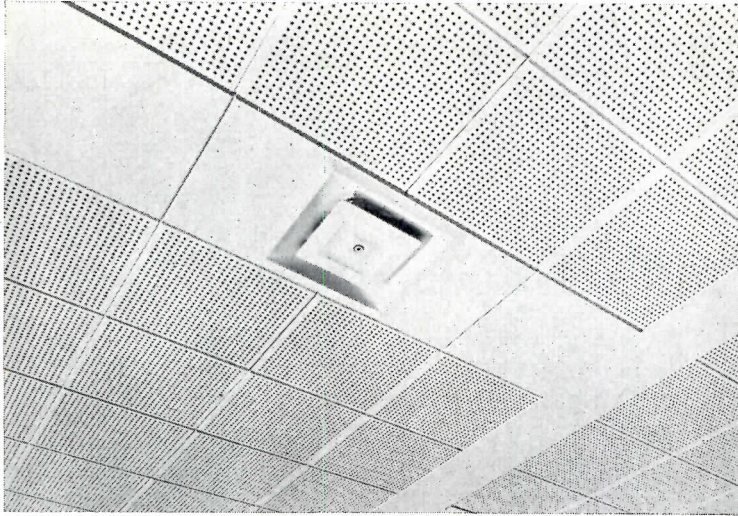
The building proper, structurally a one-piece welded steel frame, sits on top of the basementless foundation. Its combined engineering features add up to a sturdy structure that is unaffected by frequent shifts of the ground.



(1) Windows pivot vertically about centers for washing. Stainless steel weather stripping is provided between sash and casement. (2) An aluminum mullion stiffener, set into the aluminum fin diagonally at a 45° angle, is shown in vertical section. (3) The two top drawings show bolting of fins at a column and between columns, respectively.

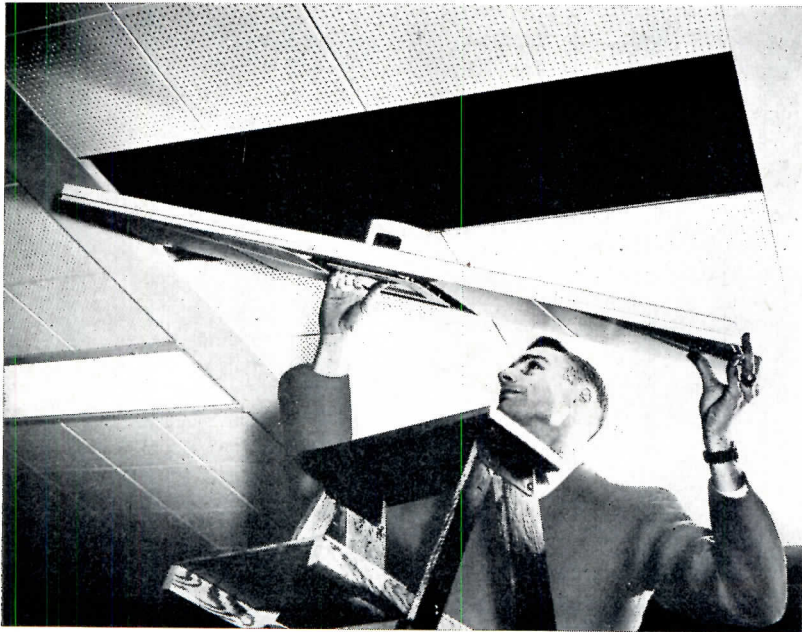
Note that slotted boltholes are provided for expansion at each floor level. Vertical expansion of fins is allowed for by inside attachments shown in bottom vertical section. An aluminum angle fits across a 1/4-in. break in the fin at each floor level and is wedged into aluminum clips on the inside wall of the fin

CEILING AIR DIFFUSER AID TO FLEXIBLE OFFICE DESIGN



BLENDING DESIGN

Diffuser panels are designed to blend with the ceiling pattern and are produced in the same sizes as ceiling tiles (12 by 24 and 12 by 48 in.). A simple tool can be inserted into the hole in the face of the panel and turned to adjust air flow through the damper. (Acousti-Line ceiling tiles by Celotex Corp.)

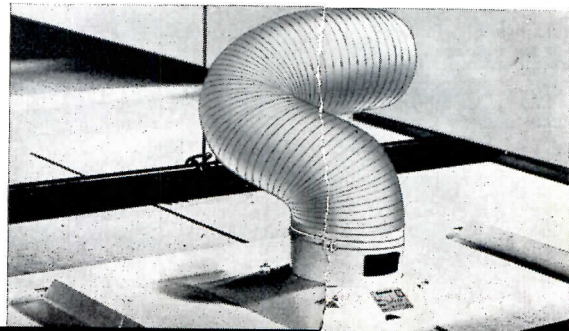


EASY TO INSTALL

The lightweight panels are easy to install and to remove. Ducts and tubing are instantly accessible

FLEXIBLE TUBING

"Inside story" shows maneuverability of flexible, pleated tubing above ceiling level



Movability is the keynote of a new air diffuser designed by Connor Engineering Corporation. Connected by special metal and plastic tubing to the air supply duct, the lightweight diffusers form an integral part of the ceiling.

Engineered especially to fill the needs of continually changing office locations in buildings with movable wall partitions, the diffusers can be moved quickly and easily to the different ceiling locations required for the new office areas. Resting securely on a suspended framework of metal panels and channels, they can be pushed up and out by regular office help. Not only is accessibility an advantage of this diffuser as regards ease of relocation; lower maintenance costs are an important result.

The flexible pleated tubing can be turned, lengthened or shortened without materially affecting its uniform diameter. The tubing does not add to noise level, nor does it support combustion.

Designed to blend with ceiling patterns, the diffuser has a single orifice and a self-contained, concealed damper. The damper can be controlled from the floor by means of a simple tool, very much like a window pole, which fits into the face of the panel. Thus, not only can the diffuser location be varied, but also the amount of warm or cool air emitted in that location. Regardless of the amount of air discharged, however, the diffusion pattern, according to the manufacturer, remains constant—an important factor with variable cooling loads.

Available in 4-, 5- and 6-in. neck sizes, the diffuser can be used for both conventional and high-pressure types of air conditioning. Capacities are from 75 to 175 cfm. Connor Engineering Corp., Danbury, Conn.

(More products on page 218)

NORTH AMERICAN BUILDING STONES — 7

Presented through the cooperation of the International Cut Stone Contractors' and Quarrymen's Association

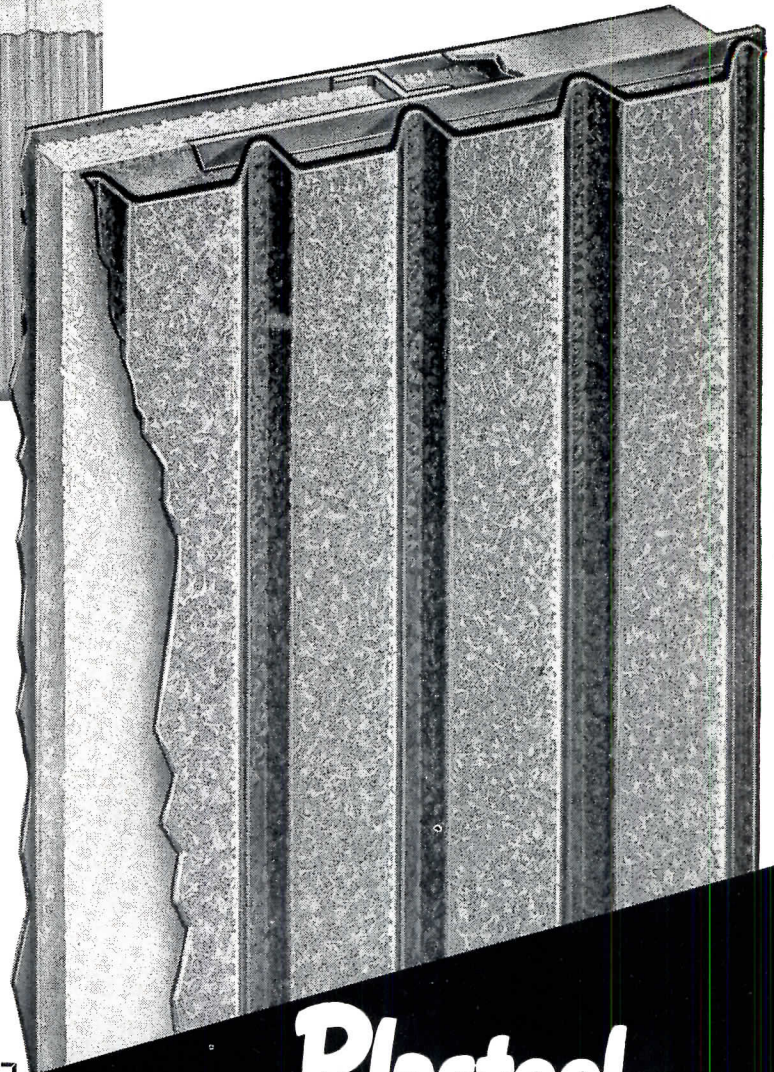
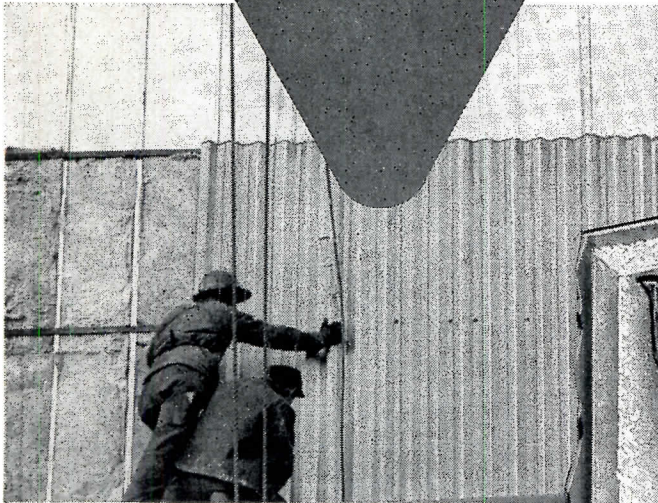
INDEX OF 62 BUILDING STONES—Sheet 2-B (Horizontal columns continued from sheet 2-A, page 229, April TSS)						
	PHYSICAL TESTS	STRENGTH	WEIGHT	FURNISHED AS	SURFACE COVERAGE	OTHER FACTS
9	Absorption of Moisture 2.10% Freezing and thawing — 100%	Crushing Strength — load parallel to rift — 20,400 lbs per sq in. Load perpendicular to rift — 16,800 lbs per sq in.	170 lbs per cu ft	Splitface. Heights 2''-6'' Lengths 1'-4'	38 sq ft	
10	Absorption of Moisture — 4.4% in 25 hours	Crushing Strength — 4,553 lbs per sq in.	145 lbs per cu ft	Dimensional; Splitface.	100 sq ft in 2.3 tons Splitface	See also Veined Gray Rockrange, Rockwood
11	Tests Not Completed	Tests Not Completed	Tests Not Completed	Dimensional; Ledge stone; Flagging. Heights: 1''-8'' Lengths: 12''-48''	42 sq ft per ton	
12	Acid Resistant Moisture Resistance meets all requirements of the U. S. Bureau of Reclamation for facing storage reservoirs and dams. Tests Not Completed	Crushing Strength— 64,000 lbs per sq in.	13½ lbs per sq ft—1 in. thick	Dimensional; Splitface; Ledge stone. All Heights and Lengths (1'-3'; 10'-12' in dimensional stone)	40 sq ft per ton	Flagstones from 60 to 80 sq ft of surface area are obtained from this quarry.
13	Tests Not Completed	Tests Not Completed	140 lbs per cu ft	Dimensional; Splitface; Ledge. Height: 1''-12'' Length: 1'-14' random	Flagstone (sheets) 120 sq ft per ton, Splitface 4'' strips 40 sq ft per ton	

This building is
LIFE
conditioned

with

Plasteel

PROTECTED METAL
INSULATED PANELS

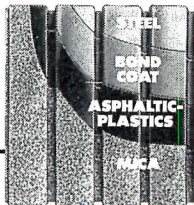


No other insulated panel can give you the protection and thermal properties of LIFE-conditioned Plasteel. Panels available in lengths up to 25 feet for field assembly—with interior wall-sheets of steel, a layer of glass fibre insulation and exterior wall of protected metal with Mica coating. Plasteel cuts heat loss, prevents harmful effects from condensation and effectively insulates against outside heat in summer. Result: closer temperature and humidity control.

★ ROOFING ★ SIDING ★ ROOF DECK

Tested and classified by
Factory Mutual Laboratories
and Underwriters' Laboratories.
See Sweet's File.

MICA makes
the difference.



PLASTEEL PRODUCTS
CORPORATION 5-54
WASHINGTON, PENNSYLVANIA

- Please send details on Insulated Panels.
 Please send new Engineer's Handbook.

Company Name _____

Attention of _____ Title _____

Address _____

City _____ State _____

Plasteel

PRODUCTS CORPORATION
Office and Plant WASHINGTON, PA.

Contact your nearest Plasteel representative before you specify your next Insulated Panels—Roof Deck—Roofing or Siding. Or, mail coupon for details.



Sales Offices in All
principal cities



NORTH AMERICAN BUILDING STONES—8

Presented through the cooperation of the International Cut Stone Contractors' and Quarrymen's Association

INDEX OF 62 BUILDING STONES—Sheet 3-A (Horizontal columns continued on sheet 3-B to be published in a later issue)																																											
NAME OF STONE	COMPANY NAME	QUARRY LOCATION	GEOLOGICAL DESIGNATION	TEXTURE	COLOR	CHEMICAL COMPOSITION																																					
14	Conco Lannon	Conco Building Products, Inc.	Lannon, Wis.	Dolomitic Limestone	Fine-grained	Ivory and Gray; Bed Face Color; Buff	<table border="0"> <tr> <td></td> <td><i>North</i></td> <td><i>South</i></td> <td><i>Deep</i></td> </tr> <tr> <td>Silicon Dioxide</td> <td>7.04</td> <td>5.06</td> <td>6.98</td> </tr> <tr> <td>Aluminum Oxide</td> <td>0.39</td> <td>0.34</td> <td>0.30</td> </tr> <tr> <td>Sodium Oxide</td> <td>0.19</td> <td>0.17</td> <td>0.15</td> </tr> <tr> <td>Potassium Oxide</td> <td>0.12</td> <td>0.14</td> <td>0.12</td> </tr> <tr> <td>Calcium Oxide</td> <td>28.58</td> <td>29.06</td> <td>28.72</td> </tr> <tr> <td>Magnesium Oxide</td> <td>19.29</td> <td>19.90</td> <td>19.35</td> </tr> <tr> <td>Iron Oxide</td> <td>0.52</td> <td>0.46</td> <td>0.44</td> </tr> <tr> <td>Carbon Dioxide</td> <td>43.54</td> <td>44.45</td> <td>43.60</td> </tr> </table>		<i>North</i>	<i>South</i>	<i>Deep</i>	Silicon Dioxide	7.04	5.06	6.98	Aluminum Oxide	0.39	0.34	0.30	Sodium Oxide	0.19	0.17	0.15	Potassium Oxide	0.12	0.14	0.12	Calcium Oxide	28.58	29.06	28.72	Magnesium Oxide	19.29	19.90	19.35	Iron Oxide	0.52	0.46	0.44	Carbon Dioxide	43.54	44.45	43.60
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15	Cordova Cream	Texas Quarries, Inc.	Austin, Tex.	Oolitic Limestone	Fine, close grain	Cream	<table border="0"> <tr> <td>Silica</td> <td>0.32%</td> </tr> <tr> <td>Iron and Aluminum Oxides</td> <td>0.38%</td> </tr> <tr> <td>Calcium Oxide</td> <td>55.88%</td> </tr> <tr> <td>Sulphuric Anhydride</td> <td>0.16%</td> </tr> <tr> <td>Loss of Ignition</td> <td>43.75%</td> </tr> </table>	Silica	0.32%	Iron and Aluminum Oxides	0.38%	Calcium Oxide	55.88%	Sulphuric Anhydride	0.16%	Loss of Ignition	43.75%																										
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16	Cordova Travertone	This is the transitional stone deposit between Cordova Cream and Cordova Shell and may be judged by the facts developed on Cream and Shell																																									
17	Cordova Shell				Shelly	Light Golden	<table border="0"> <tr> <td>Silica</td> <td>0.25%</td> </tr> <tr> <td>Iron and Aluminum Oxides</td> <td>0.42%</td> </tr> <tr> <td>Calcium Oxide</td> <td>56.08%</td> </tr> <tr> <td>Sulphuric Anhydride</td> <td>0.13%</td> </tr> <tr> <td>Loss of Ignition</td> <td>43.88%</td> </tr> </table>	Silica	0.25%	Iron and Aluminum Oxides	0.42%	Calcium Oxide	56.08%	Sulphuric Anhydride	0.13%	Loss of Ignition	43.88%																										
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NOTE: Pertinent figures are listed for three grain variations of Conco Lannon stone: North, South, Deep.

2 Miles of Stores Standardize on Janitrol Unit Heaters



Mr. Irving Berger (standing) and Mr. Gilbert Tilles, leaders in shopping center design and construction, check plans for new project.



Since 1946 Berger & Tilles have completed 12 shopping centers to serve Long Island residents. These projects total 220 stores ranging from super-markets to gift shops . . . if fronted on one highway, they would comprise two continuous miles of stores.

When asked about his preference for Janitrol gas-fired equipment, Mr. Berger stated, "Over a twelve year period renters and store operators have experienced trouble-free service, high heating efficiency and eliminated their maintenance problems."

Whether you plan to heat a store, warehouse, or industrial plant of any size or type, Janitrol Unit Heaters using any type gas including LP. can lower initial installation costs and assure your clients dependable performance.

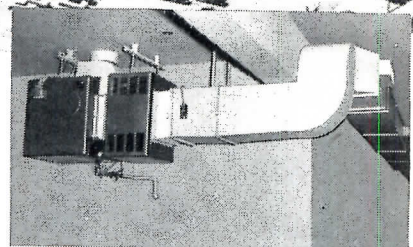
Write today for "Businessman's Blue Book for Better Heating" for information on unit heater performance and best installation methods.

Janitrol

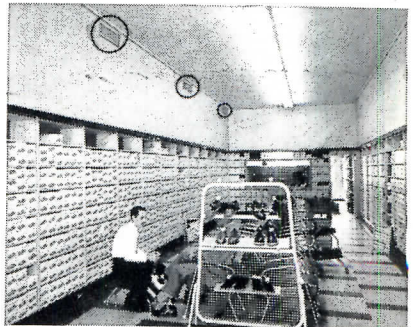
GAS-FIRED UNIT HEATERS

SURFACE COMBUSTION CORPORATION, TOLEDO, OHIO

Also makers of Surface Industrial Furnaces and Kathabar Humidity Conditioning



Blower type Janitrol unit designed for efficient heat distribution through duct system. Heating Eng. M. Prop. Htg. Conf. Metropolitan Sheet Metal Co., Elmhurst, L. I.



One of 25 stores in Cherrywood Shopping Center (shown in aerial photo) Wantagh, L. I. Warm air delivery registers are circled in photo above.

OFFICE LITERATURE

LIGHTING FOR SHOPPING CENTERS

Lighting Shopping Centers is a comprehensive guide containing information on lighting shopping centers, stores and supermarkets with incandescent or fluorescent lighting — recessed, suspended, surface attached, concealed in coves or on “floating clouds.” There are also suggestions for relighting where present facilities are inadequate. The booklet, well illustrated with store installation photographs, layout plans and numerous diagrams, devotes several pages to exterior lighting for parking courts, service yards and the mall. A section on lighting fundamentals explains the manner of determining lighting requirements. 80 pp, illus. *Holophane Co., Inc., 342 Madison Ave., New York 17, N. Y.*

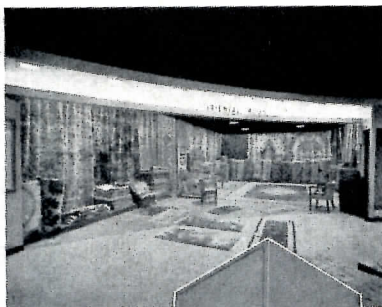
WOODWORKING GUIDE

The Architectural Woodwork Institute has published a brochure, *Architectural Woodwork, Millwork A.I.A. File No. 19-E* as a general introduction in a series of brochures that will be issued bi-monthly to architects. Each brochure will be devoted to a separate element of architectural woodwork such as “Paneling,” “Cabinet Work,” “Doors,” “Window,” etc. This brochure deals with “How to Counteract the Inevitable but Reversible Movement of Wood in Buildings.” *Architectural Woodwork Institute, 332 South Michigan Ave., Chicago 4, Ill.*

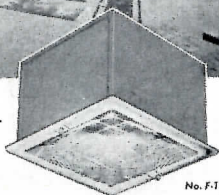
SWIMMING POOL DESIGN

Those interested in building swimming pools will find ideas on basic planning, pool shapes, lounging areas, wading pools and bath houses in *Trends in Swimming Pool Design*. This booklet covers various types of construction; modern trends in pool lighting; color in the pool; data on filtering, recirculating and chlorinating systems; and the newest developments in pool fittings and accessories. 20 pp, illus., *Elgin-Refinite, Swimming Pool Department, Elgin, Ill.*

* Other product information in Sweet's Architectural File, 1953.

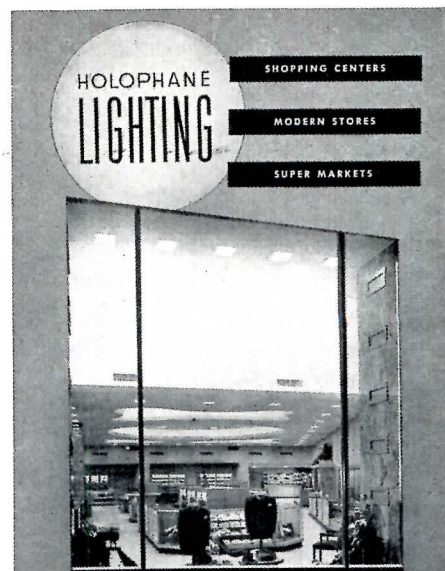


ZONE	OUTPUT
0°-40°	59.5% Minimum
60°-90°	3.5% Maximum
0°-90°	63% Minimum



No. F-1570

Lighting for effective rug display is illustrated in section of page from Lighting Shopping Centers. Cover shown at right



* PLANNED LIGHTING

Bulletin A, issued by the Pittsburgh Reflector Co., tells the story of planned lighting. It covers the essentials of good lighting, indicates the recommended illuminating levels of all types of interior installations, explains the difference between fluorescent and incandescent light sources and outlines the procedure for selecting the proper light source, as well as the proper equipment, for each particular job.

Another section of the Bulletin covers the services offered to lighting equipment users and specifiers by the company, together with an outline of the designing and production procedures followed in the company plant to manufacture silver-mirrored reflectors and other equipment. 8 pp, illus., *Pittsburgh Reflector Co., Oliver Bldg., Pittsburgh 22, Pa.*

FURNITURE PRICE LIST

Knoll Associates have put out a price list of their chairs, tables, chests, cabinets, cabinet accessories, desks, beds, lamps and letter trays. In addition to the list price the booklet includes a description of the pieces, specifications, size, delivery charge — and, for the chairs, yardage required for covering. 25 pp. *Knoll Assoc., Inc., 575 Madison Avenue, New York 22, N. Y.*

* PRESSURE TREATING STRUCTURAL WOOD

Baxco Chemonited Forest Products A.I.A. File No. 19a3 tells of the advantages of pressure treating structural wood with chemical preservatives. Examples are given showing the use of the product for industrial use, home building, farm, marine, road and highway construction. 32 pp, illus. *J. H. Baxter and Co., 200 Bush St., San Francisco, Calif.*

* RESTROOM FACILITIES

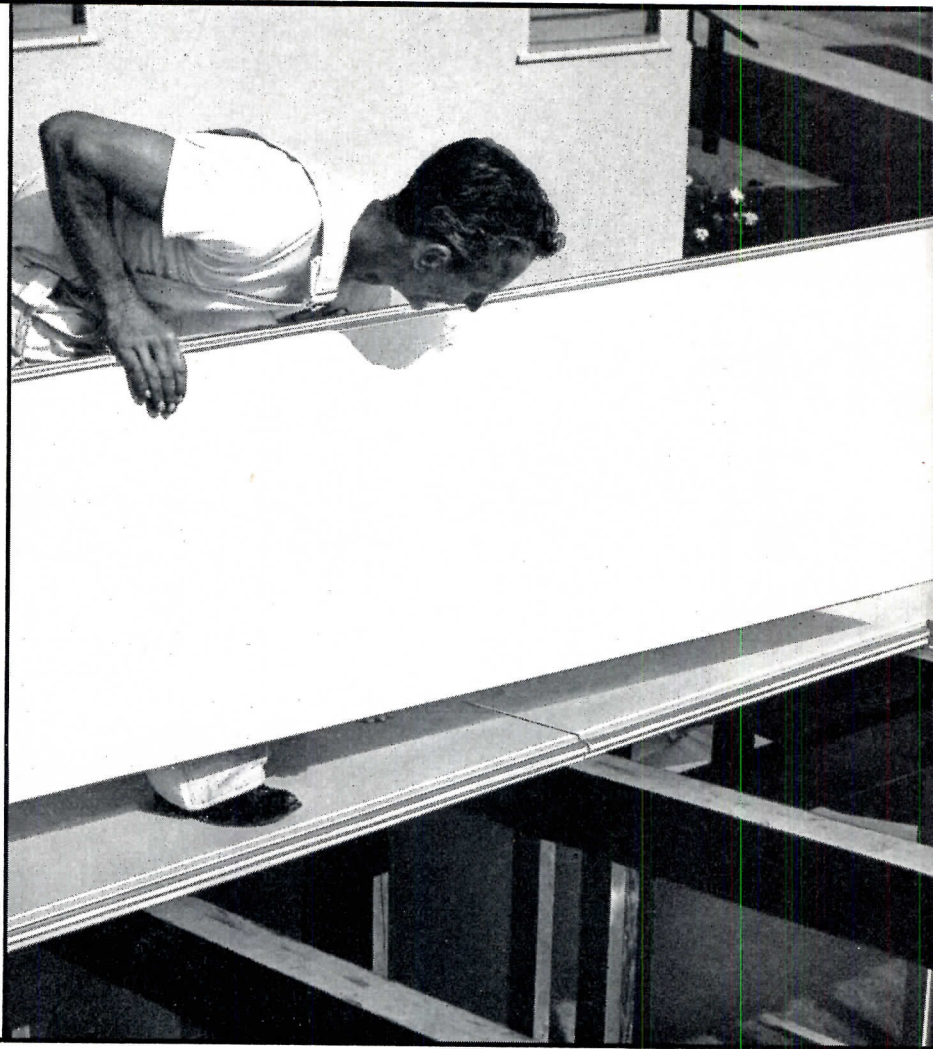
Practical aid in the selection of modern restroom and shower facilities is provided in the *Sanymetal Catalog No. 91, A.I.A. 35-H-6*. The catalog contains descriptions and illustrations in color of the complete line of Sanymetal toilet compartments, shower stalls and dressing rooms, supplemented with detailed engineering data and architectural specifications. A selection chart enables readers to determine quickly the types of units that will best serve their needs. This chart is accompanied by color chips of the 22 available colors in “Porcena,” a vitreous porcelain on steel, and “Tenac,” synthetic enamel on galvanized, Bonderized steel. The catalog also illustrates Sanymetal Hospital Cubicles. 20 pp, illus. *Sanymetal Products Co., Inc., 1705 Urbana Rd., Cleveland 12, Ohio.*

(Continued on page 270)

Insulite combines Insulation and ...in a single money

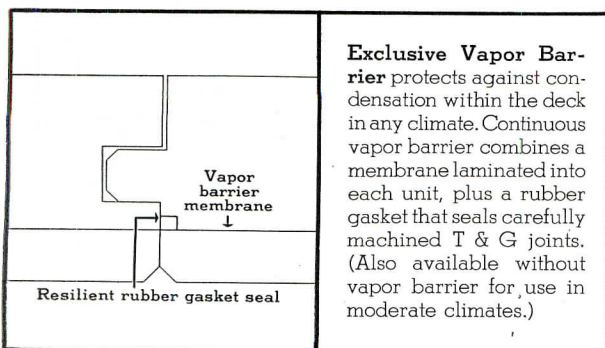
New 3 in 1
Insulite Roof Deck
saves up to \$300
per M sq. ft.
on exposed-beam
ceiling jobs
in any climate*

*Exclusive vapor barrier
protects against
condensation within the unit*



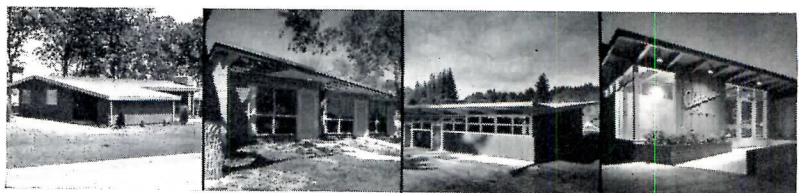
1. It's Roof Deck . . . Two by eight foot unit cuts application time as much as 45%. Only one material to handle. New Insulite Roof Deck eliminates need for separate roof board, insulation, lath and plaster and ceiling finishing. Roof Deck can save 12 man-hours per 1000 sq. ft. of surface compared with 2" x 6" D&M roof sheathing.

**Why it can be used in any climate*



Exclusive Vapor Barrier protects against condensation within the deck in any climate. Continuous vapor barrier combines a membrane laminated into each unit, plus a rubber gasket that seals carefully machined T & G joints. (Also available without vapor barrier for use in moderate climates.)

Insulite Roof Deck saves money, speeds completions on jobs like these . . .



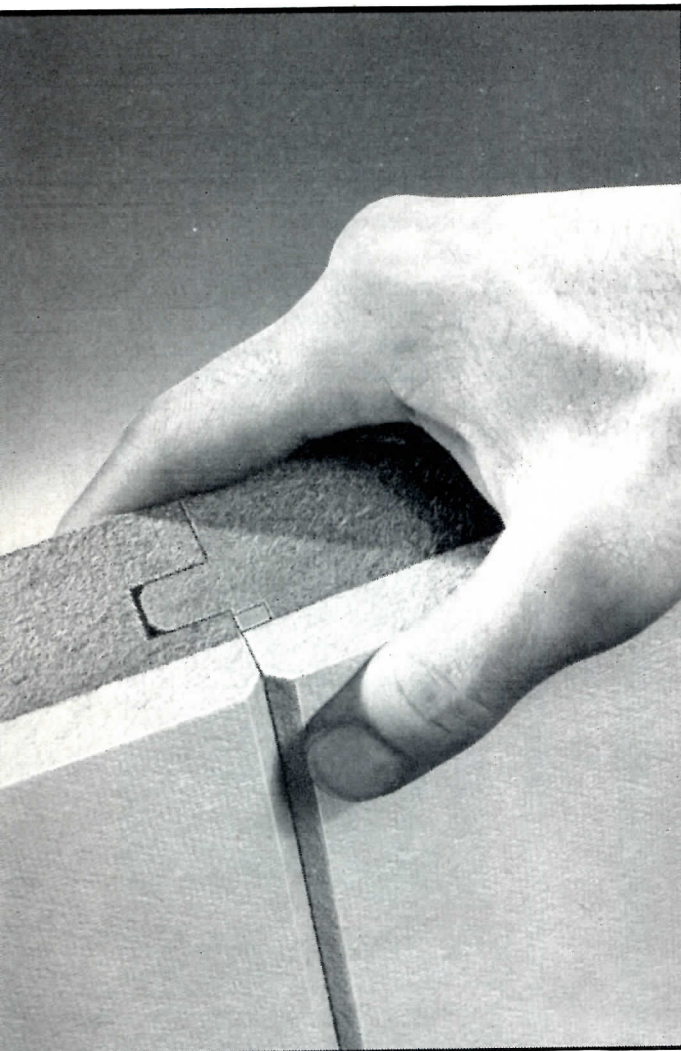
Homes

Motels

Schools

Restaurants

Roof deck, Finished ceiling *-saving product!*



2. It's Insulation... No need for other insulation. Two-inch Roof Deck is comparable to 2" wood deck plus 1" fiberboard insulation and meets F.H.A. heat loss requirements for roof and ceiling construction. Absorbs sound better than wood or plaster . . . makes homes quieter and more livable. Exclusive vapor barrier protects against condensation within the unit in any climate.

3. And Finished Ceiling. The underside of Insulite Roof Deck is finished with a white flame-resistant surface at the factory. Simply lay Roof Deck over pre-finished beams and the ceiling is done. No need to plaster, paint, stain or wax. Reduces labor and material costs. Insulite Roof Deck is available in 2' x 8' units, 1½", 2" and 3" thick with or without Insulite's exclusive vapor barrier.

Build and insulate with double-duty

Send for complete information now! Actual on-the-job pictures and construction details show how to use new Insulite Roof Deck to build better for less. Write Insulite, Minneapolis 2, Minnesota.

INSULITE

The original structural insulation board



INSULITE DIVISION, Minnesota and Ontario Paper Company, Minneapolis 2, Minnesota
INSULITE IS A REGISTERED TRADE MARK

NOW! the new Modine

A modern room unit for cooling and heating hotels, apartments, motels, offices, hospitals, schools, homes.
Ideal for new construction and modernization.

THE new Modine AIRditioner* provides cooling with chilled water, heating with hot water . . . filters, dehumidifies, circulates and introduces fresh outside air. All functions are subject to individual room control. Here is healthful summer-winter comfort for multi-room installations within reach of the most modest air conditioning budget.

Modine AIRditioner design assures excellent performance on cooling or heating plus unusually quiet operation. Four-speed motor control provides maximum flexibility in meeting comfort requirements.

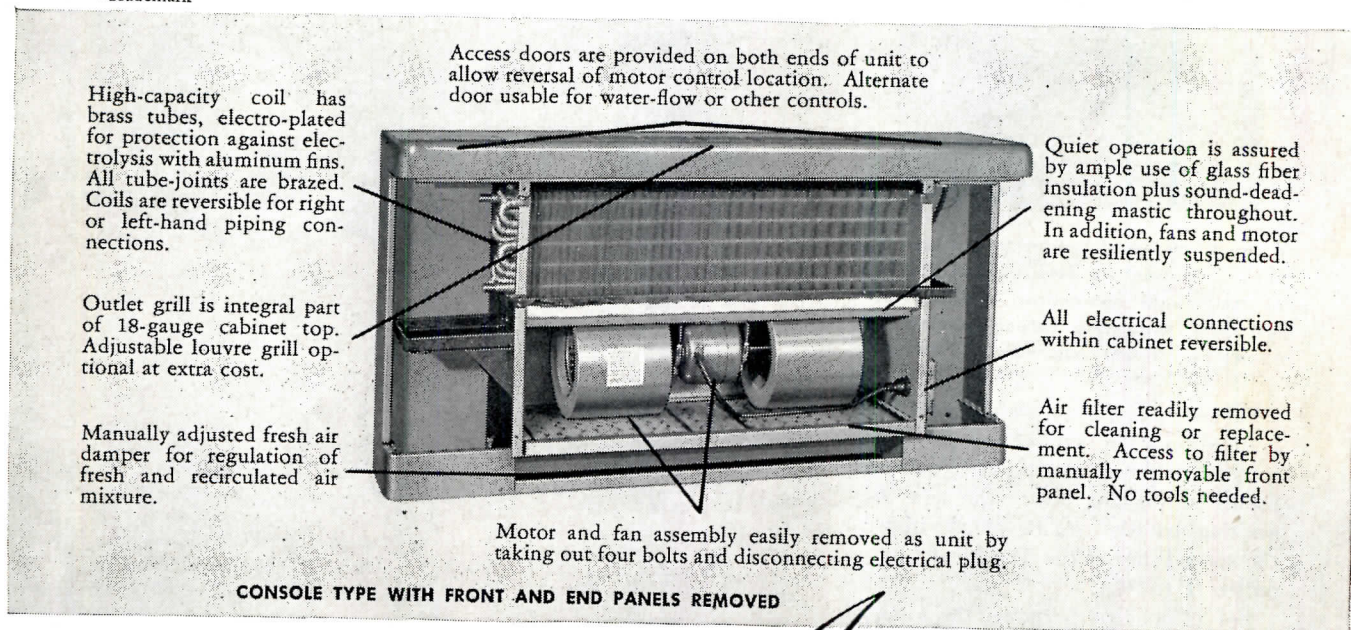
Choose from four types: The beautiful Console (illustrated) for exposed or partially recessed installation . . . the Concealed . . . and the Overhead types with and without casings. Each type is available in three sizes rated at 2/3, 1-1/2 and 2 tons of refrigera-

*Trademark

tion (220, 440 and 640 cfm respectively).

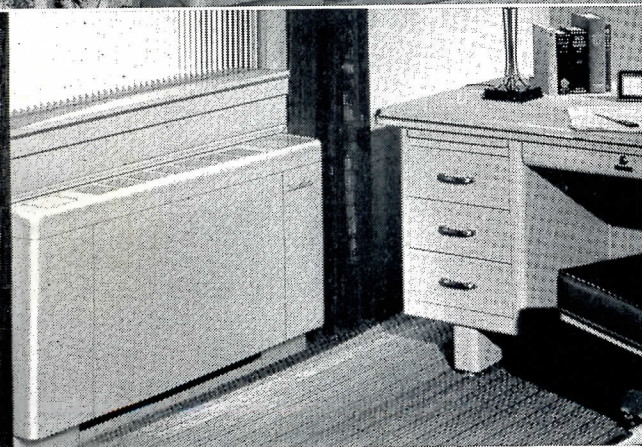
Distinctive appearance and versatility are combined in the Console type styled by Jean Otis Reinecke, nationally known designer. This unit may be installed against a wall—or recessed to a depth of 5 inches, leaving less than 6 inches exposed in the room. Use of square edges at junctions of top and sides eliminates need for cutting rounded contours in wall recess . . . or preparing specially formed trim strips. Square edges blend gracefully into rounded corners in forward part of top.

Modine AIRditioners are Parker-Bonderized and finished in a semi-gloss Marine Green primer selected for high resistance to humidity. The factory finish is so attractive that further decorative treatment will frequently be unnecessary.



Modine AIRditioners

AIRDitioner

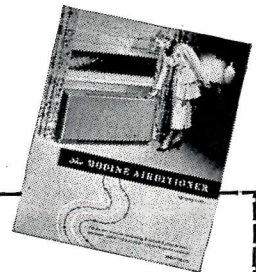


Concealed and Overhead Types

Other AIRDitioners available include: Concealed type for built-in installation behind a finished wall. Overhead type with casing for exposed ceiling installation. Overhead type without casing for use with ducts above a false ceiling or in a closet.

(Above) Console type is installed against finished wall. A 3/8-in. thick sponge rubber strip around perimeter of back serves as wall seal and as plenum for fresh air inlet. All piping and wiring are concealed in enclosure.

(Left) Because all rear corners are square, AIRDitioner can be recessed faster, at lower cost. With over-all depth less than 11 in. and up to 5 in. of recessing permissible, AIRDitioner takes far less floor space.



MODINE MANUFACTURING COMPANY
1510 DeKoven Ave., Racine, Wis.

Please send me a free copy of bulletin describing the new Modine AIRDitioner.

Name

Position

Firm

Address

City Zn State

A-1223



THIS COUPON BRINGS YOU . . .

INTERNATIONAL STEEL COMPANY
 2002 Edgar St., Evansville 7, Indiana
 You may send me, without cost or obligation, my copy of your new
 1954 Entrance Planning Manual:

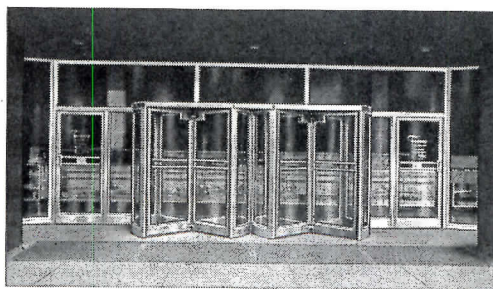
NAME _____
 FIRM _____
 ADDRESS _____
 CITY _____ ZONE _____ STATE _____

... NEW AND HELPFUL DATA ON
modern "PACKAGED" entrances



HERE is a brand-new data file that will prove mighty helpful in your preliminary planning. In it you will find detailed entrance information and specifications . . . scale drawings and actual photos of installations . . . facts, figures and descriptions of special features. In short, here is your guide to the newest and best in complete building entrances: of "always open—always closed" Revolving Doors; of International-engineered Swing Doors; or of a combination of both in a broad range of materials. Your personal copy of this valuable reference book is being reserved for you. Mail the above coupon now.

International Van-Kannel
 Revolving Door Entrance to
 the smartly modern Fedway
 Store at Amarillo, Texas.



REVOLVING DOOR DIVISION
 2002 EDGAR ST. EVANSVILLE 7, IND.



INTERNATIONAL STEEL COMPANY

AH PRODUCTS

(Continued from page 219)

AUTOMATIC GAS LAUNDRY

The new gas *Duomatic* (Model CEV) is a combination laundry unit that dries as well as washes in one continuous automatic operation. In appearance the gas model resembles closely its electric counterpart. According to the manufacturer, the new model can wash and dry an average 8-lb mixed load in about an hour. It is operated by two simple controls and a water temperature selector switch which governs the *Magic Heater*.



Space-saving gas Duomatic washes and dries in one continuous operation

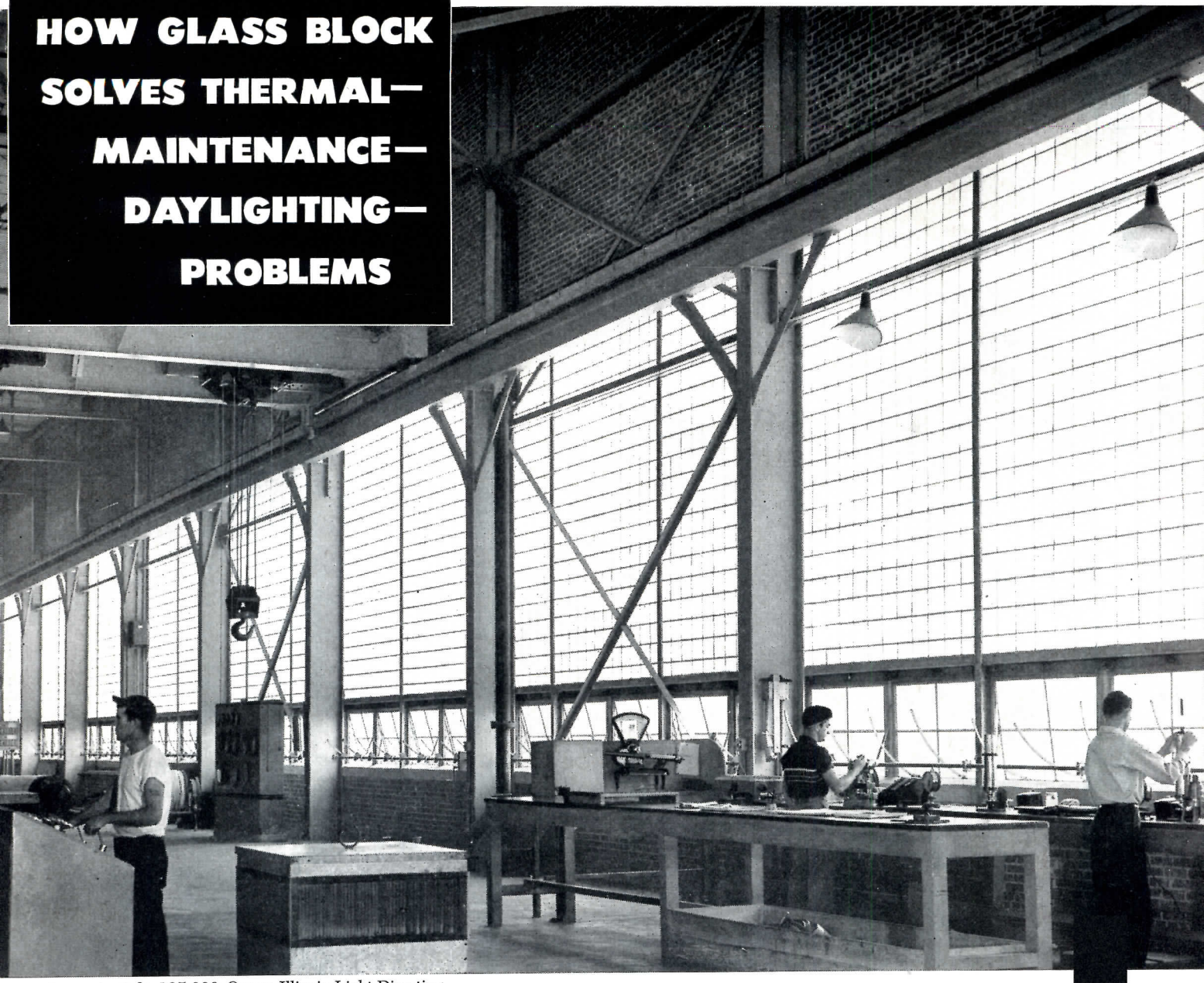
The Duomatic uses the patented *Bendix* tumble-action washing method. An optional automatic speed soak period can precede the washing. The wash period is followed by three alternate rinse and spin dry cycles. Following the last spin, the unit halts, then fluffs the clothes, preparing them for drying — which starts automatically. Room air is drawn into the unit, heated, passed through the clothes and exhausted outdoors. The unit is 36 in. wide. *Bendix Home Appliances Div., Avco Manufacturing Corp., 1329 Arlington St., Cincinnati, Ohio.*

STEEL DOOR WITH TORSION SPRING MECHANISM

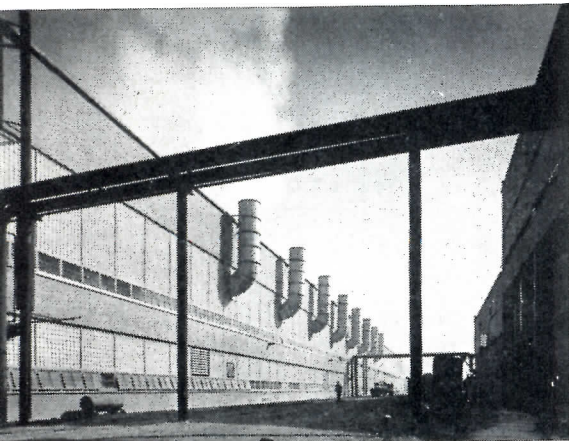
A new, upward-acting all-steel door offers the installation and operating advantages of the *Crawford Marvel-Lift Mechanism* — not previously available on steel doors. This compact mechanism is installed entirely above the door. The

(Continued on page 226)

**HOW GLASS BLOCK
SOLVES THERMAL—
MAINTENANCE—
DAYLIGHTING—
PROBLEMS**



Approximately 125,000 Owens-Illinois Light-Directing Glass Block are in the new buildings at International Paper Company's huge Moss Point, Mississippi, plant.



Glass block are laid up with regular masonry material. They are inexpensive to maintain . . . hard to break . . . can't rust or rot. Glass block are impervious to corrosive effects of chemicals.

KRRAFT PAPER MANUFACTURE requires closely regulated plant temperatures and humidity levels . . . chemicals used in pulping and bleaching are highly corrosive. That combination of problems makes glass block a natural choice.

Owens-Illinois Light-Directing Glass Block permit the use of entire glass areas for the transmission of an abundance of cheerful, quality daylight into the farthest corners of plant or office. Daylight is controlled so effi-

ciently that buildings virtually "turn with the sun" to make maximum use of free daylight from early morning to late afternoon.

Whenever you have a problem involving daylighting plus other operating considerations, be sure to investigate the many advantages of Owens-Illinois Glass Block.* For information write: Glass Block Division, Owens-Illinois, Dept. AR-5, Box 1035, Toledo 1, Ohio.

*Formerly known as INSULUX

OWENS-ILLINOIS GLASS BLOCK
AN **Ⓢ** PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES • TOLEDO 1, OHIO

Completely NEW Line of

Now! Wider range, exclusive new features

**20 new Trane Climate Changers for any capacity,
600 to 29,000 cfm! Complete line of factory-built units
for flexible application, easy installation!**

Now, a brand new, more complete line of TRANE Climate Changers with an even wider range of capacities—20 new models for more flexible application.

Designed for easier installation, full accessibility and less maintenance, these *new* TRANE Climate Changers are the most modern factory-built air handling units in the industry!

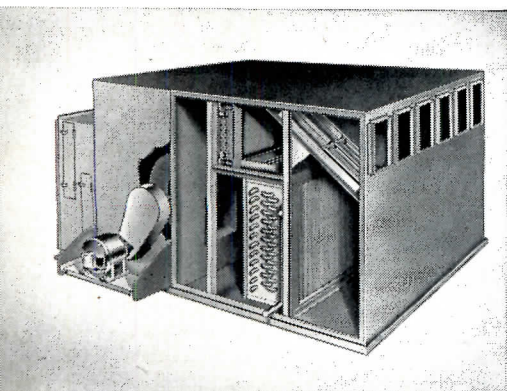
Wider capacity range simplifies selection. Ten sizes cover entire range of capacities from 600 to 29,000 cfm. You can select a unit with just the capacity you need for maximum system operating efficiency.

New fans are more efficient, quieter. Every fan designed especially for its unit for highest efficiency, quietest operation. Low outlet velocity—ap-

proximately 1,500 feet per minute. Climate Changers are rated by fan capacity *in the unit*.

Increased design flexibility, more accessories. You get any or all of 24 *practical combinations* of heating, cooling, humidification, dehumidification, ventilating and filtering. Three types of heating coils for steam or hot water—five types of cooling coils for chilled water, well water or Freon. Three types of humidifiers, three kinds of filters. Matched face-and-by-pass dampers and mixing boxes. *No other air handling unit offers such versatility!*

Installation simplified. Fan outlets, for example, are quickly reversible on job—three ways on vertical units,



6 climates from one Climate Changer! TRANE Multi-Zone Climate Changers give individual temperature control in one to six zones. Units are quality constructed. Sectional construction if desired. 1,800 to 23,400 cfm.

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<p>CentraVacs, Centrifugal Water Chillers 45 to 400 ton capacity.</p>	<p>UniTrane Room Units for air conditioning multi-room buildings.</p>
<p>Cold Generators, packaged water chillers, 10 to 100 tons capacity.</p>	<p>Self-Contained Air Conditioners from 3 to 20 tons capacity.</p>



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one responsibility*

TRANE

Climate Changers

MANUFACTURING ENGINEERS OF AIR CONDITIONING, HEATING,
VENTILATING AND HEAT TRANSFER EQUIPMENT

The Trane Company, La Crosse, Wis. • East. Mfg. Div., Scranton, Penn.
Trane Co. of Canada, Ltd., Toronto • 90 U.S. and 14 Canadian Offices

Trane Climate Changers

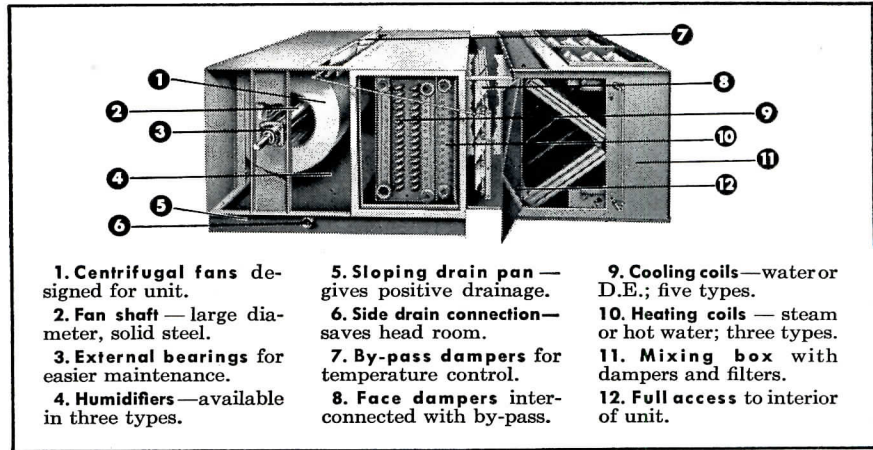
in industry's most modern air conditioner

two ways on horizontal units. Motor mount adjustable four ways. All units will clear 36" door except sections of largest unit which will clear 40" door.

External bearings cut maintenance time and cost. Bearings can be serviced in minutes instead of hours. All bearings are self-aligning type.

Sloping drain pan for positive drainage. Side drain connection for minimum head room. Pan under *entire* unit. From top to bottom, new TRANE Climate Changers are designed for efficiency, built for long service!

Specify TRANE Climate Changers. For complete details and roughing-in dimensions, call your TRANE Sales Office or write TRANE, La Crosse, Wis.



1. Centrifugal fans designed for unit.

2. Fan shaft—large diameter, solid steel.

3. External bearings for easier maintenance.

4. Humidifiers—available in three types.

5. Sloping drain pan—gives positive drainage.

6. Side drain connection—saves head room.

7. By-pass dampers for temperature control.

8. Face dampers interconnected with by-pass.

9. Cooling coils—water or D.E.; five types.

10. Heating coils—steam or hot water; three types.

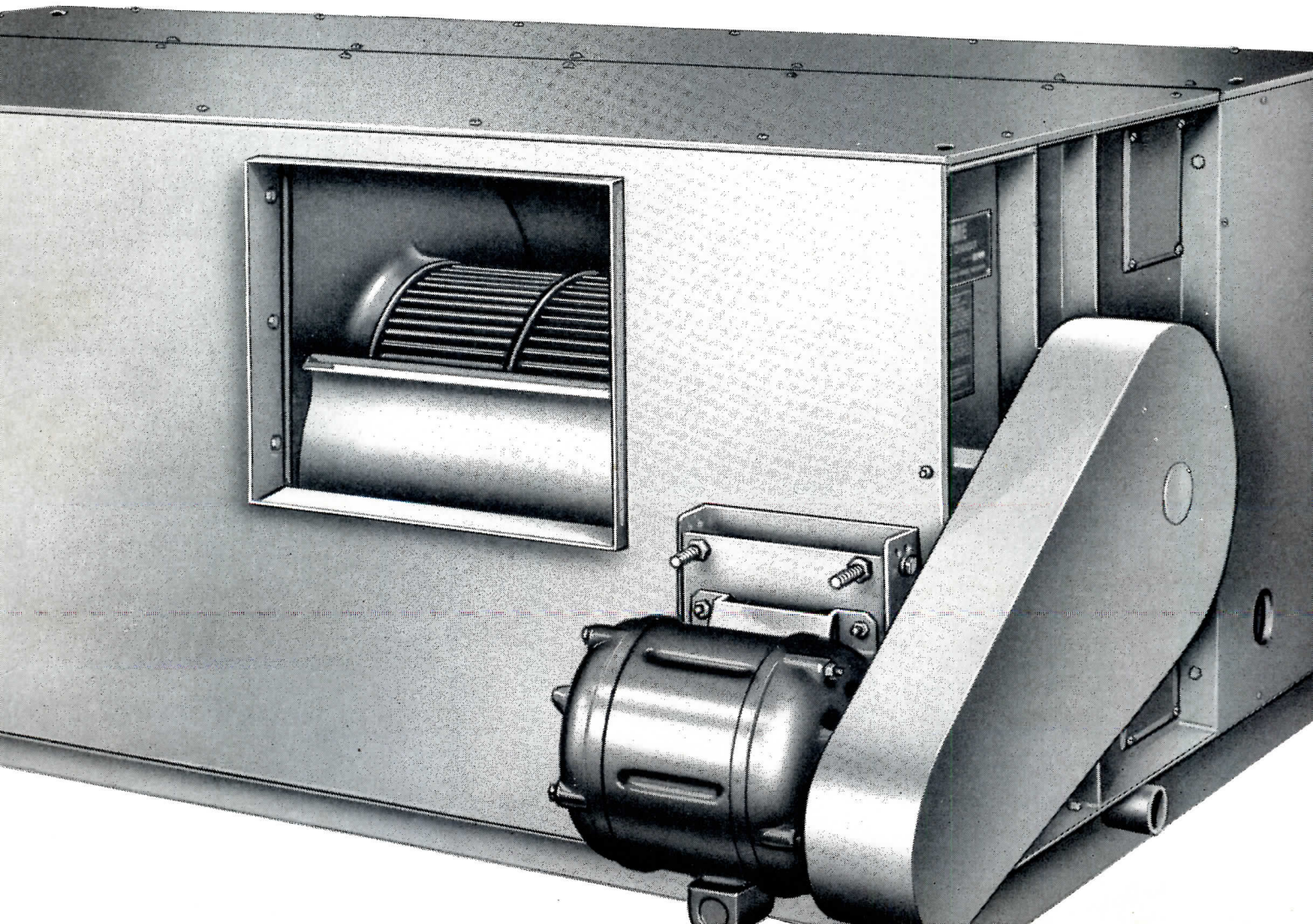
11. Mixing box with dampers and filters.

12. Full access to interior of unit.

↓ **New TRANE Climate Changers** with sectional construction are designed to meet close space requirements, a wide variety of capacity needs. Horizontal

models (below) can be ceiling suspended or installed on platform. Vertical models are floor mounted. Fan outlets are reversible on job... 3 ways on vertical units,

2 ways on horizontal. Units *deliver* the capacity you select—TRANE Climate Changers are rated by fan performance *in the unit*, from 600 to 29,000 cfm.



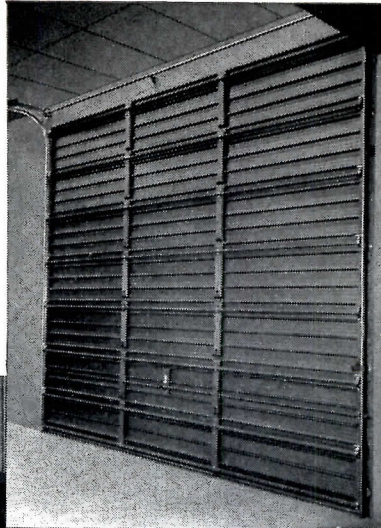
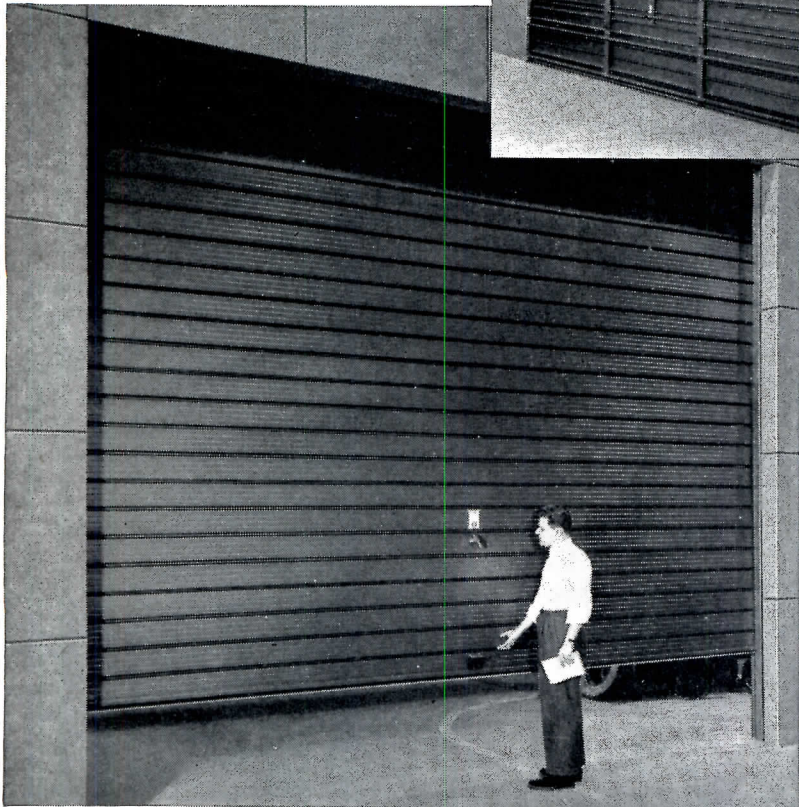
MORRISON

Roly-Door

STEEL SECTIONAL DOORS

112 STANDARD SIZES

for Commercial and Industrial Installations



AEP PRODUCTS

(Continued from page 222)

action of lowering the door stores up energy in the counter-balancing safety torsion springs which raises the door when it is opened. The torsion springs are mounted on a one-piece shaft which extends the full width of the door and which has pocket pulleys and chains mounted on each end. The lifting power of the torsion springs is transmitted to the shaft and to the pulleys which, being mounted on a single shaft, turn at uniform speed and thus raise and lower, at uniform speed, the lifting chains which are attached to brackets on the bottom corners of the door.

The door itself is a series of interlocking, box-type, built-up steel panels which can be varied in height and width to produce doors of any width up to 14 ft and any height from 7 ft 1 in., in 6 in. steps.

Individual panels are a series of pans of .036-in. rolled steel, welded to box members at the bottom and sides and within the span. Box members are .089-in. gauge steel. Inner and outer surfaces are protected by zinc chromate primer over cleaned metal, providing an ideal base for finish paint. Easy operation is assured by the dual chain hoists which permit any size door to be operated easily by one man. All hardware is heavy duty throughout and is stoutly fastened. *Crawford Marvel-Lift Mechanism, 2063-27 Hoover Rd., Detroit 5, Mich.*

You can confidently specify Roly-Doors for every commercial or industrial building you design. Their clean, modern, distinctively simple lines blend with any style of architecture . . . their functional design ensures safe, easy, trouble-free installation and operation (manual or electrical) . . . and their all-steel construction provides a durability that defies weather and years of hard use. Available in 112 standard sizes, there's a Roly-Door for every overhead door requirement.

And, Roly-Doors cost no more than ordinary wood or metal doors for the same purpose.

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for the Roly-Door Technical Data File. It will give you complete information on all Roly-Doors' unique features . . . their sectional design and construction . . . the reasons for their durability and ease of operation . . . Morrison's nationwide sales and service organization . . . and the many other features that will enable you to fit Roly-Doors into any of your plans. For commercial or industrial buildings, specify Roly-Doors.

Roly-Doors come in a complete range of sizes for every residential, commercial or industrial application.

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Technical Data File with all
the facts about Roly-Doors.



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Title.....
Firm Name.....
Street.....
City..... Zone..... State.....

In Canada, Roly-Door Distributors, Ltd., 1330 Bloor, W., Toronto 4

Also manufacturers of MOR-SUN WARM AIR FURNACES and CARRY-ALL TRUCK BODIES

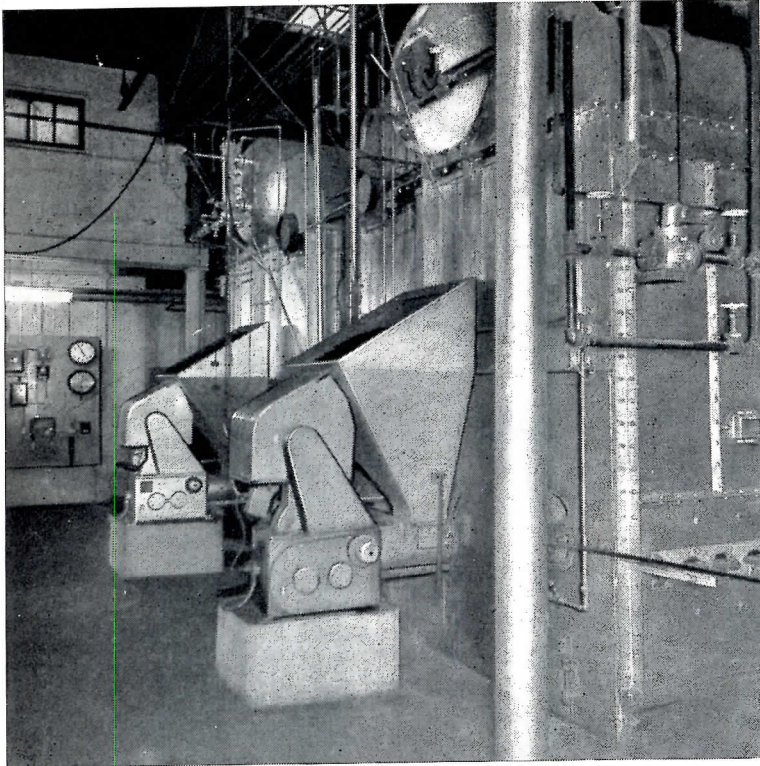
VERSATILE BUILDING BLOCK

A new building block offers construction advantages by concealing wires, pipes and other utilities in ducts, while combining anchorage and clearances with styling and landscape advantages. Called *Art-ery*, this block has two opposite plain-faces; one with a wide, long groove that forms a duct when placed in the wall — the other side with a contrary straight line, cross-member arrangement. The second side can be aligned for tapping the duct space for concealed reinforcement channels for brackets and anchorage where required. This recessed side, besides offering possibilities for attractive decoration, makes space for neon lighting tubes. *Art-ery* blocks are available in glass, brick, thermal and sound insulation, and tile. *Arthur L. Kuhlman Industries, Bay City, Mich.*

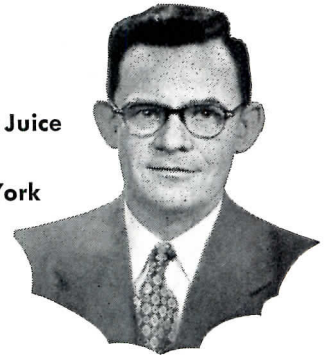
(Continued on page 230)

"WE GET BIG SAVINGS BY BURNING COAL THE MODERN WAY!"

Other fuels would cost us far more!"



says
Mr. A. J. Monta,
Plants Engineer,
The Welch Grape Juice
Company, Inc.,
Westfield, New York



"We analyzed the cost of coal and other fuels before modernizing our power plant. The result is this up-to-date coal installation that delivers steam at half the cost of competing fuels. *For economy you can't beat bituminous coal burned the modern way!*"

Modern coal-burning and handling equipment saves this plant more than 35% on labor alone! New stokers, boilers, controls and coal-handling equipment cut labor costs and save this plant 18% on fuel. The complete installation will pay for itself in about 6 years.

● Burning bituminous coal the modern way can save you money, too! Labor costs are cut to a minimum with up-to-date coal- and ash-handling equipment... modern combustion installations deliver anywhere from 10 to 40% more power from every ton of coal!

That's why, if you're planning to modernize or build a new plant, it will pay you to get the latest facts on coal. Let a consulting engineer show you how a modern coal installation designed to meet your specific needs can save you real money.

Here's something more! Today's bituminous coal customers get a better-prepared product—designed to meet their special requirements. And bituminous coal offers future dependability no other fuel can match. Reserves are virtually inexhaustible, and America's coal industry is the world's most efficient—your assurance of dependable supply of coal at relatively stable prices for years to come.

If you operate a steam plant, you can't afford to ignore these facts!

- COAL** in most places is today's lowest-cost fuel.
- COAL** resources in America are adequate for all needs—for hundreds of years to come.
- COAL** production in the U.S.A. is highly mechanized and by far the most efficient in the world.
- COAL** prices will therefore remain the most stable of all fuels.
- COAL** is the safest fuel to store and use.
- COAL** is the fuel that industry counts on more and more—for with modern combustion and handling equipment, the inherent advantages of well-prepared coal net even bigger savings.

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- ★ **ALL PUBLIC STRUCTURES**



WEISART
COMPARTMENTS

A typical Weisart ceiling-hung installation similar to that in Evergreen Park Shopping Plaza, Chicago, Ill. Howard Fisher and Holabird & Root & Burgee, Architects. George A. Fuller, Contractor.

For shopping centers and for every public building, where appearance, sanitation and ability to stand the hardest usage are vital, Weisart toilet compartments are the logical choice. Their enduring serviceability has a triple protection: (1) flush steel construction with edges locked and sealed, galvanized surface smooth as furniture steel (2) Bonderized for additional corrosion resistance and positive adhesion of enamel (3) synthetic primer and enamel separately baked, combining highly protective surface with lustrous beauty in choice of 24 colors! Ceiling-hung Weisart compartments leave floor clear for cleaning.

For detailed information write

HENRY WEIS MFG. CO., INC. 503 Weisart Bldg., Elkhart, Ind.

THE RECORD REPORTS

WASHINGTON

(Continued from page 38)

FEDERAL HOSPITAL BOARD PROPOSAL IS CONSIDERED

Congress has been hearing testimony on creation of a Federal Board of Hospitalization to coordinate hospital construction programs of the Federal government.

One witness before a House subcommittee, Rear Admiral F. C. Greaves, U. S. N., said that introduction of the proposed board into the existing routine would add administrative work and increase the danger of backlogs with a consequent reduction in operational efficiency. An old FBH, created in 1921, was terminated in 1948; at that time no objections to its demise were heard.

Representatives of Veterans Administration also opposed the proposed legislation.

The bills considered would create an agency to coordinate programs of all Federal agencies for the purpose of (1) preventing overlapping and duplication of services and overbuilding of facilities; (2) determining the needs for existing or additional facilities of each department or agency; (3) determining areas and localities where additional facilities would be provided; and (4) developing over-all plans for facilities providing hospitalization and domiciliary care for persons who have served in the Armed Forces. No new project could be undertaken without board approval.

SCHOOL CONFERENCES GET SUPPORT OF HOUSE GROUP

The President's earlier recommendation that a White House conference round up national opinion on educational needs won quick House Labor Committee support. The group favorably reported a bill authorizing such a conference on educational problems. School construction needs were among the subjects mentioned as requiring further study.

But where the President had asked for \$1.5 million to carry out the program, the committee allowed only \$750,000, and trimmed each state's allotment from the recommended \$10,000 to \$5000. It made these amendments in the conviction that each state would be able and

(Continued on page 286)

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Better Doors
for
Better Entrances



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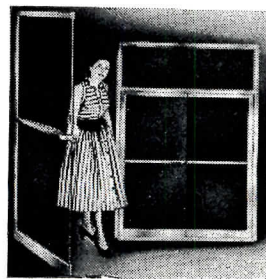
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posed edge doors.
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steel or bronze.

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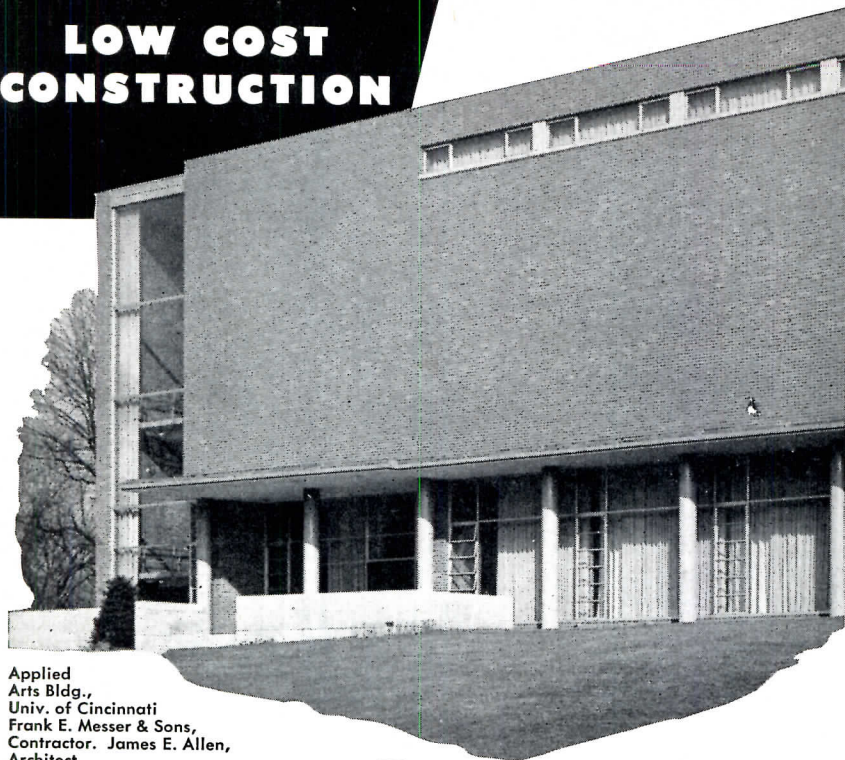
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COMPANY.....

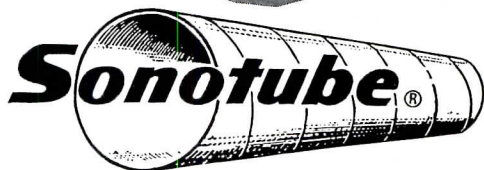
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LOW COST CONSTRUCTION



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for round columns of concrete

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Low cost SONOTUBE Fibre Forms are lightweight and easy to handle, require minimum bracing . . . take fewer man-hours on the job.

Beautiful, uniform, round columns of concrete formed with SONOTUBE cost less and look better!

Widely used by contractors, approved by architects and engineers everywhere.

Available in 31 sizes, 1" to 36" I.D.—up to 50' long. Can be ordered in desired length or cut to exact size on the job.



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For complete technical data, write

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GARWOOD, N. J. BRANTFORD, ONT. AKRON, IND.

THE RECORD REPORTS

WASHINGTON

(Continued from page 282)

willing to bear any expense over and above that figure to hold a state conference on the subject.

States would use their Federal grants to bring together educators and others interested in educational problems, then try to come up with recommendations for action to be taken at local, state and Federal levels.

After the state conferences, opinion would be rounded up at a national White House conference on educational problems. The entire effort stresses cooperation at every level of government.

NEW EFFORT ON FOR AID TO LOCAL PUBLIC WORKS

There was a strong effort in the Senate to implement last year's law providing for Federal aid to states, municipalities and other political subdivisions.

Enacted as part of the law dissolving the Reconstruction Finance Corporation, the authorization called for the expenditure of \$25 million in Federal Treasury funds to aid in financing projects under Federal, state or municipal law, either through direct loans or through purchase by the Federal government of securities and obligations of the local authorities.

The 1953 statute left it to the President to designate an agency to carry it out. This was not done, nor had the Budget Bureau asked Congress to make appropriations to get the program started.

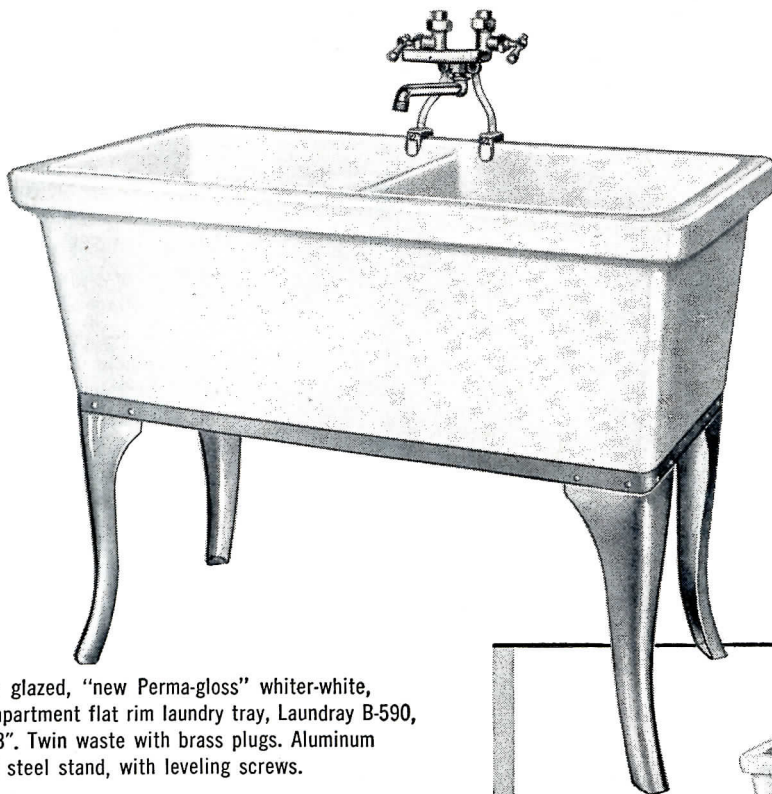
The lack of action disturbed Senator Burnet Maybank (D-S. C.), who introduced a new bill this year to designate the Housing and Home Finance Agency to handle the allotments and to increase the amount from \$25 to \$50 million. Senator Maybank claims the program could be a great stimulus to construction of non-Federal public works and go far toward providing community facilities needed to support new housing developments.

PHA TURNS ATTENTION TO PROJECTS' ARCHITECTURE

The Public Housing Administration is engaged in a campaign to adjust its poli-

(Continued on page 288)

for the truly modern laundry room



a beautiful
laundry tray
in exclusive,
sparkling,
glass-hard
"Perma-gloss"—
the LAUNDRAY
by Richmond

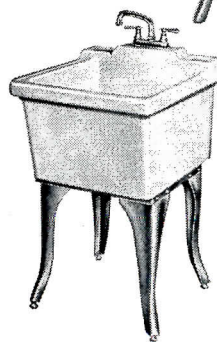
Vitreous glazed, "new Perma-gloss" whiter-white, two compartment flat rim laundry tray, Laundray B-590, 40" x 23". Twin waste with brass plugs. Aluminum finished steel stand, with leveling screws.

Here's a fixture you can specify with complete confidence in your client's satisfaction. It's a gleaming beauty that will complement any utility room, kitchen or basement laundry. Its up-to-the-minute styling and shining, whiter-white finish harmonize with the washer and other appliances.

Available in three models; the new B-590 shown above, the Deluxe B-584 with raised shelf back, and the single compartment B-570, with raised shelf back, where space is limited. All in Richmond's exclusive vitreous glazed, glass-hard, "Perma-gloss" that Mrs. Housewife will be proud to have in her home.



Deluxe B-584
40" x 23"—
two compartment,
raised shelf back.
Integral overflow,
cast-iron twin waste
connection. Brass plugs
and rubber stoppers.



B-570—20" x 23"
single compartment,
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Integral overflow,
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connection, brass plug
and rubber stopper.

AR-5

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We are architects building contractors plumbing contractors plumbing wholesalers.



WASHINGTON
(Continued from page 286)

cies and standards toward elimination of "unsightly projects" and is expecting "the same determined effort" on the part of architects — a development which is bound to elicit hearty (if somewhat incredulous) approval from architects — as well as some wry amusement.

Speaking rather as though only the architect's determined antipathy to the esthetic had heretofore blocked architectural progress in public housing, Commissioner Charles Slusser said in a recent speech:

"I concede that architectural design, like any other form of art, is subject to opinion. I concede, too, that to get the most for our money we must eliminate many esthetic touches. And finally, I concede that PHA must not undertake the role of arbiter of architecture. But let's be reasonable. Barracks are barracks. And we don't need a quorum of the American Institute of Architects to tell us so. We know — and in many cases it has been demonstrated spectacularly — that the will of architects and engineers to build attractively within any reasonable cost is important."

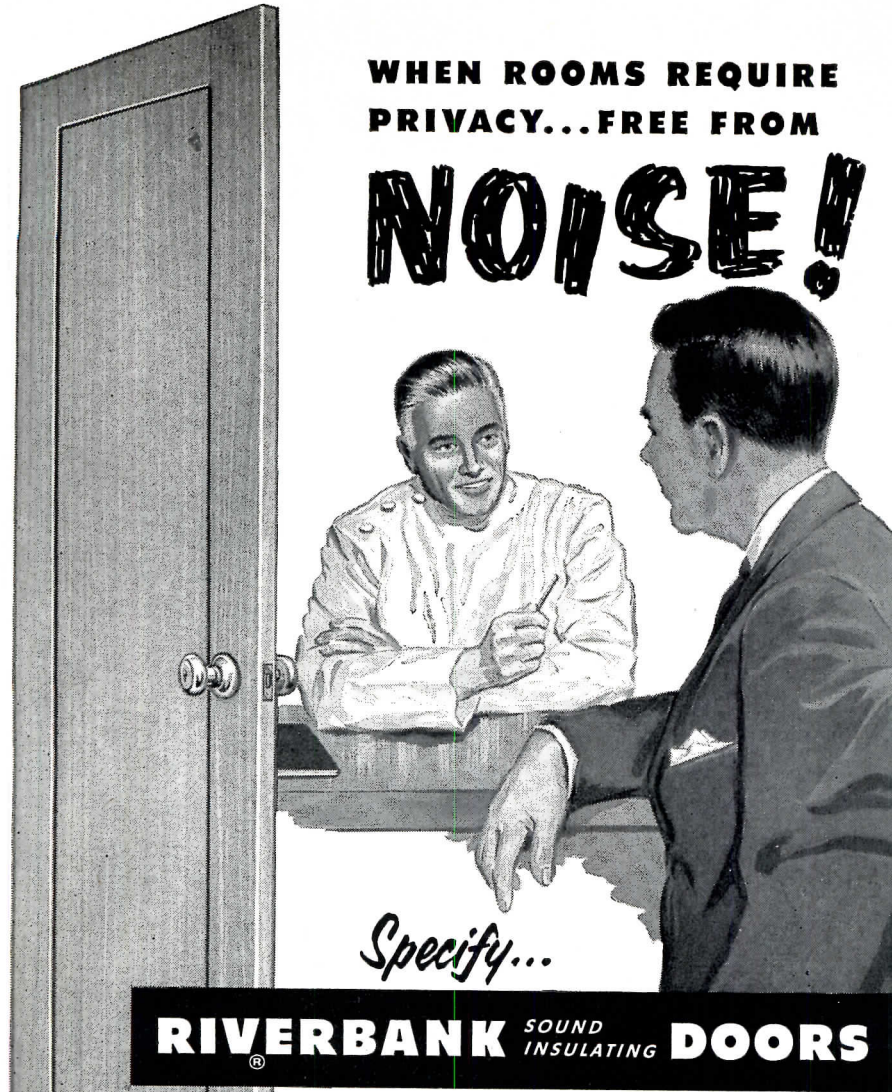
Mr. Slusser then pledged that to whatever extent may be necessary, PHA policies and standards, "if they have contributed to the production of unsightly projects," will be corrected. In the same spirit, he added, PHA will expect "the same determined effort" on the part of architects.

Housing and Home Finance Agency Administrator Albert M. Cole has expressed complete agreement with Commissioner Slusser's views, telling the Congress that the greatest stigma on public housing has arisen from its exterior appearance, from which the general public gets its impression.

Commissioner Slusser, who has traveled extensively to visit public housing projects throughout the country, notes that many architects and builders find in the design and construction of public housing an opportunity far beyond the material reward: "They view it as a chance to contribute their highest skill to fellow humans denied so much for so long. And in doing their best, they benefit not only the tenants, not only the community, but themselves as well. The reputation for doing much with little is a good reputation to build."

(Continued on page 292)

WHEN ROOMS REQUIRE
PRIVACY...FREE FROM
NOISE!



RIVERBANK SOUND INSULATING **DOORS**

Regardless of what other acoustical treatments you may employ to reduce noise transmission, you'll need a RIVERBANK Sound Insulating Door to *complete* the sound barrier. These scientifically constructed and patented doors isolate noise and prevent its passage from room to room in direct volume relation to the insulating value of the weakest acoustic area. RIVERBANK Doors are made in three laboratory certified decibel ratings to meet the full range of acoustical needs. They reduce transmission loss by 35, 40 and 43 decibels providing as much as 70% more acoustical efficiency than a standard solid core door. Write for complete architectural specification folder on RIVERBANK Sound Insulating Doors — plus special brochure in non-technical language for clientele use. Consult Sweet's File $\frac{15C}{HA}$

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How CRANE helps you in school planning

Crane specialized washroom and laboratory fixtures for schools match the smart efficiency of modern school buildings. In fact, Crane leads in specialized styles and sizes to fit elementary and high school plans. And, of course, the wide choice of Crane prices makes it easy to fit Crane equipment into any school budget as well as any school plan.



Crane school fountains are of the highest quality vitreous china. This Crane Waterfall, one of a wide choice of both wall and floor models, includes Crane's famous Purflo angle stream bubbler to prevent contamination. Individual or central water chilling units now available with Crane drinking fountains.



Typical of the wide choice of Crane school fixtures are these Rhodile lavatories of rugged cast iron and durable porcelain enamel finish. High splash back is particularly important aid to cleanliness in elementary schools.

Besides a comprehensive choice of specialized school fixtures, Crane offers you the advantage of its unmatched reputation for quality—which is well known to school administrators. When you specify

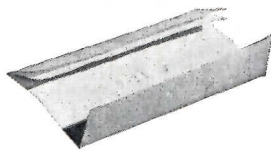
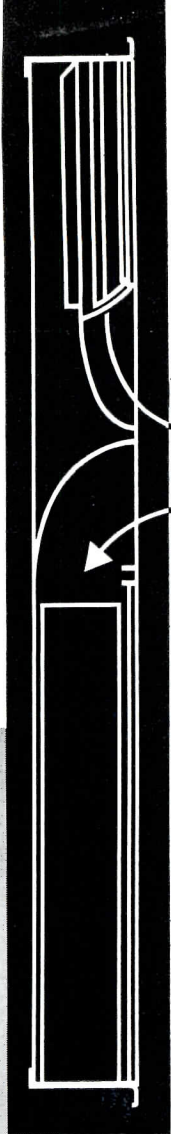
Crane equipment, they know you have recommended the best.

For complete information on Crane specialized school fixtures, see your Crane Architects' Catalog ... or call your nearby Crane Branch or Wholesaler.

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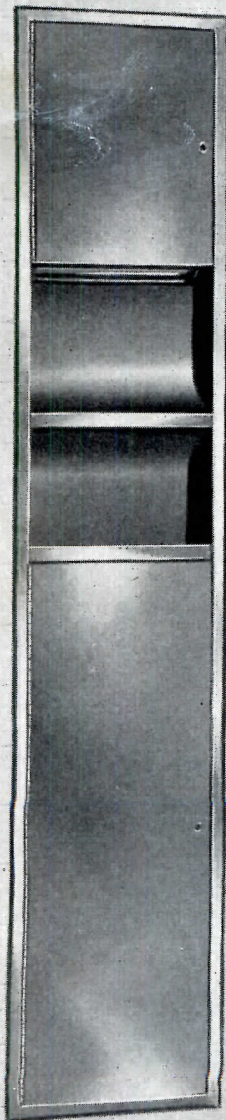


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THE RECORD REPORTS

WASHINGTON

(Continued from page 288)

Doing much with how little?

The average cost last year per room of public housing constructed was \$1664. This was on the basis of cost of the dwelling and equipment, plus a five per cent contingency allowance, and was well under the \$1750 per room limit specified in the law. (The law provides that with PHA approval a limit of \$2500 is permissible wherever there is solid justification for high construction costs. As the Commissioner points out, the \$1664 per room average shows that the high cost exceptions were few last year.)

In its new concept of public housing appearance, PHA stands for construction of projects rather than individual units scattered throughout a rundown city area, on the theory that the construction of many good and attractive houses at one location provides a decided advantage in changing the character of a neighborhood.

Mr. Slusser views it this way: "A complete public housing dwelling unit, including every cost, could be built last year for \$10,800 — that was the average in a study of 257 projects. Now, suppose that that much money could be dribbled out on scattered houses in a slum area. Individual houses would be at the mercy of the vicious forces that made the area sub-standard. On the other hand, a housing project of 200 units or more is the sort of sledge-hammer blow that makes blight retreat, that establishes a base of operations from which we can move on to rehabilitation, and a rebirth of the moral forces which make a city's run-down areas come to life again, take on new hope."

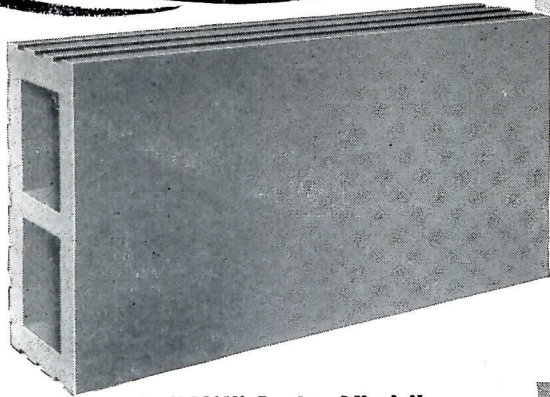
BRAB LAUNCHES SURVEY OF CLIMATE DATA NEEDS

The construction industry may soon join other industries making regular use of weather data. The Building Research Advisory Board has announced that its Climatic Research Committee has started a survey of its members' respective organizations to determine what kind of climatic information is needed in their practices.

The whole effect was initiated earlier this year in a meeting of the committee with Dr. F. W. Reichelderfer of the U. S. Weather Bureau and his staff. Dr. Reich-

(Continued on page 296)

*The Double Feature
building material*



"8W" Series Vitritile

Features ground edges—for uniform, narrow mortar joints; and large unit face size (nominal 8" x 16")—for a minimum number of joints in the wall.

NATCO structural ceramic glazed

VITRITILE

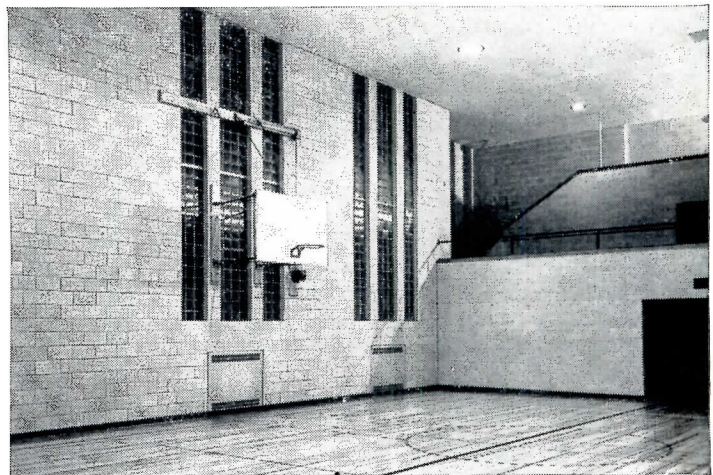
**builds strong, load-bearing
walls with interior finish
of life time beauty—
all in one operation**

Many schools throughout the country are enhanced with Natco Structural Ceramic Glazed VITRITILE—the one building material with a double-barreled construction advantage . . . builds a sound structural wall *plus* a colorful, everlasting wear-proof interior finish—all in one operation!

In lunchrooms, class rooms, locker rooms, corridors, gymnasiums and cafeterias, this versatile material is being specified for its ability to withstand dirt, vandalism and marring. And it will look as beautiful years ahead as it does when



Natco "6T" Series Vitritile in Shades Valley High School, Homewood, Alabama
Architects: Van Keuren, Davis & Company



Natco "8W" Series Vitritile in Wauwatosa High School, Wauwatosa, Wisconsin
Architects: Herbst & Kuenzle

erected—inexpensive washing with soap and water is all the maintenance it ever needs.

Architects, builders and contractors are sold on the many service advantages of durable Natco Vitritile. There's less labor, less cutting, less material waste at erection. This flexible unit adapts to any design idea—offers a wide selection of colors too. Put double-feature Natco Structural Ceramic Glazed Vitritile to work on your school building jobs. Time-tested installations prove it lowest in cost over the years.

17 STRATEGICALLY LOCATED CLAY PLANTS

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North Birmingham (7), Ala., P. O. Box 5476, North Birmingham Station
Tel. BIRMINGHAM 4-1881

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Pittsburgh (22), Pa., 327 Fifth Avenue, Tel. GRANT 1-9370

Syracuse (10), N. Y., 225 Kensington Place, Tel. SYRACUSE 76-1569

Toronto (5), Ontario, Canada, 57 Bloor Street, West



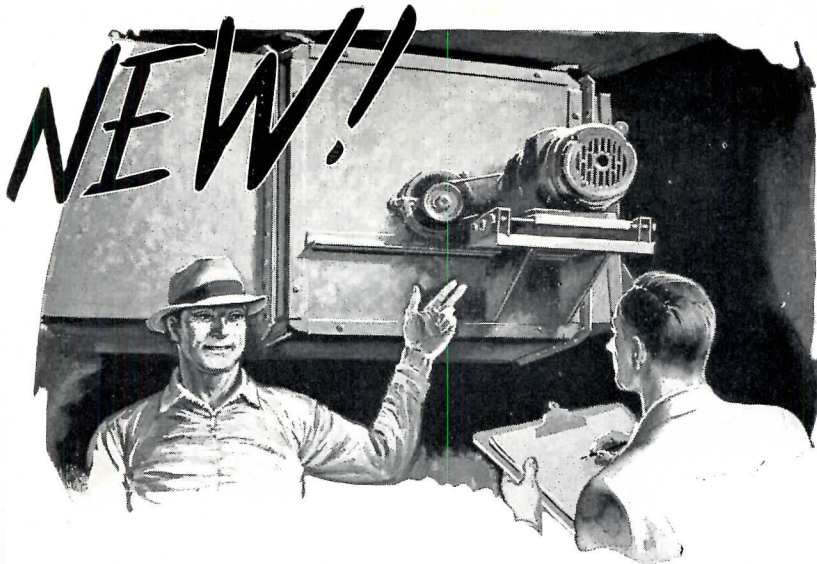
there is no substitute for



structural clay products



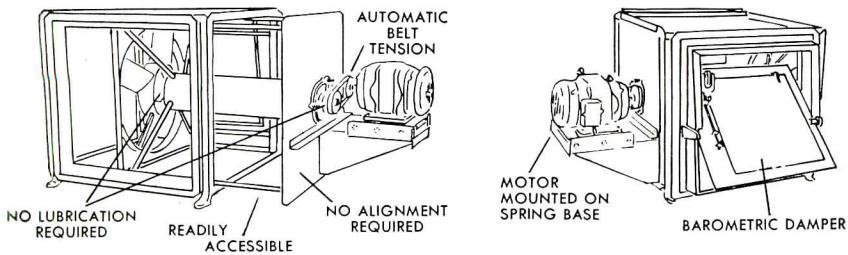
WASHINGTON
(Continued from page 292)



"This Wing Draft Inducer is great! I don't have to touch it—never have to lubricate it—it never requires attention"

The new Wing Draft Inducer has many unique features:

- ★ Gas Inlet may be at top, bottom or any side—may easily be changed in the field.
- ★ Unit may be withdrawn from casing for inspection or service.
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- ★ Motor belt always at correct tension.

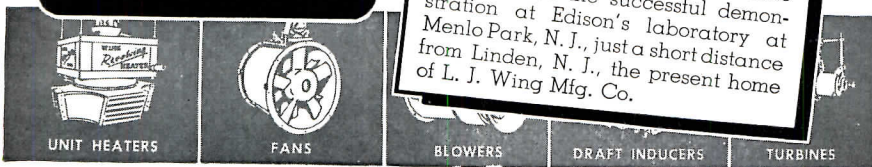
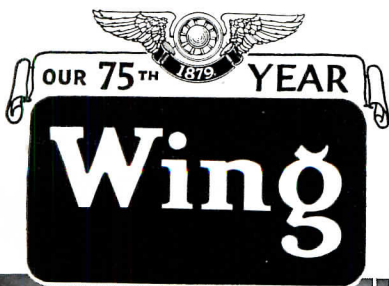


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elderfer told the BRAB committee that data could be furnished to all parts of the building and construction industry, just as it is now to agriculture, aeronautics and other pursuits, if the needs were discovered.

BIG DEMAND IS EXPECTED IN INDUSTRIAL BUILDING

The U. S. Chamber of Commerce analyzed plant and equipment expenditures over several past decades and concluded there is "a real and large demand" for additional construction of this kind. While industrial construction has topped \$2 million for the past three years, expenditures for industrial plants have actually lagged far behind investments in other capital goods.

For example, after allowance for price changes the average amount of new plant construction for the eight years after World War II was \$1.59 billion compared with \$1.26 billion after World War I, a gain of 26 per cent. By contrast, industrial production increased 156 per cent on a comparative basis. In these same periods, plant building also lagged behind the increase in gross national product.

In relation of over-all spending to capital goods, the Chamber said, the amount for new plants appears to be off as much as one third from the first postwar era to the second. It was believed the reason lay rather in the relatively greater increase in construction costs than in machinery costs. Another factor would be the ability of industry to make more efficient use of existing space by buying modern machinery and making improvements through installation of better lighting, air conditioning, etc.

PROPOSE LOAN INSURANCE FOR HOSPITAL BUILDING

The House Interstate Commerce Committee last month launched legislation proposing FHA-type loan insurance for the construction of hospitals and other medical facilities. It held hearings on Representative Wolverton's (R—N. J.) bill H. R. 7700 calling for a medical facilities mortgage fund to be used by U. S. Public Health Service in carrying

(Continued on page 300)



modern gymnasium-auditoriums deserve
 "the finest floor that grows"



NORTHERN HARD MAPLE

The multi-purpose room, so characteristic of the modern school building, ought always to be floored with Northern Hard Maple. And for reasons that aren't mere whims or opinions.

As a gym floor, no other wood and no mere floor *covering* serves so well, so long, with such universal satisfaction on the part of players, coaches and trainers. Northern Hard Maple is highly *resilient*—resists dents and mars. Court-lines stand out sharply on its bright surface. It's smooth, tight, enduring. It's "foot-friendly"—has a "live" instead of a "dead" feel. Routine maintenance is easy, re-surfacing quick and simple.

And for other purposes, your Maple floor is, invariably, either better or equally acceptable. Cost of MFMA-certified Maple, especially in the handsome, thoroughly sound Second-and-Better grade (popularly known as "the gymnasium grade") is no more than most substitutes—often less. Maintenance is cheaper, service life *much* longer, satisfaction *much* greater. This, gentlemen, is a fair and true statement of the case. We believe you'll agree it points to Maple emphatically as the prudent choice.

ABOVE—Oak Lawn Community High School, Oak Lawn, Ill. Madden & Connor, Architects, Harvey, Ill. Flooring, Northern Hard Maple.

See Sweet's
 (Arch. 12k-MA) or
 write for AIA data
 file folder and latest
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FLOOR WITH **NORTHERN** HARD MAPLE
 BEECH AND BIRCH

THE RECORD REPORTS

WASHINGTON (Cont. from p. 296)

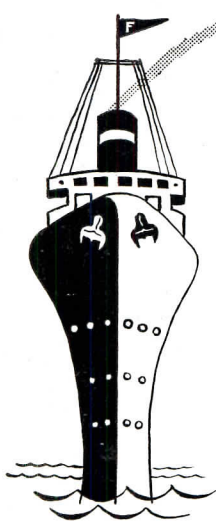
out the mortgage insurance terms of his measure. A revolving fund of \$2.5 million would be authorized, but the amount of all insured mortgages outstanding could not exceed \$1 billion, except with Presidential approval.

The plan would apply only when the local sponsor was a nonprofit private agency or similar group. The insurance would be held to cover not more than \$5 million on any one project, and interest

rates would be placed at six per cent, or six and one half per cent if the Surgeon General found the mortgage market demanded it.

Representative Wolverton was convinced his bill would result in a tremendous expansion and extension of medical care services and facilities. The system would finance hospitals and other medical facilities used on connection with voluntary prepayment health plans.

Meanwhile, Secretary of Health, Education and Welfare Oveta Culp Hobby told a Senate labor subcommittee there had been a net loss in number of acceptable hospital beds for patients with chronic diseases. The Hill-Burton hospital construction program, valuable as it is, has not yet provided a balanced answer to the nation's needs for hospital and health facilities, she stated. The shortage is expensive in that it has led to the crowding of chronically ill patients into general hospitals which are more costly to operate and are needed for patients with acute conditions.



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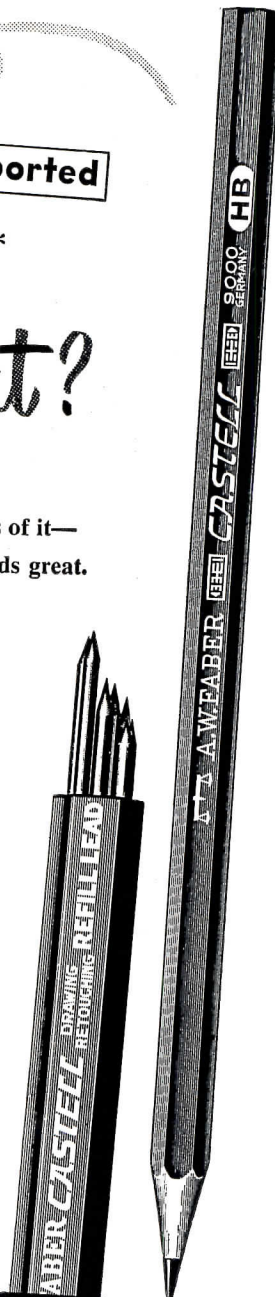
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AIRPORT AID MAY RESUME WITH SOME MODIFICATION

There appeared to be good prospects that new life would be breathed into the dormant airport construction program. The Department of Commerce asked for new money for fiscal 1955—approximately \$30 million—to pick up the program that was suspended last year.

The new plan, however, might exclude Federal aid for construction of air terminal buildings, thus narrowing the range of the architect's participation.

A study has recommended several changes in the reactivated program. For one thing, it was suggested that the basic standards for determining eligibility of specific projects should be tightened substantially. Criteria of national aeronautical importance would be used. Also, it was proposed to increase the discretionary fund that can be spent by the Civil Aeronautics Administration without fixed geographical apportionment. This, it is felt, would permit more flexible administration of the program in accordance with over-all national needs.

The suggestion that terminal buildings be excluded was made to give the agency more opportunity to concentrate on facilities such as runways and lighting, it was said.

NO SPECIAL SHELTERS IN FCDA EVACUATION PLANS

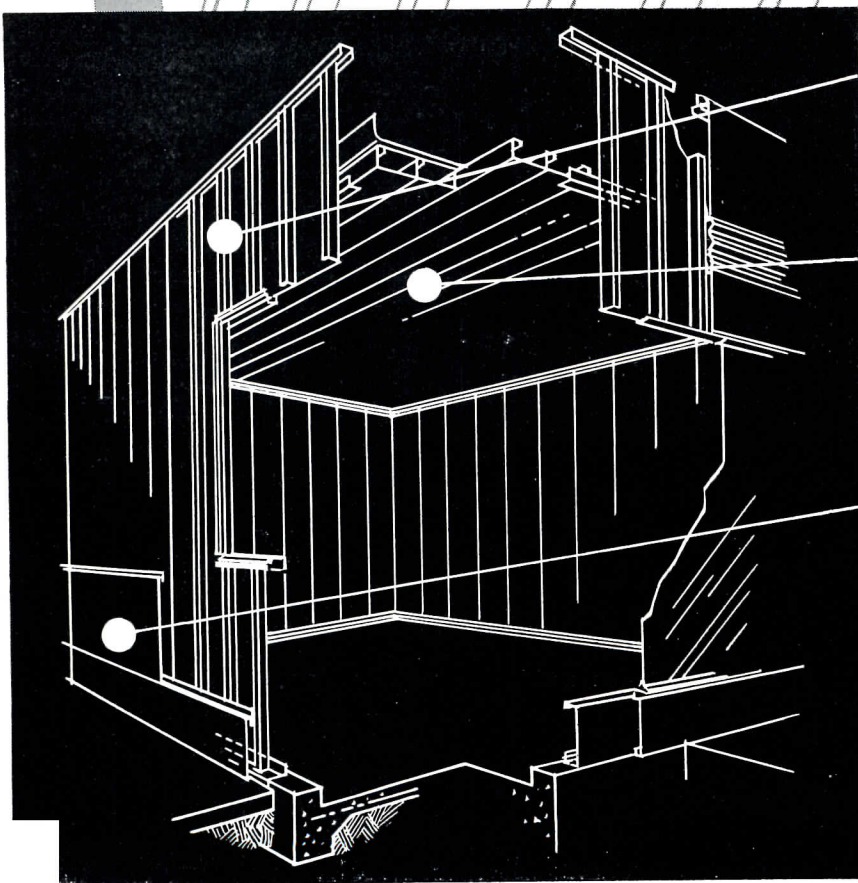
The Federal Civil Defense Administration has no plans presently for new shelter construction to house persons evacuated from metropolitan centers in event of enemy attack.

This does not mean the agency is not giving attention to the problem. Under

(Continued on page 304)

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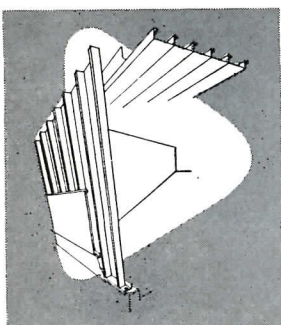
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the heading of welfare services, it is promoting the use of existing structures such as schools, armories, Army barracks and other institutional-type buildings where reception centers might be established to care for those who would be forced to abandon cities temporarily.

This planning was required when the Federal government switched its policy on civil defense from one of protective

shelter within cities to near total evacuation.

FCDA also is counting on the probability that much housing in any given area could safely be reoccupied a short time following an attack. That's one reason the emphasis is on provision of temporary shelter elsewhere, rather than on new construction of more permanent housing.

• President Eisenhower signed the bill authorizing establishment of a new Air Force academy comparable to the present service schools at Annapolis and West Point. The new law carries authorization for expenditure of \$126 million, \$26 million of it to be spent for "preliminary work" such as getting classes underway temporarily in substitute quarters. A five-man commission was appointed by Air Secretary Talbott to recommend possible sites for locating the permanent establishment. He must abide by the commission's selection if it turns out to be an unanimous agreement on one site; otherwise, he chooses from one of three locations it names.

• W. E. "Bert" Reynolds, widely known to the construction industry for his work with the Public Buildings Service, plans to retire as PBS Commissioner about June 30. He has been in the Federal Service for 21 years and at the age of 66 is considered a top authority in the public buildings field.

• Private U. S. engineering, contracting and consulting firms operating abroad received almost a quarter of a billion dollars for their services in 1952, the Commerce Department's Office of Business Economics reported. Service receipts of \$99 million for 1952 reflected a gain of more than one fourth over the \$77 million received in the previous year, and exceeded 1950's figure of \$66.5 million by nearly 50 per cent, OBE said.

• Quotes from a House Appropriations Committee report on the Interior Department, with special reference to the Bureau of Reclamation: "The general practice of the Bureau to overdesign structures and facilities has been observed on some of the projects by the committee members and has been reported by competent engineers. The committee is also aware of the tendency on the part of some architects and engineers to sacrifice practical considerations and taxpayers' dollars by requiring specially manufactured equipment and nonstandard fabrication where standard items could be used. It is urged that the Commissioner interest himself in this particular problem in an effort to achieve economies in the program wherever possible. It should not be necessary for the committee or the Congress to have to direct attention to such items as this."

(More news on page 308)

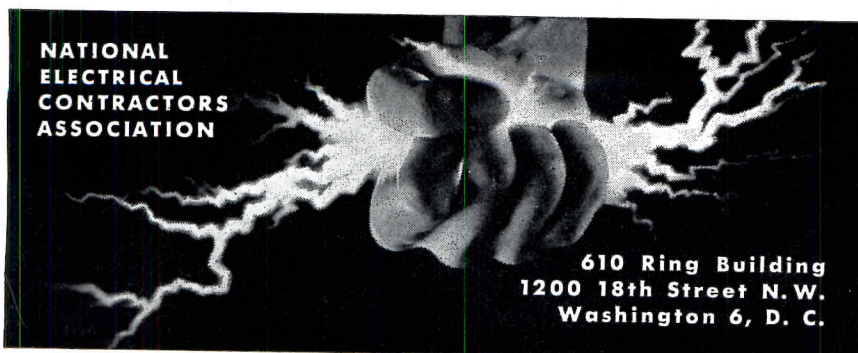
WHY A
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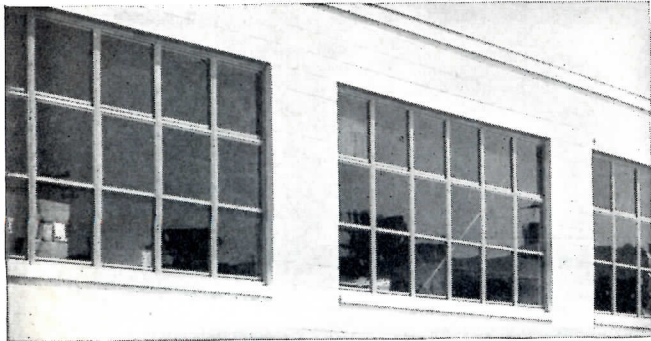
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And there are more good reasons why you will find it profitable to discuss your next job with your Qualified Electrical Contractor. You'll find his name under the NECA Seal in your Classified Telephone Directory.



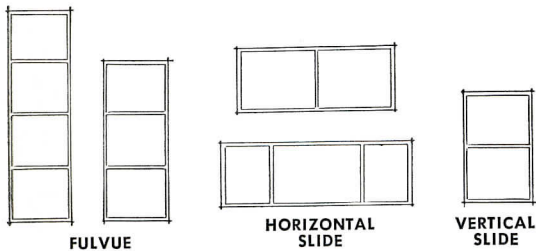
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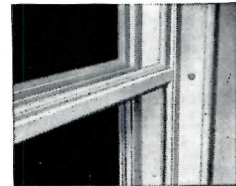
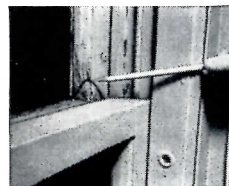
These windows offer exceptional characteristics of design flexibility, weather tightness and economy. Precision-manufactured in complete form—glazed, finish-painted with baked-on enamel, fully weatherstripped, complete with casing. Installation is extremely simple and fast. Units easily joined in series with streamlined non-load-bearing mullions. Available with insulating sash and Fiberglas screen, if desired.



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before

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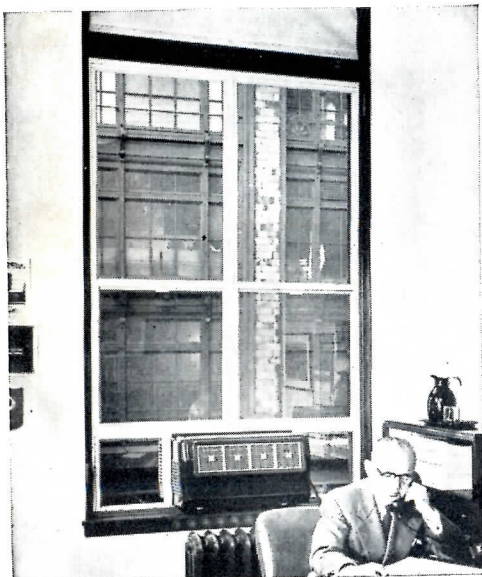
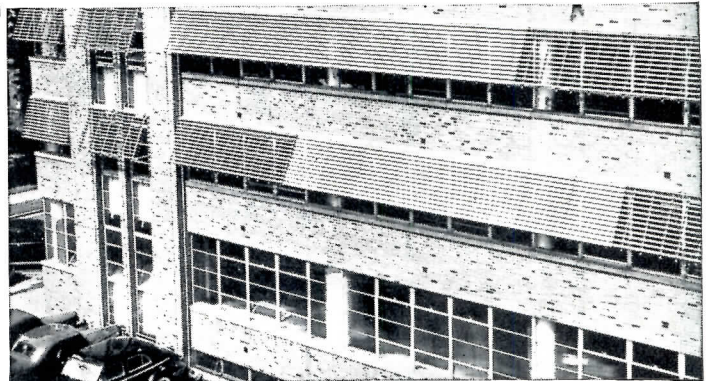


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(Continued from page 306)

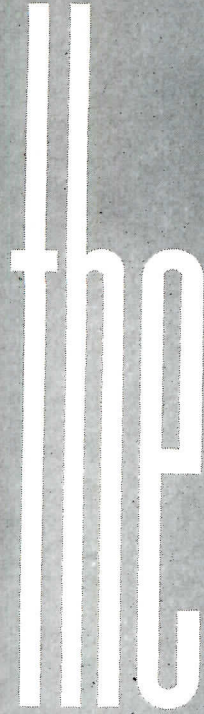
ON THE CALENDAR

- May**—
- 2-7 36th Annual Meeting, Scientific Apparatus Makers Association — Broadmoor, Colorado Springs, Colo.
 - 3-4 Spring meeting, National Building Material Distributors Association — Hotel Statler, Washington, D. C.

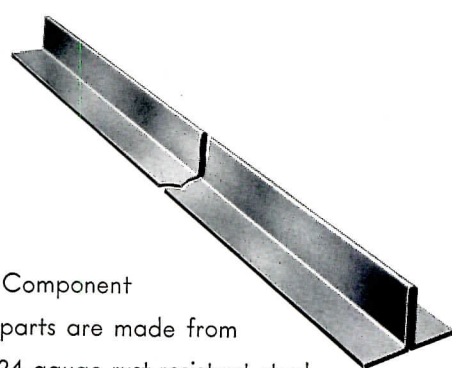
- 3-5 Annual Meeting, Air Pollution Control Association — Patten Hotel, Chattanooga, Tenn.
- 3-7 Semi-Annual Convention, Society of Motion Picture and Television Engineers — Washington, D. C.
- 3-14 British Industries Fair — Olympia and Earls Court, London, and Castle Bromwich, Birmingham, England

- 4 Annual meeting, members and Board of Directors, Steel Joist Institute — The Boca Raton Club, Boca Raton, Fla.
- 5-7 Eighth National Meeting, Forest Products Research Society, and 1954 Woodworkers' Industry Show — Grand Rapids, Mich.
- 5-7 Second Welding and Allied Industry Exposition — Memorial Auditorium, Buffalo, N. Y.
- 5-16 1954 Annual Exhibition, Philadelphia Chapter, American Institute of Architects — Philadelphia Art Alliance, 251 S. 18th St., Philadelphia
- 7-8 Annual convention, Pennsylvania Society of Professional Engineers — Bedford Springs Hotel, Bedford, Pa. Information: L. F. Tierney, 301 Pine St., Hollidaysburg, Pa.
- 7-8 1954 Convention, Michigan Engineering Society — Jackson, Mich.
- 10-13 39th Annual Conference, Building Officials Conference of America — Bellevue Stratford Hotel, Philadelphia
- 10-14 Annual Assembly, Royal Architectural Institute of Canada — Montreal
- 16-20 Annual convention, Special Libraries Association — Netherland Plaza Hotel, Cincinnati
- 17-20 Second Basic Materials Exposition — International Amphitheatre, Chicago
- 18-21 American Planning and Civic Association Conference — Columbus, Ohio
- 24-27 35th International Conference and 1954 Office Machinery and Equipment Exposition — Kiel Auditorium, St. Louis
- 24ff New Work in Stained Glass; American Federation of Arts traveling exhibition; through June 14 — Chattanooga Art Association, Chattanooga, Tenn.
- 26-29 1954 British Architects Conference — Torquay, England. Information: C. D. Spragg, Secretary, Royal Institute of British Architects, 66 Portland Place, London W. 1, England
- 27ff Building Your Home, 1954: exhibition of building design, materials and products; sponsored by Architectural League of New York; through June 6 — 71st Reg. Armory, 34th St. and Park Ave., New York City

(Continued on page 310)



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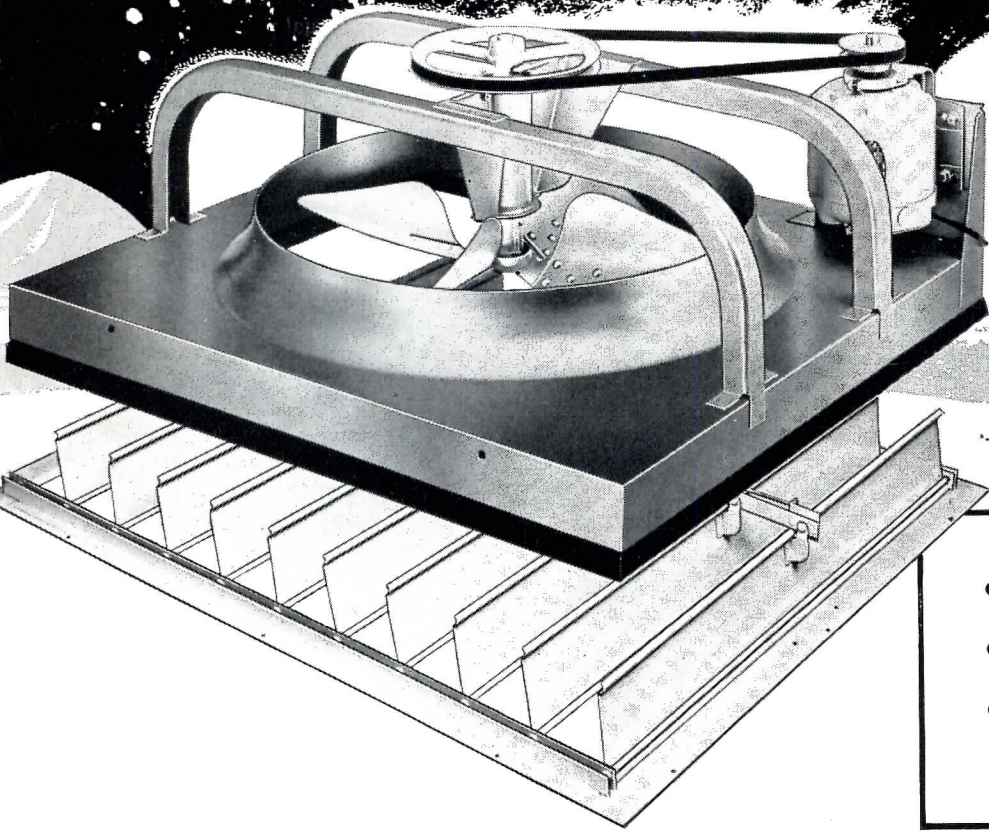
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HUNTER Attic Fans

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THE RECORD REPORTS

(Continued from page 308)

31ff Canadian International Trade Fair; through June 11 — Exhibition Park, Toronto, Canada

June

Japanese House: an exhibition of a house designed and built in Japan by Junzo Yoshimura — Sculpture Garden, Museum of Modern Art, 11 W. 53rd St., New York City

7-8 23rd Annual Meeting, National Housing Conference — Hotel Statler, Washington, D. C.

7-10 Sixth National Plastics Exposition, sponsored by the Society of the Plastics Industry, Inc. — Cleveland Auditorium, Cleveland

10-12 Joint annual convention, New Jersey Chapter, American Institute of Architects and New Jersey Society of Architects — Berkeley-Carteret Hotel, Asbury Park, N. J.

13-18 Annual Meeting, American So-

ciety for Testing Materials — Sherman and Morrison Hotels, Chicago

14-18 62nd Annual Meeting, American Society for Engineering Education — University of Illinois, Champaign-Urbana, Ill.

15-19 86th Annual Convention, The American Institute of Architects — Hotel Statler, Boston

15-25 Special summer program in soil technology — Massachusetts Institute of Technology, Cambridge 39, Mass.

19-20 Pre-Conference Library Buildings Institute, sponsored by American Library Association — St. Paul

20 Good Design Anniversary Exhibition, sponsored by the Museum of Modern Art and the Merchandise Mart, opens in Chicago; to be on view throughout the year — The Merchandise Mart, Chicago

21-23 Thin Concrete Shells, a conference jointly sponsored by the Departments of Civil Engineering and Architecture — Massachusetts Institute of Technology, Cambridge 39, Mass.

21-25 Summer and Pacific General Meeting, American Institute of Electrical Engineers — Hotel Biltmore, Los Angeles

24-30 23rd Annual Conference, American Institute of Decorators, and exhibition "Decoration 1954" — Palmer House, Chicago

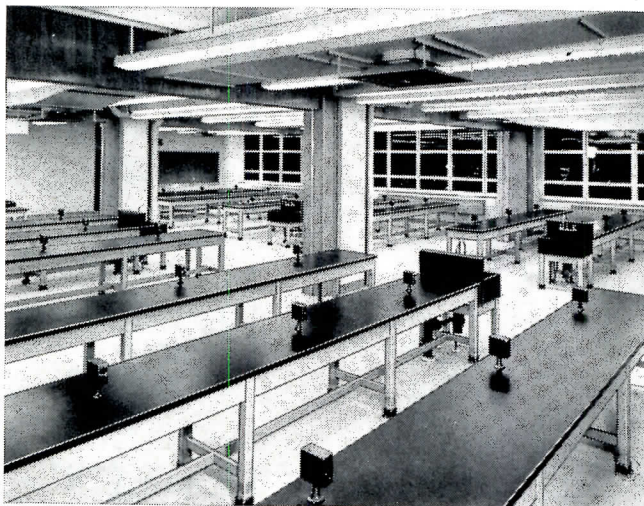
27ff 92nd Annual Meeting, National Education Association; through July 2 — New York City

30ff Playground Sculpture Competition: exhibition of prize-winning designs in a competition sponsored by Parents Magazine, the Museum of Modern Art and Creative Playthings Inc.; through Aug. 22 — Museum of Modern Art, 11 W. 53rd St., New York

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There are two things you will always remember about the installation of Kewaunee Laboratory Equipment for your clients.

First—the expert assistance you receive from the experienced Kewaunee Laboratory Engineer right at the start of the job without any cost or obligation. He brings right to your elbow such a storehouse of practical experience gained on work done for America's finest laboratories. He knows how to save money, too—how to lay out your client's laboratory to permit most economical future expansion. It's important to have him on the job early, as some of the important savings he will help you make may be outside the laboratory itself.

The second thing you will remember is the painstaking way the Kewaunee people follow through on the job. That goes for the quality construction of every piece at the factory, and the expert installation to give day after day efficiency and convenience.

Take your choice of these Free Kewaunee Services

1. Write for the Free Kewaunee Laboratory Equipment Catalogs for schools. Specify whether you are interested in wood or metal.
2. Send us your client's laboratory floor plans and any other helpful information. Our staff of Laboratory Engineers will prepare a complete layout without cost to you. And if you will tell us when you would like to talk with the Kewaunee Laboratory Engineer, he will soon be "at your elbow" without cost or obligation.



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OFFICE NOTES

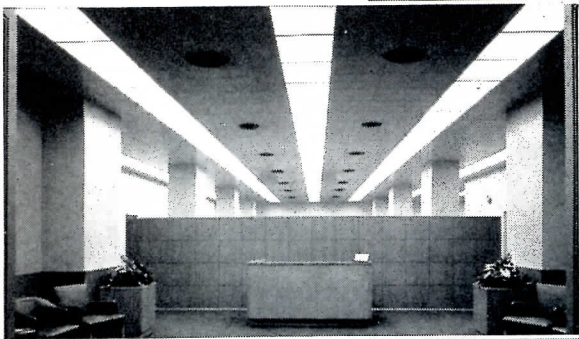
Offices Opened

• Charlie G. Taylor, Architect and Engineer, and Harry J. Devlin have opened offices for the practice of architecture and engineering at 213 O'Michael Building, 300 N. Jackson, Odessa, Tex.

• Woodburn & O'Neil, Architects and Engineers, have announced the opening of offices at 215 Jewett Building, Des

(Continued on page 312)

Architects—Holabird & Root & Burgee
 Lighting Fixtures—Morris Kurtzon, Inc.
 Electrical Contractors—Kelso-Burnett Electric Co., Inc.
 Lightingware—Corning Fota-Lite



▲ Visitors are greeted in a pleasant, well-lighted reception area. Workers in the area beyond the smart panel find that Fota-Lite illumination is glare and shadow free.

▶ A perimeter of Fota-Lite brightens this executive office, while a concentrated area over the desk provides excellent illumination for reading and writing. Fota-Lite is perfect for luxury lighting.



How modern offices can use Corning Fota-Lite to advantage

The rich setting of these new offices of a large oil company show how CORNING Fota-Lite is used best. Notice how evenly it distributes light.

Fota-Lite is richly rewarding to work with. It gives you all of the lighting advantages of louvered lighting *plus* the advantages of flat glass—easy cleaning.

Fota-Lite provides high levels of illumination with low brightness. The soft opal louvers afford diffusion at normal viewing an-

gles. Vertical light, however, is unrestricted.

Fota-Lite is not color selective. You can use it freely for wonderful effects where colors form a mood or where color encourages a buying decision.

What is Fota-Lite?

It's fine crystal glass in which tiny opal louvers are created by a photographic process. Strong, lightweight, free of warpage, Fota-Lite encloses light sources with a minimum of bulk. You can

use it for an entire luminous ceiling or for keying interest to relatively small areas. Fota-Lite offers rare value when it comes to beautiful lighting and lighting that is efficient. And the smooth glass surface permits easier cleaning.

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Company.....

Address.....

City.....Zone.....State.....

THE RECORD REPORTS

(Continued from page 310)

Moines, Iowa. Members of the firm are Chester C. Woodburn, Eugene C. O'Neil, and William M. Woodburn; Chester C. Woodburn was formerly a partner in the firm of Dougher, Rich & Woodburn.

Firm Changes

• Taylor and Fisher, Architects, have announced the admission to partnership

of Warren Austin Bowersock. The firm's offices are in Baltimore.

New Addresses

R. J. Brocker, Architect and Engineer, 401 S. Maple Ave., Greensburg, Pa.

Katz Waisman Blumenkranz Stein Weber, Architects Associated, 551 Fifth Ave., New York 17, N. Y.

Maynard Lyndon, F.A.I.A., 3460 Wilshire Blvd., Los Angeles 5, Calif.

Slater & Chait, Architects, 244 E. 32nd St., New York 16, N. Y.

PUBLIC RELATIONS NOTES

THE BALTIMORE CHAPTER of the American Institute of Architects doubles, collectively, as columnist. The column, called the "Architect's Corner," is published weekly in the *Baltimore Sunday American* in the paper's real estate section. Articles are written by various members of the chapter.

WEST VIRGINIA STATE MAGAZINE recently devoted an entire issue to the state's architecture. The issue contained several articles on architecture, some of them written by the architects themselves, and featured several pages of illustrations of current West Virginia architecture. The editors plan to make this the first time for an annual project.

THE KANSAS CITY CHAPTER of the A.I.A. has acquired a weekly ten minutes of television time, which the Kansas City station, WHB-TV, offered free as a public service. The chapter considered a film program, but finally decided in favor of a discussion-type presentation. The program will run for 13 weeks.

ANOTHER TELEVISION VENTURE which boosted architects and architecture was WOR-TV's program broadcast from New York, "Design for Your Living." A series of four half-hour programs had Thomas Creighton, editor of *Progressive Architecture*, as master of ceremonies; three architects were guests each week to discuss such diverse subjects as house design, school design, and furnishings.

PUBLIC RELATIONS in the form of substantial civic service is being offered by the Chicago Chapter of the A.I.A. Members of the chapter have volunteered to investigate possible sites for a Chicago city center — thus taking some of the burden from the overworked staff of the Chicago Plan Commission.

FULL PUBLIC CREDIT was given to Washington architects John Hans Graham and Associates for their design for the Arthur Murray Dance Studios in that city. Mr. Graham was even invited to appear with Mrs. Murray on a number of television programs marking the studio's grand opening — notable since the architect is too often the forgotten man at such ceremonies.

(More news on page 314)



modern
in design...with
modern
air
conditioning
equipment
by
Marlo

Every detail of this handsome structure in Washington, D. C., was planned to achieve the utmost in beauty, efficiency and luxurious comfort. It is the new home of the Perpetual Building Association.

Year-round air conditioning is an important feature of the progressive merchandising techniques which have made this 73-year-old company the leader in its field. Marlo Spray Type Dehumidifiers, Marlo Steam Coils and Marlo Water Coils perform a vital service in the winter-summer comfort-conditioning system serving this modern building.

In the complete line of quality Marlo equipment, you'll find the answer to any air conditioning problem. Marlo will be glad to give you complete details. Write today.

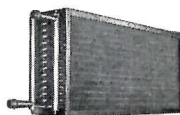
See our bulletin in Sweet's Catalog

Air Conditioning and Heating Contractor:
Standard Engineering Co., Washington, D. C.

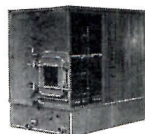
Architects and General Contractors:
Bank Building and Equipment Co., St. Louis
W. G. Knoebel, Chief Architect

Consulting Engineers:
Ferris and Hamig, St. Louis

Consulting Architect:
Robert O. Scholz, Washington, D. C.



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Marlo Spray Type Dehumidifiers

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Manufacturers of COOLING TOWERS • EVAPORATIVE CONDENSERS • INDUSTRIAL COOLERS • AIR CONDITIONING UNITS • MULTI-ZONE UNITS • BLAST HEATING & COOLING COILS

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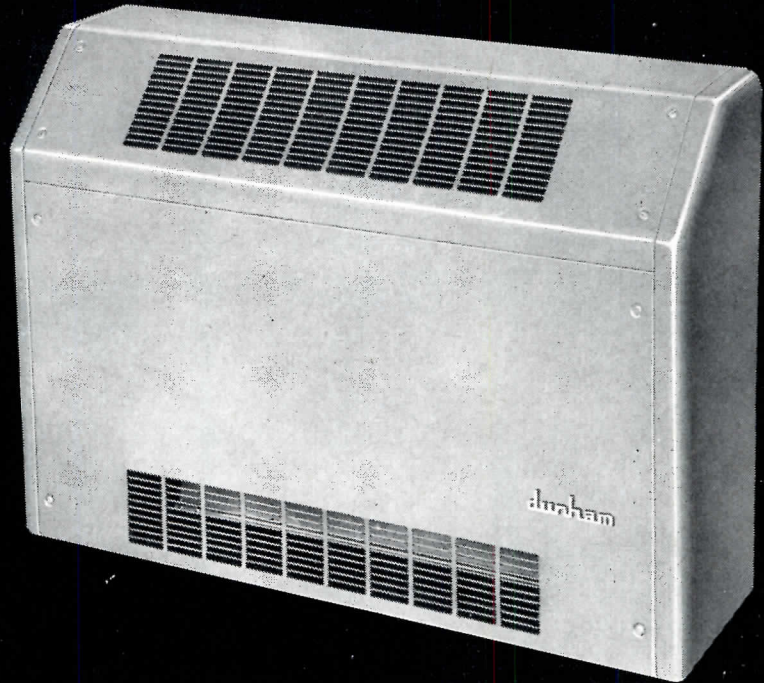


"Easy to mount on floor, wall or ceiling"



"Uses hot and cold running water"

HERE'S THE NEW ALL-WEATHER VARI-TEMP



NEW DUNHAM CABINET HEATS, COOLS, VENTILATES TO SUIT INDIVIDUAL ROOM REQUIREMENTS

New Dunham "Vari-Temp" Cabinets now put year 'round air conditioned comfort within reach of every budget . . . and within easy reach of every room occupant. For "Vari-Temp," with twin blower fans, heats, cools, ventilates, filters and dehumidifies *on an individual room basis.*

Since there's no need for central system duct work, Dunham "Vari-Temp" costs less to install and maintain. A single riser, connected to the unit, supplies hot water for heating—chilled water for cooling.

Units are also available for heating with steam coil, or heating and ventilating with non-freeze steam coil.

In addition, these handsome, compact cabinets save space. *One "Vari-Temp" delivers the same amount of heat as five radiators* equal to it in size!

For further information about space-saving, money-saving, room-controlled Dunham "Vari-Temp" Cabinets . . . clip and mail the coupon.

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C. A. DUNHAM COMPANY
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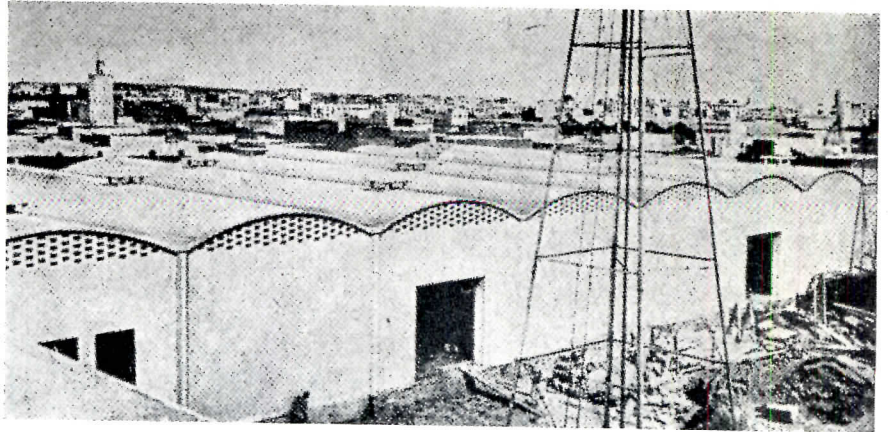
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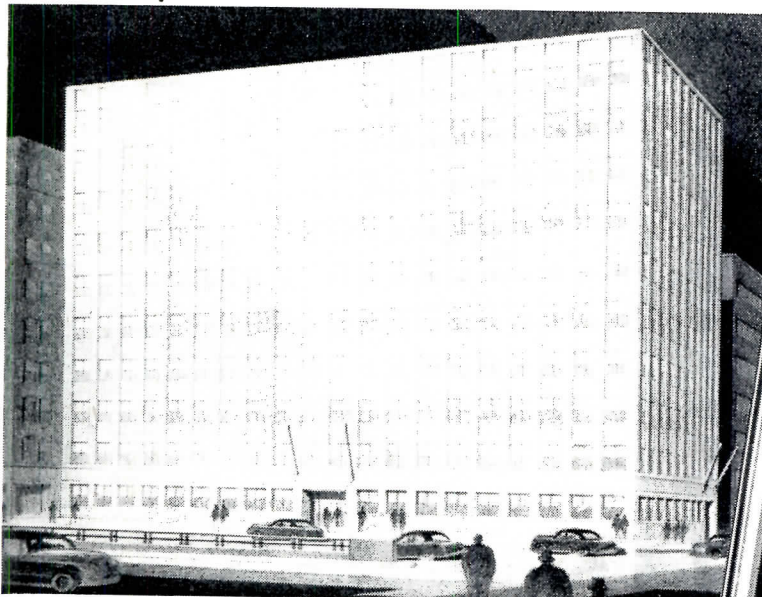
Perret (Continued from page 11)

1915 — Docks, Casablanca
 "It is by the repetition of an element that one creates rhythm"



Once again...and for the life of the building...it's Clow "IPS"*

...the pipe that never needs to be replaced!



Sinclair Building, Chicago, Illinois
 Owner: John W. Galbreath & Co., Inc., New York, N.Y.
 Architect: Holabird & Root & Burgee
 Plumbing contractor: Economy Plumbing & Heating Co.

Famous architects consistently specify Clow "IPS"* (threaded) Cast Iron Pipe

With the world-famous architects of the handsome new Sinclair Building it is standard practice to specify Clow "IPS" (threaded) Cast Iron Pipe for all downspouts, vents, and waste lines three inches and larger. Over four thousand feet of Clow "IPS" pipe have been installed in the Sinclair Building and once installed, it's there for good. Because of the corrosion-proof characteristics of cast iron, there'll be no replacement, and no upkeep cost. Installation is fast, economical . . . and permanent.

*Iron Pipe Size O. D.

AMES B. CLOW & SONS

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Clow "IPS" (threaded) Cast Iron Pipe has same O.D. as steel pipe, is available with plain or threaded ends, in 3, 4, 5, 6, 8, and 10" sizes in 18' random lengths. Also available with integral calking hub on one end (other end plain) in 18' random lengths in 4, 6, and 8" sizes.

Clow Cast Iron Pipe can be...

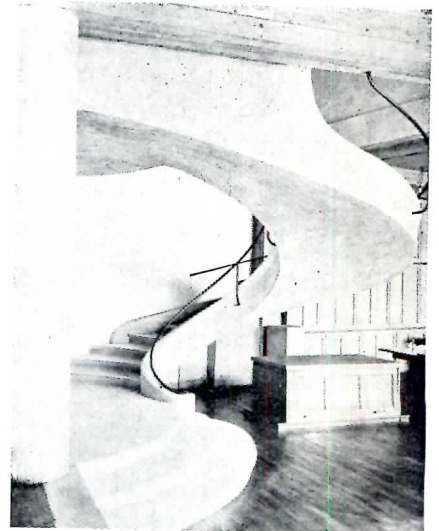


on the job, with ordinary tools of the piping trade.

WHOLESALEERS OF PLUMBING AND HEATING SUPPLIES
 Publishers of the Clow Bulletin



1929 — Auditorium, School of Music, Paris
 "Perret promised me a violin; he did not say it would be a Stradivarius" — Alfred Cortot, Director

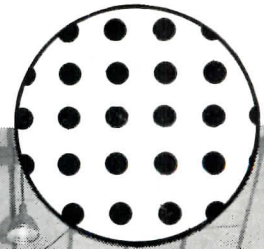


1929 — Perret's Studios, Paris
 "The art of architecture is not in materials; it is in the arrangement of materials"

No Wonder More and More Specifications

Call For **HANSOTONE***

the PERFORATED ACOUSTICAL
FORMBOARD for POURED GYPSUM
ROOF DECKS

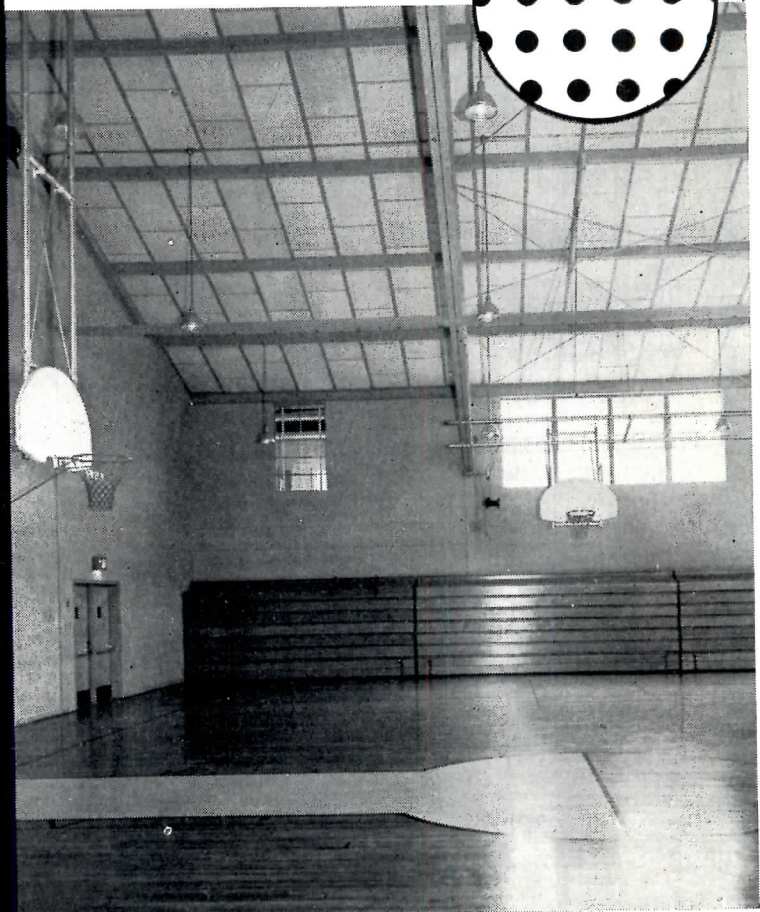


LOWER MATERIAL COST

LOWEST INSTALLATION COST

Here's an extra strong wood fiber board developed exclusively for use with poured-in-place gypsum roof decks. It's the only perforated Acoustical Formboard with a 32" span . . . which means lower material costs . . . and lower installation costs. HANSOTONE combines high thermal insulation with outstanding sound absorbing qualities to provide a permanent, rigid, and attractive base for the gypsum concrete.

- Thickness—1"
- Sound Absorption—.60 NRC
- Size—32 x 48"
- K Factor — .35
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- Protected against termites and mildew



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Architect — Bodin & Lamberson
Gen. Contractor — Hardin & Traver
Hansotone Contractor—Lewis & Co. Assoc., Inc.

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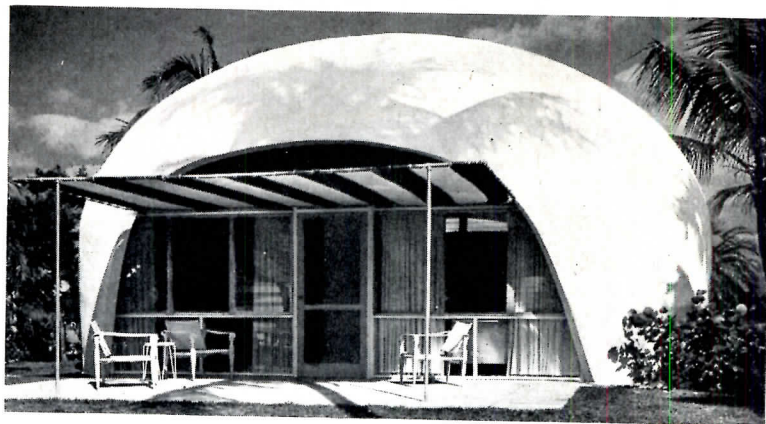
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THE RECORD REPORTS

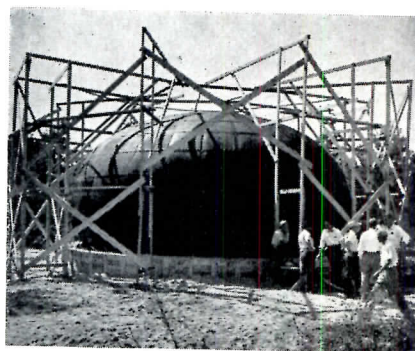
(Continued from page 312)

CONCRETE BUBBLE HOUSES COMPLETED IN FLORIDA

One solution to the problem of constructing houses quickly and cheaply has been put forward at Hobe Sound, Fla., where two concrete "bubble houses" designed by architect Eliot Noyes have been completed.



Above: one of the finished bubble houses, ready for occupancy. Below: the inflated balloon, prior to being wrapped in wire mesh and reinforcing rods; scaffold is used by men working the hose



FACTS FOR ARCHITECTS

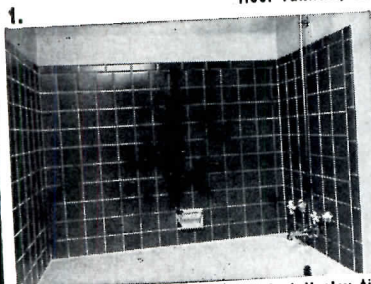
ABOUT "CONSTRUCTION BY ADHESION" *

HERE ARE NEW METHODS WHICH MEAN SUBSTANTIAL SAVINGS IN LABOR AND MATERIALS FOR MODERN CONSTRUCTION

MIRACLE ADHESIVES CORP.
 214 E. 53 St. • New York 22, N. Y.
 "CONSTRUCTION BY ADHESION"
 *Reg. U.S. Pat. Off.

in both **NEW** building and **MODERNIZATION**

WRITE TODAY FOR RECOMMENDED SPECIFICATIONS ON
 1. Setting Genuine Clay Tile. 2. Insulating Ducts. 3. Insulating walls and ceilings either by Direct Adhesion or in conjunction with Surface Anchors. 4. Installing floor runners; bonding furring strips.



1. Today it is normal procedure to install clay tile in hotel bathrooms without losing a night's revenue. This illustration shows one of the 144 rooms in the White Plaza Hotel, Dallas, Texas, in which MIRACLE ADHESIVE was used to do the job from the time the guest left his room in the morning until he returned that afternoon.



2. Plaster applied over wire and cork which has been attached to aluminum ducts using MIRACLE ADHESIVE and MIRACLE SPINDLE ANCHORS at John Hancock Mutual Life Insurance Co. Building, Boston, Mass. ARCHITECT, Cram and Ferguson. BUILDER, Turner Construction Co.



3. FIBERGLAS insulation, Type PF-613, 2" thick — bonded to concrete ceiling using MIRACLE PRONGED ANCHORS at Radio City Studio 6B, New York, N. Y. CONTRACTOR, William J. Scully, Inc., New York, N. Y.



4. WOOD RUNNERS installed on concrete floors with MIRACLE ADHESIVE and MIRACLE ANCHOR NAILS to support 2" solid partitions. Washington Circle Apartments, Washington, D.C. GENERAL CONTRACTOR, Charles H. Tompkins Company.

VISIT MIRACLE EXHIBIT AT ARCHITECTS SAMPLES CORP. 101 PARK AVE., NEW YORK CITY
 Distributed Coast to Coast and in Canada

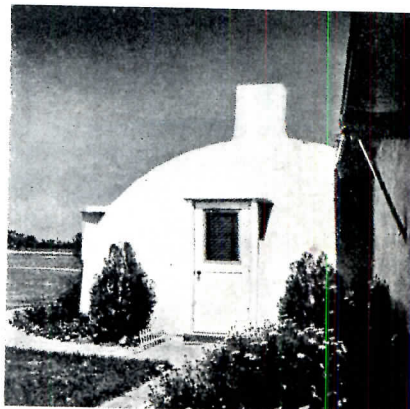
The houses are about 30 ft in diameter, giving an area of about 600 sq ft. The roof measures about 14 ft at the center.

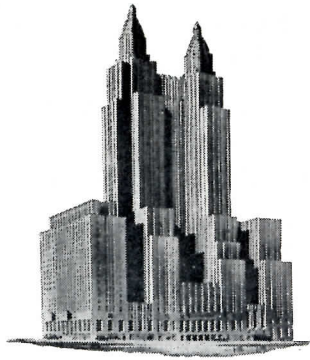
According to the architect, the entire building can be built and finished in 18-20 days; five days are required for construction of the foundation and the concrete shell.

The contractor's estimate for the cost of complete foundation, slab and shell is \$5.35 per sq ft, and it is hoped that a finished house can be produced for about

(Continued on page 316)

Earlier form of the bubble house, designed by Wallace Neff and built at Litchfield Park, Ariz.





Why did the Waldorf choose **TYPHOON** coils to triple its cooling power?



Tom Barrett gives his Typhoon installation an approving once-over.

Tom Barrett, Building Superintendent of the Waldorf-Astoria, found himself with a whale of a problem. Seems that when the original air conditioning system was installed in the Grand Ballroom, over 15 years ago, they didn't reckon with full capacity crowds or the hot blasts of TV lights.

Now, the capacity of the air handling equipment had to be tripled in order to cool the ballroom adequately.

This called for the installation of banks of chilled water cooling coils with new blower systems. To complicate matters, larger quantities of outside air brought in for ventilation purposes required new banks of pre-heating and heating coils.

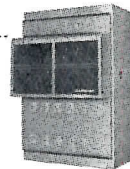
The consulting engineers, Seelye, Stevenson, Value & Knecht, looked about for a firm that could supply custom-built coils meeting the rigid standards of quality prescribed by this world-famous hotel. After exhaustive checking of qualifications and past performance records, one firm stood out — Typhoon.

Banks of cooling and heating coils were tailor-made by Typhoon for the job. Many were 8 rows in depth and 10 feet in length — copper tubes with helically bonded fins for maximum heat transfer, especially designed to fit into extremely limited space. And Typhoon made delivery in record time.

Now it's really a Grand Ballroom—summer and winter—with enough dependable cooling to accommodate the full capacity of 3000. Tom Barrett is satisfied that the rugged equipment standards of the Waldorf have been met—and then some. "Those Typhoon 8-row coils really wring out the moisture," he says happily.

And so another great name is added to the long list of famous Typhoon customers.

Whether the job calls for a single packaged air conditioning unit or a custom-built central plant—you can count on Typhoon. Quality engineering, backed by over 40 years of experience, is your guarantee of trouble-free performance.



Packaged Air Conditioning
Units in 2-3-5-7½-10-15-20-25 horsepower sizes

Packaged Water Chillers
10 and 20 horsepower



Write for detailed information

TYPHOON AIR CONDITIONING CO., INC.

794 Union Street, Brooklyn 15, N. Y.

Specialists in Air Conditioning Since 1909

\$6000. Since the houses were built on an experimental basis, these figures might differ if the buildings were mass-produced.

Mr. Noyes' design uses a structural system invented by architect Wallace Neff some 13 years ago. An example of Mr. Neff's design was published in ARCHITECTURAL RECORD, July 1944, pp 81-83, and is shown on previous page.

The first step in construction is the pouring of a round concrete foundation; the reinforcing bars of this foundation are allowed to project and are bent into hooks. A steel cable is then run through these hooks and a balloon, made of neoprene and nylon, is attached to the cable.

An ordinary blower is used to inflate the balloon to a pressure of four and one-

half oz. Precautions are taken to insure a constant pressure.

The lower part of the balloon is then wrapped in wire mesh which extends to a height of about seven ft and is reinforced by three-eighths in. steel rods. The top of the balloon is covered with chicken wire.

After this the balloon is covered with concrete which is sprayed on. The shell is about two in. thick at the bottom and about one and three-fourths in. thick at the top. This operation requires about a day's time.

The wide openings on either side of the bubble are indicated by a template laid across the balloon, showing the workman the boundaries of the area to be sprayed.

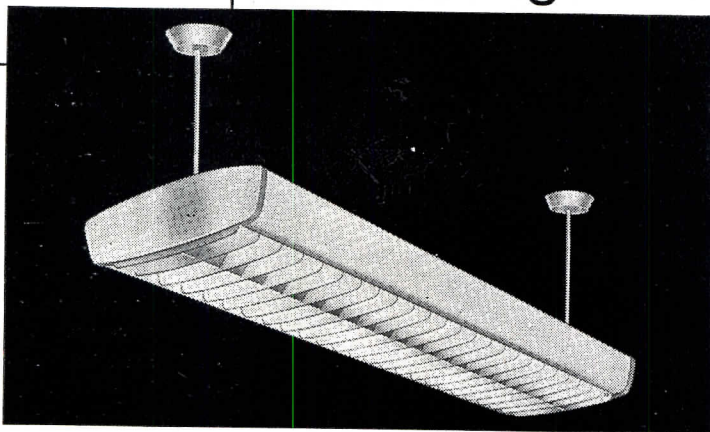
The concrete takes about 24 hours to dry, after which time the balloon is deflated and removed. The shell is sprayed with a vapor seal and covered with an insulating blanket of glass fiber.

The concrete shell is covered with mesh and reinforcement, and a second coat of concrete is applied. The shell is finished inside and out by hand and by flash coating from a spray gun.

The absence of load bearing partitions permits free planning of the interior of the bubble. No ceilings are used except over the bathroom, which is covered with corrugated sheets of plastic glass.

Bubble houses are being developed in two larger sizes — one will provide 1000 sq ft of living space, the other 1600 sq ft.

SEEING is Believing



The Arthur

A VERSATILE DIRECT-INDIRECT LUMINAIRE FOR INDIVIDUAL OR END-TO-END PENDANT MOUNTING

A & B 14000 SERIES

4 & 8 FOOT FLUORESCENT LUMINAIRES

Using standard or slimline lamps

The 2-lamp Arthur, with its direct-indirect component is designed specifically for pendant mounting. Sloping ends, plus trim, shallow lines and all white finish give the unit a particularly light and graceful appearance.

Diffusing polystyrene side panels and 35° x 35° louver shielding result in an eye-comforting brightness pattern. When lighted, the Arthur blends harmoniously into the ceiling.

Open chassis construction makes the unit easy to install; all metal parts are die formed; 8-foot units require hangers only on the ends. Side panels slip into position; hinged louver opens or removes quickly. Unit is wired complete, ready to install, less lamps.

WRITE FOR BULLETIN NA *It details complete specifications and engineering data for the Arthur.*

PITTSBURGH REFLECTOR COMPANY

402 OLIVER BUILDING, PITTSBURGH 22, PA.

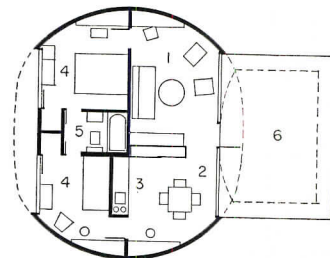
FLUORESCENT



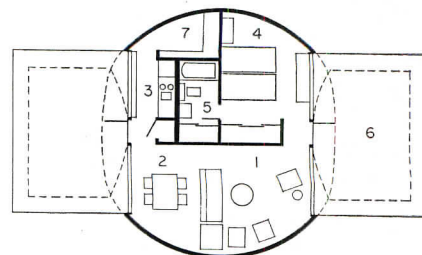
INCANDESCENT

Lighting

REPRESENTATIVES IN PRINCIPAL CITIES • WHOLESALERS EVERYWHERE



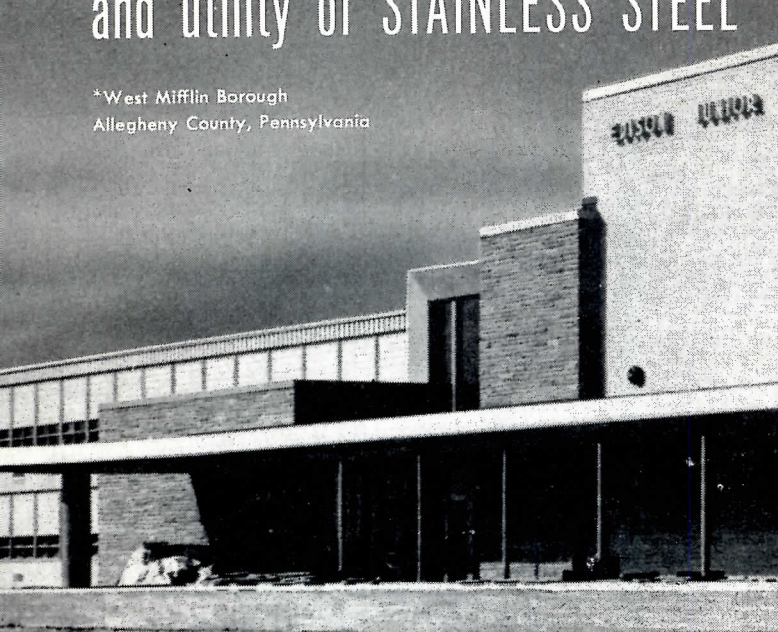
Space arrangements in Hobe Sound houses, keyed as follows: (1) living room; (2) dining room; (3) kitchen; (4) bedroom; (5) bath; and (6) terrace



(More news on page 324)

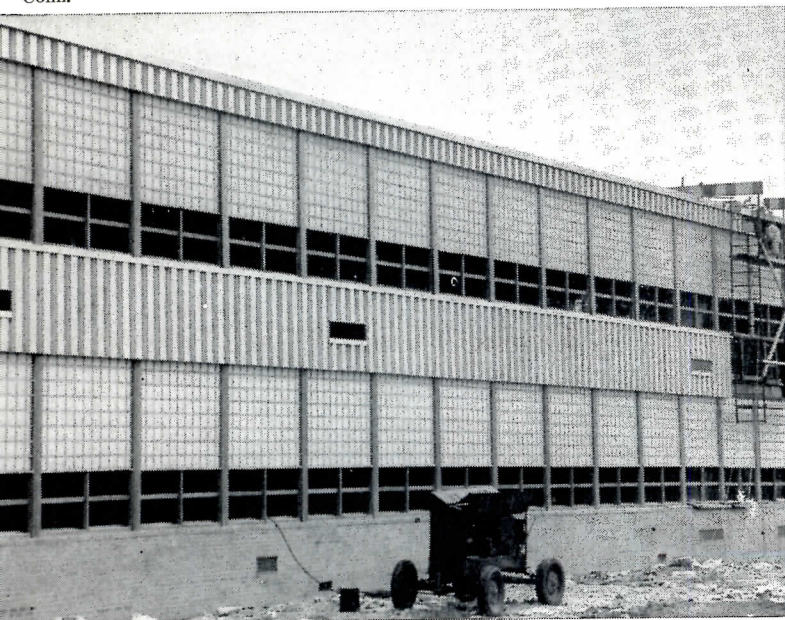
New Edison Junior High School* takes full advantage of the beauty and utility of STAINLESS STEEL

*West Mifflin Borough
Allegheny County, Pennsylvania



Edison Junior High School has 18 rooms with a two-story main classroom section 60 feet by 210 feet. A 200-foot by 120-foot wing houses a 600-seat auditorium, a cafeteria, kitchen, shops and gymnasium.

Architects: Button and McLean, Pittsburgh, Pa. General contractor: Nicholas LeDonne, Clairton, Pa. Stainless Steel panels fabricated and erected by R. C. Mahon Company, Detroit, Mich. Stainless Steel windows by Wilke Metal Products Company, Schofield, Wis. Stainless Steel sills, doors and inside trim fabricated by Trio Industries, Inc., Bridgeport, Conn.



HERE IS A FINE, spacious, new junior high school building that sets a precedent in design and construction. For the architect has made extensive use of one of today's most beautiful and most functional building materials—Stainless Steel.

On the exterior of Edison Junior High School, insulated panels of Stainless Steel form the spandrels and the head panels. The spandrels are of 20 gage Stainless Steel, one foot wide and four feet high with six-inch face square corrugation. The head panels are one foot high. Panels are insulated with one and one-half inches of Fiberglas and attached to the structural framework with clips.

The combination of Stainless with masonry and glass block makes an extremely attractive building. But the benefit of Stainless panel construction doesn't stop there. Construction with the panels was fast and went forward in all types of weather. More complete utilization of floor space was possible through this curtain-wall type construction. Maintenance on the Stainless Steel will be negligible and life will be long.

These panels are extremely efficient from a heating standpoint. They have a low rate of thermal transmission (or "U" factor).

Stainless Steel also was used in this school for sills, mullions, windows, door canopies and trim, blackboard and tackboard frames, doors and door frames, column covers and other interior trim.

If you have a new school in the planning stage, now is the time to think about Stainless Steel and its many benefits. And think in terms of USS Stainless Steel. For more information on Stainless Steel panel construction, mail the coupon below. If you like, we will have one of our representatives call.

United States Steel Corporation
Room 4353, 525 William Penn Place
Pittsburgh 30, Pa.

- Please send me literature on Stainless Steel panel construction.
- Please arrange to have fabricators of Stainless Steel wall panels send me literature on their particular type of construction.

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United States Steel produces only the Stainless Steel from which panels of this type are made; the panels themselves are fabricated by our customers.

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USS STAINLESS STEEL

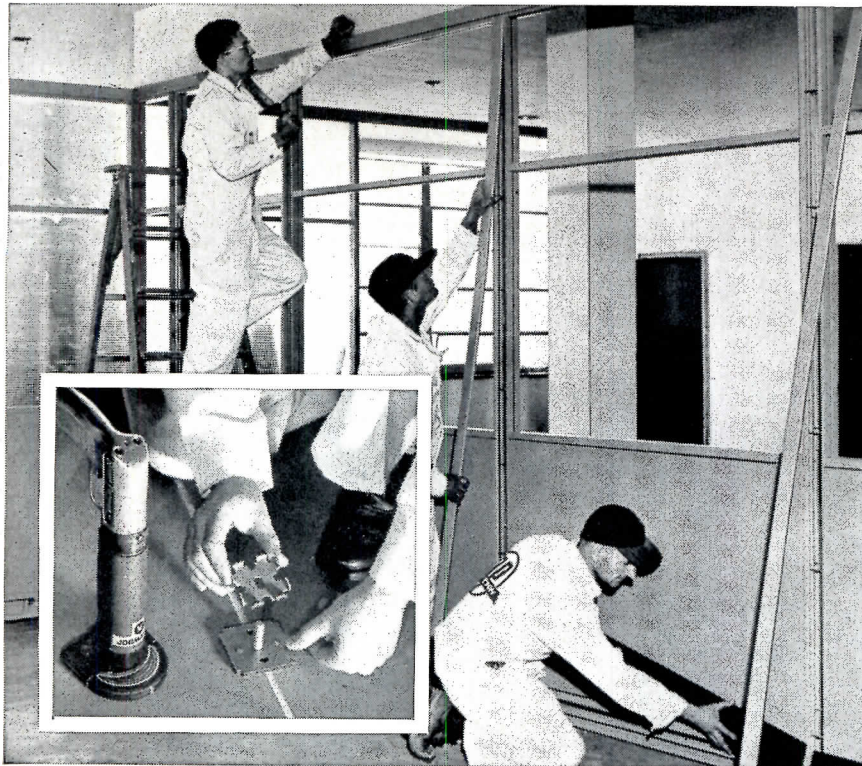


SHEETS • STRIP • PLATES • BARS • BILLETS

PIPE • TUBES • WIRE • SPECIAL SECTIONS

UNITED STATES STEEL

(Continued from page 20)



**"We reduce erection costs
and install MOBILWALLS faster
when we anchor with *Ramset*"**

That's the experience of Virginia Metal Products, Inc., of Orange, Virginia, one of the leading producers of movable steel partitions. Frequently up against a tight time schedule, they find it far quicker and less costly to use RAMSET SYSTEM than conventional methods. Just set steel studs into concrete floors, walls and ceilings, with a split-second RAMSET JOBMASTER. Slip anchors over the studs, set the partition section into place and tighten with nuts. The job is done, in less than 1 minute per anchor. Erection is finished sooner so that space can be occupied, and cost savings are passed on to the owner.

These same advantages of RAMSET speed and economy can be gained for almost any work involving fastening into steel or concrete, for new buildings or modernization. Three RAMSET JOBMASTER tools are available for light, medium or heavy work, with 65 Tru-Set Fasteners in six different types to match the specific job requirements.

If you'd like to know more about how RAMSET saves time, money, and trouble, for fastening into steel or concrete, call your local dealer or ask for illustrated manual *Modern Fastening Methods*.

Ramset Fasteners, Inc. Ramset Division
Olin Industries, Inc.
12147 BEREA ROAD • CLEVELAND 11, OHIO

FIRST IN POWDER ACTUATED FASTENING



Dome Forming

Once the basic scheme for the formwork was figured out, reported Fuller's construction manager, Reino Laine, the job of erecting scaffolding and building the forms went very smoothly. After the special tubular scaffolding was up, beams and posts were set on top to carry the three-ply laminated timbers which ringed the dome from bottom to top. Then 2- by 4-in. stringers, extending from bottom to top of the dome, were nailed down. Finally, matched lumber was laid atop the stringers to receive the pour of concrete. Near the abutments, where the slope is steep, double forms with ports were used. Concrete was poured into them and vibrated. Above the double forms on the greater part of the dome a stiffer concrete was merely dumped on and vibrated.

Temperature of the concrete had to be carefully controlled for 72 hours during and after the pour. This was done by hanging tarpaulins from the three sides and keeping the inside warm with four space heaters turning out some three million Btu per hr. Forms were stripped in March, and then in April the tarpaulins were dropped since curing was done and they were no longer needed to protect workers from bad weather.

Roofing is now being applied which consists of layers of felt mopped with asphalt, glass fiber insulation, cinder concrete and finally lead-coated copper sheeting.

With the sides now open, it is easier to get an impression of the lightness of the dome. From the inside, it somehow suggests a huge concrete parachute that has only three corners.

Main Auditorium

The audience in the main auditorium, which will seat 1200, will not see any of the glass walls, since the room is to be enclosed by walls of vertical wood siding which rise to the top of the dome, following its contour. At the juncture of walls and dome will be a cove for cold cathode lighting.

Since the domed ceiling itself is not intended to serve for sound distribution, steel framework is now being hung for saw-toothed-shaped acoustical baffles, dubbed "clouds." There are two "clouds," one floating over the audience, and the other over the podium with a

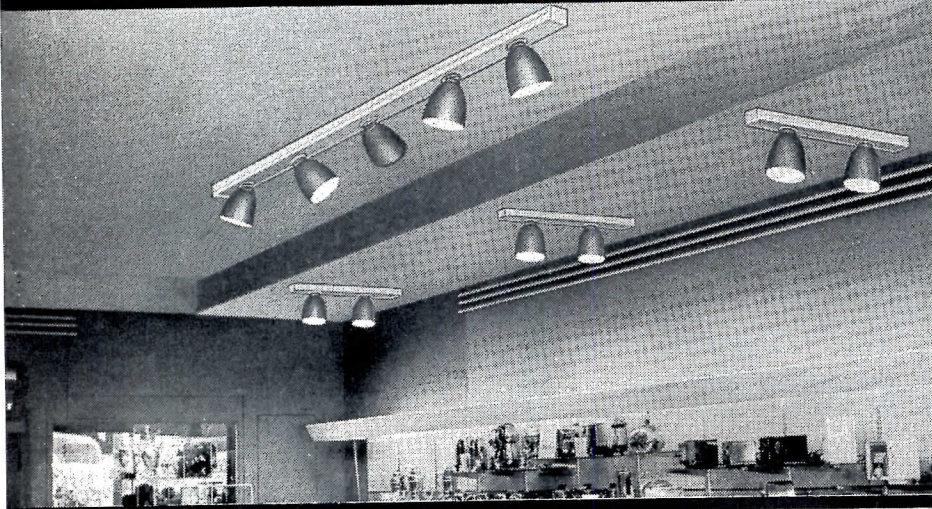
(Continued on page 320)

**A Line So Complete . . . So Modern . . .
So Functional . . . So Easy To Specify . . .
NEO-RAY LIGHTING FIXTURES**



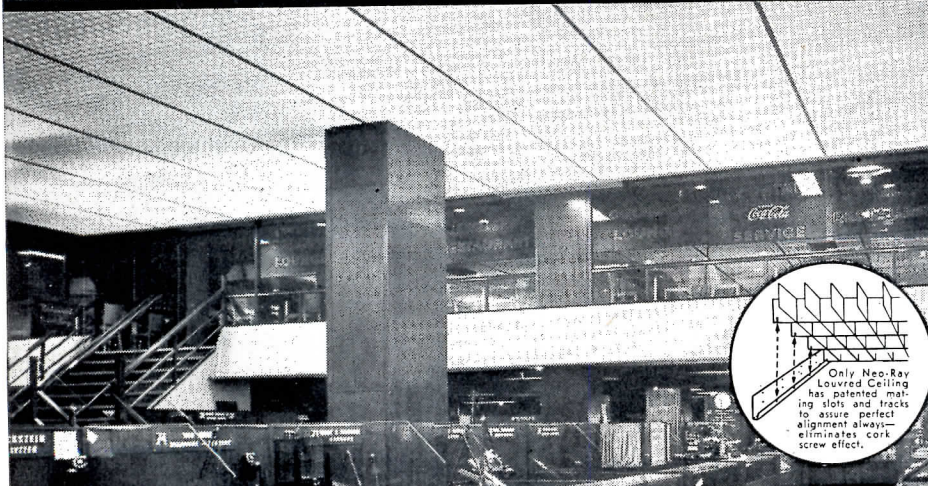
LUMINETTE

Fluorescent and Slimline, recessed and surface mounted fixtures—24", 48", 96", also 2' sq., 2' x 4' and 4' sq.—featuring the famous one-piece Neo-Rex acrylic plexiglass shield that will not discolor.



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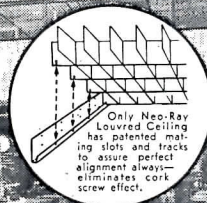


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Specify ML for removable sections, continuous unbroken pattern between parallel runners (tracks).

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Only Neo-Ray Louvred Ceiling has patented mating slots and tracks to assure perfect alignment always—eliminates cork screw effect.

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Manufacturers of Louvred Ceilings • Incandescent • Fluorescent • Slimline
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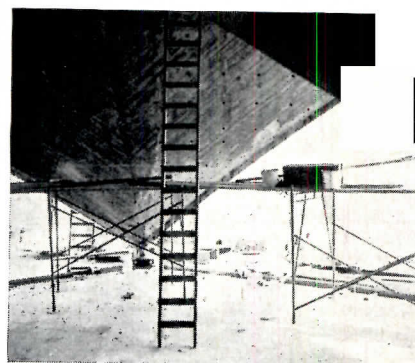
(Continued from page 318)

bit of "sky" between them. The "cloud" over the audience, besides operating acoustically, also holds lighting fixtures and long, thin diffusers for air conditioning. The baffle over the podium carries lighting as well as tracks for curtains. The back wall, for acoustic purposes, has wood slats backed up by a fabric screen and sound-absorbing insulation. Acoustical design was by Bolt, Beranek and Newman.

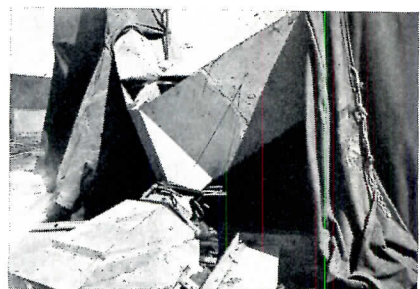
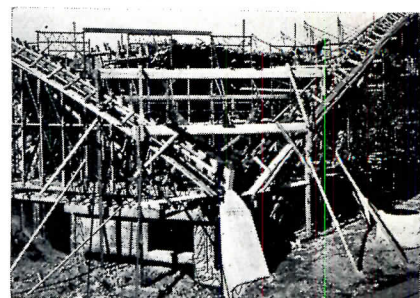
At the back of the main auditorium, near the top of the domed ceiling, is the projection booth. The acoustical baffle comes out from the top of the booth toward the front of the room.

Small Auditorium

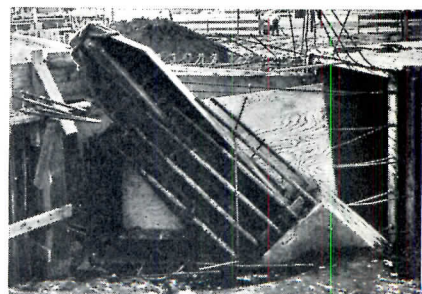
Under the main auditorium, is a smaller one which seats 200, with a Cyclorama screen. Since it was designed for use with scenery, it was necessary to



Above: looking at one of the supports from inside. Below: edge beam forms arching down to one of the abutments



Above: a closeup of the dome casting which rides on buttress casting like a ball and socket joint. Below: buttress casting, later to be concreted



provide for venting of smoke to meet fire regulations. Smoke can be drawn to the outside through two of the glass walls by means of special windows, pivoted at the bottom and held in place by fusible links. A good-size section of the glass walls is backpainted from bot-

(Continued on page 322)

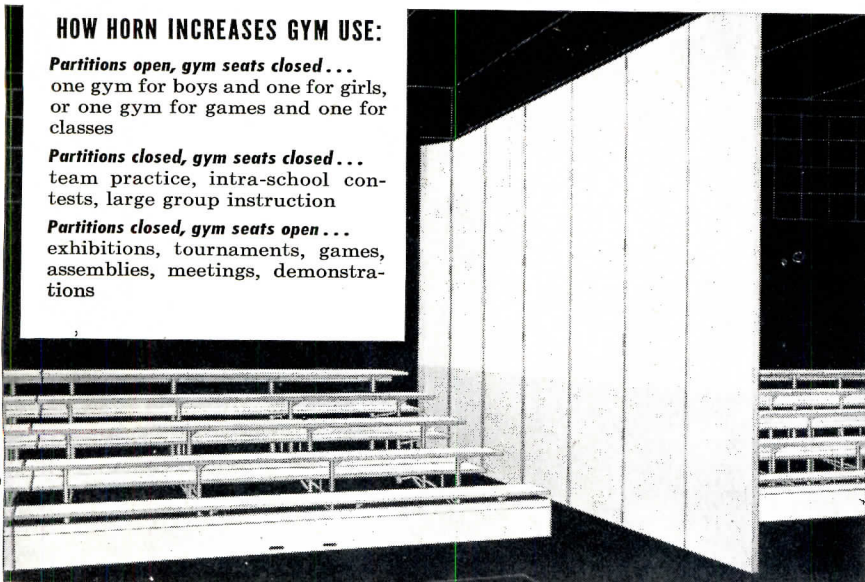
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Partitions open, gym seats closed...
one gym for boys and one for girls, or one gym for games and one for classes

Partitions closed, gym seats closed...
team practice, intra-school contests, large group instruction

Partitions closed, gym seats open...
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Yes, now your every need for gym use can be met without back-breaking work. Just install Horn Folding Partitions and Gym Seats!


Electrically-operated Horn Partitions give you two gyms with a flick of the finger! In approximately two minutes, they unfold smoothly and silently, seal space between door and floor, lock securely in place without bolts. When the full gym is needed, they fold into compact, space-saving units... as easily as they are opened.

Spectators, even the tallest, cheer the ample leg-room and chair-height comfort of Horn Gym Seats. When folded, they use little valuable floor space and protect players with smooth, sloping surfaces.

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telescoping principle. And each row automatically locks as it opens. To close, seatboards rise to an upright position and practically fold all by themselves.

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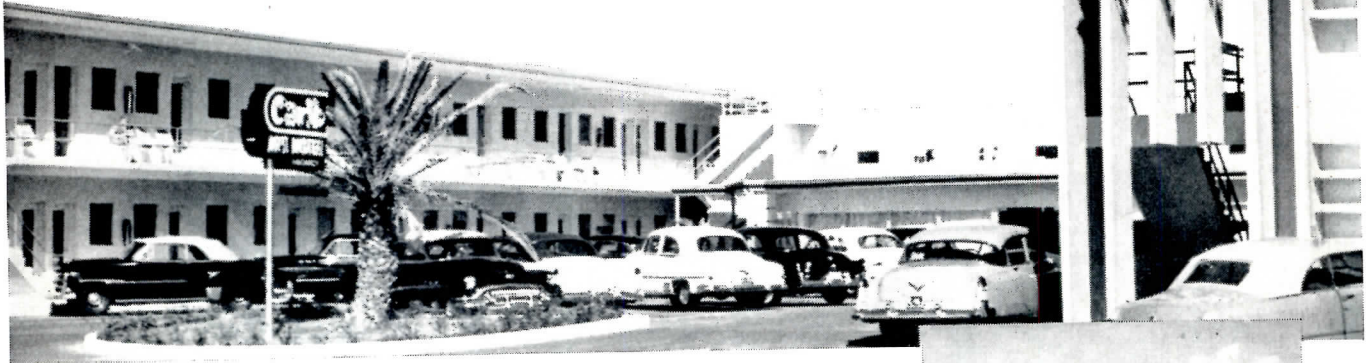


Seen the big, new catalog on Horn Folding Classroom Wardrobes? Send for your free copy today!

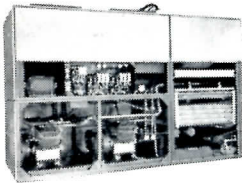


Horn School Equipment Division of
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PROVED ECONOMY *prompts architects to specify USAIRCO DRK to air condition hotels, motels, apartments . . .*



CARIB MOTEL, Sanford Kay Construction Co.



Central Station Package Air Conditioner cuts installation costs . . . saves 95% in water consumption . . . solves load variations and limited starting current problems.

The usAIRco DRK completely processes and conditions air within a single "packaged" unit. Air conditioner, compressor and evaporative condenser sections are combined in this one assembly, housing two complete refrigeration circuits.

By continually recirculating water, the DRK evaporative condenser saves 95% of water consumption costs. This compact central station unit requires a minimum of floor space. For example, dimensions of the 30 hp. DRK are: Length: 137½"; Height: 84¼"; Depth: 53¼".

The usAIRco DRK is wired with a two-stage thermostat, which automatically starts one or both compressors, depending on load requirements. When full load capacity is demanded, both compressors function. When load is reduced, only one compressor is automatically activated.

In areas with definite limitations on starting current, the usAIRco DRK is the ideal application because starting current requirements are only ½ of normal, due to the automatic time delay relay.

Each DRK is custom fabricated, tested and balanced at the factory, delivered for immediate operation after three simple connections: to ducts, water supply and drain, and power supply. 8 sizes are available, from 10 to 60 hp. By adding a heating coil, the usAIRco DRK becomes an efficient heating plant.

These are only 5 of the beautiful buildings designed by Miami Architect Norman M. Giller specifying usAIRco RK and DRK air conditioners. Installations are by Airko Air Conditioning Co., Miami Beach, Florida.



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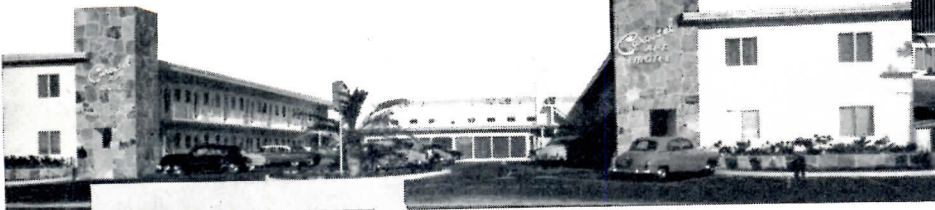


TAHITI HOTEL
Sanford Kay Construction Co.



BOMBAY HOTEL
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CAROUSEL MOTEL
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for further information on DRK's write Dep't R-54

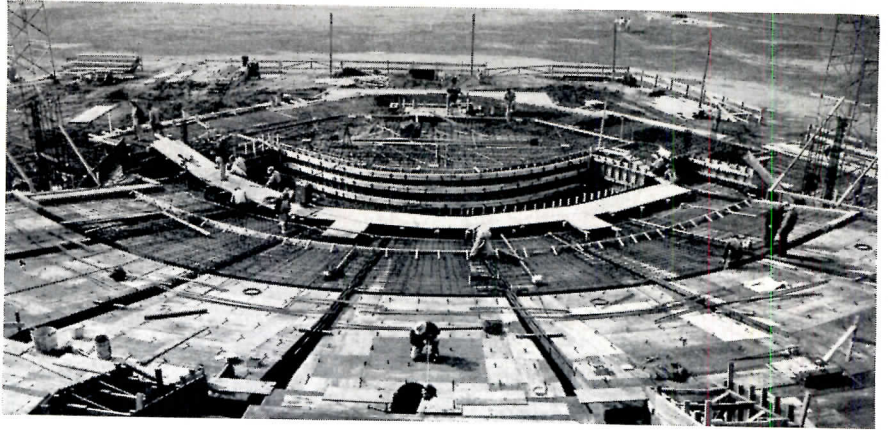
UNITED STATES AIR CONDITIONING CORPORATION
MINNEAPOLIS 14, MINNESOTA • Export: 13 East 40th Street, New York 16, N. Y.

THE RECORD REPORTS

(Continued from page 320)

tom to top to conceal the venting system and equipment mezzanines located near the front of the auditorium. One mezzanine is for an organ loft, and the other is for electrical equipment.

Also on the lower level are musical instrument and choral rehearsal rooms, a green room, carpenter shop, dressing rooms, mechanical rooms, and the receiving room at the back. Between the



Above: forms have been laid for the main auditorium floor, orchestra pit and podium. Reinforcing is in place on lower portion of floor



MICHAELS BRONZE PLAQUES

Any size, any shape, any design. Plaques for public buildings, lobbies, offices, parks and playgrounds, for memorials, name plates for desks, tellers' windows, and any other purpose. Michaels plaques are made of genuine bronze with lettering, borders and ornamentation hand chased and burnished for contrast. Tell us what you need, and we'll be glad to furnish sketches and quotations without cost or obligation. Write for illustrated literature.

Michaels also manufactures a wide range of building materials in aluminum, bronze and stainless steel, Time-Tight display cases, and parking meters. Literature is available for these products.

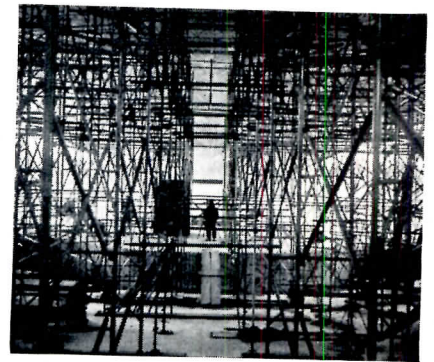
MICHAELS PRODUCTS

Bank Screens and Partitions	Welded Bronze Doors
Elevator Doors	Store Fronts
Lettering	Check Desks (standing and wall)
Lamp Standards	Marqueses
Tablets and Signs	Name Plates
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Wrought and Cast Radiator Grilles	Grilles and Wickets
Kick and Push Plates	Push Bars
Cast Thresholds	Extruded Thresholds
MI-CO Parking Meters	Museum Trophy Cases

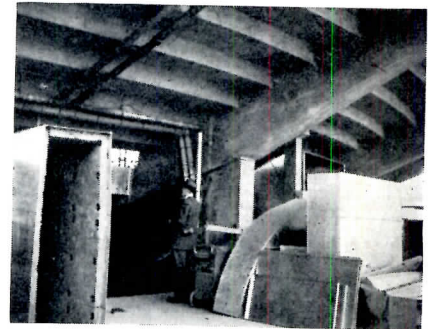
THE MICHAELS ART BRONZE COMPANY, INC.

234 SCOTT STREET, COVINGTON, KENTUCKY

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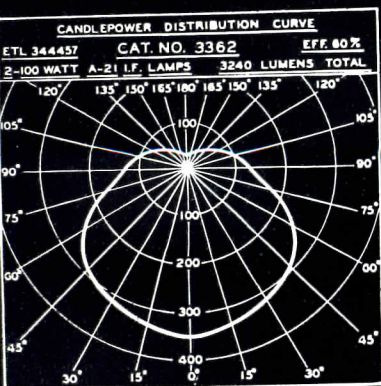
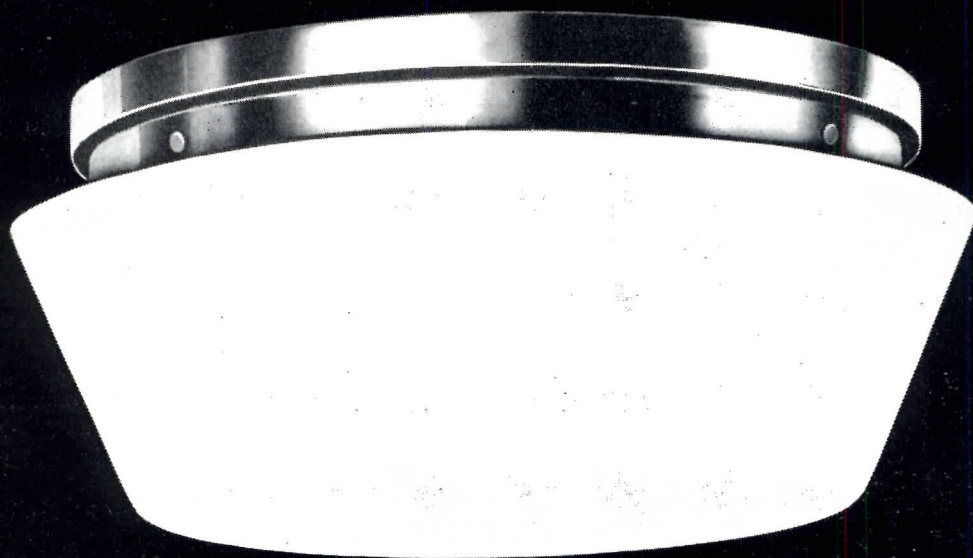


Above: inside auditorium peering through scaffolding toward podium. Below: stepped level of auditorium floor cantilevers toward lobby on girders to be partly exposed



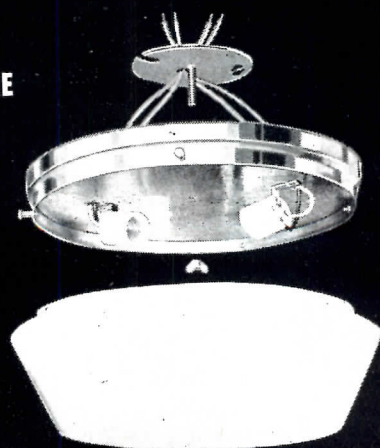
receiving room and the back of the stage is an elevator.

Much of the air conditioning equipment has been installed. The refrigeration room which extends out underground from the main structure has been equipped. Fans are now going into the mechanical rooms which are located under the main lobby on the outside edges of the lower floor. Air intake and exhaust is through horizontal gratings set at ground level. There are no boilers since heat is by steam from the M.I.T. central plant.



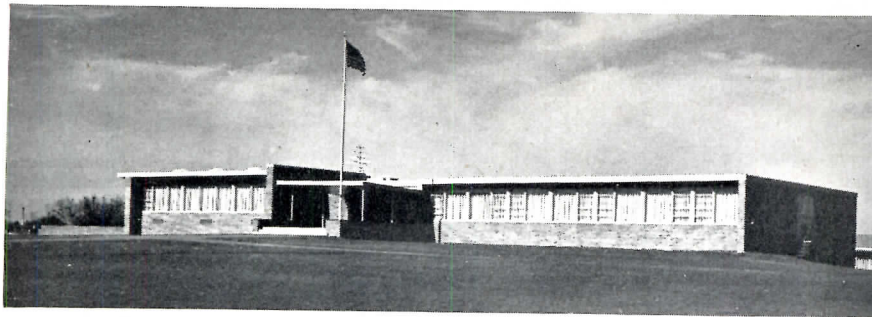
INTEGRATED DESIGN, CONSTRUCTION and PERFORMANCE

ART METAL has achieved, in this unit, a rare and original combination of incandescent lighting properties. It was designed for wide application, constructed for ease of installation, and provides exceptional efficiency coupled with visual comfort. Complete data on four sizes, 120, 150, 200 and 300 watts, is on page 47 of ART METAL catalog. We suggest you write for a copy.



THE **ART METAL** COMPANY
CLEVELAND 3, OHIO

Manufacturers of Engineered Incandescent Lighting



**NEW BUILDING REPLACES
ONE-ROOM SCHOOLHOUSE**

In place of an old one-room schoolhouse, Park Forest, Ill., now has a new \$1½ million high school. The building, designed by Loeb, Schlossman and Bennett, occupies a 55-acre site in the planned Chicago community. The school can accommodate 750-900 students, and can be expanded to handle as many as 1500.

Among facilities provided in the new school is a homemaking suite which includes a living-dining area in addition to the foods and clothing laboratories and an area for instruction in child care and home nursing. An arts and crafts studio is completely equipped for activity in ceramics, textiles, metal work, graphic arts. For drawing and painting classes, of course, a north light has been provided.

The central library is lighted naturally by transparent plastic bubbles set in the roof. Conference rooms and browsing space are included in the library area. In addition to the central facilities, there are rooms throughout the school for book collections in the sciences, business, arts and other departments.

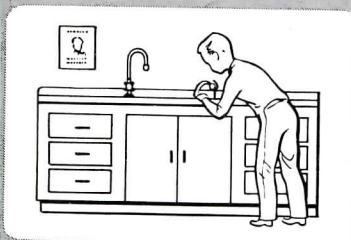
A communications laboratory is furnished with a glassed-in radio booth, a screened-listening room, a little theater stage, and complete sound and television equipment. Also provided in this lab are two additional stages for class work and special equipment for radio and television workshops.

Relaxation Part of Program

For the students' use during hours of recreation, an activities room is furnished with television, radio and a piano. Students can purchase soft drinks and ice cream at the snack bar. The room is also used for student meetings, and can be divided by a folding wall.

(Continued on page 326)

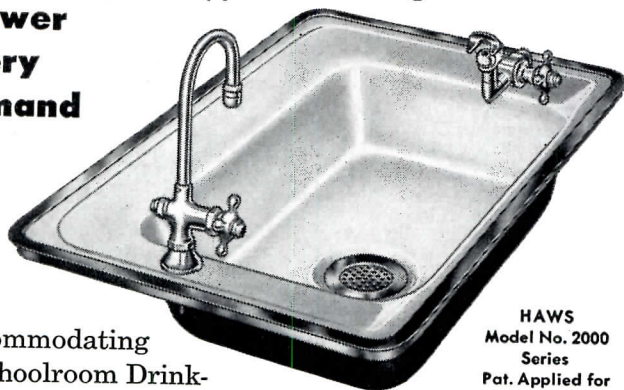
In School



CLASSROOM · LABORATORY · SHOP

HAWS "Deck Type" Drinking Fountains

**answer
every
demand**



HAWS
Model No. 2000
Series
Pat. Applied for

Accommodating all schoolroom Drinking Fountain demands, the HAWS No. 2000 Series "Deck Type" Receptor mounts practically any combination of HAWS bubbler-type, pantry or fill-glass faucets—with *vandal-proof fittings*.

Finished in acid resisting white enamel, this utilitarian shaped, cast iron Receptor is all but indestructible. Also available in stainless steel.

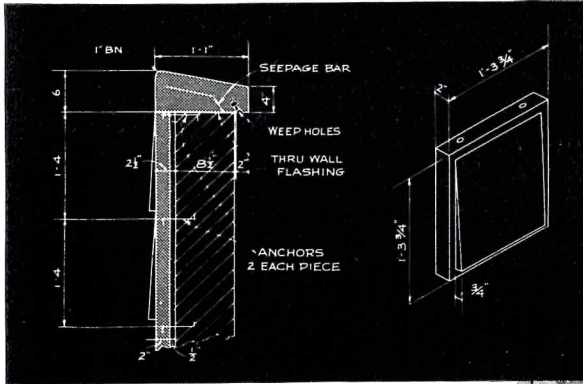
A raised, sloped, stainless steel rim provides water-tight mounting and prevents water from running onto table or cabinet tops. Shown with two fixtures, Receptor is available with one... or a combination hot and cold water faucet.

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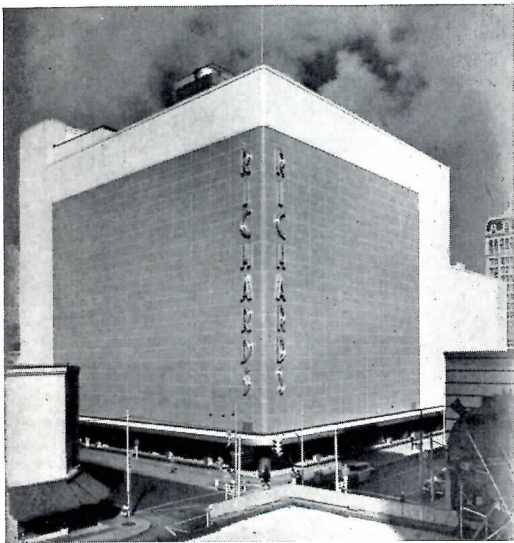
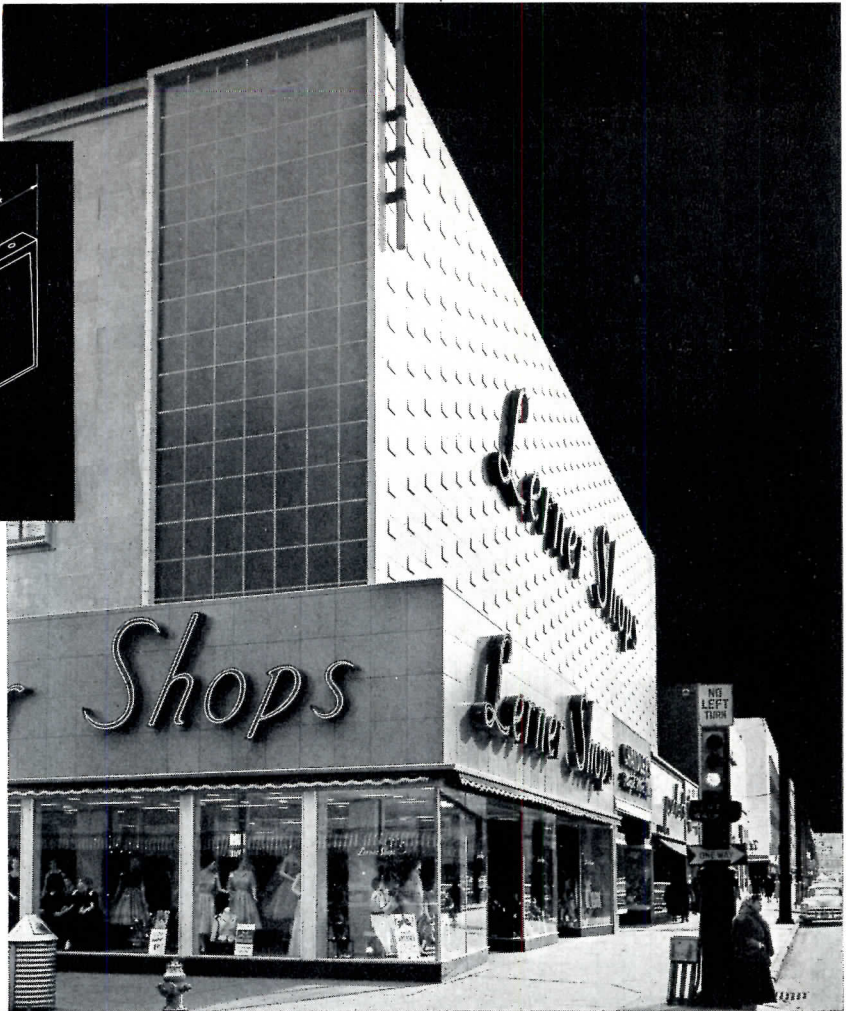


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Edwin H. Cordes
Architect

Associated Lerner Shops Inc.
Builders
Two-inch thick Architectural Terra Cotta units, 16" x 32", accented with 16" square shingles, make an imposing facade in light mottled gray. Sign space over the show windows is a contrasting green; corner vertical panel a rich harvest brown.

RICHARDS
DEPARTMENT STORE
MIAMI, FLORIDA
Steward and Skinner
Architect

Interstate Marble & Tile Co. *Contractors*
Architectural Terra Cotta units 24" x 24", are grouped in sections of eight by wide mortar joint which gives effect of panels 8' wide by 4' high. Thickness of Architectural Terra Cotta is 2".



**FEDERAL
SEABOARD
TERRA COTTA
CORPORATION**

10 East 40th Street, New York 16, N. Y.
PLANTS AT PERTH AMBOY AND SOUTH AMBOY, N. J.

**Design distinctive store fronts
with Architectural Terra Cotta!**

Color and character are easily designed into new or remodeled buildings with today's Architectural Terra Cotta. You can select any color under the sun . . . choose any texture imaginable . . . and design in large units or small, for interiors or exteriors. Architectural Terra Cotta is custom-made to your specifications—for plain surfaces or decorative sculpture. The initial cost is less than you'd expect . . . and maintenance consists only of simple soap-and-water washings. For latest facts, write to Federal Seaboard today.

Construction detail, data, color samples, advice on preliminary sketches, will be furnished promptly without charge on Architectural Terra Cotta and Ceramic Veneer. Send your inquiry today.



THE RECORD REPORTS

(Continued from page 324)

This room, by the way, is operated and controlled by the students themselves.

Other special facilities include a music rehearsal room and broadcasting studio; individual practice rooms; laboratories for the sciences; laboratories for industrial arts; a business education department; club rooms; a reading clinic; a health clinic; and a book store.

Ordinary classrooms are designed to emphasize individual instruction and

participation. To achieve this effect, students' tables are arranged in a serpentine formation (see illustration).

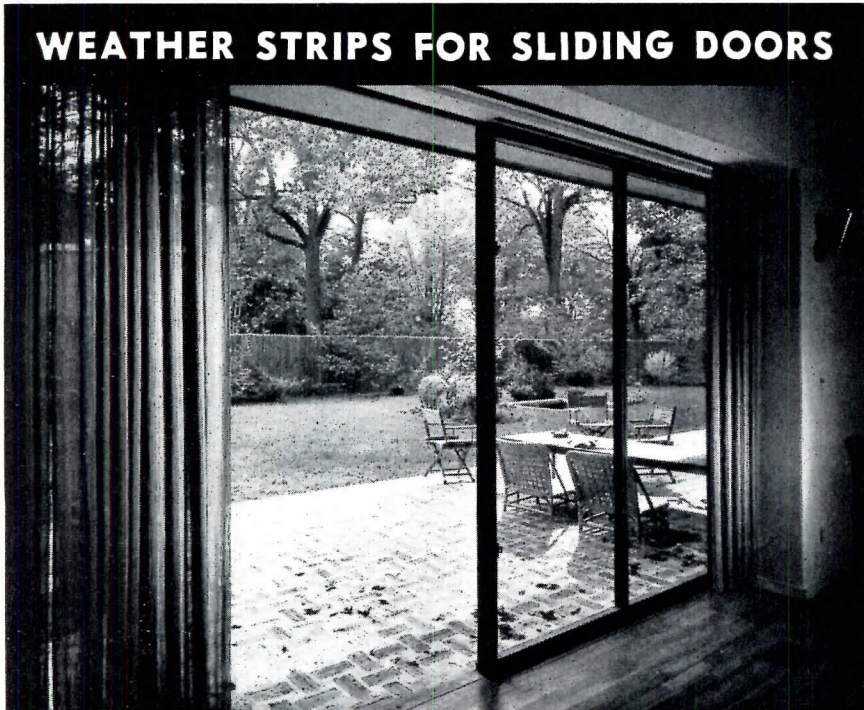
The cafeteria and kitchen can serve 350 students at a time. The cafeteria, which has stage facilities, can also double as an assembly hall seating 500 persons. This room overlooks, through a glass wall, a terrace and court.

The building is open to the entire community, and its rooms are already

being used for an extensive adult education curriculum. Other community groups also use the school's facilities for meetings. Three religious groups congregate in various parts of the buildings for Sunday services.

Future Campus Planned

Facilities to be added to the plant in the future include a football stadium, track, amphitheater, band shell, play field, hard-surface multi-use courts and a lagoon.



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For Pleasanter Living

SLIDING DOORS...

WEATHER-PROTECTED BY "ACCURATE"

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For doors and windows of all types, "Accurate" Metal Weather Strip is unsurpassed. Write for working drawings, or if you prefer

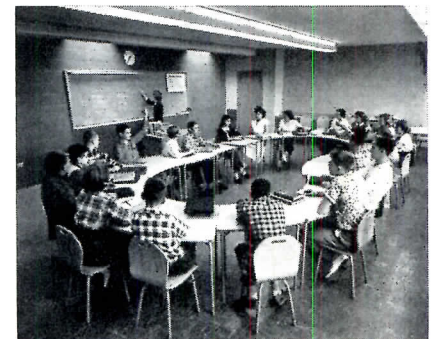
ASK FOR ILLUSTRATED FOLDER

ACCURATE METAL WEATHER STRIP CO., Inc.

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Above: the school's entrance lobby is used as an informal meeting place as well as for larger social gatherings. The entrance to the library is shown at the back of the photo



Above: a typical classroom, showing the serpentine furniture arrangement mentioned in the text. Below: the homemaking classes make use of a living-dining area which opens onto a screened porch. This department includes space for food preparation and a clothing laboratory



(More news on page 328)

**Here's why more and more
of America's famed buildings
are installing the Yorkaire
system of air conditioning**

The YORKAIRE SYSTEM brings new standards of comfort to the modern miracle of air conditioning, yet see how simple it is, how easy to understand! . . .

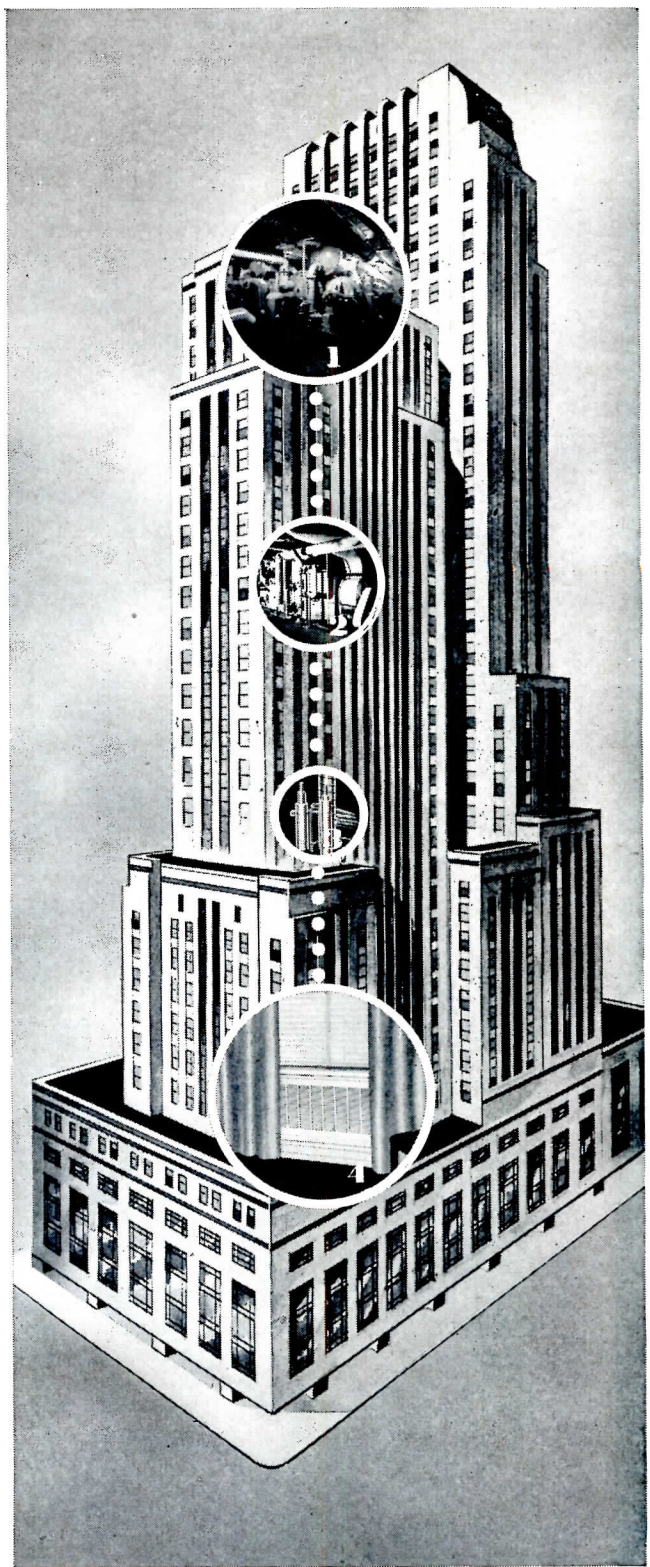
1 Source of comfort cooling is the famous and rugged York Turbo Water Cooling System which may be located on the roof of the building or in the basement.

2 Great volumes of air are brought into the building from outdoors at convenient points. This "raw" air is filtered, washed, cooled or heated, and conditioned for the right amount of moisture. When it's "just right for comfort," it begins its swift, silent journey to you.

3 Through small, space-saving, tightly sealed tubes the conditioned air is sent under mild pressure, branching out at each floor to the individual rooms. At the same time, small pipes carry hot water in winter and cold in summer to help you obtain the temperature you want.

In room units under the windows the air tube and water pipes converge. These units distribute the conditioned air in a gentle, quiet stream. A simple control allows you to refine the temperature to the conditions you desire, with no mixture of air from other rooms.

YORKAIRE SYSTEMS of Air Conditioning are being installed in building after building, old and new, across the country.



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. . . Recent contracts include these famous buildings—Mile High Center, Denver; Netherland-Plaza Hotel, Cincinnati; Fulton National Bank, Atlanta; Equitable Life Assurance Society, San Francisco; Esso Standard Oil Company, Philadelphia. If you are not now enjoying this healthful comfort, perhaps you will, sooner than you think.

YORK CORPORATION



YORK, PA.

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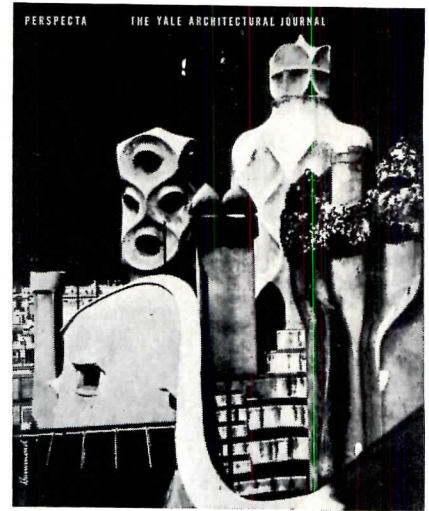
(Continued from page 326)

YALE STUDENTS PUBLISH PERSPECTA NUMBER TWO

Perspecta, a journal published by architectural students at Yale University, put in its second appearance, its contents ranging from an involved discussion of the projected city plan for Philadelphia to an esoteric piece on architectural history and a discussion of architectural philosophy.

A foreword by George Howe, former chairman of the Department of Architecture at Yale, led off the issue. Mr. Howe also contributed the lead article, "Some Experiences and Observations of an Elderly Architect."

"The Responsibility of the Architect," discussed by a panel comprised of Philip Johnson, Louis Kahn, Vincent Scully, Pietro Belluschi and Paul Weiss, was a transcription of one of the school's



"studio discussions." Mr. Johnson defended the thesis that "architecture is an art primarily and hardly anything else," while Dean Belluschi insisted that the architect must also fulfill the social and psychological needs of humanity.

A bow to the turn-of-the-century Catalan architect, Antonio Gaudi, was made in an article on his Casa Mila, an apartment house built in Barcelona in 1905. Gaudi combined the Gothic and Art Nouveau to achieve a fantastic and unique architecture. The cover illustration showed the sculptured chimneys on the roof of the Casa Mila.

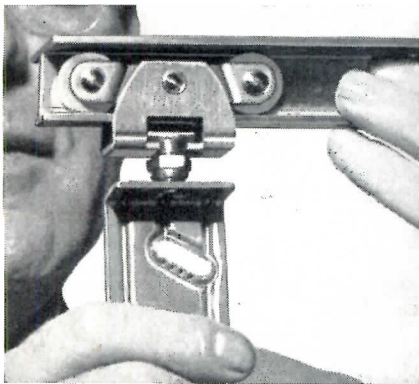
Carroll L. V. Meeks of Yale's Department of Architecture contributed a piece titled "Rome Ruined?" in which he protested against the current criticism in some areas that Rome's destruction has been completed by the "intrusion" of contemporary architecture.

A lengthy discussion of the projected plan for midtown Philadelphia was made by the architect, Louis I. Kahn, who is chief architectural design critic at Yale.

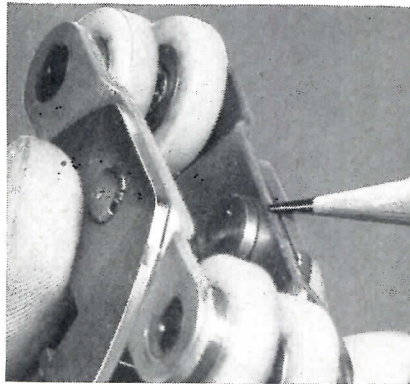
Architect Harwell Hamilton Harris contributed an article on "Rhythmic Integration of Panel Elements."

A report on the significance of the work of the Yale University Architect-Painter Collaborative in the fall of 1952 was given by R. Buckminster Fuller. The Collaborative had directed itself toward the problem of creating a prototype for an inexpensive, easily erected geodesic dome, using for the structure a corrugated paper board. Mr. Fuller's comments were followed by a report on the activities of the Fuller Study Group, a team of seven students continuing the work of the Collaborative, and by a description of the dome itself.

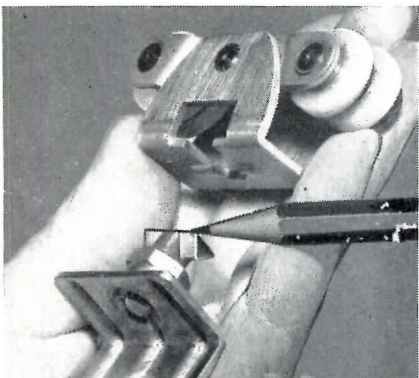
(More news on page 332)



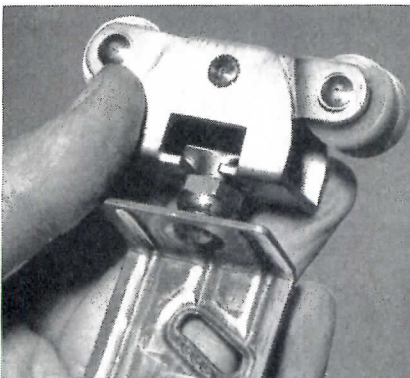
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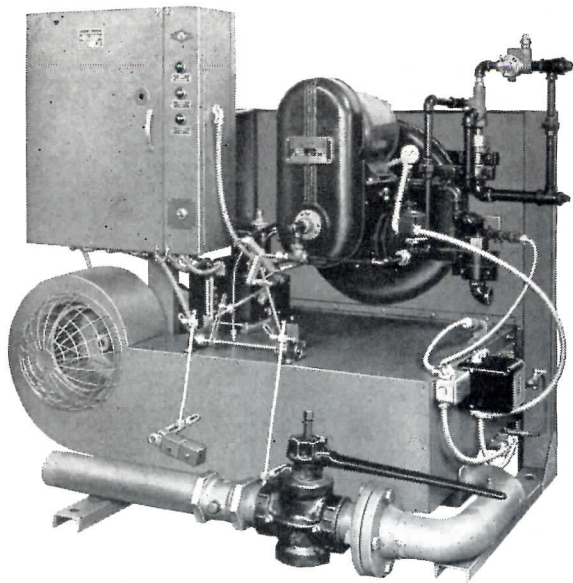
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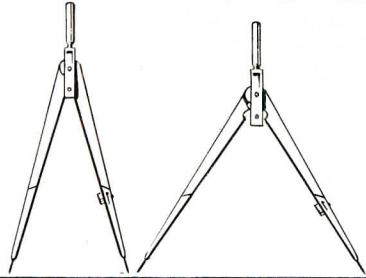
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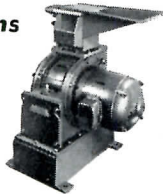


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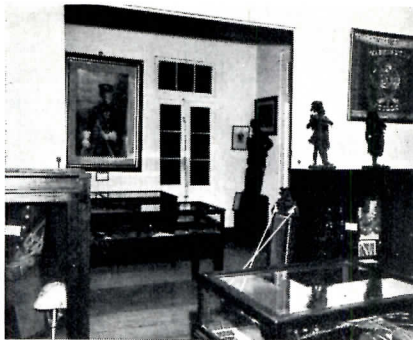
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THE RECORD REPORTS

(Continued from page 332)

played in the Cabildo, New Orleans landmark; the other, called France-Louisiana, which included material on loan from the French government, was shown in two small houses in back of the Cabildo, the Jackson and Creole Houses.



Before and after: two views of the same room in the Creole house, part of Louisiana State Museum

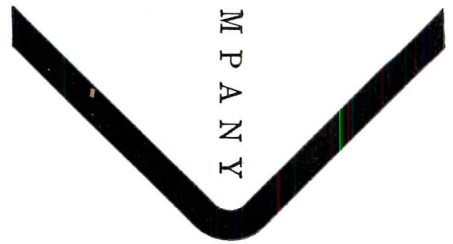


Before and after: a room in the Jackson House; below, as it appears housing French exhibit



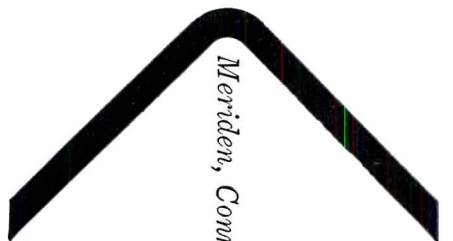
(More news on page 340)

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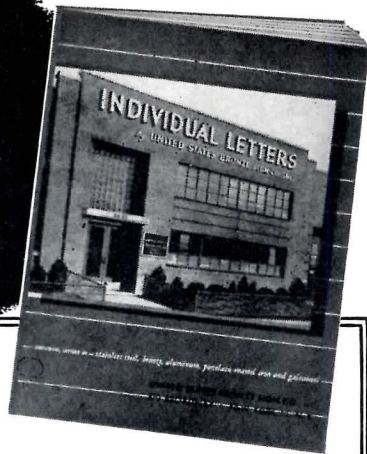
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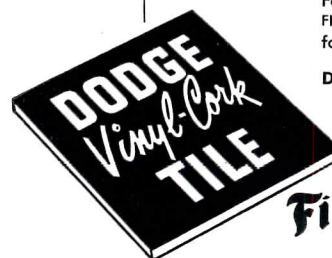
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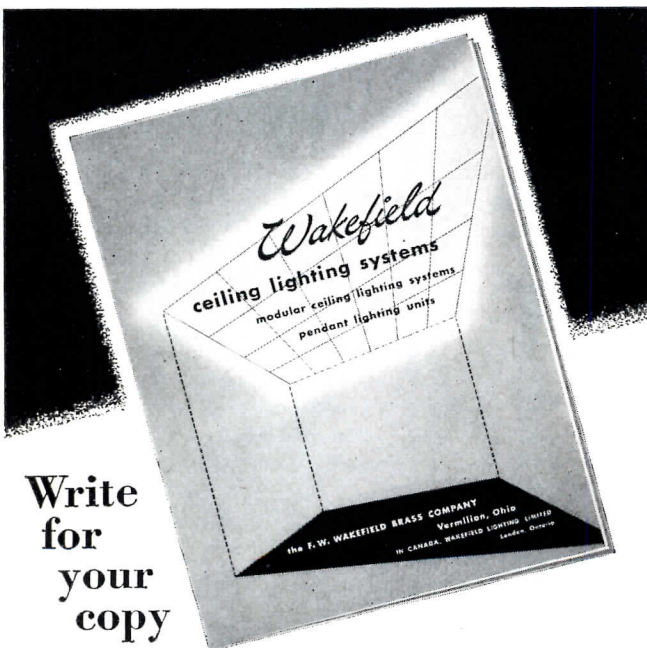
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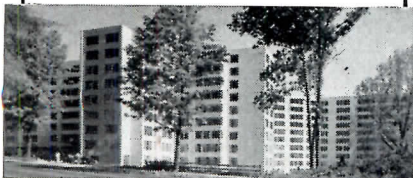
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National Institute of Health Clinical Center, Bethesda, Md.: GENL. CONTR.: John McShain; PLSTG. CONTR.: James Kane and Company.

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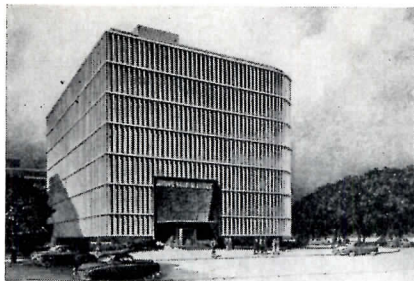
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THE RECORD REPORTS

(Continued from page 336)



Sun-control devices in Standard-Vacuum's new Bombay offices consist of concrete louvers on all sides of the building; additional protection is afforded by horizontal louvers on two sides



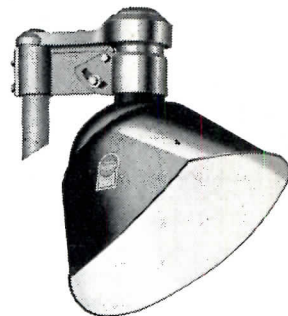
BOMBAY OFFICE BUILDING HAS CONCRETE LOUVERS

Currently under construction in Bombay's Back Bay Reclamation area, Standard-Vacuum Oil Company's new office building will have built-in sun control devices.

Vertical louvers of reinforced concrete are to be placed in front of windows on all four sides of the building. In addition, there will be three horizontal louvers per floor on the two sides of the building where the sunlight is strongest. The louvers are designed to serve a two-fold purpose: to prevent the strong Indian sun's glaring through the building's glass walls and to reduce the load on the air-conditioning system. Chauncey V. Riley, of New York, was consultant for the design of the louvers as well as the main entrance.

Construction of the seven-story building, which was designed by J. A. Ritchie, Bombay architect, was begun in June and is expected to be completed by the end of this year. The structure will be of reinforced concrete slab. Cost of the completed building is estimated at \$1.25 million.

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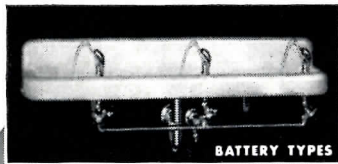
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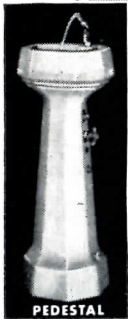
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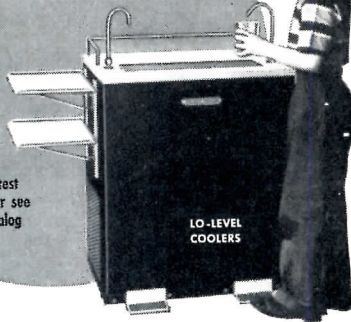


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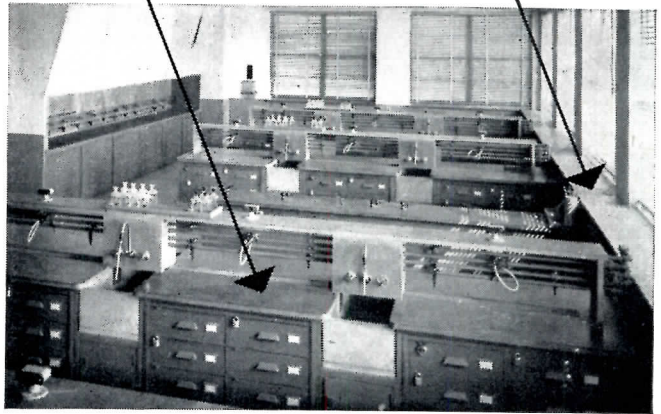
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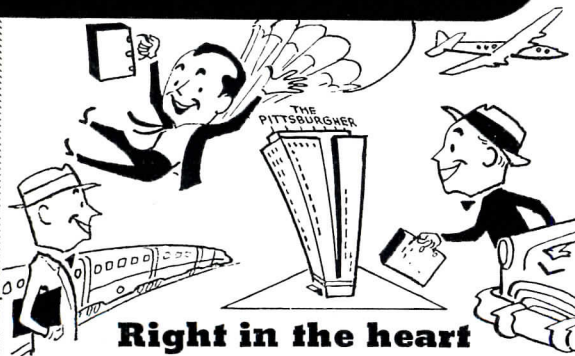
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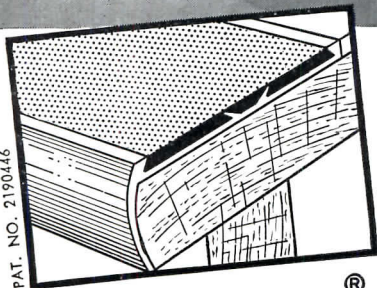
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REQUIRED READING

(Continued from page 48)

directly, does one get the idea that the architect is an artist who can create a beautiful house, and that this above all else is what an architect is for. Recommended reading — THE HOUSE AND THE ART OF ITS DESIGN by Robert Woods Kennedy.

HOMES OF THE BRAVE is a capsule history of American houses and interiors during the last 60 years. It is very brief — there are only some 50 pages of text divided into twenty chapters. It is brightly and satirically written and aimed at what is sometimes called the "New Yorker public." The jacket says that "this very funny book is really a serious criticism. . . ." Except for some exaggeration, this is a valid statement. The author is basically serious and feels strongly on the subject.

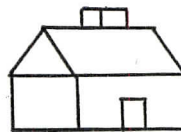
Those who know something of Mr. Gibbings' work in the field of interior design, may be in for some surprises. It appears that he is a devoted follower of Horatio Greenough, Louis Sullivan, Frank Lloyd Wright, Greene and Greene and the principles of "organic architecture." He shares Mr. Wright's vast contempt for everything from overseas — Art Nouveau, French "Moderne" of the 1920's, Bauhaus, Corbusier, the International Style, and "less is More." Mr. Gibbings is a greater admirer of the American way, the American woman and the American genius for mechanical comforts. He defends, if he does not exactly admire, Mission furniture because it was American and comfortable and sensible. The climax, for this reviewer at least, is attained when the author express his great admiration for the "ranch house," the vernacular modern which has succeeded Cape Cod and taken over many of its virtues.

Mr. Gibbings is more entertaining when he is attacking than defending. For most readers, his satirical quips aimed at the styles and fads that he doesn't like, will be the best part of the book. In addition to the architectural styles mentioned above, he also takes pot shots at "Aboriginal Modern," "Back to Nature Modern," "Low Life Modern" (the reactionaries' toast is "Bottoms up!"), "Movie Modern," "Dome Sweet Dome," and "Interplanetary Modern."

Mary Petty has contributed 24 drawings which constitute a major part of the book. They are uneven in quality, but some of them are the sheerest genius.

(Continued on page 348)

FOR THIS

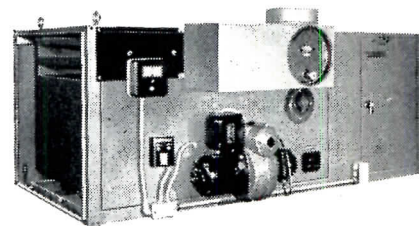


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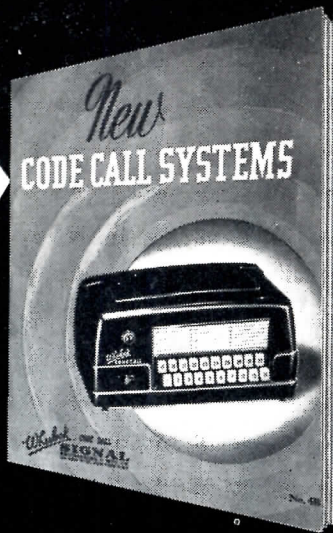
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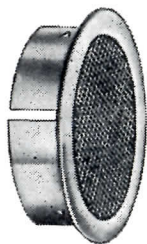
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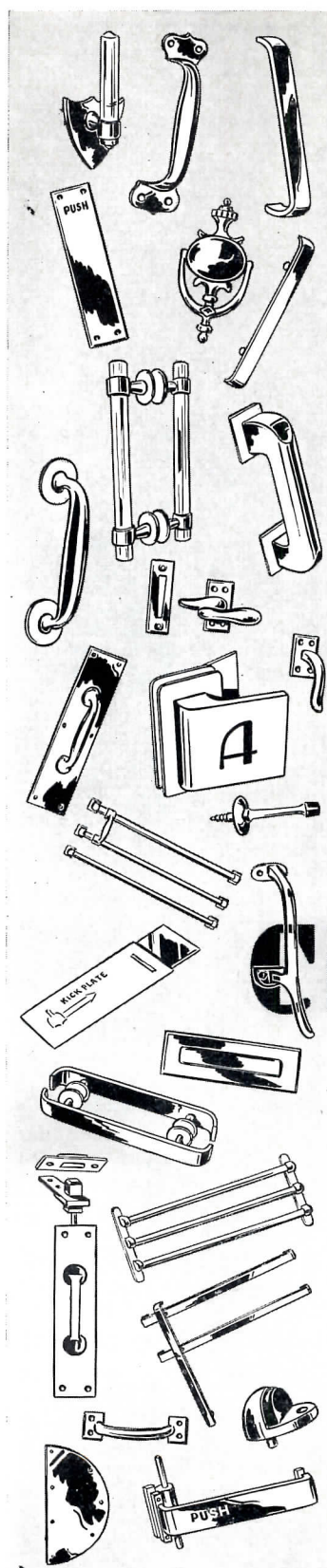
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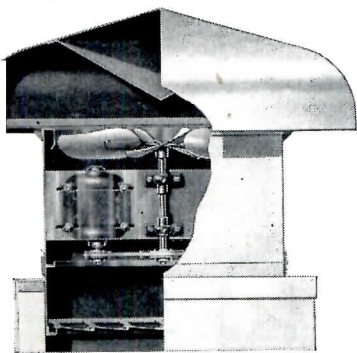


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REQUIRED READING

(Continued from page 344)

RECENT BULLETINS PUBLISHED

The Volume of Residential Construction, 1189-1950, Technical Paper 9. By David M. Blank. National Bureau of Economic Research, Inc. (1819 Broadway, New York) 1954. \$1.50

This paper is derived from a joint study of capital formation and financing in residential real estate by the Institute for Urban Land Use and Housing Studies, Columbia University and the National Bureau of Economic Research Inc. The study is part of a large investigation of trends and prospects in capital formation and financing made possible by a grant from the Life Insurance Association of America.

Technical Bulletin No. 22. Conservation and Rehabilitation of Major Shopping Districts. By Richard Lawrence Nelson and Frederick T. Aschman. Urban Land Institute (1737 K St., N. W., Washington, D. C.) 1954. \$5.00

The authors outline and explain their approach for an attack on the forces that are causing the disintegration of major satellite shopping districts.

American Planning and Civic Annual. Ed. by Harlean James. American Planning and Civic Assoc. (901 Union Trust Bldg., Washington, D. C.) 1953

A record of recent civic advance in the fields of planning, parks, housing, neighborhood improvement and conservation of natural resources.

Speculations of Town Planning. By Paul Kriesis. G. S. Chistou & Son (7 Gambetta St., Athens, Greece) 1953

This work illustrates the close connection between planning proposals, speculations, the meanings attached to metaphysical concepts of the planning theorists. In the progress of this analysis the importance of the political factor emerges.

Research Conference Report No. 6 — Porcelain Enamel in the Building Industry — November 12 and 13, 1953. Sponsored by The Building Research Advisory Board and The Porcelain Enamel Institute. Conducted by The Building Research Institute (2101 Constitution Ave., Washington, D. C.) 1954

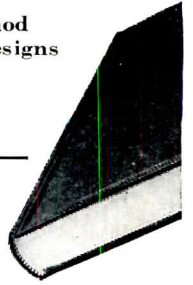
Design Research Report No. 1. An Investigation of Special Problems Involving Small-Dimensioned Douglas Fir and West-Coast Hemlock. School of Architecture and Allied Arts, University of Oregon (Eugene, Ore.) 1953

The Madison Central Business Area. By Richard U. Ratcliff. University of Wisconsin (Madison, Wis.) 1953. 8½ by 11 in., 69 pp. \$1.15

Proceedings of the 1953 ACRL Building Plans Institute with a Special Bibliography. Ed. by Donald C. Davidson. Assoc. of College and Reference Libraries (University of Ill. Library, Chicago) 1953. \$2.25

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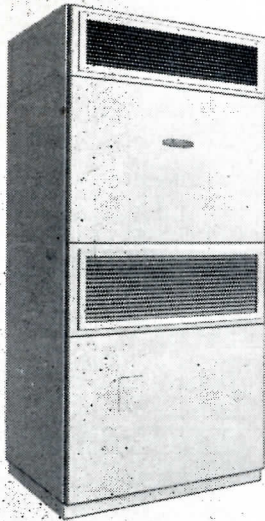
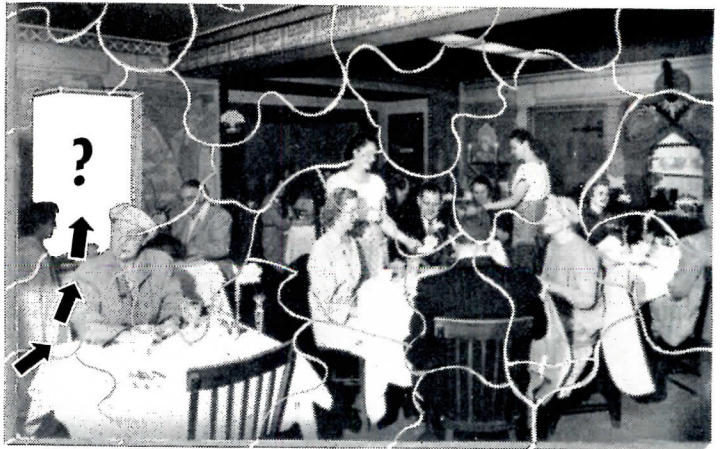
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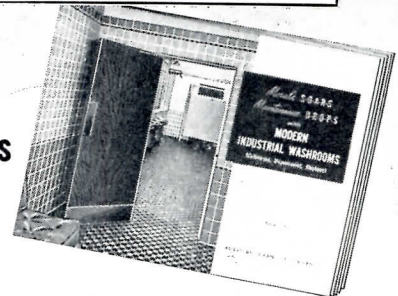
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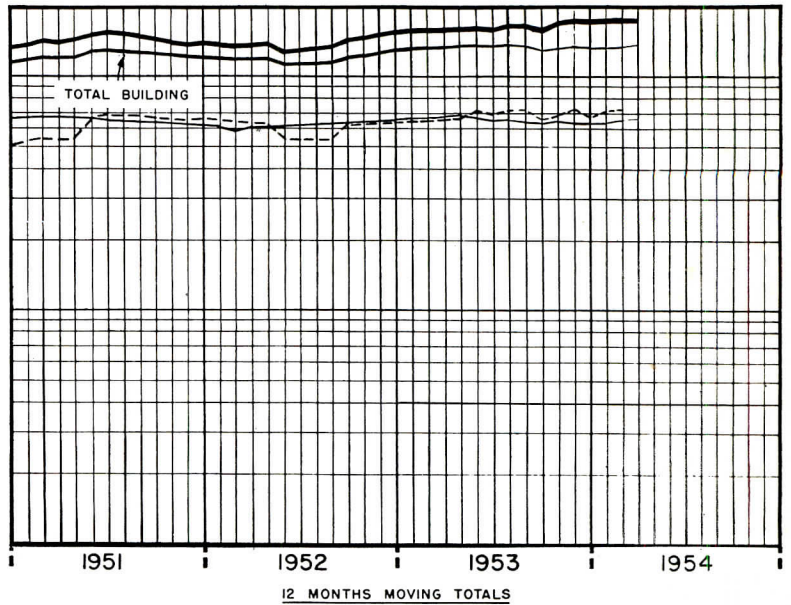
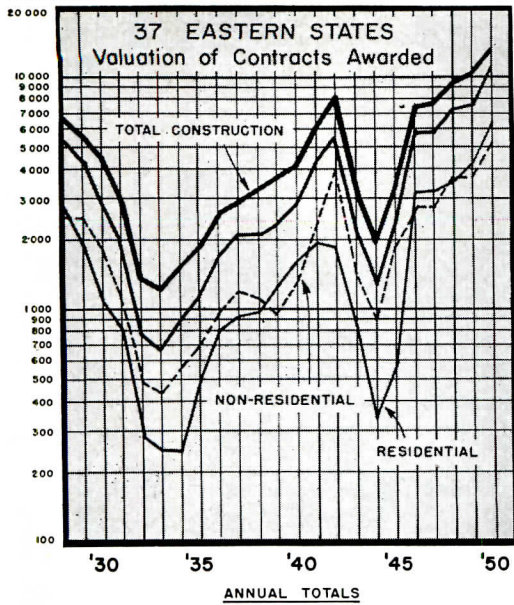
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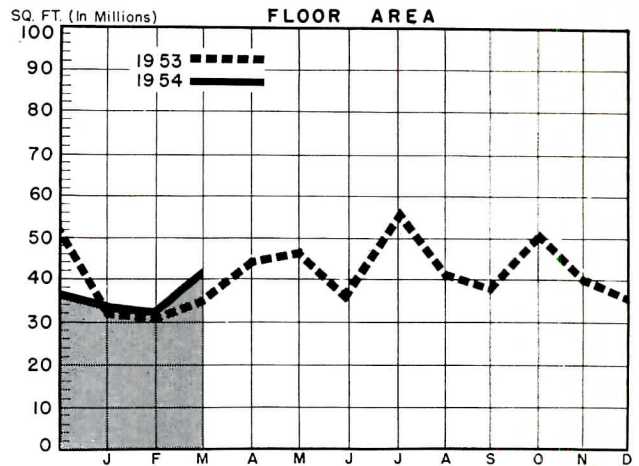


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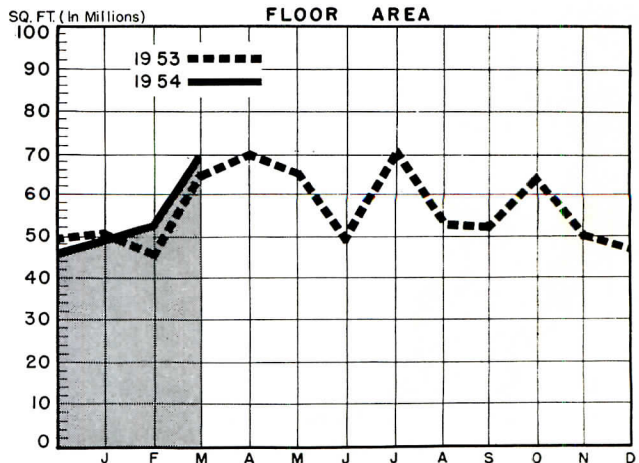
FIRST QUARTER SMASHES ALL RECORDS

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NONRESIDENTIAL BUILDING (37 EASTERN STATES)



RESIDENTIAL BUILDING (37 EASTERN STATES)



STORE BUILDINGS*—SELECTED YEARS

F. W. Dodge Corporation Contracts Awarded—
Floor Area (thousands of sq ft)

37 Eastern States					
Year	Annual Total	Monthly Total	Year	Annual Total	Monthly Total
1929	39,731	3311	1950	59,116	4926
1935	11,281	940	1951	34,534	2877
1943	1,583	132	1952	33,268	2772
1947	48,111	4009	1953	58,380	4865

Monthly Totals

1953			1954			
Jan.	3063	July	10,643	Jan.	4086	
Feb.	3048	Aug.	4369	Feb.	3999	
Mar.	3952	Sept.	5302	Mar.	4422	
Apr.	4602	Oct.	6656	3-months—12,507		
May	6063	Nov.	3359	*Suburban branch department stores are the subject of RECORD Building Types Study No. 210 (pp. 178-197)		
June	4239	Dec.	3084			