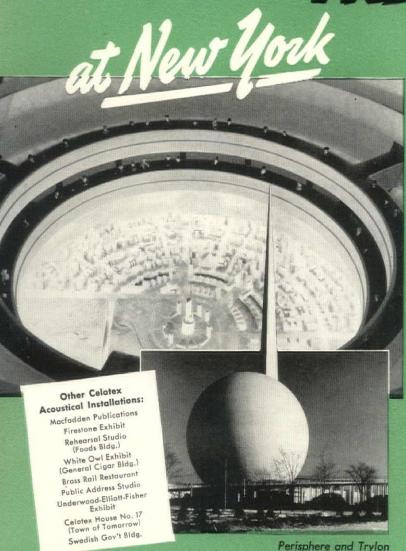
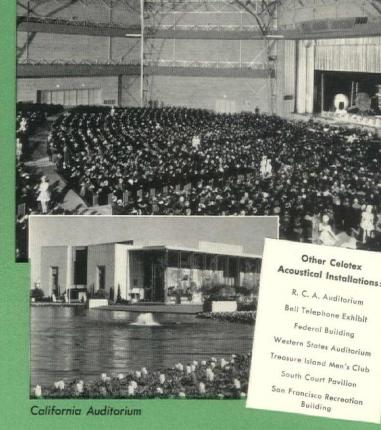


WORLD FAIRS - NEW YORK - SAN FRANCISCO - JUNE 1939

## HAVE CONQUERED NOTE SUCCESSFULLY!





#### ... Today's Acoustical Treatment Quiets "The World of Tomorrow"

THERE has seldom been an acoustical problem equal to that presented by the 200-foot perisphere at the New York World's Fair! Its interior, more than twice the size of Radio City Music Hall, constitutes an excellent echo chamber. Acoustical "salvation" is accomplished by an ingenious "checkerboard" arrangement of Celotex Acoustical Products.

This and other acoustical installations by the Celotex Acoustical Organization at the New York World's Fair offer new evidence of Celotex versatility. Five proved materials offer you a wide range of architectural effects. Our experience is at your service. Feel free to phone or write your nearest Celotex Acoustical Distributor at any time, regarding any acoustical problem, without obligation.

#### ... Thousands Hear Better Because Absorbex Hushes Echoes

IN the huge California Auditorium at the Golden Gate Exposition, excellent acoustics have been achieved by the use of Absorbex. It is notable that, whereas small attention was paid to NOISE Control at the Century of Progress Exposition in Chicago six years ago, both of the 1939 Fairs have used it extensively. Public appreciation of the evils of NOISE and the advantages of QUIET has advanced astonishingly during that short space of time!

Because The Celotex Corporation offers a wide range of acoustical materials, it is possible for architects to arrive at desired acoustical results without sacrificing harmony or beauty of detail. Complete information on all these materials should be in your files. A request from you will bring it by return mail.

THE CELOTEX CORPORATION . 919 NORTH MICHIGAN AVENUE . CHICAGO, ILLINOIS





ACOUSTI-CELOTEX

The word Celotex is a brand name identifying a group of products marketed

### JUNE 1939

NEW YORK FAIR	393
GENERAL: Introduction Theme Center Federal Building Court of States, Pennsylvania.	394
TRANSPORTATION EXHIBITS: General Motors Ford Aviation.	406
ELECTRICAL EXHIBITS: General Electric Consolidated Edison Electric Utilities Westinghouse Lighting Displays.	416
INDUSTRIAL EXHIBITS: Petroleum Industries Budd Mfg. Co U. S. Steel Dupont Glass Center.	422
COMMUNICATION EXHIBITS: American Telegraph and Telephone Radio Corporation of America.	428
HOUSES: Town of Tomorrow Electric Farm.	430
CONSUMERS' EXHIBITS: American Radiator Food Building, No. 3 Distillers Borden Co.	434
ENTERTAINMENT: Fountain Lake Amphitheater Theater and Concert Hall Children's World.	439
FOREIGN NATIONS: Finland Sweden Britain  Brazil Argentine Chile Venezuela  Belgium France . Netherlands Denmark Norway Italy Japan Poland  U.S.S.R Ireland Switzerland.	441
SAN FRANCISCO FAIR	463
GENERAL: Court of Pacifica Elephant Towers Court of Flowers The Lagoon Federal Building Decorative Arts Pacific House California Auditorium and State Building San Francisco Building	
Public Utilities Commission Exhibit County Buildings Yerba Buena Club Hall of Flowers.	464
INDUSTRIAL EXHIBITS: Del Monte U. S. Steel Dow Chemical Libbey-Owens-Ford Glass Co Armour and Co.	489
FOREIGN NATIONS: Brazil Argentine Japan Italy Czecho-Slovakia Sweden Portugal.	492
In Addition The Following Regular Features Are In-	

Editor, Howard Myers; Managing Editor, Ruth Goodhue; Associates, Paul Grotz, Joseph C. Hazen, Jr., George Nelson, Henry H. Saylor, Henry Wright; Assistants, John Beinert, Anna De Cormis, Barbara Hunt, Richard E. Saunders, Madeline Thatcher, Nadla Williams, Allan Woodle. The Architectural Forem is published by Time Inc., Henry R. Luce, President; Roy E. Larsen, Eric Hodgins, P. I. Prentice, Vice Presidents; Charles L. Stillman, Vice President and Treasurer, Publication and Subscription Office, Eric Ave., F & G Streets, Philadelphia, Pa. Subscriptions may also be sent to 339 East 22nd Street, Chicago, Illinois. Executive, Editorial and Advertising Offices, Time & Life Building, Rockefeller Center, New York, Business Manager, H. A. Richter, Advertising Manager, George P. Shutt. Address all editorial correspondence to Time & Life Building, Rockefeller Center, New York, Yearly subscription, Payable in advance, U. S. and Possessions, Canada, Cuba, Mexico, South America, §4.00. Elsewhere \$6.09. Single copies of this June issue \$2.00. All copies Mailed Flat. Copyright under International Copyright Convention. All rights reserved under Pan American Copyright Convention. Copyright, 1939, by Time Inc.

Diary, 22; Forum of Events, 26; Books, 30; Letters, 36.

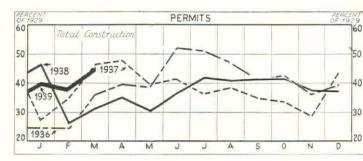
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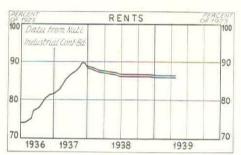
#### THE MONTH IN BUILDING

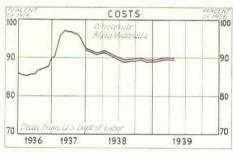
**PERMITS** 

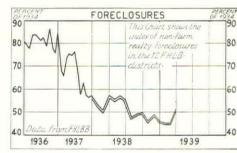
(Source: U. S. Dept. of Labor)

	Monthly data		First three months		
	Mar. 1939 (millions)	Compar Feb. '39	ison with Mar. '38	1939 (millions)	Comparison with 1938
Residential	. \$ 95.3	+10.0%	+73.1%	\$253.5	+35.2%
Non-residential .	. 50.3	+40.0	+28.8	145.2	+ 5.0
Additions, repairs	29.8	+17.2	+11.7	79.2	+ 5.6
TOTAL	. 175.4	+18.5	+45.3	477.9	+19.3









FHAMENDMENTS. Fortnight ago Congressional conferees adjusted the differences in the House and Senate versions of the 1939 FHAmendments. Approval by both sections of Congress was taken for granted; Presidential approval was expected in jig-time. As adjusted, the legislation provides:

- ▶ That the maximum limit on outstanding FHA mortgage insurance be boosted from \$3 billion to \$4 billion.
- ▶ That insurance of mortgages on existing construction be authorized for two more years with these provisions: 1) that this type of business may not exceed 25 per cent of FHA's total business, and 2) that no refinancing loans may be insured until the existing mortgagee has been given the opportunity to meet FHA terms.
- ▶ That Section 210 of Title II of the National Housing Act shall die a natural death on July 1, 1939.
- ▶ That authorization of the 25-year amortization period for 90 per cent mortgages be continued indefinitely.
- ▶ That toward the cost of large scale rental housing projects under Section 207 of Title II sponsors must ante the cost of raw land, all land improvements and all miscellaneous costs such as interest, taxes and insurance during construction. Thus, maximum FHA insurance is limited to actual construction costs minus all these items. Also, an insured mortgage cannot exceed 80 per cent of the estimated value of the project when completed.
- ▶ That labor on all large scale rental projects be paid in accordance with prevailing wage scales.
- ► That modernization loan insurance (Title I) be continued for two more years,

but that an insurance premium not exceeding 3/4 of 1 per cent be charged. Furthermore, the maximum size of home modernization loans under this Title must be reduced from \$10,000 to \$2,500.

While Congress was busy deciding what FHA can and cannot do, FHA was busy doing. Thus, during April the volume of mortgages selected for appraisal (a barometer of pending home building) was valued at \$105.7 million, down \$15.9 million from March, but up \$11.5 from April, 1938. Mortgages accepted for insurance totaled \$65.0 million, were \$1.5 million above March, \$1.7 million above April, 1938. Property improvement loans came to \$17.2, representing increases of \$1.1 million and \$3.7 million respectively.

PRICE PROBE. Long brewing in the chambers of the U. S. Department of Justice, the investigation of Building's price structure last month began to bubble over. Thus, blaming "unreasonable restraints of trade (as) the most conspicuous reason for high construction costs," Assistant U. S. Attorney General Thurman W. Arnold outlined a broad attack upon Building's component parts, chose as weapons both civil and criminal legal proceedings. As planned, Government's attack will strafe Building from top to bottom.

At the top are certain building material manufacturers whose alleged price-fixing has long irked the Government. Well remembered in official circles are the bids received by the U. S. Engineers at Los Angeles for an order of reenforcement bars from eleven different companies—all identical to the last penny.

No. 2 on Government's investigation list

are the distributors of building materials some of whom are accused of establishing fixed mark-ups between wholesale and re tail prices and of discouraging the introduction of new methods of distribution.

Next on the list are building contractors. Those who coerce low bidders to withdraw or raise their bids are scheduled for a trip to the court house. With them will ge those who steadfastly refuse to work with prefabricated products.

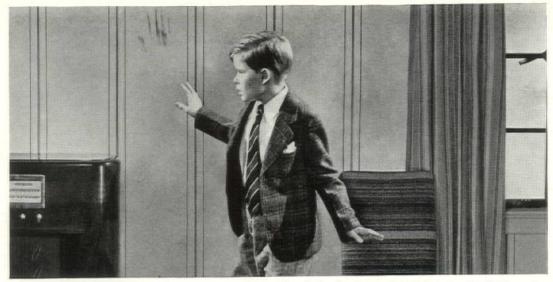
Last on the list is Labor which the De partment of Justice believes cooperates too freely in the contractors' policies or restraint and too often adds new restraints of its own—such as refusal to use newly developed materials and methods.

Greatest hurdle to the Department's proposed barrage is the geographical distribution of Building's far-flung battalions. To engineer its attack on as wide a front as announced, the Department of Justice would have to call out the U. S. Army including the National Guard. Best prediction is the Department will be satisfied with the accumulation of a few headlines and headaches.

HOME SHOWS. Since January 1929, marriage has expanded the number of Chicago families by 369,227, births have exceeded deaths by 125,000 and the city's population has increased 301,262. But during the same period only 26,862 houses and apartment units have been built—half of them in 1929 and 1930.

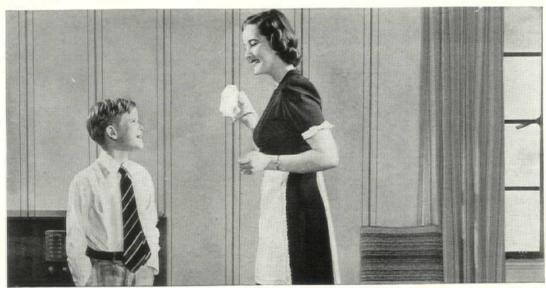
Bemoaning this shortage and, more pointedly, the fact that at the present rate of improvement (since the low point of 1933) the local building industry will not reach the 1926 level again until 1967, Chicago's Building Congress month ago

#### Whoops!



 Dirty finger marks seem to appear on the walls of the best regulated homes. And Masonite Colored Board makes such blemishes the least of a housewife's worries. This new Masonite Product has a special, satin-like finish that is washable.

#### All gone!



Neutral soap and damp cloth are all that are needed to remove finger and other normal dirt
marks from Masonite Colored Board. In addition to this lasting color surface, Masonite Colored
Board offers not only valuable insulating properties but also real structural rigidity.

#### Masonite Colored Board is washable!



Masonite washable Colored Board is available in today's four most popular home colors — oyster white, ivory, green, buff. It is low in cost . . . easy to apply . . . and will give years of service. Of course, you want a free sample and full details about this modern wall and ceiling material. Mail the coupon today.

MASONITE		COPYRIGHT 1939, MASONITE CORPORATIO
FREE! MASONITE	MASONITE CORPORATION, 111 W. Washington St., Chi Please send me a free sam;  Oyster White	cago, III. ple and full details about Masonite Colored Board in
THE WONDER WOOD OF A THOUSAND USES	Name	
A MISSISSIPPI PRODUCT	Address	
SOLD BY LUMBER DEALERS EVERYWHERE	City	State

THE ARCHITECTURAL FORUM

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VOLUME 70 Number 6

#### THE MONTH IN BUILDING

asked itself the question, "Can we afford to wait 28 years?"

Underlining its negative reply with action, Chicago set aside the week of May 8-13 as Building Industry Week and the Building Congress set out to blast loose a "pent-up demand for \$1,000,000,000 of new construction," to coax out of hiding into new construction and modernization every possible dollar of private money (there are nearly \$200 million more in savings in Chicago today than in booming 1929). Forthwith, the city was made building conscious by a barrage of billboards, posters, and newspaper and circular propaganda, by the simultaneous appearance of a red-white-and-blue streamers in most of the city's shop windows. All bore the slogan, "BUY, BUILD, MODERNIZE NOW-Get more for your money," all were aimed at the man in the street.

Today while the 10,000 Chicago business men who participated in the program are gauging the results of Chicago's Building Industry Week, the activities of four other U. S. cities stand out in the seasonal crop of home building promotional schemes:

▶ In Detroit, Mich., 36 of the 230 home building firms which constitute the Greater Detroit Home Builders' Association each built a model house on collectively purchased land, threw it open to public inspection for 60 days, then sold it. Dubbed "Detroit's Streamlined House Show of 1939," its houses are architect-designed two-story units priced to sell for \$5,000 to \$6,000 exclusive of land and will be duplicated anywhere in Detroit

\*A more complete presentation of Detroit's contribution to home show technique will be made in a subsequent issue of The Architectural Forum.

for the quoted prices. Month ago (two weeks prior to show's end) orders for some 300 such duplications had been taken, and the business-minded Association was concocting plans for a triple show in 1940.\*

▶ In Indianapolis, Ind. under one roof the 18th annual home show presented a six-room stone and brick residence, a community shopping center, a couple of gardens and the products of 125 exhibitors. Above average in calibre, Indianapolis' model house (see picture below) was designed by Architect Frederick W. Wallick in competition with other members of the city's new Architectural Guild and represents, according to a committee of architects, the modern version of the Indiana houses of the past.

A home show innovation was the smartly styled shopping center—an avenue of stores (exhibitors' booths) leading from the show's main entrance past its model house. Designer: Leslie Ayres. Pleased with the enthusiasm of the 100,000 visitors to the ten-day "all Indiana" show, Managing Director J. Frank Cantwell is currently planning an "all-American" show for next year, may seek the design assistance of architects throughout the Nation.

In Raleigh, N. C. last month first steps were taken in preparation for a continuing home show. To be known as the Raleigh Small Homes Demonstration, the program calls for the construction during a 26-week period of 21 low cost homes from plans developed by the National Lumber Manufacturers Association (Arch. Forum, July, 1938, p. 77). And, six times during each of these weeks, a fifteen-minute radio broadcast of home building and modernization propaganda will concentrate public attention upon

the Demonstration. Ringleader of the Raleigh show is enterprising E. Johnston Neal, whose business affiliations explain the radio-home building tie-up: he is president of the Home Owners Co., which will build the demonstration houses, also president of Radio Station WHAL, which will boost them.

STEP FIVE. Last month's most important real estate news was made by the world's most famous jewelers—Tiffany & Co. During the past 102 years of New York City business, Tiffany's has made four moves, each one a little closer to Manhattan's swank uptown retail district. On May 20, they announced northward move No. 5, a 20-block jump which will put Tiffany's on the southeast corner of 57th Street, will involve \$10 million in sales, lease and construction costs, will take place in the fall of 1940, and will probably go down in New York real estate history as 1939's biggest deal.

Announcement of the move came at the close of long, complicated negotiations engineered by Realtors Douglas Gibbons, Paul Hammond and Frederick V. Wyckoff. Tiffany's obtained a lease on the 57th Street property (now supporting a four-story taxpayer); sold the lease and its present premises (a seven-story, Mc-Kim, Mead & White structure) to a local bank, then re-leased from the bank part of the 57th Street property for an undisclosed but sizable term and price. After demolition of the existing building, the jewelers will erect on this property an eight-story building for its exclusive occupancy.

Architects Cross & Cross have been retained to design the new \$1 million Tiffany building which will take its place with such recent modern buildings as Steuben Glass, Bonwit-Teller, Bergdoff-Goodman, Squibb, N. Y. Trust Co. and others in the 57th & Fifth neighborhood.

USHAMENDMENTS. Coincident with Congressional approval of the 1939 FHAmendments (page 2), the Senate Committee on Education and Labor issued a report recommending passage of the bill to amend the U.S. Housing Act. Under it, the USHA would have the power to issue another \$800 million of bonds and to enter into annual contribution contracts with local housing authorities in the amount of \$73 million (present authorization: \$28 million) and national banks and member banks of the Federal Reserve System would be permitted to purchase bonds of local housing authorities without limit (present limit: 10 per cent of their capital). Hope is that provision No. 3 will encourage private capital to enter the program to a greater extent, thus cut down USHA's loan participation.

(Continued on page 50)



BED RM BED DM BE

Under one roof Indianapolis put a shopping center (above), a six-room house with gardens (below), displayed effectively the merchandise of 125 exhibitors to 100,000 visitors.

# CLEAN, SAILS OF FORMICA

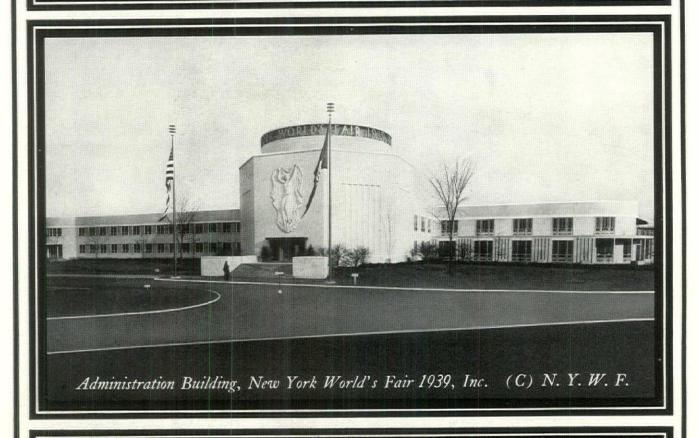


WHERE cleanliness and sanitation is the note to be struck in any room Formica is an ideal wall covering. It looks clean and it is easily kept clean. It is available in numerous light colored pearlescent designs of great attractiveness—a type of finish developed originally for use in the bathrooms of the steamer Queen Mary and specified also for similar use in the Queen Elizabeth which is now building. The material is too flexible to be cracked by shifting walls. It retains its color and surface through many years of use. Let us send details showing methods of installation.

THE FORMICA INSULATION CO., 4620 Spring Grove Ave., Cincinnati, O.

FOR BUILDING PURPOSE

## The Name HOPE'S Guarantees 1818 WINDOWS 1939



THE LONG EXPERIENCE OF OUR ENGINEERING DEPARTMENT IN THE CONSTRUCTION OF DISTINCTIVE WINDOW DESIGN IS ALWAYS AT THE SERVICE OF THE ARCHITECT. HOPE'S WINDOWS HAVE BEEN INSTALLED IN THE FOLLOWING BUILDINGS AT THE WORLD'S FAIR: NEW YORK STATE EXHIBIT BUILDING; N. Y. AMPHITHEATER BUILDING AND ISLAND STAGE; U. S. GOVERNMENT BUILDINGS E, F, K AND L; GENERAL MOTORS BUILDING; PALESTINE PAVILION; MANUFACTURERS TRUST; TEMPLE OF RELIGION.

HOPE'S WINDOWS INC., Jamestown, N.Y.

## USG HELPS BUILD THE WORLD OF TOMORROW"

- 4 of every 5 major buildings contain USG materials
- 1.0,000,000 feet of Sheetrock or Gyplap were used
- 2,500,000 feet of Gyplap used for exteriors
- 86% of the acoustical correction obtained with USG products
- More than 200,000 feet of Acoustone—mineral acoustical tile—were used to reduce sound
- 28 different USG materials helped make "The World of Tomorrow" possible today

Pointing the way to the future, the New York World's Fair presents the picture of "The World of Tomorrow." Based upon that prediction we see a world of clean-cut functional design—a world whose buildings are protected against fire—sanitary—free from nerve-shattering noise—better lighted—air conditioned.

So, to portray these buildings of the future, New York World's Fair officials drew upon the imagination of designers and chose from a wide range of building materials. The responsibility for the selection of these materials could not be taken lightly. Sixty million lives—property valued at over one hundred and sixty million dollars—had to be protected against fires that might easily reach the proportions of a major conflagration.

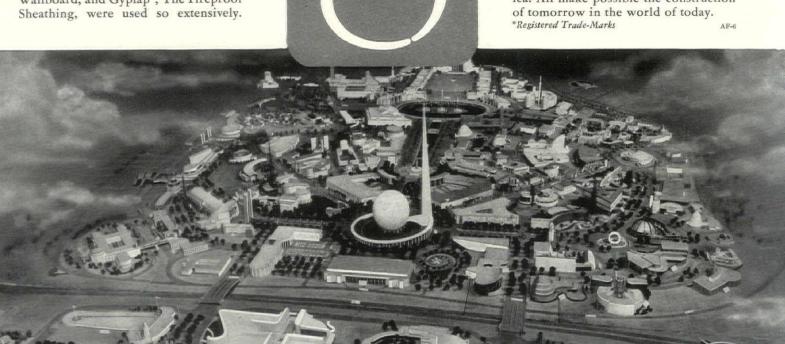
That is why Sheetrock\*, The Fireproof Wallboard, and Gyplap\*, The Fireproof Sheathing, were used so extensively.

Made with a core of gypsum, they afford the desired fire protection—they are strong, rigid, durable, yet can be easily cut and bent to fit a myriad of unusual and fantastic shapes and sizes. They can be quickly erected—attractively decorated—are as modern as "The World of Tomorrow" itself. As a result, Sheetrock and Gyplap were used in over 4 out of 5 of the Fair's major structures.

Because these materials were used, millions of lives will have added protection against fire—lives that without this safeguard might face possible tragedy.

And because in this "World of Tomorrow" it will be necessary to deal with noise quieting and to produce better acoustics, Acoustone\*, mineral acoustical tile, was chosen to perform these functions in many of the outstanding buildings.

Sheetrock, Gyplap, Acoustone and 25 other USG materials used in the construction of the New York World's Fair are developments of research and science. All have proved their true worth in countless thousands of buildings of every type—the length and breadth of America. All make possible the construction of tomorrow in the world of today.

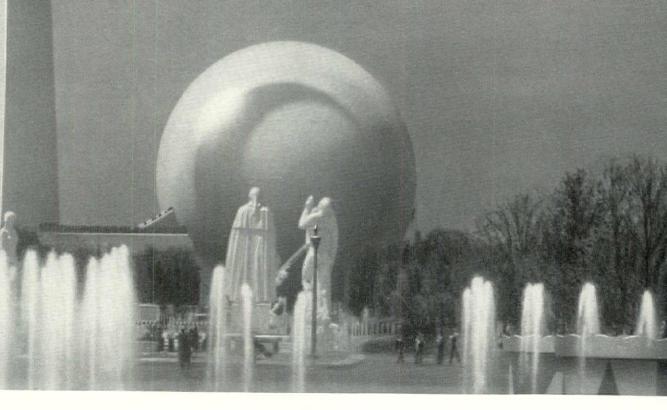


UNITED STATES GYPSUM COMPANY, CHICAGO, ILL.

## FIRE for "The



GENERAL MOTORS BUILDING — Actually four buildings centered around a cross street on which is staged a dramatic traffic show—in it you'll find 199,392 feet of SHEETROCK\*, and 201,712 feet of GYPLAP—used to help protect spectators against possible hazards of fire.



To build the TRYLON and PERISPHERE, theme center of the N. Y. World's Fair, USG furnished 245,792 feet of GYPLAP\*, The Fireproof Sheathing. The Perisphere, largest globe ever made by man, symbolizes the world about us. The Trylon, a slender three-sided spire symbolizes aspiration. Gyplap was chosen for these symbols because it met Fair officials' every requirement for a fireproof material that would fulfill their structural demands.

\*Registered Trade-Mark

## GYPLAP

The FIREPROOF Sheathing

## PROTECTION World of Tomorrow"



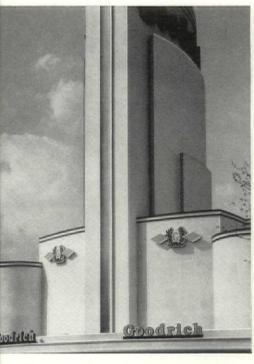
RADIO CORPORATION OF AMERICA— The wonders of television are unfolded in the modern building that houses this exhibit. In its construction were used 51,615 feet of SHEET-ROCK, wallboard, and 6,352 feet of GYPLAP.



THE AMERICAN TELEPHONE AND TELEGRAPH COMPANY made use of 125,192 feet of SHEETROCK and 17,056 feet of GYPLAP in their exhibit which, among other things houses the Voder, a machine producing synthetic speech.



SCHAEFER BREWING COMPANY—Here in this beautiful exhibit you'll be able to rest and relax midst surroundings both beautiful and fire-safe—made possible through the use of 16,128 feet of SHEETROCK and 5,000 feet of GYPLAP.



THE B. F. GOODRICH RUBBER COM-PANY presents hazardous car races—in a building in which fire hazards have been minimized by the use of 23,392 feet of SHEETROCK and 40,304 feet of GYPLAP in its construction.



FORD MOTOR COMPANY—Featured here is the world's largest animated mural, breathtaking with its spinning gears and plunging pistons. Used in this gigantic exhibit were 109,904 feet of SHEFTROCK—165.568 feet of GVPLAP



E. I. du PONT de NEMOURS—In this exhibit, guarded against fire with 60,646 feet of SHEETROCK and 20,320 feet of GYPLAP, you'll see a spectacular demonstration of modern chemistry—a marionette show on five stages.



### SHEETROCK

The FIREPROOF Wallboard
PRODUCTS OF THE UNITED STATES GYPSUM COMPANY



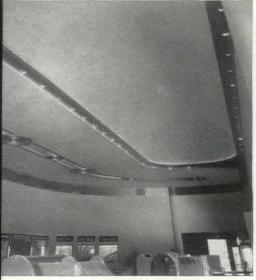
FORD MOTOR COMPANY EXHIBIT—A hundred animated puppets, gathering and preparing materials, revolve on a huge turntable to show the cycle of production which ends in the Ford automobile. 58,620 feet of ACOUSTONE\*—2,830 feet of PERFATONE\*—help make the exhibit a pleasant place in which to linger and enhance the pleasure of the show.

## NOISE REDUCTION for The World of Tomorrow"

Tomorrow's world will be a quieter world—free from nerveshattering noise—from the disturbance of uncontrolled sound. That's the hopeful message which Acoustone—mineral acoustical tile—delivers at the New York World's Fair. No other World's Fair has made such extensive study and use of acoustical correction. And it's only natural that Acoustone—combining scientific sound control with outstanding beauty and fireproofing qualities—should have been the Fair's No. 1 choice in acoustical materials.

#### WORLD'S FAIR BUILDINGS "QUIETED" WITH ACOUSTONE

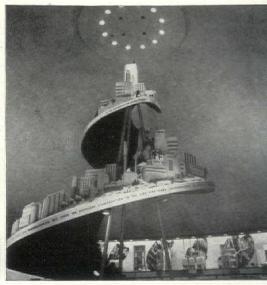
Administration Bldg.—American Tobacco Co. Bldg.—Ballantine Bldg.—Chrysler Bldg.—Communications Bldg.—Distilled Spirits Bldg.—Eastman Kodak Bldg.—N. Y. City Exhibition Bldg.—Food Bldg.—Ford Bldg.—Gas Industries Bldg.—The Heinz Dome—International Business Machines Exhibit—Italian Bldg.—Petroleum Industry Bldg.—RCA Bldg.—The Home Furnishings Bldg.—Theatre & Concert Hall—U. S. Gov't Bldg.—U. S. Steel Bldg.—E. I. du Pont de Nemours.



AMERICAN TOBACCO COMPANY—No step in the production of tobacco is left in doubt by this exhibit. And there's no doubt, either, of the value of effective noise quieting—for 6,290 feet of ACOUSTONE help make this exhibit even more attractive.



PETROLEUM INDUSTRY EXHIBITION— Petroleum at work is the theme of this exhibit. Scientific sound control is at work here also with 4,050 feet of ACOUSTONE and 3,784 feet of USG Perforated Hardboard and PERFATONE.



DISTILLED SPIRITS EXHIBIT, INC.—Colorful models that demonstrate distilling processes—comprehensive murals and dioramas—are highlights of this exhibit. Highlighted, too, is ACOUSTONE—covering a total area of 6,635 square feet.



INTERNATIONAL BUSINESS MACHINES EXHIBIT—Business today needs quiet—for higher production and efficiency. 4,580 square feet of ACOUSTONE are an appropriate accompaniment to the many machines displayed in this exhibit.



UNITED STATES STEEL SUBSIDIARIES— Here are amazing displays of steel consumption and processes of steel manufacture. Steel's progressive outlook is evidenced by the fact that 681 feet of ACOUSTONE are used in the building.



UNITED STATES FEDERAL BUILDING—Its symbolism—the progress of America from the 13 original states to the present. Progress in sound control—exemplified by 6,500 square feet of ACOUSTONE—helps create just the proper atmosphere of dignity.



### ACOUSTONE

ACOUSTICAL MINERAL TILE, OUTSTANDING IN BEAUTY, HIGH IN EFFICIENCY PRODUCT OF UNITED STATES GYPSUM COMPANY

\*Registered Trade-Mark

F-6

### WESTINGHOUSE



#### **WORLD'S FAIR DEMANDS NEW USES FOR LIGHTING**

Lighting units to create startling illusions . . . to make each structure appear as a source of light . . . to create spectacular effects surpassing all previous attempts!

To achieve these rigid Fair requirements, Westinghouse developed a wide variety of new lighting units . . . the results of which are seen in the numerous spectacular illumination effects that complement the design and construction of the

ultramodern structures and spectacles.



Westinghouse built the units required for the unusual lighting of the Perisphere. Incandescent fresnal lens projectors, as illustrated, were used in combination with multiple projectors, each using nine short-arc mercury lamps.





WESTINGHOUSE LIGHTING

## Supplies the ANSWERS



#### WESTINGHOUSE RESEARCH PROVIDES THE EQUIPMENT

Back of these laboratory and engineering triumphs is a wealth of experience and ability that has made Westinghouse preeminent in every phase of lighting. It is this ability to do the unexpected that gives to Westinghouse equipment for commercial, industrial, highway and street, flood and aviation lighting a reputation for quality that is always associated with the Westinghouse trade-mark. Westinghouse Electric & Manufacturing Company, Edgewater Park, Cleveland.



Special Westinghouse flush ceiling-mounted lighting units, with fresnal lens, were standardized by the Fair for all buildings. These units, illustrated on the right, give a colored effect when viewed from an angle, while plenty of white light is actually provided below.



FOR EVERY APPLICATION





LONG ISLAND RAILROAD TERMINAL. Built especially to serve the New York World's Fair. Visitors arrive here ten minutes after leaving Manhattan. U·S·S steels are extensively used in this building and its approaches.

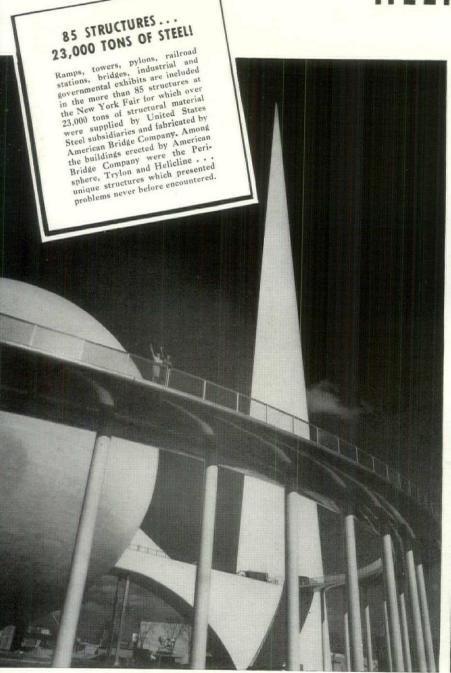


**ADMINISTRATION BUILDING.** This important building houses all the administrative offices of the large organization which directs the New York World's Fair. Here again the subsidiaries of United States Steel Corporation supplied steels in great variety and quantity.



**FRANK BUCK'S ZOO.** The fact that Frank Buck uses U·S·S Cyclone Fence exclusively for confining his amazing collection of animals is ample proof of the strength and quality of this famous property protection fence.

## TWO GREAT FAIRS SHOW HOW HELP YOU BUILD THE



PERISPHERE, HELICLINE AND TRYLON. These three structures, involving many unique construction problems, were completely fabricated and erected by American Bridge Company. The illustration shows the tubular steel columns which support the Helicline. They were manufactured by National Tube Company.



**TRANSPORTATION BUILDING.** A large and beautiful structure housing the Railroad exhibit, one of the most interesting at the New York Fair. A wide variety of U·S·S steels was used in its construction.



**FOOD BUILDING.** One of the many large and interesting buildings in the main exhibit area of the New York World's Fair. This is just one of the more than 85 structures in which U·S·S played an important part in furnishing a great quantity and variety of steels.

UNITED STATES



COSMETICS BUILDING. An unusual and interesting commercial exhibit building that is attracting wide attention. A variety of U·S·S steels was used in its construction.



CYCLONE FENCE. 81/2 miles of 9-foot high Cyclone Chain Link Fence are in use to enclose and protect property and exhibits at the New York World's Fair. Cyclone Fence Company not only produced the fence and gates but furnished complete erection service.



AVIATION BUILDING. This unusual structure is built in the shape of a large airplane, with wings and fuselage. Steels—U·S·S Steels—played an important role in building the structure.



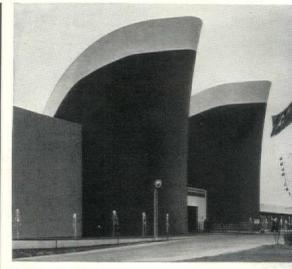
#### TOMORROW

'HE complete freedom allowed in THE complete recording the World's Fair buildings resulted in bold interpretations of the "World of Tomorrow" which presented unique problems. Their solution revealed architectural possibilities in the use of modern steels fully as significant as those concerned with engineering. So architects and engineers worked unhampered, confident that the structures created by their imaginations would arise satisfactorily and more easily because of the versatility of steel.

In addition to the famed Theme Center Group at New York, American Bridge Company, Carnegie-Illinois Steel Corporation and other United

States Steel subsidiaries participated extensively in the steel requirements of many other structures equally distinctive as to design, and symbolic of the exhibits which they house.

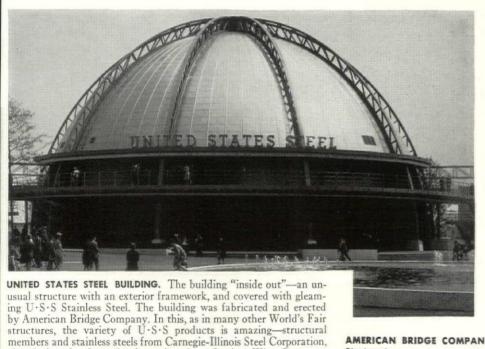
More than 23,000 tons of U·S·S steels in myriad forms entered into the building of the New York World's Fair alone . . . from wire rope to tubular products, from plain sheets to steel murals, from girders to sheet steel piling. This participation is ample proof that the Subsidiaries of United States Steel keep abreast of architectural progress and are fully qualified and ready to assist architects, engineers and builders solve their problems of the future.



MARINE BUILDING. The entrance is dominated by two huge ship's prows. An unusual building that is attracting much favorable attention. It is one of the more than 85 structures for which a wide variety of steels-from structural members to wire and pipe-were supplied by United States Steel subsidiaries



U-S-S EXHIBIT AT TREASURE ISLAND. At the Golden Gate International Exposition, States Steel has an interesting exhibit with much space devoted to steel research and development. But, perhaps the most impressive United States Steel exhibit is the San Francisco-Oakland Bay Bridge which all must see who visit the exposi-tion. It is the "last word in big bridges," 81/4 miles long between terminals, fabricated of U·S·S steel by American Bridge Company for Columbia Steel Company, general contractors— both United States Steel subsidiaries.



AMERICAN BRIDGE COMPANY Pittsburgh electrical and other wire from American Steel & Wire Company tubular railing and flagpoles from National Tube Company, portland CARNEGIE-ILLINOIS STEEL CORPORATION Pittsburgh and Chicago CYCLONE FENCE COMPANY Waukegan, III.
SCULLY STEEL PRODUCTS COMPANY Chicago UNIVERSAL ATLAS CEMENT COMPANY

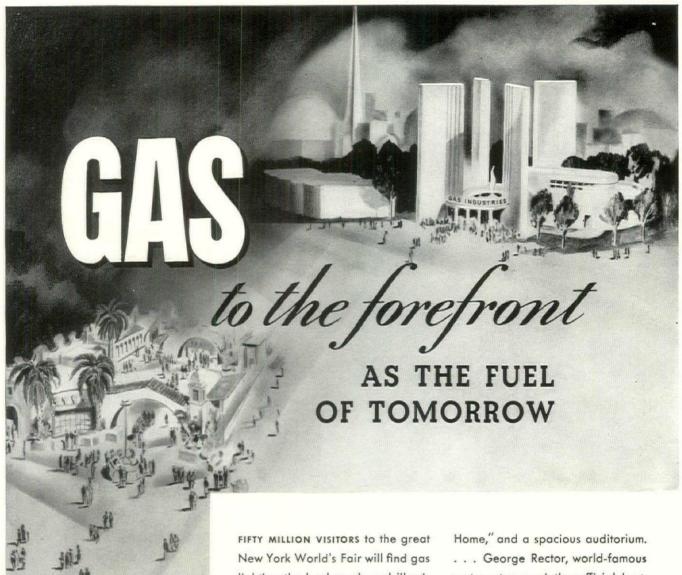
New York

AMERICAN STEEL & WIRE COMPANY Cleveland, Chicago and New York COLUMBIA STEEL COMPANY San Francisco NATIONAL TUBE COMPANY Pittsburgh TENNESSEE COAL, IRON & R. R. COMPANY

Birmingham VIRGINIA BRIDGE COMPANY Roanoke, Va.

STEEL

cement from Universal Atlas Cement Co.-to mention a few.



New York World's Fair will find gas lighting the boulevards and illuminating the spectacles. They will find gas designated as the fuel for cooking, water heating, house and space heating in the structures operated by exhibitors, by the Fair Corporation . . . and in all buildings that will remain permanently. Gas fuel will predominate! Two million cubic feet per day is a conservative estimate of volume.

Millions will throng the \$750,000 Gas Industries Building . . . its "Court of Flame" ringed by towering pylons, scientific displays, exhibition hall for industrial, commercial and household appliances, the "All-Gas

Home," and a spacious auditorium.
. . . George Rector, world-famous restaurateur and the official host, will do his genial best toward further popularizing gas use.

1939 bows to Gas progress and versatility . . . prophetic of a five billion dollar industry's vast future arowth.

American Meter Company, like other makers of essential Gas Industry equipment, is enthusiastically interested in the tremendous nationwide sales momentum which this purposeful exposition will exert on modern gas merchandising... substantial new business of which all members of the Industry will be alert to take full advantage.

Published in the interest of American Gas Association activities by American Meter Company, Incorporated

1191A

## GAS KEEPS HOUSE IN THE HOMES OF TOMORROW!



"HOMEWOOD"—THE ALL-GAS
GOOD-HOUSEKEEPING HOME
AT The New York World's Fair
Architect: Dwight James Baum



TOWN OF TOMORROW
Architects:

Evens, Moore & Woodbridge

No wonder gas is the standard fuel in many of tomorrow's homes exhibited at the New York World's Fair 1939. Architects and builders in search of the ultimate in better living have already proved modern gas appliances most adaptable to their plans.

If you want good ideas about tomorrow's most livable, salable homes, just compare the latest gas ranges, refrigerators, water heaters, and air-conditioning units with all others! Notice their handsome, compact designs. The simple, functional construction. The amazing automatic efficiency!

Then compare the cost! First cost, installation cost, and operating cost! See how you can use tomorrow's fuel to give your clients more house for the money today!

AMERICAN GAS ASSOCIATION

#### STILL TIME TO ENTER \$10,000 ALL GAS HOME BUILDING COMPETITION

All types of homes, new or modernized, are eligible for big prizes. Simple rules. Worth your while.



HOUSE No. 1 © N.Y.W.F. 1939 TOWN OF TOMORROW Architect: Henry S. Churchill

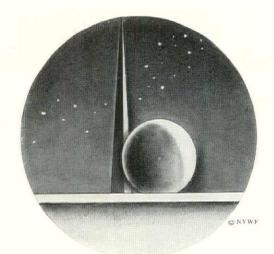


HOUSE No. 15 © N.Y.W.F. 1939
TOWN OF TOMORROW
Architects:
Godwin, Thompson & Patterson

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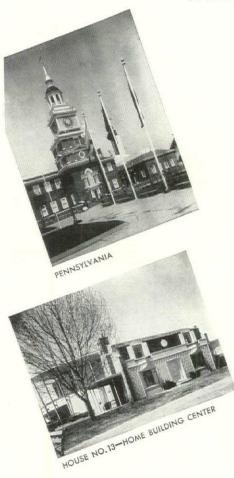


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#### PRODUCTS OF

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NEW YORK WORLD'S FAIR



PRODUCTS of General Bronze may be seen at many points in the New York World's Fair.

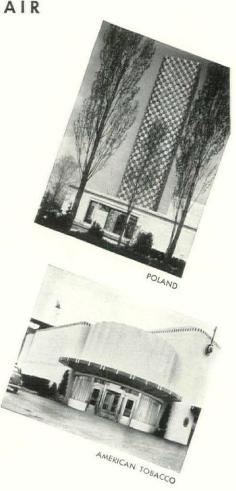
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#### THE ARCHITECT'S WORLD

#### THE FAIR TO BOSTON

By Hubert G. Ripley

Condensed from Oculus, May, 1939

Had it not been that my old friend Patout urgently pressed me to visit him during his stay in New York, I would not have seen the World's Fair, 1939, on the opening day. If these random impressions chiefly concern the French Pavillon and the superb gigot that Madame served Saturday night, it is because of the dominance of the esprit gaulois, the theme of the week-end. (By the way, "week-end" is now a French word, one of many such expressions of international usage.) In fact, we talked French and English interchangeably all the time and got on famously. Madame said when she returns to France her friends will tell her she speaks French with an American accent: "Beaucue!"

Patout and Expert, as all know, designed the Pavillon Française, and I was especially anxious to see the latest masterpiece of one who has been a valued friend and kindly mentor off and on for more than thirty years. Even in its unfinished state, lacking the final settings that will adorn its suave outlines, the Pavillon possesses a vibrant appeal that cannot fail to impress the most uncompromising traditionalist. This emotional appeal to static old codgers like me is strong, and youth fairly bubbles over with delight on glimpsing its dynamic asymmetries.

There's hardly a right-angle in the whole plan, and nearly all the straight lines have become gracious curves wherever it seemed fitting so to make them. The great sweeping arcs and parabolas, the contrast of its

flowing line, lend the quality of life and motion to an inanimate thing; just as when far-shooting Apollo strikes his lyre that cunning Hermes made for him from the shell of the mountain tortoise, its unheard harmonies ring in our ears.

This quality of intangible rhythm is sensed in the great Court of Peace, where on Sunday afternoon the ceremonies attending the formal opening of the Fair took place. Wriggling our way with circumspection between squeezed humanity, we finally found seats and were able to relax in comparative calm despite the presence of 39,995 others inside the barriers (our party of four, and I. Howland Jones, who also came down from Boston, rounding out the reported total). The plaza hummed in an atmosphere of expectancy and repose after the hurly-burly of gate-crashing.

The great Court is worthily named. Its designers have created a beautiful and a noble group of buildings, adorned with statuary, fountains and spots of color. Sunday afternoon, within a setting of massed cumuli, patches of cerulean and opal, plashing waters and fanfare of brass, the guards of honor and the holiday spirit, the spectacle was tremendously impressive and stimulating. The Court is a fine conception finely carried out, with no discordant note to mar its noble serenity. Here the new architecture achieves eurhythmy. I'm sure our old friend M. Vitruvius Pollio will be greatly pleased with his pupils when he visits the Fair.

How M. Pollio will react to the great ball and trylon, one may not say. The ball is so vast that one doesn't have to go near to see it unless one wants to, and being a person of modest aspirations I was content to view these contrasting objects from a distance. It's a fascinating spectacle, however, that one is constantly being confronted with. The ball looks as if it might float away on a cloud, like a titanic soap bubble, if one blew hard enough. The trylon, set to guard the ball. has a threatening air of conscious rectitude as if he were afraid this might happen, and was jolly well determined to allow no nonsense of that sort. At night, under the spell of Hephaistos, Patout says the spectacle is a gorgeous one. This spectacle will. for me, have to be reserved for another occasion, as a small sector was quite enough to digest in a two-day visit. Like Manhattan cocktails, one is just right, two are too many, and three-not half enough.

The Board of Design has done a wonderful job of coordination on the Fair. Their guiding spirit is evident throughout an area so vast that one could almost spend the entire summer there with profit and pleasure, or preferably make numerous visits at convenient intervals. The only criticisms or suggestions, rather, that occur as a result of a brief stay—and these are doubtless due to the overwhelming wonder of it all, are: that there should be a) shrines of Dionysos spaced nearer together, and b) if the cocktail glasses were larger, they'd sell more.

#### LOW RENT HOUSING IN HOLLAND

By Jan Bommer

EXECUTIVE DIRECTOR, NATIONAL HOUSING COUNCIL OF THE NETHERLANDS

Condensed from an address delivered before the New York State Committee of the National Public Housing Conference, New York, N. Y., April 12, 1939

In 1899 the staggering fact was brought to light by Holland's census that more than 80 per cent of the lower income groups in our country were living in dwellings containing one or two rooms only. Then came the Housing Act of 1901.

Recognizing the fact that private enterprise and private capital did not supply the demand for decent houses at reasonable rents for the lower income groups, our public housing was based on the following three conceptions:

- 1) Housing, being a matter of national importance, is to be regulated by national law, and national funds are to be made available for it.
- 2) The carrying out of the measures is a matter of local responsibility. The initiative is to be in the hands of municipal and other local authorities.

3) The responsibility for housing progress rests not only on the Government, but also on the citizens. The citizens themselves are to take their part in the work, and with that objective they may organize themselves into public housing societies.

This means in short: centralization in regulation; decentralization in execution; enlistment of the zeal of the inhabitants.

The Act was apparently in advance of its time. Only a small number of societies were founded, all of them by sympathetic well-to-do friends of low rent housing.

In 1906 the first cooperative housing society, formed by municipal employes in Amsterdam, applied to the Government for certification. Since then a great number of cooperative societies have been founded, and now they form the majority of our 1,000 public housing societies, the driving power of the Dutch housing movement.

Members of these cooperative societies are in general workers with decent average wages, such as those in the civil service, building trades, garment industry, transportation and so on. They subscribe for each a share, costing, say, an equivalent of about \$25 for wage earners in the U. S.

Members elect from among themselves the executive board, and sometimes a socalled tenant's committee, which latter supervises the manner in which the houses are occupied, composes differences between neighbors, organizes courses of instruction, children's festivals, etc.

\*

Here is how a housing society tackles its task. When a society has decided to build, the first thing to do is to appoint an architect. In consultation with the executive board, the architect makes a provisional plan which must conform to the view of the municipal housing authorities. At the same time is undertaken the selection and acquisition of the site. By the way, our larger cities nearly always possess vast areas of land, purchased in the course of time, or taken over by eminent domain for the development of the city.

When a society has initiated a building project it asks the municipality for a loan. If the municipality agrees to the project—after examining the scheme and checking the estimates—it applies in turn for a loan to the Government. When the Government also has approved the project, the loan is granted to the municipality and by the municipality to the society. So, you see, state loans are never granted to the societies directly, but always through the municipality, and the latter stands security for the payment of interest and amortization. Local responsibility!

When the municipal authorities have approved the plan, and it has also passed the housing experts of the Government, the loan is granted by order of the municipal council. At the same time a site is acquired; the municipal council, as a rule, leases it to the society for a term of 50 years, in which case the society requires a loan only for the building of the houses.

In the meantime the provisional plan has been worked out in detail by the architect of the society, in consultation with the municipal housing officials. Tenders are invited by public notice, and one of them, with the approval of the municipal authorities, is accepted. The construction of the project is in the hands of a contractor under the direction and supervision of the architect.

From beginning to end, the society cooperates with the municipal housing department and is closely supervised by the latter, including management of the houses.

Building loans are repayable in 50 years, loans for the acquisition of land in 75 years. The interest is fixed at a rate corresponding to that at which the state secures its money—now 3½ per cent. Besides these loans the Act empowers the Government to grant yearly subsidies. Half of these subsidies are paid by the Government, the other half by the municipality. However, since 1924 yearly subsidies have been granted only for houses built in conjunction with slum clearance. Tax exemption is not granted in Holland.

The municipalities have the right to take over the real property of a society at any time for default of payments. In the future this may prove to be of great importance. After 50 years the building loan will be repaid; expenses will decrease accordingly, and the letting of the houses will then undoubtedly provide the municipalities with considerable profits for several years. The first houses built under the Housing Act are now 34 years old.

So you see that the guiding principle of our financial system is that it is the community that provides the money, it is the community that runs the risk for this money, but it is also the community that benefits from such profits as may be expected in future.

Our system of cooperative housing societies has become a great success. Tenants have obtained a say in things and at the same time have developed a sense of responsibility for their project which they never would have acquired in houses managed directly by municipal authorities.

Under the Housing Act societies and municipalities together have constructed about 220,000 houses (For the U.S. that would mean proportionately about 3,500,000 houses). About 15 per cent of the families in the lower income groups are living in municipal or society houses; in Amsterdam, 22 per cent. The greater part of this work—75 per cent—has been done by societies.

In Amsterdam societies are able nowadays to provide decent houses, paying their way, at rentals of less than six florins a week. Proportional to income this would mean about \$6 in the U. S. The workers pay about a fifth part of their income for rent. The Government has prescribed of late that the houses shall not be let to persons with incomes exceeding seven times the amount of the rent. Houses built by the municipality for former slum dwellers are in general about 20 per cent lower.

Houses of the same type as society houses, built and managed by private enterprise, average about 20 per cent higher in rent in Amsterdam. This difference can be attributed to several factors: private landlords must make profits, they have to pay higher interest, costs for the renewal of mortgages, higher managing costs, etc.

Our system of public housing by means of society and municipal building has been in operation for more than 30 years. It has proved effective under widely divergent circumstances. It proved effective during the quiet years before the war, but also in war-time when building costs were raised by more than 200 per cent, and it is still effective today.

#### THOUGHTS OF A HOME OWNER

Condensed from The Technology Review, March, 1939

Massachusetts' Technology Review editors recently sent out a questionnaire to a selected list of readers. It was a long and intricate document, seeking opinions as to their houses. The list was taken chiefly from Technology's alumni, all of the middle income group, and widely distributed geographically. The editors who made it regard the inquiries as merely an incomplete footnote to the unexplored task of housing-market analysis. Here is the essence of the results:

An American of average age, of better than average education and income, whether he lives north or south, east or west, is likely to own his home. If he does not, he is prone, nonetheless, to await only stableness of employment before owning. Whether or not he owns, he thinks ownership desirable because it gives him a sense of stability and a sense of pride. He has selected the environment of his house principally for social reasons, and the house itself principally on considerations of site and number of rooms. He reacts against any proposed major changes

in the house as he knows it-changes such as elimination of cellar or fireplace. He desperately fears anything suggesting regimentation or standardization; therefore, he rejects for himself a high-grade, wellplanned rental community, and even carries this fear to the point of finding common garages undesirable. He is rather confused about Modern architecture but thinks of it in terms primarily of flat roofs and new materials. He is not certain whether he likes it at all, tends not to want it for himself, but has rather meager knowledge of the personalities of the leading Modern architects. He is quiet in his praise of Modern if he likes it, but vehement in his denunciation if he does not.

This man has learned by experience that the house should not be regarded as an investment, but he does not think his own house cost him too much as compared with other things. Despite this view he does think the building industry as a whole is out of date. He feels quite strongly that lighting of houses is archaic, and he is not too optimistic about contemporary househeating methods; but he thinks that plumbing and sanitary measures are, except for leaky valves, all right. Although the house he owns has caused him some headaches, he would, if given a chance to start over, own another house. And he would positively employ an architect to create it. If he cherishes any pet peeve about his house, it concerns itself with high taxes, but these are, after all, not nearly so much a function of the dwelling as of other aspects of the community in which he lives.

#### THEY SAY-

"Thoughtless people constantly tell you that decorated construction is a mark of good architecture and constructed decoration a mark of bad, a dogma that means either nothing at all or that every traceried Gothic window, every pedimented classical doorway, is a sin against art."—
H. S. GOODHART-RENDEL.

"Regardless of the method of selection, both the Government and the architect should recall the advice of the vizier to his shah: 'Sire, you must remember that for the leader of any enterprise you must provide a steed with four legs: information, authority, responsibility and reward. Lacking any one, failure is assured.' Federal architecture has been limping along with at least two stumps."—Oculus.

"For the last three or four hundred years artists have grown more and more individualized and less cooperative, more grandiose and self-satisfied with the 'picture,' unrelated to anything outside its frame, and have lost the group consciousness that they shared in the past in guilds, and in great undertakings like the cathedrals and palaces and public institutions of the best art periods."—Mabel Dodge Luhan.

"My old master, Louis Sullivan, gave me a definition of a highbrow; a man educated way beyond his capacity. Perhaps the most troublesome thing the matter with us is that we may have been educated beyond our capacity.

"If I were rich beyond the dreams of avarice, I would buy up universities and close them. I would set at each entrance a bronze tablet reading, 'Closed by the beneficence of Frank Lloyd Wright.'"

"In New York the great masses of buildings in different styles and in considerable disorder—one might even say anarchy—are incomprehensible to the Soviet architect; the latter strives to solve the problem of a planned city in relation to a previously thought out concept of the general idea formulated for decades to come; private ownership of the land fundamentally limits the possibility of a good architectural ensemble or even of individual buildings."—Boris Iofan.

#### ARCHITECTURE'S FOURTH DIMENSION

By Talbot F. Hamlin

From "Architectural Esthetics Today" in Columbia University Quarterly, June, 1938

Architecture, like music, is an art of time as well as space. No photograph, no painting can give us a true picture of a building. Buildings are to be walked around, seen from all points of view, entered, used, worked in or lived in. All of that takes time. The building, truly beautiful, remains a single, changing, patterned experience during the entire process. Every smallest unit, outside and in, both in arrangement and detail, down to the door panels and the light switches, is part of one conception. The architect's work does not stop at the outside door and is not satisfied with the mere arrangement of an

outside and an inside as two different things. No, the architect, if he is to produce the greatest architectural beauty, must design his building so that from the time you first see it in the distance, through the time when you approach it, enter it, follow through its rooms or spaces in the natural order, until the time you leave it again, you are constantly undergoing a single artistic experience of continually varying content—an experience which has a beginning, a middle, a climax, and an end, in which each moment is the result of what has gone before and prepares you for what is to come.

#### THE RETREAT FROM FUNCTION

By Anthony Cox

Excerpts from the New Year Number of The Architect and Building News (London)

"The new architecture" in England has developed rapidly to a stage at which one almost expects to be ridiculed for using the word "functionalism" when criticizing it. Functionalism, like "une machine à habiter," tends more and more to be taken at its face value, and to be dismissed as a shallow and inadequate intellectual formula which is incapable of enlargement to meet today's needs.

Few people would say that architecture can ever be the result of a mechanistic adjustment of scientific and ascertainable facts; or that if a fabulous calculating machine were invented which could arrange with complete precision and detachment the plan, services and structure of a building according to data provided by statisticians and mass-observers, the resulting building would be all that could be desired. Esthetic choice enters into the process of designing with almost every decision that is taken, and not because architects happen to want to drag it in, but because there are few situations in which it is possible to say that one particular solution is true, final and incontrovertible. Not only must this be so, but it is also pretty clear that at a certain stage in the design of most buildings they become entities with their own characteristics, exercising an influence over the subsequent choices which go to their development, and that after this stage is reached (and it can be reached early), contradictions may be set up between what we might term "use-values" and the partly adventitious values imposed by the building as

Esthetic choice and an analytical approach are not incompatible, and it seems false to assume that if one admits esthetic choice no distinction can be drawn between functionalism and formalism, but

that one must recognize all architecture as formalist in one way or another. . . . It would be difficult to get very far with a critique of contemporary poetry which only recognized its descriptive nature, for instance, or of contemporary painting which only recognized its illustrative qualities, but with architecture it is perfectly possible to tell the sheep from the goats. . . To go a stage farther and pick out the best sheep is less easy, but it seems that today it must be done by an extension of the first stage to an analysis of the success with which the useful and human aspects of the problem have been synthesized into a whole without the introduction of meaningless and adventitious elements. Buildings selected by such a process would be functionalist buildings, but would by no means be characterized by the aridity which has unfortunately come to be associated with the word.



Anyone with any faith in the ultimate victory of order over chaos, and the liberation for constructive use of the tremendous powers latent within the cramping form of an economy that has outlived its useful period, and who believes that whatever the temporary disillusions, setbacks and confusions of the present may be, such a victory is an inevitable stage crystallizing out of living forces within the present, cannot but recognize that an ordered architecture sympathetic to the needs of the vast audience with which it will have contact, and flexible to the rational application of technique and the rapidly developing requirements that it will have to meet, is the architecture toward which our efforts should be directed today, and whose basis should be established in a new tradition of method.

#### THE DIARY

Monday, April 17.—Leon Solon is telling a story that will make the architectural renderers reflect upon their misdeeds. A certain banker commissioned an architect in New York to design new banking quarters. In the contract he inserted a clause to the effect that if the architect were to show him the design in perspective, either exterior or interior, the contract would thereby be terminated automatically. Noting the architect's raised eyebrows, the banker said, "I have built two houses for myself, and a number of other buildings, on the basis of perspective renderings. These drawings have fooled me for the last time. Henceforth I want to see what I am getting by plan, elevation, and section only."

Thursday, April 20.—Cameron Clark has been very much excited over the removal of New York's Sixth Avenue El. After lunch today we walked over to look at it. It really is astonishing to see what an architectural barrier the El has been. The east side of Sixth Avenue has a distinct family resemblance to Fifth and the center of town. Just across the street to the west, buildings which have hitherto been screened by the El are a pretty sorry lot. Taking down the El has been a good deal like lifting from the soil a broad flat stone—to find all sorts of queer things hiding beneath it.

Tuesday, April 25.—New York Chapter's Entertainment Committee, A.I.A., got the happy thought some weeks ago that its members contained at least a few motion picture amateurs. Rounding them up, the Committee gave us an evening of architectural films, mostly in color, made by members who had visited New Orleans during the A.I.A. Convention, the California Fair, Leipzig, Paris, and Stockholm. Frederick Woodbridge, non-union operator of the projector, contributed an element of the unexpected by running the films backward and reversed.

\*

Sunday, April 30.—Miracles were pulled at Flushing in dozen lots during the last two or three days, for the New York World's Fair was opened officially today and really looked like a Fair. Two weeks ago the prospect seemed hopeless; a week ago, even more so. Today there was very little suggestion of incompleteness. The thing is so big that a few unfinished parts here and there do not count. As some 35,000 people gathered in the great Court of Peace to hear the President declare the

Fair open to all mankind, I was convinced that the pageantry—particularly the lavish use of color in banners—must be reckoned as at least 25 per cent of an exposition. Uniformed marching men, bands, great crowds of people—all these contribute perhaps as much as the architecture.

Monday, May 1.—At the formal opening of the Fair yesterday, the radio announcer was naming to the world the successive parade units filing into the Court of Peace. Along came the industrial designers, a small body, but of exceptional eminence, to whom belongs a great deal of the credit for the design of what the Fair has to show. The radio announcer's information, as occasionally happens, was distorted; radio listeners spread over the globe knew no better, but those who sat near the announcer and saw the distinguished group approaching were horrified to hear him announce, "And now, here come the washroom attendants."

Thursday, May 4.—The Henry Wright Library, originally started by the Housing Study Guild, was presented this afternoon to the Avery Library of Columbia University. Here it will receive perpetual care and will increase in size and usefulness. Dean Arnaud and Lewis Mumford spoke eloquently of Henry Wright's outstanding gifts to American housing and of the many qualities as a man which endeared him to so many of us.

Afterward I had the pleasure of looking at a collection of the late H. Van Buren Magonigle's architectural drawings, presented to Avery by Mrs. Magonigle. The Library is bringing together and caring for architectural drawings of great importance that would otherwise go the way of such things. Some of Raymond Hood's are there; some of Charles Klauder's should be. Master draftsman that he was, Van Magonigle's competition drawings, sketches, notebooks and working drawings are documents that should inspire architectural students for generations to come.

Tonight at The Architectural League Dean Cornwell, George Biddle, Scott Williams, and William Oberhardt delighted a company of painters, architects, sculptors, and a few laymen by drawing from models in their various media. It is a form of entertainment that seldom fails. One of the best evenings we ever had here in the League was when the late Alexandre Iacovleff drew from a posed model and explained his technique as he went along.

Monday, May 8.—Joined Stanley R. Mc-Candless and a group of magazine editors in judging a students' competition sponsored by James Blauvelt and Country Life, calling for the design of a dining room for a country house in a hunting country. Variations of taste in architecture and interior decoration are notoriously wide, but I was surprised at the differences of opinion in a group of technical trained observers regarding what constitutes an acceptable dining room. Perhaps that is one reason why the dining room is being moved toward the skids.

\*

Tuesday, May 9.—Julian Street, Jr. took me through the Museum of Modern Art's new building, which Philip Goodwin and Edward D. Stone designed. Movable partitions and movable light troughs, which latter can be connected in any arrangement on the ceiling, permit of exhibition space for constantly changing needs. Nevertheless, this problem of lighting for museums seems by no means solved, even here. The north facade of the building is largely a wall of glass. In some of the exhibition rooms along that side, with full daylight readily available, full-length opaque curtains are drawn to exclude 85 per cent of it, while the exhibition walls in some cases are at the moment lighted artificially. The question again arises, just how much glass area is desirable in our outside walls? That point being decided for any given set of requirements, the use of a greater area of glass would seem merely to increase the difficulties and cost of the air conditioning

There is a good housing show hung, graphically explained in the exhibition technique so aptly developed by the Museum of Modern Art. A few old friends are included—one, the Savoy house designed by LeCorbusier in 1930, which has always been my nominee for the most inept house plan thus far devised by any architect; and the much publicized "suspended house," which I had thought was safely moved as far west as the Pacific Coast.

Thursday, May 11.—Rumor is that the Golden Gate Fair's art exhibit is out-pulling Sally Rand's show by 30 per cent. There may be a suggestion of the reason for this in the attitude of a somewhat elderly observer who, on entering the Rand Dnude Ranch, found the artistes disporting themselves at badminton. The old gentleman's question as he crowded in along the side lines was, "What's the score?"



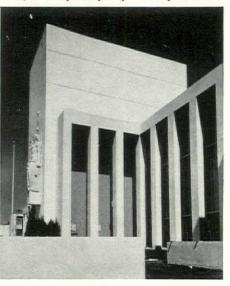
IN EITHER CASE, OF COURSE NOT! We have it—from an authoritative source—that a mainspring in a \$100 watch would cost the watchmaker no more than \$1.50. To save money, one could be put in for less than \$1.50 — for example, \$1.25. We know — from our own experience — that Sisalkraft can be put over all sheathing and under roofs of an average \$5000 home for about \$25. Ordinary building paper, for the same home, would cost about \$15.

It is possible, of course, to buy a cheaper mainspring just as it is possible to buy cheaper building paper...But, in view of the importance of both over the long haul—and the tremendous value of both to the finished product—and the insignificant cost of both compared to the whole—common sense dictates that only the best be specified.









## Armstrong FLOORS BOTH FAIRS

#### **OVER 250 LEADING EXHIBITORS USE** ARMSTRONG BUILDING PRODUCTS



The Bank of America Building, at San Francisco, has a dignified and durable floor of Armstrong's Linoleum.



Economy is the key-note of the Armstrong's Asphalt Believe it or not, the mural in the Italian Building, on Tile floor in the Argentina Building, San Francisco. Treasure Island, is made of Armstrong's Inlaid Linoleum.



LINOLEUM . MONOCORK . ASPHALT TILE . CORK TILE . RUBBER TILE . LINOTILE (Oil-Bonded)

The American Radiator exhibit, at the New York Fair, Schaefer Center, the New York Fair's excellent restau-has a smart, wear-resistant floor of Armstrong's Linoleum. rant, uses Armstrong's Asphalt Tile and Monocork.





The New York Fair's striking General Motors Exhibit Modern as the Ford "Road of Tomorrow," at the New has Monocork on its ramps, terraces, and sidwalk. York Fair, is the non-skid Monocork used on this road,





EXAMINE the leading exhibits at the two great fairs, and you'll find that the architects who planned the "shape of things to come" planned with Armstrong resilient floors. These floors made it possible to create a type of beauty in keeping with the world of tomorrow. They also provided durability to take the traffic of millions of tramping feet.

Armstrong's fourteen different flooring materials offered these architects unlimited creative scope, as well as a definite type of floor for every building need at the fairs. In addition, the Armstrong line of building materials supplied the wall and ceiling finishes, insulation, acoustical materials, cork machinery isolation, and many other products found in exhibition buildings erected by the nation's outstanding industrial leaders.

Not only at the fairs, but in structures where men live and work today, you'll find Armstrong floors, walls, and insulation helping architects to create beauty and provide comfort and durability. Our Architectural Service Bureau will be glad to help you select special materials to meet the requirements of your clients. For full information, see Sweet's or write Armstrong Cork Company, Lancaster, Pa.





The Los Angeles County Building, at the San Francisco Ireland's Exhibit at the New York Fair has an economi-Exposition, has an attractive floor of Inlaid linoleum. cal, easily maintained floor of Armstrony's Asphalt Tile.



#### A FEW OF THE SEVERAL HUNDRED ARMSTRONG INSTALLATIONS AT BOTH FAIRS



Administration Building

#### AT SAN FRANCISCO

BANK OF AMERICA Los Angeles-San Diego County Bldg. UNION PACIFIC RAILROAD PENNSYLVANIA RAILROAD AMERICAN EXPRESS DEL MONTE ARMOUR HILL BROTHERS STATE OF JAHORE HEINZ CRANE SALVATION ARMY AMERICAN RADIATOR INTERNATIONAL BUSINESS MACHINES AMERICAN TELEPHONE AND TELEGRAPH UNITED AIR LINES TWA REMINGTON BAND GREAT WESTERN CHEMICAL PLASTIC SURGERY EXHIBIT ITALIAN BUILDING LIBBEY-OWENS-FORD



ARGENTINA BUILDING

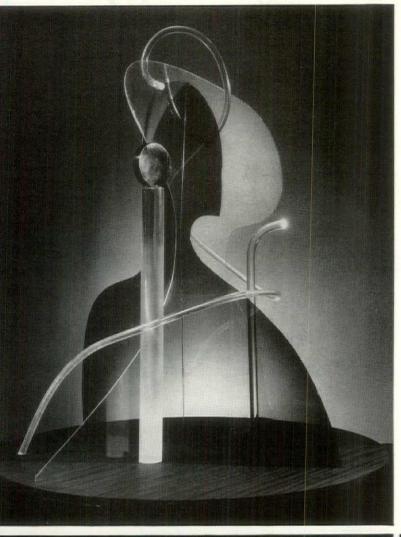
#### AT NEW YORK

TRYLON, PERISPHERE, AND HELICLINE TERRACE CLUB Administration Building GENERAL MOTORS NATIONAL CASH REGISTER BETHLEHEM STEEL GREYHOUND PAN-AMERICAN AGFA-ANSCO METROPOLITAN LIFE UNITED STATES RUBBER DU PONT INTERNATIONAL BUSINESS MACHINES AMERICAN RADIATOR LEAGUE OF NATIONS RCA U. S. GOVERNMENT PULLMAN WESTERN UNION FIRESTONE BAKELITE CHILDS YALE & TOWNE

UNITED STATES STEEL

MONOWALL . LINOWALL . CORK INSULATION . CORKOUSTIC . TEMLOK . VIBRACORK

#### FORUM OF EVENTS



#### ABSTRACT SCULPTURE

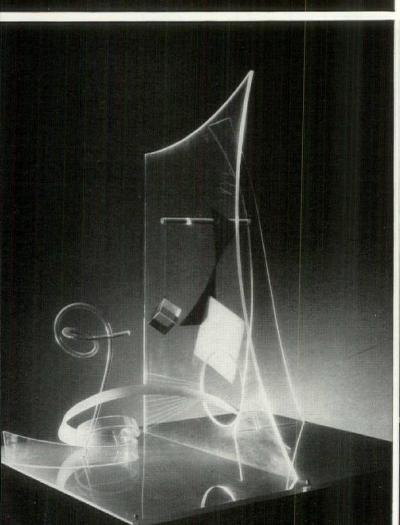
IN PLEXIGLASS

On exhibition at the New York World's Fair, for the duration, is Alexander Calder's "stabile," winner of \$800 first prize in a national two stage competition. Over 250 sculptors competed; five were selected to execute their preliminary sketches in the material itself. Second prize, \$300, went to Herbert Matter; third prize, \$200, to Werner Drewes; fourth and fifth prizes, \$100 each, to C. K. Castaing of Stony Brook, N. Y., and Xanti Schawinsky of Edgewater, N. J. Calder's design employs the plastic in various colors and thicknesses, and shows the bending and lighting qualities of the material. The Jury: Katherine Dreier, Robert Laurent, and James Johnson Sweeney. Gilbert Rohde acted as technical consultant. Other prize winning designs are on exhibition at Pedac in Rockefeller Center.



(Forum of Events continued on page 28)

Alexander Calder, Herbert Matter, and Werner Drewes, all of New York, with their respective prize winning entries.







guest room

until..."

THE family's future plays a big part in planning today's home. That's why it's wise to provide now for tomorrow's as well as today's telephones.

Because of wall insulation, fire-stops, duct-work and concrete construction, conduit is the modern way to assure quick and easy installation of additional telephones in later years . . . without exposed wires ... without piercing walls or floors.

Telephone conduit goes in easily, and costs little, while the house is under construction. A few lengths of small pipe are usually sufficient for the average home.

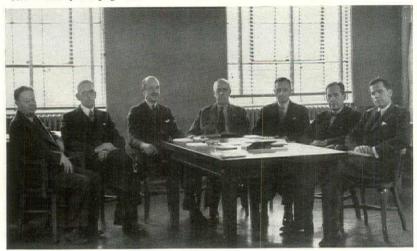
Your telephone company will be glad to co-operate with you in planning efficient, economical conduit layouts. Just call your local business office and ask for "Architects' and Builders' Service."

PLAN TODAY FOR TOMORROW'S TELEPHONES



#### FORUM OF EVENTS

(Continued from page 26)



THE JURY. Professional Adviser Joseph Hudnut, John A. Holabird, Henry R. Shepley, Frederic A. Delano, George Howe, Walter Gropius, and Technical Adviser Thomas Mabry.



Marc Peter, Jr. and Hugh Stubbins, Boston



Albert Frey, Philip L. Goodwin, and Louis C. Jaeger, New York

#### SMITHSONIAN COMPETITION

#### Winners of First Stage

For the new Smithsonian Gallery of Art, to be built on the Mall in Washington, 408 competitors submitted drawings in the first stage of a competition. Ten of these entries were selected to be developed by their authors in the final stage. Winner to receive \$7,500 as a prize, and the choice of carrying out the work in his own office (for \$88,500 including the prize) or supervising the preparation of the drawings and specifications in the Procurement Division, Public Buildings Branch (for \$18,000 consulting fee in addition to prize). Final stage will be judged June 26-28.



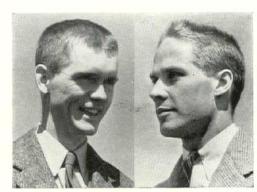
Eero Saarinen, Eliel Saarinen, and J. Robert F. Swanson, Cranbrook Academy



Paul Philippe Cret, Philadelphia



Martin Har Edward D. Stone, New York



Robert W. Kennedy and Eliot F. Noyes, Cambridge



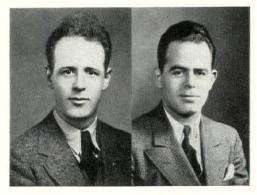
Harry F. Manning, Chicago



G. Holmes Perkins, Boston



Percival Goodman, New York



Dahlen K. Ritchey and James A. Mitchell, Pittsburgh (Forum of Events continued on page 58)

#### BRINGS MORE LIGHT, Fenestra BETTER VENTILATION



In a monumental structure such as this, the windows must assume definite responsibilities in architectural design and in practical utility . . . for windows must do more than fill window openings.

Fenestra Fenmark Windows have both of these essential qualities. How they qualify in beauty of line and dignified appearance is shown by the picture above. On the interior they admit more light. Large open-out swing leaves supply up to

100% ventilation, effectively controlled.

Integral, projected-in sill vents act as wind guards when open. Screen type units are provided with hardware which permits vent operation without touching screens. Both sides of windows are easily and safely washed from the inside. Muntins are optional.

Complete details will be gladly furnished upon request. See Fenestra Catalog in SWEET'S for 1939 (30th Consecutive Year).



One of many types of Fenestra Fenmark Windows. When equipped with Fenestra Flat Screens—on the inside for the swing leaves, on the outside for the sill vents screens are attached or removed quickly and safely from the inside.

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#### BOOKS

Industrial architecture . . . Three small house books

for the layman . . . Italian decorative art . . . A manual on paints.



FACE CREAM DEPARTMENT, LADY ESTHER PLANT

Nelson. The Architectural Book Publishing Co., Inc. 176 pp., illustrated with photographs and drawings. 9 x 12. \$6.00.

In August of last year The Forum devoted an issue to the work of Albert Kahn, emphasizing the recent work of his office. The present book includes this material, with the addition of about twice as many new pages. In addition to the latest industrial buildings completed it contains a well-rounded collection of earlier work, presenting a fairly comprehensive picture of the factory in its development from pre-War years through 1938.

The extraordinary volume and scope of work done by the Kahn office, covering all five continents and virtually every major industry, is well known. More apparent from an examination of this book is the importance of this work from the design point of view, and its significance in the development of contemporary architecture. Of perhaps greater value to those directly concerned with industrial architecture is the quantity of useful data scattered through the volume. The question of the relative economy of glass and masonry walls, for instance, is thoroughly discussed with the aid of a cost tabulation; the vast experience of the Kahn organization gives authority to the conclusions drawn. Flow plans and detail drawings of mechanical installations give further valuable information. A number of small plants, such as the Lady Esther factory illustrated above, are shown in considerable detail and provide an illuminating indication of the extent to which mass production methods have been applied in the light industries.

The manual on the designing of industrial buildings has yet to be written, and while this monograph does not pretend to fill such a need, it does perform a valuable service in this direction by its presentation of the work of the country's outstanding industrial architect. **PLANNING THE LITTLE HOUSE,** by Alice Waugh. The McGraw-Hill Book Company. 267 pp., illustrated with photographs and drawings. 7 x 10. \$2.75.

A textbook which offers the interested layman a fairly good outline of the problems and process of house planning, including information on construction, mechanical equipment, and lighting.

THE HUMAN HOUSE, by Dorothy J. Field. Houghton Mifflin Company. 125 pp., illustrated with photographs and drawings.  $7\frac{1}{2} \times 10\frac{1}{2}$ . \$2.75.

Another guide for the layman which, unlike the above publication, does not claim to cover the entire process of house building. This book concentrates entirely on planning for present-day living, and does so in a comprehensive and intelligent manner. The examples of completed houses have been selected with unusual discrimination. Recommended reading for anyone interested in a discussion of small house planning which is uncomplicated by stylistic prejudices.

**HOME OWNER'S HANDBOOK,** by C. B. Smith. Modern Age Books, New York. 197 pp. 8 x 5½ in. illustrated. 75 cents.

Revised edition of an excellent handbook, covering proper construction, heating, air conditioning, wiring and lighting, kitchen planning, home repairs, painting and finishing. Very well illustrated.

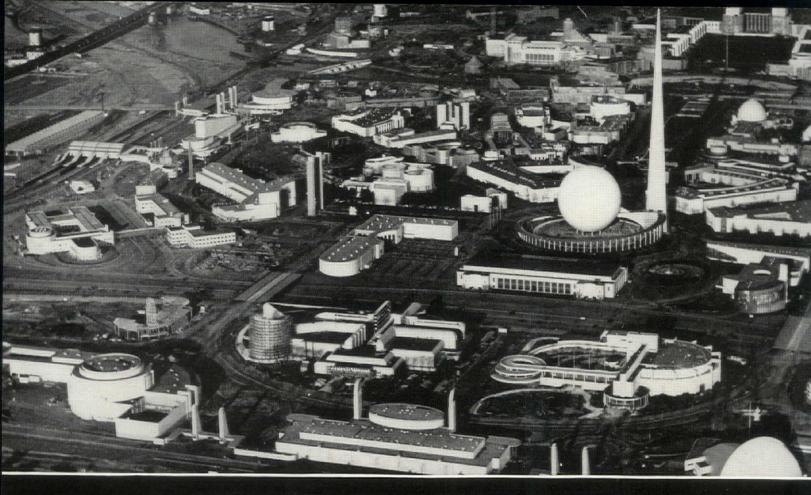
**MONUMENT TO GOLOR,** by Faber Birren. McFarlane, Warde, McFarlane, Inc., New York. 97 pp., illustrated, with 16 color plates. 9 x 12. \$15.00.

This new study, by a well-known specialist in color, is an attempt to make clear the significance of "the new psychology of color," an approach which differs radically from that of color theory based on physics. Organized in three sections, the book describes this approach, deals with abstract color relations and, in the last section, treats color problems in painting. Large color plates illustrate the methods described in the text. A comprehensive bibliography is appended.

**DECORATIVE ART 1939,** edited by C. G. Holme. The Studio Publications, Inc., New York. 144 pp., illustrated in black and white, and color. 8 x 11. Paper \$3.50; cloth \$4.50.

About 500 reproductions illustrate the newest edition of this invaluable year book. As in previous issues, it shows a number of houses with plans, but is primarily devoted to interiors, color schemes, furniture, pottery, glass, lighting, fabrics, metal ware and other accessories. Work shown is taken from England, the U. S. and the Continent.

(Continued on page 98)



The following buildings are RU-BER-OID roofed: Administration Building, Press and Promotion Building, Concession Stand for Review, Boat House, Field House, Police, Fire and First Aid Building, South Sub-Station, North Sub-Station, Federal Building, U. S. S. R. Pavilion, Incubator Building, Brass Rail Restaurant, Temple of Religion, Court of States, Treasury Building, Fire House No. 3, Overpass on Roosevelt Avenue, Belgium Pavilion, Schaefer Center, Victoria Falls Exhibit, Terrace Club, Little Miracle Town, Warehouse.

## BUILDINGS ARE RU-BER-OID-ROOFED

#### . . . at the New York World's Fair

In Paris—in Wembley—at Philadelphia's Sesqui-centennial—at Chicago's Century of Progress and now at the New York World's Fair—RU-BER-OID Roofing Products have been selected by leading architects, engineers and contractors.

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Architects:

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Architects:

Skidmore & Owings John Moss, Associate

BORDEN COMPANY

PETROLEUM INDUSTRIES

DRAKES CAKES

Architects:

Voorhees, Walker, Smith & Foley

EASTMAN KODAK COMPANY

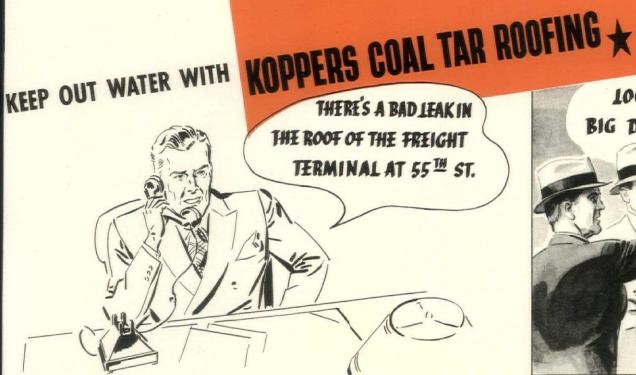
Architects:

Walter Dorwin Teague, Designer Stowe Myers, Associate Eugene Gerbereaux, Architect

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Pressure-treated Piling and Other Timber Products...Platework...Tanks...Pipe...

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## but that tells me a lot about PAINT

ANYBODY who's ever worked with lead knows it's a grand metal.

If you could cover a house with lead, it would just about last forever.

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Fact is, white lead is made from lead.

You can't use any other metal for making paint and get the same result.

What I mean is, white lead paint gives a tough, elastic coat - a coat that never brittles up or flakes away.

Don't take my say-so. Ask any painter who's been at his job long enough to time the life of white lead. Ask him what he'd paint his own house with.

Any way you look at it, you're money ahead when you paint with

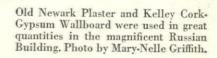
You'll learn a lot of helpful facts about paint if you read, "What to expect from White Lead Paint." Write for your

LEAD INDUSTRIES ASSOCIATION 420 Lexington Avenue, New York, N.Y.

A good painter is always a good investment. For example, pointing up open joints and cracks on wood trim-filling them properly with white lead putty so they will stay watertight - is one of the dozens of things that a real painter knows how to do.

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Over one hundred of the buildings in The New York World's Fair of 1939 have used the building materials that we distribute. Architects and contractors have both found through years of experience that our reputation for quality and service is their assurance of good construction without costly delays.





KELLEY CORK-GYPSUM WALLBOARD—the use of cork in wallboard is an exclusive Kelley feature. Careful research proved that the use of resilient, light, moisture-resisting cork was the best way to overcome brittleness and fragile edges. Millions of feet of Kelley Board have been used in the World's Fair buildings—and in countless other places where strong, easily worked board is needed.

Both Kelley Cork-Gypsum Wallboard and Sheathing were used in the construction of the U. S. Government Building. Photo by Gottscho.

KELLEY CORK-GYPSUM SHEATHING—here is the really modern, light weight, fire-proof sheathing. The cork in it gives a degree of insulation, and adds resiliency without sacrifice of strength. It makes tight, rigid walls that protect against condensation and moisture accumulation. It can't warp, buckle or shrink, is free of knotholes and knots. Approved by the World's Fair, it has been used in scores of the buildings.

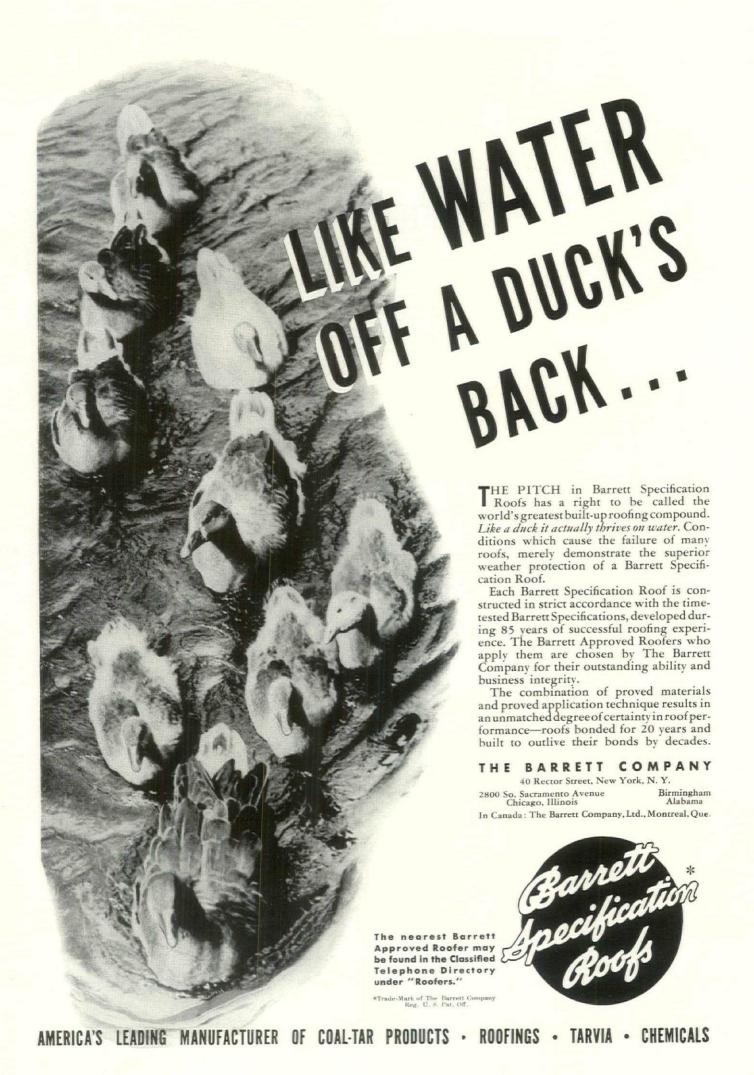
OLD NEWARK PLASTER—the interiors of the Ford, General Motors, French and many other buildings are finished with Old Newark Plaster of Paris. Old Newark has been the standard of quality since 1818—for a hundred and eleven years, architects and contractors have relied on Old Newark Plaster and on the service that assures them deliveries that keep the job moving along.

CALVIN TOMKINS COMPANY
50 Church Street, New York COrtland 7-6196



The charm of the Japanese Building has made it one of the features. Here too, both our sheathing and wallboard were used. Photo by Kidder Smith.

KELLEY Cork- WALLBOARD & SHEATHING • OLD NEWARK PLASTER





## Assures a Good Bond

After all is said and done, the first function of a mortar is to form a good, tight bond with the brick. Upon this characteristic depend both the strength and the water-tightness of the wall. (See pages 4 and 9.) \* A good bond is particularly important in securing water-tight walls, because most cases of leakage are caused by the passage of water between the brick and the mortar.

Brixment mortar assures a good, strong, thorough bond because: (1) Its great plasticity permits a more complete bedding of the brick, and an increased area of contact between the brick and mortar. (See page 5.) \*

- (2) Its high water-retaining capacity keeps the brick from sucking the water out of the mortar too fast, and prevents the mortar from congealing and shrinking away from the brick. (See page 6.) \*
- (3) It hardens slowly enough to permit deeper penetration and more thorough keying into the pores of the brick.

Because of these characteristics, Brixment mortar makes a better bond. Isn't this what you want in your brickwork?

See further details in the Brixment Handbook.

### LETTERS

#### LOW COST HOUSE (April issue)

Forum:

. . . It is probable that the single house, occupant owned, makes for the best life, and it is also probable that a whole lot of two-story individual houses on small lots, however uniform and well-designed, will still be jumpy and hence ugly. If, as your analysis seems to indicate, the one-story house is the cheapest, I think emphasis might be placed on it and on some uniform method of prefabricated design which would tend to orderly development.

In detail, I think nearly all the houses show too many partitions, resulting in waste of money and diminution of that already diminishing article, a sense of space. These partitions also make for lack of flexibility. If I might venture one would-be constructive suggestion, it would be that the living room, dining room, kitchen, and utility storage room all be thrown into one open space, and in each house a movable screen of extensible length, about six feet high, be provided for, if not actually provided. This might be held up by hand screws set on L-shaped clamps at the bottom of the screen, spaced ready to fit into sleepers built into the floor at regular intervals. This has the advantage of providing for whatever amount of storage the people may want, a condition which no designer can foresee; it also screens as much of the kitchen equipment as the snobbishness of the individual demands; it permits the use of some portion of the space for extra sleeping if a time comes when that is necessary but when the pocketbook does not permit an extra room.

KENNETH DAY

Philadelphia, Pa.

Forum:

. . . I was especially interested in your treatment of the land cost and utilities situation as this seems to be one of the problems in most cities of locating the low cost homes within reach of employment, schools, and other necessities of life at reasonable transportation costs. Any experienced developer of land knows that regardless of the cost of a home it requires practically the same services as to power and light, gas, water mains, and sewerage, and this problem is one that governs considerably whether or not a developer of land opens up a new tract of low cost housing or attempts to buy large tracts of distressed property where these utilities have already been established. . . .

Hugh Russell

Seattle, Wash.

Forum:

valuable contribution to this important problem of low cost housing. Your statistical data concerning volume, cost, plans and financing are very constructive and helpful.

I am so impressed with the importance of low cost housing that I am tempted to suggest it may perhaps be more properly said that it is the "Nation's No. 1 Problem" instead of the South being the Nation's No. 1 Problem. I might also add that, in my humble opinion, the South might better be referred to as "The Nation's No. 1 Opportunity."

ROBERT JEMISON, JR.

Birmingham, Ala.

Forum:

I think the April FORUM is one of the finest pieces of work you have done to date. . . .

W. Burke Harmon

New York, N. Y.

Forum:

. . . It is an excellent number and will prove extremely valuable to our firm and any others who might be called upon to develop low cost housing projects. The data are most complete . . . a very clear presentation of the subject.

ROBERT O. DERRICK

Detroit, Mich.

Forum:

. . . We have carefully checked your cost data as presented and find in every instance that yours is the only publication that has given any honest figures on the cost of building homes throughout the various sections of the U. S. May we compliment you on your integrity in bringing out the actual figures, as most magazines have given the public the impression that a house can be built for about one-half of what it really costs. . . .

R. H. GRUNBAUM

San Francisco, Calif.

Forum

... I do not recollect any magazine article that has coupled such painstaking research with such broad conclusions. I speak particularly about the fact that instead of keeping the microscope on only the one problem of cutting initial costs, you have also included upkeep costs. It is a vital problem in successful low cost housing, and you have emphasized it splendidly.

Wharton Clay, Secretary National Mineral Wool Assn. New York City Forum:

. . . One of the finest services to be rendered the building industry and the general public.

As you know, it has been the effort to provide housing for this low income group that has been responsible for many retail lumber dealers selling the consumer from stock plans instead of employing an architect. Most lumber yards much prefer to work in cooperation with the architect and I know that the April presentation in your magazine will be of great aid to an inestimable number of them. . . .

H. B. Anderson

Xenia, Ohio

Forum:

As a man who has spent some of the most puzzled years of his life studying the Small House problem, may I say that I think the April number of The Forum will probably take its place as the most valuable contribution to an exact statement of the problem yet made.

There is one angle to the problem that has been interesting me. All the biologists Dr. Raymond Pearl, for instance—have been pointing out that the population in America is growing steadily more adult; the falling birth rate has already cut down by more than a million the number of children in kindergarten in this country. A steadily larger proportion of the population is middle aged. I think in a few years this will begin to exert an influence on the building picture that may be important. It will serve to release, for one thing, the demand that houses must be near schools; it will probably stimulate semi-rural building at the expense of building in the cities.

Congratulations again for doing so splendidly a job that needed doing. This sort of research is what the profession can readily get some juice out of.

ROGER ALLEN

Grand Rapids, Mich.

Forum:

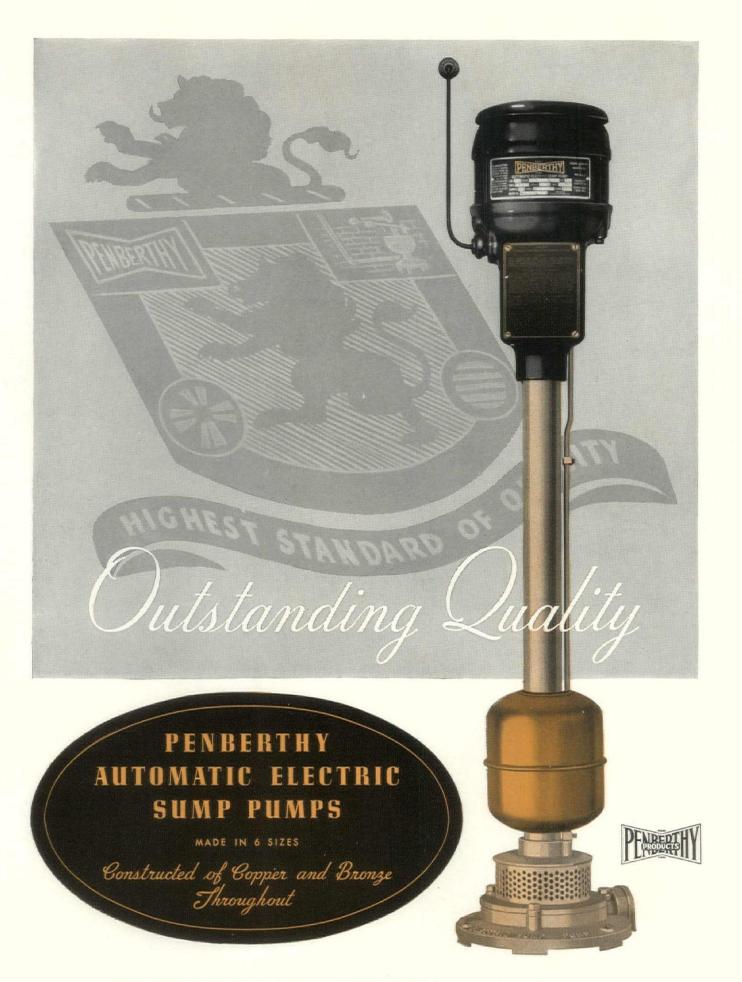
... I was greatly impressed with the decided advance in small house planning that has been made in the last five or six years, and I was also surprised to see so many attractive designs which the authors claim were built for \$4,000 including land.

Of a special interest to me, was the section Plan and Design, showing the case studies. My only criticism is that some of the architects have lost sight of elements of simplicity which give charm to their plan and exterior. . . .

SAMUEL E. HOMSEY

Wilmington, Del.

(Continued on page 102)



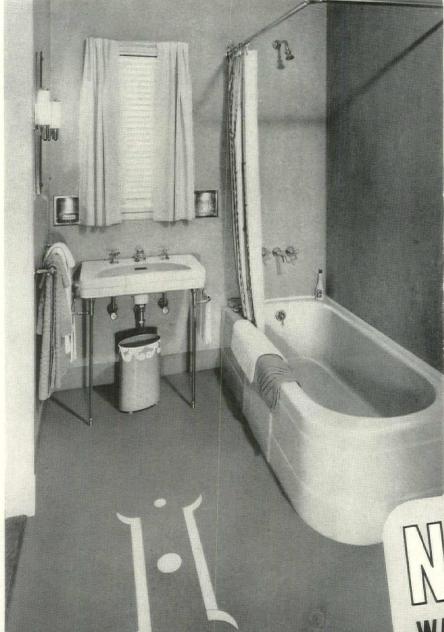
#### PENBERTHY INJECTOR COMPANY

Manufacturers of Quality Products Since 1886

Canadian Plant: WINDSOR, ONTARIO

DETROIT, MICHIGAN





Nairn Wall Linoleum completes the modern scheme of this bath in "Homewood"—the All-Gas Good Housekeeping Home at the New York World's Fair, Another big feature—the Personal-ized\* Floor of Nairn Sealex Linoleum.

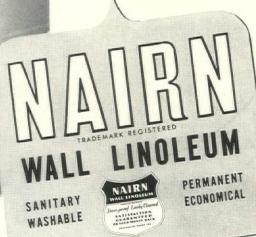
\* Trademark Registered, U. S. Pat. Off. by Congoloum-Nairn Inc.

MODEL walls for a model bathroom! Nairn Wall Linoleum,
the most modern of all wall treatments, was a logical choice here.
The rich marbleized designs and
delicate pastels in Nairn Wall Linoleum permit a wide variety of
smart decorative effects. And the
practical advantages! A perfectly
smooth, sanitary surface—crackproof, fade-proof, washable—which
eliminates refinishing expense.

Progressive architects and builders everywhere are finding that homes finished with Nairn Wall Linoleum *sell* more quickly, *rent* more easily. If you don't have complete data on this *wall* of tomorrow, write us for A. I. A. folders now.

Installed by authorized contractors, Nairn Wall Linoleum installations are fully guaranteed.

CONGOLEUM-NAIRN INC. KEARNY, N. J.



# IN WIRING SPECIFICATIONS FOR EVERY TYPE OF BUILDING

Gnelude



#### **MULTI-BREAKERS**

● More and more architects are learning, from actual experience, that the Square D Multi-breakeR is an outstanding asset to the houses and buildings they design. It provides modern protection and convenience which appeal to all clients — whether they are building a small cottage, a large home, an apartment or office building or an industrial plant.

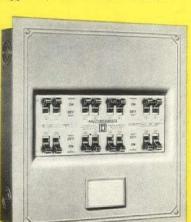
The Square D Multi-breakeR, in its many forms or combinations, provides circuit breaker protection at surprisingly low cost. It can be used as service equipment or for load center distribution. It provides branch circuit switching.

Your electrical contractor has the complete story—or write for Bulletin 543-B.

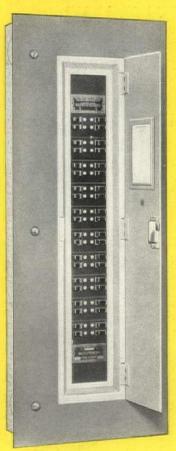


• For the cottage or for addition of range or water heater.

Type M, one or two circuits.

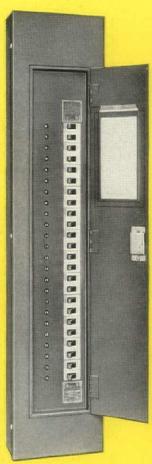


 Multi-breakeR Load Center.
 Branch circuit protection and switching up to sixteen circuits.



or the medium-sized he

For the medium-sized home.
 Service center up to six circuits; load center up to eight.



 Multi-breakeR Panelboard Narrow-Column Type for industrial installations.

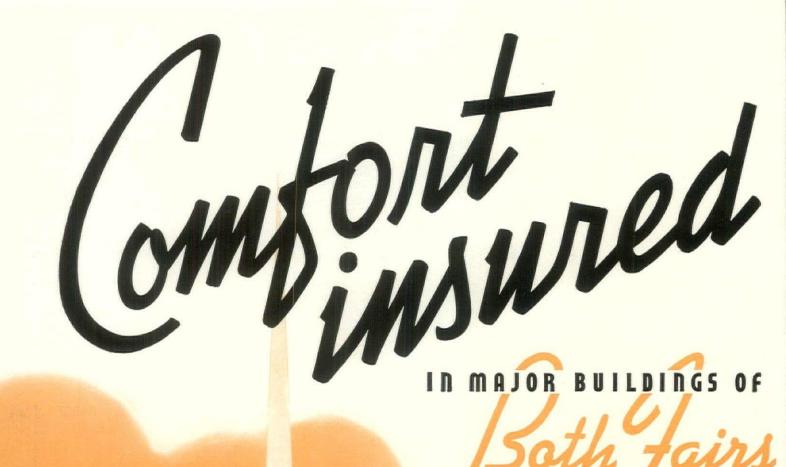
 Multi-breakeR Panelboard up to forty circuits.

CALL IN A SQUARE D MAN

SQUARE D COMPANY

DETROIT-MILWAUKEE-LOS ANGELES

IN CANADA: SQUARE D COMPANY CANADA LIMITED, TORONTO, ONTARIO



THE Symbol OF THE NEW YORK FAIR

THE Symbol OF THE SAN FRANCISCO FAIR



# It Stands for Dependability, Precision and Ability to Meet all Requirements

THE NEW YORK FAIR has its Trylon and Perisphere. The San Francisco Fair has its Tower of the Sun. Automatic Heating and Air Conditioning, too, has its symbol—M-H, which stands for dependability, precision and ability to meet all requirements. It represents the finest in automatic temperature control equipment.

It is significant that heating, ventilating and air conditioning equipment in major buildings at both fairs is controlled by Minneapolis-Honeywell, assuring the comfort of millions of visitors.

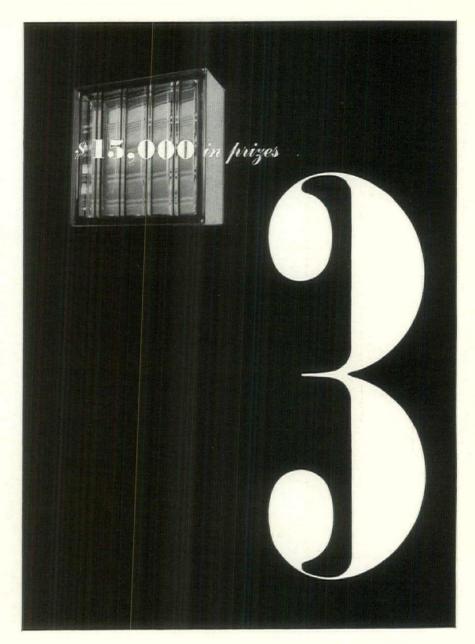
Minneapolis-Honeywell automatic controls will produce any heating, ventilating or cooling control sequence required in any building. Within the limits of the equipment, M-H controls compensate for even the widest fluctuations in both indoor requirements and outdoor conditions. They provide the utmost in comfort with minimum operating expense.

From coast to coast, not only at the Fairs but in all types and sizes of buildings, Minneapolis-Honeywell is the Symbol of Automatic Heating and Air Conditioning. Your clients expect this Symbol. Why not take advantage of its wide acceptance? Minneapolis-Honeywell Regulator Co., 2740 Fourth Avenue South, Minneapolis, Minn. Branch and distributing offices in all principal cities

# MINNEAPOLIS-HONEYWELL

Brown Industrial Instruments

Control Systems



You are cordially invited to enter the three remaining

# INSULUX GLASS BLOCK COMPETITIONS for the development of

this versatile building material. Competition No. 2 — Three Stores — closes August 21, and will be judged September 5 and 6 by a group of eminent Pacific Coast architects. Program with full details will be sent by return mail on request to the Professional Adviser, Henry H. Saylor, A.J.A. 9 Rockefeller Plaza, New York, N.Y.

OPEN TO ARCHITECTURAL DESIGNERS AND ARCHITECTURAL DRAFTSMEN OF THE WESTERN HEMISPHERE CONDUCTED  $b_y$  The architectural forum  $f_{o\,r}$ 

OWENS-ILLINOIS GLASS COMPANY

# Bring the Environments of Tomorrow into the World of Today

# Marlite

See these exhibits of Marlite on your visit to the World's Fair



Marlite in Living Room of the Masonite Home: Shows how elegance and livability can be imparted to the modern living room by rich, restful walls of flush panelled Rift Oak Marlite wood-veneers. Marlite will endow the foyers, lobbies, dining rooms, and executive offices you design with added refinement and individuality.



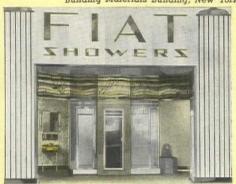
"The House of Jewels" — illustration reveals the ornate magnitude of this tabulous display and shows the extent to which Marlite is used in its construction. It was designed by H. Wolseley Spicer, M. I. A., eminent architect of Johannesburg, South Africa, assisted by J. Gordon Carr, prominent New York architect.



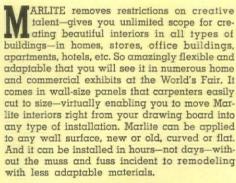
In Union News Stands throughout the World's Fair Marlite is utilized in a way that shows its adaptability and suitability for beauty shops, dairies, grocery steres, and other establishments where beauty and utility must be combined with spotless cleanliness. Marlite is a "silent salesman" par excellence in any environment where attractiveness and distinctiveness are vital. Designer, C. A. Schutz.



See the colorful miniature Marlite bathroom, kitchen, and recreation room in the Marlite Exhibit Building Materials Building, New York World's Fair. Designer, Mark Seibert.



Fiat Shower Exhibit: M. P. Spalding, Architect. The use of Marlite in this exhibit shows the complete suitability of Marlite for modern bathroom installations. The novel treatment of the exhibit with Marlite in qlistening White and Royal Blue suggests how Marlite can be utilized to create unusual display effects. Over 100 colors and patterns to choose from.



What's more, Marlite requires little or no upkeep expense-a damp cloth keeps its glass-smooth surface sparklingly new and clean. Write for inspiring book of beautiful Marlite interiors.



The Marlite Bathroom in the Electrified Farm Home: Your clients will be quick to appreciate the practical advantages of Marlite in the bathroom as well as its colorful beauty. Wall size panels are easily installed without fuss or muss. Over 100 colors and patterns permits you and your clients unlimited scope in attaining new treatments in kitchens, recreation rooms, dens, etc.

#### Marlito FOR CREATING BEAUTIFUL INTERIORS



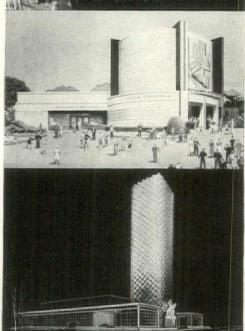
Wall-size Panels in lustrous colors, Tile-Patterns, Marble-Patterns and Marlite Wood-Veneer Panels with Fiberboard Base.

MARSH WALL PRODUCTS, INC. . 61 Marsh Place, Dover, Ohio



# MIAMI BATHROOM CABINETS





MIAMI—pioneer and style leader since the advent of steel bathroom cabinets, almost two decades ago—now reflects the art and architecture of New York's "The World of Tomorrow".

In these, and other World's Fair buildings, MIAMI Cabinets, Mirrors and Accessories were selected to harmonize with the ultra-modern settings.

The unusual variety and completeness of the MIAMI Line provides the Architect with the widest range of combinations and ensembles. Over 140 models—many of them exclusive designs.

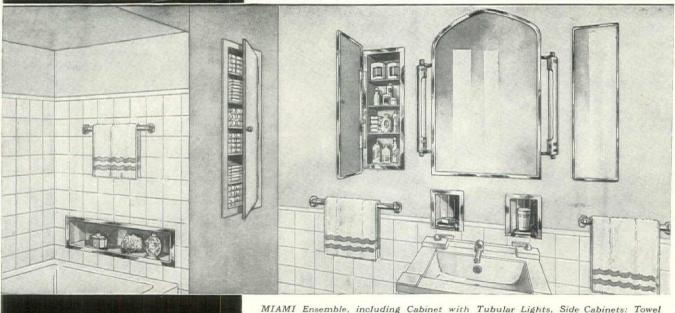
See the MIAMI Catalog in Sweet's, No. 98, Section 27, or write for it. Address Dept. J.

AT LEFT, TOP TO BOTTOM:

New York World's Fair Building of the Consolidated Edison Company of New York, Inc... White Owl Exhibit Building of General Cigar Co., Inc., at New York World's Fair, 1939... The Polish Pavilion, New York World's Fair, 1939.

#### MIAMI CABINET DIVISION

The Philip Carey Company
MIDDLETOWN, OHIO



MIAMI Ensemble, including Cabinet with Tubular Lights, Side Cabinets: Towel Supply Cabinet, Recessed Tumbler Holder, Recessed Soap Dish, Mirror Lined Recessed Shelf and Towel Bars.

# IT'S ALWAYS FAIR WEATHER BUILT-UP ROOFS

In the salt air and under the hot sun of Florida and the Gulf Coast-in the far North, with its sleet, snow and sub-zero cold—in the great industrial centers wherever the location and whatever the climatic conditions . . . there you will find Carey Bonded Roofs giving trouble-free and economical protection.

The reason for this uniformly dependable performance lies in the fact that all Carey Bonded Roofs are engineered to the conditions prevailing in the locality and in the building itself. Carey engineers study every roof problem individually—then build the roof to meet the requirements. This is why Carey Roofs last years longer-cost less per year.

Carey Bonded Roofs are guaranteed to deliver 10, 15, or 20 years of repair-free service. It is a matter of record that most Carey Roofs far outlive the time-period covered by their guarantee.

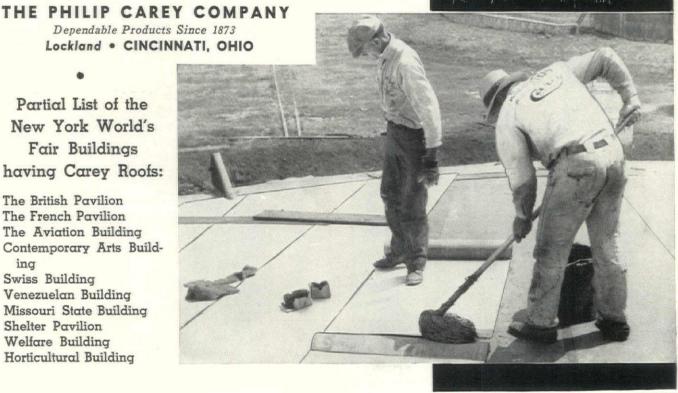
You can assure your clients of maximum roof service at minimum cost by specifying Carey Bonded Built-Up Roofs. See Catalog in Sweet's, or write Dept. 20 for a copy.



#### Partial List of the New York World's

Fair Buildings having Carey Roofs:

The British Pavilion The French Pavilion The Aviation Building Contemporary Arts Building Swiss Building Venezuelan Building Missouri State Building Shelter Pavilion Welfare Building Horticultural Building



# At the World's Fair

## ANTHRACITE EXHIBIT

- See the"Hand of Comfort"
- See the "Wall of Protection"
- See the "Hall of Manufacturers"
- See the "White Room"



THE HAND OF COMFORT AND THE WALL OF PROTECTION

# then you will see why Anthracite IS the fuel of tomorrow for the home of today

NE of the most unique displays at The New York World's Fair is the Exhibit of Pennsylvania Anthracite in The Home Building Center. It is as modern as tomorrow and rightly so, for Anthracite is the most modern of all home heating fuels.

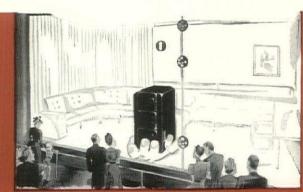
In this impressive Exhibit, new materials, new ways of lighting, of display—tell a most interesting and convincing story of Anthracite's 7 star advantages for home heating.

See why modern equipment more than ever makes Anthracite the safe, convenient, dependable fuel, with utmost economy, for the home of today or "the world of tomorrow." Anthracite Industries, Inc., Chrysler Building, New York, N. Y.





THE HALL OF MANUFACTURERS



THE WHITE ROOM

# BUTTAN

YORK

TATORID'S

FAIR

1959

## THE NEW YORK FAIR It is easy to pontificate, from

the vantage point of 1939, on the architectural significance of the World's Columbian Exposition of 1893, on the unexpected permanence of the charm of the Eiffel Tower, on the structural foresight displayed in the first Crystal Palace. It is not quite as simple with the paint still wet on the portals of the World of Tomorrow.

To begin, one might examine the professed aims of the New York Fair; to portray the World of Tomorrow, and to commemorate the first inaugural of George Washington. The former is handsomely realized in Norman Bel Geddes' upholstered ride through 1960, by the model of Democracity in the Perisphere, the urbane Swedish pavilion, and a completely irresistible electric farm; the latter is promptly but impressively disposed of by Fraser's 150-foot statue of Washington on the Mall. Between these extremes are the exhibits and buildings galore designed to attract and entertain a hoped-for sixty millions of visitors.

Compared with earlier expositions, this problem of size has taken on staggering dimensions. Once it was possible to gather products from home and abroad, put them under a roof, and hold a successful fair. Today the radio, film and press have made the fairgoing public pretty familiar with almost anything a fair can show them, and it has become the practice to try to kill the bird with four barrels instead of one. If you are bored with machines that make a million buttons a minute, try the peep show or the art show or the model houses. Fairs and their crowds have swelled to preposterous sizes using this technique, and New York is no exception.

If this is a criticism, it is one that applies impartially to all our expositions, and unless the financial basis of the big fair should be changed it will continue to apply. Working within this framework, New York's Fair directors determined to avoid the other mistakes of the recent past. This fair was to have plenty of places to sit, trees, grass, comfort stations. It was to avoid Chicago's modernistic excesses. It was to be harmonious in shape and color. It was to reduce distances. It was to accommodate half a million persons in a day without jamming up, and to get them there and back in comfort. All of these things it does.

To accomplish these purposes the entrances were spread as far apart as possible; a roughly square plan brought the various sections into something approaching reasonable proximity; a generous allocation of funds was made for planting; a Board of Design was set up to insure architectural harmony.

The result, taken as a whole, is extremely good, and for a curious variety of reasons. After the Fair is over, it is to become a park, and it was consequently possible to do a great deal of permanent planting. The nature of the ground restricted building heights, producing an effect of smaller scale and greater openness than might otherwise have been hoped for. Another contributing factor was the scheme for the lighting, based not on the idea that night should be turned into day, but that it has its own peculiar qualities to be enhanced. The soft quiet color that pervades the Fair in the evening is perhaps its greatest single charm.

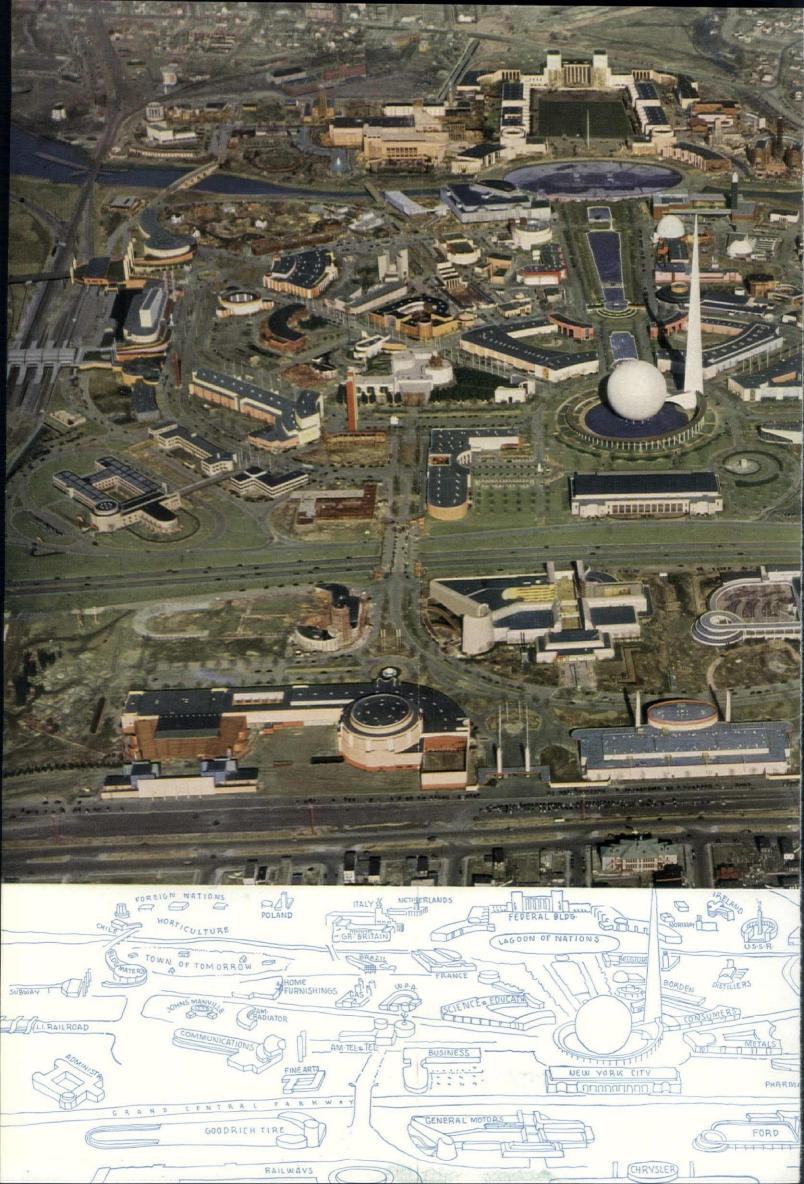
The relative popularity of the various exhibits is instructive: General Motors, General Electric and American Telephone and Telegraph are leaders among the industrial exhibitors. Their

attractions are not products, graphs, or production lines; they show a view of the future, artificial lightning, a machine that talks like a man. And in the other pavilions the throngs will pass by the most intricate and costly apparatus to cluster around a man blowing glass or a cow being milked. Exhibitors who show what the visitor has already seen in the salesroom or magazines would seem to have wasted their money. Tomorrow outpulls all others, Yesterday is not without its lure—only Today draws a blank.

Architecturally the Fair presents a number of distinguished buildings, and inevitably where buildings are so numerous, a greater quantity which are at best innocuous. In the interests of harmony the official Fair structures were reduced to inoffensive, uniform mediocrity. The vitality of the best industrial and foreign pavilions is ample compensation, however. There is enough good building in these two sections for a fair by itself. If the architecture fails to inaugurate a new era, the development of exhibition technique unquestionably does. And if the quality in the World of Tomorrow has been spread a bit thin over its thousand and more acres, if some of its best—as well as its worst—features are as much the result of circumstances as intention, it is undeniably a great fair. There is something for everyman's taste, and there is the achievement of turning an ash heap into a mass of water, greenery and gay color. By day it is a superlative good-time place; by night it is enchanting. Anyone who disputes that view will have to defend himself against the six million enthusiasts who have already passed the turnstiles. And you can look for us in the front row.

JUNE 1939







In New York's Trylon and Perisphere an international exposition has the first adequate trademark since Eiffel built his tower for the Paris Fair of 1889. Harrison and Fouilhoux have provided a dominant symbol when viewed from within the Fair or from any vantage point for miles around. So great is its popularity that the design is equally familiar to every U. S. school boy and gaffer who see in it countless reproductions and in every conceivable form of manufactured article, from dress prints to pipes.

The scheme is simple: visitors enter two escalators (longest in the world) at the base of the Trylon, are lifted to moving platforms which rotate in opposite directions within the huge ball, and from which they watch Henry Dreyfuss' model of Democracity. At the end of the trip around they come out on the spiral ramp ("Helicline") and walk comfortably down to the ground level.

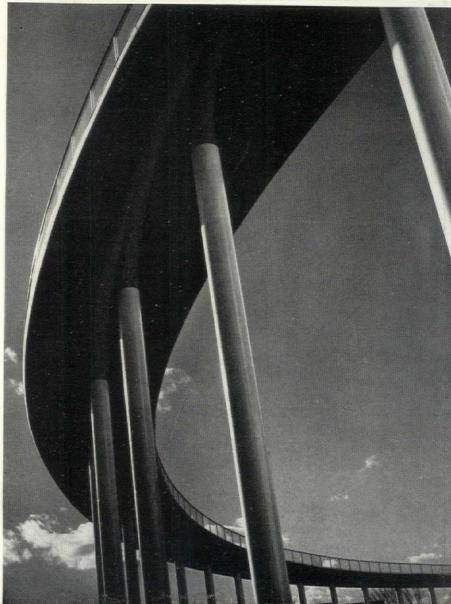
HARRISON & FOUILHOUX, ARCHITECTS. HENRY DREY-FUSS, DESIGNER "DEMOCRACITY." GRAVES & QUINN, HEGEMAN-HARRIS CO., INC., GENERAL CONTRACTORS.



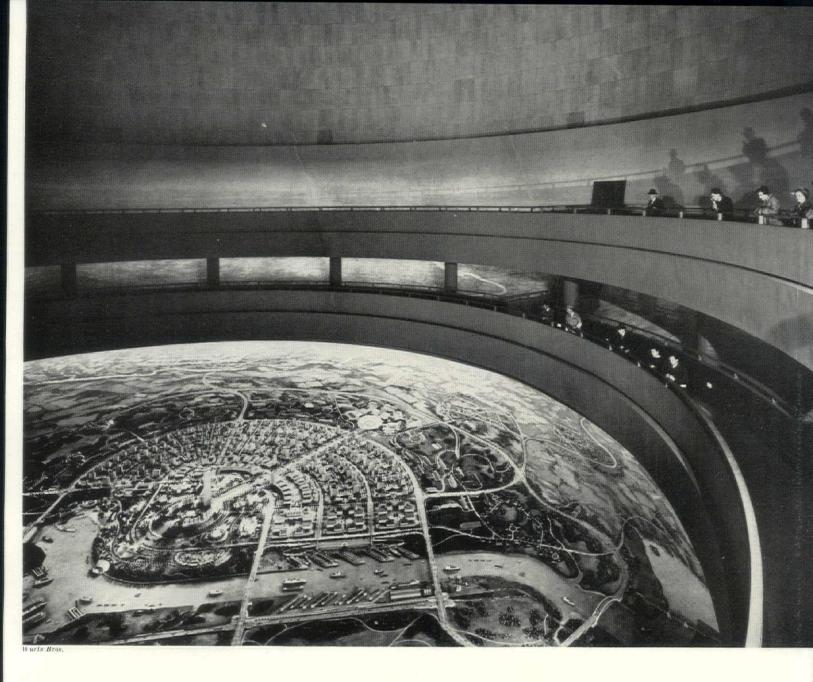


Above, Wurts Bros., International News Right, Elizabeth R. Hibbs, Eisenstaedt-Pix.









GOVERNMENT GROUP



SHOPPING CENTER



CENTRAL LIBRARY



Richard Garrison Photos

Within the 200-foot ball is the model of Democracity, a planned community of some unspecified future date which covers eight million acres with seventy towns and a population of one and a half millions. Worked out in the most minute detail, Henry Dreyfuss' imaginative conception gives an exciting picture of a way of living that is technically possible today. The commentary and musical accompaniment add nothing but confusion to the excellent original idea.

401



#### FEDERAL BUILDING

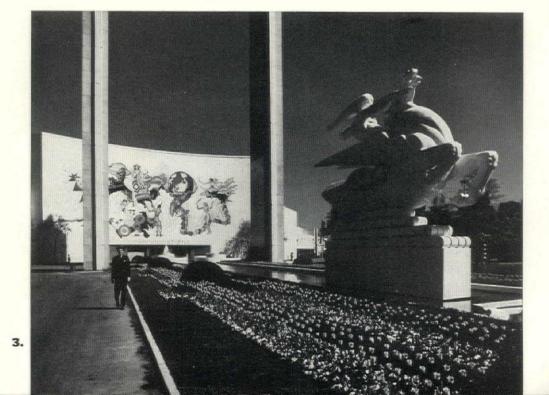
At the head of the main axis is located the Federal Building, whose severe white exterior expresses its official character. Directly in front is the tremendous paved expanse of the Court of Peace, flanked on each side by the buildings of the foreign nations, a closer view of which is shown at the right. The Lagoon in the foreground is used for the nightly water and fireworks displays. Typical general views, suggesting the character of the planning and the richness of the landscaping, are shown on the opposite page. 1. Fountains and sundial, directly in front of the Theme Center. 2. A resting place along Constitution Mall. 3. View of the Communications Building from the Theme Center.

#### HALL OF NATIONS









JUNE

#### COURT OF STATES





#### PENNSYLVANIA



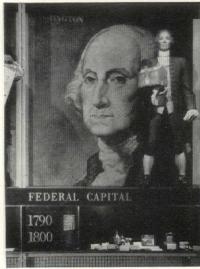


Bogart Photos



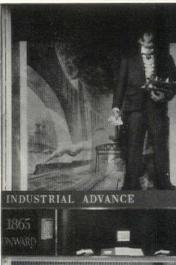
Most of the State buildings are grouped around a quiet pool near the foreign section, and consist largely of replicas of historic buildings. In startling contrast to the familiar exterior of Independence Hall is the exhibit within, a broadly handled display of Pennsylvania's past and present, and one of the most vigorous modern interiors at the Fair.

INTERIOR OF PENNSYLVANIA EXHIBIT: WALTER GROPIUS AND MARCEL BREUER, ARCHITECTS, E. N. HUNTING, ENGI-NEER, HERBERT BAYER, ALEXANDER SCHAWINSKY, DIS-PLAYS.



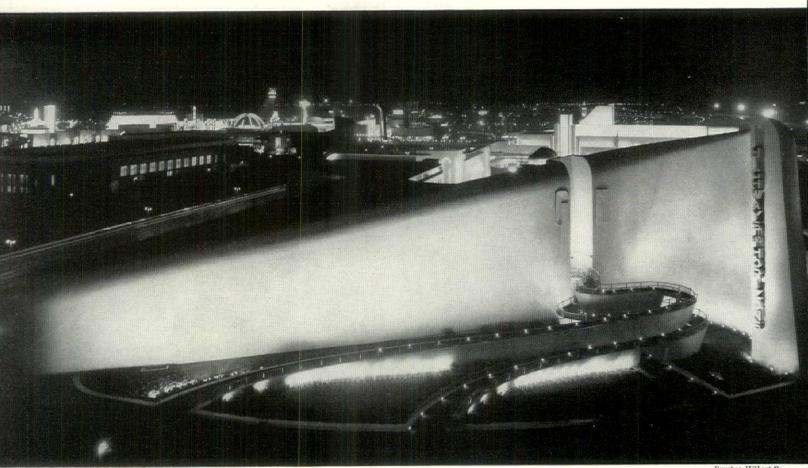








#### GENERAL MOTORS

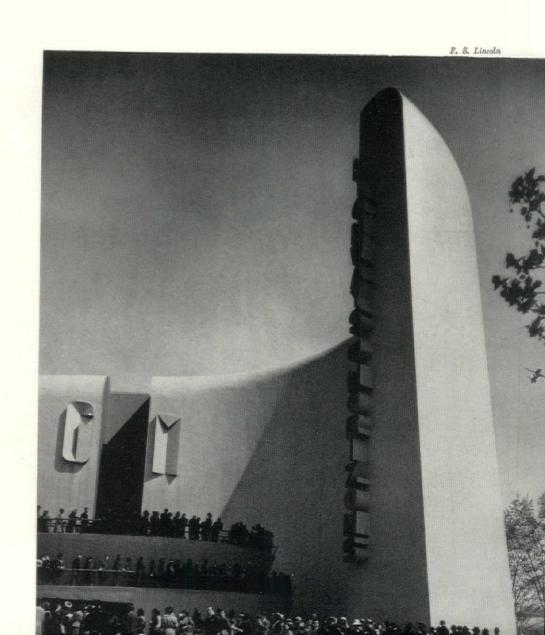


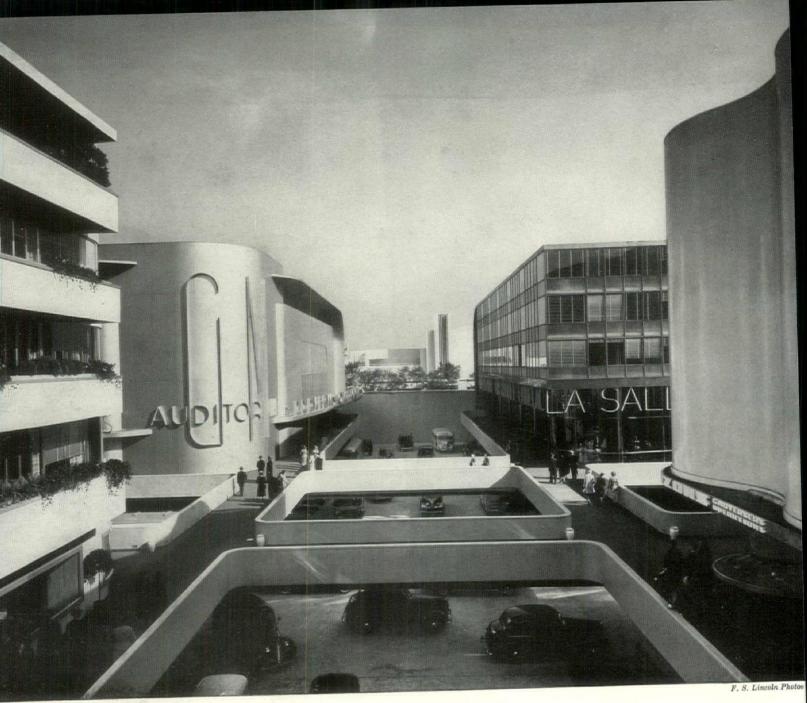


Paul J. Woolf

"A diversified world's fair in itself," the proud boast of General Motors colossal Highways and Horizons exhibit, is borne out in actual fact. Whether one enters its nearly seven acres of public space through the impressive entrance (above), boldly faced towards the fair's western boundary and away from the Theme Center, or by way of the alwayscrowded but more accessible ramps (left and right) which are the only public entrance to the map lobby and thence to the hugely popular "futurama" sound-chair tour, he is bound to be more impressed by the sweeping scope of the exhibit as a whole than by any of its individual features, amazing as they are. On the next two pages, the more important of these are highlighted.

NORMAN BEL GEDDES, DESIGNER. ALBERT KAHN, INC., ARCHITECTS. GEORGE WITOLD, EXHIBIT ENGINEER ON DIORAMA. TURNER CONSTRUCTION COMPANY, GENERAL CONTRACTORS.

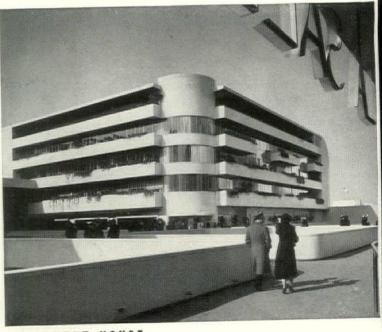




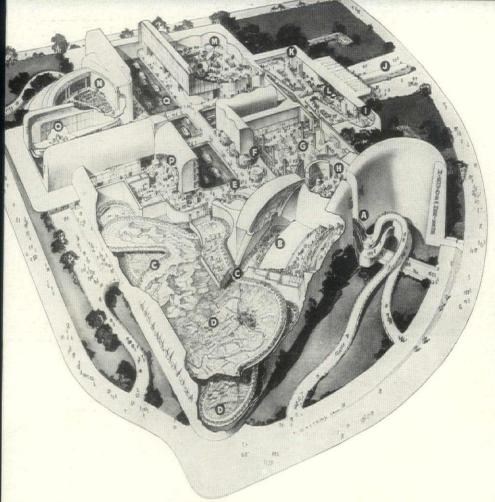
STREET INTERSECTION



ENTRANCE



APARTMENT HOUSE



Of major architectural importance is the "street intersection of tomorrow" (opposite page) which divides the building into four parts. The cut-away diagram shows how this works as well as the arrangement of the serpentine, three-level "futurama" with its 600 moving chairs, while at the extreme right are scenes from the "futurama" itself.

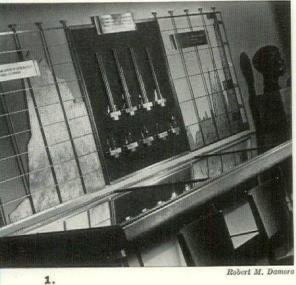
Key for cut-away diagram: A. Main Entrance. B. Map Lobby—Start of Sound-Chair Tour. C. Touring Sound-Chairs. D. Animated "Futurama." E. Unloading Platform. F. "World Horizons" Exhibit. G. Frigidaire Division Display. H. Research Exhibit. I. Display of Inland Manufacturing Div. J. 4,000 Horsepower Diesel Locomotive at Entrance. K. Traffic and Safety Information Center. L. Stairways to Diesel Engine and Fisher Body Exhibits. M. Car Display Salon. N. Casino of Science. O. Employe Headquarters. P. Exhibit of Accessory Divisions. Q. Intersection of the Future.



SHOW ROOM

F. S. Lincoln





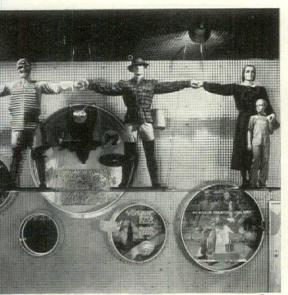


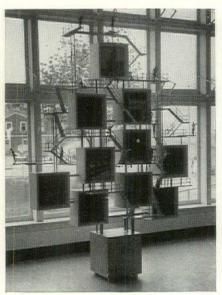
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Robert B. Co







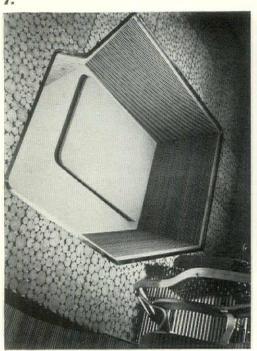
#### **EXHIBITS**

4.

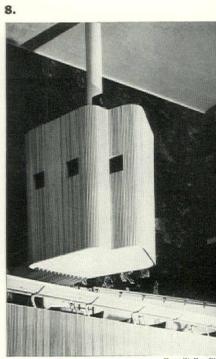
Exhibits at the Fair form a varied and consistently interesting attraction. Probably no exposition has seen so much ingenuity or money lavished on the individual displays. Techniques cover a wide range: directed traffic (12) where a continuous process takes place, is used in a number of exhibits; full-size models (9) are also used extensively; small models (3) operated by the spectator are popular. Repetition for emphasis and clarity (2), (4) is effectively employed in both domestic and foreign exhibits. Even the common graph (1) has been done in a number of instances with such superb craftsmanship and taste as to merit inspection as a display in itself.



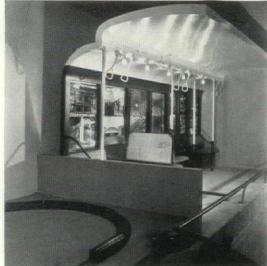
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Ezra Stoller Ph



Richard Averill Sn

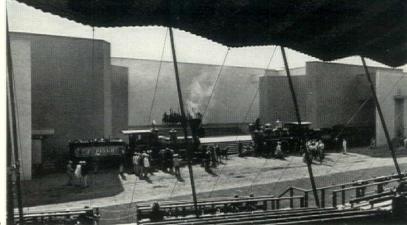


John Beinert

1. Graph on production of codfish and cryolite in Greenland. Executed in metal. Danish pavilion.

10.

- 2. Display of Polish scientific achievements. Polish pavilion.
- 3. Wall display of ship models, from early vessels to modern liners. Pushbuttons operate lights in the model of the liner, showing location of main rooms. British pavilion.
- **4.** Wall display, using larger than life-size figures in combination with photographs and charts. Walls and ceiling covered with copper grating. Pennsylvania State Building.
- Free-standing display on development of water sports. Netherlands pavilion.
- 6. Three-dimensional chart on agricultural progress. Rumanian pavilion.
- 7, 8. Film screen and projection booth. Finnish pavillon.
- 9. Full-size section of car on city subway, with small working model in foreground. New York City exhibit.
- 10. Wall display of oversize switches, to indicate nature of exhibits within. General Electric Company building.
- 11. Outdoor exhibition of full-size railroad trains. Railroads building.
- 12. Directed circulation on a series of levels. Exhibit shows tire production. Firestone building.
- 13. Focal exhibit. Home Furnishings building.
- 14. Focal exhibit. Medicine and Public Health building.



Samuel H. Gottscho



Courtesy, Firestone

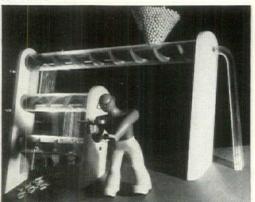


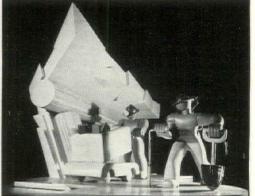
Wurts Bros









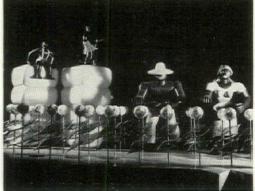


E

COTTON REELING



TUNG OIL



COTTON PICKING

Hansel Mieth

#### FORD MOTOR COMPANY

Outwardly dominated by its half-mile spiral ramp ("Road of Tomorrow"), the Ford building actually centers on a massive inverted cone known as the "Ford Cycle of Production" (opposite page), unquestionably the most impressive display at the fair. One hundred feet in diameter at the base, 30 feet high, and weighing 152 tons, the base of the Cycle is built of wood, revolves slowly on a hidden pontoon floating in a circular moat, carries 87 amusing animated models illustrating every stage in motor car production from mine and field to the finished product. Beside this intriguing demonstration of ingenuity and skill even the huge and complex animated mural in the entrance lobby (below) pales somewhat in significance. Fully appreciated, however, is the generous court in which visitors may relax and enjoy picnic lunches amid pleasantly landscaped surroundings.

WALTER DORWIN TEAGUE, DESIGNER; CHARLES C. COLBY & RUSSELL R. KILBURN, ASSOCIATES. ALBERT KAHN, INC., ARCHITECTS. HEGEMANHARRIS CO., INC., GENERAL CONTRACTORS, GILMORE D. CLARKE AND MICHAEL RAPUANO, LANDSCAPE ARCHITECTS. HENRY BILLINGS, ANIMATED MURAL. TURNTABLE: KARL EDELMANN, ASSOCIATE, FIGURE DESIGN, PETER HALLER, ASSOCIATE MACHINE DESIGN, CARVING BY NOELL, OLIVER & HARASTY CORP.







'ROAD OF TOMORROW"

Samuel H. Gottscho

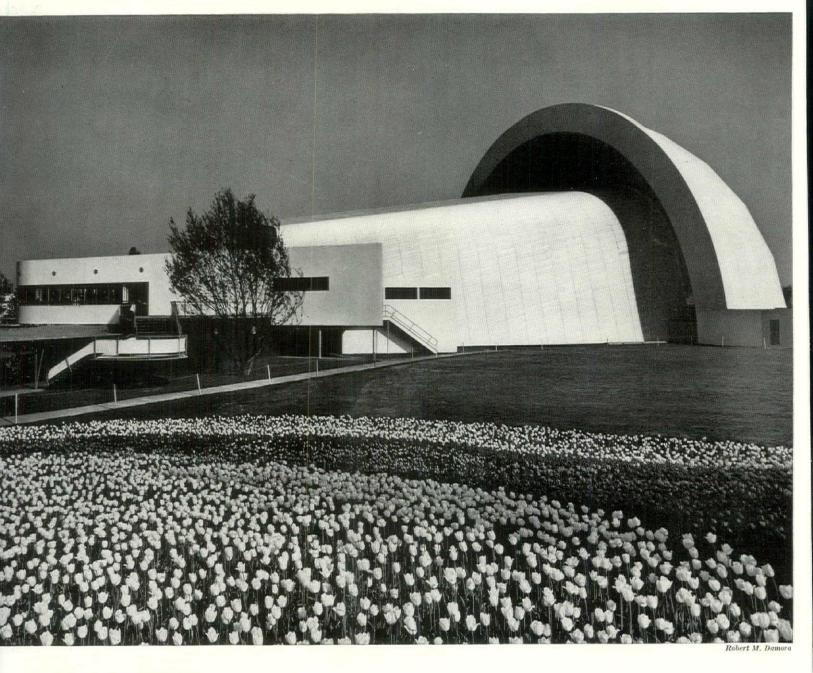


INTERIOR COURT

Samuel H. Gottscho



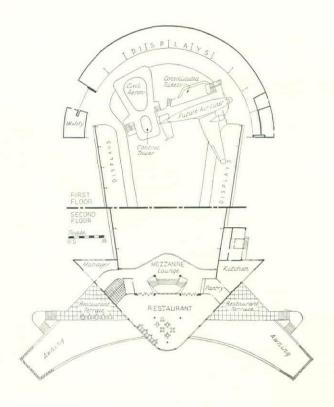
MODEL



#### AVIATION

This handsome and unusual building, seen above across a characteristic bed of solidly banked tulips, houses the exhibits of the aviation industry. Designed in three functional parts—an entrance lobby and restaurant section, a utilitarian exhibition area in the form of an airplane hangar, and the half-dome end unit which produces a cyclorama against which the hanging exhibits stand out in bold relief—every element of the structure contributes to a feeling of spaciousness in keeping with the display material. The space between the hangar portion and half-dome has been left entirely open to provide maximum natural light and air.

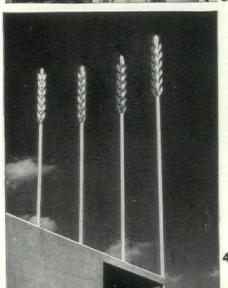
WILLIAM LESCAZE, J. GORDON CARR, ASSOCIATE ARCHITECTS. WILLIAM L. CROW CONSTRUCTION CO., GENERAL CONTRACTOR.

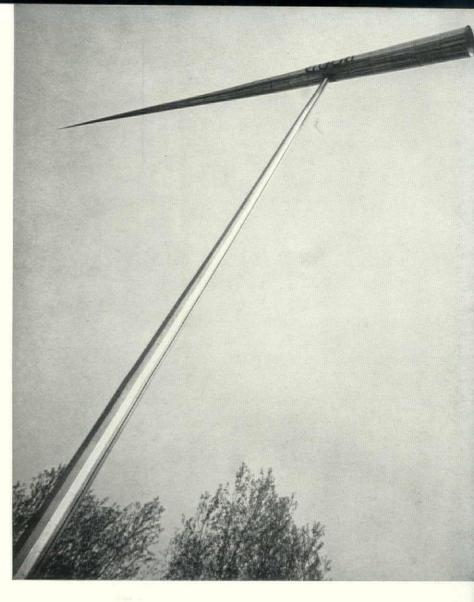










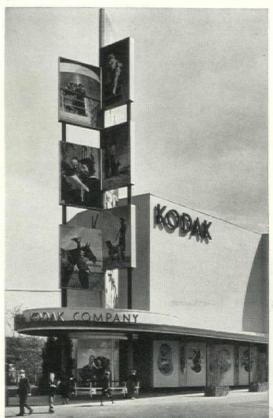


### **DISPLAY TOWERS**

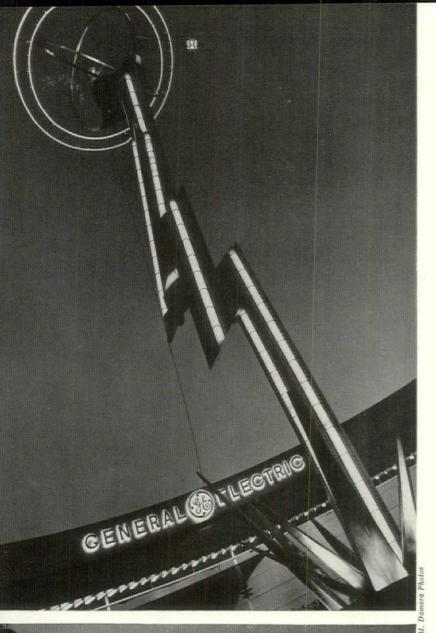
The height of most of the buildings at the fair was limited by adverse soil conditions, and one of the incidental effects of this limitation was the development of all sorts of lightweight, attention-getting, towerlike structures, a few of which are shown on this page. Best of these is perhaps the Budd Manufacturing Co.'s stainless steel "windsock" (above). Others include 1. Derrick, Petroleum Industries; 2. Flagpole; 3. DuPont Tower; 4. Food Building No. 3; 5. Eastman Kodak; and 6. General Electric.

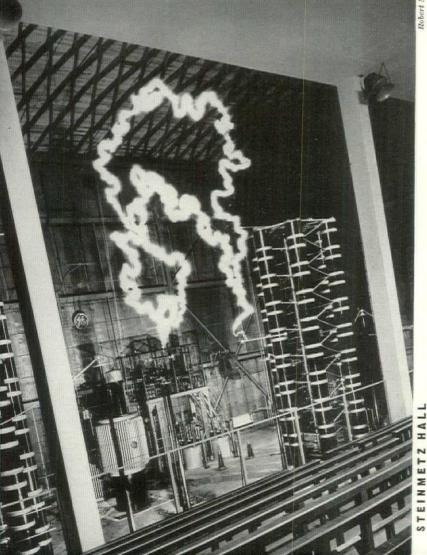
All Wurts Bros. except 4, A. F. Sozio, 5, Samuel H. Gottscho.

5.





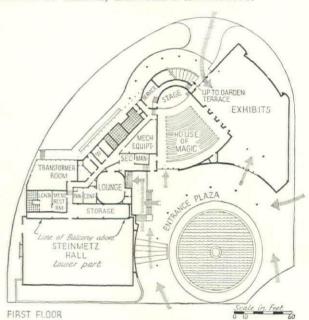




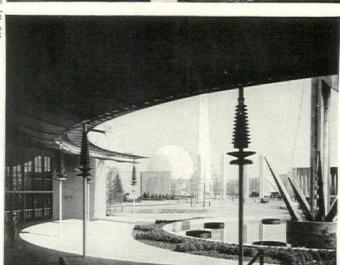
### GENERAL ELECTRIC

The problem of presenting—for popular consumption—the personality of a giant corporation is not new to General Electric, a fact which probably has much to do with the success of its solution here. No attempt is made to cram the casual visitor with facts and figures regarding the company's multifarious activities and services; instead, he is attracted by a breath-taking and spectacular display of artificial lightning, entertained by the always-popular G-E scientific "magic," and permitted to view—if he likes—a display of the company's products in an adjoining exhibit hall.

VOORHEES, WALKER, FOLEY & SMITH, ARCHITECTS. A. L. HARTRIDGE CO., GENERAL CONTRACTORS. VITALE & GEIFFERT, GILMORE D. CLARKE, LANDSCAPE ARCHITECTS.







Martin Photos

### CONSOLIDATED EDISON



Boldly taking its theme from the territory which it serves—largest in terms of horizontal concentration and vertical extension—New York's Consolidated Edison has chosen to tell its story in a "City of Light:" a huge, animated, semicircular diorama of Manhattan skyscrapers (below). The architectural requirements of this scheme were exceedingly simple; perhaps for this reason the architects have concentrated their major effort on the extremely successful water-decorated facade.



DIORAMA

HALL ENTRANCE HALL
ENTRANCE BRIDGE

EXHIBITION HALI

HARRISON & FOUILHOUX, ARCHITECTS. WALTER DORWIN TEAGUE, DESIGNER, AND FRANK J. ROORDA, ASSOCIATE, FOR INTERIOR EXHIBITS. A. L. HARTRIDGE CO., GENERAL CONTRACTOR. H. L. COOPER, ENGINEER OF WATER DISPLAY. ALEXANDER CALDER, WATER BALLET.

### LOBBY



Samuel H. Gottscho

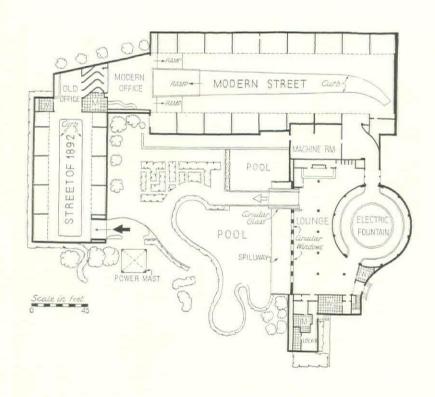


G. E. K. Smith

## 8 0

SPILLWAY





LOUNGE

### **ELECTRIC UTILITIES**

Behind a miniature Niagara, complete to the "Cave of the Winds," the electric utility industry presents the fair visitor with two elaborate and effective illusions: "A street of 1892" and the "Avenue of Tomorrow." Entrance is by way of an ancient theater lobby, with the change from yesterday to tomorrow dramatized through old and new offices of an electric utility company, with exit provided through a lounge (below) behind the waterfall and the glass enclosed bridge (left).

HARRISON & FOUILHOUX, ARCHITECTS. A. L. HARTRIDGE CO. GENERAL CONTRACTORS. H. L. COOPER, ENGINEER FOR SPILLWAY.





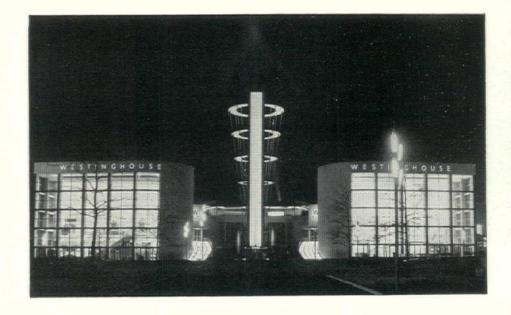
Robert M. Damora

### WESTINGHOUSE

Surrounding the "Singing Tower of Light"-an extravaganza in color, light, and sound—the Westinghouse building is shaped like the Greek letter Omega, with two great, glazed rooms forming the serifs. Ramps on either side of the court give the visitor a choice of entering by way of the "Hall of Electrical Living" or "Hall of Power." Once inside a bewildering array of mechanical and electrical marvels, including a robot who answers questions and smokes cigarettes, provide entertainment and education.

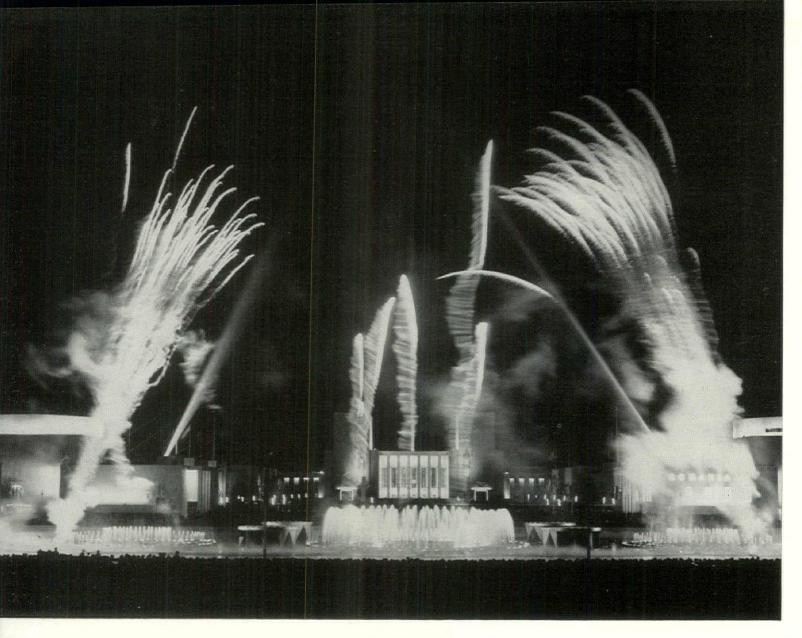
SKIDMORE & OWINGS, ARCHITECTS. JOHN MOSS, ASSOCIATE, ARCHITECTS AND DESIGNERS OF EXHIBITS. UNITED ENGINEERS, GENERAL CONTRACTORS. GILMORE D. CLARKE AND MICHAEL RAPUANO, LANDSCAPE ARCHITECTS. EVERETT HENRY, MURAL AND MAP.







Underwood & Underwood



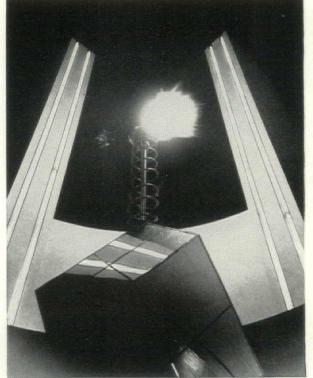
Ezra Stoller



### **ILLUMINATION**

Aside from the spectacular water and fireworks displays shown on this page, the New York Fair has a variety of highly successful lighting devices. While all types of units have been employed, it is the fluorescent tubing which transforms New York, as well as San Francisco, into a refreshingly different and fascinating scene at night. Illustrated on the opposite page are 1. the court of the Gas Industries pavilion, a striking use of illuminating gas, 2. a view of the Plaza of Light, 3. Production and Distribution Building. 4. to 8. typical lighting standards used throughout the grounds.

1.





2.



A. F. Sozio



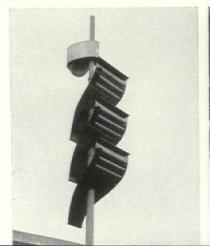


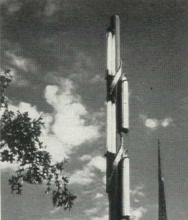
5.

Wurts Bros.

4.













### Refinery Model Refinery Model MAP EXHIBIT Industry Transportation Establit GREAT HALL OF THE INDUSTRY Focket book Tank 737-04

### PETROLEUM INDUSTRIES



The Petroleum Industry's building stands head and shoulders above most of the industrial exhibits in the imaginative quality of its design as well as in actual physical bulk. An exceedingly open plan successfully combines indoor and outdoor displays. The striking design centers on an amusing puppet movie in color projected on a hanging screen high up in the tentlike interior. Symbolic petroleum tanks which seemingly furnish support for the huge triangular shell actually house efficient, concentrated display space. Out-ofdoors, mobile drilling equipment and a fullsized derrick illustrate technique, while a pumping apparatus, located in the midst of an orderly orchard, dramatizes the industry's new attitude toward conservation. At night, bathed in Maxfield Parrish blue light, the building is one of the most spectacular and beautiful in the Fair.

VOORHEES, WALKER, FOLEY & SMITH, ARCHI-TECTS. GILBERT ROHDE AND THE ARCHITECTS, DESIGNERS OF EXHIBITS, JAMES STEWART & CO., GENERAL CONTRACTORS. VITALE & GEIFF-ERT, GILMORE D. CLARKE, LANDSCAPE ARCHI-

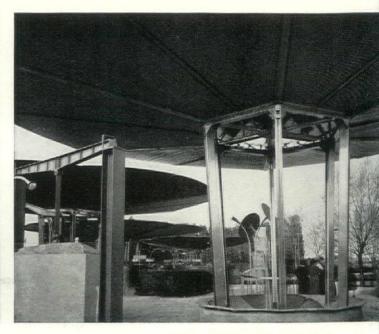
### BUDD MANUFACTURING CO.

One of the pleasantest spots on the fair grounds is the delightful outdoor exhibit (below) of the Budd Manufacturing Co., specialists in light-weight, streamlined transport units. Here, under huge, stainless steel umbrellas, one finds hanging sections of airplane wing-framework, incredibly fragile, huge blocks of granite supported on slender steel rods from delicate trusses, sees a rayonspinning machine running smoothly in a glass case.





VOORHEES, WALKER, FOLEY & SMITH, ARCHI-TECTS. BUDD MFG. CO. AND THE ARCHITECTS, DESIGNERS OF EXHIBITS. ROBERT GLENN, GEN-ERAL CONTRACTOR. VITALE & GEIFFERT, GIL-MORE D. CLARKE, LANDSCAPE ARCHITECTS. LINTON WILSON, STAINLESS STEEL FOUNTAIN.



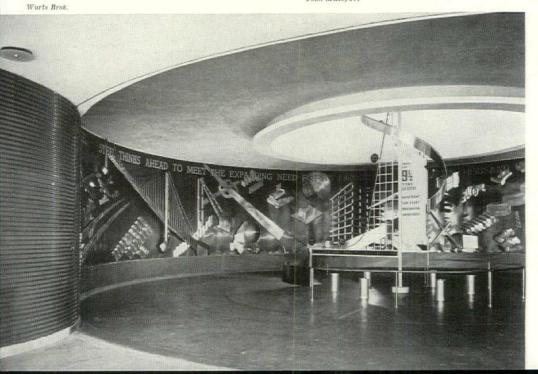




U.S. STEEL







Proclaiming its exhibit-function from the outside, U. S. Steel's "Hall of the Future" is housed in a dome of shining stainless steel, with supporting framework exposed. Carefully routed circulation runs smoothly from ground-level entrances to an exit balcony, ingeniously doubles the available display area.

WALTER DORWIN TEAGUE, DESIGNER, GEORGE F. HARRELL, ASSOCIATE. YORK & SAWYER, ARCHITECTS. GEORGE A. FULLER CO., GENERAL CONTRACTORS. LEWIS & VALENTINE, LANDSCAPE CONTRACTORS. OTTO WESTER, STEEL MURAL IN ENTRANCE.



G.E. K. Smith

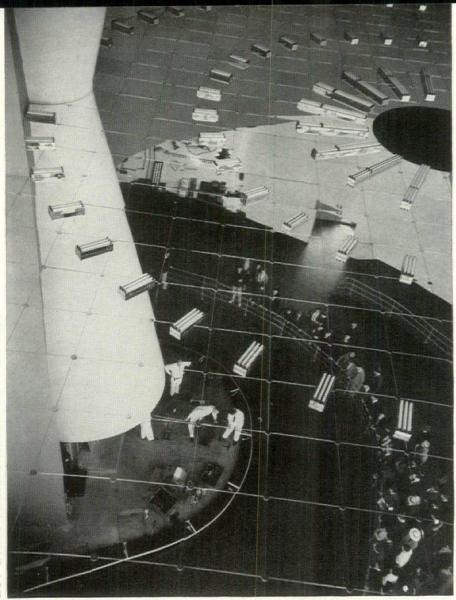


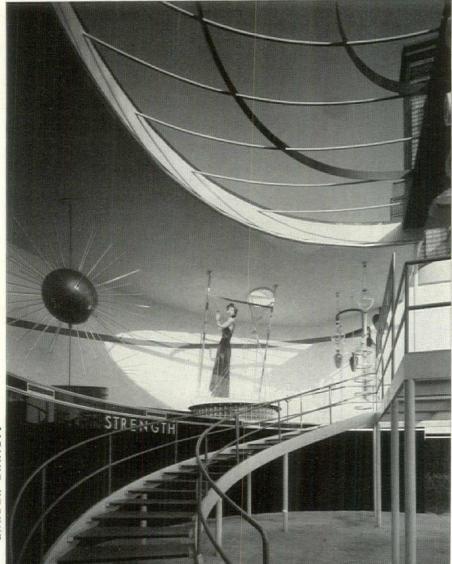
Samuel H. Gottscho

### DU PONT

A finished piece of exhibition architecture, the Dupont building consists of three elements: an attention getting forecourt, an entrance lobby, and the display area, in which a horse-shoe shaped space (above) surrounds a smaller secondary exhibit space at the main exit. Circulation is generous and easily understood, and additional exits are provided at two points for those who do not want to tour the entire building at one visit.

WALTER DORWIN TEAGUE, DESIGNER, ROBERT J. HARPER, ASSOCIATE, A. M. ERICKSON, ENGINEER. TURNER CONSTRUCTION CO., GENERAL CONTRACTORS. DOMENICO MORTELLITO, LUCITE MURAL. JOHN W. MCCOY, JR., "CHEMISTRY" MURAL



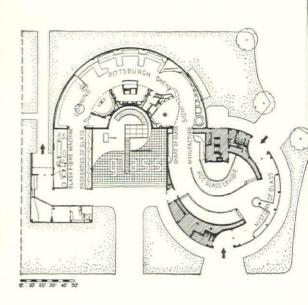




### **GLASS**

Stealing the show in the Glass Center as surely as at the Columbian Exposition of '93, the glass blowers at this year's fair are housed in a huge room with the world's largest mirrored ceiling (above, left), while the combined exhibits of three of the largest glass companies illustrate the material's fundamental properties more clearly and dramatically than ever before.

SHREVE, LAMB & HARMON, ARCHITECTS. SKIDMORE & OWINGS, JOHN MOSS, ASSOCIATE, ARCHITECTS OF INTERIOR EXHIBITS AND GARDEN EXHIBIT. A. L. HARTDRIGE CO., GENERAL CONTRACTORS.



GARDEN EXHIBIT

### **AMENITIES**

Some evidence of the care with which provision has been made for visitors' comfort: 1. Outdoor restaurant of the Swiss pavilion. Foreign nations provide about twenty restaurants, many out of doors. More are operated by local concessionaires. 2. Information booth. 3. Refreshment standards are of uniform design. 4. One of the picnic grounds inside the Fair. 5. Comfort stations are furnished by the Fair authorities as well as by individual exhibitors. 6. Guideposts are well designed and legible. 7. These benches, in front of the Consolidated Edison building, are typical of the 8,000 at the Fair.





3.



6.



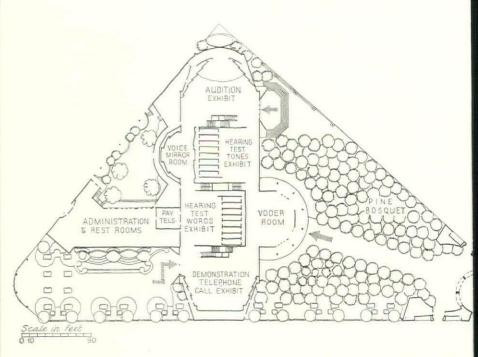
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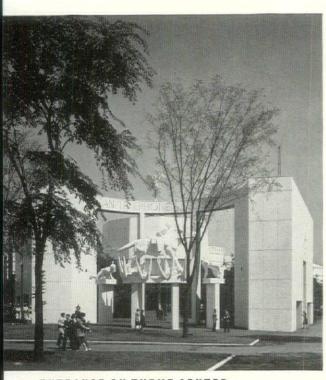




### AMERICAN TELEGRAPH A



VOORHEES, WALKER, FOLEY & SMITH, ARCHITECTS. HENRY DREYFUSS, DESIGNER OF INTERIOR EXHIBITS. VERMILYEA, BROWN CO., INC., GENERAL CONTRACTORS. VITALE & GEIFFERT, GILMORE D. CLARKE, LANDSCAPE ARCHITECTS. CARL MILLES, SCULPTURE ON ENTRANCE FROM THEME CENTER



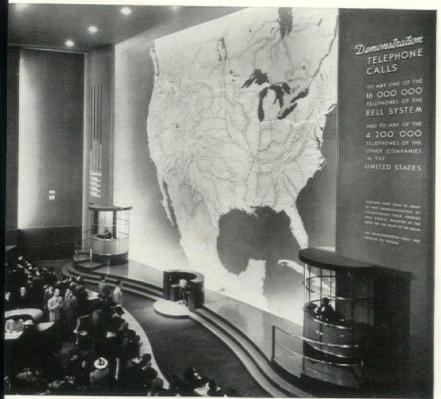
ENTRANCE ON THEME CENTER



Ira W. Martin Photos

Prominently situated on a triangular plot with its apex on the fair's theme center, the A. T. & T. building was designed to accommodate maximum crowds while leaving a substantial part of the ground area free for land-scaping. Solution of the problem was circulation on two levels: electric stairways reaching a second floor which runs through the center of the building and has balconies opening on the principal first floor rooms. Simple and large in scale, the immensely popular exhibits are well served by this arrangement, while many entrances and exits provide unusually free access.

### ELEPHONE







### RADIO CORPORATION OF AMERICA

One of the few industrial buildings to take advantage of the dramatic possibilities of the type of transparent curtain-wall used so freely in the foreign section, the Radio Corporation of America's building (below) entices visitors with glimpses of a huge, colorful mural behind a wall of glass.

SKIDMORE & OWINGS, ARCHITECTS. JOHN MOSS, ASSOCIATE ARCHITECT. PAUL CRET, CONSULTING ARCHITECT, RYAN CONTRACT-ING CORP., GENERAL CONTRACTORS. LOUIS FERNSTADT, INTERIOR MURAL



TELEVISION



### TOWN OF TOMORROW



2.



3.



- 1. Dual Duty House. Henry S. Churchill, Architect
- 2. House of Plywood. A. Lawrence Kocher, Architect
- 3. The Bride's Home. Landefeld & Hatch, Architects



W. Cary 5.



Wurts Bros. 6.



- 4. Small Home of Brick. George
- D. Conner, Architect
- 5. Small Home of Wood. Evans, Moore & Woodbridge, Architects
- 6. House of Glass. Landefeld
- & Hatch, Architects







Norman W. Cary

- 7. Johns-Manville Triple Insulated House. Godwin, Thompson & Patterson, Architects
- 8. Kelvin Home. Electus D. Litchfield, Architect
- 9. Celotex House. Henry Otis Chapman, Jr., Harold W. Beder, Architects







Samuel H. Gottscho

- 10. New England Home. Cameron Clark, Architect
- 11. House of Vistas. Verner Walter Johnson, Architect
- 12. Garden Home. Verna Cook Salomonsky, Architect





Samuel H. Gottscho Photos



15. Motor Home. Adams & Prentice, Architects

10.

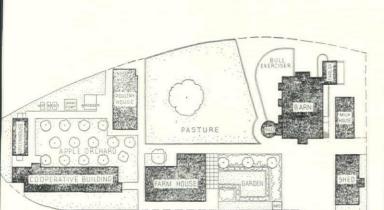
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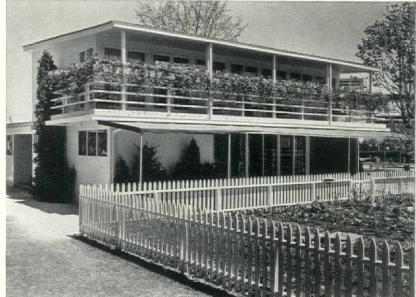
15.

NOTE: Press date prevented a complete showing of the houses in the Town of Tomorrow. A section of the July Forum will repair this omission.

### ELECTRIFIED FARM



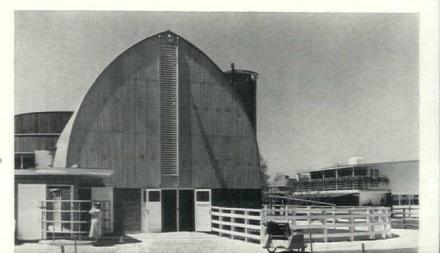




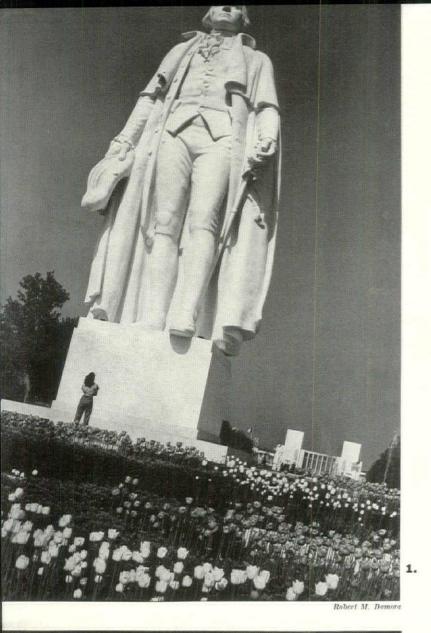
Complete in every detail, the deservedly popular electrified farm dramatizes the advantages of labor-saving machinery for the modern farmer and farm housewife, incidentally does a good job of selling modern architecture for all types of farm buildings. Especially successful is the farmhouse, whose large glazed doors and fixed windows—dictated by the necessity for providing a clear view of the interior—will probably serve as the model for many an observant visitor's suburban home.



HARRISON & FOUILHOUX, ARCHITECTS FOR BUILDINGS AND LANDSCAPING. A. L. HARTRIDGE CO., GENERAL CONTRACTORS.



Samuel H. Gottscho Photos





### **SCULPTURE**

Sculpture has been sprinkled liberally through the Fair grounds in the form of fountains, symbolic figures, sundials, etc. Even in the World of Tomorrow the great majority of sculptors still seem to be preoccupied with the threadbare legends of classical mythology, and the Fair has far more than its share of meaningless plaster effigies of the usual antique personalities. Some of the more vigorous of the works produced are illustrated on these two pages. 1. "George Washington" by James Earle Fraser, on Constitution Mall. 2. Two of the "Four Freedoms" by Leo Friedlander, on Constitution Mall. 3. "Chassis Fountain" by Isamu Noguchi, in Ford courtyard. 4. "The Astronomer" by Carl Milles, beside Perisphere. 5. "Celestial Sphere" by Paul Manship, in Court of States. 6. "Prometheus and Man," and "Vulcan & Man" by Carl L. Schmitz, on Metals Building. 7. "Unity" by Harry Poole Camden, on Federal Building. 8. "Mercury" statue by Robert Foster on Ford Building.

3.



Samuel H. Gottscho

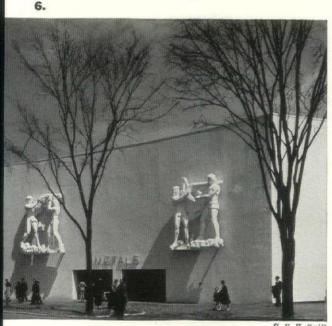






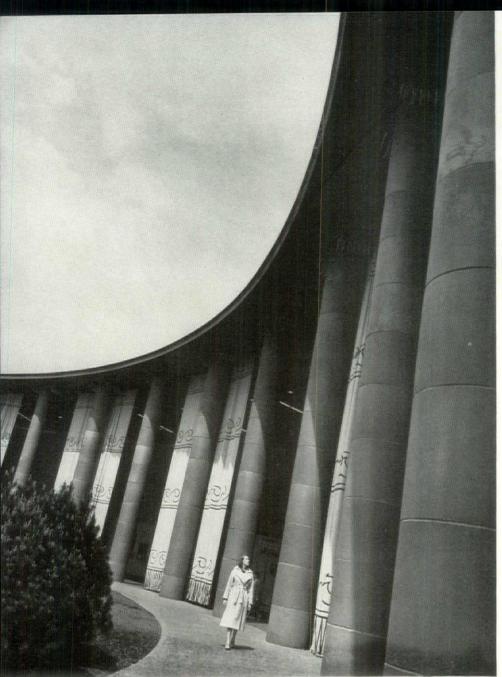


John Beinert

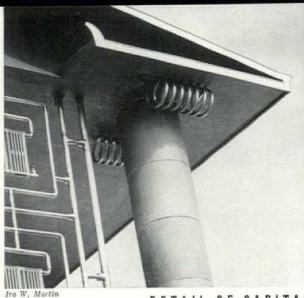




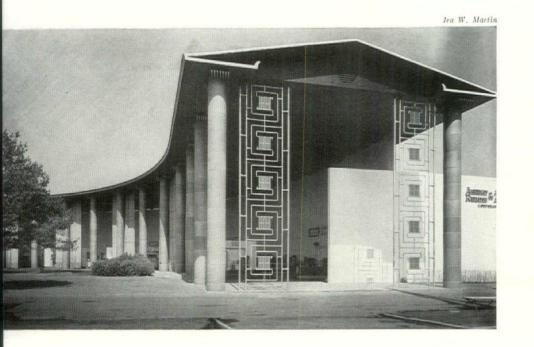








### AMERICAN RADIATOR



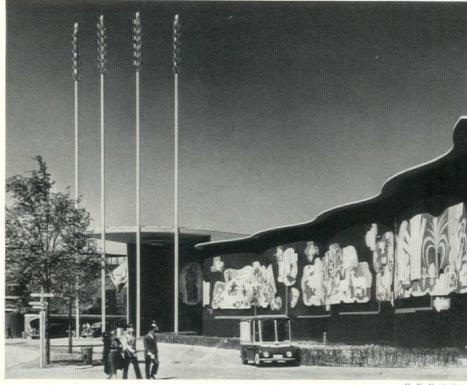
Entirely open at one side, the American Radiator-Standard Sanitary Corporation's simple arc-shaped building makes good use of the classical colonnade to achieve an inviting effect of maximum freedom of circulation. Symbolizing the plumbing and heating industry, columns are constructed from standard 3-foot flue lining, "volutes" consist of copper pipecoils, and decorative grillework is assembled from pipe-fittings, valves, and radiators. Electrically operated curtains close the spaces between columns in bad weather.

VOORHEES, WALKER, FOLEY & SMITH, ARCHI-TECTS. SKIDMORE & OWINGS, DESIGNERS OF EX-HIBITS. A. L. HARTRIDGE CO., GENERAL CON-TRACTOR.

### FOOD BUILDING No. 3

One of the few of the fair-built structures to achieve distinction, the Food "focal" exhibit (right) is good exposition architecture: simple, decorative, and inviting. The Gordon mural informs and delights.

PHILIP L. GOODWIN, ERIC KEBBON, EDWARD D. STONE, MORRIS KETCHUM, JR., RICHARD BORING SNOW, ASSOCIATED ARCHITECTS. RUSSEL WRIGHT, DESIGNER FOCAL HALL. H. L. FISCHER, INC., GENERAL CONTRACTOR. WITOLD GORDON, MURAL.



G. E. K. Smith

### DISTILLERS

Reminiscent of some of the best work at recent foreign fairs, the Distilled Spirits building carries the display designer's technique out into the open with its startling "structural banner," while an unusual glass fence (below) symbolizes the industry's dependence upon this material for bottling.

MORRIS B. SANDERS, ARCHITECT, AND DESIGNER OF LANDSCAPING. ROSS-FRANKEL, INTERIORS. H. D. BEST MC CAFFREY CO., GENERAL CONTRACTORS. WITOLD GORDON, MURAL ON BANNER.





### BORDEN DAIRY

Designed to show "the actual operation of getting clean milk from clean cows, and what happens to it afterwards," the Borden Company building centers around a Walker-Gordon "rotolactor," or rotating mechanical milking platform. The public area surrounding the rotolactor is entirely open to the outside and arranged in a series of steps, affording to four rows of spectators a clear view of the milking operation. Following the clockwise rotation of the platform (which necessitated special training for cows accustomed to being milked on their right side) the spectator is led naturally to the processing and bottling exhibits, and exits through the balance of the display area. Natural light has been used throughout to fine effect, and decorative motifs are cleverly worked out to suggest the purpose of the building. Fair-goers have great fun watching this show: a spirit which quite obviously must have animated the architect who designed it.

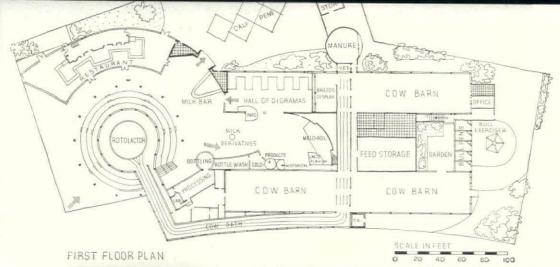
VOORHEES, WALKER, FOLEY & SMITH, ARCHITECTS AND DESIGNER OF EXHIBITS. JAMES STEWART, GENERAL CONTRACTOR. VITALE & GEIFFERT, GILMORE D. CLARKE, LANDSCAPE ARCHITECTS. GIOVANNI B. REPETTO AND BEN SMITH, DECORATIVE DESIGN.



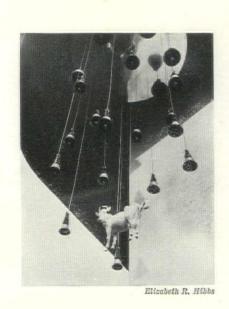
ROTOLACTOR





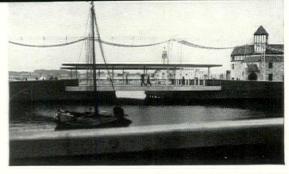














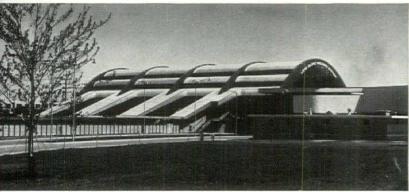
John Beinert Photos

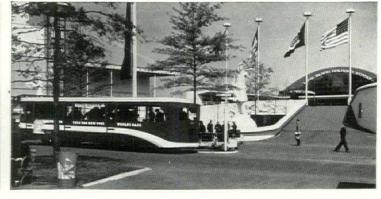
### **GENERAL CIRCULATION**

has received the careful attention it deserves. The bridges, shelters, bus and railroad stations, etc., scattered throughout the Fair constitute one of its most attractive features. The extremely successful station of the Long Island Railroad, and the sightseeing buses and wheel-chairs of the Greyhound Bus Company (below), both in the official Fair blue, add a welcome note of color.





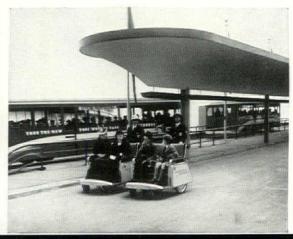




G. E. K. Smith







### AMPHITHEATER

This is one of the few permanent buildings in the Fair. Located on the edge of the amusement center, it is being used for Billy Rose's elaborate water shows.

SLOAN & ROBERTSON, ARCHITECTS. PSATY & FUHRMAN, INC., GENERAL CONTRACTORS.





Samuel H. Gottscho Photos

### MUSIC HALL

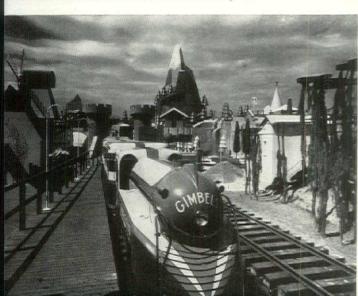
Also placed on the fringe of the amusement section is the large auditorium, used for concerts, lectures and other indoor meetings. A temporary structure, it is notable for its clean, spacious interior and for the excellent use of the arena-type plan to eliminate the balcony.

REINHARD & HOFMEISTER, ARCHI-TECTS. JOHN W. RYAN CO., GEN-ERAL CONTRACTORS. WINOLD REISS, ARTHUR CRISP, EXTERIOR HAMMERED ALUMINUM MURAL.



# CHILDRE'S BORDING EXPRESS TOURS CHILDRENS WORLD'INC

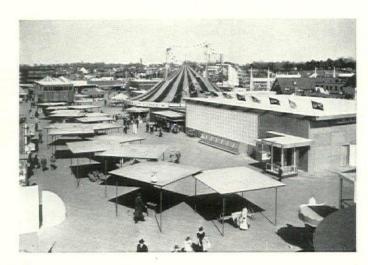
Schnall Photos



### CHILDREN'S WORLD

What might easily have been one of the most disorganized and unattractive portions of the fairgrounds is quite the reverse. From the handsome administration building (lower right hand corner) to the conventionalized representations of streets and famous buildings (left) there is a unity and charm throughout, the result of placing design-control of this entire section in the hands of one architect. The entire area was floored-in with boardwalk and all landscaping omitted in the interests of utility and neatness. Shade is provided by ingenious scattered shelters (below).

GEORGE HOWE, ARCHITECT. OSCAR STONOROV, HERBERT SPIGEL, COR-NELIUS BOGERT, ASSOCIATES. BARR & LANE, GENERAL CONTRACTORS.



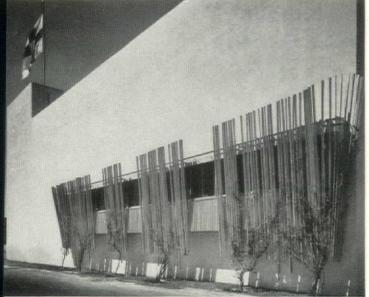


ADMINISTRATION

FOREIGN NATIONS The entrance of sixty nations into the New York World's Fair is an all-time high for foreign participation in U. S. expositions. Shown in the following section are those buildings and exhibits which for reason of size, beauty or effectiveness have outstanding interest.





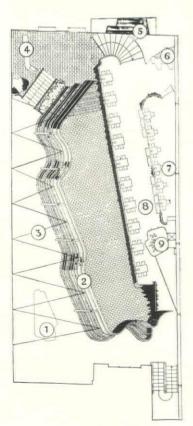


All photos, Ezra Stoller

### FINLAND

The Finnish exhibit is the Fair's most exciting demonstration of what can be done with a bare rectangular room. Executed in Mr. Aalto's favorite—and Finland's commonest—material, it is skillfully arranged on two levels, contains a restaurant with films projected from a suspended booth (lower right) for the entertainment of the diners. Displays as well as the interior are chiefly wood and its by-products.

ALVAR AALTO, AINO MARSIO-AALTO, ARCHITECTS. GEORGE A. FULLER CO., GENERAL CONTRACTORS.



- I. MODEL VILLAGE
- 2. DECORATIVE WALL
- 3. EXHIBIT SPACE
- 4. BAZAAR
- 5. PROJECTION SCREENS
- 6. BAR
- 7. RESTAURANT
- 8. RESTAURANT
- 9. PROJECTOR



RESTAURANT



EXHIBIT BELOW RESTAURANT BALCONY



### SWEDEN



Sigurd Fisc





Completely assured and unpretentious, the Swedish pavilion is unquestionably the most civilized piece of modern architecture in the entire Fair grounds. The building is arranged around a large courtyard which is paved in marble; the separate units include two restaurants, a café, offices, exhibition space, a shop, and a cinema. Much of the exhibition space is in the open, sheltered only by the roofs. The supports are lally columns with curved stiffeners welded on the sides. Away from the other foreign buildings, the pavilion, nevertheless, was quickly discovered by visitors as one of the pleasantest spots in the Fair.

SVEN MARKELIUS, ARCHITECT. POMERANCE & BREINES, ASSOCIATE ARCHITECTS. BOBBINK & ATKINS, AND THE ARCHITECT, LANDSCAPING. ANDERS BECKMAN, BIBI LINDSTROM, PHOTOMURALS ON EXTERIOR, AND GENERAL EXHIBIT DESIGN.

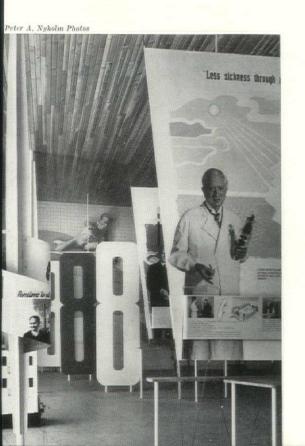


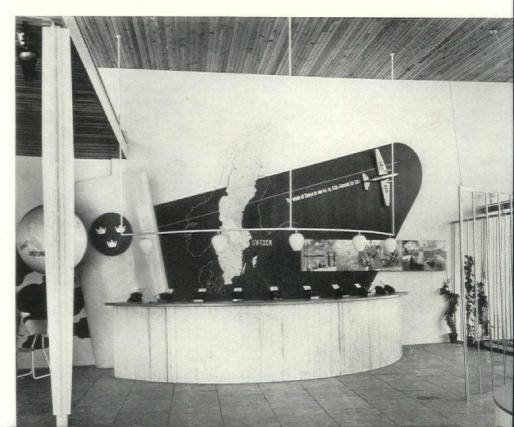


GARDEN COURT



PORCH OF RESTAURANT





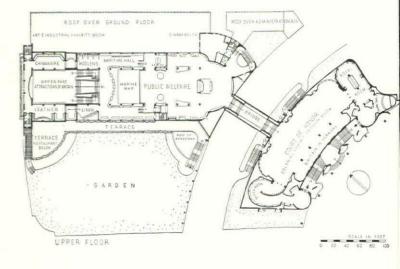
### GREAT BRITAIN











With heavy imperial dignity Britain displays its wares, from racing cars to heraldic emblems, in one of the largest buildings on the grounds. An attempt to combine British good taste with totalitarian monumentality, the building contains great numbers of large halls devoted to the merchant marine, social welfare, replicas of the Crown jewels and airplane engines. Its favorite attraction: the Coldstream Guards, whose band played daily in the handsome garden, now sails home leaving the job of welcoming visitors to a pair of superb silver lions which flank the entrance.

STANLEY HALL & EASTON & ROBERTSON, ARCHITECTS. HEGEMAN-HARRIS CO., INC., GENERAL CONTRACTORS. PERCY S. CANE, LANDSCAPE ARCHITECT. A. F. HARDIMAN, DESIGNER OF LIONS AT ENTRANCE. BARNEY SEALE, LIONS ON BUILDING.

### AUSTRALIA



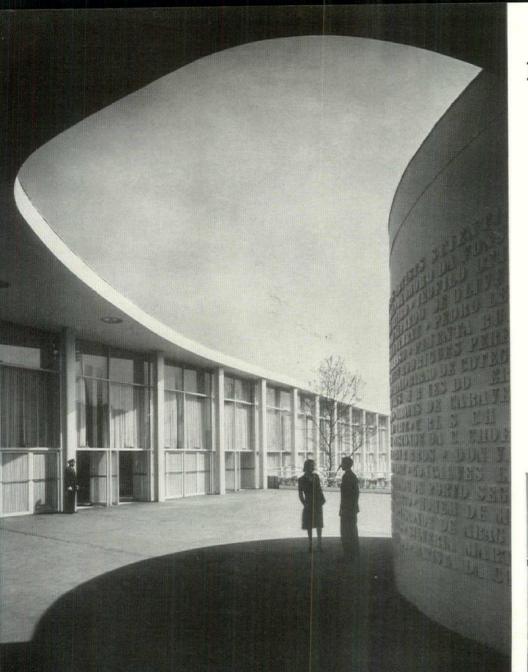
Robert E. Coates Photos



Occupying a pavilion adjoining the larger English building, Australia tells its story in a small, orderly exhibit, relying chiefly on photographs. Lighting and the floor design are integrated with the displays, completing a pleasing if matter-of-fact and very comprehensible exhibition.

STEPHENSON & TURNER, ARCHITECTS, AND DESIGNERS OF EXHIBITS. SCOTT & TEEGEN, ASSOCIATE ARCHITECTS. HEGEMAN-HARRIS CO., INC., GENERAL CONTRACTORS.



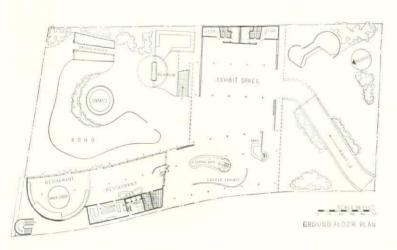


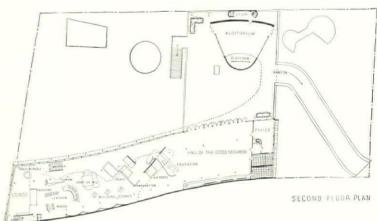
BRAZIL



G. E. K. Sm

SECOND FLOOR TERRACE





F. S. Lincoln

Brazil's pavilion was designed by two pupils of Le Corbusier, and provides a superlative display of his ideas and forms. A magnificent plan for the accommodation of large crowds, it is almost completely open on the ground floor, equally spacious above. The exhibits are among the best in the Fair for interest, technique of display and quality of execution. As in San Francisco, Brazil makes much of its coffee, its food, and the outdoor dining and dancing space.

LUCIO COSTA, OSCAR NIEMEYER SOARES, ARCHI-TECTS. PAUL LESTER WIENER, INTERIOR AND EXHIB-ITS DESIGNER. HEGEMAN-HARRIS CO., INC., GENERAL CONTRACTORS.





COFFEE BAR



F. S. Lincoln



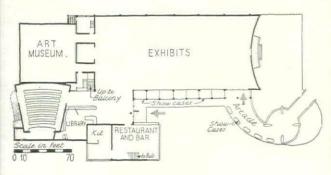


### **ARGENTINA**

Many of the elements in the pavilion of Argentine will also be found in the building at San Francisco, particularly the circular skylights in the ceiling of the main exhibit hall (see page 495) and the tempered plate glass doors. Like most of the other large foreign pavilions, it contains a theater, restaurant and bar.

ARMANDO D'ANS, ARCHITECT. AYMAR EMBURY II, ASSOCIATE ARCHITECT. GRAVES & QUINN CORP., GENERAL CONTRACTORS. ROBERT W. CLEVELAND, LANDSCAPING. ALFREDO GUIDO, EXTERIOR MURAL.

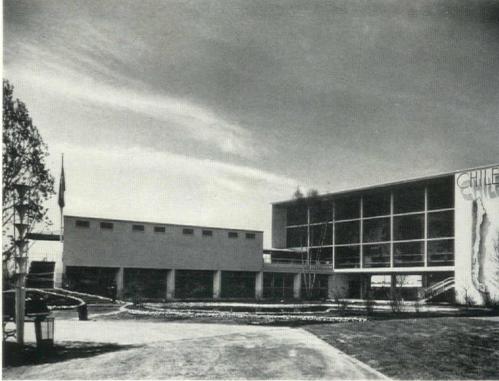








# CHILE



G. E. K. Smith

CHILE

SMITH-MILLER, SANDERS & BRECK, ASSOCIATED ARCHITECTS, AND DESIGNERS OF EXHIBITS. MARSHALL CONSTRUCTION CO., GENERAL CONTRACTORS.

#### VENEZUELA

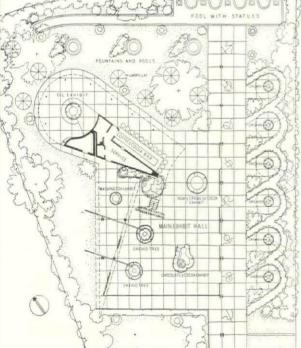
SKIDMORE & OWINGS, ARCHITECTS, JOHN MOSS, ASSOCIATE, ALSO DESIGNERS OF INTERIOR EXHIBITS. JAMES STEWART & CO., GENERAL CONTRACTORS. LUIS LOPEZ MENDEZ, MURAL.

Both Chile and Venezuela have pavilions designed by American architects. Creditable, if not too exciting as examples of modern exposition design, they show none of the refreshing local color of some of the other foreign buildings. Chile, modest in size, has a well-planned series of exhibits on two levels, with entrance by way of an attractive, flower-bordered outside ramp to the second floor. Venezuela, third largest oil producer in the world, has wisely emphasized its more spectacular display of orchids, which are shown under glass in the garden.

# VENEZUELA



Wurts Bros.



FIRST FLOOR & PLOT PLAN

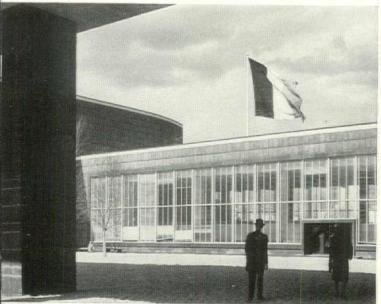
# **BELGIUM**



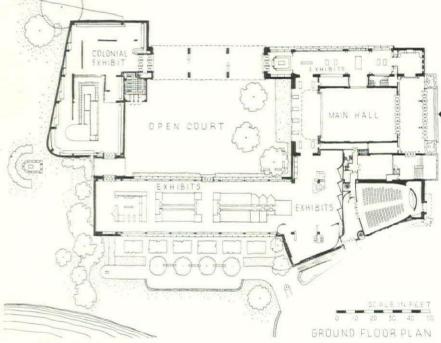
Belgium is one of the few countries which used permanent facing materials, here a magnificent red tile with black slate. Handsome in appearance and well planned, its monumental interiors house displays which are drab and inferior. The distinguished tower contains a carillon which is played at intervals during the day.

VAN DE VELDE, STYNEN, AND BOURGOIS, ARCHI-TECTS. PAUL CELIS, ENGINEER. DEBUSSCHERE-TEDESCO, GENERAL CONTRACTORS. CHARLES MIDDE-LEER, LANDSCAPE ARCHITECT.

COURT







MAIN HALL



Robert McLean Glasgou

# FRANCE

The glass-walled restaurant of the huge French pavilion commands a superb view of the Lagoon. Interesting for its 47 different floor levels, the building houses overdecorated halls and atrocious displays.

EXPERT & PATOUT, ARCHITECTS. M. CHAUME, COLLABORATOR. DOMINIQUE BERNINGER, RES-IDENT ARCHITECT, JAMES STEWART & CO., GENERAL CONTRACTOR.

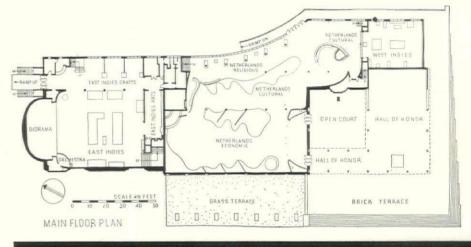




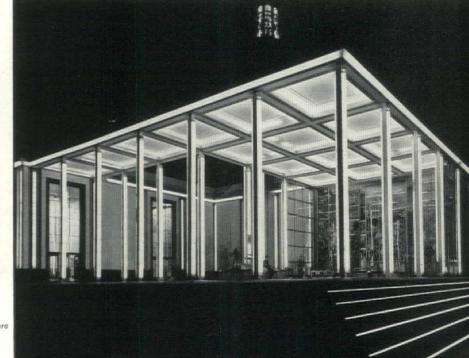
# **NETHERLANDS**

The most impressive element is the entrance court seen at night. Glass-faced columns, filled with fluorescent tubing, turn the entire structure into a luminous unit. The halls within are devoted to excellent displays of the Netherlands and their Colonial empire.

D. F. SLOTHOUWER, GEORGE B. POST & SONS, ARCHITECTS. J. W. T. VAN ERP, SUPERVISING ENGINEER, GEORGE A. FULLER CO., GENERAL CONTRACTOR.







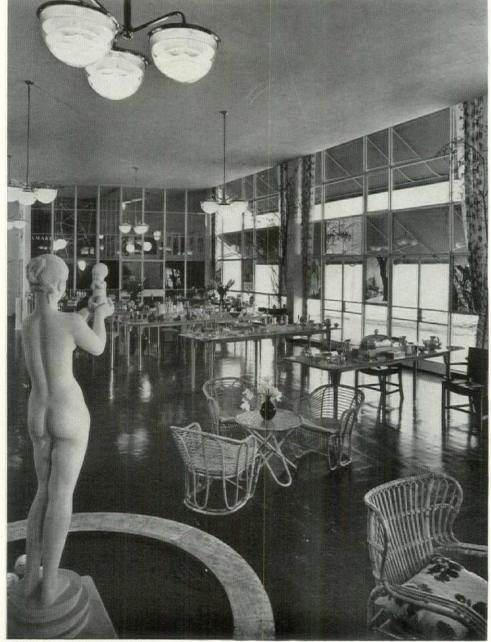


Robert M. Damora Photos

#### DENMARK

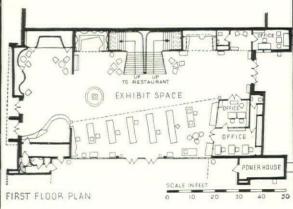
Less extensive than the Swedish pavilion, the Danish exhibition occupies a space in one of the buildings flanking the Court of Peace. Designed and executed with characteristically Scandinavian good taste and craftsmanship, it presents in a delightful manner its silver, wooden toys, pottery and furniture. Photographs of the country are applied to the windows, and the transparencies obtained in this manner are most effective. Individual displays, some of which are shown in the section on Exhibition Techniques, are among the best in the foreign section. A restaurant serving native food occupies the larger part of the second floor.

TYGE HVASS, ARCHITECT. HAROLD RAMBUSCH, GENERAL CONTRACTOR. KAI NIELSEN, SCULPTOR "EVE AND THE APPLE." SIKKER HANSON, INTERIOR MURALS.



EXHIBITS FIRST FLOOR

RESTAURANT



# NORWAY

The combination of traditional local architecture with excellent modern design gives the pavilion of Norway its chief interest. The main element of the exterior uses native board and batten construction, and is painted a shiny black with accents of dull red and green, bright blue and white. Connected to the introductory exhibit in a space similar to that occupied by Denmark, the pavilion has ample displays, and contains in addition a festive outdoor restaurant.

FINN BRYN, ARCHITECT. GEORGE A. FULLER CO., GENERAL CONTRACTORS.



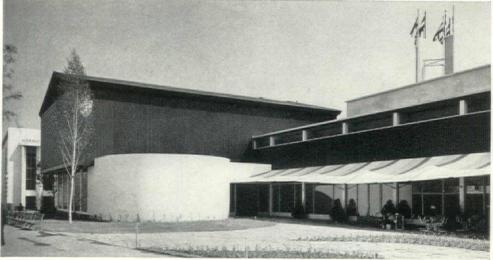
HALL OF REPRESENTATION



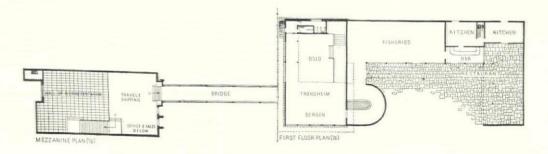


HALL OF OSLO





Robert E. Coates





# ITALY

A curious perversion of classical precedent, the Italian building is dominated by the fair's highest waterfall topped by a figure oddly suggestive of Britannia. Inside, opening off a huge central hall are a series of alcoves featuring some of the most gaily designed exhibits in the Fair which seem ill at ease in their formal heavy setting. The lush restaurant and bar on an upper floor repeat the design originally used in the

S.S. Conte di Savoia.

MICHELE BUSIRI-VICI, ARCHI-TECT. CHAIN CONSTRUCTION CO., GENERAL CONTRACTORS. BUSIRI-VICI & INNOCENTI & WEBEL, LANDSCAPING.

G. E. K. Smith



© Courtesy Italian Commission, Robert M. Damo



# **JAPAN**





Henry S. Yamade

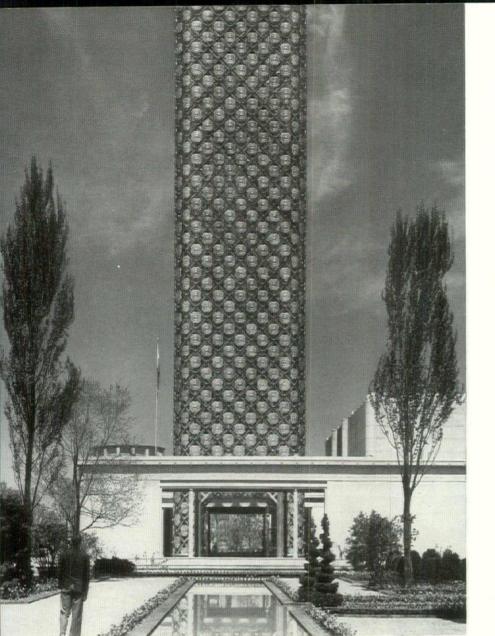


Henry S. Yamada



Designed in an antique style, the Japanese pavilion is a massive, good-looking structure with few exhibits of interest within. The interiors shown here are from the separate Japanese exhibit on the Court of Peace, an engagingly furnished room with superlative photomurals.

Y. UTIDA, YASUO MATSUI, ARCHITECTS. PARKLAP, INC., GENERAL CONTRACTORS. GO TAMURA, LANDSCAPING.



#### G. E. K. Smith





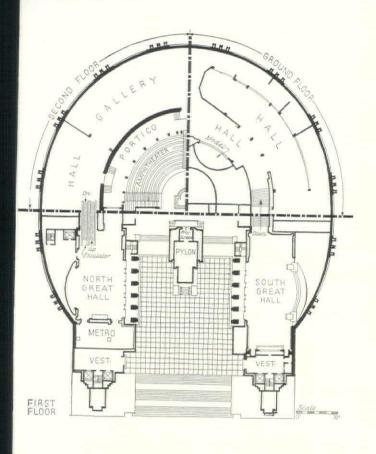
G E K Smi



One of the most interesting architectural contributions in Flushing Meadows is the tower of the Polish building, a lacy metal structure covered with gilded plaques. Interiors are a curious combination of old and new treatments, which, if not always happy together, succeed in presenting a vivid picture of the country and its activities.

JAN CYBULSKI, JAN GALINOWSKI, ARCHITECTS. CROSS & CROSS, ASSOCIATE ARCHITECTS. GEORGE A. FULLER CO., GENERAL CONTRACTORS. JAN HENRYK DE ROSEN—MURALS POLAND'S HISTORY. BOLESLAW CYBIS, MURAL POLAND'S CONTRIBUTION TO AMERICA.

# U. S. S. R.









SOUTH GREAT HALL

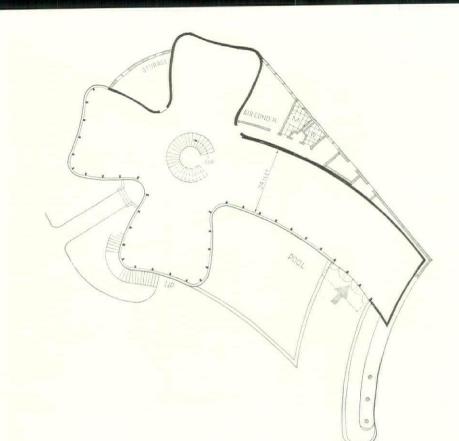
Underwood & Underwood-Ford Stoller



SUBWAY

Rated first among the foreign pavilions in a recent Gallup poll, the building of the Soviet Union is a powerful, if occasionally naïve, piece of monumental architecture. Designed for rebuilding as a museum in Moscow, it makes lavish use of such permanent materials as marble and granite. The symmetrical plan, surprisingly enough, works well for moving crowds, and there is an openair cinema to take the overflow. Best exhibit: a full-size section of a subway station, given the effect of a complete interior by the use of mirrors. Most popular exhibit: the native girl lecturers who supply welcome clarity to many otherwise confused displays.

BORIS M. IOFAN & KARO S. ALABIAN, ARCHITECTS. POMERANCE & BREINES, ASSOCIATE ARCHITECTS. HEGEMAN-HARRIS CO., INC., GENERAL CONTRACTORS.



# IRELAND

Ezra Stoller Photos



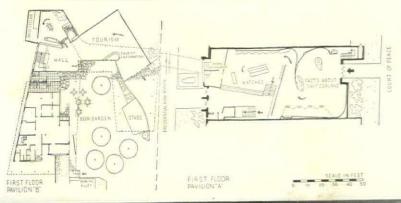


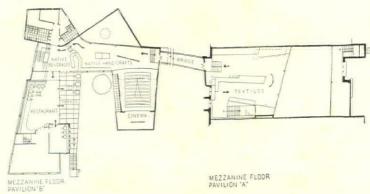


Constructing a building in the shape of a shamrock (or a hamburger or a pickle) would seem the best possible start for a bad ending. Ireland's pavilion is the exception to the rule. A smart design in glass, it boasts a spectacular spiral stair of reenforced concrete. The rigidly directed circulation leads to congestion all through the building, however, and the displays are few and uninspired.

MICHAEL SCOTT, ARCHITECT, AND DESIGNER OF LANDSCAPING. L. H. BUCHNELL, ARCHITECT FOR THE INTERIOR. HEGEMAN-HARRIS CO., INC., GENERAL CONTRACTORS.

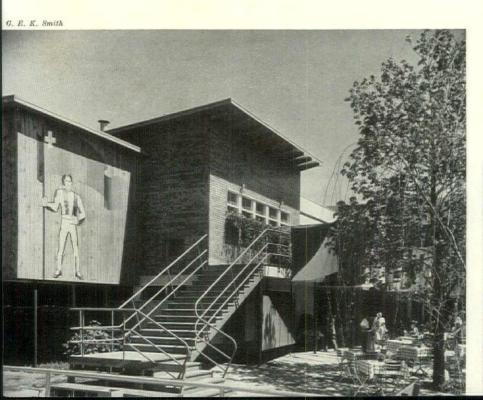
# SWITZERLAND

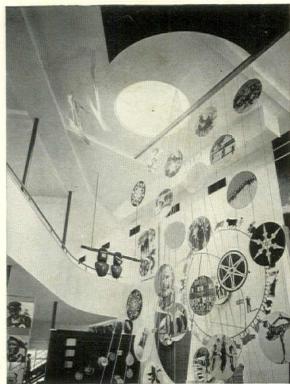






Ira W. Martin





Ira W. Marti

Like the Norwegian pavilion the Swiss building combines modern and traditional design elements. Built around the pleasant open-air restaurant which is the chief attraction, it contains large numbers of watches of all sizes and shapes and some rather involved exhibits on winter sports. Not up to the standard of display set two years ago in Paris, the pavilion is of greater interest for its appearance than its contents.

WILLIAM LESCAZE, JOHN R. WEBER, ARCHITECTS. HERBERT MATTER FOR EXHIBITS. WILLIAM L. CROW CONSTRUCTION CO., GENERAL CONTRACTORS. DOROTHY WELLS, LANDSCAPE ARCHITECT.

Robert E. Coates



SAN

FRANCISCO

GOLDEN

GATE

IXPOSITION

19.39

# THE SAN FRANCISCO FAIR is 3,170 rail miles

from New York and the two Fairs are equally far apart in concept and realization. The World of Tomorrow spreads low over many more than a thousand acres; the Pageant of the Pacific snuggles tight and high into less than half that area. In the East bigger (if not better) has motivated every building, every exhibit. The West boasts half as many buildings and but one commercial exhibit big enough for a roof of its own.

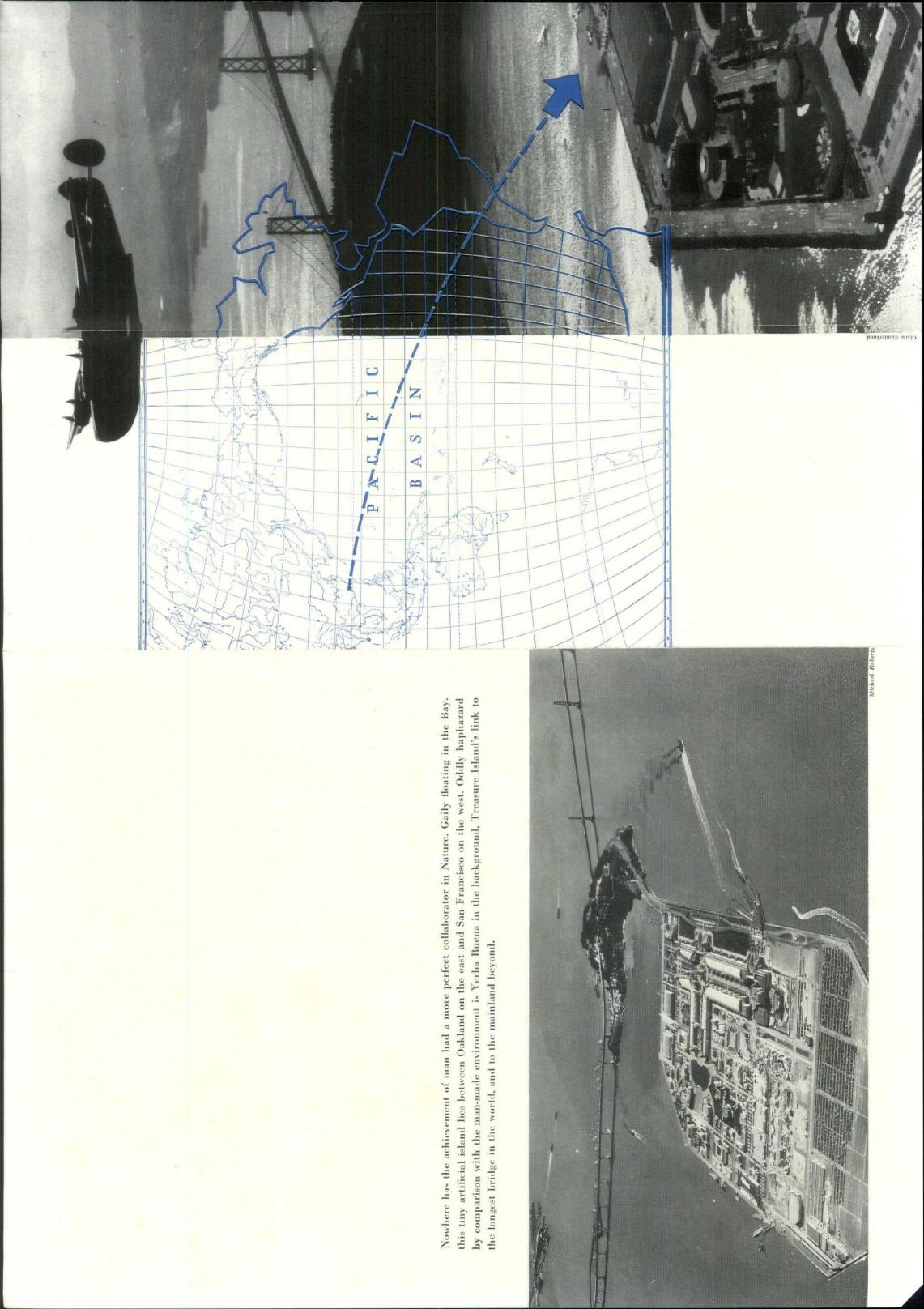
Above and beyond the question of size, however, is the question of theme, from which naturally stems the dissimilarity of the two shows . . . New York looking at Tomorrow and arriving mostly in the middle of Today, San Francisco with its stucco fantasy of the Pacific. There comparisons end and should.

Man-made Treasure Island sits smack in the middle of San Francisco Bay, linked to the mainland by the twisted steel threads of the longest bridge in the world. No fair ever had a better site. Here, one might think, is the world of tomorrow: an island dredged out of the bottom of the sea, starting point of the great air lanes across the Pacific. But for their theme the builders of the Fair took a world that never was, a fantasy of form and color excluding all suggestion of a workaday existence.

For anything as ephemeral as a Fair, there is probably nothing the matter with dream architecture. At its best it is amusing, an escape from the drab cities, a vision of what men might build. But for its successful realization it demands isolation from disturbances. Just as a romantic English novelist had to place Shangri-La in a lost valley in the high Himalayas to make it credible, so this idea demanded a similarly complete enclosure, expressed on Treasure Island by the five great courts with their towering walls. With the exception of the Court of Pacifica, where the vitally important wall facing the entrance was omitted, this isolation was achieved.

If San Francisco's world of fantasy was punctured in this vulnerable spot, the damage is fast repaired. By far the greater part of the Exposition lies beyond. Around the mirrored surface of the Lagoon are the Federal Building, the California group, and the Pacific Basin Area. The latter, consisting of Pacific House surrounded by pavilions of the nations bordering on the ocean, is a well integrated expression of a sound idea: the exhibition of Pacific Basin cultures. Standing out as an unexpected achievement is the U. S. Government building, progressive in design and superlative in its exhibits, probably the first time in any exposition that the Stars and Stripes have flown above a government building and display of first-rate quality. Architecturally, Pflueger's Federal building, Ernest Born's two county buildings and Wurster's club house are its high points.

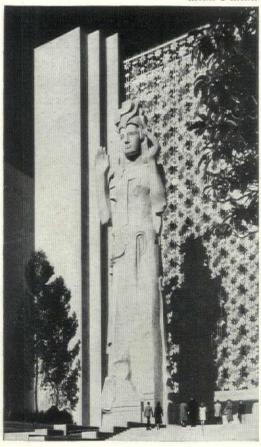
All of which, including the inevitable amusement section, constitutes a Big Fair. Like most other contemporary expositions it is no complete realization of any one idea, rather it reflects the compromise between conflicting aspirations and interests. Whether one's taste is captured by one of the most superb displays of Fine Art ever assembled or by the less superb display of natural beauties in the Gayway, San Francisco has provided a good show. Like its high powered companion in the East it is more alluring by night than any great Fair of the past.





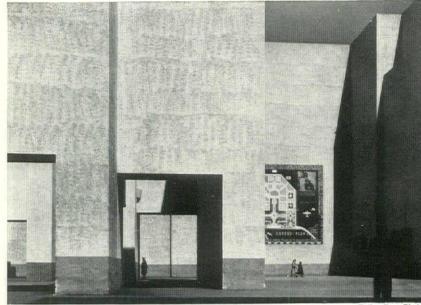
Terminating the long north-south axis from the Tower of the Sun to the Court of Pacifica, is Ralph Stackpole's 80-foot "theme statue." Set at the head of a great flight of stairs, against a tinkling curtain of metal stars, Pacifica was originally intended to stand guard at the entrance of a great open festival hall. The hall was never built and now the monumental stair goes . . . nowhere.

Roberts & Roberts



Peter Stackpole

# COURT OF PACIFICA



Esther Born Ph

The Court of Pacifica is the northernmost of the five courts which, taken as a whole, form the major architectural feature of the Exposition. Square in shape, it is disposed symmetrically around a large fountain, its main element being the great statue of Pacifica, which stands at the head of a monumental flight of stairs, against a loosely hanging curtain of white metal stars.

Originally this court was intended to serve as a terminus for the long axis through the Tower of the Sun; location of the ferry slips here instead of at the elephant towers, as first planned, turned it into a main entrance. As indicated by the photographs, the scale of the court is fully adequate for its unexpected function.

For dream architecture at its best one must turn to the elephant towers, twin masses flanking the Portals of the Pacific. Curiously reminiscent of both Oriental precedent and early skyscraper zoning studies, they maintain to a high degree the atmosphere of fantasy sought for the entire group of courts.

COURT OF PACIFICA: TIMOTHY L. PFLUEGER, ARCHITECT HELEN, MARGARET AND ESTHER BRUTON, MURAL PAINTERS

ELEPHANT TOWERS:

BAKEWELL AND WEIHE, ARCHITECTS
DONALD MACKY, SCULPTOR

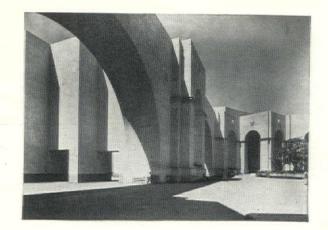






Esther Born Photos

# ELEPHANT TOWERS

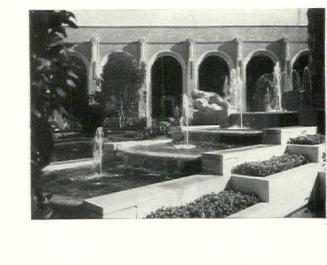


U N E | 9 3 9

# COURT OF FLOWERS



LEWIS P. HOBART, ARCHITECT



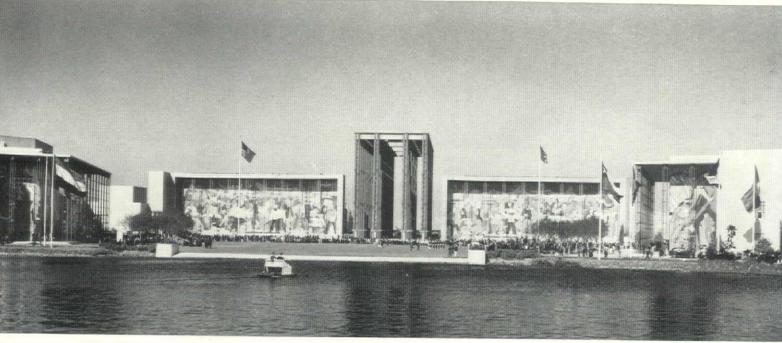




OUNTAIN OF LIFE O. C. MALMQUIST, SCULPTO

# THE LAGOON

From the Court of Flowers, with its beautiful planting and very successful fountain, the visitor moves on to the lagoon, leaving the last of the "dream architecture" behind. A new tempo is perceptible in this great open space: flags, paddle boats, a bright rim of flowers around the pool combine to make this one of the pleasantest and gayest places on the island, while the Federal Building stands out as a fresh and vigorous piece of design. The contrast between this structure and the Towers of the East across the lagoon, as shown below, could hardly be greater.

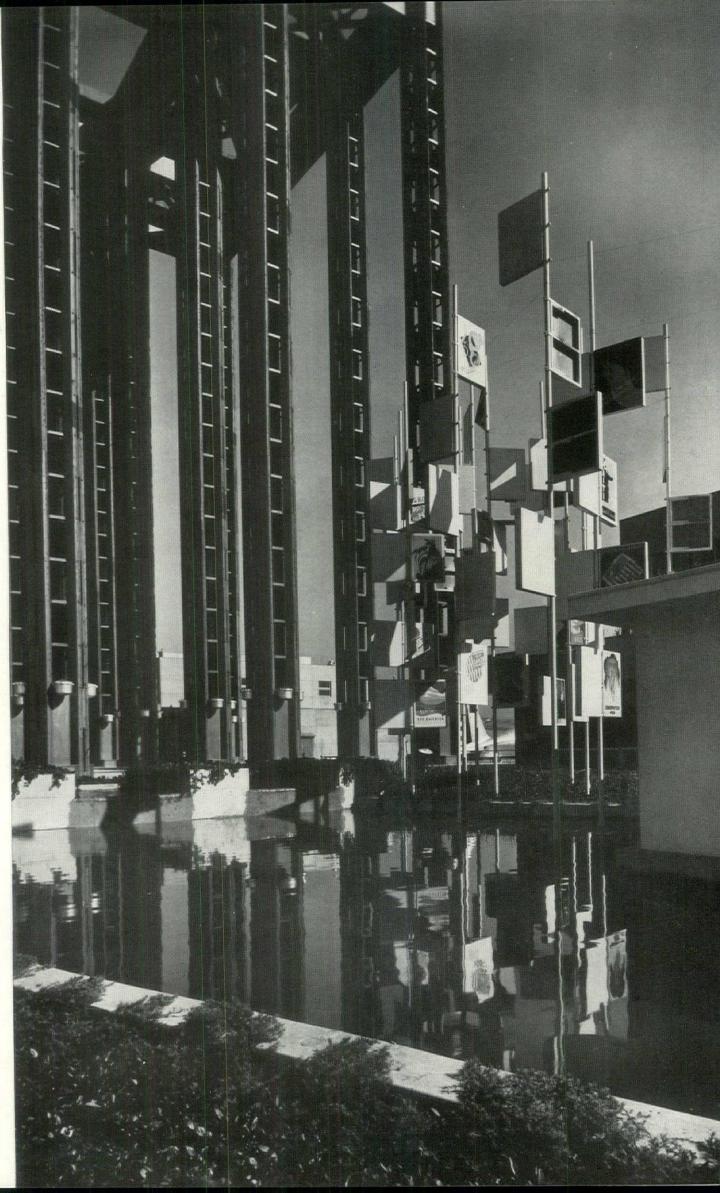


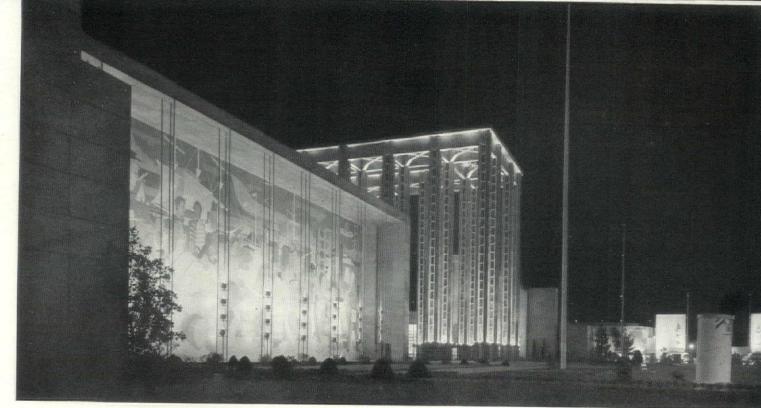
FEDERAL BUILDING TIMOTHY L. PFLUEGER, ARCHITECT



WILLIAM G. MERCHANT, ARCHITECT

Esther Born



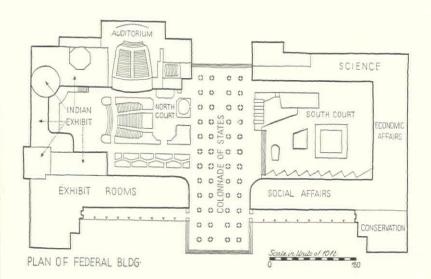


Esther Born



SYLVAN THEATER

Roger Sturtevan



The Federal Building is that rarity in official U.S. exposition architecture, a building actually designed to house exhibits. In addition it represents a creditable and highly interesting attempt to develop a non-traditional design which would at the same time have what is commonly recognized as government character. To suggest the latter a "Colonnade of the States" was built, a cluster of 48 columns open on the sides and to the sky. The solution is excellent, as it not only provides the desired monumental effect, but also forms a pleasant shelter for crowds and does not sacrifice display requirements to external appearance.

Exhibits (see following pages) are functional, not departmental, and fall into ten major categories, including conservation, social and economic affairs, the American Indian, Federal theater, WPA art and recreation, housing and national defense. Superlatively designed, with few exceptions, they establish a new, important precedent by demonstrating that Government can show its activities in a comprehensive, eyefilling and intelligible manner.

#### U. S. GOVERNMENT BUILDING: TIMOTHY L. PFLUEGER, ARCHITECT MURAL PAINTINGS: WPA ART PROJECT

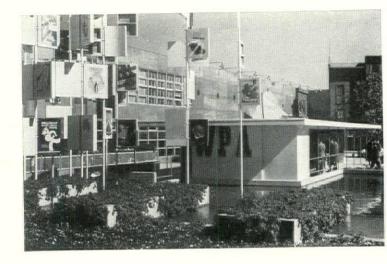
# U.S. GOVERNMENT EXHIBITS

The quality of the government exhibits, with the exception of National Defense, is uniformly high. Presented with a large courtyard enclosed on three sides by the building, and on the fourth by the tall colonnade, the designers worked out a scheme relating indoor and outdoor displays, the court becoming a group of small pavilions whose intimacy of scale is in pleasant contrast to the severity of the surrounding walls. Changes in level give further variety to the court.

An excellent illustration of the character achieved is shown by the photograph of the WPA Crafts pavilion. Open, save for the projecting roof, it is framed by a small pool which also serves to reflect the bright display of posters in one corner. In this same photograph a full-scale slum dwelling can be seen, a dramatic starting point for the exhibition on housing.





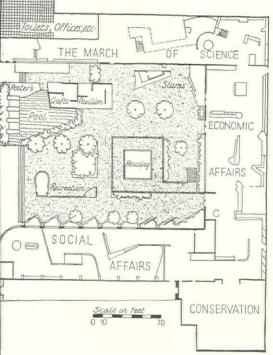






Newsart Photo





Exhibits within the building make extensive use of the montage technique: photomurals, painting, charts, models and working equipment are combined to explain in a most effective manner the workings of the various federal services. Typical of the best of these is the space occupied by the Weather Bureau, in which the entire room, including the highly conventionalized clouds, has been designed as an integrated, three-dimensional exhibit.

Here, with the aid of actual meteorological instruments, the visitor can painlessly acquire not only a good general idea of the activities of the bureau, but some understanding of the science of weather study as well. Immediately adjacent is the display of the National Advisory Committee for Aeronautics, showing the progress made in reducing flying hazards. This space, it will be noted, has a double function, serving as both exhibit and cinema.

EXHIBITS FOR WPA, SOCIAL AND ECONOMIC AFFAIRS:

KASTNER & BERLA, ARCHITECTS MARCH OF SCIENCE EXHIBIT: OSCAR STONOROV, ARCHITECT



Esther Born

### U. S. GOVERNMENT EXHIBITS

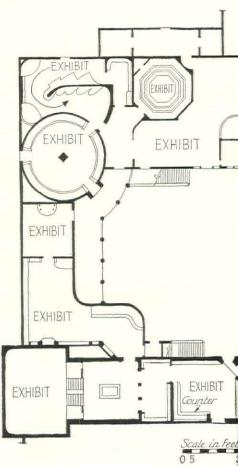
One of the most popular of the government exhibits, the display on the American Indian is also one of the most successful. Occupying seven halls of various sizes and shapes, it is planned for ease of circulation, and presents the different aspects of Indian culture with brilliant simplicity. Wall displays are largely mural paintings, as shown here, which are factual as well as decorative; captions are brief, handsomely arranged, and adequate. The exhibition of pottery is a model of clarity, and an unusually good handling of difficult material.

ARCHITECT: TIMOTHY L. PFLUEGER

EXHIBIT: RENÉ D'HARNONCOURT AND HENRY KLUMB







Newsart Photo

#### DECORATIVE ARTS



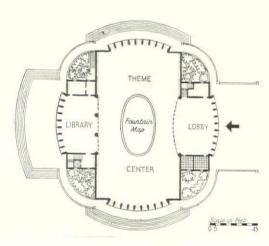
DEPARTMENT OF PUBLIC WORKS, G.G.I.E.

Esther Born Photos

The rather pedestrian Decorative Arts building is one of the permanent buildings on the island, later to be used as a hangar. The difficulties presented by the arrangement of many small displays in a large hall were met by the use of concentrated lighting on exhibits and the absence of ceiling illumination. Roughly similar in its architectural treatment is Pacific House (right), located in the Pacific Basin area which contains the Australian, Japanese, East Indian and other pavilions. Exhibits are devoted to the Pacific and its bordering countries, and include a large collection of books on this region.

#### PACIFIC HOUSE

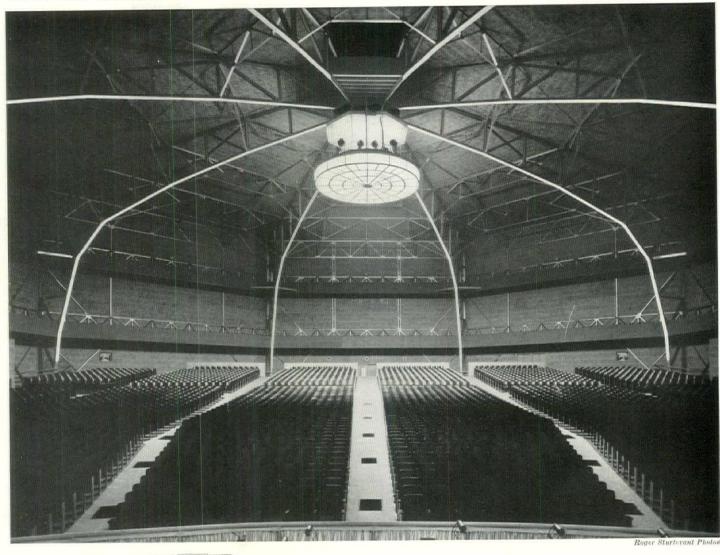
ARCHITECT: WILLIAM G. MERCHANT

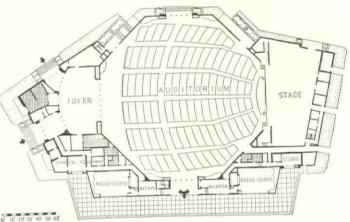


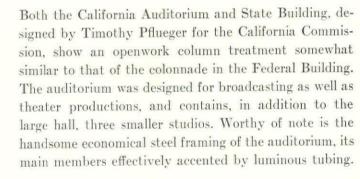


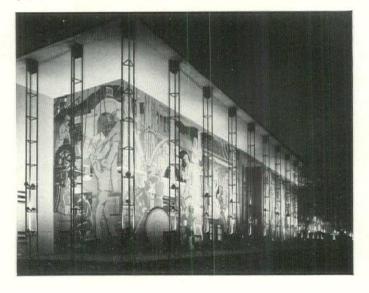
479

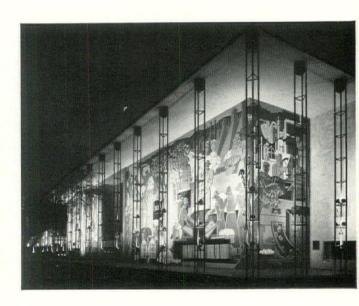
# CALIFORNIA AUDITORIUM











#### CALIFORNIA STATE BUILDING



STATE HALL

Roger Sturtevan

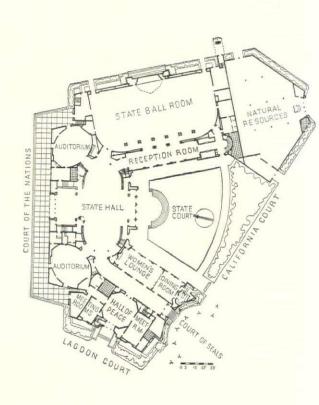


STATE COURT

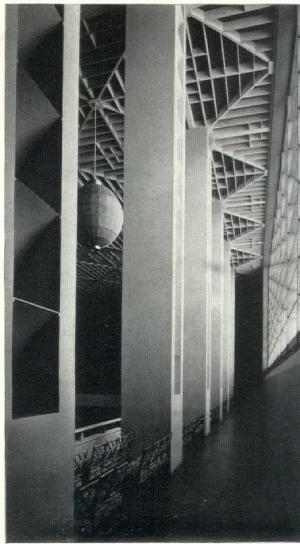
Sther Born

Official reception building of the Exposition is the California State Building, whose large mural paintings by Lucien Labaudt face a similar work by the same artist under the portico of the auditorium. The building contains the facilities required for official entertainments, offices, meeting rooms, auditoriums, and partly encloses a formal garden used for openair concerts and lectures. Frank in its expression of temporary construction, like the Federal Building it successfully combines official character with that of an exposition building.

AUDITORIUM AND STATE BUILDING: TIMOTHY L. PFLUEGER, ARCHITECT MURAL PAINTINGS: LUCIEN LABAUDT



STATE BALLROOM

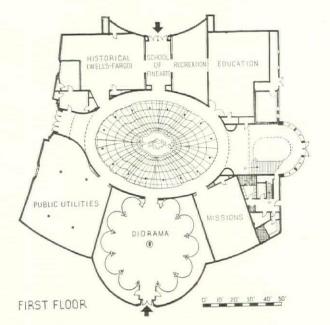


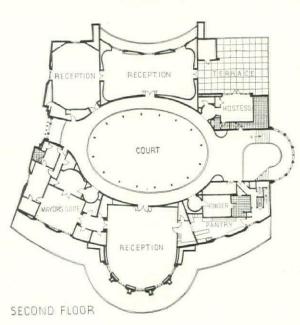
Roger Sturteva

# SAN FRANCISCO BUILDING



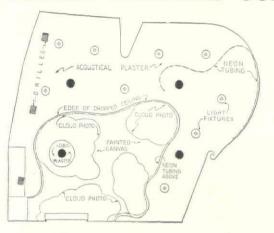
Han Lee



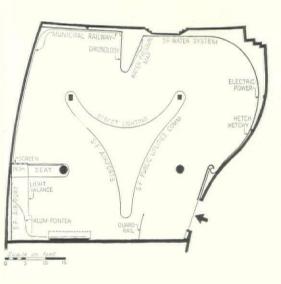


The main hall in the San Francisco Building, used for official city receptions. Executed in black terrazzo and stainless steel, the room has murals by Jane Berlandina and Ernest Born (below), a black terrazzo fountain with whales by Robert Howard and Cecilia Graham. Clarence A. Tantau was architect for the interior.

# PUBLIC UTILITIES COMMISSION EXHIBIT



PLAN OF CEILING







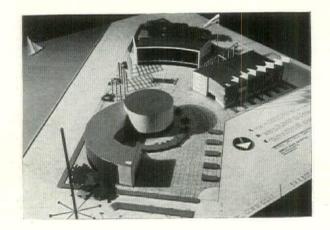
Esther Born Photos

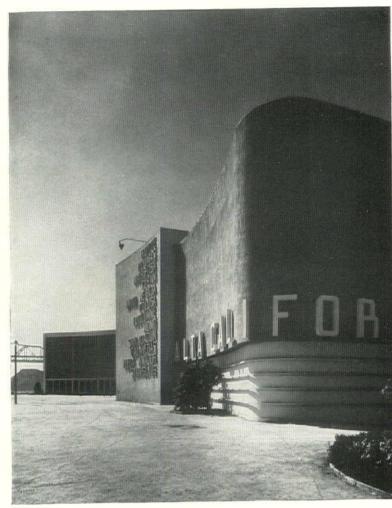
A "controlled-traffic" type of exhibit, developed to overcome the difficulties of an irregular space containing four awkwardly placed columns. The main problem was somehow to coordinate a mass of unrelated material, and to make it comprehensible and interesting. Charts, models, lighting, lettering and color were used most effectively, a good example being the illustration above which describes the administrative set-up of the Public Utilities Commission.

ARCHITECT: ERNEST BORN



# COUNTY BUILDINGS

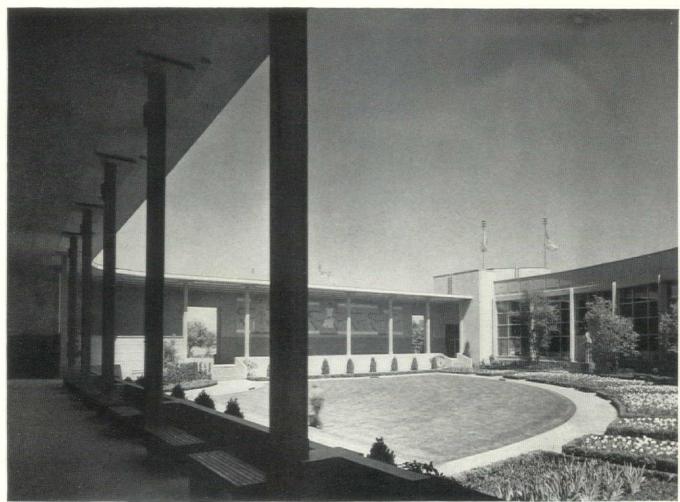




ALTA CALIFORNIA

SAN JOAQUIN VALLEY





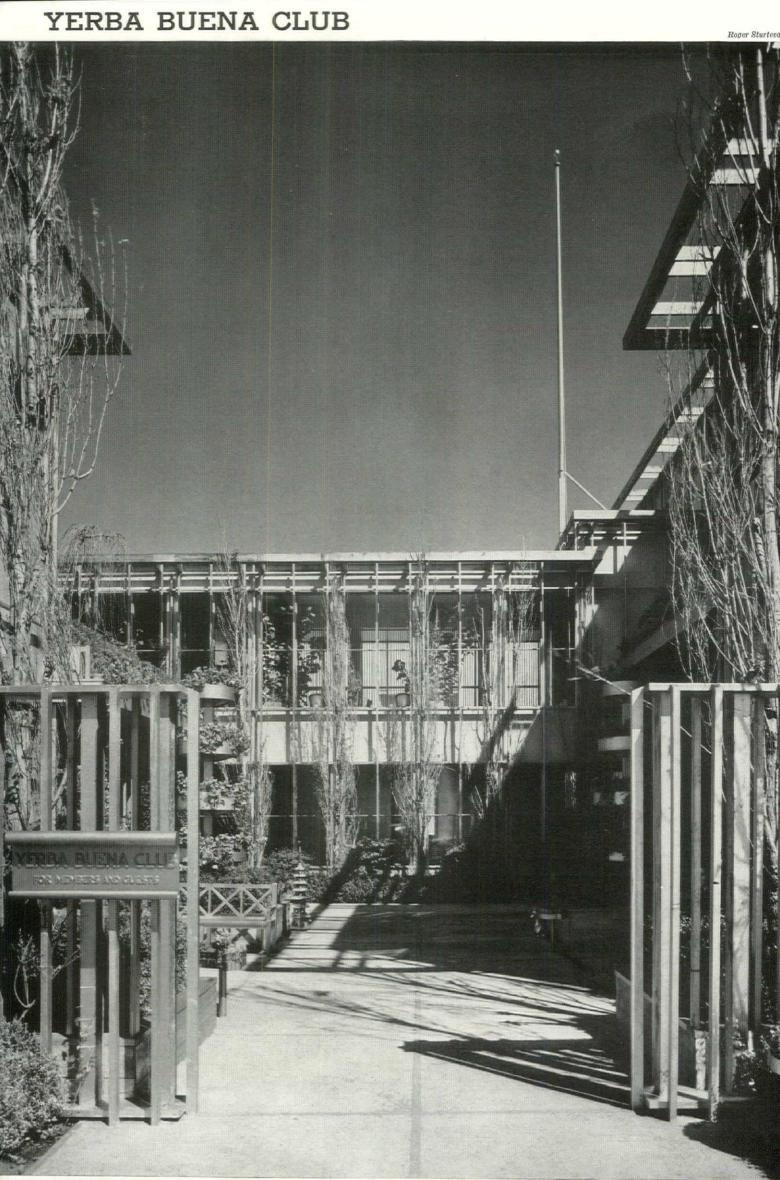
ALAMEDA AND CONTRA COSTA

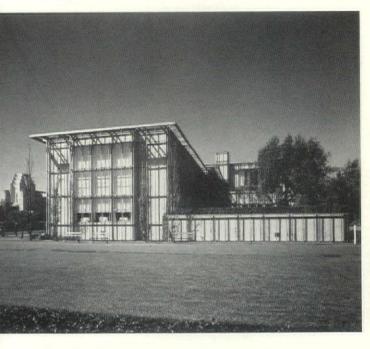
Roger Sturtevan

The California group occupies an entire section of the Exposition, and consists of about a dozen buildings. The Alta California pavilion shows an interesting design for a temporary building, its light construction well expressed by the set-back base, which clearly indicates the screen-like nature of the high wall above. Of equal interest is the curved glass front of the San Joaquin pavilion, the louver treatment serving to enliven the exterior as well as ventilate the inside. These two buildings were built substantially as indicated by the model; the third, devoted to Sacramento and the Lake Tahoe region, departed materially from the original design and is not shown here. Directly above is the pavilion for Alameda and Contra Costa Counties, a light, pleasant design with well shaded porticoes enclosing a formal garden.

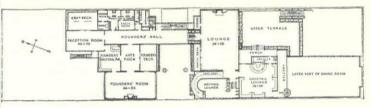
ALTA CALIFORNIA AND SAN JOAQUIN VALLEY: ERNEST BORN, ARCHITECT

ALAMEDA AND CONTRA COSTA: MORROW & MORROW, ARCHITECTS









SECOND FLOOR PLAN

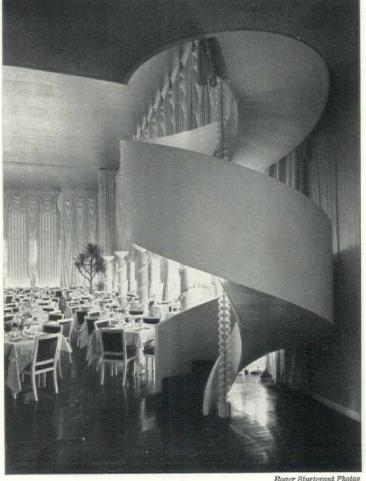


Not an exhibition building, this women's club is nevertheless one of the most distinguished temporary structures on the island. Enclosed largely in glass, with a light wood trellis around it, the clubhouse is one of the few to take full advantage of its waterside location.

ARCHITECT:

WILLIAM WILSON WURSTER INTERIOR DECORATOR:

MRS. FRANCES ELKINS



Roger Sturtevant Photos

# HALL OF FLOWERS



Esther Born Photos



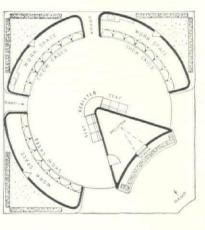
The Hall of Flowers makes notable use of celloglass, a material new to expositions. A straightforward, economical design, one of the most appropriate and successful structures in the Fair.

ARCHITECT: MARK DANIELS COLLABORATORS: FREDERICK CHAPMAN CLARENCE SEAGE





#### DEL MONTE EXHIBIT



The food products displayed in this exhibit are shown opened out in dishes, in a series of uniform showcases. The great number of foods manufactured by the company is indicated not only by these cases, but by the frieze of raised lettering which runs around the entire room. A series of gaily painted fruits and vegetables forms an attractive indication of the nature of the exhibit within, and provides a telling demonstration of the effectiveness of intelligent collaboration between architect and mural painter.

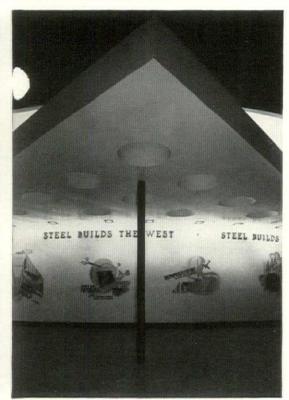
ARCHITECT: ERNEST BORN
COLLABORATORS: McCANN-ERICKSON
MÜRAL PAINTER: SQUIRE KNOWLES



Esther Born Photo

#### UNITED STATES STEEL CORP. WALTER DORWIN TEAGUE, DESIGNER



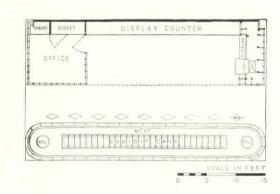


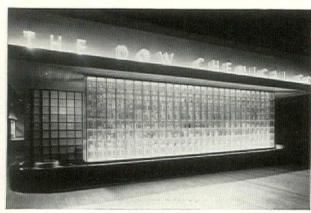
Roger Sturtevant Photos

Commercial exhibits are located, for the most part, inside the large permanent structures rather than in separate pavilions, a type of installation presenting special problems. The photographs on these pages indicate the variety of several of the most successful solutions.

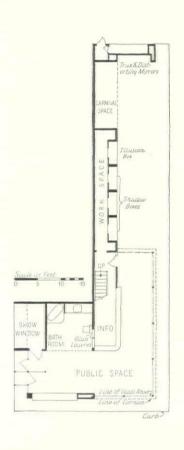
#### DOW CHEMICAL CO. ALDEN B. DOW, ARCHITECT







#### LIBBEY-OWENS-FORD GLASS CO. WAGNER & BURNETT, DESIGNERS

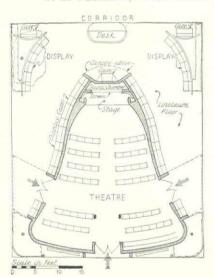


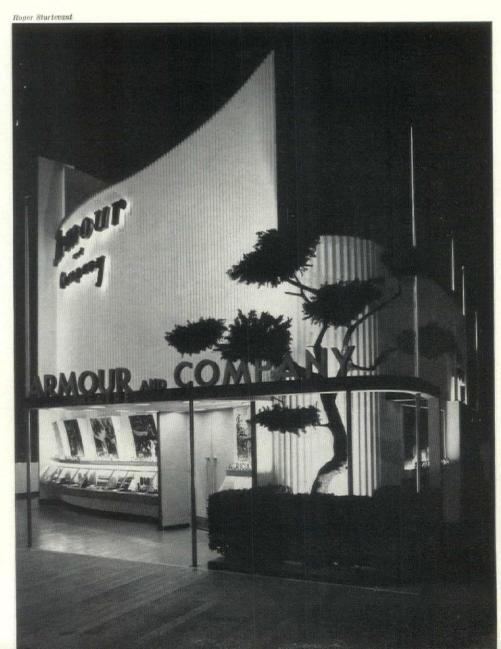


Gabriel Moulin

#### ARMOUR AND CO.

W. L. PEREIRA, ARCHITECT

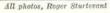


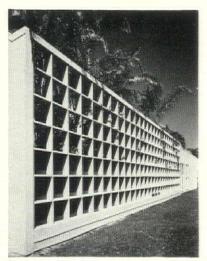


### UNITED STATES OF BRAZIL





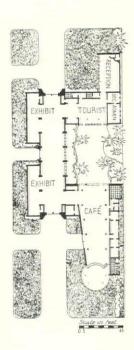




FENCE DETAIL



GARDEN COURT



For its chief attraction the Brazilian building relies on the café and elegant garden in which coffee and other native refreshments are served. Exhibits have been unobtrusively arranged in spacious and restful interiors. The serenity of the pavilion has made it a favorite with overworked fairgoers.

ARCHITECT: GARDNER DAILEY DISPLAYS: ERNEST BORN MURAL PAINTINGS: JANE BERLANDINA (INTERIOR) ROBERT HOWARD (EXTERIOR)

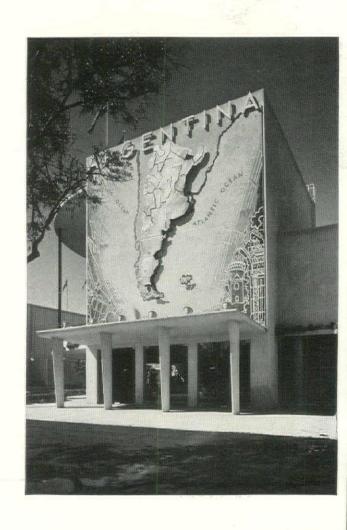
#### ARGENTINA



Roger Sturtevant Photo

Not the least of the merits of the Argentine pavilion is the striking manner in which the flavor of the country's modern architecture has been retained, the strong overhangs and the great curved bay recalling much of the recent work in Buenos Aires and other cities. Interiors are lofty, the main hall being lighted as in the building at the New York Fair, by circular openings in the ceiling. Doors of tempered plate glass, which have received their first large scale use in the 1939 Fairs, have been installed here with excellent effect. One of the most complete of the foreign pavilions, the building contains a shop, restaurant, library and auditorium in addition to the exhibition space.

ARCHITECT: ARMANDO D'ANS ASSOCIATE: WILLIAM W. WURSTER





MAIN HALL

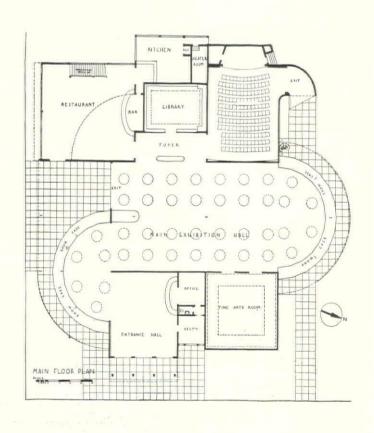
Roger Sturtevant Photos



ENTRANCE HALL

#### RESTAURANT

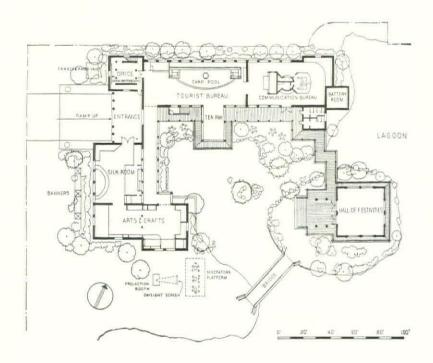


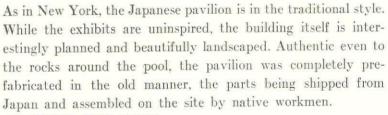


#### **JAPAN**



Esther Box



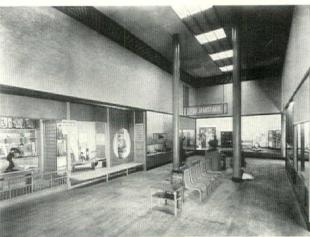


ARCHITECT: YUZO UCHITA ASSOCIATE: TATSUTO TOKI

COLLABORATOR: GENTOKU SHIMAMOTO



Esther Bor



Haas Schrein

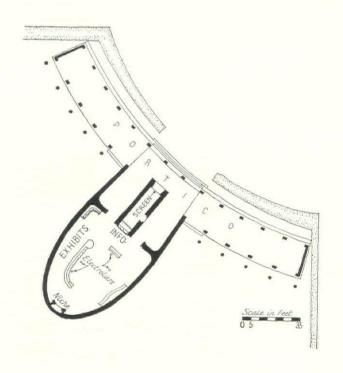
#### ITALY

Esther Born Photos

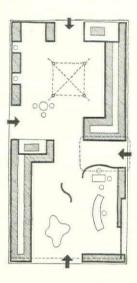
The Italian building is a tourist office, not a complete exhibit. It shows, nevertheless, the main characteristics of Italian exposition architecture: decorative and vigorous use of lettering, the handling of fine building stones in large, smooth planes, and a certain monumentality which is appropriate.

ARCHITECT: ALFIO SUSINI COLLABORATOR: PETER CANALI





#### CZECHO-SLOVAKIA





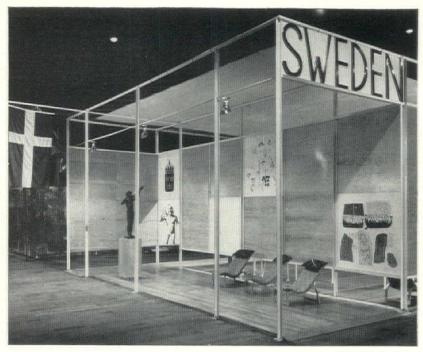
Roger Sturtevant Pho

Illustrative of modern design at its best are the Czechoslovakian and Swedish exhibits, both beautifully organized, finished with exquisite craftsmanship, both done with assured simplicity. Old Czechoslovakia is depicted in large photomurals, while the more contemporary aspects are shown by comparatively small displays of products, pictures and literature. Consisting largely of uniform cases, which bring order to quantities of unrelated objects, the exhibit also makes imaginative use of perforated metal sheets. The material is used for backgrounds, table tops and screens, unostentatiously suggesting the highly developed industrial character of the country. The exhibit was opened the day before the country was invaded, and is being maintained by the Czech community in San Francisco.

ARCHITECT: ANTONIN HEYTHUM COLLABORATOR: F. J. McCARTHY

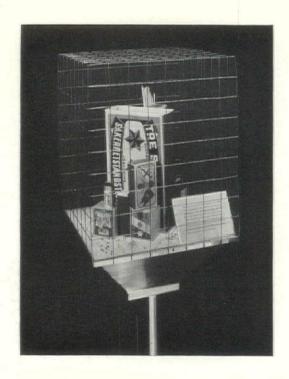




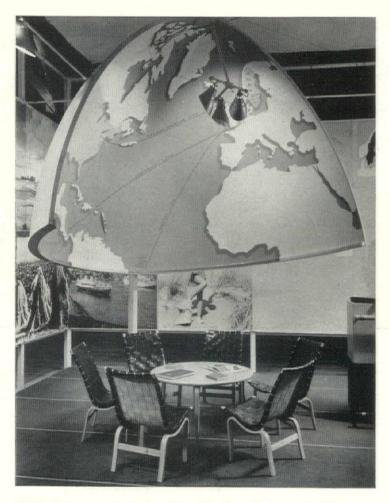


#### **SWEDEN**

Gabriel Moulin Photos





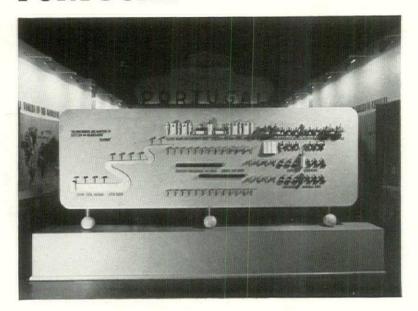


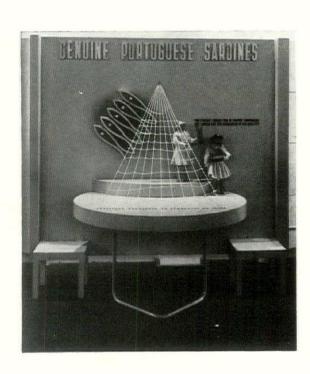
Large sheets of plywood in the Swedish exhibit perform something of the same function as the metal sheets on the opposite page; presenting one of the country's major resources, they also form an ideal background for the various displays. Characteristic products, such as the large scale matchbox, are shown on metal stands, enclosed in cages of square wire mesh.

ARCHITECT: BENGT GATE

N E I 9 3 9 499

#### PORTUGAL

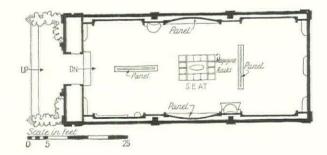








Roger Sturtevant Photos



The exhibit of Portugal is modestly housed in a small rectangular space, and relies almost exclusively on wall displays. While the technique of charts in relief has now become fairly common, the four illustrations above show a quality of design and craftsmanship rarely attained in this type of display. The three-dimensional exhibits are notable for their simple effectiveness.

ARCHITECT: JORGE SEGURADO.



"The Electric Home"—one of five General Electric equipped homes at the "Town of Tomorrow"

# MILLIONS WILL SEE WHAT ARCHITECTS ARE CHOOSING



General Electric kitchen in the \$16,000 house.



Utility room with General Electric oil furnace and air conditioning in the \$16,000 house.



General Electric kitchen in the \$6,000 house.



Utility room with General Electric gas furnace and laundry equipment in the \$6,000 house.

• At the N. Y. World's Fair Town of Tomorrow, five of the fifteen display houses are General Electric equipped. And those houses range in price from \$4,500 to \$16,000.

That means millions will learn what building dollars, wisely invested, can buy.

It means General Electric is gauged to meet tomorrow's living, whether in the small income brackets or in the luxury class.

It means G-E offers the entire building industry a wide selection of quality electric equipment at prices they want—G-E Wiring, G-E Kitchens, G-E Heating.

General Electric invites you to get full details of its wide range of electrical equipment, and to avail yourself of the special service offered through the General Electric Home Bureau. This service includes:

- An architectural engineering service by experts who check plans and make suggestions on wiring, heating, air-conditioning, lighting, kitchens and laundries.
- 2 A tested house merchandising plan to help sell houses.
- 3 An advertising service covering campaigns, layouts and copy easily adapted to individual needs.

Use the coupon for full details of the Home Bureau activities. It puts you under no obligation.



General Electric kitchen in the \$4,500 house.



Utility room with General Electric oil fired furnace and laundry equipment in the \$4,500 house.

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See the G-E House of Magic at the New York World's Fair or the San Francisco Exposition





#### MONTH IN BUILDING

(Continued from page 4)

Awaiting the outcome of Congressional legislation, USHA is carrying on business as usual. Month ago at the recommendation of USHAdministrator Nathan Straus, the President approved another installment of loan contracts valued at \$31,822,000, bringing the total to \$409,698,000. With the \$246,941,000 of outstanding earmarkings, the USHA has committed itself to lend a grand total of \$656,639,000. Last month's biggest loan contract was made with the Boston Housing Authority to defray 90 per cent of the \$12,804,000 estimated cost of five projects providing about 2,250 dwelling units.

Bigger USHA news, however, was the announcement that the Vincennes (Ind.) project will house 83 low-incomers at \$2.20 per dwelling unit per week—will thus "shatter all existing records for rentals charged in projects in Northern cities." Basis for this rental estimate is the approved construction bid which points to eye-opening unit costs for the one-story two-family concrete houses: \$3.500 per dwelling unit, over-all including land \$2,300 per dwelling unit, net construction \$800 per room, over-all; \$500 per room net construction.

ON THE FIRE. Builders and non builders alike have long wondered whether or not WPA building costs wer as low as those of private enterprise. Las month a questionable negative answer to that question came forward as the Hous Appropriation Committee investigating the relief agency stuck a probing finge into the cost of constructing two Nev York City public schools and two Nev York World's Fair buildings. For the actual probing, the committee called or Consulting Engineers A. W. Stephens and P. L. Hein of the Treasury Department' Procurement Division. They found that Public School No. 64 in South Ozon Park (in New York City's Borough o Queens) will be built by WPA at a cos of \$782,000, with labor accounting fo \$446,000 of the total, and that another public school of similar size and plan ha been built by private enterprise at a cos of \$441,000 with labor accounting fo \$176,000.

A visit to the Fair convinced the probers that the WPA-built WPA Building (95 per cent complete at mid-month cost 43.5 cents per cubic foot while the Federal Building, constructed under private contract, cost an even 20 cents. Of the basis of their findings, Engineer Stephens testified that the general efficiency of the examined WPA work was "in the neighborhood of 40 per cent."

Aroused by these belittling statistics New York's WPAdministrator Lieut. Co

(Continued on page 52)



# Haven't we met\_\_Locally?

OUR hats and coats are old friends. They've been together at civic meetings, at Rotary or Kiwanis luncheons, at gatherings where affairs of this community have been our common interest.

What interests you, interests us. Local business, community development, home ownership, home building, safety and other local matters are of deep concern to both of us. We are neighbors because we live in this community and because we are both sold on it and both work for it!

We represent hundreds of your fellow citizens—handle their savings safely at a better than average return. We loan money to buy, build, remodel and refinance homes—on a simple, red-tapeless, pay-like-rent plan. As specialists in saving and home financing procedure, we are permanent fixtures in your community dealing in security!

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You are cordially invited to review our lending services. We can offer you and the people you serve the kind of home loans you and they want. And you'll be amazed at the speed with which applications are approved here; at the prompt release of construction money; at the friendliness and convenience of our service. This service enables you to complete jobs days sooner!

A local member of the United States Building and Loan League is ready to serve you. That member wants a chance to prove to you the wisdom of recommending America's largest, most popular home financing agency to the people you advise.

ARCHITECTS—We handle home loans for those who are buying, building, modernizing or refinancing. Let's get together soon and talk over this friendly, prompt local home financing service.

Your Local SAVINGS OR BUILDING AND LOAN ASSOCIATION

When you support Your Local Savings or Building and Loan Association—You help local business!



the manufacture of porcelain enamel is an exact science

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facilities offer a latitude which enables the architect to design freely in a wide range of sizes, shapes and colors. Equipment permits the manufacture of quality porcelain enamel building parts that cannot be produced satisfactorily or promptly by ordinary methods.

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raw materials must meet strict specifications. Colors are prepared with scientific precision. Furnace temperatures are mechanically controlled. Each panel is formed to be blind-screwed in place and to fit a given condition on a specific job, insuring accurate fit, greater strength and durability. Units are self-supporting, inter-locking and mechanically perfect. The finished product is given rigid tests for impact, reflection, weather and acid-resisting properties.

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a trained, experienced architectural and engineering staff assists architects in obtaining unusual effects at minimum cost.

#### **EVERYWHERE**

on theatres, restaurants, stores and office buildings—both inside and out—exclusive, individual designs have been executed by Davidson. Central location insures prompt delivery to all points.

### DAVIDSON €NAM€L PRODUCTS INC.

#### MONTH IN BUILDING

(Continued from page 50)

Brehon B. Somervell barked a statement to the press punctuated with such adjectives as "absurd, silly, ridiculous" and prefaced by the declaration that "some of the things I would like to say could not be printed." What could be printed were Somervell's counter-arguments: 1) that the privately financed public school. which Engineers Stephens and Hein chose to probe, boasts the second lowest cost of any school of its size ever constructed in New York City, 2) that the WPA-built school will be completed with an effectiveness, based on contract cost, of from 75 to 80 per cent, 3) that WPA's Fair building will be one of the cheapest on the grounds and both proportionally and actually will have more equipment in it than will the Federal Fair building, and 4) that the 40 per cent efficiency accusation of Engineers Stephens and Hein was "75 to 100 per cent wrong."

Later in the month, when Engineers Stephens and Hein went back to New York City to microscope the cost of the new \$40 million North Beach Airport (\$26 million of whose funds will come from the Federal Government), WPA was still on the fire of House investigation. It came to a boil when Republican Representative John Taber of New York pointed out that the WPA building and exhibit at the Fair would eventually cost more than \$2.5 million-ten times the estimate of Federal WPAdministrator Col. F. C. Harrington. Claim is that to Harrington's original estimate of \$250,000 will be added \$320,-000 in construction costs, \$500,000 for the cost of exhibits, \$400,000 for the cost of shipping exhibits to the building and other unitemized costs. Commented Representative Taber: "That's a direct diversion of relief funds from the needy to advertise America's distress to the world.'

ONE UP. Like arguments concerning the priority of chicken vs. egg, the home ownership vs. rental debate will continue forever in a virtual deadlock. Last month, however, home owners took a leaf from the Federal Home Loan Bank Review. claimed to be one up on the renters. Thus, in analyzing the survey of "Family Incomes in Chicago, 1935-6," conducted by the U. S. Department of Labor, the FHLBB mouthpiece estimated that the difference between owning and renting comparable properties was \$224 a year. or about \$19 per month, in favor of ownership. Although this differential is not dollars and cents in the home owner's pocket, it must be added to his monetary income to provide a comparable basis for studying consumer purchases by both types of families—purpose of the Depart ment of Labor survey of one out of every

(Continued on page 54)





ARCHITECTS and builders attending the New York World's Fair are cordially invited to visit the Briggs Display Room, located on the ground floor of the Architects Sample Building, 101 Park Avenue at 40th Street, New York City.

Here a complete exhibit of Briggs Beautyware Formed Iron Plumbing Fixtures and a competent staff equipped to furnish you technical information, will enable you to appreciate thoroughly the many, practical reasons for the claim to distinction and popularity. Just six years ago Briggs electrified the plumbing industry by announcing a complete new line of fixtures—new in design—new in beauty—new in utility features—new in process of manufacture—new in two-tone pastel color combinations—the first basic improvements in a generation.

Thousands of installations in every section of the country establish the foresight and wisdom of architects, builders and owners who have found strength with lightness, functional design—the keynote of tomorrow—a reality in plumbing fixtures today.

For descriptive literature write Briggs, Detroit.



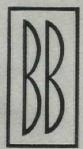
Briggs Beautyware

#### BRIGGS MANUFACTURING COMPANY

PLUMBING WARE DIVISION

DETROIT

MICHIGAN



#### MONTH IN BUILDING

(Continued from page 52)

ten Chicago families.

Other noteworthy facts gleaned from the FHLBB interpretation of the survey:

▶ The lowest income group, with annual earnings of less than \$1,000, added \$150 per year, or \$12.50 per month, to its income by owning rather than renting.

▶ Home ownership returns an economic addition to income sufficient to increase the total family earnings of the median family approximately 10 per cent.

▶ Due to changes in economic conditions and particularly to the upward trend of rents since the time of the survey (1935-36), the figures presented above would today more strongly favor home ownership.

▶ At a given income level, owners enjoy a higher standard of housing than do renters.

▶ Although home ownership is most prevalent among families with an annual income exceeding \$5,000, the keenest urge to own is found in the \$2,000-\$3,000 income group.

▶ Wage earners when provided with sufficient income prove to be the greatest home buyers.

INTERNATIONAL RENTS. To see, not how the other half of the world

lives, but to see how much it costs the other half to live, Real Estate Analyst Roy Wenzlick month ago looked into the rent bills of 33 European, African and Australian cities, found that the U. S. renter is not as over-burdened as he thinks he is. Thus, rents charged in Budapest, Hungary are the highest among the surveyed cities—about six times the U. S. average. Lowest rent was found in Cork, Ireland; next lowest, Chicago, Ill.

Excerpts from Wenzlick's international rent comparison—the number of hours a carpenter would have to work to pay a month's rent for a "Class A" four-room dwelling:

Sydney, Australia	34.6	hours
Montreal, Canada	25.8	hours
Paris, France	59.0	hours
London, England	42.0	hours
Budapest, Hungary	150.1	hours
Cork, Ireland	14.5	hours
Amsterdam, Netherlands	59.9	hours
Zurich, Switzerland	67.0	hours
Durban, Union of S. Africa	42.0	hours
Chicago, United States	19.3	hours
Denver	20.2	hours
Los Angeles	30.5	hours
New York	25.5	hours
Philadelphia	30.1	hours

It is to be noted that a "Class A" dwelling (containing a bath, a toilet, and inside running water) is beyond the reach

of a worker in some of the countries listed above and, furthermore, that in most cases the U. S. dwelling is more elaborate than its foreign counterpart.

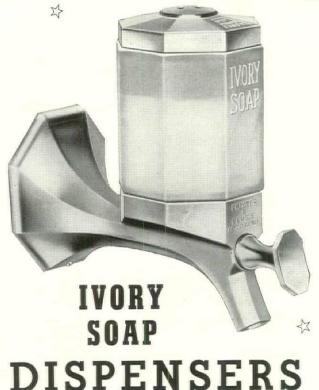
2.4 BILLION FEET. To encircle the earth 28 times with a 4 ft. wide boardwalk would be a silly undertaking-but it would vividly illustrate the amount of lumber blown down in six New England States by last fall's hurricane. The total is 2.4 billion board feet by estimate of the U.S. Department of Forestry-more than 1.5 times the amount produced each month by the lumber industry. And its value may be estimated at about \$30,-000,000 according to prices which the Northeastern Timber Salvage Administration (a Federal agency directing salvage and fire prevention) is placing upon the fallen timber-\$12-\$22 per 1,000 board feet depending upon species and grade.

Delving further into the scope of this unusual lumbering operation, the New York Herald Tribune recently found:

1) that about half the fallen timber is salvageable, 2) that 97.5 per cent of it is soft wood—principally spruce, hemlock and Norway pine, 3) that the balance is mainly maple, yellow and white birch and basswood; 4) that N.E.T.S.A. proposes to process some of the salvageable timber, hold the rest in wet storage and place it on the market gradually between now and

(Continued on page 56)

DESIGNED for the Public Washrooms of TODAY—and TOMORROW



**H**ere is a soap dispenser in keeping with the modern trend toward refinement in public washroom appointments. It effectively combines the elements of good design with the best in utilitarian features.

The Ivory Soap Dispenser has no parts to rust or tarnish or corrode. It is easy to install . . . easy to refill . . . low in first cost and in cost of up-keep. It delivers one of America's best known, best liked toilet soaps—pure, gentle Ivory Soap—in fine, free-flowing flakes or granules.

Whether you're designing washrooms for a new building or planning a modernization job, you'll find Ivory Dispensers equally suitable. A descriptive circular is yours for the asking. Or see Sweet's Catalog for detailed specifications.

#### PROCTER & GAMBLE

Industrial Sales Dept.

Gwynne Bldg., Cincinnati, Ohio

# GAS REFRIGERATION

TURNS Tenants
NTO Boosters

Servel Electrolux assures tenant satisfaction!





### Tenant

"I have been using Servel Electrolux for four years. I can honestly report that the operating cost is just as little today as it was when I moved in. Another thing I like

about the gas refrigerator is its silence. You never hear a thing."—Mrs. M. A. Chermak, 2459 E. 21st St., Brooklyn, N. Y.

### Builder

"Our experience over many years with automatic refrigerators has sold us completely on Servel Electrolux gas refrigeration for our properties.



Being the only refrigerator with no moving parts in its freezing system, Servel is the only one that can give our tenants permanently silent operation."—Harry A. Taylor, 520 Main St., East Orange, N. J.

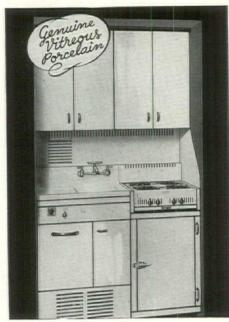
- NO MOVING PARTS

   in its freezing system
- PERMANENT SILENCE
- CONTINUED LOW OPERATING COST
- YEARS OF DEPENDABLE SERVICE
- SAVINGS THAT PAY FOR IT

The
SERVEL
ELECTROLUX
Gas Refrigerator

SPECIFY THE REFRIGERATOR THEY HEAR ABOUT - BUT NEVER HEAR

#### MURPHY CABRANETTE



Wide range of sizes

All exposed surfaces in genuine vitreous porcelain; lifetime finish that will not scratch or fade. Shown above is No. 480, the most compact of all complete kitchens. Only 48-in. wide. Occupies only 8 sq. ft. floor space. Oven in base assembly for convenience and safety. 4 cu. ft. refrigerator with hermetically sealed electric unit. Gas or electric range. Upper cabinet full width with 12 sq.ft. shelf area.



MURPHY CABRANETTE "400"

Streamlined beauty in  $\alpha$  self-contained kitchen. Electric refrigeration, cooking range and storage space. Comes with and without sink.

Write for Literature

Distributed by

MURPHY DOOR BED COMPANIES and MURPHY CABRANETTE DEALERS Everywhere

Manufactured by

DWYER PRODUCTS CORP. Michigan City, Ind.

#### MONTH IN BUILDING

(Continued from page 54)

1944. Aim is to disturb as little as possible lumber industry price levels.

Tabulation by States of the extent of the forced logging business puts New Hampshire far in the lead:

	Million Down	Feet Lumber Salvageable
Connecticut	150	50
Maine	50	45
Massachusetts	880	400
New Hampshire	1,005	620
Rhode Island	60	40
Vermont	260	110
	2,405	1,265

Of more interest to non-lumbermen was the *Tribune's* findings that the hurricane reduced the physical valuation of 904 New England communities in 51 counties, that 20 per cent of the normally tapped Vermont maples had "gone with the wind."

**EARNINGS.** Reflecting improved Business in general and improved Building in particular, 27 of the 33 building supply manufacturers who last month issued first quarter statements earned more money than during the corresponding months of 1938. Herewith their earnings:

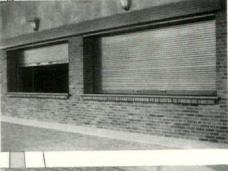
Quarter ending March 31	1939	1938
Air Reduction	1,027,255	795,590
Allis-Chalmers	710,277	1,403,649
Alpha Portland Cement <sup>1</sup>	441,468	138,261
American Cyanamid	1,040,478	94,077
American Radiator-		
Standard Sanitary	126,579	649,597*
American Rolling Mill.	793,479	197,310*
Anaconda Wire & Cable	77,161*	309,790*
Bethlehem Steel	2,409,059	994,908
Briggs Mfg	958,047	317,007
Climax Molybdenum	1,257,524	1,991,806
Continental Steel	279,178	55,208
Eastern Rolling Mill	28,017*	86,225*
Electrolux	443,913	668,246
Flintkote <sup>1</sup>	102,494	3,397
Formica Insulation	45,683	11,965*
General Electric	7,373,431	7,075,739
Hercules Powder	1,087,322	656,027
Johns-Manville	125,118	239,475*
Kimberly-Clark	598,660	584,677
Lehigh Portland		
Cement <sup>2</sup>	1,043,234	807,560
Libbey-Owens-Ford		
Glass	1,722,780	371,527*
Lone Star Cement	647,029	726,237
Midland Steel Products	540,966	171,881
National Gypsum	190,198	112,175
National Steel	2,426,669	1,088,636
Owens-Illinois Glass <sup>2</sup>	5,948,560	7,646,782
Pittsburgh Steel	377,159*	277,230*
Republic Steel	532,899	3,062,564*
Reynolds Metals	193,933	157,603
Truscon Steel	20,418	395,144*
U. S. Gypsum	990,696	688,348
Westinghouse		
Electric & Mfg	2,356,150	2,031,230
Wheeling Steel	828,661	531,035*

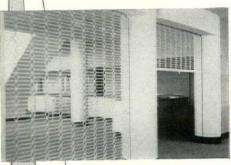
1-12 wks. to March 25 2-12 mos. to March 31

\* net loss

# DOORS by KINNEAR in the







Basic principles don't change. Just as the wheel revolutionized land travel, interlocking steel slat doors that coil compactly overhead - originated by Kinnear - brought a basic improvement in service door design . . . upward action at its best! Through this advanced construction, Kinnear Steel Rolling Doors brought maximum savings in floor and wall space; extra protection against fire, theft, the elements, and wear; reduced exposure to damage by wind or trucks; and greater all around ease, convenience and efficiency of operation. And because these advantages are basic, Kinnear Rolling Doors will continue to provide outstanding, economical door performance in the world of tomorrow — as they have for the past 40-odd years. Call Kinnear on Door Problems.

The upper photo shows one of several Kinnear Rolling Doors used on the food bars in New York State's ultramodern Amphitheatre and Exhibit Building at the New York World's Fair. The Kinnear Rolling Grilles, which also feature Kinnear's efficient, coiling upward action, are in the dining room of the beautiful YMCA Building.

#### The KINNEAR MFG. CO.

1640-60 FIELDS AVE. - COLUMBUS, OHIO

AGENTS IN ALL PRINCIPAL CITIES
FACTORIES: COLUMBUS, OHIO: SAN FRANCISCO, CAL.

### ANOTHER DEVELOPMENT!!





Attach to header plate by nailing at top with



Expand by pulling down until stitch lines are taut.



Nail at bottom and cut off with hatchet, scissors, or knife.

• Kimsul\* has been proved one of the most important developments in building insulation, because its expandable feature speeds up the work of installing so greatly that time and labor costs are noticeably lessened. Now comes a further development . . . Presstitched Kimsul.

Before being compressed, each width of Kimsul is now stitched its entire length with rows of strong twine, four inches apart, which is approximately 20 times stronger than required to support its weight, making Kimsul

Even More Permanent. Inexperienced workmen can hardly fail to install Presstitched Kimsul so as to get the full value of its unusual insulating efficiency. For this stitching helps hold Kimsul in its proper position permanently.

Prevents Over-Expanding. Presstitched Kimsul can be expanded only to the length which provides its most efficient density . . . and no farther.

Again Speeds up Work. Experience on actual jobs shows that the Presstitched Kimsul can be applied faster than ever before . . . and is usually a one-man job.

This new development, added to its other advantages, makes Kimsul more outstanding than ever among good building insulations.

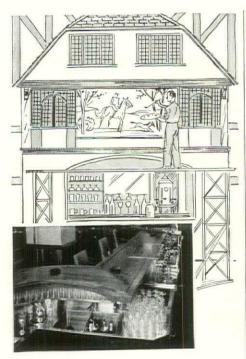
\*Reg. U. S. & Can, Pat, Off.

HISTOCIANO III			POUTTECTS
	INTEREST	TO	ARCHITECTS

Presstitched Kimsul is available in widths to OF SPECIAL INTE fit snugly between studs of a standard spacing ... and in thicknesses (when expanded) of 1/2, 1, 11/2, and 2 inches. In using Kimsul, the correct width and thickness for each job is thus available.

		shed 1872	on), Neenan, Wisc	onsin
NEW YORK, 122 E	ast 42nd Street •	CHICAGO, 8		venue AF6
Mail me, without obligation, copy of	Name			
booklet describing Kimsul, also a full	Address			
sized sample.	City		State	
PLEASE CHECK-	ARCHITECT	RIUDE	DENTE	

KIMBEDIA CIADA CODBODATION (A: 15: ...)



### DESIGN

THE effectiveness of most of the World's Fair buildings is based upon design.

Complete harmony of the design and decoration of cafeterias and lunch rooms extends to the equipment. Its design and proportions must be in keeping with the general motif of the room . . . or the entire effect may be ruined.

When properly designed, the equipment can add to, rather than detract from the harmony of the whole.

This is especially true of grill rooms, coffee shops, cafeterias and lunch rooms where the service equipment is exposed to the customers' view.

Have you such a design problem confronting you now?

### The John Van Range @

328 EGGLESTON AVE., CINCINNATI, OHIO Branches in Principal Cities

#### FORUM OF EVENTS

(Continued from page 22)

#### AWARDS

To Alfonse Maranhas, student at the Vesper George School of Art, Arlington, Mass., first prize (\$100) in a competition among students of interior decoration sponsored by James Blauvelt and Country Life, for a modern dining room in a hunting country. Second prize (\$50) to Patricia Hergert, University of Washington, Seattle; to Celeste Fulton, also of the University of Washington, and to John R. Ficken, Chicago Academy of Fine Arts, honorary mention prizes of \$25 each.

To Lars Erik Lallerstedt, architect, of Sweden, a Traveling Fellowship of the Sweden-America Foundation to study hospital architecture in New York, Chicago Boston, and Springfield, Mass.

To Albert Kennerly of New York, fourth year student in the School of Architecture, Columbia, the Charles Peck Warren Medal, highest competitive award in construction.

To Victor Curtis Gilbertson, Washington University, St. Louis, Mo., the James Harrison Steedman Traveling Fellowship in Architecture, by a jury composed of Dean Sherley W. Morgan and Prof. Jean Labatut of Princeton, and J. André Fouilhoux of New York. Subject of the competition was A School of Fine Arts in Washington, D. C. Joseph Marlow was runner-up.

To Paul B. Brown of Highland Park, Mich., the Booth Traveling Fellowship for 1939, by a jury of Detroit and Lansing architects and faculty members of the School of Architecture, University of Michigan. Frank White was placed second; J. Edward Luders, third. The problem: An Aviators' Club.

To J. ROBERT McCloskey of Hamilton, Ohio, the annual Fellowship in Painting of the American Academy in Rome. Mr. McCloskey is 25 years old, and studied at the Vesper George School of Art, Arlington, Mass., and the National Academy of Design in New York.

To Robert Pippinger of Plymouth, Ind., the annual Fellowship in Sculpture of the American Academy in Rome. Mr. Pippinger is 27 years old, studied at the John Herron Art School, Indianapolis, and for the past year has traveled in Europe on a School scholarship.

To I. N. Phelps Stokes, a Gold Plaque, by the Fine Arts Federation of New York, "in grateful recognition of his architectural (Continued on page 60)

# Yours for Bigger Living Rooms

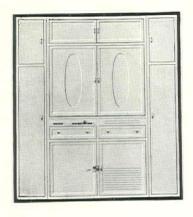


Patented and Patents Pending

ighty feet of floor space for your apartment kitchens—or less than eight? . . . Four or five separate kitchen units—or Pureaire with all units in one beautiful, compact, immaculate steel cabinet? . . . Choose Pureaire and you automatically free more than 70 square feet for closet and living room space—70 feet at no extra cost whatever. And how tenants do appreciate that added space! . . Pureaire itself always helps you get tenants and hold them.

Housewives simply love its step-saving compactness, its highest quality equipment, its safe, odorless cooking and its ability to blend out of notice into the wall when its steel doors are closed... De Luxe Pureaire models come with one or two beautiful matched steel cupboards for dishes... Investigate!

#### THE PARSONS COMPANY



Gureaire KITCHEN

# SEE A HEATING BOILER ACTUALLY MAKE STEAM

A "Hit" of the New York World's Fair ... Kewanee Residence Boiler ... with glass observation Portholes above and below the water line.

One of the "Hits" of the Fair is the Kewanee Exhibit, in the American Radiator and Standard Sanitary Building. on the Avenue of Patriots, where the Kewanee "Bubbling" Boiler will provide most people with the first chance they have ever had to see a boiler actually make steam.

Everyone has seen the outside of a boiler . . . and most people have seen inside the fire chamber. NOW, at the New York World's Fair, everyone has an opportunity of seeing a heating boiler actually make steam . . . of seeing steam created, bubbling up through the water ... then passing into the capacious steam chamber.

Kewanee Type"R" Boiler GA134 in Special Rex Smartline Tacket with Pvrex Portholes above and below water line.

1-A Kewanee Gas Burner 180,000 Btu. with complete controls for Automatic

Equipped with No. Kewanee Condenser . . . Arco Copper Pipe and Fittings . . . Fiberglas blanket insulation around boiler.

Years ago, to definitely know just what happened inside, the first "Bubbling" Boiler was built by Kewanee Engineers. For many years such boilers have been used in the Kewanee Laboratory . . . contributing much to the scientific study which has made possible the perfect design of Kewanee Boilers of today.

Now, one of these boilers, which heretofore has been used only in the Kewanee Laboratory and in a few cases in exhibits to Architects, Engineers, and Contractors, may be seen by the general public. That it is exceedingly interesting is proved by the crowds which have surrounded this display from the opening of the Fair.

DIVISION AMERICAN RADIATOR & STANDARD SANITARY CORPORATION

## designers FORUM

we wish to express our appreciation for your confidence in allowing us to work with you in producing the lighting of the following exhibits at the world's fairs.

at new york city

#### CHILDREN'S WORLD

E. I. DUPONT DE NEMOURS & co., inc.

EASTMAN KODAK CO FORD MOTOR CO METROPOLITAN LIFE

insurance co.

NATIONAL CASH

register co.

UNITED STATES STEEL

corp

san francisco

#### FORD MOTOR CO.

E. I. DUPONT DE NEMOURS & co., inc.

UNITED STATES STEEL

orn

the close relation of lighting as a dramatic, decorative medium to modern architecture requires the skill and experience of competent and specialized lighting engineers and designers to fully express the architects' and designers' intentions.

designers and manufacturers of contemporary lighting

373 fourth avenue, n. y. c.

kurt versen co.

#### FORUM OF EVENTS

(Continued from page 58)

contributions to this city, his authorship of 'The Iconography of Manhattan Island,' his fruitful labors on the Art Commission of the City of New York, member for 24 years, president from 1929 to 1938, and at all times a devoted citizen."

This is the second time the Federation has awarded its Gold Plaque for distinguished service. Several years ago Mayor La Guardia was the recipient.

#### COMPETITIONS

SMITHSONIAN GALLERY OF ART. For winners in the first stage see page 28.

First of the Government's Regional Competitions. Announcement was made on May 10 by the Treasury Department, Procurement Division, Public Buildings Branch, of a competition open to qualified architects of seven States for the design of a Post Office and Court House Building at Leavenworth, Kan.

This is the first of a series of Regional Competitions, announced some weeks ago by Secretary Morgenthau, with the purpose of enlisting all of the country's architectural ability in the design of its public buildings. The present competition is in Region No. 8, which includes the following States: Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas.

It is unfortunate that the competition was announced at a time which prevented its being made a matter of immediate news in the professional architectural journals. News releases concerning it, however, were sent to every daily newspaper in Region No. 8, so that the profession is presumably informed of the fact that a program is available by addressing Procurement Division, Public Buildings Branch, Washington, D. C.

In order to enter this competition, architects must apply by letter or by telegram, the applications addressed as above, and marked "Architectural Competition." Included with this letter there must be a photographic copy of the applicant's certificate of registration or, in the case of unregistered architects, other evidence of qualifications.

This program, prepared by Louis A. Simon, acting Professional Adviser, sets forth the requirements concisely and clearly, for a building of not over 413,000 cu. ft., to be built at an expected cost of \$248,000. The program contains a site plan, a plan of the whole business district in which the site is located, with arrows indicating the location of the camera when the photographic illustrations were made. These give a clear visualization of the proposed building's surroundings.

(Continued on page 68)



### TWO New Gas-Fired Winter Air Conditioners

- The "Aristocrat," illustrated above, is entirely redesigned to incorporate refinements that afford every convenience, together with improved efficiency and greater fuel economy. Cast iron heating element assures durability and safety. Finished in smooth gray enamel.
- The "Special," priced for the average home, is equipped to produce superior winter air conditioning at low cost, Finished in smooth buff enamel.

In addition, Moncrief offers the "BAC" Gas-Fired Winter Air Conditioner, still further favorably priced; and the "GG" Gravity Gas Furnace.

Moncrief also makes winter air conditioners specially designed for burning oil or coal-all priced to present plus values.

Moncrief
Engineering
Service is freely
available to
architects and
builders.

Write for new literature just off the press.

THE HENRY FURNACE & FOUNDRY CO. 3485 E. 49th St., CLEVELAND, OHIO

# 26" BUCKET BRIGADE" in this house!



NEW BARB-LOCK SHINGLE PROVIDES REAL ROOFING PROTECTION

Protection and beauty are the two important things about a roof.

The new Barber Genasco Barb-Lock Shingle provides both.

# BARBER Genasco PRODUCTS

Nationally advertised Barber Genasco Products, made with The Vital Element, include: Bonded and other types of Built-up Roofings, Shingles, Sidings, Roll Roofings. Other Barber Asphalt Products include: Waterproofing Asphalts and Fabrics, Resaturator, Resurfacer, Asphalt Protective Products (Plastics and Liquids), Spandrel Beam Waterproofing (Spandrel Cloth and Cement).



#### Quaint "Thatched" Effect

The new Barber Genasco Barb-Lock Shingle tops-off the beauty of the house with a deep "shadow line" and a thatched effect reminiscent of old Holland.

#### Seven Beautiful Colors

To suit the most exacting taste, the new Barb-Lock is offered in a variety of colors that are sure to please.

#### **Patented Locking Device**

Here's a shingle that will stay down! A simple, ingenious foldunder locking device fastens each shingle to the adjoining shingles.

#### **Drip Edge**

An accentuated drip edge diverts water away from the betweenshingle laps, and is designed to prevent damaging accumulation of rain or snow under the shingles.

#### The Vital Element

Barber Genasco Roofings, and no others, offer the superb protection of genuine Trinidad Native Lake Asphalt — The Vital Element.

That's why you can count on the new Barb-Lock Shingle to give years of service inany climate. For full details, address:
Barber Asphalt Corporation, Barber, New Jersey.



peaking of stores



AZROCK floors are attracting trade and smoothing the way to better sales in shops and stores everywhere. Note how their clean-cut inviting appearance effectively aids in merchandise display. And AZROCK'S good looks remain clean-cut, inviting, bright and fresh! The durable strength, which is modern mastic tile's outstanding quality, has an able partner in the beautiful colorings which penetrate the entire thickness of tile for permanence.

Available in a wide variety of these plain and marbleized colors and in a number of different sizes, AZROCK lends breadth and scope to the architectural urge for individuality of design.

Ideal for floors that must be laid below grade..ideal for cleaning the muddy marks of rainy weather . . AZROCK floor coverings are moisture-proof. Fire-resistant, set micro-close by a special exclusive process, AZROCK is safer, sanitary, easily cleaned, maintained at a minimum of expense. Marks of burning cigars and cigarettes are readily erased. AZROCK costly? No indeed. It is definitely the floor of economy! Only sold installed. Write for name of your local distributor.



Manufactured by

Uvalde Rock Asphalt Co.

(In Business Since 1912)

Gen. Offices: San Antonio, Texas; Mines: Blewett, Texas; AZROCK Plant: Houston, Texas; Distributing Contractors: in principal cities of U. S. A.





Some of the problems put up to Westinghouse in connection with the New York World's Fair and the Golden Gate Exposition are not the sort a company usually encounters in the course of the day's work.

Imagine being asked to supply the exterior lighting equipment for a vast Perisphere as high as an eight story building. Think of the engineering required to build the highest electric stairway in the country. Or, consider the difficulties involved in developing a "Carry-Go-Round" that would seat 598 at one time and transport 30,000 people a day through the traffic world of tomorrow.

These are just a few of the contributions that Westinghouse has made to the two Fairs. As you make the rounds you will see the hand of Westinghouse everywhere: painting the architecture with light, controlling fountains, air conditioning buildings, providing the operating equipment for many of the most important exhibits.

A few of these Westinghouse applications are illustrated and described on the following pages. And while you're jotting down notes of interesting things to see at the Fairs be sure to include Westinghouse's own exhibits. They're brimful of new and practical ideas for architects and builders.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, EAST PITTSBURGH, PA.





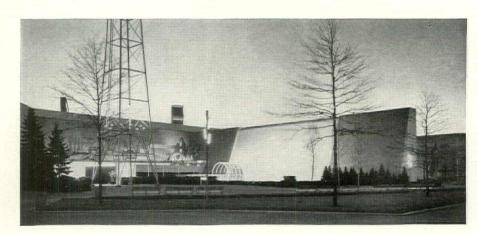
WESTINGHOUSE EXHIBIT, GOLDEN
GATE INTERNATIONAL EXPOSITION

## These and Many More World's Fair Exhibits

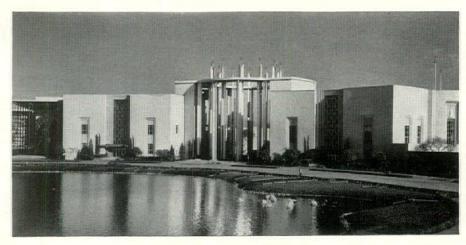


THE PERISPHERE, theme symbol of the New York World's Fair, glows at night like a great incandescent ball. Westinghouse equipment provided the exterior illumination for this mammoth structure.





HISTORY OF ELECTRICITY is graphically portrayed in the Electric Utilities Exhibit Building at the New York Fair. All the major electric utilities of America co-operated in this interesting presentation. And practically all the electrical equipment used inside and outside the building was furnished by Westinghouse.



STATE OF CALIFORNIA BUILDING

Beautiful though it is in the daytime, the California State Building at the San Francisco Fair takes on an even greater majesty when illuminated at night. Westinghouse floodlights are used, with the Court of the Great Seal specially spotlighted by Westinghouse searchlights of 1,000 watt-capacity.

#### AN ACTUAL OIL

WELL is featured as part of the exhibit of the Petroleum Industry at the New York Fair. Westinghouse supplied complete electrical equipment for the drilling rig and also collaborated on the beautiful exterior lighting.

#### THE FAMOUS FLORIDA CLIMATE

couldn't be shipped to the New York Fair. So the state did the next best thing — which was to have Westinghouse air-conditionits building.



#### MOTORS AND CONTROL

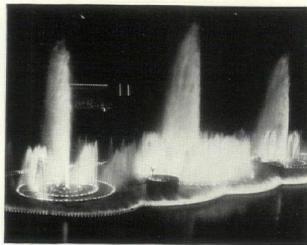
AT THE NEW YORK FAIR Westinghouse motors and control equipment were selected for: Perisphere Spectator Platforms • The Lagoon of Nations • Fountain Lake Display • Consolidated Edison Company • "Water Ballet" • Electric Utilities Building Dam and Water Falls • Florida Building Fountain • Italian Building Cascades • H. J. Heinz Company Fountain. AT SAN FRANCISCO: Fountain of Western Waters • Rainbow Fountain • Lake of Nations • Cavalcade of the Golden West.

#### LIGHTING EQUIPMENT

AT THE NEW YORK FAIR Westinghouse lighting equipment was selected for: The Perisphere \* U. S. Government Building \* Court of Peace \* Electric Utilities Exhibit \* Florida Building \* Lagoon of Nations \* Plaza of Light Fountain \* Roumanian Building \* Russian Building \* New York City Building Fountains \* World's Fair Corporation Buildings.

AT SAN FRANCISCO: U. S. Government Building California State
Building Administration Building Exhibit Palaces.

# use Westinghouse Electrical Equipment



A SYMPHONY OF MUSIC, WATER, FIRE-WORKS AND LIGHTS is put on nightly in the Lagoon of Nations at the New York Fair. Twenty tons of water are tossed into the air at one time. Westinghouse supplied the lighting and power equipment for this fountain.



HIGHEST ELECTRIC STAIRWAY IN COUNTRY carries the throngs which go up into the Perisphere. It is a welcome convenience for sightseers who step on at the bottom and find themselves at the top without further effort. It has a travel of 120 feet. Then there's another electric stairway of 96 feet. Westinghouse built them both.



80-FOOT COLUMN OF WATER thrusts itself skyward in the majestic Treasure Garden Fountain at San Francisco Fair. Westinghouse supplied the motors and controls for this fountain.



30,000 PEOPLE PER DAY is the capacity of the "Carry-Go-Round" which Westinghouse provided for the General Motors Building at the New York World's Fair. Other equipment for this exhibit includes 3 elevators, 4 electric stairways, 2 turntables and 2 loading platforms for spectators.



TOASTING ISN'T ALL

In order to demonstrate the manufacture of cigarettes under the most ideal conditions, The American Tobacco Company selected Westinghouse to supply the air conditioning equipment for its New York World's Fair Building.

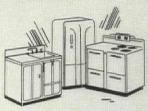
# Westinghouse

THE NAME THAT MEANS EVERYTHING IN ELECTRICITY



### AIR CONDITIONING EQUIPMENT

AT THE NEW YORK FAIR
Westinghouse air conditioning equipment was selected
for: American Tobacco Company Building ° Electric
Utilities Building ° Florida
Building ° British Building °
Roumanian Building ° Russian Building ° Czechoslovakian Pavilion.



#### HOME APPLIANCES

AT THE NEW YORK FAIR Westinghouse Home Appliances were selected for Electric Farm, Sponsored by Edison Electric Institute • Houses No. 17 and 21 In The Town of Tomorrow • Glass Inc. Exhibit • H. J. Heinz Company Exhibit • Street of Tomorrow.
AT SAN FRANCISCO: H. J. Heinz Exhibit • Standard Brands Exhibit



#### ELECTRIC STAIRWAYS AND ELEVATORS

AT THE NEW YORK FAIR Westinghouse supplied the following electric stairway and elevator equipment: Perisphere—2 Westinghouse electric stairways French Pavilion—4 Passenger elevators, 1 Freight elevator, 4 Electric stairways General Motors Building—1 Passenger elevator, 1 Automobile lift, 2 Stage turntables, 4 Electric stairways, 1 "Carry-Go-Round" Roumanian Building—1 Passenger elevator Westinghouse Building—2 Electric stairways.

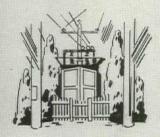
AT SAN FRANCISCO — Westinghouse Exhibit — 1 Passenger elevator.

# Everywhere around the Fairs IT'S WESTINGHOUSE



### TRANSPORTATION

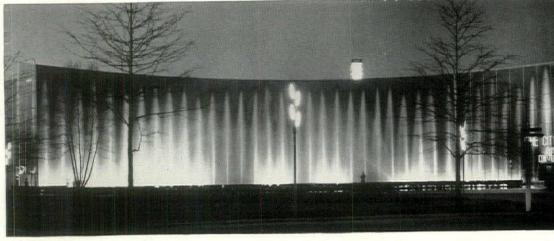
FOR THE NEW YORK FAIR Westinghouse supplied the following transportation equipment: 50 complete multiple unit subway car equipments including 100—125 HP type 336-A-1 motors, and 50 type ABF control equipments 116 sets repair parts for B.M.T. cars, to recondition for Fair traffic 1 complete electrical dynamometer equipment for testing locomotive power output, speed, etc. Used in Railroad Exhibit.



#### DISTRIBUTION SYSTEMS

FOR THE NEW YORK FAIR GROUNDS Westinghouse supplied the following dis-tribution equipment: 12 Type B-22-B, 600 ampere oil circuit breakers for feeder protection 400 specially designed boric acid type 3pole fuse assemblies, and 400 ampere, 7500 V. normal rating, interrupting capacity 25,000 to 50,000 amperes 50 primary metering equipments, 4160 V., 3-phase with graphic or indicating demand attachments 200 secondary 208 V., 3-phase metering equipments, with attachments 85 single and 3-phase, 4160 V. 120-208 V. distribution transformers, totaling 14,-000 kw. 1 complete circuit breaker control equipment for Independent Subway System, for extension to World's Fair grounds \* 2 complete 1600-A network equipments, including transformers and distribution board circuit breakers for the Ford build-1 complete distribution switchboard and panel-board equipment for World's Fair Administration Building.

FOR THE SAN FRANCISCO FAIR GROUNDS Westinghouse supplied: 100 Transformers with a total capacity of 13,000 kv-a. Individual units range from 37½-kv-a to 333 kv-a.



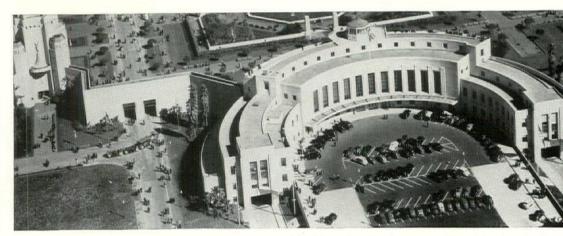
"WATER BALLET" fittingly describes the spectacle which is staged right outside the Consolidated Ediso pany Building at the New York Fair. Motors and control for the driving pumps were supplied by Westin



KITCHENS OF MANY AGES are portrayed in the H. J. Heinz exhibit — all leading up to a modern kitchen which is Westinghouse equipped with electric refrigerator, range and dishwasher. This inviting display may be seen in the Foods and Beverages Building at the San Francisco Fair.



THE BRITISH PAVILION offers of the most interesting and varied exhibithe New York Fair grounds. And the coof visitors is provided for by Westing Air Conditioning.



TERMINAL OF FUTURE AIRPORT

This building, now Administration Headquarters of San Francisco Fair, was serve as air terminal on Treasure Island after the Fair. Westinghouse Lighting and Mazda lamps are used throughout.

# Westinghouse

THE NAME THAT MEANS EVERYTHING IN ELECTRICI



It's another reason for Todd's predominance in the field of fuel combustion . . . a reason as evident in its existence as it is evasive of description. For lack of a better term, people call it "coordination"... "harmony"... or "teamwork".

Whatever the word, its essence is reflected in outstanding ability in design, installation and service . . . ability that enables Todd to individually engineer combustion installation to the most exacting requirements.

Architects can recommend Todd to commercial and industrial clients with complete confidence. And though you won't see this "fourth dimension" you will recognize its contribution to Todd's efficient . . . economical . . . production of heat and power.

Todd engineers are always available for consultation-without obligation.

#### TODD COMBUSTION EQUIPMENT, INC.

601 West 26th Street, New York City



NEW YORK

MOBILE

NEW ORLEANS

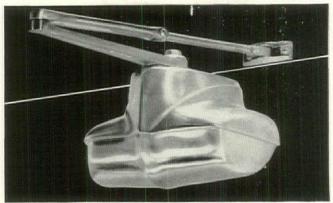
GALVESTON

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LONDON

# Elsie N. SAYS: IF YOU CAN'T CONCEAL THE CLOSERS, USE OUR GOOD-LOOKING "MIRACLE"



### The LCN "Miracle"

#### STREAMLINED DOOR CLOSER

Where it is impractical to conceal the door closers (above, in, or below the doors) the next best idea is to use this good-locking, new streamlined closer, now available in the two sizes most needed—C and D. Three big advantages: (1) trim, modern appearance, (2) a surface easy to clean, (3) the option of making the closer inconspicuous by finishing WITH the door and wall, or giving it almost ANY finish, for decorative effect, at low cost.



### It's the Standard LCN Closer . . .

Inside is the standard LCN Surface Type Door Closer — proved superior in its many years service on hundreds of thousands of doors. Mechanically this closer is unchanged, but its outward appearance is completely transformed by its being covered

#### ... with a "Miracle" Housing

The housing, in two sections, is easily and quickly applied, or removed. It makes no change whatever in the closer's operation, but gives it a pleasing, harmonious form and a smooth surface which can easily be given a bright or dull metal, or almost any other, finish at small cost.





#### Present LCN Closers Convertible

Any LCN standard surface type closer (Size C or D) can be converted, in a few minutes, to "Miracle" form by applying the housing and changing the arm. Think what this means in your modernization work! For full details of this and other LCN Door Closers address Norton Lasier Co., 466 W. Superior Street, Chicago, Ill.

**LCN** Concealed and Surface Door Closers · 86 Types & Sizes

#### FORUM OF EVENTS

(Continued from page 60)

#### COMPETITIONS (continued)

In order that every qualified architect in the seven States shall be free to enter the competition, the jury has been drawn from adjoining Regions. It consists of Gerritt J. deGelleke, Milwaukee; Albert Kahn, Detroit; John O. Merrill, Chicago; Robert F. Daggett, Indianapolis; Charles F. Cellarius, Cincinnati.

Drawings required are comparatively simple, in pencil on mounted tracing paper without elaborate rendering. Three

sheets 22 x 30 in. are required for an entry.

The competition is for design only. Working drawings and specifications will be prepared in the Office of the Supervising Architect, the architect of the winning design being retained as a consultant. It is expected that a maximum of ten visits to Washington will be required of him in this consultation work. To the winner will be paid an outright prize of \$2,600, and an additional \$2,600 for his services as consultant. Traveling expenses and subsistence are also paid by the Government. Closing date, 2 p.m., June 28, 1939, in Washington.

Insulux Glass Block Competition. The second in a series of four quarterly competitions looking toward appropriate uses of glass block closes August 21, 1939. These are open to architects, architectural designers, and architectural draftsmen in the Western Hemisphere. Subject, a group of Three Stores. Program of this competition, which is being conducted by The Architectural Forum for Owens-Illinois Glass Company, was published in the May issue. Reprints are available on request to Henry H. Saylor, A.I.A., Professional Adviser, 9 Rockefeller Plaza, New York. Registration is necessary to enter. Registration for No. 1 of these competitions, which closed May 22, is sufficient for entry into any or all of the others. Those who have not yet registered may now do so for the remainder of the series. Prizes in each of the four competitions total \$2,500; with grand prizes, awarded on a basis of points scored in the series, adding a total of \$5,000.

NATIONAL LUMBER MANUFACTURERS ASSOCIATION, AMERICAN FOREST PRODUCTS INDUSTRIES, AND THE TIMBER ENGINEERING COMPANY. For timber bridge design, prizes of \$1,500 are offered to students of architecture and engineering. Competition closes midnight, August 15, 1939. Further details from Timber Engineering Co., 1337 Connecticut Ave., Washington, D. C.

#### CALENDAR

June 23-24. Regional meetings of State societies and chapters of the A.I.A. at University of Notre Dame, Notre Dame, Ind.

June 26-30. American Society for Testing Materials, forty-second annual meeting, Chalfonte-Haddon Hall, Atlantic City, N. J.

July 4-6. American Society of Heating and Ventilating Engineers, Semi-annual Meeting, The Grand Hotel, Mackinac Island, Mich.

September 24-28. Seventy-first Convention, American Institute of Architects, Washington, D. C.

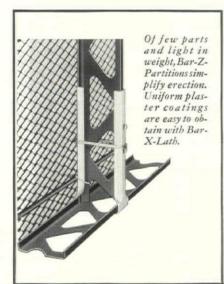
September 25-30. Fifteenth International Congress of Architecture, Washington, D. C.

(Continued on page 72)



### Architects Specify





### BAR-Z-SYSTEM OF HOLLOW PLASTERED PARTITIONS

IN HOSPITALS where freedom from noise is a vital essential, the Bar-Z-System—the original system of hollow plastered partitions—offers adequate sound deadening qualities at a saving in floor loads.\* Consisting of Bar-Z-Studs and Bar-X-Lath—the diamond mesh lath with twin welded reinforcing bars—the Steelcrete Bar-Z-System has no elements in it to burn. Tests by the Bureau of Standards, Washington, D. C. prove that Bar-Z-Partitions, plastered with 3/4" gypsum plaster provide one hour fire rating. This safer, more rigid construction also assures lasting protection for the beauty of plastering which it reinforces. Write the nearest office for full details.

"IT'S WHEELING STEEL"

\*"A Bar-Z-Partition, weighing 16 lbs. per square foot, has the same sound insulating value as a clay or Gypsum wall weighing 22 lbs. to the square foot."

(Signed) Dr. Paul E. Sabine, River Bank Laboratories.

# The CONSOLIDATED Expanded Metal companies wheeling, west virginia

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Export Office: 330 West 42nd St., New York, N. Y.

Rocop radiation is installed in the Model House at the World's Fair, shown at right.



Be sure to visit the Home Building Center at the World's Fair and inspect Rocop Radiation in House 13.





Castle Village, Fort Washington Point

Knickerbocker Village, New York

### For Cosy Cottage . . . or Large Apartment

Rocop modern copper radiation is ideal for small homes or larger apartments, schools, and hospitals. It is especially well adapted to forced hot water systems. The illustrations above show large apartments equipped with Rocop and the illustration at the top of the page shows House No. 13 in the Home Building Center of the New York World's Fair. Be sure to visit this Home Building Center when you are at the Fair and don't forget to look at the Rocop radiation in House No. 13.



#### You Cannot See Them but Two Radiators are in This Room

They are recessed under the windows, out of the way behind grilled metal enclosures. The radiators themselves are our copper-convection type in which the heat medium is contained in seamless copper tubes with copper radiating fins assembled in units. The enclosures are made in attractive but unobtrusive designs, available for full-concealing flush installation, wall-hung or free standing arrangement.

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Ideal for Forced Hot Water Systems

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ROME-TURNEY RADIATOR CO.
100 Lynch St. Rome, N. Y.

#### FORUM OF EVENTS

(Continued from page 68)

#### EDUCATIONAL

Massachusetts Institute of Technology, Cambridge, Mass., opens a six-year program of study in city planning practice. In addition to formal college courses, a year of practical experience in the offices of city, State, and regional planning agencies is added. Prof. Frederick J. Adams heads the course which leads to the degree of master in city planning.

The Art Institute of Chicago is collecting a comprehensive reference library of information about industrial raw materials, processes, and merchandise. Manufacturers, associations, and institutes, as well as individual manufacturers, are invited to make information about their products available to the Institute. Details of the form in which this information is desired may be had by addressing Norman L. Rice, Dean.

A. & M. College of Texas. Department of Architecture sponsors a summer tour by bus, studying American architecture and methods and materials of construction, while en route through many of the Southern and Eastern States, including a visit to the New York World's Fair. Tour costs \$177.50, extends July 17 to August 26. For additional information address J. M. Miller, Department of Architecture, A. & M. College of Texas, College Station, Tex.

BOOTHBAY STUDIOS. A course on color by Faber Birren to be given at Boothbay Harbor, Me., July 23 to August 5. Further information from Frank L. Allen, director, 27 Fairmount St., Brookline, Mass.

Columbia University. Courses in painting and sculpture during the 1939 summer session will be conducted by Oronzio Maldarelli, sculptor, and James Owen Mahoney, painter. Mr. Maldarelli executed two figures for the U. S. Government Building at the New York World's Fair, and Mr. Mahoney won the national competition conducted by the Government for murals in the same building. He is a graduate of the Yale School of Fine Arts, and a Fellow of the American Academy in Rome.

COOPER UNION. A study of typical New England villages will start with a survey to be made during the summer of 1940 by engineering students attending the summer camp of the University of Maine at Gilead. Following that, students in civil engineering and in architecture will cooperate in the study of urban and suburban sites. Lecturers include Henry S. Churchill, Jay Downer, Carl Feiss, Albert Mayer, Flavel Shurtleff, Clarence S. Stein.

CHICAGO BAUHAUS REBORN. Chicago's New Bauhaus closed at the end of its first year. Prof. Moholy-Nagy, one of the original Bauhaus leaders in Germany, had come over to direct it. He has now, with his faculty, set up the School of Design, and announces the beginning of the work with two summer sessions which will run simultaneously from July 10 to August 18. These are for professionals, teachers of art, and interested laymen, providing in brief the principles of Bauhaus basic education. In addition to Prof. Moholy-Nagy, the faculty for the summer courses—one of which will be in Chicago, the other at the resident school on Rumney Farm, Somonauk, Ill.—includes George Fred Keck, architect; George Kepes, painter and photographer; Robert J.

(Continued on page 76)



## Previews of Tomorrow Point to Cities of Concrete Buildings Like This

BOTH World's Fairs, like the recent one at Chicago, hold up a mirror to the architecture of tomorrow. The trend they reflect is toward large masses . . . architectural sculpturing . . . dependence upon proportion and arrangement of masses for the architectural effect. And this is the very trend which has been given fresh impetus by the adaptability and versatility of concrete as a design medium.

### Many Fair buildings look like Concrete—these three permanent ones are Concrete!

Three of Treasure Island's buildings are permanent. And they not only *look* like concrete, but are concrete. They are the Administration Building pictured above, and two exhibit buildings

designed for ultimate use as hangars, which together will form the nucleus of a great air terminal long after the Fair is a memory.

Concrete was chosen here not only because it is keyed to the new spirit in architecture, but because it offers firesafety, permanence, low first cost and low maintenance . . . qualities essential in all except temporary buildings.

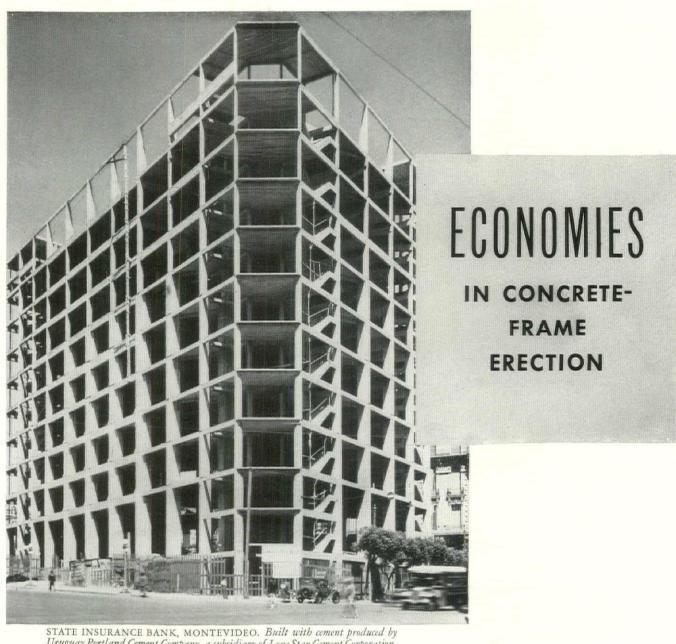
Write for "The NEW Beauty in Walls of Architectural Concrete," showing interesting detail, textures and complete buildings.

#### PORTLAND CEMENT ASSOCIATION

Dept. 6-7, 33 W. Grand Ave., Chicago, III.

A national organization to improve and extend the uses of concrete through scientific research and engineering field work.





Uruguay Portland Cement Company, a subsidiary of Lone Star Cement Corporation.

ETTING concrete at lowest cost simply involves estimating the erection schedule Gwhich shows the lowest overall cost of time, forms and cement. The sooner forms can be stripped, the lower the time costs or total job overhead charged against the job. But earlier form removal and faster completion depend primarily upon the kind of cement used-and that introduces the factor of cement cost.

Thus, with 'Incor' 24-Hour Cement, you place concrete today, strip tomorrow. That means maximum form re-use and minimum completion time. So you simply set these savings against the slightly higher initial cost of 'Incor', in order to find the low-cost concreting schedule. Recent 'Incor' \* jobs show net savings of 38¢ to \$1.49 a cu. yd. of concrete by this method-earlier occupancy at lower, instead of higher, cost. On other jobs, Lone Star Cement shows the lower overall cost. Suggesting that specifications be so drawn as to enable contractors to estimate with both cements, in order to find the low-cost erection schedule. For simple estimating method, write for copy of new illustrated book, "Cutting Concrete Costs." Lone Star Cement Corporation, Room 2292, 342 Madison Avenue, New York.

### LONE STAR CEMENT CORPORATION

MAKERS OF LONE STAR CEMENT . . . 'INCOR' 24-HOUR CEMENT

# AT THE NEW YORK WORLD TO THE NEW YORK

CARRIER IGLOO
OF TOMORROW—
Architects—Reinhard
& Hofmeister. Consulting Engineers—Clyde
R. Place for electrical
and plumbing. General Contractor—
Thompson-Starrett,
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\*

du PONT—Air conditioning contractor—Carrier Corporation.
Architect — Walter Dorwin Teague. Consulting Engineers—Carrier Corporation.
General contractor—Turner Construction Company.

\*

FORD—Air Conditioning Contractor—Carrier Corporation, Architect—Walter Dorwin Teague, Consulting Engineer—Albert Kahn, Inc. General Contractor—Hegeman-Harris Company.

\*

CONCERT HALL—
Air Conditioning Contractor—Daniel J. Rice.
Architects — Reinhard & Hofmeister. Consulting Engineer — Engineering Dept., World's
Fair Corp. General
Contractor — John W.
Ryan Co.

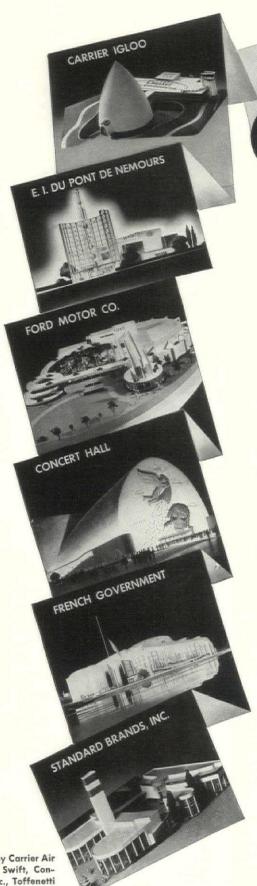
\*

FRENCH GOVERN-MENT—Air Conditioning Contractor—J. H. Martin, Inc. Architects—French Government. General Contractor—James Stewart Co.

\*

STANDARD
BRANDS, INC.—
Air Conditioning Contractor — Heating
Maintenance Corp.
Architects — Skidmore
& Owings. Consulting
Engineers — Morgan,
Hamel, Engelken.
General Contractor —
James Stewart Co.

★ Other Buildings served by Carrier Air Conditioning — Coca Cola, Swift, Consolidated Edison, Glass, Inc., Toffenetti Restaurant and Perylon Hall.



CARRIER'S record of World's Fair installations for Ford . . . duPont . . . Coca Cola . . . Swift . . . Consolidated Edison . . . Glass, Inc. . . . Standard Brands . . . Toffenetti Restaurant . . . French Government . . . Concert Hall and Theatre . . . and Perylon Hall illustrates the wide range of Carrier Air Conditioning and refrigeration equipment to

meet any specifications.

Air Conditioning

In making your itinerary of the Fair, be sure to see these varied applications in buildings designed by well known architects and engineers. And at the same time, see the Carrier 5-story Igloo of Tomorrow and the glass-enclosed Hall of Weathermakers, the only buildings at the World's Fair devoted exclusively to air conditioning. Here you will see and enjoy the result of Carrier's 37 years experience in building and installing air conditioning equipment throughout 99 countries of the world.

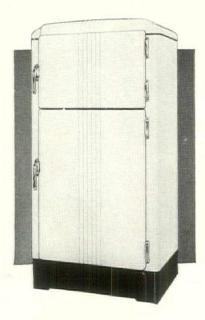
Engineers at the Carrier Igloo will give you complete information about latest Carrier Air Conditioning and Refrigeration and Heating developments. And remember, Carrier men everywhere are glad to work with you in helping you solve your air conditioning problems.

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## ICE

### REFRIGERATION

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The new-type air-conditioned ice refrigerator is vastly different from the old-fashioned wooden "ice box."

In appearance, it is a proud product of the renaissance in industrial design.

In effectiveness, as a preserver of perishable foods, it has advantages not possessed by any other type—guarding not only against spoilage, but also against rapid drying out and against the exchanging of flavors.

And its economy has been developed to the point where a single servicing of ice lasts three to five days or longer.

The modern air-conditioned ice refrigerator costs only a half to a third as much as other types. Nothing to get out of order. The drip pan is eliminated by the use of a simple inexpensive permanent drain. There is a style and size to suit every home and meet every commercial requirement.

Your local ice company will be glad to give you complete details, or write:

#### NATIONAL ASSOCIATION OF ICE INDUSTRIES

228 North La Salle Street, Chicago, Illinois

Cold ALONE is not enough!

#### FORUM OF EVENTS

(Continued from page 72)

Wolff, painter and sculptor; Andi Schiltz, designer; Hubert Leckie, graphic artist. Further information may be had from School of Design, 247 East Ontario St., Chicago.

#### MISCELLANEOUS

LINCOLN STATUE, NEW YORK WORLD'S FAIR. At a meeting of the Executive Committee of the Architectural League of New York, held May 10, the following statement was issued:

"It is reported that Commissioner General Edward J. Flynn, of the U. S. New York World's Fair Commission, ordered the destruction of the Abraham Lincoln Statue by Louis Slobodkin, which had been placed in the Court of Sculpture at the New York World's Fair.

"This statue had been selected by a distinguished jury of

which Mr. Flynn was an advisory member.

"Whatever legal right Mr. Flynn may have had in such destruction is beside the point. No one can question his right to dislike this work or any other work of art. There is freedom enough in our American Democracy for personal conviction and even free expression of opinion.

"Mr. Flynn's action, however, indicates a lack of understanding of the arts and smacks of a high handed exercise of a power the like of which we Americans abhor.

"To those of us interested in progress in the arts, who are devoted to a principle of fair play as against political dominance of the arts, this act is nothing short of vandalism. Its perpetrator should not be again entrusted with authority over matters which are so important to the advancement of American culture.

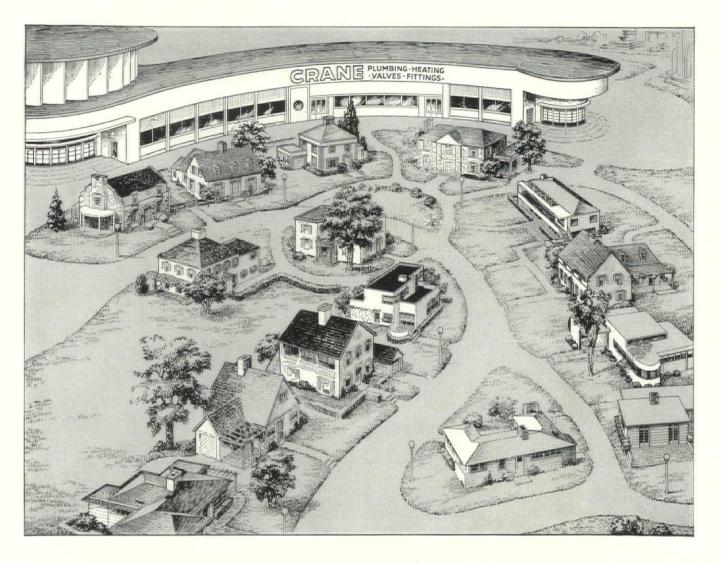
"The Architectural League of New York, which for more than half a century has stood for the finest in the arts of America and for creative progress, is shocked at Commissioner General Flynn's high handed act."

REGISTERED HOMES costing less than \$5,000 form the objective of a joint program of the American Institute of Architects, the Producers' Council, and the Federal Home Loan Bank Board. Four hundred designs are now available, which number will be expanded for use in a joint Home Building Service; these and additional designs being available for exchange between one section of the country and another. This service provides for financing counsel, the most favorable financing consistent with security, competent architectural design, a qualified builder, specification of proper materials, and supervision of construction. The executive committee for the program: N. Max Dunning, chairman; Russell G. Creviston, Donald H. McNeal, and William Stanley Parker.

Sculptors Elect Manship. Succeeding John Gregory, who has held office since 1934, Paul Manship has been elected president of the National Sculpture Society.

A.S.T.M. Important modifications are to be made in the methods of publishing the standard specifications and tests of the American Society for Testing Materials. The Book of Standards (issued triennially) and the Book of Tentative Standards (issued annually) are to be combined. Standards and tentative standards will be issued collectively in one triennial publication divided into three parts: 1) Metals; 2) Non-metallic Materials—Constructional; 3) Non-metallic Materials—General. Publication of new and revised tentative standards in the annual Proceedings, Part I, will be discontinued, as will also the annual Book of Tentative Standards.

(Continued on page 80)



# THE TOWN OF TOMORROW WITH PLUMBING BY CRANE

IN the shadow of the Trylon and Perisphere at the New York World's Fair, the Town of Tomorrow has been built to stimulate Mr. and Mrs. America with new ideas in housing—to demonstrate the important part the Architect plays in solving today's housing problems.

Here is a village of fifteen model homes ranging in size from the small bungalow priced at \$2500 to the larger house costing \$35,000. The millions of visitors to the Fair will be inspired by the homes they will see —an inspiration that is bound to be reflected in new home construction.

Crane Plumbing, specified and installed in all the houses in the Town of Tomorrow harmonize with the modern thinking of the public whose opinion will be molded by this village. For in keeping with the thinking of today, Crane-Equipment is not only beautiful in appearance and sturdy in construction, but functional in design—simple in operation—built to today's tastes.

In homes you design for "Towns of Tomorrow" the country over, you will find your clients' thinking affected by what they have seen in New York. Their association of Crane Plumbing and Heating with modern charm and efficiency will mean a ready acceptance of your specifications when Crane is mentioned. You will find in the Crane line so extensive a selection that it invariably contains just the equipment you need for the house you are planning. Make it a point to benefit from the Town of Tomorrow—specify Crane on the Plumbing and Heating in the houses you design.

# CRANE

CRANE CO. GENERAL OFFICES
836 S. MICHIGAN AVE., CHICAGO
VALVES • FITTINGS • PIPE
PLUMBING • HEATING • PUMPS

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS

## 6 WAYS TO

Model 275. Requires only 21 x 36 inches of floor space. Designed for installation within the conditioned space. Will harmonize with any interior.

Model 475. Available for use with either alternating or direct current like all other Yorkaire Models. May be installed within the conditioned space, with or without ducts.

York now presents the famous Yorkaire Units in six sizes. These units perform all air conditioning functions. Singly or in combination, they meet virtually all space requirements. Self contained in compact cabinets...give maximum cooling per horse-power. Easily installed . . . requiring only water, drain and electrical connections. Write for particulars.

York Ice Machinery Corporation, York, Pa. Headquarters Branches and Distributors throughout the world.

## LOW COST AIR CONDITIONING!

Model 350. Designed for installation within the conditioned space. As is true of all Yorkaire Units, it may be quickly and easily reinstalled, should you move.

Model 700. Vertical or horizontal air delivery simplifies duct arrangement. For installation usually outside of conditioned space. Multiple refrigerating systems accurately balance the air conditioning load.

Model 1500. Powered by 3

Model 1500. Powered by 3

cushion-mounted refrigerating reting units. Step-starting reting units. Step-starting reduces current demand, saves duces duces demand demand, saves duces duc



Headquarters For Mechanical Cooling Since 1885

# BLENDING THE WORLD OF YESTERDAY WITH THE WORLD OF TOMORROW

... "Homewood" is roofed with ARMCO PAINTGRIP



"Homewood," the All-Gas Good Housekeeping House, was designed from "Homewood," a historic mansion now the property of Johns Hopkins University. The contemporary architect is Dwight James Baum, New York. Roof and roof drainage specifications called for Armco Galvanized PAINTGRIP Sheets throughout.

HAT the basic simplicity of colonial design can form a background for modern living is demonstrated by "Homewood," a modern treatment of a colonial home now open to visitors at the New York World's Fair.

One of the most striking of the modern features is the all-metal roof of Armco Galvanized PAINT-GRIP Sheets — painted delphinium blue. Since it is a one-story house, the roof expanse is large and, in order to meet the construction date,

it had to be painted immediately, along with the PAINTGRIP gutters and downspouts.

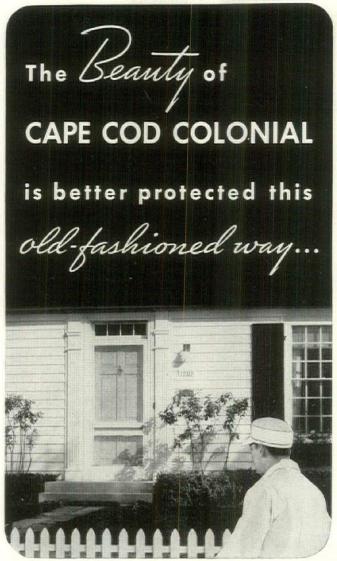
Immediate painting is easy with Armco PAINTGRIP. The neutral film bonded with the zinc coating makes an ideal surface. Old-fashioned weathering and zinc-destroying acid-washing are unnecessary. As soon as the roofers are through the painters start

through, the painters start to work. This saves time, saves money and pays dividends in owner satisfaction. And equally important, Armco PAINTGRIP means long life to paint! Because its special Bonderized finish keeps the paint from direct contact with the zinc coating, paint does not scale off easily and its protective qualities remain active for a long time.

The nearby Armco distributor stocks Paintgrip. Get in touch with

him or write us direct. The American Rolling Mill Company, 1201 Curtis St., Middletown, Ohio.

### ARMCO PAINTGRIP SHEETS



(Architect-R. P. Travelletti)

The storm-swept coasts of New England inspired this architecture...rugged as rock and severely practical. To preserve the beauty of your Cape Cod homes, protect the surface with a paint that laughs at time... Eagle Pure White Lead in oil. Since 1843 architects have specified this weather-defying pigment because of its remarkable records for service and wear. Eagle Pure White Lead in oil creates an elastic paint film that anchors deep in the surface... doesn't crack or scale... wears down slowly and evenly.





THE EAGLE-PICHER LEAD COMPANY Cincinnati, Ohio

(Makers of Eagle Enduring Home Insulation—

Thick, Fireproof Mineral Wool)

#### FORUM OF EVENTS

(Continued from page 76)

#### MISCELLANEOUS (continued)

League's New Officers. Succeeding Arthur Loomis Harmon, Edgar I. Williams has been elected president of The Architectural League of New York. Mr. Williams has been an associate in architecture at the School of Architecture, Columbia University, in addition to carrying on a private practice. Vice presidents representing the various arts of the League are: Dean Cornwell, Wheeler Williams, Armistead Fitzhugh, Harold W. Rambusch, and L. Andrew Reinhard; treasurer, Henry F. Richardson; secretary, Frederick J. Woodbridge.

Modernize. A nation-wide campaign to promote property modernization and repair, with the full cooperation of FHA, is planned to break simultaneously in all sections of the country early in June. The theme of "Fix Up Your Home! Modernize Outside and Inside," with convenient monthly payments on the FHA plan of installment buying, will be heard again in the land.

In connection with this, members of the building industry will take a special interest in figures recently released by FHA. These show that even during the normally dull winter period, private lending institutions continued to make Property Improvement Loans, and that more inquiries and applications for these loans are being received right now than at any time since the FHA plan was put in operation. Modernization loans insured by FHA during the last week of April amounted to \$4,500,000, or more than 9,000 loans per week.

FHA officials throughout the country point out that industry is approaching that agency more and more frequently with cooperative suggestions and plans to make the most of the FHA modernization and repair program. In line with these suggestions, FHA has prepared literature and display material for the trade. These are now available at head-quarters in Washington, or through FHA's 64 field offices.

Both the display material and literature are available to all dealers wishing to be identified with the national modernization program, but it will be sent only on direct request. To avoid duplication, manufacturers and trade associations should have the dealers themselves send in their orders. It is suggested that this be done as soon as possible, since quantities are limited and it is a case of "first come, first served," in filling requests.

Material includes a unified window display, specimen newspaper advertisements for dealer use, and car cards. Special radio programs are being arranged locally, and a technicolor movie, "Miracles of Modernization," is being released to motion picture houses all over the country.

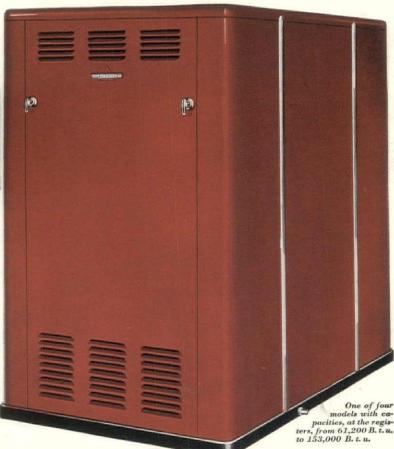
Ships That Pass. Eugene Moran, Sr., president of the Moran Towing Co., probably is a charter member of the Sidewalk Superintendents' Club. At least he is imbued with the spirit of that organization—the sharing of knowledge and enjoyment with the casual passerby.

Mr. Moran has noticed that at the Battery in New York City, and also on the Shore Road of Brooklyn at the Narrows, the man-in-the-street's chief interest is with the ships that pass in and out of the Port of New York. The idea is to answer the perennial question, "What ship is that?" With the cooperation of the Parks Department, bulletin boards are to be erected at both points. They are being made of redwood, and will be 19 ft. wide by 14 ft. high, with space for ten slides—five in each of the two panels that are divided

(Continued on page 84)

# NEW AIR-CONDITIONING METHOD REVOLUTIONIZES HOME HEATING!





### AIR-CONDITIONING 24 HOURS A DAY-NOT "NOW AND THEN"



Superfex circulates fresh air—filtered, warmed and properly humified—constantly day and night. It is full 24-hour air-conditioning. And because

of continuous operation, the owner gets continuous comfort.

With "stop and go" systems, when the blower stops—air-conditioning stops. The home is air-conditioned only part of the time. The continuous operation of the Superfex keeps every corner of the home constantly warm, and air-conditioned every minute of the day and night.

### "STRATIFICATION" PROBLEM ENDED-NO COLD, DRAFTY FLOORS!



STOVE COMPANY

The Superfex two-speed blower operates continuously . . . low speed with pilot and low coasting fire . . . high speed with high

fire. The discomfort of stratification is thus prevented by continuous gently moving currents of air, circulating between floor and ceiling ... flooding every corner.

You can feel the difference in a Superfex airconditioned home. Floors are warm—cold leg zones unknown. The air is fresh and mild as a May morning. There is no stuffiness, no chilliness. You experience a rare sense of restful comfort and physical well-being.

#### THREE-STAGE PRINCIPLE DOES AWAY WITH "HEAT LAG"

With Superfex you enjoy unvarying healthful temperature by means of an entirely new three-stage principle of electrical control. It permits, for the first time in home heating, combined use of (1) a pilot flame (2) low or coasting fire and (3) high, fast fire, synchronized with low-high blower operation. The thermostat automatically selects the fire needed to exactly maintain the desired temperature. In contrast with intermittent systems, the Superfex fire does not go "off" and "on" in cold weather. Because operation is continuous, you get continuous comfort. Your heating plant never "goes cold." You avoid heating "lag." You save fuel because you never waste it to reheat the system.

# SUPERFEX Gas & Oil Burning

OF PERFECTION

### DON'T SPECIFY ANOTHER HEATING SYSTEM UNTIL YOU READ THIS BOOK! . . SEND COUPON TODAY!

PERFECTION STOVE COM 7175-A Platt Avenue, Clevel	
Please send me bookle ditioning Furnace.	t describing the Superfex Air-Con-
☐ Gas	□ Oil
Name	
Street Address	
City	State

# "Provide FUSELESS AUTOMATIC CIRCUIT BREAKERS

## to break the Circuit Automatically when overload occurs"

This specification is becoming standard for the protection of electrical circuits. No longer an experiment, but proved in over 3,000,000 circuits, it is a specification that every modern building designer needs to know about.

Fuseless circuit protection provided by Westinghouse Nofuze equipment protects electrical circuits by means of a bi-metal tripping unit. It automatically disconnects the circuits before overload or short circuit can do harm. There is nothing to replace. Service is restored by moving the Breaker handle...so simple and so safe that even a child may operate it.

Suggested specifications and descriptions of applications are in A. I. A. File 131, Architects' and Engineers' Data Book.

It is just good business to at least investigate this equipment before detailing your electrical specifications.

J-60299

WESTINGHOUSE ELECTRIC & MFG. CO. EAST PITTSBURGH, PA.



Nofuze panelboards give finger-tip control of electrical circuits — Safe, convenient, approved by Underwriters' Laboratories



Nofuze Multi-Breakers for the modern home

# Westinghouse W Nofuze Protection



tect of this modern building. He has specified and used "O.M." for many projects

including Arlington Heights High School, Ft. Worth, several schools at Denton, Texas, Texas State Teacher's College for Women, and a large number of similar projects throughout the state. That Mr. Geren continues to specify Omicron Mortarproofing to check shrinkage cracks and insure "tight" brickwork is testimony of his satisfaction with results obtained.

For over seven years, "O.M." has been helping to build leakproof walls . . . "O.M." will check leaky brickwork on your projects. How easily and economically "O.M." does it is explained in an interesting booklet which will be sent you upon request.

#### THE MASTER BUILDERS COMPANY CLEVELAND, OHIO

In Canada: THE MASTER BUILDERS Co., LTD., Toronto, Ontario



10micron Mortarproofing in the mortar preserves the bond . . . builds "tight", leakproof walls.

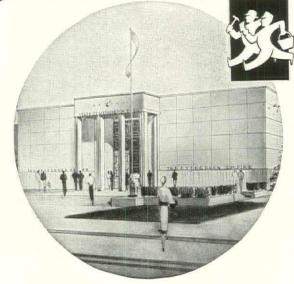
Ordinary mortar sbrinks, causing cracks to appear between bricks and mortar. Result — leaky brick-

## MASTER BUILDERS

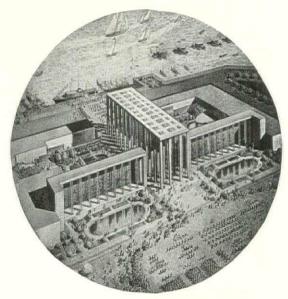
# LAUX

PLYWOOD FINISHES

# Beautify 2 World Fairs



 REZITEX AT NEW YORK—Plywood, painted with Rezitex gives the Washington State Building the appearance of stucco, plus lasting beauty and protection!



 REZ AT SAN FRANCISCO—Laux Rez seals and protects the beautiful matched panels of the impressive Federal Building on Treasure Island. Laux Products beautify many of the 57 plywood buildings at this Fair.

Learn the whole story of Laux Rez and Rezitex—and of the entire "Beauty Line" of Laux paint specialties. Write LAUX SALES CO.: Seattle; Los Angeles; Oakland; Dallas; Phoenix; Portland, Ore.; Minneapolis; Lockport, N. Y.; Portsmouth, Va.

### LAUX Paint PRODUCTS

#### FORUM OF EVENTS

(Continued from page 80)

by a large pier-map of Manhattan and Brooklyn and the Upper and Lower bays down to the Narrows. The slides will bear the name, distinguishing colors, marks, and other features of ships passing by.

Joining Mr. Moran as charter members of what might be called the Waterfront Pilots' Association are: John D. Reilly, president of Todd Shipyards Corp.; Frank J. Taylor, president of American Merchant Marine Institute; and Charles Mayper, chairman, Trans-Atlantic Passenger Conference.

#### PERSONALS

The firm of Ames, Child & Kussin has been formed to engage in the general practice of architecture, and is located at 50 Beacon St., Boston. Members: John W. Ames, Jr., Josiah H. Child, William F. Kussin, J. W. Ames, and W. Phillips Graves.

J. C. Burchinal has moved his office to the National Bank of West Virginia Building in Wheeling, W. Va.

Dial & Thomas, architects, have opened a new office, Standard Building & Loan Building, Columbia, S. C., and would welcome manufacturers' data.

Waldron Faulkner announces a partnership with Slocum Kingsbury for the general practice of architecture under the firm name of Faulkner & Kingsbury at 917 Fifteenth St., Washington, D. C.

Robert Heller, industrial designer, has moved to new offices in the Associated Press Building, 50 Rockefeller Plaza, New York.

Leslie N. Iredell has moved his offices to 404 Franklin St. in Tampa, Fla. Manufacturers' catalogues and samples are requested.

C. Bates Manning, architect, has opened new offices in the Joplin National Bank Building, Joplin, Mo., to replace offices destroyed by fire, and would welcome manufacturers' data.

Christian S. Michaelsen, architect, announces the formation of a partnership with Karl Klari Rabig and Albert H. Ramp, for the general practice of architecture under the firm name of Michaelsen, Rabig & Ramp, with offices at 3256 Franklin Boulevard, Chicago.

Maxwell Moore, architect, announces that Charles Baker Salsbury, architect, will be associated with him in the practice of architecture under the firm name of Maxwell Moore & Charles Salsbury, Architects, at 968 Farmington Ave., West Hartford, Conn.

Antonin Raymond, architect, has opened his office at 11 East 9th St., New York, N. Y.

Herman H. Siegel, architect, has opened an office at 339 Fifth Ave., New York, and would welcome manufacturers' catalogues and samples.

Hobart A. Walker of East Orange, N. J., and Augustus R. Archer of Somerville, N. J., announce that they have associated for the practice of architectural and engineering work with offices as noted above.



THE thousands of visitors to the New York World's Fair 1939 who will enter the Perisphere... the theme building of the Fair... will be invigorated by a gentle cooling breeze blowing across the moving platform, as they view the Wonders of the World of Tomorrow.

Here, and at other key points, Worthington-Carbondale Air Conditioning and Refrigeration is the source of these cooling benefits.

A model of practical air conditioning for busy buildings will be in service at the New York City Building, one of the few buildings planned for permanent use after the Fair is over. This Worthington System will cool the building in summer and make ice on the skating rink in the winter. The modern Post Office, Press and Promotion Building, the Swedish Pavilion, and the Auditorium in the WPA Building are three more Worthington-Carbondale installations worthy of inspection when visiting the Fair.

WORTHINGTON PUMP AND MACHINERY CORPORATION CARBONDALE DIVISION • HARRISON, NEW JERSEY Air Conditioning and Refrigeration Representatives in Principal Cities AIR CONDITIONING EQUIPMENT ELECTRIC • STEAM • DIESEL OR GAS DRIVEN



#### and in the World of Today...

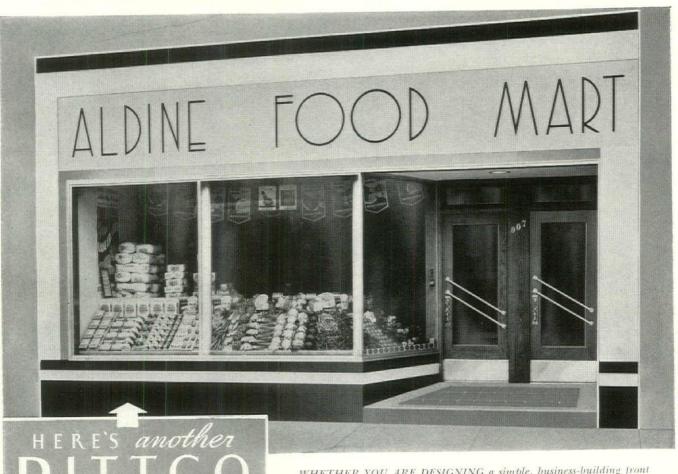
Worthington-Carbondale Refrigeration and Air Conditioning are equally important, for new buildings and for modernizing existing structures.

The list of important buildings that are Worthington Air Conditioned is growing fast the country over.

Worthington-Carbondale representatives will give your architect or engineer the benefit of more than thirty years' experience in refrigeration and air conditioning.



# Pittco Store Front Products Make *Any type* of Store Front Look Its Best!



HERE'S another

PITTCO

STORE FRONT

WHETHER YOU ARE DESIGNING a simple, business-building front like this one in Chicago, Ill., or a far more pretentious one, specify Pittco Store Front Products for perfect execution of your design. Pittco Products make any type of store front look its best! Architect: Frederick Stanton.

WHETHER you are designing a simple, inexpensive store front, or one where "the sky's the limit" . . . a front for a small, modest store in the middle of a block, or one for a huge department store that occupies a whole block . . . you will find that Pittco Store Front Products make that design come to life on Main Street to your entire satisfaction. For Pittco Products make any type of store front look its best.

Pittco Products are all of uniform, high quality. They have the same manufacturing supervision. They are designed to be used together to produce harmonious, unified fronts with

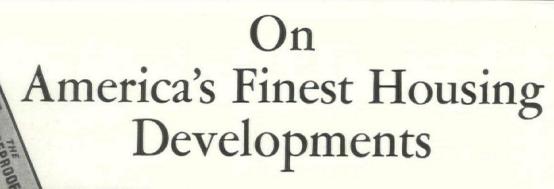
true individuality. And when you specify them on your store front jobs, you can be confident that they will go far toward building better business for your client. We urge you to send the coupon . . . today . . . for our new free book which contains interesting information on Pittco Fronts, together with many illustra-

tions of actual installations.

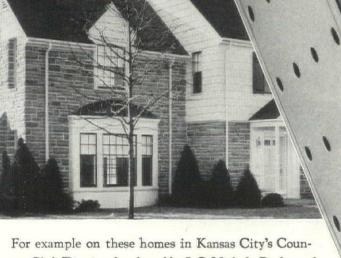
At the New York World's Fair, be sure to see the full-size Pittco Fronts of the Street of Tomorrow in the Forward March of America Building, and the miniature Pittco Fronts in the Glass Center Building. Or, at the Golden Gate International Exposition, see these miniature fronts in the Homes and Gardens Building.

Pittsbur 2230-9 (	Fran	Ble	lg.,	Pi	tts	bu	rgi	1.	P	а.									
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PITTSBURGH PLATE GLASS COMPANY







try Club District, developed by J. C. Nichols, Perforated Rocklath\* is now being used extensively because:

Plaster becomes RIVETED and WELDED to its surfaces—resulting in walls and ceilings that are both crack resistive and retain their fine appearance for many years.

Perforated Rocklath is the fireproof lath—gives added fire protection to owners of homes in this fine development. Perforated Rocklath is not expensive - sells for little, if any, more than old-fashioned, combustible lathing materials.

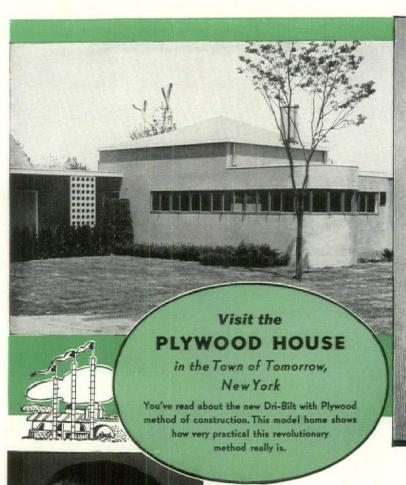
> Specify it on your next job-and watch the results. For complete information on Perforated Rocklath see your building material dealer-or write THE UNITED STATES GYPSUM COMPANY 300 West Adams

Street, Chicago, Illinois.

## PERFORATED

# OCKLATH

THE FIREPROOF LATH



At both Fairs, architects have used versatile **DOUGLAS FIR PLYWOOD** as an essential structural material

■ The importance of Douglas Fir Plywood as an essential structural material has been proved repeatedly at both Fairs. Architects have found that this versatile engineered lumber meets not just one or two requirements, but many, including strength, large size, lightness, workability, durability, beauty and economy. When at the New York World's Fair, you are cordially invited to inspect the Plywood House, which was built by the revolu-

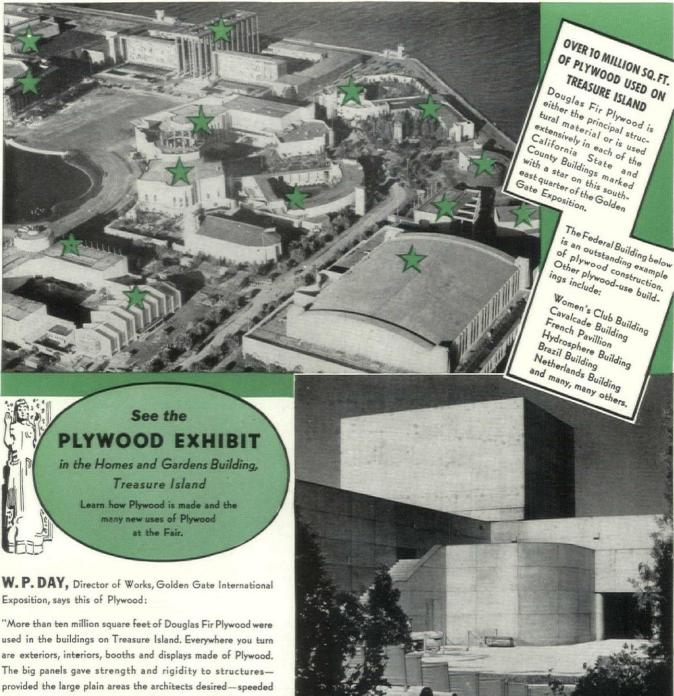
tionary new Dri-Bilt with Plywood method of construction. It is house number 2 in the Town of Tomorrow.

When at Treasure Island, be sure to visit the Plywood Exhibit in the Homes and Gardens Building. Notice also the many exposition buildings constructed of Douglas Fir Plywood. More than 10,000,-000 square feet of plywood were used in them-enough plywood to form a blanket over Treasure Island 3 inches thick!

A. LAWRENCE KOCHER The architect for the Plywood House in the New York World's Fair says: "This Plywood House demonstrates the practicability of Douglas Fir Plywood practicability or Douglas Fir Flywood for house construction." This statement carries real weight because Mr. Kocher is a former editor of Architectural Record and one of the foremost exponents of improved building materials as a means of improving architecture. Besides being the first architect to use a number of building materials, he also devised and built in 1930, in association with Albert Frey, the first prefabricated dwelling.

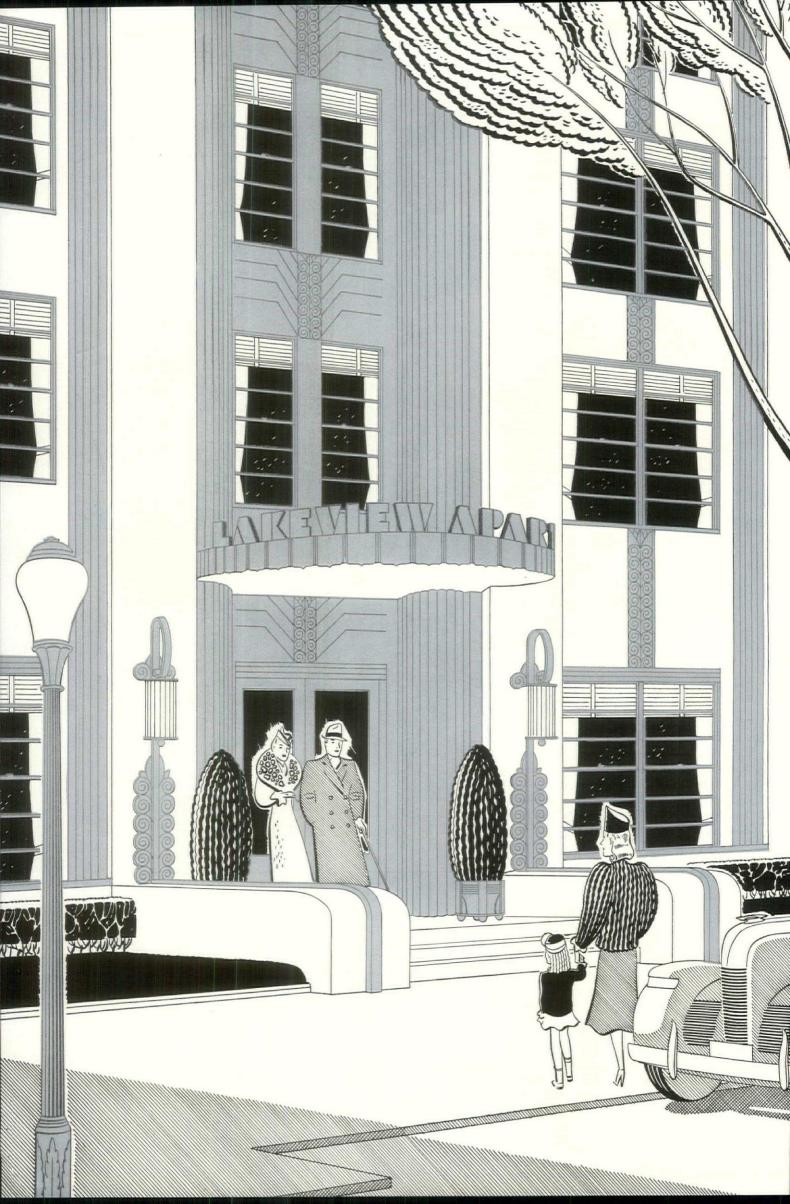


Construction view of Plywood House showing Plyscord sheathing on walls and roof.



construction. I believe our work with modern materials here on Treasure Island will have a far-reaching influence on the residential and business structures of the future."





Adding to the appeal that keeps apartments occupied...

# ALUMINUM



Aluminum adds a smartness that helps attract and hold the tenant; imparts by its subdued richness a feeling of solid permanence. The money-making ability of an apartment building is enhanced; Aluminum retains its attractive newness with but little care.

Free scope in design possibilities are offered with Aluminum, for it is suited to any metal-working treatment and can be given many striking finishes. Aluminum coping is neat and inexpensive. Aluminum window sills, spandrels, grilles and structural work add greatly to valuation, yet show low annual cost.

Aluminum windows appeal to occupants and owners alike. Frames and sash are narrow, giving maximum glass area. They are remarkably easy to open and close, and are permanently weathertight. There's no warping or swelling, no rusting or rotting; they never need painting. First cost is surprisingly low.

Standard Aluminum extruded shapes for architectural uses are available.

Aluminum Company of America, 2166 Gulf Building, Pittsburgh, Penna.

# ALCOA · ALUMINUM



NATIONAL LEAD COMPANY

111 Broadway, New York; 116 Oak St., Buffalo; 900 West 18th 111 Broadway, New York; 110 Uak St., Bunato; 900 west torn St., Chicago; 659 Freeman Ave., Cincinnati; 1213 West Third St., Cleveland; 722 Chestnut St., St. Louis; 2240 24th St., San Francisco; National-Boston Lead Co., 800 Albany St., Boston; National Lead & Oil Co. of Penna., 316 Fourth Ave., Pittsburgh; John T. Lewis & Bros. Co., Widener Building, Philadelphia.

## **DUTCH BOY** WHITE-LEA

Good Paint's Other Name



TEST PILOTS are paid to run risks...that

The architect is an entirely different kind of pilot. His job is to steer his clients away from costly experiments - to make sure that there will be no "crack-ups" due to methods or materials that have not yet been tested by years of service.

Paint is a product which architects have learned to consider carefully. Through experience they have found out that the durability of a paint cannot be demonstrated in a few short years. A paint has not proved itself thoroughly until it has stood up not only as a first painting but also under successive re-

Dutch Boy White-Lead has long since graduated from the experimental stage. Anyone with any questions about Dutch Boy will find them answered by millions of successful paint jobs. No paint made anywhere has ever given a more convincing demonstration of complete dependability.

By specifying Dutch Boy White-Lead you secure that combination of beauty and durability which is a fundamental objective of good architecture.



This is the slogan of the national advertising cam-paign on white-lead now being conducted by the Lead Industries Association. The purpose of this campaign is to promote a wider understanding of the advantages of white-lead paint.

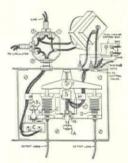
# APPLICATIONS

OF DUAL-CONTROLLED CONTINUOUS CIRCULATION
TO THE UNIVERSAL PROBLEM OF TEMPERATURE
CONTROL



FOR APARTMENT HOUSES. Hoffman Hot Water Controlled Heat offers an accurate control of temperature which spares tenants the discomfort of over and under heating. The system can also be zoned to give each family its individual temperature preference.

## NEW HOFFMAN HOT WATER CONTROLS REGULATE Radiator Temperatures TO EXACTLY OFFSET BUILDING HEAT LOSS



The Hoffman Temperature Controller—mechanical brain and "balancer" of the system.

In buildings of every conceivable character, Hoffman Hot Water Controlled Heat is delivering comfort never before attainable. This system improves standard forced hot water heat in three ways—

- It continuously circulates the water to avoid intermittent bursts of heat to the radiators and to permit gradual changes in the temperature of the circulating water.
- 2. It maintains radiator temperatures at the degree which exactly offsets the building heat loss for any given outdoor temperature. Radiators always have enough heat to prevent air stratification and "Cold 70."
- It conserves fuel by positively preventing overheating.

Only three units of equipment are required. A Hoffman Circulator to continuously circulate the water . . . a Hoffman Control Valve to admit hot water from the boiler to the circulating stream as often as required . . . and a Hoffman Temperature Controller (actuated by outdoor and circulating water temperatures) to open and close the Control Valve. Operation and installation are fully explained in two illustrated booklets. For your copies write to the Hoffman Specialty Co., Inc., Dept AF-6, Waterbury, Conn.



FOR CENTRAL HEATING, Outlying buildings can be heated with amazing accuracy of temperature control from either a central hot water boiler or steam boiler equipped with a Convertor.



FOR RESIDENCES. In normal operation of the system, this home is kept at a uniform temperature throughout. If desired, each wing can be maintained at a temperature different from the other.

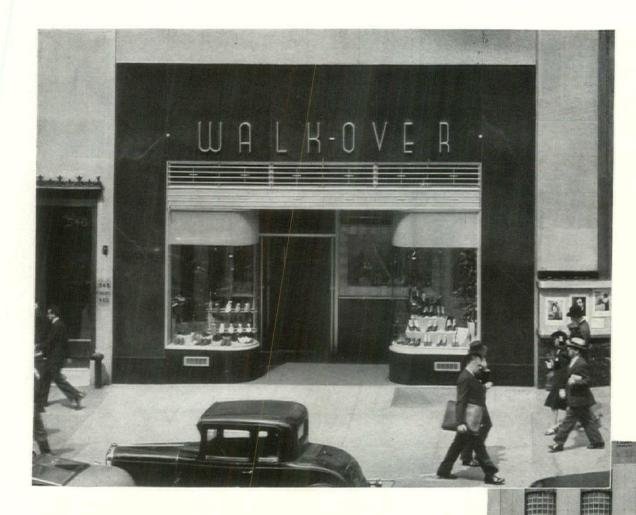


FOR MODERNIZING. Old gravity hot water systems are easily revamped with Hoffman Hot Water Controlled Heat to full modern efficiency.





Hoffman Hot Water Controls, Valves, Traps and Pumps are sold everywhere by leading wholesalers of Heating and Plumbing Equipment.



# Economical and distinctive treatment ... Ashlar Facing of %" THN dark stone

The dark stones from the Virginia Alberene quarries add distinction to leading stores from coast to coast. Used in ashlar treatments, these durable stones make for true economy. Economy in installation cost and in freedom from upkeep expense. As the photos show there is no glare or reflection, but a handsome, quiet richness.

Visitors to New York will find the Grand Central Zone dotted with Alberene installations. They are easy to identify. Look for the random white markings which are natural to this quarried stone and characteristic of it. We will be happy to send a set of samples, conveniently boxed, showing the range of stone, including black and mottled dark blues and greens to those who write for them on their business letterheads. Please address: Alberene Stone Corporation of Virginia, 419 Fourth Avenue, New York, N. Y. Sales Offices in principal cities. Quarries and Mills at Schuyler, Virginia.

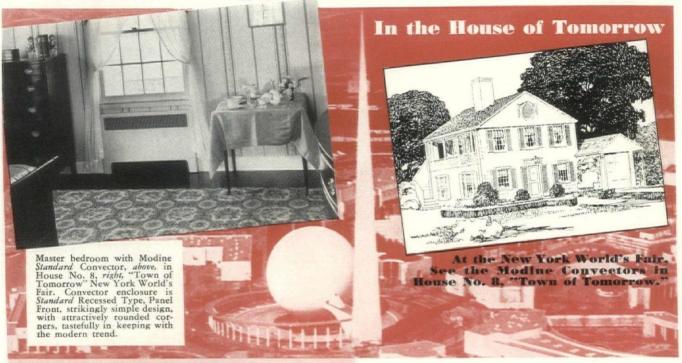


Walk-Over Shoe Store, Fifth Avenue, above 45th Street, New York, N. Y. Virginia Black Serpentine bulkheads and facing; Kenneth Norton, Architect.

FROM THE ALBERENE QUARRIES

# From New York to San Francisco...they Go MODERN with MODINE

**Concealed Copper CONVECTOR Heating** 



MODINE

CONVECTORS

## For the Homes, Apartments and Buildings of TODAY!

LUXURY HEATING AT A NEW MODERATE COST—Now you can specify the most modern method of heating...concealed copper convectors...for even moderate cost homes, apartments and public buildings. The utmost in comfort, convenience, cleanliness—convectors add distinctive beauty to any interior.

NEW ECONOMIES have been effected by Modine's simplification and standardization of convector enclosure design in the new line of *Standard* Convectors. And Modine has taken full advantage of all the time-proven superiorities of steam or hot water heating. It is "luxury heating" in everything but cost!

SAVES FLOOR SPACE, WALL SPACE, FUEL—Small and compact, the Modine heating unit may be built into the wall. Made of enduring copper, it heats faster, responds more quickly and evenly to automatic control, and saves fuel. Write for Catalog 239-A.



ONLY MODINE HAS

enclosure front removable by hand—cuts time and cost of installation, simplifies servicing: (left) with Projection Front Recessed Standard Convector, a heating unit 9½ in. deep may be installed in wall of only 4 in. stud depth, enclosure front projecting 5½ in. into room, and overlapping all edges so as to be selftrimming. HEAT THE ADMINISTRATION
BUILDING at the SAN FRANCISCO Golden Gate International
Exposition. Architects: Associated
Architects, W. P. Day, Director;
Engineers: Leland & Haley.

SAN
FRANCISCO
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Denoted:

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MODINE MANUFACTURING COMPANY
1736 Racine Street Racine, Wisconsin

RESIDENTIAL, COMMERCIAL, INDUSTRIAL HEATING, COCLING AND AIR CONDITIONING EQUIPMENT Sold Through Heating Contractors and Recognized Wholesalers

# AND GET FIELD-TESTED FINISHES OF PROVED UNIFORMITY AND DURABILITY!



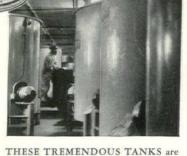
## Pittsburgh Research Assures Better Paint Jobs — Greater Client Satisfaction Always!

RIGID factory control—constant, careful testing all along the line—concentration of all manufacturing processes within one 80-year-old company—all these are definite, positive reasons why the architect who specifies "Pittsburgh" is assured of better paints, better paint jobs.

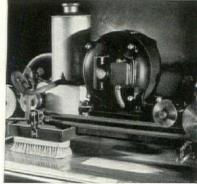
At Pittsburgh's chain of Proving Grounds, exterior finishes are subjected to the actual destructive forces of nature under conditions much more rigorous than any paint would be called upon to withstand in ordinary use. *All* finishes are checked and rechecked—made to measure up to exacting standards of uniformity and durability.

#### See Sweet's Catalogue!

For complete information and addresses of all Pittsburgh Branches, see Sweet's Catalogue. Call our Pittsburgh representative and ask him for further information. Pittsburgh Plate Glass Company, Paint Division, Pittsburgh, Pennsylvania.



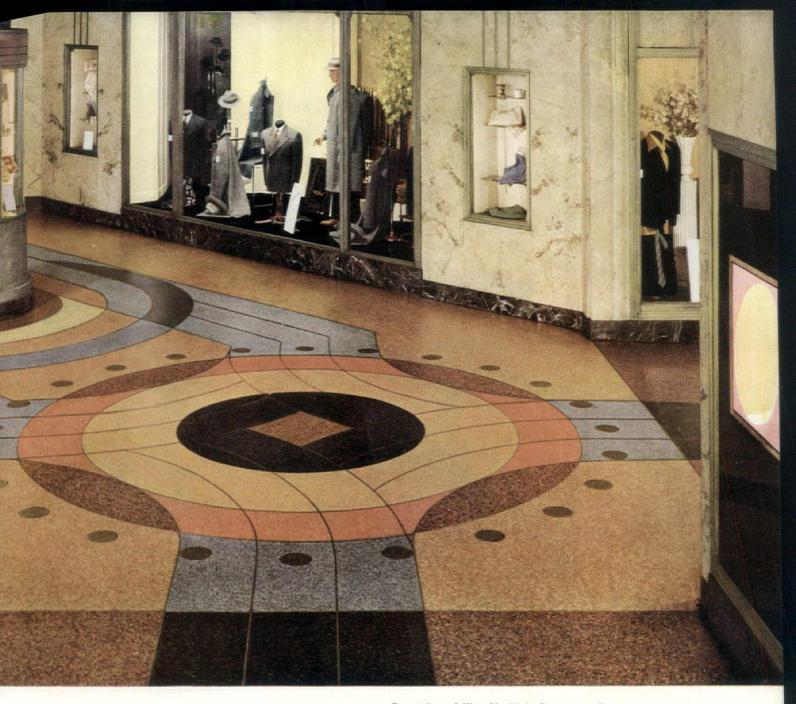
THESE TREMENDOUS TANKS are used for thinning and tinting the pigment paste. Oil, varnish, turpentine, naptha—or any required combination of these—is added in exact amounts according to tested formulas.



POWERFUL SCRUBBING MACHINES test the wear resistance of different finishes in Pittsburgh Laboratories. Each step in the manufacture of Pittsburgh Paints is carefully checked to insure high, uniform quality and long-lasting satisfaction.

Copr. 1939 Pittsburgh Plate Glass Co.







Remodeling of Wm. H. Block Department Store at Indianapolis, Indiana, by Vonnegut, Bohn & Mueller, architects, of Indianapolis, and the American Mosaic & Tile Co., Inc., contractor, of Louisville, Ky.

### ESIGN YOUR FLOORS IN TERRAZZO

... for life-long beauty

 $T^{\mbox{\tiny HIS FLOOR}}$  is a fine example of the possibilities in design and color offered by terrazzo . . . whether for remodeling or new construction.

Only fine terrazzo gives you such lasting color. For it is the result of using white portland cement, such as Atlas White. White cement mixed with marble chips assures exact color control and cleancut patterns according to your specifications.

With Atlas White (plain and waterproofed) you get terrazzo at its best—moderate in first cost, low in upkeep cost, ideal for use in new and remodeled structures. Specify it on your next job. Write for free booklet showing 24 true-color specimens of fine terrazzo. Universal Atlas Cement Co. (United States Steel Corporation Subsidiary), Chrysler Building, New York City.

FOR FINE TERRAZZO SPECIFY ATLAS WHITE PORTLAND CEMENT



# Marvels in GLASS!



In this gleaming, unique Glass Salon which houses the Libbey-Owens Ford Exhibition at the San Francisco Fair, thousands daily see a revelation of the part Modern Glass is playing in the Home Life and Business Life of America. The beautiful Glass Bathroom—a preview of Tomorrow . . . the All-Glass Stairway set against walls of mirror . . . the use of today's crystal clear polished plate glass for mirrors, picture windows and clear-vision, undistorted double-glazing . . . the part Libbey-Owens Ford Glass Products play in modern store and build-

ing fronts . . . the almost unbelievable strength of today's L·O·F Tempered Plate Glass as proved by demonstrations . . . its use for furniture, fire screens, and other utilitarian purposes . . . the place of today's richly colored glass in modern decoration.

All these capture the eye and captivate the senses of Fair-Goers on Treasure Island. But they are more deeply significant to those whose profession it is to see ahead—to plan and design and work with these modern materials. Libbey Owens Ford Glass Company, 1308 Nicholas Building, Toledo, Ohio.

LIBBEY - OWENS - FORD

Quality Glass



Certainly among the most notable features of the New York and San Francisco World's Fairs is the overwhelming evidence of architectural and engineering achievement. Millions are applauding it, and we wholeheartedly join in the

well-deserved praise. And we believe there's meaning to the fact that in some of the bathroom installations,

Case fixtures have been specified—architectural recognition that their quality, utility, and styling are worthy of the "World of Tomorrow". W. A. Case & Son Mfg. Co., 33 Main St., Buffalo, N. Y.

Distributed through Plumbing Supply Wholesalers

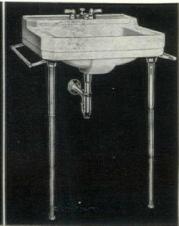


DISTINCTIVE PLUMBING FIXTURES



Case bathroom fixtures are a popular feature of THE GOOD HOUSEKEEPING HOUSE FOR GAS EXHIBITS INCORPORATED. Architect, Dwight James Baum.





# "Quiet action? Distinctive design? Then you want the new K of K Placid"





Note that the tank is above the rim of the bowl to prevent back siphonage. They tell me it has an anti-siphon float valve which is an added protection. It's one-piece for cleanliness and saving space; elongated bowl for hygiene and extra comfort."

# "Want to cut bathroom costs? Then get K of K's fine Wellworth"





I've seen nothing so good at anywhere near the price. It's a close-coupled, compact space-saver. Regular reversetrap bowl." (Anti-siphon float valve optional.)

• Both these K of K closets are free-standing for easier installation. Both have quiet, smooth action, and a vigorous, cleansing rim flush. Tank tops serve as shelves.

These are only two of the large K of K line of precision closets. For office, home, school, anywhere, your clients and prospects will appreciate K of K quality. Write for interesting leaflet. Kohler Co. Founded 1873. Kohler, Wis.

## KOHLER OF KOHLER

#### BOOKS

(Continued from page 30)

ARTE DECORATIVA ITALIANA, by Giuseppe Pagano. Ulrico Hoepli, Milan. 142 pp., largely illustrations. 8 x 8. Lire 32.

A collection of recent Italian work in the decorative arts, executed in stone, fresco, mosaic, glass, cement, metal, fabrics, wood and other materials. Its most prominent characteristic, regardless of medium or artist, seems to be a complete lack of content. Heroic compositions entitled "Fascist civilization" or "Fascist corporate Italy" are filled



with the same dreamy, meaningless figures as panels more modestly labeled "The Sirens" or just "Summer." Along with these curiously indecisive productions has gone a trend toward excessively attenuated figures, fragile and static in appearance. There is no trace anywhere of the vigor commonly presented as a characteristic of Italy today. Typical of the absurdity with which the most familiar decorative problems are being solved is the fountain illustrated above.

The best work illustrated is exhibition design, in which Italian architects have set a very high standard, ceramics, and a series of incised glass panels showing the evolution of dress design. An extraordinary technical performance is Flavio Poli's "Zodiac," a large panel executed entirely in blown glass.

PAINTS AND PAINTING, by G. C. Molleson. David McKay Co., Philadelphia. 274 pp., illustrated. 5 x 71/4. \$2.00.

The purpose of this manual, according to the author, is to present a compilation of useful information on the properties and correct application of various paints. Included in the book are chapters on pigments and vehicles, oil paints and enamels, special paints, etc. Also given are directions on the proper use of the various materials and on the correct preparation of the surfaces to be covered. A recommended reference book for architects as well as maintenance engineers.

As a service to interested readers, The Architectural Forum will undertake to order copies of foreign books or others not conveniently obtainable locally, which have been reviewed in this department. Checks and money orders to be made payable to The Architectural Forum.



# HERE'S SOME REAL FLOORING NEWS FOR YOU

★★ Bruce now offers STREAMLINE—a new type oak flooring that's finished at the Bruce Plant to provide a more lustrous, wear-resisting finish.

\* \* Bruce STREAMLINE Flooring has an installed cost that is usually less than that of ordinary hardwood flooring finished on the job.

This popular new flooring is 25/32" thick with a  $3\frac{1}{4}$ " face. Bevels on ends and sides give floors a distinctive patterned appearance. STREAMLINE Flooring is sanded, finished, waxed, and polished

at the factory—ready to use as soon as it is laid. It is installed exactly like regular strip flooring. Specify Bruce STREAMLINE Flooring for houses in any price class. Its smart appearance, its lasting finish give the homeowner "plus" values. Yet -because of its low "matching waste" and the economy of factory finishing—the installed cost of STREAMLINE Flooring is no more, usually less, than ordinary job-finished hardwood flooring.

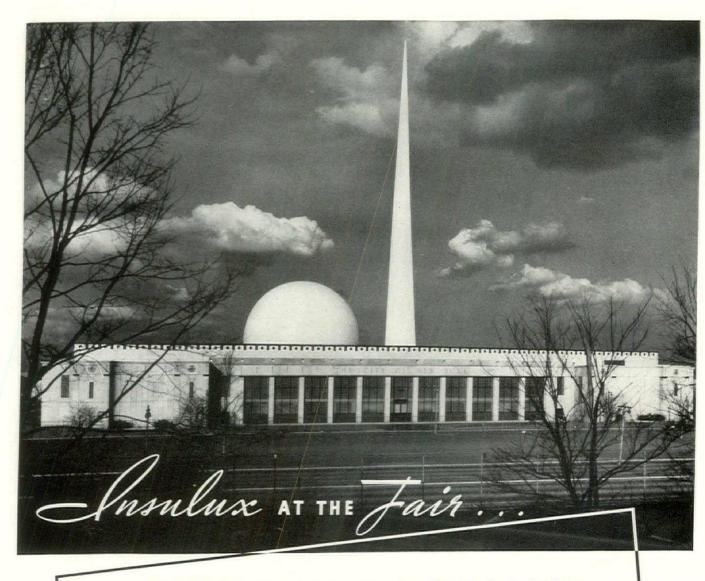
Let us send you complete details at once. Just mail the coupon below.

# BRUCE STREAMLINE FLOOR

Another reason why THERE IS NO SUBSTITUTE FOR HARDWOOD FLOORS

BRUCE	HARGEST MAKER OF HARDWOOD FLOORINGS Please tell me all about your new Bruce STREAMLING Flooring.
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Address



New York City Building; Aymar Embury II, New York, Architect; Morgan, Hamel & Engelken, New York, Engineers. Twelve thousand Insulux glass blocks were used in the construction of the New York City Building, one of the two permanent Fair Buildings to be used as a recreation center after the exposition. Here Insulux serves a double purpose:

1) It "daylights" the interior of the building; 2) It blends harmoniously with Architect Embury's design.

ADMINISTRATION BUILDING

Allied Architects: Harvey Stevenson, Eastman Studds, (
Holmes, John A. Thompson, Edgar I. Williams,
Richard A. Kimball, Ellery S. Husted. udds, Gerald A.

AMERICAN TELEPHONE & TELECRAPH BUILDING Voorhees, Walker, Foley & Smith, Architects; Henry Dreyfus, Interior Design.

Interior Design.

ARGENTINE PAVILION

Armando D'Ans, Architect; Aymar Embury II, Associate Architect.

BABY INCUBATORS EXHIBIT BUILDING
Skidmore & Owings, Architects; John Moss, Associate.

"DANCE OF THE RACES"
Sculpture by Malvina Hoffman.

DISTILLED SPIRITS EXHIBIT BUILDING
Morris B. Sanders, Architect; Ross-Frankel, Interior Exhibits.
FIRESTONE FACTORY AND EXHIBIT BUILDING
C. D. Smith, Wilbur Watson and Associates, Architects;
George W. McLaughlin, Designer.

FORD EXPOSITION BUILDING

FORD EXPOSITION BUILDING
Walter Dorwin Teague, Designer; Charles C. Colby and Russell R.
Killburn, Associates; Albert Kahn, Inc., Architects. FOUNTAIN OF THE ATOM Designed by Waylande Gregory, Sculptor.

GAS EXHIBITS BUILDING
Skidmore & Owings, Architects; John Moss, Associate Architect.

GENERAL ELECTRIC BUILDING
Voorhees, Walker, Foley & Smith, Architects.
GENERAL MOTORS HIGHWAYS AND HORIZONS EXHIBIT
Norman Bel Geddes, Designer; Albert Kahn, Architect.

GLASS CENTER

Shreve, Lamb and Harmon, Architects.

METALS BUILDING William Gehron, Benjamin W. Morris, Robert B. O'Connor, Architects.

NATIONAL ADVISORY COMMITTEES BUILDING Harold Sterner, Richard S. McCaffrey, Jr., Maurice Gauthier, Ides Van der Gracht, Walter H. Kilham, Jr., Architects.

NETHERLANDS PAVILION

D. F. Slothouwer, Architect; George B. Post & Sons, Associate Architects; J. W. T. Van Erp, Supervising Engineer.

NORWEGIAN PAVILION

Finn Bryn, Architect.
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World's Fair Board of Design, Architects.

POLISH PAVILION AND RESTAURANT
Jan Cybulski, Jan Galinowski, Architects; Cross & Cross, Associates. SCIENCE AND EDUCATION, MEDICAL AND HEALTH BLDG. Francis L. S. Mayers, O. H. Murray, Hardie Phillip, Architects.

TOWN OF TOMORROW

The Bride's Home—Landefeld & Hutch, Architects.

The Celotex House—Henry Otis Chapman, Jr., Harold W. Beder, Architects.

The Electric Home—James C. Mackenzie, James W. O'Connor,

Architects.
The Fire-Safe Home—Perry M. Duncan, Architect.

WORKS PROGRESS ADMINISTRATION BLDG.
Delano & Aldrich, Architects; George A. Light, Consulting
Architect; Donald Deskey, Interior Designer.

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subfloor, adding less than 2% to the total cost. For industrial and commercial buildings it serves for roof decking, floors and in particular for nailers, sleepers and subflooring when air conditioning causes a condensation problem. Write for filesize folder (A.I.A. indexed) giving all the details you require. AMERICAN LUMBER & TREATING COMPANY, 1425 Old Colony Building, Chicago.

\* Registered Trade-mark

# WOLMANIZED LUMBER

LUMBER FOR ENDURING, ECONOMICAL CONSTRUCTION



### LETTERS

(Continued from page 36)

#### LOW COST HOUSE (cont'd)

. . . I have read my copy of the April FORUM from cover to cover and have carefully put it away in my desk for reference. . . . the most complete and best arranged set of informative details on low cost housing I have ever seen. . . . GERARD LAMBERT

New York, N. Y.

Forum:

. . . It is exactly as described . . . "the most comprehensive analysis ever made of houses built for rent or sale to families with annual incomes of \$1,000 to \$2,000." . . just the "shot in the arm" needed in the residential construction field—should stimulate activity in a field, the surface of which has only been scratched.

TOM CRUIKSHANK Executive Secretary

Dallas Real Estate Board Dallas, Tex.

Forum:

. . . I am impressed with the improvement in the general design of these smaller houses, which previously have been so neglected by the architectural profession. MAXWELL ARDEN NORCROSS

Cleveland, Ohio

. . . An excellent document and should be of great value in that field. I like the detail that is included and the financial JOHN W. ROOT 

Forum:

. . . You have set forth clearly the basic defects in our housing program and directed attention to a very large field of activity in which the architects should become interested. . .

Walter R. McCornack, Chairman Small House Committee The American Institute of Architects

Washington, D. C.

. . . A noteworthy contribution. Naturally when you select 50 houses there is bound to be a difference of opinion as to their relative merits. It is hard enough for architects to agree on the merits of one house, so naturally the problem multiplies, the greater the number. You have published a very sound selection. . . .

GORDON B. KAUFMANN

Los Angeles, Calif.

. . . I am particularly interested in the effects of climate on cost. One cannot escape the fact also, that there is really great opportunity for variation, both of plan and architectural appearance, within the limits of even the most constricted building budget . . .

Denver, Colo. TEMPLE HOYNE BUELL

. . . The most intelligent compilation of general and specific material on the subject of "Low Cost Houses" that I have ever seen. For the first time the subject of cost, because of the method employed seems believable. Once again The Archi-TECTURAL FORUM has turned out a reference book of genuine merit on a timely topic. W. L. Pereira

Chicago, Ill.

Forum:

. . . The examples on the whole are well chosen, the photographs, plans, and details are well presented, and the construction outline and cost breakdown are of particular value. The short criticism of each example is a fine idea.

The articles on market, plan and design, construction, and labor costs appear to be a valuable contribution to the sub-

ject.

Portland, Ore.

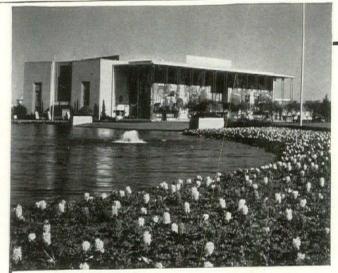
. . . The analysis under Plan and Design was, to me, particularly interesting. Also the Land and Services division is not only interesting but informative and exceptionally accurate. The analysis and comparison, however, of the Cost Breakdown of the various exhibits still shows a wide variation that is hard to reconcile regardless of the effect of local conditions. . . .

KENNETH W. DALZELL

WALTER E. CHURCH

East Orange, N. J.

Characteristic of the colorful beauty of the Golden Gate International Exposition in San Francisco is the California Auditorium with its decorative murals and interesting design. It stands beside a miniature lake bordered by thousands of hyacinths.



THOUSANDS of visitors to Treasure Island's California Auditorium are enjoying the conditioned comfort of a Payne Gas heating and ventilating system. A battery of 19 Payne CB forced air units turns the trick.

Additional thousands enjoy the Payne-conditioned freshness of the Fair's Recreation

No matter what the size of the job, whether

PAYNE Furnace & Supply Co., Inc.

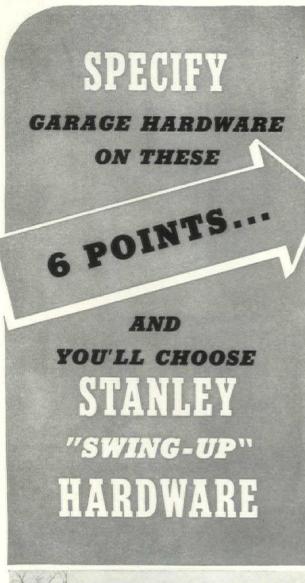
BEVERLY HILLS . CALIFORNIA

## Payne GOES TO THE FAIR **\_AND STAYS** TO HEAT IT!

it be heating an auditorium with seating capacity for more than 3000, or providing that extra notch of comfort for a model bungalow — Payne engineering skill and Payne precision construction are at your service.

WHEN YOU VISIT THE GOLDEN GATE INTERNA-TIONAL EXPOSITION, BE SURE TO SEE THE PAYNE GAS FURNACE EXHIBIT IN THE HOMES AND GARDENS BUILDING.

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#### 1 ADAPTABILITY

Stanley "Swing-Up" can be applied to any pair of new or old stock garage doors.

#### 2 cost

Stanley "Swing-Up" adds little to the cost of a new home or a remodeling job.

#### 3 CONVENIENCE

Stanley "Swing-Up" doors require practically no head-room; means economy in framing garage.

#### 4 DESIGN

Stanley "Swing-Up" is easily applied to any doors — so your garage doors may match the design of your house.

#### 5 APPEARANCE

"Swing-Up" doors always look well. When open, they are inside the garage, out of the weather.

#### 6 QUALITY

Stanley "Swing-Up" is the best-designed, smoothest-working set of its type.

Simple, inexpensive answer to the modern demand for garage doors that are easy to open, Stanley "Swing-Up" Hardware also keeps them looking well — for the life of the building. If you do not have complete literature on this hardware, and on Stanley "Roll-Up" Doors and Hardware—the finest garage door equipment made, write today for complete details and specifications. The Stanley Works, New Britain, Connecticut.

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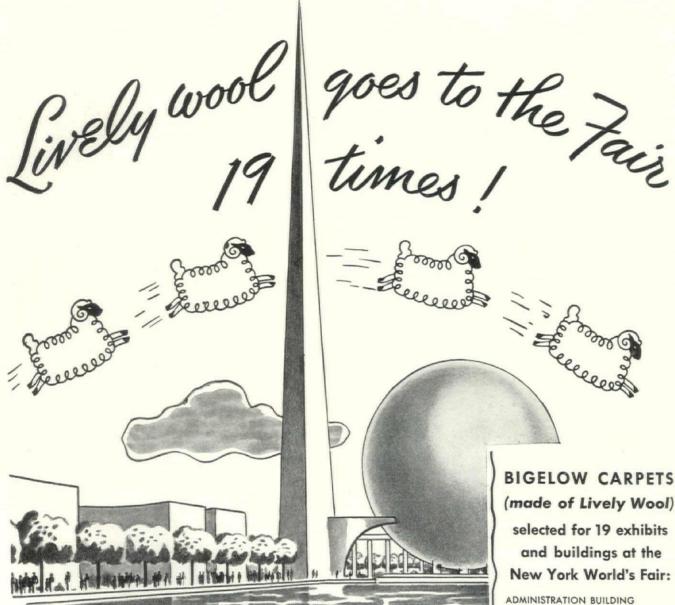
future leakage, are eliminated in a STREAMLINE system. One leaky joint behind walls or between floors and ceilings may cause many dollars worth of damage to property and furnishing and involve trouble and inconvenience for tenants and owners. STREAMLINE eliminates this risk and worry — and with the possible exception of extremely abnormal water conditions, it will be just as serviceable and efficient after twenty or thirty years have passed as the day it was first put in — a point well worth remembering should the building be ultimately for sale.

Plan for efficiency and with an eye to the future. Specify genuine STREAMLINE Copper Pipe and Fittings, and insist upon it being used.

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PIPE AND FITTINGS DIVISION
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AIR CONDITIONING - MECHANICAL REFRIGERATION



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And, as many architects have learned through personal experience, Bigelow also offers the widest range of patterns, colors, grades and prices-a creative staff to work out special designs—a service of expert Carpet Counsel to help you get the right answer to every carpeting problem.

Contract Dept., Bigelow-Sanford Carpet Co., Inc., 140 Madison Avenue, New York.

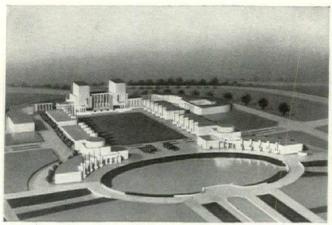
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## CARPET COUNSEL BY BIG





# In the Hall of Nations LOCKWOOD HARDWARE



These Fair Buildings equipped by Lockwood

Business Administration Bldg.
New York City Bldg.
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I.R.T.—B.M.T. Subway Station
I.R.T.—B.M.T. Subway Station
Fire House—108 St. & Harding Blvd.
U. S. Government Bldg. E\*
U. S. Government Bldg. F\*
U. S. Government Bldg. K\*
U. S. Government Bldg. P\*
U. S. Government Bldg. P\*
U. S. Government Bldg. Q\*
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Zuyder Zee of Holland
Time & Space Building
\*Hall of Nations Group

It is significant that modern Lockwood hardware was chosen for sixteen important buildings at the New York World's Fair—including the Hall of Nations. But not surprising—for Lockwood is rapidly gaining general recognition as the "theme center" for notable advances in builders' hardware.

As evidence, we offer Patrician, with its interchangeable knob bodies and caps in colorful plastics; Plastelle, the new design achievement with plastic escutcheons; Polyflex, the metal knob assembly that lowers hardware stocks; Cape Cod, modern contribution to a famous style; Unifast, the practical rose and key plate; Bor-in, combining quality and low cost installation; and the original Ball Bearing Door Closer.

Let us send you literature—or may we have a representative call?



## **LOCKWOOD**



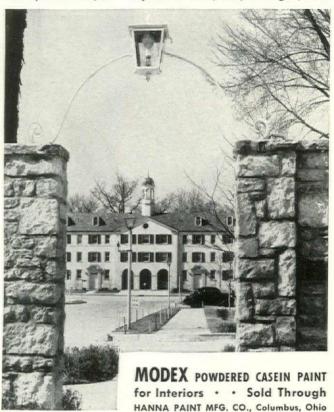
HARDWARE MFG. CO.

Division of

INDEPENDENT LOCK CO., FITCHBURG, MASS.

#### OLENTANGY VILLAGE, Columbus, Ohio

402 Apartment Project - Raymond E. Snow, Arct., Washington, D. C.



# Want to Know Why MODEX Was Selected for This Project?

There's plenty of competition for paint business when a major project like Olentangy Village is at stake. Modex—the concentrated casein paint in powder form—was selected because it thrives on competition. When the chips are down, Modex has the selling features which really count. It's well to keep these Modex superiorities in mind for future reference—they are important whether you are considering a multiple dwelling project or a simple bungalow.

- √ Costs 25% Less Than Any Paste Casein Paint
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- √ Washable and Exceptionally Durable
- √ Soft Color Harmony

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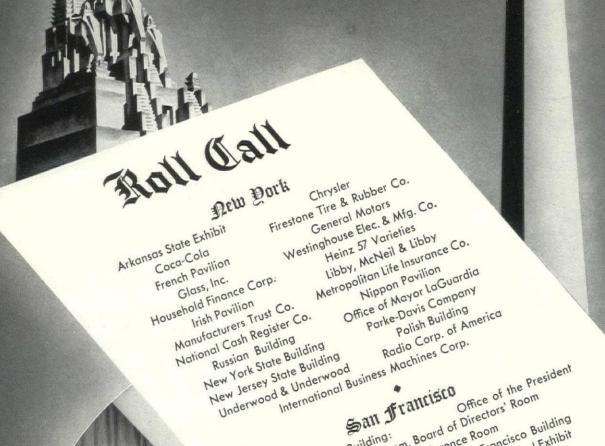
THE REARDON COMPANY
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THE CONCENTRATED CASEIN PAINT IN POWDER FORM

Texwood at the World Fairs



Recreation Room, Board of Directors' Room Public Utilities Exhibit in San Francisco Building International Correspondence School Exhibit Administration Building:

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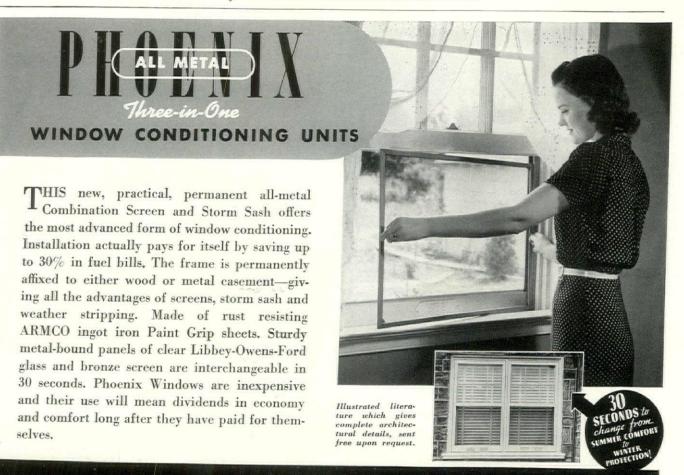
ALBANY, 75 State St.; Boston, 44 School St.; CHICAGO, 5535
No. Wolcott Ave.; CLEVELAND, 4300 Euclid Ave.; DALLAS, 1513 Wall St.; Houston, 310 Bringhurst St.; Los Angeles, 727 West 7th St.; New York, 101 Park Ave.; Philadelphia, 22nd & Westmoreland Sts.; San Francisco, 525
Market St.; Tacoma, 1120 East "D" St.; Canada, Ontario Marble Co., Ltd., 403 Manning Chambers, Toronto.

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Marble was modern to the Romans when they built the shop fronts of Old Pompeii. It is modern on the finest streets of today's America. It will be modern to the builders yet unborn.

That alone is enough to commend Vermont Marble to architects and property owners. And that is only one of its good qualities.

Write for illustrated bulletins on marble construction.



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When you dine at the Fair, give a thought to the refrigeration equipment that makes a good meal possible. The chances are it's General Electric—first choice of discriminating Fair restaurateurs and those responsible for the equipment specifications. Some of the General Electric commercial refrigeration installations at both Fairs are pictured here. There are many others.

When you consider plans for the construction or modernization of any type of commercial structure that requires refrigeration equipment, it will pay you to keep these facts in mind: 1. G-E offers a complete line for every purpose and today's prices are lowest in G-E history. 2. G-E equipment is famous for dependable, thrifty performance and long life. 3. A factory-trained G-E Engineer is instantly available for consultation on any type of installation, large or small. Phone the General Electric Refrigeration Distributor near you or write direct.







For the imposing Restaurant in the Belgian Pavilion, New York World's Fair.



For the ever-popular Restaurant in Schaefer Center, New York World's Fair.



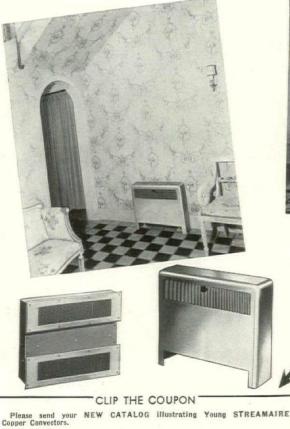
For numerous exhibits in the Food Building (North), New York World's Fair.



For the Dining Room in National Advisory Committee Building, New York World's Fair.

General Electric Company, Commercial Refrigeration Sec. CC-6, Nela Park, Cleveland, Ohio





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Architects find the NEW line of STREAMAIRE convectors is most modern, beautifully designed and well graduated in heating capacities. It includes six distinct types of enclosures from which to make a selection and many styles and grille patterns which harmonize with any type of architecture or interior decoration. Whether you are planning a new building, or modernizing an old one, be sure to specify Young STREAMAIRE convectors and assure the utmost satisfaction to the building owner.

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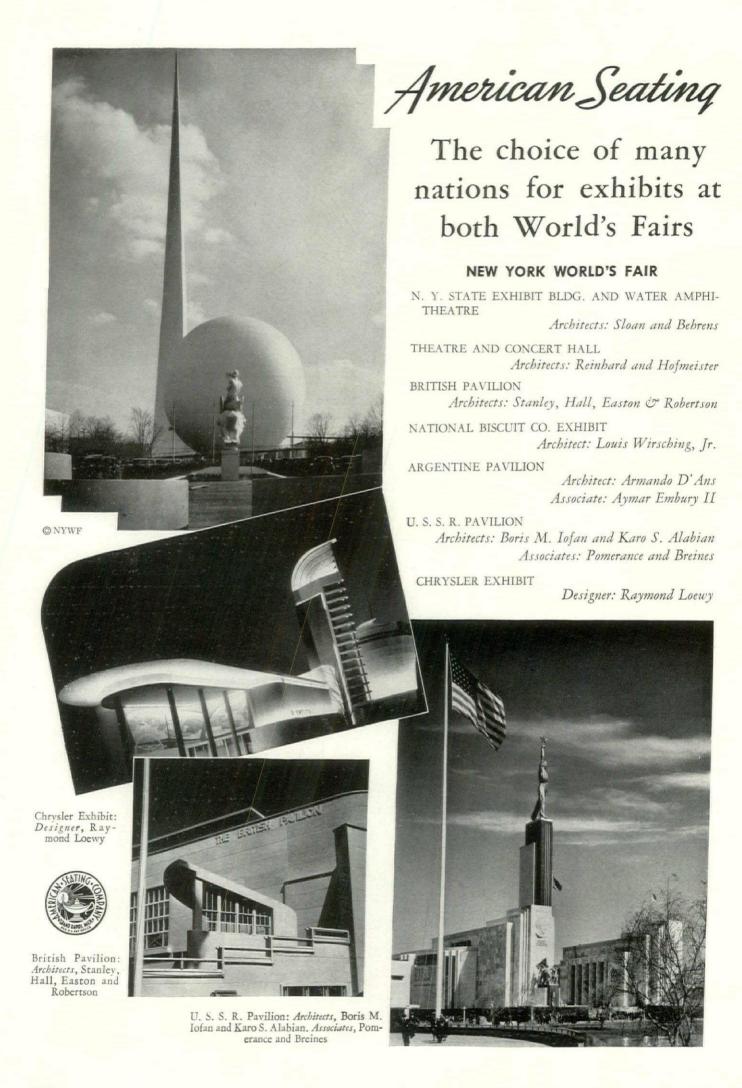
We invite you, also, to examine this plant. It operates in full view behind a glass partition at one side of the room.

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Architect: Harry A. Thomsen, Jr.

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Architect: W. P. Day

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Architect: Timothy L. Pflueger

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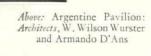
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Left: French Pavilion: Architects, Geo. Besse and Claude Meyer Levy. Associates, Spencer Blanchard and Maher





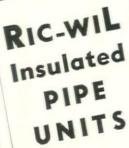
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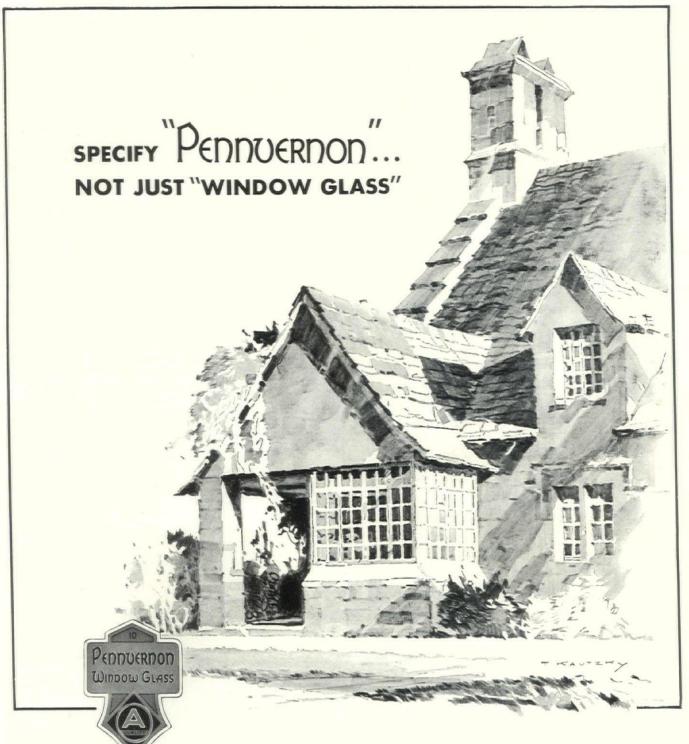
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ARCHITECTURAL



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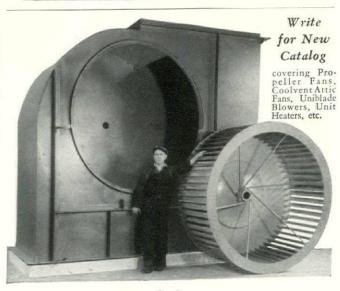
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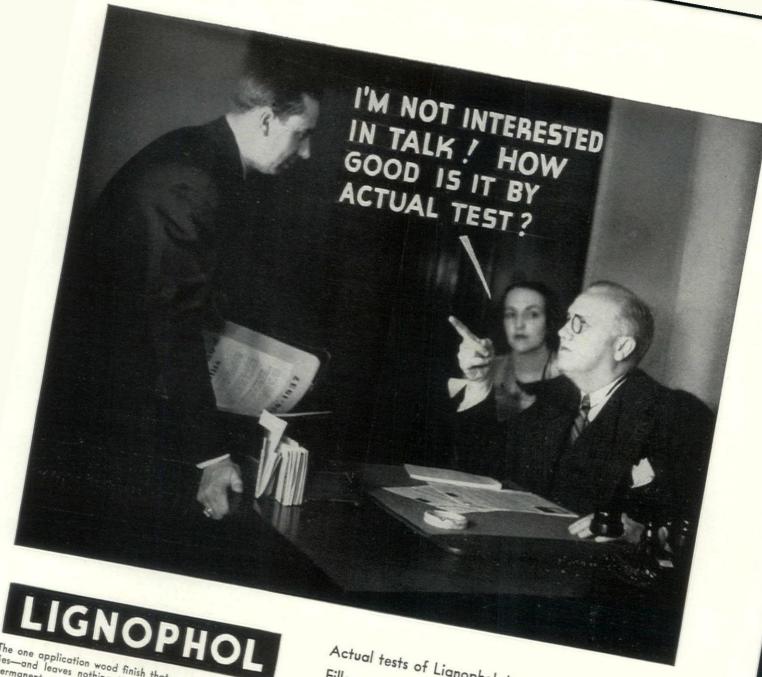
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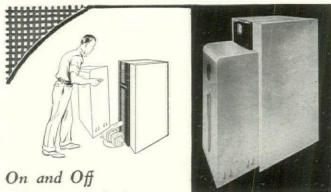
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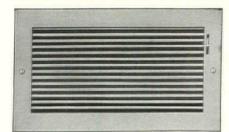
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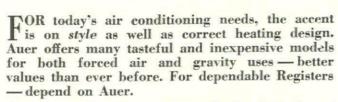


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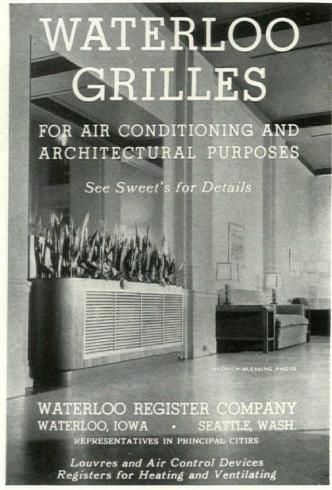
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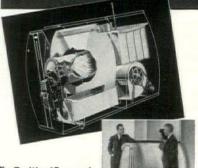
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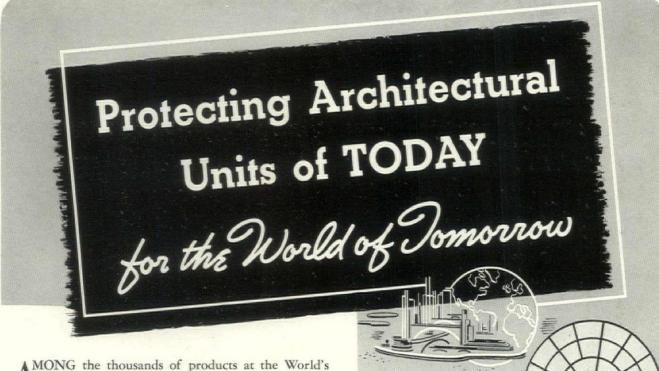
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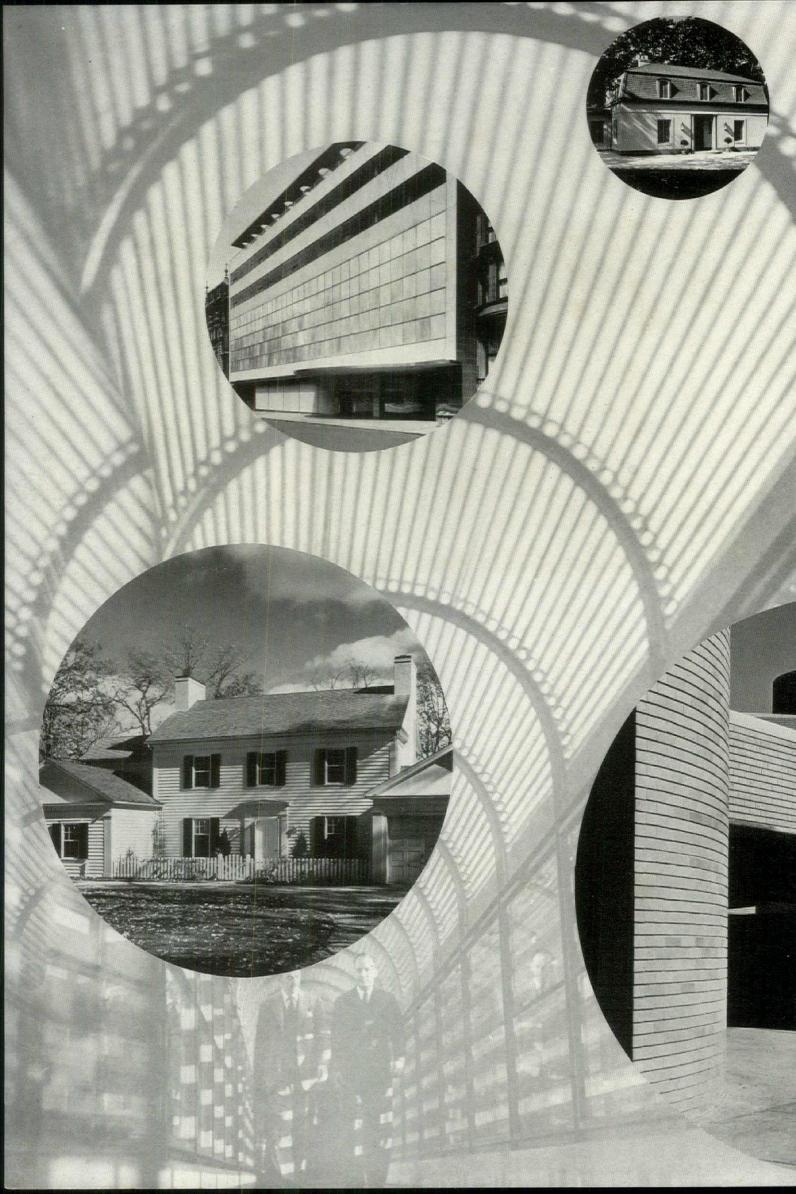
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Airtemp, Inc.	112
Alberene Stone Corporation of Virginia	94
Aluminum Company of America90	, 91
American Gas Association	17
American Lumber & Treating Co	101
American Meter Co., Inc.	16
American Rolling Mill Company, The	79
American Seating Co	115
American Telephone & Telegraph Co	27
Anchor Post Fence Company	122
Anthracite Industries, Inc	46
Armstrong Cork Company	, 25
Auer Register Company, The	120
Autovent Fan & Blower Co	118
-	
Barber Asphalt Corporation	61
Barrett Company, The	34
Bigelow-Sanford Carpet Co., Inc	105
Briggs Manufacturing Co	53
Bruce Co., E. L	99
Burnham Boiler Corporation	120
~	~~~
Cambridge Tile Mfg. Co., The Opp. p.	128
Carey, Philip Company, The	45
Carrier Corp	75
Case & Son, W. A. Manufacturing Co	97
Celotex Corporation, The	r II
Certain-Teed Products, Inc	111
Chamberlin Metal Weather Strip Co	110
Congoleum-Nairn, Inc.	38
Consolidated Expanded Metal Companies, The	71
	77
Crane Co	
Curtis Companies	70
Davidson Enamel Products, Inc	52
Detroit Steel Products Co	29
Donley Bros. Co.	120
Douglas Fir Plywood Association	
Douglas Fir Flywood Association	110
Duryea, Drix, Incorporated	118
Dwyer Products Corp	56
Eagle-Picher Lead Company, The	80
AND	oo
Formica Insulation Company, The	5
Frigidaire DivisionCover	· IV
(General Motors Sales Corp.)	
Gar Wood Industries, Inc.	122
General Bronze Corporation	18
General Electric Company49,	109
General Motors Sales Corp Cover	· IV
(Frigidaire Division)	
Gerity-Adrian Mfg. Corp	116
Hegeman-Harris Co., Inc.	127
Henry Furnace & Foundry Company, The	127 60
Henry Furnace & Foundry Company, The	
Henry Furnace & Foundry Company, The	60 93
Henry Furnace & Foundry Company, The Hoffman Specialty Co., Inc. Hope's Windows, Inc.	60 93 6
Henry Furnace & Foundry Company, The Hoffman Specialty Co., Inc. Hope's Windows, Inc.  Jamison Cold Storage Door Co.	60 93 6 122
Henry Furnace & Foundry Company, The Hoffman Specialty Co., Inc. Hope's Windows, Inc.	60 93 6
Henry Furnace & Foundry Company, The Hoffman Specialty Co., Inc. Hope's Windows, Inc.  Jamison Cold Storage Door Co. Johnson Service Company	60 93 6 122
Henry Furnace & Foundry Company, The Hoffman Specialty Co., Inc. Hope's Windows, Inc.  Jamison Cold Storage Door Co. Johnson Service Company  Kawneer Company, The	60 93 6 122 50 48
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Henry Furnace & Foundry Company, The Hoffman Specialty Co., Inc. Hope's Windows, Inc.  Jamison Cold Storage Door Co. Johnson Service Company  Kawneer Company, The Kewanee Boiler Corporation Kimberly-Clark Corporation Kinnear Mfg. Co., The	60 93 6 122 50 48 59 57 56
Henry Furnace & Foundry Company, The Hoffman Specialty Co., Inc. Hope's Windows, Inc.  Jamison Cold Storage Door Co. Johnson Service Company  Kawneer Company, The Kewanee Boiler Corporation Kimberly-Clark Corporation Kinnear Mfg. Co., The Kitchen Maid Corporation, The	60 93 6 122 50 48 59 57 56 116
Henry Furnace & Foundry Company, The Hoffman Specialty Co., Inc. Hope's Windows, Inc. Jamison Cold Storage Door Co. Johnson Service Company  Kawneer Company, The Kewanee Boiler Corporation Kimberly-Clark Corporation Kinnear Mfg. Co., The Kitchen Maid Corporation, The Kohler Co.	60 93 6 122 50 48 59 57 56 116 98
Henry Furnace & Foundry Company, The Hoffman Specialty Co., Inc. Hope's Windows, Inc.  Jamison Cold Storage Door Co. Johnson Service Company  Kawneer Company, The Kewanee Boiler Corporation Kimberly-Clark Corporation Kinnear Mfg. Co., The Kitchen Maid Corporation, The	60 93 6 122 50 48 59 57 56 116 98
Henry Furnace & Foundry Company, The Hoffman Specialty Co., Inc. Hope's Windows, Inc.  Jamison Cold Storage Door Co. Johnson Service Company  Kawneer Company, The Kewanee Boiler Corporation Kimberly-Clark Corporation Kinnear Mfg. Co., The Kitchen Maid Corporation, The Kohler Co. Koppers Products Company  Opp. p.	60 93 6 122 50 48 59 57 56 116 98 32
Henry Furnace & Foundry Company, The Hoffman Specialty Co., Inc. Hope's Windows, Inc.  Jamison Cold Storage Door Co. Johnson Service Company  Kawneer Company, The Kewanee Boiler Corporation Kimberly-Clark Corporation Kimberly-Clark Corporation Kinnear Mfg. Co., The Kitchen Maid Corporation, The Kohler Co. Koppers Products Company  Laucks, I. F., Company	60 93 6 122 50 48 59 57 56 116 98 32
Henry Furnace & Foundry Company, The Hoffman Specialty Co., Inc. Hope's Windows, Inc.  Jamison Cold Storage Door Co. Johnson Service Company  Kawneer Company, The Kewanee Boiler Corporation Kimberly-Clark Corporation Kinnear Mfg. Co., The Kitchen Maid Corporation, The Kohler Co. Koppers Products Company  Laucks, I. F., Company Lead Industries Association Opp. p.	60 93 6 122 50 48 59 57 56 116 98 32 84 33
Henry Furnace & Foundry Company, The Hoffman Specialty Co., Inc. Hope's Windows, Inc.  Jamison Cold Storage Door Co. Johnson Service Company  Kawneer Company, The Kewanee Boiler Corporation Kimberly-Clark Corporation Kinnear Mfg. Co., The Kitchen Maid Corporation, The Kohler Co. Koppers Products Company  Laucks, I. F., Company Lead Industries Association Libbey-Owens-Ford Glass Co. Opp. p. 97,	60 93 6 122 50 48 59 57 56 116 98 32 84 33 121
Henry Furnace & Foundry Company, The Hoffman Specialty Co., Inc. Hope's Windows, Inc.  Jamison Cold Storage Door Co. Johnson Service Company  Kawneer Company, The Kewanee Boiler Corporation Kimberly-Clark Corporation Kinnear Mfg. Co., The Kitchen Maid Corporation, The Kohler Co. Koppers Products Company  Laucks, I. F., Company Lead Industries Association Opp. p.	60 93 6 122 50 48 59 57 56 116 98 32 84 33

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Minneapolis-Honeywell Regulator Co	95 56
National Association of Ice Industries National Chemical & Mfg. Co. National Lead Company Norton Lasier Company	76 113 92 68
Overhead Door Corporation	$\begin{array}{c} 112 \\ 100 \end{array}$
Parker Rust-Proof Company Parsons Co., The Payne Furnace & Supply Co., Inc. Penberthy Injector Company Perfection Stove Company Pittsburgh Plate Glass Company Portland Cement Association Procter & Gamble	123 58 102 37 81 117 96 73 54
Raymond Concrete Pile Co. Reardon Company, The Ric-Wil Co., The Rome-Turney Radiator Co. Ruberoid Co., The Russell Insulating, F. C., Co., The	47 106 116 72 31 108
Servel, Inc. Sisalkraft Company, The Sonneborn Sons Inc., L. Square D Company Stanley Works, The Stewart, James & Company Streamline Pipe & Fittings Co.	55 23 119 39 103 32 104
Tompkins, Calvin Company Todd Combustion Equipment, Inc. Trane Company, The Truscon Steel CompanyOpp. Cover III, Cover	33 67 69 r III
United States Building & Loan League United States Gypsum Company	51 126 107 . 96 . 96
Van Range, John, Co., The Vermont Marble Company Versen, Kurt Company Victor Electric Products, Inc. Vitrolite Division—Libbey-Owens-Ford Glass Company Opp. p	58 108 60 116
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