

AMERICAN ARCHITECT

A N D A R C H I T E C T U R E

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OCTOBER

937



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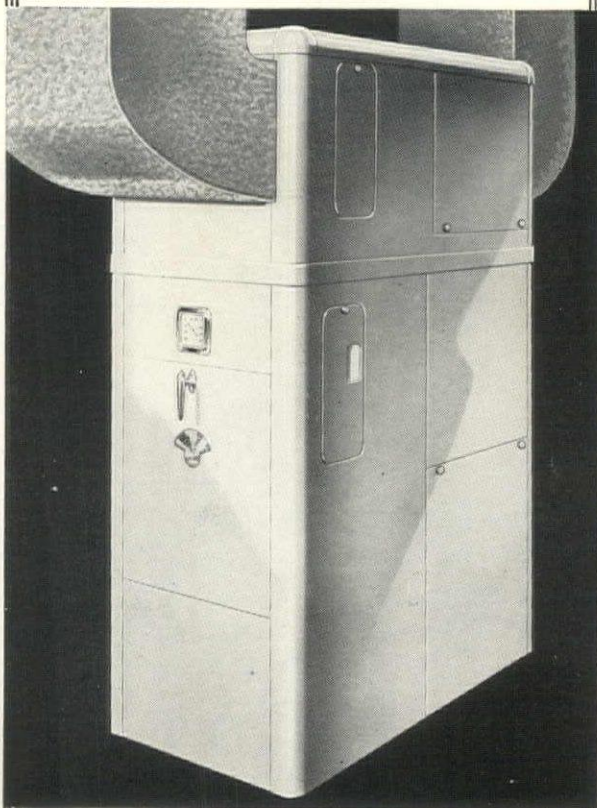
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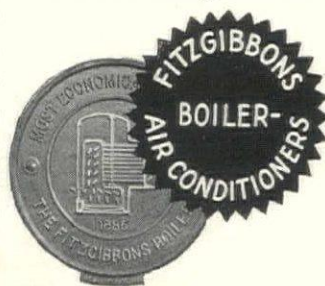
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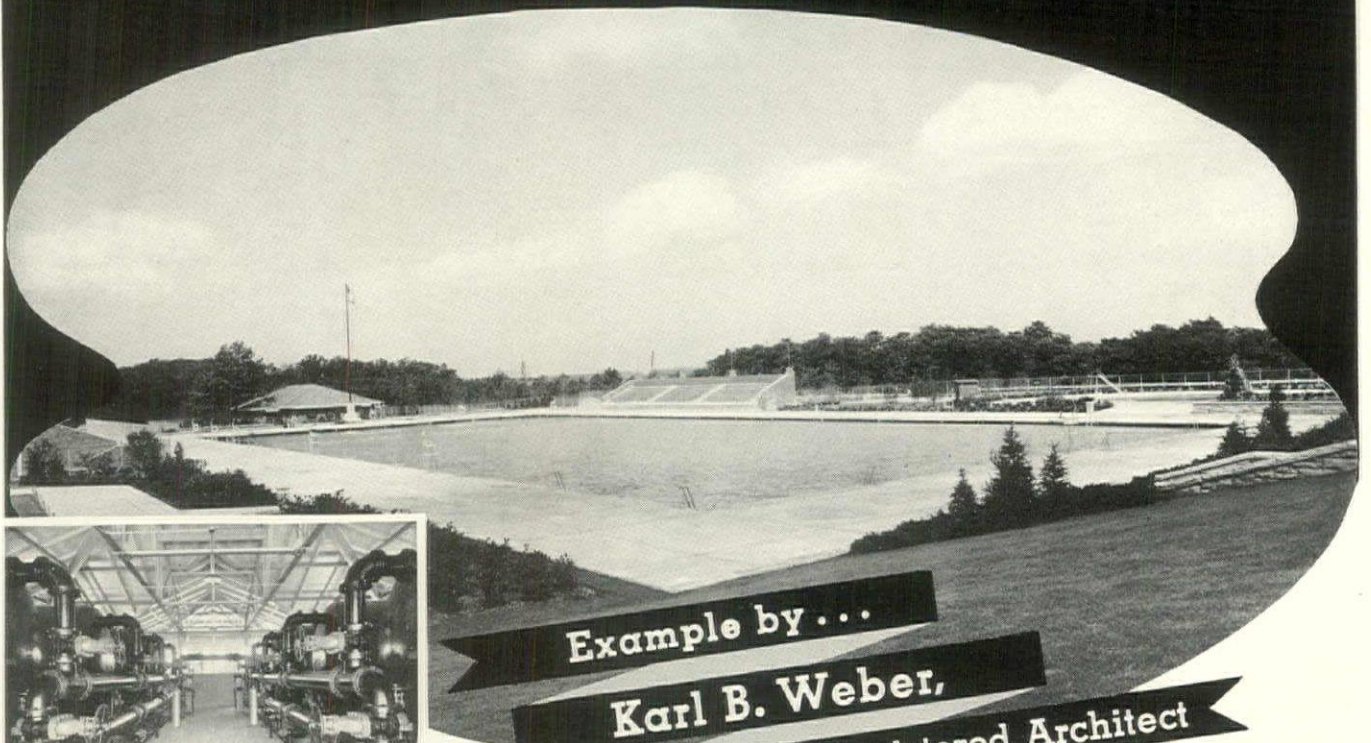
Made in types for oil burner, gas burner, stoker. In most cases the firing unit is mounted inside the jacket, behind easily removable panels—concealed yet readily accessible.



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AMERICAN ARCHITECT AND ARCHITECTURE, OCTOBER 1937

For Handling Large VOLUMES of WATER Specify **BYERS WROUGHT IRON**



Example by . . .

Karl B. Weber,

Pittsburgh Registered Architect

● When it comes to handling large volumes of water, in swimming pools, filtration plants, sewage treatment and in air conditioning, you are sure to face the corrosion problem.

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AMERICAN ARCHITECT AND ARCHITECTURE

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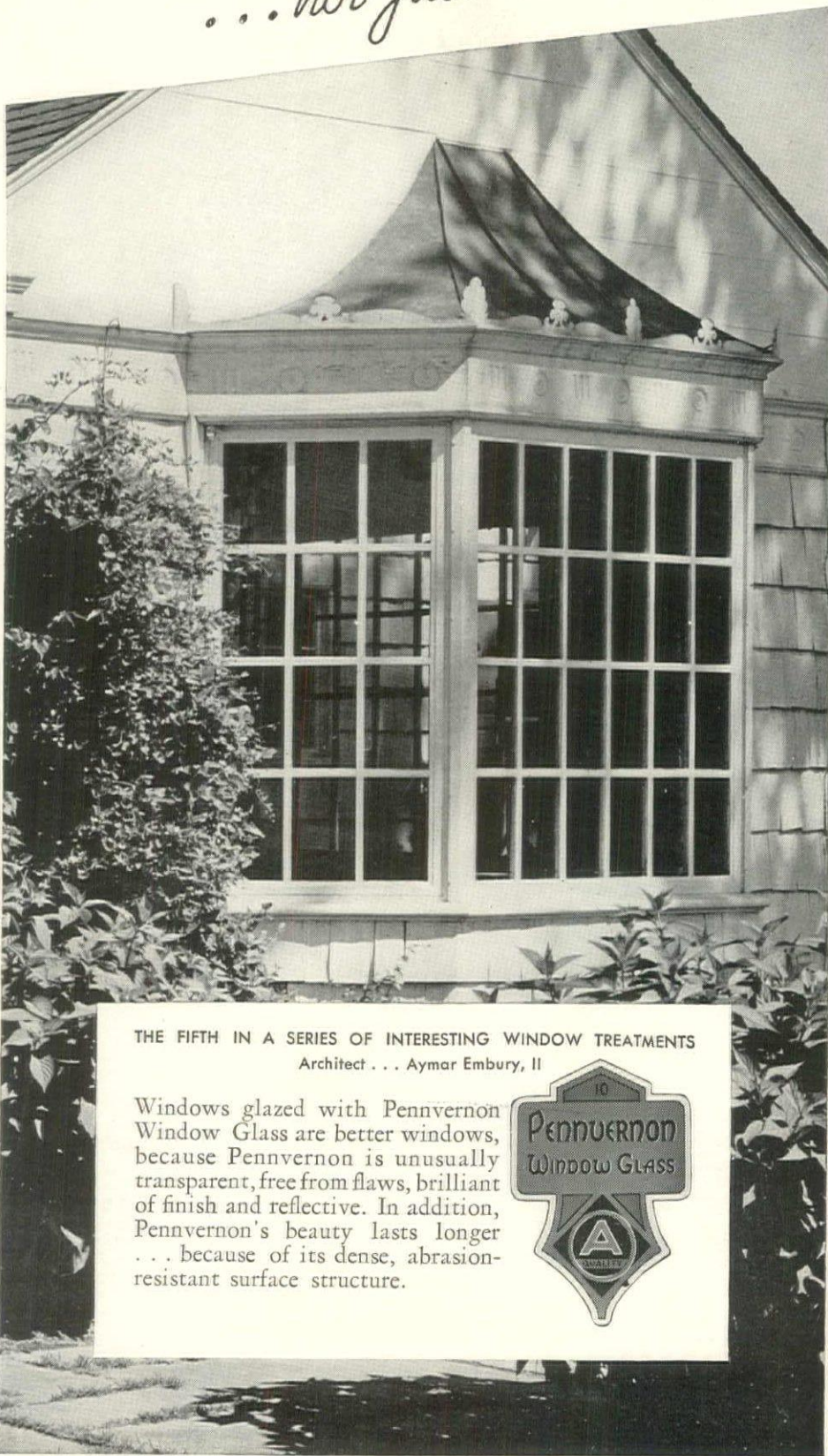
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tant Historical Monuments of Peiping, China . . . The Portfolio, Entrance Doorway Sidelights . . . Favorite Features, Garage Doors . . . Unit Planning, IX and the Time-Savers Standards will cover the subject of Hotel Bedrooms . . . Six houses, a florist shop, factory, warehouse and several municipal buildings.

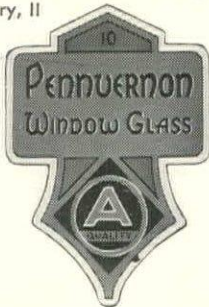
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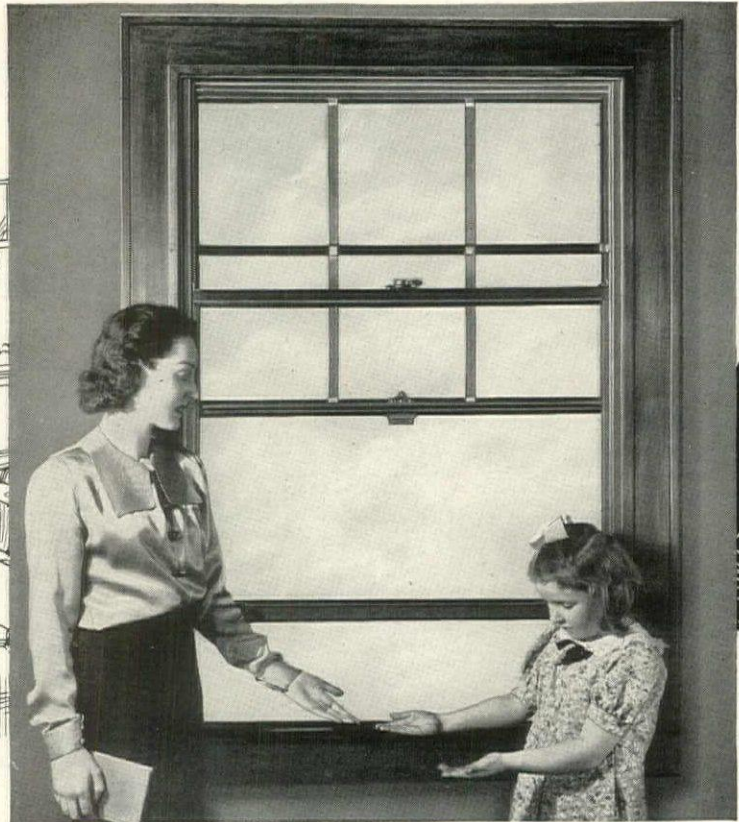
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The high quality of workmanship and materials, and excellence of design, make Permatite Windows suitable for all types of public buildings; they will

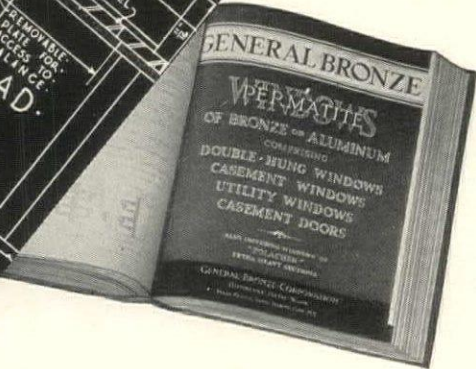
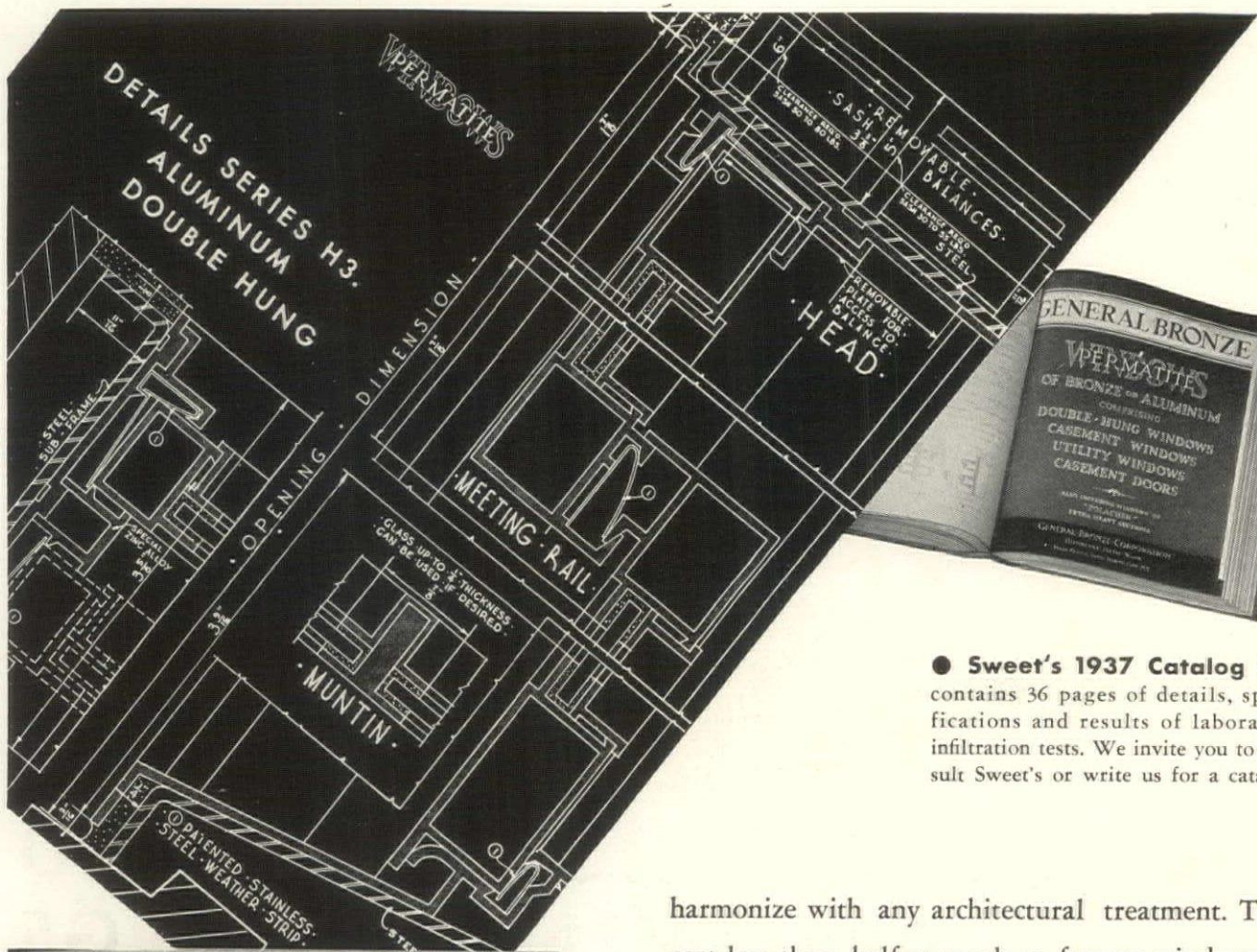
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CONSTRUCTION

BUILDING PERMIT VALUES DURING AUGUST, for the first time since May, reached a total slightly higher than that reported for the same month last year. According to Dun & Bradstreet's statistics covering 215 cities, the aggregate value of August building permits in these centers was \$87,545,062, while in August, 1936, the total was \$83,109,753. This year's increase amounts to 5.3%; however, August figures compared with those for the preceding month of July show a drop of 4.1% as against a usually expected gain of about 1%. Excluding New York City from the totals, the rest of the country registered a rise of 4.7%. For the year to date, value of building permits throughout the nation stands 19.1% ahead of 1936.

THAT MILITANT JOURNAL, NEWS & OPINION—published by New York's Building Trade Employers Association—repeats its recent warning to prospective builders that there is no chance for lessened building costs within the next eighteen months, and that if any construction is contemplated it might as well be done now. Labor prices are now governed in most cases by signed wages and hours agreements, and, according to *N & O*, there is little chance that anything will happen to bring about a reduction. The new Wagner Housing bill, it is stated, acts to prevent any such labor cost drop through its prevailing wage clause. It would take a very

large decline in material expenses to offset increased labor costs, says *N & O*, and such a decline is not anticipated.

LITTLE COMFORT TO HOLDERS OF AN OPPOSITE VIEWPOINT is to be found in the American Federation of Labor's September *Survey of Business*. This bulletin takes the premise, which may seem sort of cart-before-horse-like to some, that any worker whose pay envelope this fall does not bring him 5% more than last fall will be forced to adopt a lower standard of living. Furthermore, workers whose pay envelope is not more than 5% above last year, although the same living standard can be preserved, will fall behind the "March of Progress." And ending on an altruistic note, the bulletin observes: "Organized labor will do industry a service by seeing to it that wages continue to advance substantially this fall. Equitable sharing by labor in the increasing wealth produced per worker is the way to avoid speculation and inflation and build our business progress on a sure foundation."

REFLECTING THE IMPORTANCE OF CONSTRUCTION to the national well-being, some interesting statistics have just been released by the Chamber of Commerce of the United States. Among the facts which catch our eye are these: From a peak of \$11,060,000,000 in 1928 the volume of construction decreased to a low of \$3,002,000,000 in 1933. It increased to \$6,784,000,000 in 1936.

Private residential construction accounted for 39.2% of the total construction outlay in 1923 and only 18.4% in 1936.

"Overcrowding" of dwellings is much less in the United States than in many foreign countries, the percentage of such over-crowded dwellings ranging from 3% in England to 1.4% in 64 American cities.

During the present decade the average annual increase in the number of families will approximate 475,000 to 500,000.

The average annual number of family dwelling units upon which construction was started was 677,000 in the decade 1920-29 and only 165,000 in the seven years 1930-36.

The total number of dwelling units built or under construction by the federal government to date is only 27,161.

The greatest lag has been in the construction of low cost housing.

The number of firms engaged in contract construction decreased from 135,057 in 1929 to 75,047 in 1935.

Regular construction employment reached a peak of 2,888,000 in 1928 and declined to 629,000 in 1934, recovering to 1,210,000 at the 1936 peak.

Savings and loan associations hold 23.1% and private individuals 21.4% of the \$17,740,000,000 of home mortgages outstanding.

WHAT THIS COUNTRY NEEDS, holds a writer in the New York *Herald Tribune*,

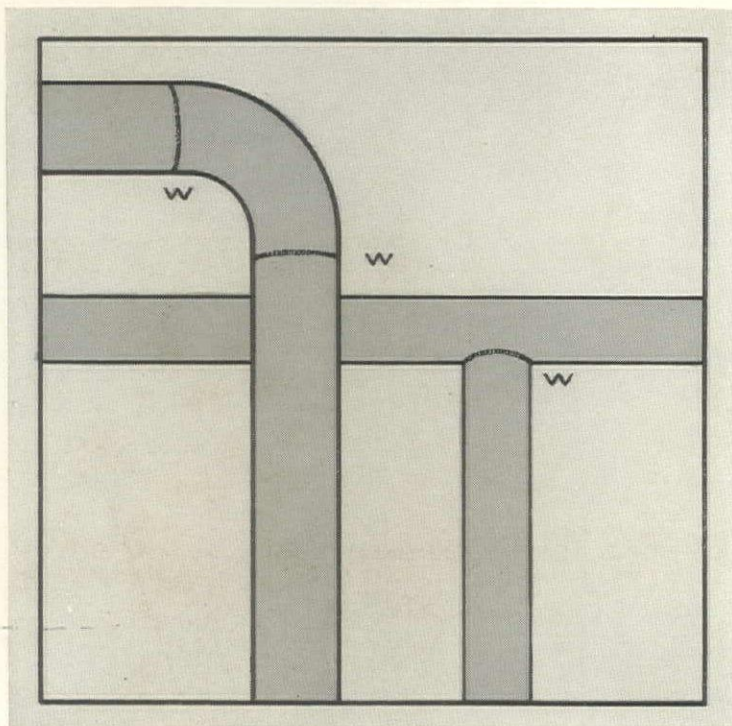


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Italy has been holding her Fourth International Exhibition of Cinema at the Lido of Venice, for which this Palace of the Exhibition was built from the designs of Luigi Quagliata

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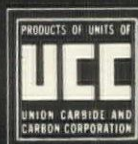


PIPE SECTIONS JOINED BY WELDING can fit into the same space as the pipe itself because the welds, "W," become part of the pipe. Oxy-acetylene welding makes the piping system an integral, permanent unit, smooth inside and outside.

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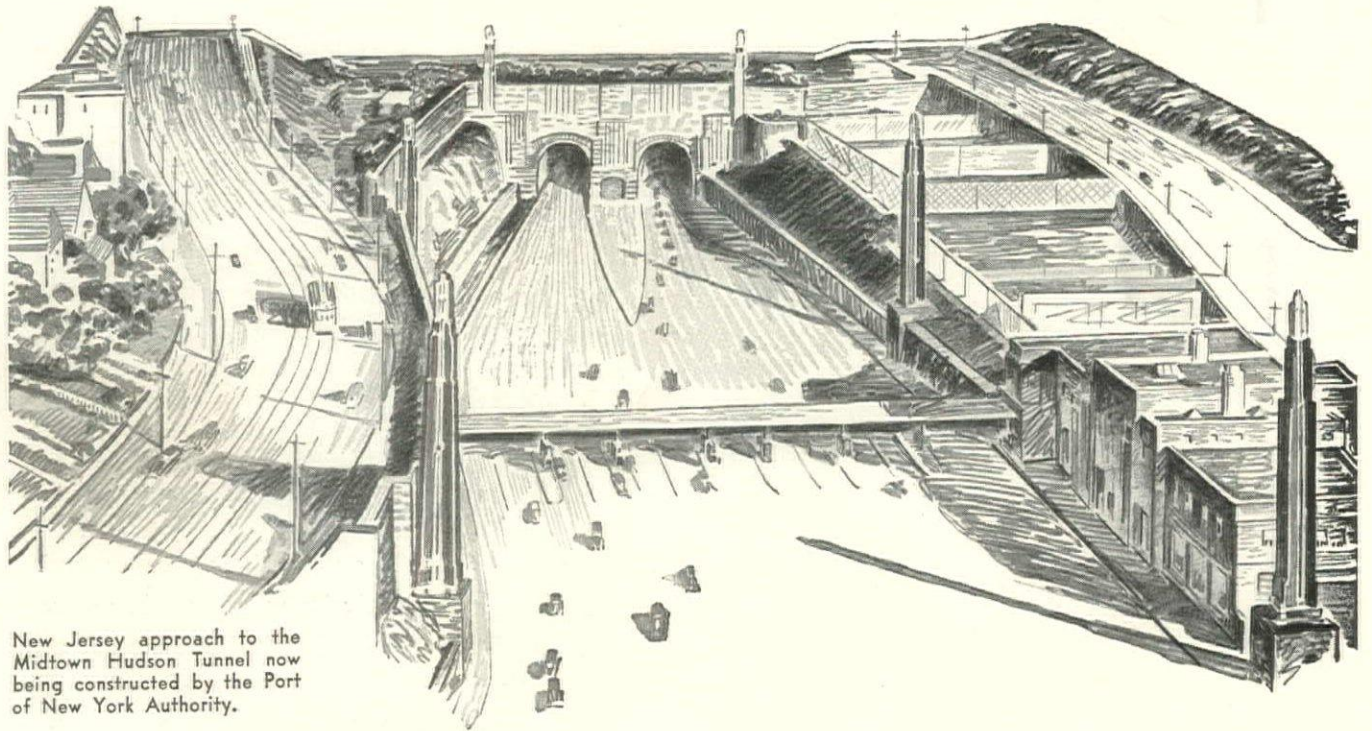
FROM



LINDE

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THE MIDTOWN HUDSON TUNNEL



New Jersey approach to the Midtown Hudson Tunnel now being constructed by the Port of New York Authority.

MAN'S NEWEST UNDER-RIVER ACHIEVEMENT

started with a pencil

A THIRD great link brings New York and its neighboring communities minutes closer! Soon the Midtown Tunnel (to be renamed the Lincoln Tunnel) will help the downtown Holland Tunnel and the uptown George Washington Bridge in the gigantic task of carrying the ever-increasing traffic between New York and New Jersey.

First came ideas, then rough sketches, finally finished drawings—all along the line pencils played an important part. And, interestingly enough—Venus Pencils—will become now one of the beneficiaries of this new convenience. For the tunnel will mean even speedier shipments of these famous pencils from Hoboken to New York.

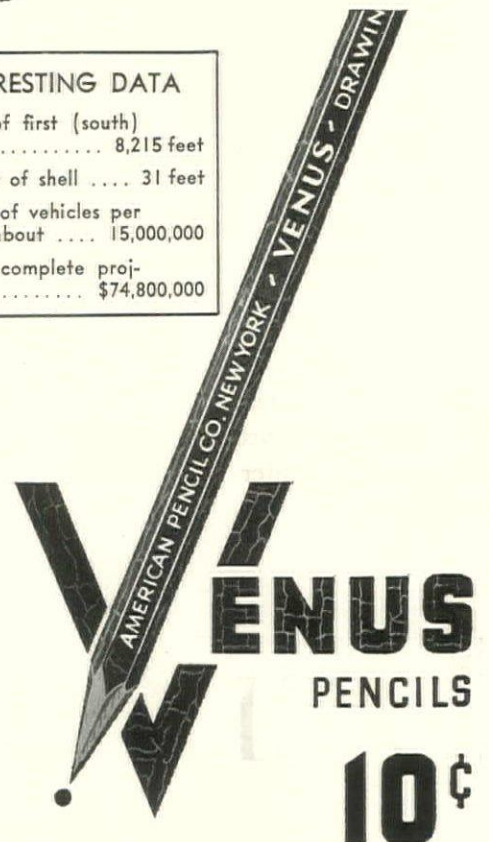
We are proud that in New York and throughout the world, in offices and drafting rooms where such outstanding achievements are taking place, Venus Drawing Pencils are sure to be found. It's good testimony to the fact that they are the world's finest!

Venus Drawing Pencils come in 17 shades of black. The Colloidal Process* and other scientific methods assure you that each is graded with unvarying accuracy—that each is perfectly smooth.

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INTERESTING DATA

Length of first (south) tube	8,215 feet
Diameter of shell	31 feet
Number of vehicles per year, about	15,000,000
Cost of complete project	\$74,800,000



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Also made in Canada by Venus Pencil Company, Ltd., Toronto

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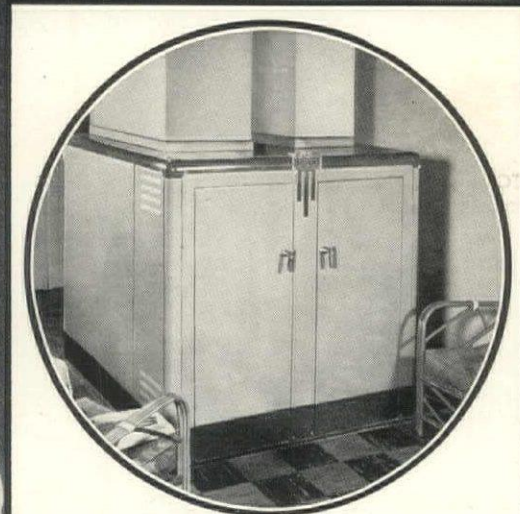
NOW the old-fashioned heating system, with its parched stale air, gives way to *healthful Winter Air Conditioning*. The new Delco Conditionair warms and moistens the air. It filters out germ carrying dust and pollens. It gives positive air circulation and even room temperatures.

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It Pays to Talk to

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AUTOMATIC HEATING • COOLING • CONDITIONING OF AIR

is a "Titular Czar" in the building field . . . a dictator to coordinate the many divisions of the industry. The case of the Allied Armies is cited—how until Foch assumed supreme command, troops of different nations were working at cross purposes and facing defeat. The construction industry, like an army, requires a correlating brain at the top, avers this writer. If we had such a guiding genius now, he says, runaway prices would be curbed, over-eager labor held in check until recovery becomes more staunchly established.

Well, maybe so . . . but who's to be Czar? Any nominations?

A WAY TO HELP AVOID BUILDING DISASTERS such as the one which recently occurred on Staten Island, N. Y., was proposed recently by Hobart B. Upjohn, Fellow of the A. I. A. and past president of the New York Chapter. In brief, Mr. Upjohn's plan envisions creation of a new compulsory inspection service to certify compliance with the Building Code before occupancy of a structure is permitted. Says Mr. Upjohn:

"It is deplorable that lives must be sacrificed to demonstrate the existence of buildings of cheap and poor construction, yet a lethargic public does not seem to realize that the very building in which they live may be just as unsafe.

"The Staten Island houses which collapsed during a severe rainstorm were constructed by altering an old factory. It makes little difference whether the building be a new structure or an alteration; the necessity for careful supervision of all structures to insure their erection in accordance with the Building Code is of paramount importance.

"It is unreasonable to expect the Building Department inspectors, of whom there are a scant number, to be able to vouch for the full performance according to law, nor is it reasonable to expect that the public should bear the expense of em-

ploying sufficient inspectors to make sure of a reasonable compliance with the law.

"Even continuous inspection is not sufficient to guarantee 100% compliance if those in charge are bent upon skimping on the materials used in the building.

"Strict honesty in complying with the law is unquestionably the best solution, but this trait is not popular in a competitive market. As a result, therefore, we must resort to compulsory supervision by competently trained men, whose duty and responsibility it should be to see that the law is strictly adhered to. Such inspectors should have passed the examination of the State Board of Regents."

Even if—for reasons of civic economy—Mr. Upjohn's excellent plan were restricted to only those structures built without architectural supervision, the public would receive substantially more protection than is now afforded.

ARCHITECTURE NEEDS MORE PUBLICITY of the kind given in "Paying Plans," an article by Burton Ashford Bugbee appearing in the September 18th issue of *Collier's*. We have often wondered at architecture's apparent indifference to the way it is presented to the public . . . why more of an attempt is not made to hammer into the country's consciousness a conception of architecture's part in the scheme of things.

Public Relations is a vital subject to corporations, industrial and many professional associations. Millions are spent yearly to acquaint Americans with the beneficent services of the telephone companies, the aluminum industry, the railroads, and so forth.

Professional associations such as the American Medical Association and American Dental Association are constantly on the alert to see that the country is not misinformed concerning the function of doctor and dentist. Yet we are not aware of any concerted attempt on the part of architecture to see that the public is given a true picture of its value and service.

At any rate, Mr. Bugbee's article in *Collier's* is the sort of thing we like to see. Throughout he stresses the importance of architectural supervision in home construction.

"Your first great economy is a good architect. Far from being the luxury you may have imagined, he will save you his fee many times over before he is through. He is trained to devise a more workable, economical plan than either you or a builder could do, as any good builder will be the first to tell you. He will superintend construction to make sure you get the workmanship and materials specified. He has a passion for sound construction and an eye for good design that will be

money in your pocket later on in the way of low upkeep cost and easy salability."

HOUSING

THE FIRST PWA SLUM CLEARANCE and low-rent housing project—Techwood Homes in Atlanta—has just completed its first year of existence. In a recent report to Secretary Harold Ickes, Administrator Howard A. Gray gives an accounting of the project's progress.

At the present time, this development has 604 families occupying its 604 dwellings and there is a substantial waiting list of applicants for accommodations. During this first year, \$159,161 was collected in rentals, and rent arrears amount to only \$244.36 or .00154 per cent of the total income. Incomes of families in Techwood average \$22.11 per week; (to obtain admittance, earnings must be less than five times the amount of rent). Tenants pay \$5.52 monthly rent per room and the average size of each family is 3.24 persons.

Since its beginning the project has attracted hundreds of visitors. In marked contrast to the squalid areas it replaced, all buildings are fully fireproof and each dwelling is equipped with electric lighting, mechanical refrigeration and electric ranges. Heat, light, power for lighting, cooking and refrigeration and constant hot and cold water are supplied to tenants for a small monthly service charge which is added to the rent. Buildings are surrounded by lawns, gardens, recreational areas and walks.

The Techwood development was followed by University Homes, a second project in Atlanta. Other PWA slum clearance and low-rent housing projects have been opened in Montgomery, Alabama; Cleveland, Ohio; Miami and Jacksonville, Florida; Atlantic City, N. J.; Columbia and Charleston, S. C.; Oklahoma City, Oklahoma; and Stamford, Conn. Rents have been set for nineteen projects, including those above.

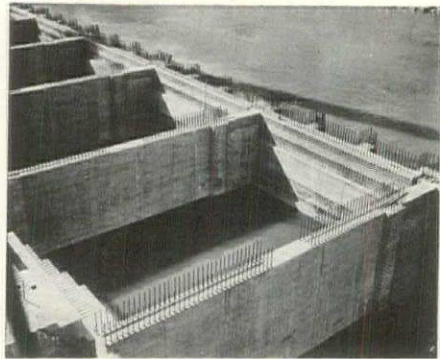


PHOTO: ACME

The turbine pits in the west powerhouse section of Grand Coulee Dam, Columbia River, Washington

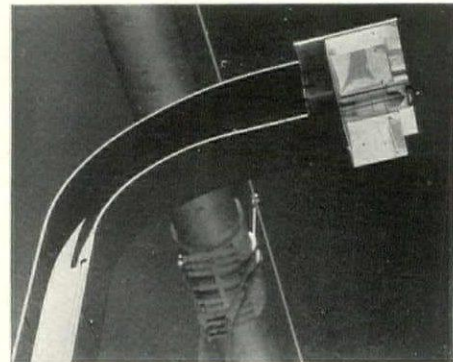
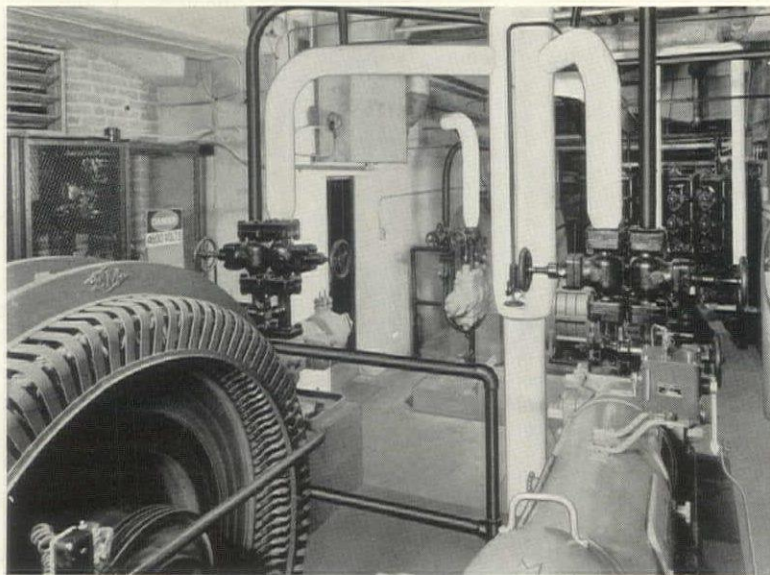


PHOTO: WIDE WORLD PHOTOS, INC.

This is the sort of luminaire which will light the Golden Gate Bridge—a sodium vapor lamp of ten thousand lumens

From basement to top floor CORK INSULATION helps air condition this modern store



ABOVE—Twelve story building of People's Outfitting Company, Detroit. Architect for modernization, Albert Kahn, Inc.

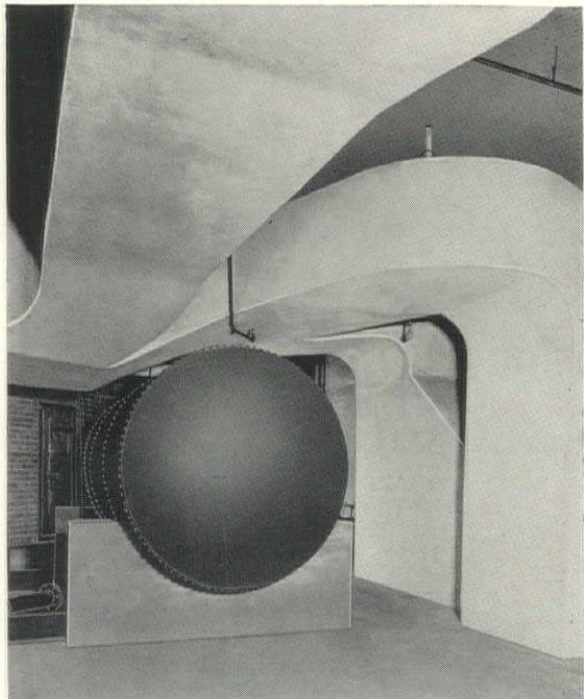
AT LEFT—Cork-covered lines in the compressor room of the People's Outfitting Company's Store in Detroit. Lines shown were canvas covered but not yet painted when photographed.

BELOW—Are shown corkboard-insulated ducts which carry conditioned air from third floor penthouse to upper floors. Contractor for air conditioning, American Refrigerating Co.

MODERNIZED this spring, this 12-story building of the People's Outfitting Company, Detroit, is air conditioned throughout. The air conditioning equipment, furnishes a total of 230 tons of refrigeration—55 tons for the basement and three lower floors, 175 tons for the nine upper floors. And this refrigeration is economically carried through Armstrong-insulated cold lines and ducts.

Armstrong's Cork Covering on cold lines, Armstrong's Corkboard on ducts, cut operating costs by guarding against refrigeration waste. Cork presents an effective barrier to the passage of heat. Equally important, it resists the moisture that is invariably encountered at low temperatures. That's why Armstrong's Corkboard and Cork Covering have been standard insulation for years in industries where low temperatures must be protected.

Let Armstrong engineers work with you in planning insulation. Armstrong's Contract Department is equipped to install low temperature insulation in accordance with Armstrong specifications—centralizing responsibility for both the insulation and its installation. Write today for complete details to Armstrong Cork Products Co., Bldg. Materials Div., 926 Concord St., Lancaster, Pa.



Armstrong's CORK INSULATION

Presenting

THE NEW HERMAN NELSON

AIR CONDITIONER
FOR SCHOOLS . . .



Eliminates Overheating . . . Prevents Drafts

The New Herman Nelson Air Conditioner for Schools is an entirely new unit designed and constructed from the ground up to maintain ideal air conditions in the classroom. Its exclusive "draw-through" design prevents drafts and eliminates overheating.

With the obsolete, multi-fan, "blow-through" design, fans in the lower portion of the cabinet discharge cold air up through the radiator. That portion of the air which passes through the radiator at low velocity is discharged into the room at a very high temperature, while that which passes through at high velocity is discharged at dangerously low temperatures, causing drafts. If a temperature control device is used to overcome this condition, the average temperature of all the air discharged into the room is not low enough to prevent overheating.

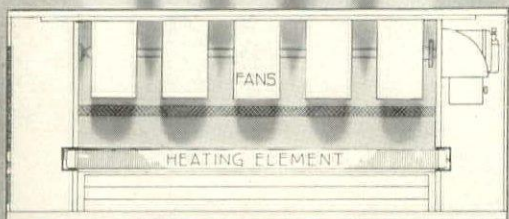
Now Herman Nelson's exclusive, multi-fan, "draw-through" design assures that *all* the air discharged into the room is maintained at the desired outlet temperature. With the blower assembly located in the top compartment, streams of air at various temperatures drawn through the unit are thoroughly mixed in the fans immediately before being discharged into the room. No part of the air is colder or hotter than

necessary to maintain the desired temperature. Only with this

"draw-through", multi-fan design can air, cool enough to prevent overheating, be discharged into the classroom without danger of drafts.

UNIFORM OUTLET TEMPERATURE

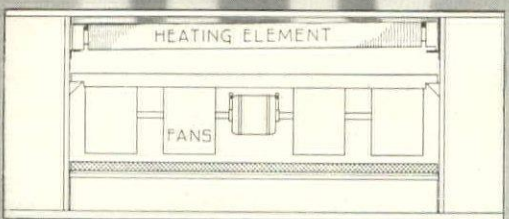
NO HOT OR COLD SPOTS



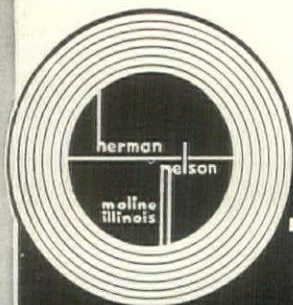
"DRAW - THROUGH"

UNEVEN OUTLET TEMPERATURE

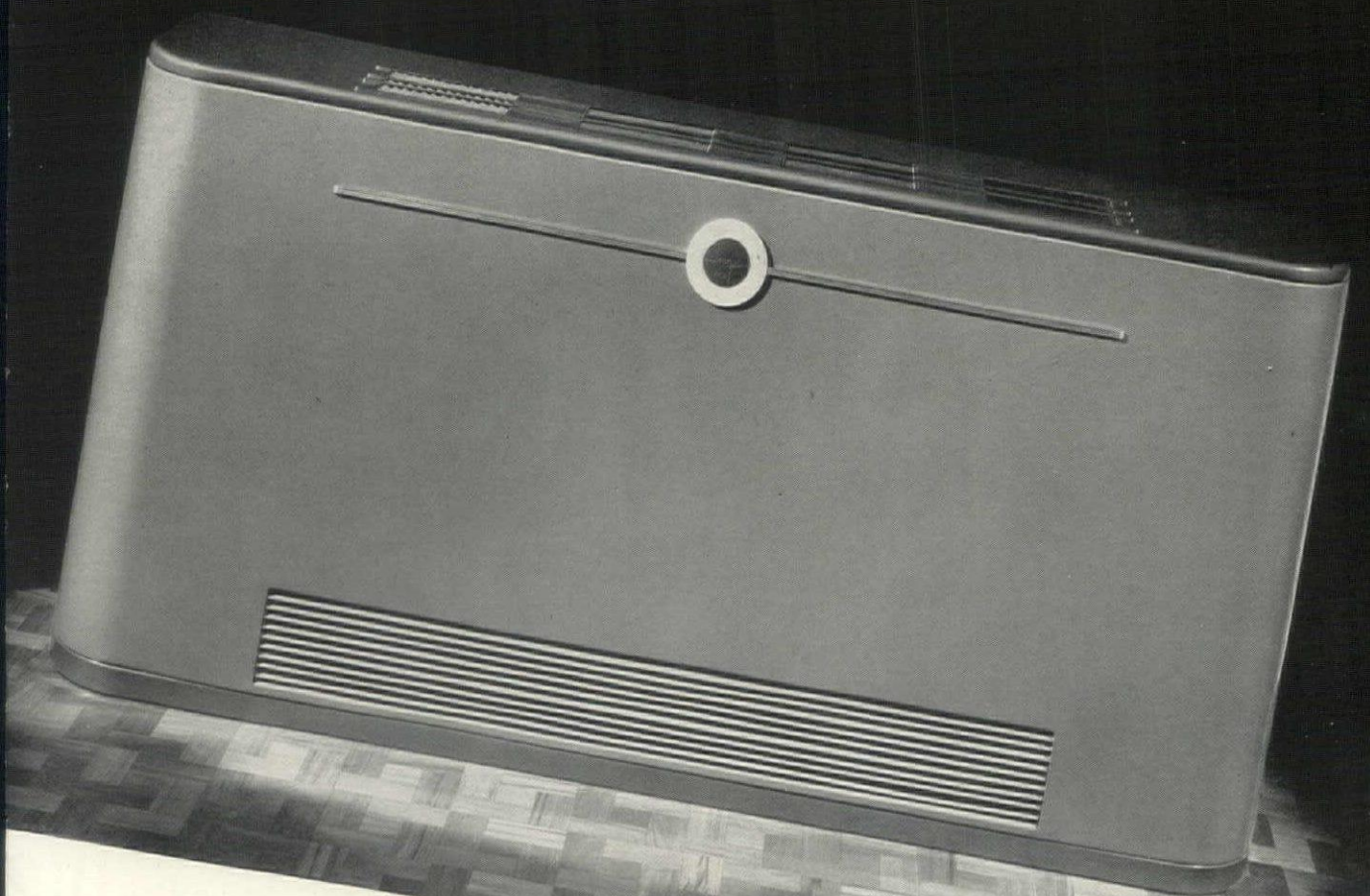
COLD AIR HOT AIR COLD AIR



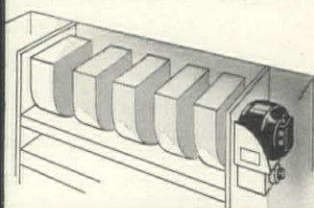
"BLOW - THROUGH"



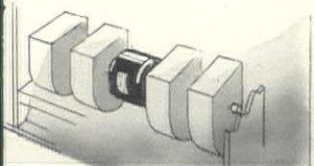
THE HERMAN



Practically noiseless . . .
OPERATING AT FULL CAPACITY



THE HERMAN NELSON WAY



THE OBSOLETE WAY

Scientific design and location of the fan and motor assembly in the New Herman Nelson Air Conditioner for Schools assure most quiet operation. Locating the motor in the end compartment—out of the air stream—permits the use of larger blower assemblies, with fans running at slower tip speeds. In the past, noisy operation obtained with the motor placed in the center of the blower assembly often made it necessary to reduce capacity, resulting in drafts or overheating. The new design of the Herman Nelson unit now insures quiet operation at full capacity.

ADAPTABLE TO ALL CONDITIONS

The New Herman Nelson Air Conditioner for Schools is the first unit designed to operate most efficiently under all conditions. Its flexibility enables it to be controlled according to any method of operation desired by the architect or

engineer. A continuous supply of outdoor air can be introduced into the room in any quantity, or outdoor air may be admitted only when necessary for cooling. The unit is available with either damper or radiator control.

For Complete Information Write to

THE HERMAN NELSON CORPORATION, MOLINE, ILLINOIS



NELSON CORPORATION
MOLINE, ILLINOIS

THAT THERE IS A PLACE FOR SUCH PROJECTS IS further proved by the fact that more than 78,000 families have applied for tenancy in the 21,800 dwellings which will be available upon completion of the PWA's \$134,000,000 program. In New York City more than 20,000 home seekers applied for accommodations in the Williamsburg Houses development, which has 1,622 dwellings. At this point, the New York Housing Authority decided to stop accepting registrations or goodness knows how many applications would have come in.

LAST MONTH THE FARM SECURITY ADMINISTRATION opened for occupancy Greenbelt, a completely new community near Berwyn, Maryland, seven miles from Washington. The Greenbelt project which began from scratch, so to speak, represents community planning in its most intensive form. There are a total of 885 new homes in the development, simple in design yet equipped with all modern conveniences. Rentals will range from \$18 to \$41 per month, with an average rental per dwelling unit of \$31.23, including heating both dwelling and water.

Greenbelt is considered primarily as a relief project, and it is stated that the amount spent for labor has been much greater than it would have been had the economical building of low-cost homes been the sole object. Total cost amounted to an estimated \$14,227,000. Of this figure, 65.6% was expended on labor. The

Federal Government, it is stated, will collect from the project, \$424,243 in yearly revenue . . . or a return on invested capital of slightly below 3%.

Apparently, the Farm Security Administration desires Greenbelt business enterprises to operate on a consumer-co-operative basis, since it is provided that residents shall determine how stores and facilities in the planned business district will be run. Which may provoke an outcry of "Socialism" from gentlemen on the Right. In any event, those concerned with community planning will watch with interest the progress and outcome of the Greenbelt project.

AN ACCOUNT OF A PRIVATELY-FINANCED HOUSING project—Chatham Village, on the fringe of Pittsburgh—is given in *Freehold Magazine*, the publication of the National Association of Real Estate Boards. Completed in 1932 by the Buhl Foundation as "a socially constructive investment," this project has a record for the last five years of 99% productive occupancy and an annual net yield of 5% on original investment. Chatham Village is not regarded as a philanthropic undertaking and its success should encourage private enterprises of the same sort.

Average rent per room is now \$10.70. Of the average rental income, 1.25%—equal to 1.5% of the building cost—is for amortization and 5% for net yield. The amortization fund is reinvested and compounded semi-annually at 4½% and is

intended to retire the building cost in about 31 years. On each of the 197 sites approximately \$1,300 was spent; on each of the houses \$5,400, totaling around \$6,700 per house. This cost is much smaller than the per-unit cost of the Greenbelt development discussed above. However, perhaps there are differences which make impossible any logical comparison.

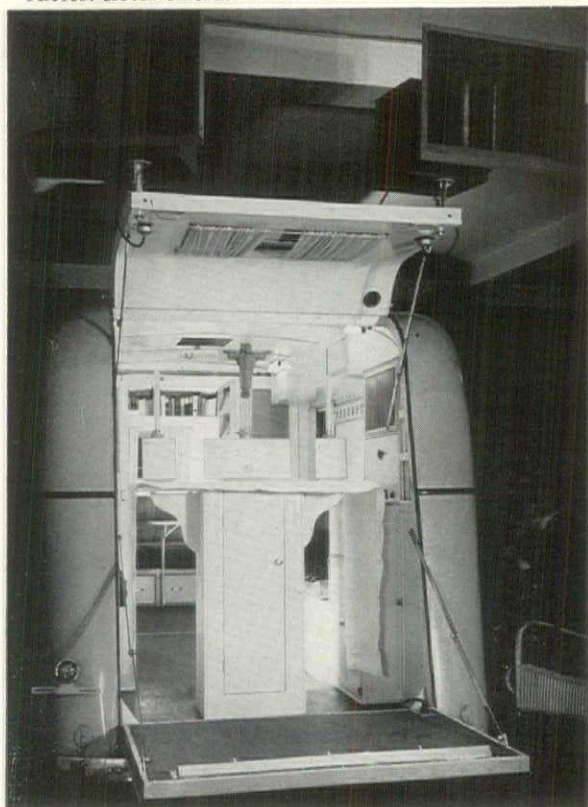
PUERTO RICO IS NOT BEING OVERLOOKED in Uncle Sam's housing program. Word has just been received that two projects providing neat, healthful homes for a total of 206 families have just been completed and are ready for occupancy. Monthly rentals range from \$6.80 for a 3-room dwelling to \$11.45 for a 5-room affair.

Coincident with receipt of this information, we learned of a Puerto Rican building boom which might tempt some of our architectural brethren to book passage on the next packet. Seems that Governor Winship is trying to build up a tourist trade for the island and that this has stimulated construction quite a bit . . . \$200,000,000's worth, in fact.

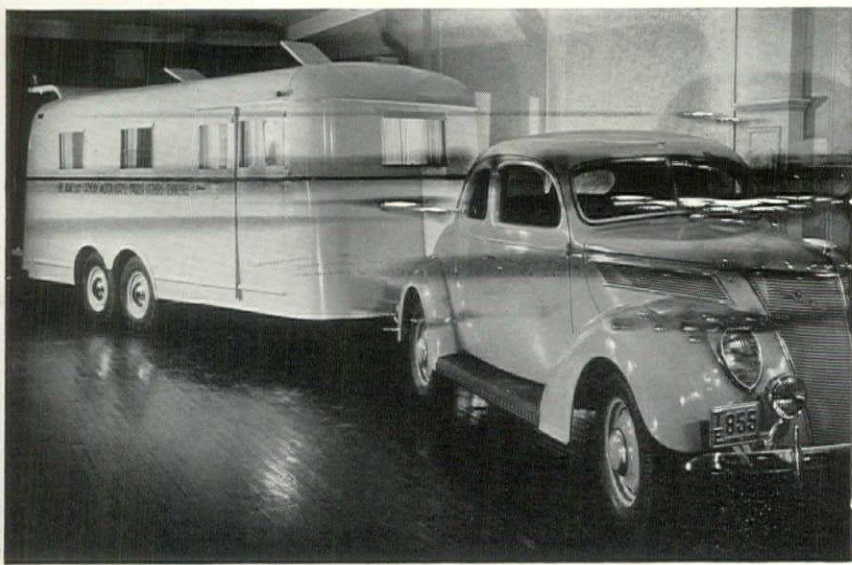
The New York *Herald-Tribune's* correspondent says that despite the erection, so far this year, of 556 apartments, houses and private dwellings, you can't rent an apartment in San Juan for love or money.

SAN ANTONIO MAY NOT HAVE HAD A FAIR like some of her sister Texas cities, but right now she's feeling pretty superior. To understand why, you need to know that El Paso has a population of 102,000, Houston of 292,000, Dallas 262,000, Fort Worth 165,000 and San Antonio 231,000. Somebody who felt very friendly toward San Antonio must have had a hand in drafting the Texas definition of a city eligible for participation
(Continued on page 124)

PHOTOS: SIGURD FISCHER



The automobile trailer applied to missionary work—the Saint Lucy, motor chapel of the Paulist Fathers, ready to start work on Tennessee. Designed as to interior and appurtenances under the direction of the Liturgical Arts Society of New York





TERRAZZO BEAUTY

IS BEST EXPRESSED WITH MEDUSA WHITE

● When one steps into the rotunda of the Cincinnati Union Terminal he is confronted with an inspiring color panorama seldom equalled in public buildings. Overhead is a colorful dome, while immediately beneath are inspiring murals. The floor of this magnificent interior is of rich colored terrazzo made with Medusa White, the original white portland cement.

Medusa White Portland Cement as a matrix sets forth the colored marble chips in such a manner as to give maximum color value and beauty to the finished floor.

For outstanding terrazzo floors specify Medusa White Portland Cement. It means using the white portland cement with the longest service record of satisfaction. Write today for a complimentary copy of the book, "The Beauty of Terrazzo" showing colorful reproductions. * Medusa Portland Cement Company, 1015 Midland Building, Cleveland, Ohio. « « « «

★ ★ ★

Architects for the Cincinnati Terminal were: Fellheimer and Wagner, New York City • • • Terrazzo Contractors: Cassini Mosaic and Tile Company, and Martina Mosaic and Tile Company, Cincinnati, Ohio.

MEDUSA WHITE

THE ORIGINAL *white*



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G-E Home Wiring is designed to meet every test

of adequacy. It may be installed in any type of home — in homes being built or homes being modernized. It provides wire sizes that are large enough for every electrical need, proper controls, circuits that avoid long runs, protective circuit breakers, and plenty of outlets. It assures comfort and convenience without materially increasing wiring cost.

Ask about G-E Wiring Materials, and get details about G-E Home Wiring — adequate wiring. Write to Section CDW-7110, Appliance and Merchandise Department, General Electric Co., Bridgeport, Conn.

GENERAL  ELECTRIC

WIRING MATERIALS

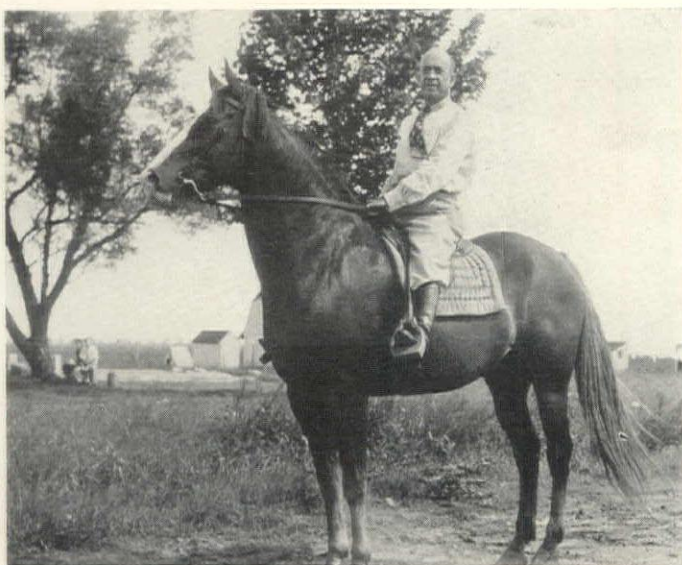
APPLIANCE AND MERCHANDISE DEPARTMENT, GENERAL ELECTRIC COMPANY, BRIDGEPORT, CONNECTICUT



The authors of "We View With Alarm" (page 26): LORIMER RICH, New York; MILES L. COLEMAN, Chicago; WILLIAM DEWEY FOSTER, New York; PIERRE BLOUKE, Chicago; EUGENE H. KLABER, Chicago; and SPORT

FEDERAL ARCHITECTS AT EASE

ERROY GAARDER of Albert Lea, Minn., who is still western enough in spirit to enjoy pistol shooting



JOHN P. ALMAND of Little Rock, Ark., who, with the others portrayed on this page, came from private practice to Washington to serve the Government

HOWARD L. CHENEY of Chicago, who is to design the U. S. Building for the New York World's Fair





WHEN you want to get the most for the money you spend on interior paint, don't ask "Is this paint durable?" Say, "Is it really washable?"

Durability alone is not enough. You have probably had many experiences with paint that didn't wear off but from which marks and smudges wouldn't wash off. So repainting time came much sooner than was expected.

Flat paint made with Dutch Boy White-Lead and Dutch Boy Lead Mixing Oil has all the durability for which white-lead is famous. In addition, this paint is washable in the full sense of the word. Its beauty is not impaired by hard scrubbing. Those scrubbing really get you somewhere. Stubborn stains and dirt actually do "come out in the wash".

For proof, take a look at the test panel above. It was walked on for a week. Then it was smeared with

grease, stained with mercurochrome, streaked with pencil, crayon and lipstick, daubed with shoe blacking. *But despite this hard treatment, washing with soap and water left the panel looking as clean as when first painted.*

Now consider briefly this paint's many other advantages. It has all white-lead's characteristic richness, solidity and depth, a paint of unusual beauty. Because of its excellent sealing power, it stops suction and hides fire cracks.

Finally, this paint gives you all-

round economy. It has high coverage (800 sq. ft. per gal. on smooth plaster), mixes quickly, spreads easily. Add up those three qualities, and you have low first cost. Then add long wear and real cleanability, and you have low cost per year.

NATIONAL LEAD COMPANY

111 Broadway, New York; 116 Oak St., Buffalo; 900 W. 18th St., Chicago; 659 Freeman Avenue, 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 Bldg., Philadelphia.



IN STEP WITH THE VOGUE FOR MORE STORE FRONT METAL -



SIGNS AND ORNAMENTS



ENTRANCE DOORS



**GLEAMING METAL BY DAY
ILLUMINATION BY NIGHT**

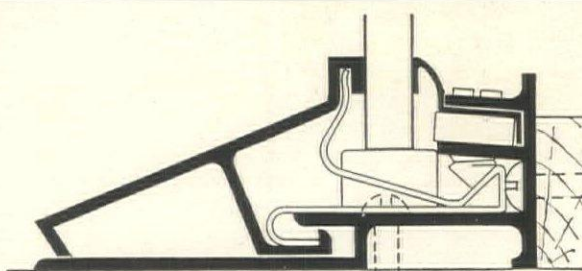
able in both rolled and extruded metals. New developments include Concealed and Recessed Awning Bars.

WRITE THE KAWNEER COMPANY, NILES, MICHIGAN, FOR FURTHER DATA. BRANCHES: NEW YORK CITY, CHICAGO, ILL., BERKELEY, CAL. DEALERS IN ALL PRINCIPAL CITIES.

The increasing use of such fine rustless metals as aluminum with the alumilite finish, bronze, and stainless steel makes a very definite contribution to the effectiveness of modern store fronts and buildings. Many interesting possibilities have been developed: many more remain to be explored.

Kawneer is in step with this movement. Originally founded by a practicing architect, The Kawneer Company has had wide experience in the fabrication of rustless metals for all architectural purposes, understands thoroughly the problems of the architect and builder.

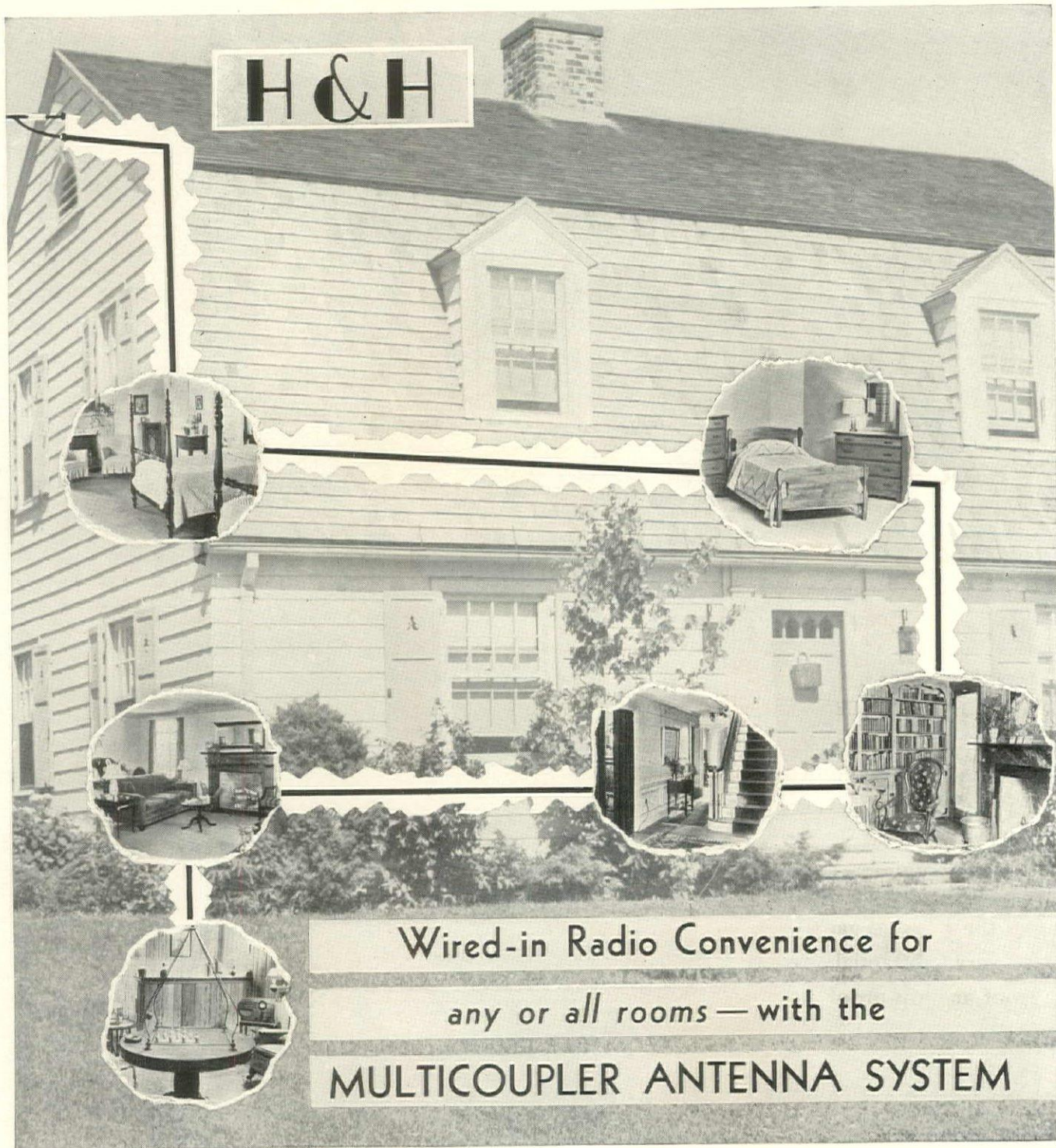
Thus Kawneer is a logical source for all types of architectural metal work, entrance doors, special sign letters, ornaments, mouldings, and Sealair Windows of several types. In addition, of course, the complete line of Kawneer stock store front construction is avail-



EXTRUDED - YET RESILIENT

All Kawneer glass-holding members are fully resilient, holding glass with a firm but yielding grip. No looseness. No rigidity. F. S. detail shows resilient Extruded Sash.

Kawneer
RUSTLESS METAL
STORE FRONTS



Wired-in Radio Convenience for
any or all rooms — with the
MULTICOUPLER ANTENNA SYSTEM

Multicoupler Antenna System provides the modern home with *all-room, all-wave* radio reception; easily installed by the electrician. It is designed for multiple operation of two-to-twenty radio sets. In **one** system and for every desired room it combines a highly efficient doublet antenna and plug-in outlets for AERIAL, GROUND and POWER, with added Convenience Outlets in the same wall plates.

This brings wired-in radio convenience to the living room, bedrooms, childrens' rooms, den and recreation room—elsewhere as in schools, hospitals, hotels. Owners readily approve the system as *a part of the regular wiring job*. Free engineering service is given on plans and layouts for installation or specification. . . First, write us for general instructions folder fully describing the system.

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 THE ARROW-HART & HEGEMAN ELECTRIC CO. HARTFORD, CONN.



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*Adding many
important pluses...
while reducing
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MAINTENANCE costs will take a big tumble—now that this Jewelers Building has been re-sided with Eternit Timbertex. 35,000

square feet of this enduring asbestos-cement material were used on this industrial building.

But the positive gains were even greater than the very substantial savings. Timbertex is fire-proof and rot-proof—its beautiful “weathered cypress” texture affords enduring beauty. No paint or stain will ever again be needed. Timbertex adds insulating value. This means more comfort, both summer and winter—and a saving in winter fuel bills.



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Timbertex is moderate in its first cost—and extremely economical in upkeep expense. It is available in a wide range of colors and designs—to suit the needs of industrial buildings, apartments, hotels and private residences.

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The RUBEROID Co., 500 Fifth Avenue, New York, N. Y.

Please send us folders describing the Ruberoid-Eternit Building Products checked. A. A. 10-37

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A Publisher Takes the FLOOR

When plans were being made for the decoration of the offices of Philip Battelle, publisher of *Western Home Furnisher* magazine, it was agreed that an atmosphere of rich, modern simplicity would be most becoming. Quite naturally, a floor of Sloane-Blabon Custombilt Tile was chosen to contribute to the harmony of the entire room scheme.

Today, visitors who view these offices on the tower floor of the New Western Furniture Exchange & Merchandise Mart in San Francisco

call them the showplace of the building. The splendid Bleached Mahogany and Indian Red tile colors, with six-inch Black Marble Border and one-inch feature strips of Plain Tan and White, combine to give a striking effect.

Quietness, cleanliness and comfort also are a part of this gratifying Sloane-Blabon installation. We invite architects, builders, managers and executives to consider the smart advantages of this type of resilient floor when planning to build or remodel. Write to us.



Sloane-Blabon Custombilt Tile Floor, planned by Rucker-Fuller Co., installed by West Coast Linoleum & Carpet Co., San Francisco, Cal.

Sloane-Blabon

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STRAIGHTLINE AND MARBLSTONE INLAID LINOLEUMS
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A WISE LENDER TALKS TO HIMSELF

W| SHALL lend on mortgages again because the shortage in building will have to be made up, rents are rising satisfactorily so that there can be profit. Mortgages will again be considered one of the soundest types of investment. There can be no doubt about it now, the worst offender, the second mortgage, has been pretty well removed from the picture and the FHA system of financing of residence construction has been well received. Confidence is restored by an above-board financing system in which all of the charges are known in advance, and made reasonable instead of exorbitant. ¶ Of equal importance, I think, is the insistence that is now put upon a complete analysis of the building operation, with emphasis on sound construction and good design. I shall certainly look over the plans and specifications more critically, and have Mr. Jones, of our staff, who is technically trained in these matters, report on the excellence of these plans and specifications. However, I have known specifications to become mere "scraps of paper" when the owner and builder found that they could substitute this and that for the materials of equipment called for in the specifications. This time when I lend I want to be sure that the plans and specifications are not only good, but will be followed to the letter. The only way I can do this is to insist that the owner engage a competent architect from the beginning, and that the architect perform his full services, which include the supervision of the work as it progresses. ¶ Neither I nor my inspector can tell whether the physical security behind my loan is what it purports to be after the house is completed. A house that is going to crack, deteriorate, and come apart in a few years looks just like the best the day after completion, but in five years the owner will be disgusted and probably the sales value of the house will not be as much as my loan. I have seen too many mushroom developments that looked perfect when they were about to be sold. Even though they were full of nationally-known electrical equipment, colored tile, built-in this and that, which are sales points, these things cannot carry the load when shoddy construction and poor structural materials have been covered with paint and paper. I am convinced that, at no added cost to myself, or to the owner, I can be assured of sound construction only by having the one unprejudiced agent in the building industry, the architect, serve both of us by supervising the construction. ¶ And the owner himself will be better pleased, for the competent architect will give him a house fitted to the needs of his family and his purse, one which is planned for the maximum comfort and convenience for his own way of living, a house properly suited to its lot, and certainly one that will not run up abnormal repair bills. ¶ For my own protection, and entirely in self-interest, if you like, I will lend only on buildings for which an architect is employed to give full service, planning, designing and supervision—and the greatest of these, for my protection, is supervision. I have had too much of jerry building. I insist now on quality in the materials, equipment and workmanship that in the final analysis create the value of the security for the money I lend."



EDITOR

We View With Alarm

A FREE-FOR-ALL IN THREE ROUNDS

(Readers, if any, are forewarned against an attempt to sniff an official aroma in the following emanations. All remarks ascribed to the participants are informal, unpremeditated, unguarded and sometimes excited. In all cases they are the personal reactions of architects who have been doing a special kind of work rather than the pronouncement of officials; and any other interpretation is vigorously denied and disavowed in advance.)

THE FIRST ROUND

TIME

A humid late afternoon in July of 1937.

PLACE

Washington, D. C., a dim corner in an old mansion, five, deep-cushioned, rusty leather chairs grouped around a small table supporting an assortment of bowls of ice, potato chips, popcorn, tumblers of various colored liquids. Overhead, in wide gilt frames, the benign beauty of Dolly Madison, and a portrait of an old gent with billy-goat whisker, a bust of Apollo balanced on a slender pedestal.

PERSONS

Five, claiming membership in the architectural profession:

PIERRE BLOUKE, dark and deliberate, the paladin of architectural progress in the Home Loan Bank system, speaking in a low voice, the more emphatic for its groping quietness;

MILES COLEAN, the veteran of FHA's forays into the wonderland of popular esthetics, more voluble than coherent;

WILLIAM FOSTER, grim and taciturn, seeking lessons in post offices;

HENRY KLABER, the Galahad of many a knight errantry in defense of Lady Log through PWA and FHA, exuberant in drawing instances from a wide experience;

LORIMER RICH, bibulous and bellicose, determined to discover what is wrong with it all.

As the curtain rises there is heard the drone of an electric fan and the celestial harmonies of ice tinkling against glass.

RICH: (beginning, with some reluctance, to speak)

The beneficent editors of AMERICAN ARCHITECT and ARCHITECTURE (all raise glasses in silent tribute) have asked us, along with groups of architects in other cities, to contribute part of one issue of their worthy sheet. They told me that in picking this group they hoped they would get something from us of a national viewpoint—(all raise glasses to the national viewpoint)—that is, ideas gleaned from our experience here as architects working for the different branches of government. All of us have practiced independently in various parts of the country and have been brought down here—

COLEAN and KLABER (with feeling):

"Brought down" is a nice phrase!

RICH (Unruffled):

The feeling was that a group such as this might have a point of view on questions affecting the profession as a whole, arising out of the work of such agencies as the HOLC, FHA, and dear old Procurement. (There are tears in Foster's eyes as he finds another liquid tribute called for. Rich continues, fixing a diabolical glint on Colean as he draws some boarded clippings from his pocket.) One thing that has particularly interested me has been the FHA activity. When that institution was set up, we were encouraged to hope that here might be an agency which could take a positive stand for good design in this country. Heaven knows, the situation cried out for somebody to take hold

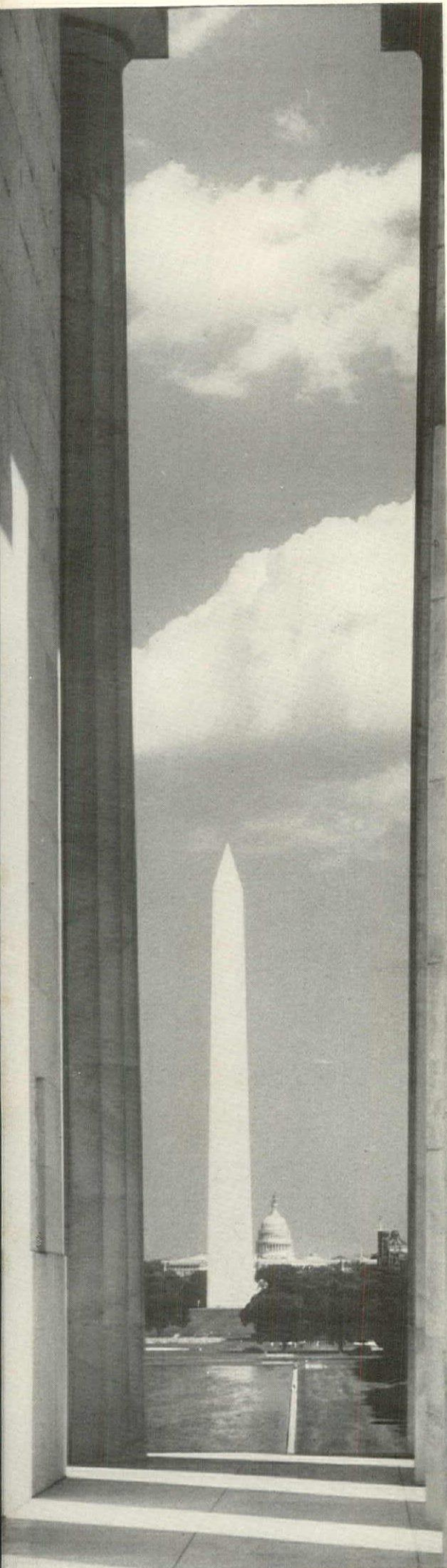


PHOTO: EWING GALLOWAY

and we hoped the government might be that somebody. Yet, after three years, we look at the product (*he waves his clippings*) and I don't think we have any cause to claim a millennium. Here it is, the same old row house, no better architecture than before, no evidence that I can see of any thought given to esthetics and, rightly or wrongly, advertised as conforming to FHA requirements and bearing the stamp of approval of the United States Government! !

LEAN:

Well, Lorimer, it's very nice of you to turn the meeting over to me at this early stage.

ABER:

Turn it over? He has shoved it down your throat!

LEAN (*taking the clippings in his free hand*):

I cannot pry this subject loose until I have had a liquid wedge. (*The wedge is firmly wedged into place.*) While I can't say I'm enthralled with your little models, Lorimer, they aren't so bad as things go. They are in fact superior to a great many you could find in one part of the country or another. I think Pierre will bear me out in this. (*He nods sadly.*) You may be shocked when I say that these houses may be satisfactory from the point of view of mortgage insurance. They are probably located in an accessible, growing neighborhood, as well laid out as the city will permit. They are probably soundly constructed, have satisfactory light and air and good equipment; and their designs are attractive to their buyers. They must be pretty reasonable risks.

ABER:

They aren't, if I may use the word, a little complacent?

LEAN:

I'm not complacent, just realistic. When we entered this field we had to accept a situation which already existed—methods of design and construction apparently dear to the developer and his public and make the best of the situation. The situation as we found it, unless we were to avert our eyes in academic rectitude and get no building started, would not permit our standards to be as rigorous in many respects as we might care to see. We hit first at the points where mortgage risk was most evident: construction, light and air, lot arrangement, privacy and convenience in layout; and we have been able to get considerably above the norm on many of these things. I can assure you there is no complacency in our attitude. We are pushing the line gradually forward all the time.

ABER:

I don't want you all that. But it seems to me that the importance of good architectural design has not been stressed; and I have felt that, with the government entering this field, there is an opportunity to do something really beneficial about it. When you talk about small houses, such as these, are what determines the complexion of our cities, we might well add certain minimum standards of architectural design.

ABER:

It raises the basic question of the measure in which any government should impose esthetic standards on the architecture of the country. Of course, the only effective way to achieve a real esthetic standard is through a realization by the general public of what is real quality in design and what is merely meretricious ornament placed to catch the eye and its dollars. But such a realization can arise only as a result of a richer and more satisfying life than is possible today for most people; it must be a democratic manifestation. On the other hand, the imposition of esthetic standards by bureaucrats or academies is likely to lead us into the kind of stodgy architecture that the Second Empire produced in France.

In our own case, the danger of control of design and the weak ground on which we could stand if we attempted to exercise it seems apparent. The only points at which we can properly exert pressure on design are those which Miles mentioned, the points at which bad design affects the security of the mortgage through useless expenditure of money, or excessive prospective maintenance cost, or through some esthetic monstrosity only below the accepted norm. Such is the limitation in our case; but in any program of a democratic government the degree of esthetic control exercised by the government will be comparatively limited.

DUKE:

I believe it ought to be comparatively limited, I believe the architects themselves, not the government, should take the situation in hand. All you have to do is to tour the

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ON THIS . . .



THIS . . .

older residential areas of almost any city to see how the magic hand of the architect in all periods neglected the bulk of urban development. Right now, because their clients have been out of the market, architects show some excitement about these things. I wish I could believe they wouldn't forget all about it as soon as the old type of practice becomes possible again.

RICH (*unconvinced*):

I think you should insist on a higher quality of design. You might have more technical experts—architects of good reputation—to see that designs are improved. I'll admit there has been a good deal of zeal to see that construction matters are taken care of—see that the roof does not leak and that the utilities are there, but when you get to esthetics you get into questions as important as any of these.

COLEAN:

Aside from the administrative problems involved, that gets back to the fundamental question Henry raised. I would certainly like to see the quality of design improve. We may flatter ourselves that we have the sound judgment to exercise the control we want. However I can't help but feel, as Henry Klaber does, that when government officials begin to go in for control of esthetics they are apt to do at least as much harm as they do good. The government, it seems to me, is not the place where esthetic problems should be settled. Speaking as a private architect, I should hate to see the government set up as an arbiter of design in this country. An esthetic dictatorship does not appeal to me.

FOSTER:

I agree. I would hate to see you doing a Dr. Goebbels with my brain children. From my experience, whenever there has been an effort to control design it really has worked very unsuccessfully or has been abandoned. However, it seems to me that there are certain things you could make a more definite stand for—

RICH:

There are very obvious things, such as fake half timber and false fronts.

BLOUKE:

False fronts have been accepted at least as far back as the Colosseum, while some of our most revered colleagues have revelled in fake half-timbering. You might get into some difficulty in drawing up precise rules on such matters.

FOSTER (*carrying on*):

Just as you would say that there must be a certain amount of light in a room and a certain size room for livability, you might also force greater simplicity and directness in design.

COLEAN:

I don't like the sound of that word, "force."

RICH (*coming to the defense*):

Now, don't try to make a Mussolini of him. Bill's no esthete on horseback brandishing a flaming sword, like the Second Division Memorial. He merely wants the government to do something about design, and I agree it can be done. It seems to me at least we could force the contractor and developer to employ architects who have some conception of good design.

BLOUKE:

Can you write the rule for that? Would you accept Institute membership as a criterion or a State registration? You might not, even then, escape your false fronts. Do you know the kind of architect that is available to builders? There are states in this country where there are virtually no trained architects. Even in New York, where architects are numerous, there are very few of those you like to call architects except a comparatively few leaders, who are able or willing to serve the builder. The profession is sold to the idea and is not equipped to do the job—the kind of job that Gropius mentioned when he says that "the architect must make his profession socially and economically indispensable to the community," and that "he must definitely overcome that unpleasant state of being regarded by ignorant people as a costly luxury." I think I remember your words correctly. They're worth remembering.

Pierre mops his brow. All sit back, recalling that the day is warm.

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LEAN (*a little abstractly*):

How far can the government go in the matter of design? Although I'm convinced it should not dictate, that does not mean that it should make no effort to improve design. I believe we can show that it is doing that. Pierre, for instance, on the part of his organization, has been carrying forward a specific program to organize groups of architects for small house design and to show lenders that their service is worth something. On our part, we are endeavoring to point out to operative builders and banks the value of design and of the whole service of the architect, and to point out to architects the importance of entering this field. In an advisory capacity, we have been able to improve the quality of subdivision design and of house design, and I can match examples against the ones that shocked Lorimer. We do encourage simple, straightforward, economical design for small houses.

The fact remains that the esthetic standards of the country are low, and that the esthetic and technical standards of a great many architects are low. The skill we need is not available to meet the problem we are talking about; and I can assure you that, using all the force you seem to think we have power to use, we could not greatly change the situation. But the question of esthetics is a thing which I go back to as, at best, a dubious function of government, particularly, on so wide a front as we are engaged in. We have already entered that field perhaps further than it is safe for us to go. As I have said, I would hate, as a private architect, to feel that I had to adapt my whole esthetic sense to the opinions of the government. The government should involve itself in the problems of safety in security, to health problems, but esthetics are social problems arising out of the judgment of the people, of society as a whole.

It is the responsibility of architects to guide and express that judgment. Perhaps they do it in spite of themselves—explaining why we have Norman villas in Westchester and Norman villetes in Queens. The setting of esthetic standards, even if it were desirable, in a time in which you can observe no norm, either in the high or low cost world, would be fairly bewildering. Suppose, on the other hand, we were operating in the period say, between 1720 and 1830. It would have been a very easy thing for us to establish reasonable ranges of esthetic standards, but today esthetic standards are a question of personal idiosyncrasy. Take, for example, the city of Salem. There you have a certain esthetic harmony due only to a certain social harmony. In Salem the question of establishing esthetic standards did not arise. At the present time, however, you have a very different situation. There is no social harmony.

DOUKE:

The real trouble is that people in this country are living in a sort of dream world, and the architectural profession with them. Why talk about the sham and insincerity of the small house built by speculators, when you find houses in Scarsdale, Lake Forest, and Syosset, built by the "best architects" for the "best people" embodying the very elements of false esthetics which we deplore, but unfortunately built to last longer than the cheaper sham of the low-cost house?

LABER (*leaning forward*):

You've hit something there. The thing that is handed to people, and which they are willing to buy, is the thing they want. The thing that appeals to them satisfies a need. What is the need that the faked half-timber satisfies in the feeling of the American people? Where does he get the desires which are visually satisfied by these things? They are built up on certain concepts which arise out of the nature of his own living.

Recently, a woman remarked to me that the trouble with most small houses is that they are designed as large houses. Here was an intelligent layman who grasped what many architects fail to see, that essentially the small house must be simple. Why then does the average American who builds or buys a house want the effect of a large house? Because, as Pierre points out, he is living in a dream, a dream of Scarsdale and Lake Forest, of mysteriously amassing independent wealth and tasting every luxury. When he attempts to own a home, the dream persists. In spite of his comparatively small means, he wants to incorporate that dream and if he can't have a linen dress shirt, a cardboard dickey will have to do the trick. The fake half-timber, scrofulous stucco and machine made "hand hammered" wrought-iron are an answer of a kind to a real spiritual need. He wants these things.

So let's not be too hard on the speculative builder; he makes his living by selling houses, not by promoting esthetic purity, and his experience has taught him what the buyer demands. If the product is wrong, it is because the demand is wrong. And if the demand is for sham, it is because the life of most people is a drab frustration, and



AND THIS!

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DREAM HOME!

the only escape which is at all possible for them is through make-believe. A number of years ago I commented to Lewis Mumford on the prevalent bad taste in motion picture theaters. He remarked that the movie palaces occupied the same place in the minds of the American people that the cathedral did in the medieval mind: escape from life and the approach to Heaven. And it is true: for sixty cents a man escapes from his environment, and for three hours enters a synthetic heaven. Ushe to his place by an obsequious, handsomely costumed usher, he sits in cushioned comfort surrounded by a splendor of imitation marble, and gilding, and witnesses a spectacle of synthetic love. The little dream home is a product of the same ideas. Here, for instance, is such a dream home. (*Draws forth picture*) Lorimer's examples may merely be the result of indifference or acceptance; this represents a conscious effort to achieve an ideal.

FOSTER (*almost violently*):

Does the government have to stand back of that sort of thing?

COLEAN:

No—not so long as it is fairly unusual. But if it represented the norm in esthetic judgment, we probably would take it, whether we personally approved of it or not.

BLOUKE:

You talk, Bill, about simplicity and directness in design. How are you sure that that is what we want? You would rule out the Flamboyant and Rococo along with General Grant, Chester A. Arthur, and Queens County styles. There are no absolute judgments on that sort of thing.

COLEAN:

No, but some periods do achieve a unity within themselves. We haven't. If there is a norm, I don't know where to look for it.

BLOUKE:

Certainly the leaders of the profession today are agreed on no such norm; whereas the architects and the public generally—I mean the great army of architects and designers who in one way or another make the plans for the mass of new houses and the public which buys them has nowhere to look for leadership. But the architect should be the arbiter of design. If you turn it over to the government, you are certainly robbing the profession of its opportunity and responsibility of leadership.

RICH:

I think all of you are dodging. You insist the profession is doing nothing, and at the same time say the government can't, or oughtn't, or won't do anything. Then you blame it on the age, or something else. We have accepted the idea that our olfactory nerves are not to be offended. We prevent smoke, and we prevent noises and other disturbances; and the next step for us to take is to protect our eyes from architectural atrocities. That example of Henry's is as much a crime as a belching chimney or cementless concrete. It ought to be prevented.

COLEAN:

It will be when the public is conscious of its badness.

KLABER:

When we again have an integrated society, it will impose its own esthetics.

BLOUKE:

But the profession can assume leadership.

FOSTER:

That's all very well; but just how can that be done?

COLEAN:

We must have a new concept of what the architect is—not just an ornamenter, not a pious esthete, not a mere designer. He must understand and be willing to struggle for the needs of his time. If he does that, a satisfactory esthetic will follow.

BLOUKE:

It goes back to the question of our equipment as architects to handle the whole of the country's architectural problems. Our training was limited to a dream-world architecture. Most of us went from that sort of thing in school to the same sort of thing in practice—dealing with the phantasies of a limited class of people. The real needs of the country, we ignored, because we were not taught of their existence, let alone how

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were to meet them. I suggest that the real problem is one of our own education. (He settles comfortably, glass in hand.)

CH:
I suggest that we have had enough for one night.

(Rich follows Blouke's example. There is a general relaxation, and the ice tinkles amid the drone of the fan. Apollo still manages to hold to his pedestal.)

THE SECOND ROUND

TIME

A sulphurous late afternoon in the same July.

PLACE

Washington, D. C., the awninged terrace of a Georgetown Garden (Foster's). Instead of the leather chairs, white, iron ones; instead of Apollo, Foster's peach tree shadows the table. Otherwise the arrangement is the same: table with glasses and other potent aphernalia.

PERSONS

The same five, with one addition: a brown and white springer spaniel, to which Foster refers as "Sport," the perfect embodiment of its breed name, its ebullience unaffected by the heat or the discussion.

As the curtain rises, Sport is seen making a strenuous effort to get his nose ahead of Amber's into a glass of pink lemonade.)

AMBER (dismayed):

No, Sport! Down, Sport, down!

Sport withdraws, then, in fine abandon, races behind the chairs and back and forth the length of the garden.)

LEAN:

Sport's energy is commendable, but his objectives seem a bit vague.

DUKE:

The same words, if I may be permitted to say so, might apply to the architectural profession. We don't seem able to get oriented.

CH (sadly):

And in the meantime, government threatens to bureaucratize the whole business.

AMBER:

That! The other day you were insisting that the government take over the whole business!

CH:

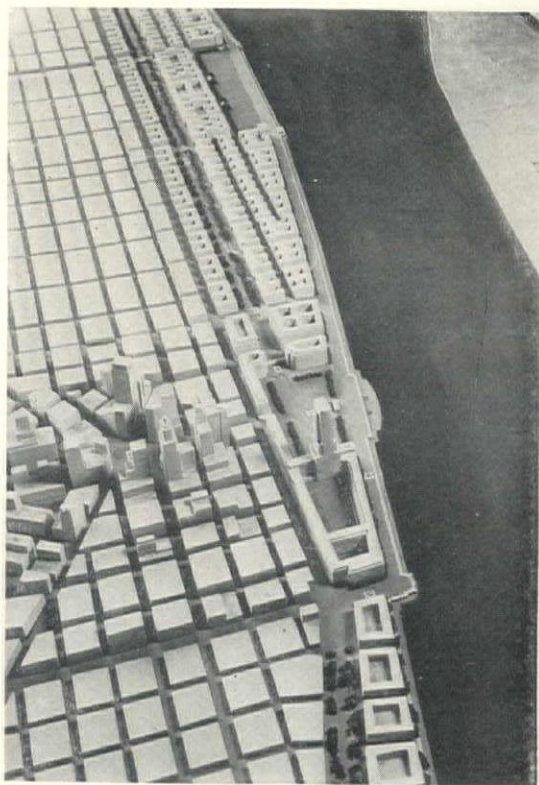
I refuse to be misunderstood, though I will give up that argument for the present. What I want is the government to guide, not absorb. And I see a clear tendency in both the state and federal governments to absorb the profession. That I don't like. I want the private practitioner preserved as such. But what do we see?—an increasing number of public agencies, both state and national, setting up architectural bureaus, and doing directly work which otherwise would go to men in private practice. New York City and New York State are making persistent efforts to introduce laws which will require that more and more city and state work be done by architectural bureaus. Illinois has done this for years. Of course in New York State they have been pointing to the example of the federal government and its various architectural bureaus. I think we ought to be concerned with this, because I believe it's a menace to the profession.

DUKE:

What way is it a menace?

LEAN:

Does it mean that we will get poorer architecture? Has not the work of the Procurement Division, for instance, been of pretty high quality?



EDUCATION TOWARD THE FULLER ASPECTS OF ARCHITECTURE. STUDY FOR DETROIT RIVER FRONT IMPROVEMENT BY WALTER HICKEY, CRANBROOK ACADEMY OF ART

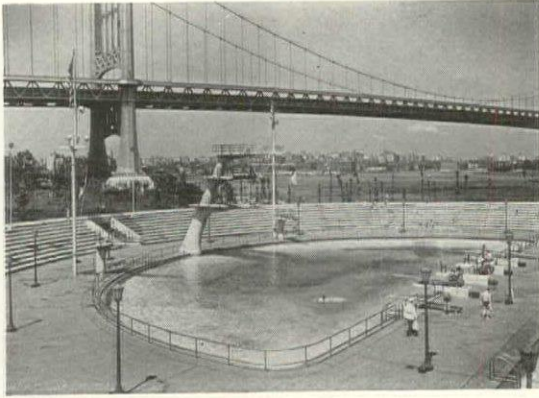
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NEW YORK CIVIC IMPROVEMENT —
ROBERT MOSES, COMMISSIONER



SCHOOL DESIGN BY BOARD
OF EDUCATION, NEW YORK CITY

RICH:

Yes, it has—(He swings at Sport, who has his nose close to the potato chips.)

FOSTER (interrupting):

I blush for you.

RICH (continues unruffled):

And in New York, I must admit that Moses has done a swell job architecturally in connection with his parks, playgrounds, and recreation centers. But I don't think the work of the last few years is characteristic of what I'm driving at. There has been freshness to it. Men trained in the freedom of private work have temporarily taken the opportunity offered by a vast governmental program. These men have had zeal and enthusiasm, but this wears out if it becomes a year in and year out proposition. At a time you don't have the vitality to go along and produce building after building, one thing after another, without the thrilling part of going out and getting the work for yourself. There is something in going out and getting jobs for yourself—something like thinking that your living is coming from your ability to get a job—

COLEAN:

You mean the architect can't perform unless he is faced with the prospect of hanging

RICH (unperturbed):

Not necessarily. But a routine is harmful to creation. You get tired—run out of ideas and find that you are repeating yourself.

KLABER:

I think Lorimer touched upon an important point. I too feel that you cannot keep up an even pressure of productivity, working over a period of years on the same sort of thing, and that there is a tendency in any agency, where there is a more or less constant flow of work, for a man to slow up in his creative efforts because he just cannot create constantly. This may be the case with an architect in Government employ, but the same condition occurs in private practice. In the good old days (*instantly glasses raised to the good old days*) when job after job came into the office, all of us did so much work which bears the stamp of a fatigued architect. In this respect, many of the highly organized offices have all the disadvantages you lay to the bureau.

FOSTER:

Another thing happens in a bureau—the architect ceases to be an architect, he does not do the entire job. He can supervise it to a minor extent, but he really becomes simply a routine designer or engineer. He does not have a chance to control the whole problem as he does in outside practice. This makes the man suffer and the work suffer. Especially in the larger projects.

KLABER:

Let us forget it from the point of view that the man suffers—that is an individual problem. Do you believe it makes the work suffer?

FOSTER:

Yes, I do.

COLEAN:

You feel that so far as the architect is concerned, he will produce better work if he is acting in a private professional capacity rather than on the basis of a regular retainer. On the other hand, many departments of the Government seem to have been disappointed with the results they have been able to obtain from architects who do work for the Government in their private offices. The real problem is, what is the cause of that dissatisfaction, for, say what you will, Government doesn't grow just for the love of growing. Every lasting expansion of governmental function has come because of a breakdown somewhere along the line in the providing of that function. If there is a growing tendency to increase the number of governmental employes in the architectural field, it is probably because it has been forced upon the Government out of the difficulties met with in doing it some other way.

RICH:

Well, to argue against myself for a minute, you might take the case of the Treasury Department when, in the depression, it was faced with 400 projects which all had to be done at once—the emergency arose because of the work relief program, and so forth. It was faced with the problem of how to get these jobs done most expeditiously.

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ould have given them out to 400 architects scattered all over the country—a tremendous job, and what with the contacts necessary with the Department and the Post Office, Justice Departments, and the various other departments, a problem that was most impossible to solve. To get 400 architects—there are probably not 400 architects in the country competent to do these jobs—properly distributed, I mean. The architects might not have been competent, might not have been able to put the drawings in shape to meet public requirements. Here certainly, the Government was forced into something because, for one reason, the architectural profession was not equal to absorbing 400 public building projects at once.

LABER:

take the case of the PWA Housing Division. It first tried to get its job done by relying on private practitioners. But it soon found that in order to get that job done had to take over more and more of the architect's functions until it finally limited its work to producing the routine documents, while the direction of design and supervision were handled in the Division. With some notable exceptions, the profession, again, was unable to meet a requirement placed before it.

OLEAN:

take the FHA. In connection with large projects, for instance, we have been trying to deal with the profession and to make the profession realize that it is up to the architects; but we have found the pressure increasing daily to institute bureaucratic performance, due to the fact that the stuff that comes in is frequently so inept; that with the amount of work we have to get out, I often think our procedure would move more smoothly if we took the whole architectural end upon ourselves.

LOUKE:

take any agency dealing with the small house. What sort of help does the Government get from architects there? We've talked about that already; and it's plainly so that Lorimer is even willing for the Government to take over that part of the architect's work.

OLEAN:

you knew the pressure we have been under to produce small house plans for the market.

LOUKE:

the Home Loan Bank system is engaged in an experiment to assist architects to enter this abandoned field. We've set up what a few leaders of the profession believe to be a practical operating plan, sell the service for them, and lead them by the hand into it. It's up-hill work.

DOSTER:

gets down to the fact that the architectural profession was not ready with enough competent men when they were called upon in emergencies to produce work in a hurry—

OLEAN:

can add that I do not think it is in a position to do the normal jobs, without any emergencies. This is certainly true so far as housing is concerned.

LABER:

of course, in spite of its importance, housing has been a step-child among architects. I was astounded at the rapidity with which prominent firms which had previously done office buildings became housing experts when there were no more office buildings to do. . .

LOUKE:

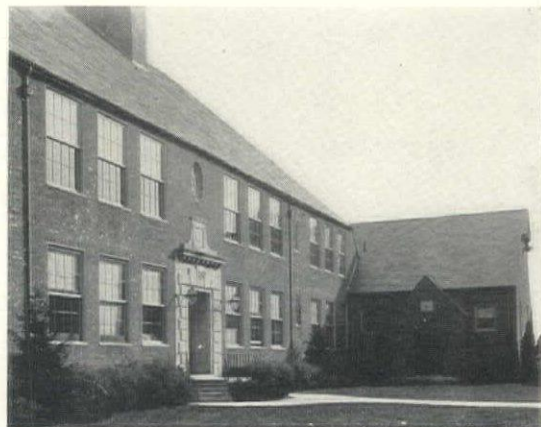
ervent evangelists. . . .

WICH:

and a job to keep the office going. You noticed that, as these various agencies popped up, architects became interested, some of them because they had nothing else to do, and when as business has picked up, as once more they have had dangled before them large buildings, they have dropped out of this work which is so very essential to the country as a whole—this problem of improving ninety per cent of the building in the country. They jumped into it because there was nothing else for them to do. They did not have the real crusading spirit.

LOUKE: (correcting:)

the professional spirit.



SCHOOL DESIGN BY PRIVATE ARCHITECT—WESLEY BESSELL

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INDUSTRY BUILDS TO GOVERNMENT STANDARDS. HOUSE DEVELOPED BY FHA, ADAPTED TO BRICK BY STRUCTURAL CLAY PRODUCTS

RICH:

That's it. President Eliot was once asked the definition of a profession, and he said it was an occupation in which one engaged not primarily for profit.

COLEAN:

If we were a profession we would most certainly interest ourselves in this picture. If we were even good business men we would do it.

BLOUKE:

The architects have not known how to organize themselves in that picture. They are following a will-of-the-wisp. I had a long letter from Robert Kohn today. On my way back from Boston not long ago, I stopped in to see him concerning our effort to get architects to interest themselves in the problem of the small house. He pointed out in his letter that the French architect is called to serve on a modest fee basis—little commissions throughout France, much as the medical profession serves the patient; but the attitude of mind in this country has been developed, as I've said before, by an academic sort of schooling. The students all want to do capitols, seaside resorts, and that is due, I think, to the present day education. The point I am getting at is that as architects we are still living in a superplane that is way above the problems of everyday living. From the start we have been insulated and isolated from the small house field.

COLEAN:

If architects could bring to the small house field a real esthetic concept—their knowledge of good design, their insistence on good construction—if they could show in everyday things the importance of their service, their position right up through the whole structure of society would be improved. It would be easier for them to get a hearing in connection with other kinds of problems. The deference which would be paid to them in the development of public buildings, public monuments, and so forth would be much greater.

KLABER:

People would better understand the importance of the architect in connection with public buildings if they could see his hand in the convenience of their houses, in the sunlight coming into their rooms, in the lasting pleasure they got from his handling of color and material.

RICH (*Smiling into his glass*):

Would any of us, before we came down here to Washington, have got all "het up" about a house that the lower third lived in? Were our interests in that direction?

COLEAN:

Well, I know Henry and Pierre had been pretty well into it from one angle or another. I had begun to get a little religion on the side. . . .

RICH (*interrupting*):

I suspect you may be interested in it now because of your jobs. When you get back in private practice then is going to come the test of whether you are really interested.

COLEAN (*after a gulp*):

I prayerfully hope I can meet that test, Brother Lorimer. If there is anything I would not want to do, it would be to go back to designing mirrored bathrooms for the hysterical rich, and other such sins with which my past is blotted.

(At this moment, suddenly springing up at the table, Sport succeeds in upsetting a box of potato chips. All spring to the rescue. Klaber neatly catches a toppling bottle.)

FOSTER (*reprovingly*):

Sport, I'm shocked. You must be more polite. Naughty! Naughty! (Sport sulks away to the edge of the terrace and lies with his muzzle flat on the pavement, pointed toward the assemblage, all of whom he eyes reprovingly, including Foster who won't even eye back.)

COLEAN (*after order has been restored, and the glasses refilled*):

I don't believe we have proven that the government is seeking to take over the architectural profession. It seems rather . . .

RICH (*with some indignation*):

Colean, you are an unmitigated perverter of other people's words, especially mine! Last week I asked for a little control and guidance in the architectural field, and you beat me

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own as a dictator. Now, I didn't say the government was seeking to take over the profession. I didn't say anything about desire or intent. I merely noted what is going on.

OLEAN:
except the distinction.

CH:
an important one. This thing has happened. I contend it is a menace. But I don't use the government of plotting it. It has probably been forced on it by circumstances.

OUKE:
what circumstances?

OSTER (*still disgruntled, a little vaguely*):
the depression, by the emergency, by the hot weather, by such things as Sport. Let me get some more potato chips. (*He goes inside.*)

LABER:
there evidently has more definite ideas.

OUKE:
finite and brief: the profession was not trained for the problems the government had to meet. I would like to take a crack at the present day education of architects. Education is still in a medieval state.

CH (*interrupting*):
this whole evil which has fallen upon us has been due to our own lack of initiative to make advances to the Government in normal times. The A.I.A. has, especially lately, been some haggling with the Treasury Department about ways and means. But, as far as I know, the profession has never tried to deal with the various governmental agencies—the War Department, Veterans Bureau, Bureau of Indian Affairs, all of which have special architectural problems—to understand those problems and to work out the ways such agencies might deal with the private architect.

OSTER (*returning with his replenished bowl*):
Well, I think that the bureau system is here to stay regardless of what we may want to do about it.

OLEAN (*with his free hand in the bowl*):
I don't think that is necessarily so. If the government could get competent service—it could get architects to interest themselves in its problems without chaining them to a desk down here. . . .

OUKE:
I think it could be done. In Illinois, for instance, Hammond has maintained a very high performance in public work, passing jobs to a number of private architects. Perhaps a system might be worked out similar to that in Germany before the present lamented time—under the direction of such famous architects as Messel, Hoffman, and Behrens.

CH:
The way must be found to work it out. Architecture is a personal service—as personal as medicine. It can be performed properly only when it is performed by a person rather than by a bureau, whether it be a public or private one. I believe in the private, individual architect. I believe that great architecture can come only from him. He is the master of his craft. If he has never done a library, he can do a library; if he has never done a hospital or a housing project, he can still do a hospital or a housing project. If he is a real architect he can do these things. The real architect can diagnose his problems, he can understand function, circulation, lighting, and put all of these elements in proper juxtaposition to make them work. The real architect realizes that his objective is in the building. He must use his materials—his wood, his brick, his marble, or bronze—as a palate from which he creates a building.

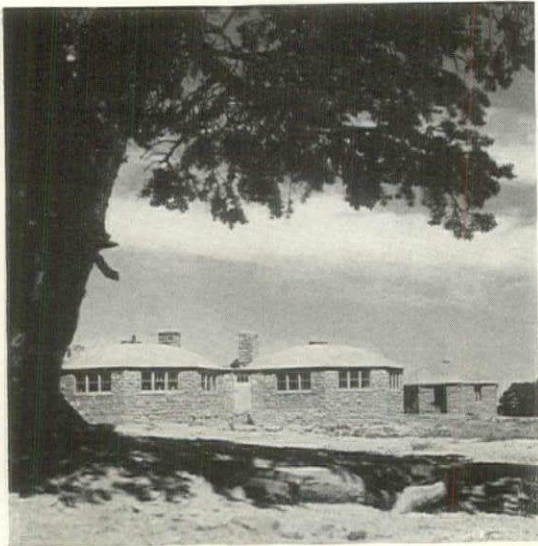
LABER:
But where will you find these fine creatures.

CH (*woefully*):
I admit the government couldn't find them when it needed them in a hurry.



MODEL HOUSE CONSTRUCTED BY THE LUMBER INDUSTRY FROM PLANS DEVELOPED BY FHA FOR TECHNICAL BULLETIN NO. 4





NEW INDIAN SCHOOLS IN THE SOUTHWEST ARE DESIGNED IN THE TRADITION THAT THE INDIANS KNOW AND RESPECT. MAYERS, MURRAY & PHILLIP, ARCHITECTS

COLEAN:

I think this all goes back to a certain lack in the profession which baffles the governmental agency when it comes to deal with it. It does not get this beautiful composition picture which you draw up. In other words, the creature you describe, who can perform in the complete and competent professional way you visualize, does not exist so far as these governmental problems are concerned.

BLOUKE:

So far as all but a very limited range of problems is concerned.

COLEAN:

We have seen here almost all architectural problems, in all their ramifications. We have been able to watch how the profession is meeting these various problems—from the 2,000 dollar house in the mill town to the erection of the most monumental building that can be devised. In one way or another we have had an opportunity to judge how the profession is meeting that great range of problems, and we all feel that there is something lacking, and when we trace it down we feel that much of what is lacking appears due to the training—to the education and point of view that has been given us to see as the demands have come to us. If we had been trained to meet all of the needs of the country, when the depression came, we might not have been left . . .

FOSTER:

Like the fashionable tailoring business. We have found we aren't even as important as hairdressers. (*He glares at Sport, who still in the same position, seems to have developed a sense of sin.*)

RICH (*after refreshing himself*):

I'm a little weary with all this talk about the profession this, and the profession that. Why can't you be interested in something specific? Here, for instance, take the case of Washington—an architectural problem in which the whole country is interested. What about that?

COLEAN:

Well, what about it?

KLABER:

It seems to be in pretty good hands. It has a Planning Commission, a Fine Arts Commission, a Jefferson Memorial Commission, and I don't know how many more commissions. That ought to offer control enough to satisfy you.

RICH (*pretending that Klaber had gone home some time ago*):

The architecture of Washington, and the future architecture of Washington are something that every architect and every citizen ought to be interested in and ought so far as possible be invited to have a voice in. But they get no such chance. The Fine Arts Commission, or whatever commission it may be, simply gets together and makes decisions. Then, before the public even has a chance to prepare for the shock, the commission says what it is going to do.

KLABER (*refusing to be disembodied*):

I cheer your abdication.

COLEAN (*chiming in*):

There you have a fine example of dictatorship, or control, if that pleases you better than the sort of thing you want us to do for all the house architecture in the country. Maybe you feel that is more important than public buildings or monuments. . . .

BLOUKE (*into an uplifted glass*):

I wish I could think so.

COLEAN (*continuing*):

Or that the likes of us would make better dictators than the Fine Arts Commission. I am sure they are most competent. They are of acknowledged ability and of the highest professional standing.

RICH:

They might be a little more receptive to public opinion.

KLABER:

Lorimer, you ask too much. If you were a Fine Arts Commissioner you would be as pontifical as anyone. You couldn't help it. It's in the name, and the name is the keynote to the whole attitude. What is "Fine Art" anyway, but a term setting art as

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AMERICAN ARCHITECT
AND ARCHITECTURE
OCTOBER 1937

something unrelated to common life and experience, something which creates a special esthhood which serves a cult?

LOUKE:
Well, after all, that is exactly the attitude of most architects. They are trained to design railroad stations, resort hotels, and the like; and the small home, the shop, the garage, which constitute nine-tenths of American architecture, are below their lordly notice.

ROSTER:
Get back to the Fine Arts Commission—how do you think they should arrive at their decisions? They can't very well take a popular vote.

WICH:
Before coming to a decision, I think the Fine Arts Commission might make a public announcement of important matters it has under consideration, and let those interested have a chance to squawk. As it is, they suddenly announce their approval of a project. The matter is all settled. The architect is chosen, the character of the building fixed, and the design approved, before any but a few know what is being done. Why not hold a hearing somewhat after the manner of Congressional hearings when legislation is proposed.

DOLEAN:
There never has been opportunity for that kind of discussion, which would be most healthy. In the Renaissance, there were riots when the populace felt their esthetic sensibilities offended.

ROSTER:
They would probably riot about the wrong things. Just remember how they tried to oust the Burnham plan when the Commission announced the opening of the Mall.

WICH:
All I was suggesting was that people be given a chance to be heard.

ROSTER:
I understand. I understand. But would it assure us better architecture, or would it, by giving your worship, merely get us into a dither about such things as cherry trees?

LABER:
Would it give us buildings you could find your way around in, or offices you could see out of without peeking around columns or over parapets?

DOLEAN:
Where could you moor an automobile near?

LOUKE:
Would it still leave us some of the worst slums in the country? The thing that ought to concern us is not such absurdities as the Second Division Memorial or such phantasies as the Jefferson Memorial, but the vast bulk of our urban areas to which no directive has been given. I'm not concerned about the cherry trees, but about a rational architecture and a realistic architectural education. Even with all the high powered control we have here, we don't get rational architecture. We try to live on a super-plane. We set up a kind of grand scale Hollywood and forget it has any relation to living and doing business.

ROSTER:
Where are we getting, anyway?

WICH:
We seem to be about back where we started.
(There is a general infiltration all around of effervescent beat-killer. Sport is discovered to be peacefully asleep.)

ROSTER (with a glow of affection):
You know, he really is a very nice dog. *(There are no comments.)*

THE THIRD ROUND

TIME

late afternoon, early in August 1937; a mild, soft air of gentle coolness, such as the Washington climate gets too little credit for producing and which, in fact, it does not



WASHINGTON HAS MANY COMMISSIONS INCLUDING ONE FOR FINE ARTS AND ONE FOR ALLEYS

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WASHINGTON PARKING PROBLEM



STUDENTS MAKE TRAFFIC ARTERIES AND PARKING A PRIMARY CONSIDERATION. PROPOSED PLAN FOR NEW WORLD'S FAIR 1939 BY JOSEPH STEIN AND RUDOLPH MATERN OF CRANBROOK ACADEMY OF ART, MICHIGAN

produce so frequently as to cause any alarm to the thirst-quenching industry. Foster's peach tree is in full fruit.

PLACE

The same as the Second Round; the properties are the same except for a new bottle

PERSONS

The same. As the scene opens Colean is using Foster's peaches to harry Sport, who is his old self again, and becoming even more so under the barrage of amygdalus persica. It is too much for Foster. With a deeply pained expression he seizes Sport by the collar and drags him to safety within the house.

COLEAN (settling into chair with the air of one who has accomplished something): Where's the ice, Bill? So long as this is the magazine's party, I feel free to complain about the service.

FOSTER:

Since when did you develop any reservations on that fine freedom of yours?

COLEAN (undisturbed, as he pulls nearer to him the bowl of potato chips): It seems to me last week we left Pierre on the verge of some great thought.

RICH:

If I remember correctly, we left him disgruntled on a super-plane, or some such queer place.

FOSTER:

He didn't like education.

BLOUKE (seriously):

The crux of this problem, I think, very definitely rests with the training of the architect to meet the problems of society today, and not that which existed in the time of Louis XVI.

RICH:

Well, this is progress. Last week Pierre had education in a medieval state. Perhaps today he can pull it forward another few hundred years.

KLABER:

I really feel very strongly with Pierre that education is the nub of the question. We must get back to the architect's training—what it has given him and what it has not given him to meet the things he is up against, or ought to be up against in present day practice.

RICH:

What, specifically does it need to give him?

BLOUKE:

It should give him a social and economic orientation. . . .

RICH (with a gulp):

A well resounded period.

FOSTER:

What about an esthetic orientation?

BLOUKE (deliberately lowering his glass):

He needs both. But the second should grow out of the first. As a member of a profession he is a servant to society—to the whole of society and not just the capital 'S' variety. He must be taught what the great architectural needs are, and how to meet them. He must be inclusive in scope, not exclusive as he always has been. . . .

KLABER:

. . . a servant of the people as a whole, not just of the priest and the patron. . . .

FOSTER (mumbling):

Who alone have been willing to pay him.

RICH:

I agree with Pierre that education should inculcate in a man his responsibility to society—and this he should have if he has any pride—responsibility and realization of the situation in which he is living in this country, and he should not turn aside from works that will help our social structure simply to make money. That's preaching and all that, but it goes right back to the definition of a profession and a business. The business

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make money and the profession is to follow your chosen vocation without a primary regard for profit. You take the teachers—they are not entering their profession for money, but because they like the work, and eventually you must get the architect to a point where he does it because he is a servant—that thought permeates this whole profession.

ABER:

There seems to be an impression that when we speak of a social point of view for the architect, we mean some vague philosophical concept or a general benevolent attitude. I believe it means something much more important and definite. I think that the profession, together with all other fields of work, is faced with an important choice. The large amounts of money that are involved in building have naturally tended to make the architect dependent on those who control money, and it is only too easy to slip into the attitude that we are concerned only with the interests of this class.

It is precisely these same interests that today threaten the idea of democracy. The architect must, therefore, decide for himself whether the idea of democracy on which this nation was founded is valid. Its opponents say that it has failed, and if we base our judgment on the ultimate ideal of a democratic government, we must confess that it has not as yet been achieved. But let us not forget that a few hundred years is a short time in approaching such a goal. The architect must therefore decide on which side of the fence he is on this vital question, and which way he proposes to push. This does not necessarily imply that capitalism will vanish, but it does mean that it must be kept in control.

LEAN:

I'm afraid Henry is getting us hoisted on another kind of super-plane. When I plead for a broader social point of view, I do it not only because I see the need of the architect's service in other fields than those in which he usually works, or over-works, but because I think the economic existence of the profession depends on such a view being taken. In other words, I want to see the architect—the average architect, that is—make a better living for himself by making himself more generally useful. I want to see him less dependent on a class of work which vanishes at the first threatening cloud of depression, and which does not recover until it's nearly time for the next depression.

OSTER (Having tried since Klaber's apostrophe to get in a word, blurts a paragraph):

A great deal of the objections to present-day architectural education is directed towards the fact that the graduate—or the general run of architects—doesn't know much about the question of Housing. If one is not particularly interested in that part of the professional practice why should he know a great deal about it, even if it does represent a large volume of the building being done in the nation. An architect should have the privilege, without criticism, of choosing that in which he may wish to interest himself during his professional career; a lawyer or a doctor, certainly makes his choice for specialization, and I doubt if a lawyer interested in criminal cases is considered to be neglecting his duty if he isn't also specializing in International law.

LEAN:

The trouble is that everyone wishes to specialize in International law, and there isn't much to go around.

DOUKE:

And the schools haven't pointed that out.

LEAN:

What we have been hammering at is that you do not get the proper orientation towards your career in the schools. I think our education has given us an erroneous lead in the whole thing. Our whole education was built on archeological concepts. We were given problems of a highly irrelevant nature, as far as the normal needs of society are concerned. We got into what has been previously referred to as a "dream world." When we went into practice we knew only that kind of problem and could not get into the general run-of-mine stuff—the kind of work that cities demanded, that people demanded, the houses, stores, warehouses, factories; those things that form the major part of our building needs.

ABER:

Our education was based on study of the achievements of people of the past. It was based on such achievements without any understanding of the motivation and background that created them, or any understanding of the life that flowed through them.



ARCHITECTURAL STUDENTS AT M. I. T. DESIGN AND SUPERVISE THE CONSTRUCTION OF A HOUSE

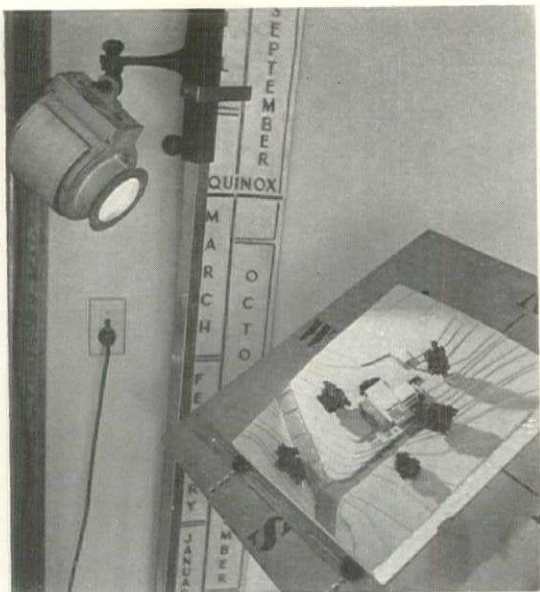
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THE HELIODON APPROXIMATES
SUNLIGHT FOR ORIENTATION
STUDY IN THE PLANNING
AND HOUSING DIVISION,
COLUMBIA UNIVERSITY

COLEAN:

In other words we were taught to reproduce Florence and Salem.

BLOUKE:

In other words the whole thing was academic, not realistic. I recently saw an exhibition of the work of a prominent school. Looking at it, I wouldn't have known that he was living in the United States in the second quarter of the twentieth century.

RICH:

You must know the precedent of the past. You can't start gaily inventing form and technique. You must somehow take advantage of the experience the ages have developed.

FOSTER:

Do you people object to all that? Do you think it should be merely supplemented by a course in social service? Do you think the thing to do is to study nothing but schools, houses, city stores, etc.? Did you ever realize that time for education is limited—the architectural student has only a limited time to get what he must get? Therefore it is the esthetic side that he is most likely to overlook later, and why not give him a good dose of it while we can? Why should they not put the emphasis on the esthetic rather than the material thing?

In the years of architectural study the student should be given as broad an understanding of esthetic problems as it is possible for the suffering faculties to provide. This would include study of plan and the esthetics of elevations, or vertical walls—study of fenestration, balance, ornamentation—all of these with relation to the plan as needed to meet the requirements of the problem. I agree that perhaps too much emphasis has been laid in times past upon beautiful balance around axes to the detriment of the plan, but I doubt very much if such teaching is being followed today and from observation I sometimes think the pendulum is swinging somewhat too far the other way. Moreover, the architect should know materials and furthermore he should know engineering. It is my conviction that no original thinking can be done by an architect, thinking of a fundamental character with regard to design, without a pretty thorough knowledge of structural engineering. Most of the original ideas concerning structure come from Europe where the architects are more thoroughly trained in mathematics and in engineering of structure.

In the study of planning and composition, there may be some justification in the criticism that problems are generally involved with a "Swimming Pool on a Large Estate," "A Small Private Museum," "A Sport Center in a Winter Resort," etc. Perhaps it would be well to give some problems concerning the housing of families of low income, but it surely would be presumptuous to say that those problems should predominate. Whatever the vehicle let the student be taught that there is such a thing as balance, chiaroscuro, fenestration, and so forth that are satisfying to the emotions, and let him be taught that planning means arrangement of rooms and circulation so that the building will function efficiently, whether for business or for living. I can't believe that housing is so intricate that an architect of average intelligence and decent training cannot solve the problems; he may not get all out of his problem the first time as would the man who has been studying the problems for some time. But surely there is a certain mystery or intricacy in the problems that either legerdemain or genius is absolutely necessary for their solution. *(He takes a deep breath, and reaches for the pen.)*

RICH:

Bravo, Bill, I didn't know you could do it.

KLABER:

Bill's remarks raise the question of the content of architectural education. A great thought in Gropius' exposition of education was the fact that he does believe in a certain esthetic understanding. In painting, music, architecture, as in all creative work, there are certain general principles that pervade the whole picture—unity, selectivity, sequence, proportion and rhythm—these are basic principles. A certain rhythm in music has a certain reflex on your mind. Similarly architecture has a rhythm. The mistake in education is not teaching the architect to understand these basic principles by his own experience—not giving the student a free hand to attempt, however ineptly, to express them. If I read Gropius' words correctly he starts out in the very first year of architectural training with those esthetic principles, disassociated entirely from the details of building, starting off in all sorts of exercises in compositions, regardless of whether they apply to building or textile pattern, and afterwards he leads the students into

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sideration of building. They then have their background of esthetic principles with which they themselves have experimented. And then they are led into an understanding of the social picture. That seems to me to be a thoroughly rational approach to the problem.

LEAN:
I get it, it means the interpretation of those principles in the light of existing problems, rather than getting those principles second-hand through adaptation of past examples which arose out of entirely different economic and social needs.

The whole problem we have raised in these discussions is that the architect is not trained to solve the problems which confront society today. We have seen it even in connection with simple government buildings which come closer to the problems which were given to them in school. We have a group of practitioners who have fallen down whenever they come up against anything but a specialized group of problems. Bill says there is no mystery to these other problems. But the evidence of failure is there, none the less.

DUKE:
The evidence points to the schools, and the academic, rarefied, complacent point of view that is bred in the schools.

MASTER:
The schools can't do everything. Those who want architectural education changed to think that the architect is wholly unprepared to meet the present-day demands of the profession; they feel that the young graduate doesn't know enough about the actual conditions existing in the world he is entering; not just his professional world but the whole social fabric which will surround him. There can be no question but that it is true he has not a full realization of all this, but I doubt very much if it is possible to give him much help along this line during his years of training. He can be given some direction in thinking and can be made to realize that social problems exist and that they are a very real part of the world in which he will practice and should be given very real consideration in his architectural approach. But he certainly cannot learn much during those years about actually solving the problems. The time in college is short and there is more and more to learn about the subject of architecture.

DUKE:
It isn't what the schools do, but how they do it that bothers me. It isn't that they don't give a point of view, but that they give the wrong one. If they were merely technical academies, it might be better than the way it is now. At least, there would be less to unlearn later. It's the false, insulated point of view about which I complain.

CH:
Back up Bill. The schools can't do everything. After all a man educates himself—after all our greatest architecture was done before the day of schools.

ABER:
Not before the day of masters, under whom the novice could gain both his technique and his point of view.

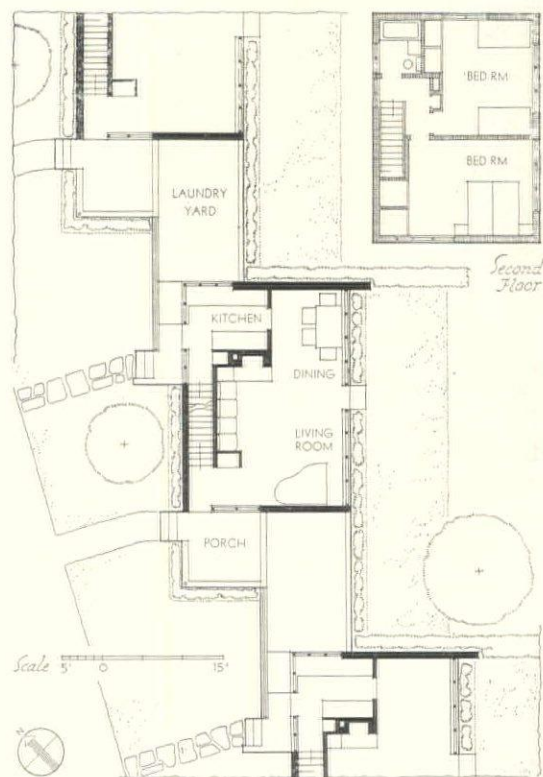
MASTER:
Now you're only shifting the blame from the school to the teacher. The problem is the same—what is to be taught, and how.

ABER (with emphasis):
And how!

CH (again ignoring a respected colleague):
What I'm getting back to is the architect's own, individual responsibility in this thing. In any case the school, or the master, can give him more than he has a capacity or willingness to get. My teachers, I'm sure, tried hard enough with me, but the gravity with which you'd weigh down the student simply slid off me, if it were there. I was more interested in beer than sociology. An architect's real education begins when he leaves the school. He must remember that. He must accept the obligation of keeping informed of what life's about, and of learning how to meet the continually changing problems that will confront him. He must run a one-man school for adult education.

ABER:
How will he know how to go about it, if he hasn't been started in the right direction? Where will he get his material for such a course?

LEAN:
From the architectural magazines, perhaps?



LOW COST HOUSING PROJECT
BY H. FEIGIN, PLANNING
AND HOUSING DIVISION,
COLUMBIA UNIVERSITY

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RICH (aroused):

From the magazines! What some of you have said about the schools is nothing what, barring apoplexy, I'm liable to say about the magazines. If the schools give a false point of view, what do the magazines do but continue and aggravate it? If the schools are complacent and exclusive and all the rest of Pierre's fine adjectives, what are the magazines but ten times more soporific? What do they give you but, for a thousandth time, the cornice details of Tottering-on-the-Brink and the entrance of dear old Bilgewater Manor? What do they offer in the way of stimulus but photographs and nicely drawn plans of other men's work to copy, just as the schools gave you the deadly volumes of the Prix de Rome? What sort of education is this?

COLEAN:

You've got me.

BLOUKE:

Painful as it may be, I must agree with Lorimer. Further, I feel one of the deficiencies in our current architectural publication practice is the apparent lack of a continuous editorial policy.

RICH:

Policy? What policy do any of them have, but to print pretty pictures to save the agony of having thoughts of their own, and to play it safe generally? In any other art or profession do you find such complacency? Take the stage. It has improved its technique because of the criticism it has received. Literature the same way. In architecture we have never had any real sincere, intelligent criticism in the magazines. If they could work out some way to constructively criticize it would help architecture.

BLOUKE:

And help architects to keep on their toes.

COLEAN:

A representative of one magazine explained to me not long ago that they were afraid of libel. I tried. . . .

RICH:

Libel, be hanged! Did any self-respecting literary magazine worry about libel when set to demolishing a bad piece of writing? Why can't we have criticism? Why can't we have stimulation?

KLABER:

What else have you been pouring into and out of that glass for the last hour?

BLOUKE:

Certainly the magazines aren't doing what they might.

RICH:

They might be more than photograph albums and. . . .

COLEAN:

They might try to influence instead of merely to report.

BLOUKE:

They might have a definite editorial policy which one could recognize. They might stand for some definite things and be willing to crack heads over them—I believe architects would like it and would profit by it—the sort of things we have been talking about here.

FOSTER: (counting on his fingers):

Government control, bureaucracy, professional shortcomings, professional bewilderment, the Fine Arts Commission, education. . . .

COLEAN:

Have we exhausted ourselves?

KLABER:

Yes, but not the subjects.

RICH:

We don't seem to have settled anything very definitely. What are we going to talk about it?

BLOUKE:

Let's leave it to the magazines. *(All refill and lift their glasses):*

To the magazines!

(The curtain slowly descends.)

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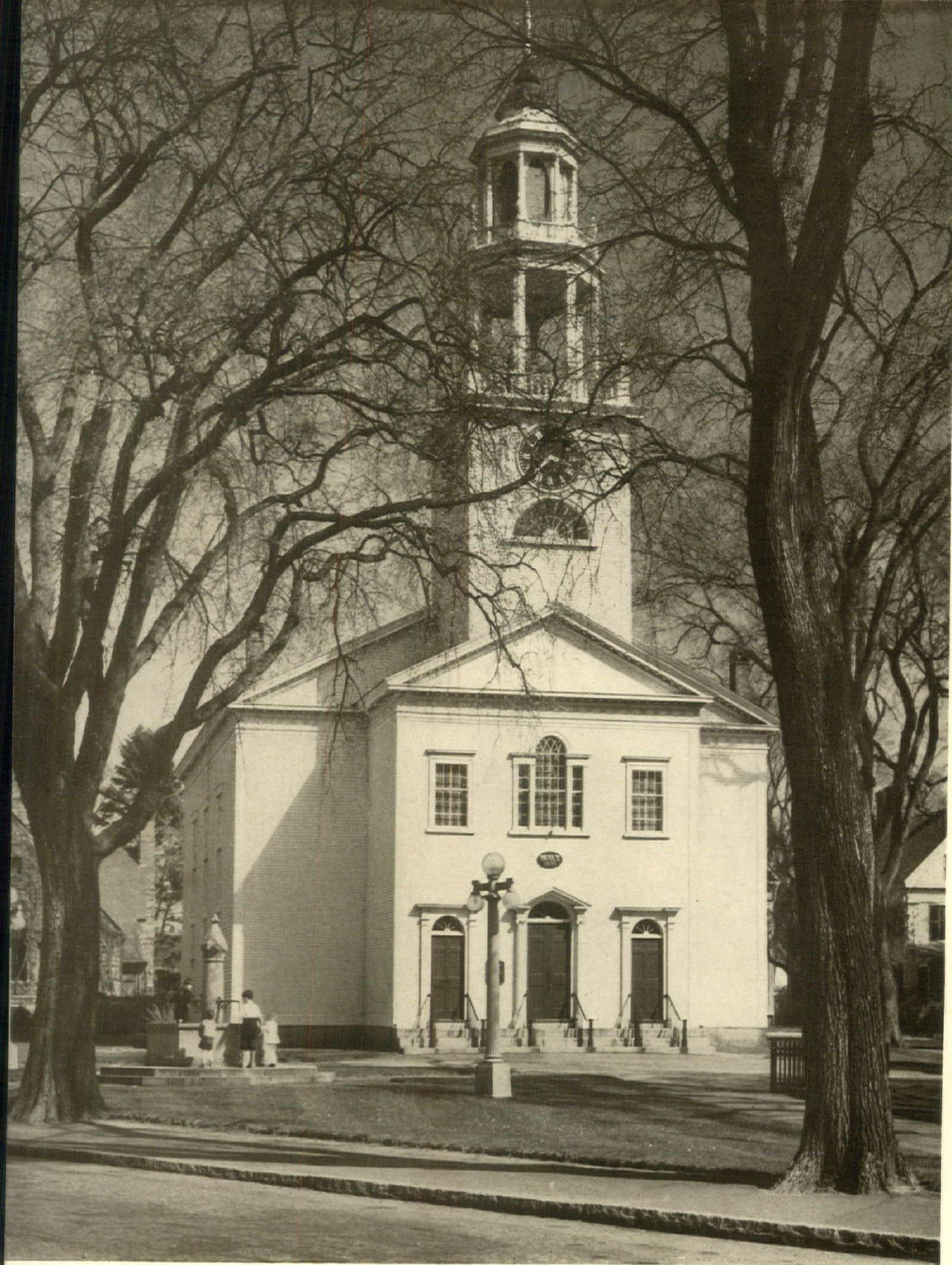


PHOTOS: SAMUEL CHAMBERLAIN

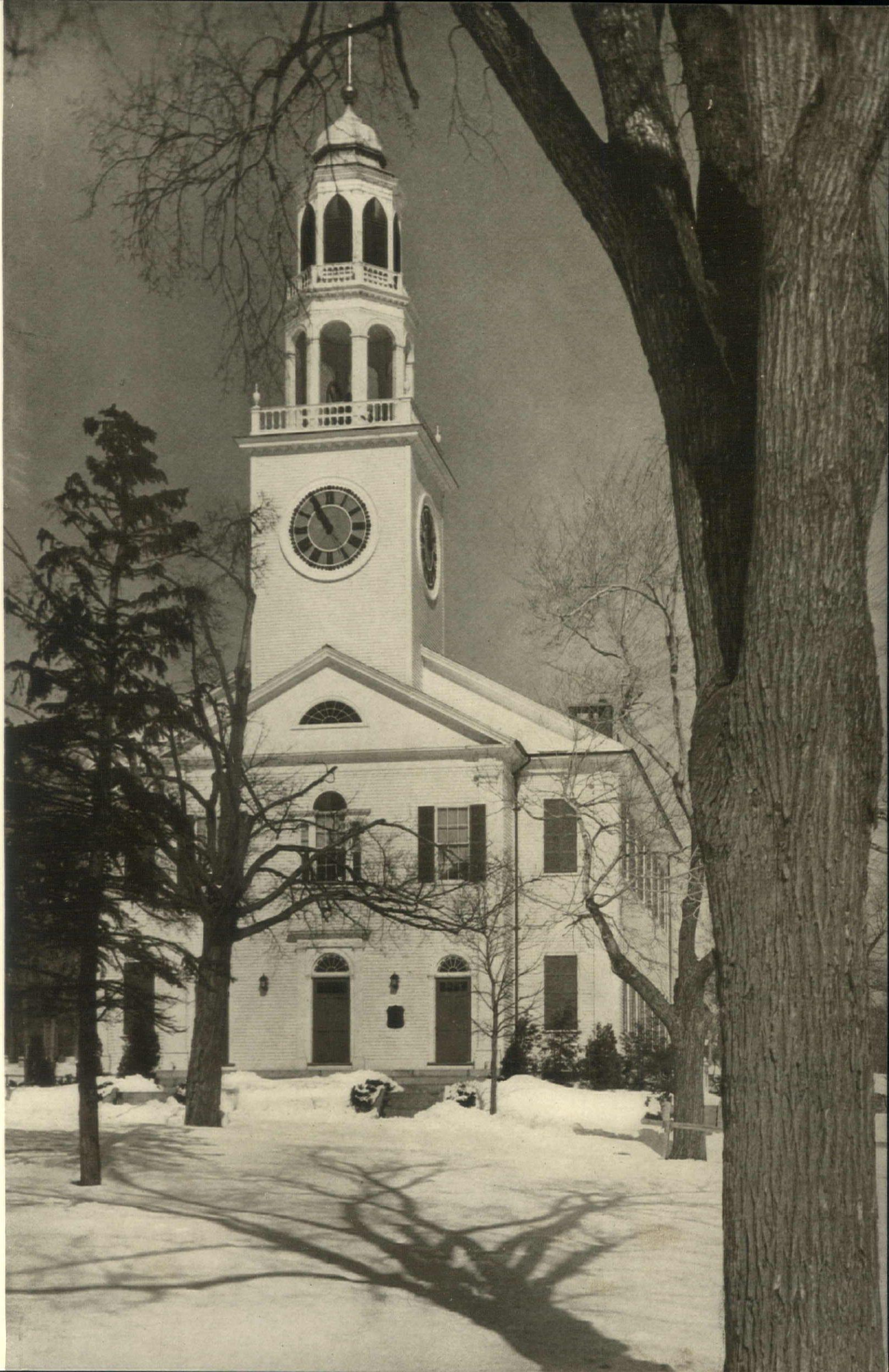
Stately churches inevitably facing commons are a definite expression of the communal life which is the essential spirit of New England. This church is in Boxford, Massachusetts

ARCHITECTURAL
OVERTONES

NEW ENGLAND CHURCHES



The socialite seaside village of Manchester, Massachusetts, is the fortunate possessor of this prim white church (above). Winter on the common in Reading, Massachusetts (opposite)



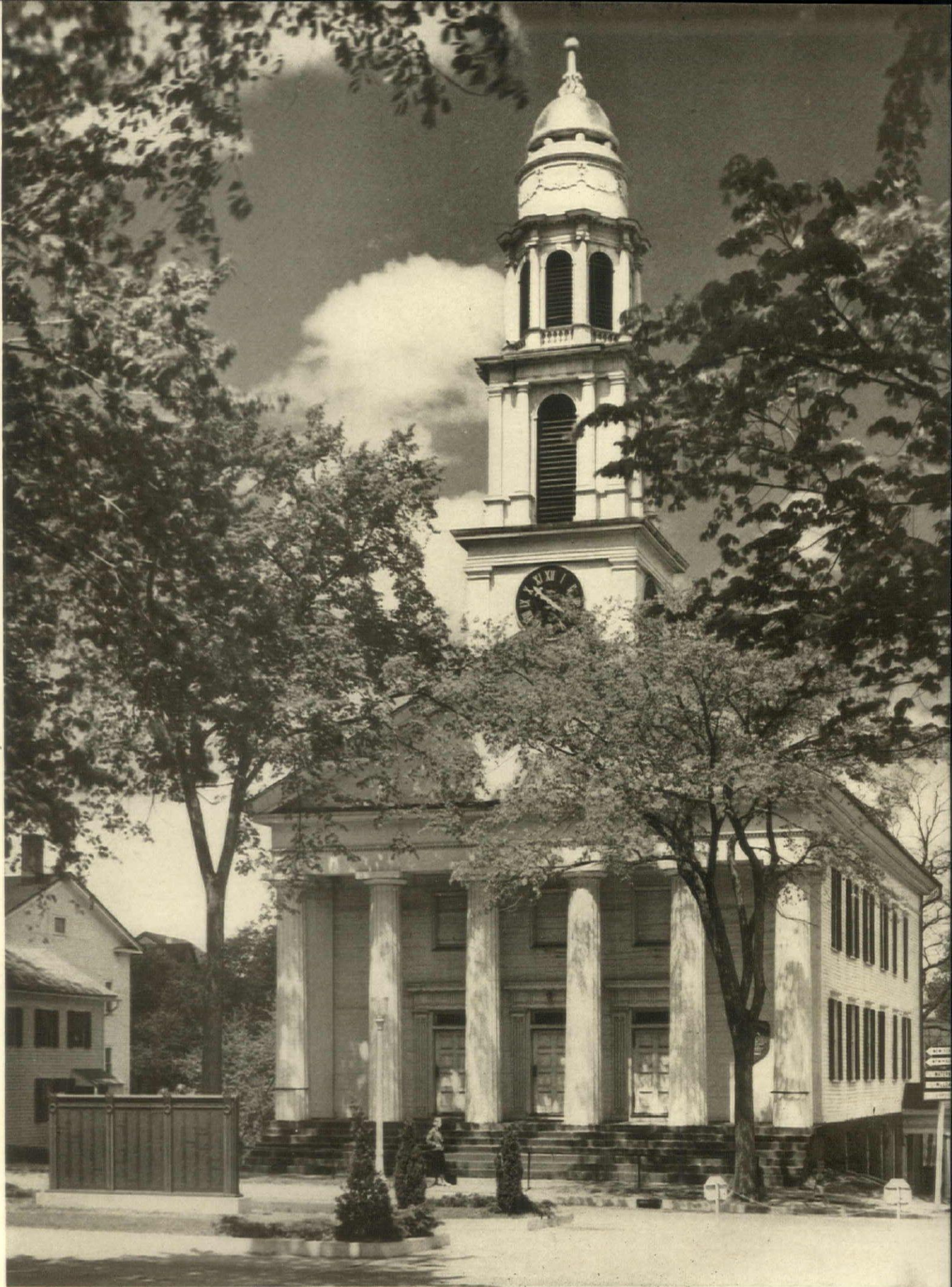


One of Charles Bulfinch's accepted masterpieces is the graceful, studied church in Lancaster, Massachusetts



The classic influence at its best is reflected in Plymouth Church, Milford, Connecticut, which was built in 1834





A yellow church trimmed with white faces the village green (opposite) in Hingham, Massachusetts. (Above) The Center Congregational Church in Meriden, Connecticut, was built in 1831



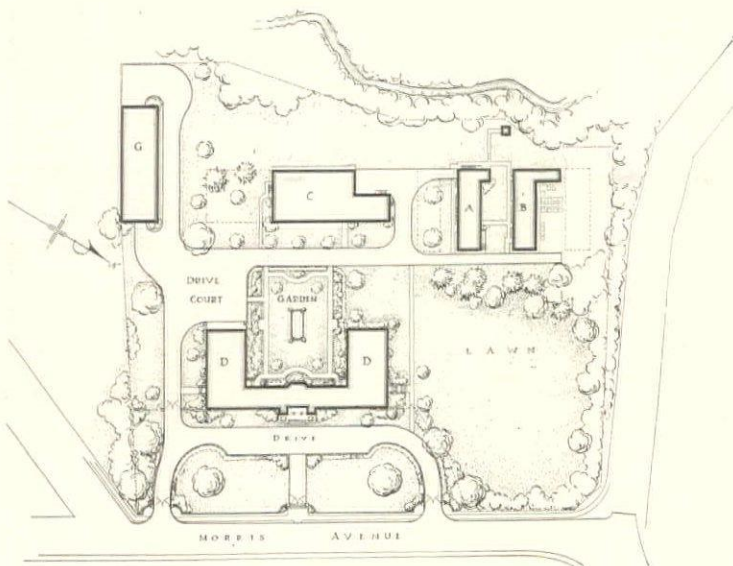
First Church, Windsor, Connecticut, erected in 1794, is conspicuously Doric in inspiration



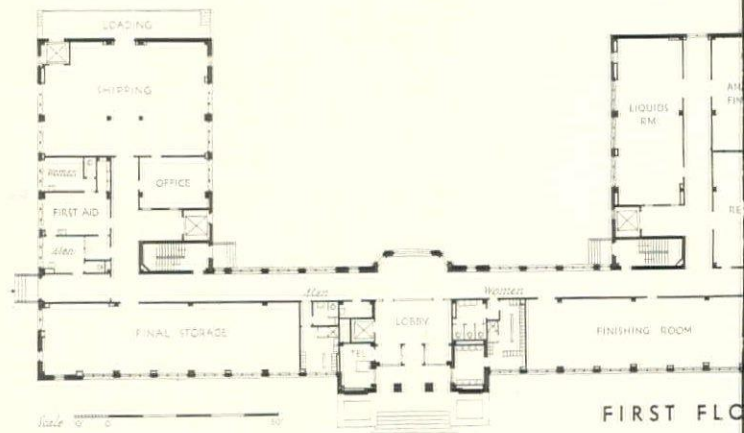
PHOTOS: STOLLER

J O H N F L O Y D Y E W E L L , A R C H I T E C T

B I A P H A R M A C E U T I C A L P R O D U C T S B U I L D I N G , S U M M I T , N . J .

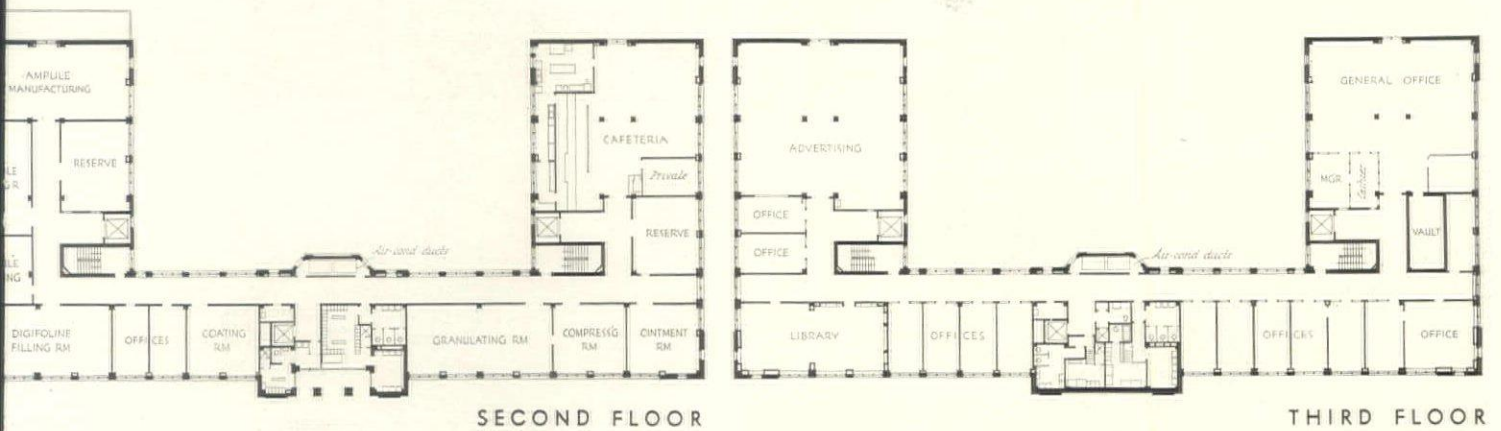
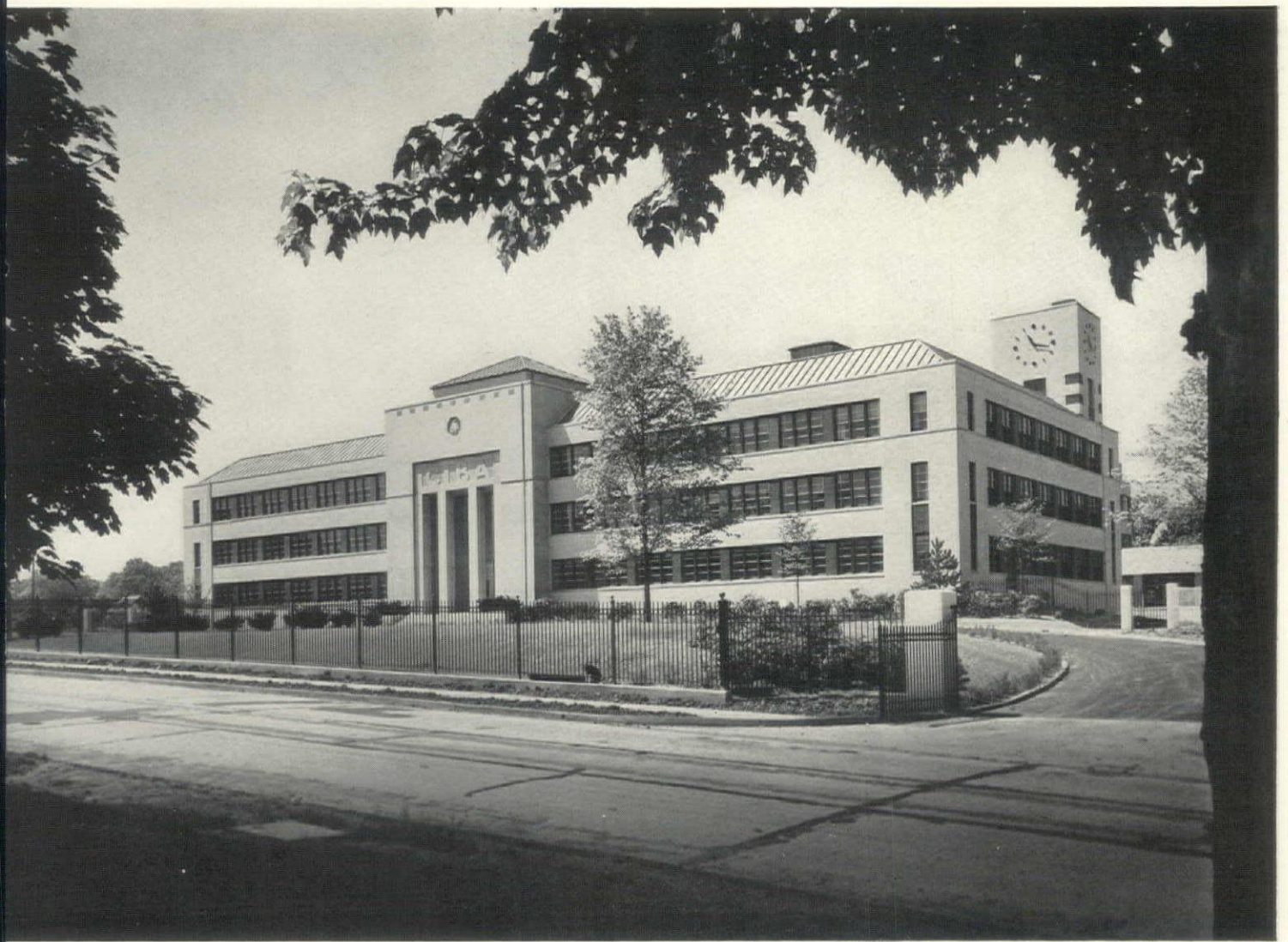


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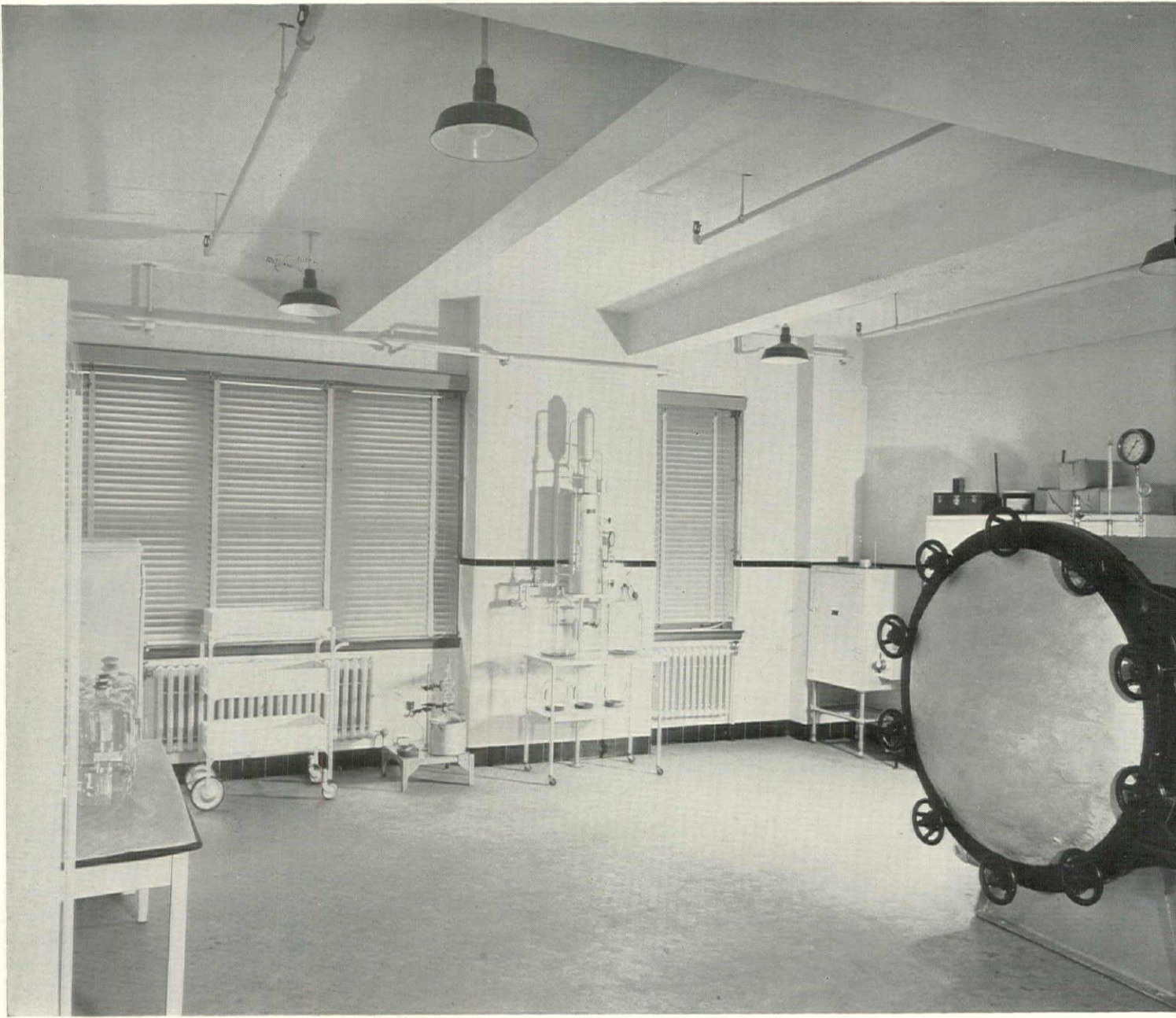


FIRST FLOOR

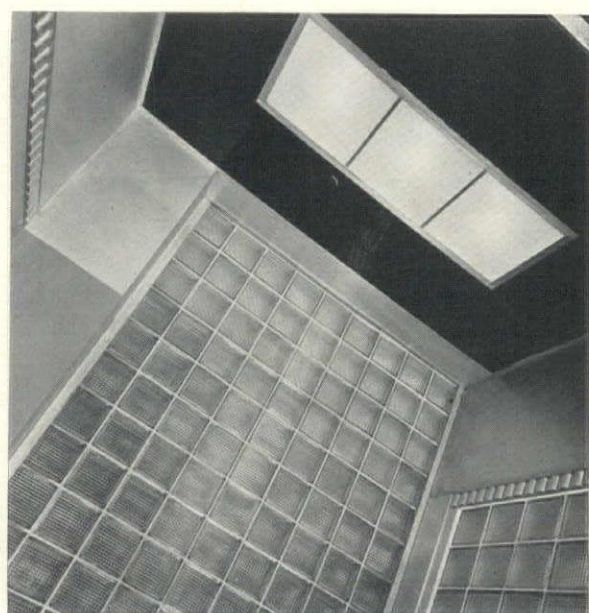
CIBA PHARMACEUTICAL PRODUCTS BUILDING
JOHN FLOYD YEWELL, ARCHITECT • BRIGGS & STELLING, LANDSCAPE ARCHITECTS



Located in a residential suburb, this group of buildings, because of their dignified architecture and fine landscaping, looks more like a civic center than a manufacturing plant developed by private enterprise. Careful attention has been paid to both materials and color throughout. The entrance is of glass block and Indiana limestone, while the remainder of the facade is of light buff brick with purplish red brick facing on the window piers. This latter device suggests continuous horizontal fenestration. Mullions are green and the muntins buff. The trademark seal over the entrance is in two shades of green, red and has buff lettering.



Color has been extensively used throughout the interiors of the building. In the laboratory (above) white walls, a red tile floor, black base and green Venetian blinds have been used. The library and conference room (left) has stained and waxed oak walls. Furniture is traditional and the decorative map was painted by the architect in collaboration with Charles Gulbrandsen. Light green tile flooring in two shades of green and black is used in the corridors (opposite top). Walls are sea-green, trim is black and the ceiling is a slightly green-blue. Bronze glass is used on the ceiling of the entrance lobby (opposite below). Walls are gray-green with silver accents.



**BA PHARMACEUTICAL PRODUCTS BUILDING
JOHN FLOYD YEWELL, ARCHITECT**



All the buildings are treated in the same manner with buff and purplish red brick, gable trim with occasional accents of buff. The clock is black. Facing on the administration building, seen from the rear, is copper. Here again fenestration has a horizontal character.



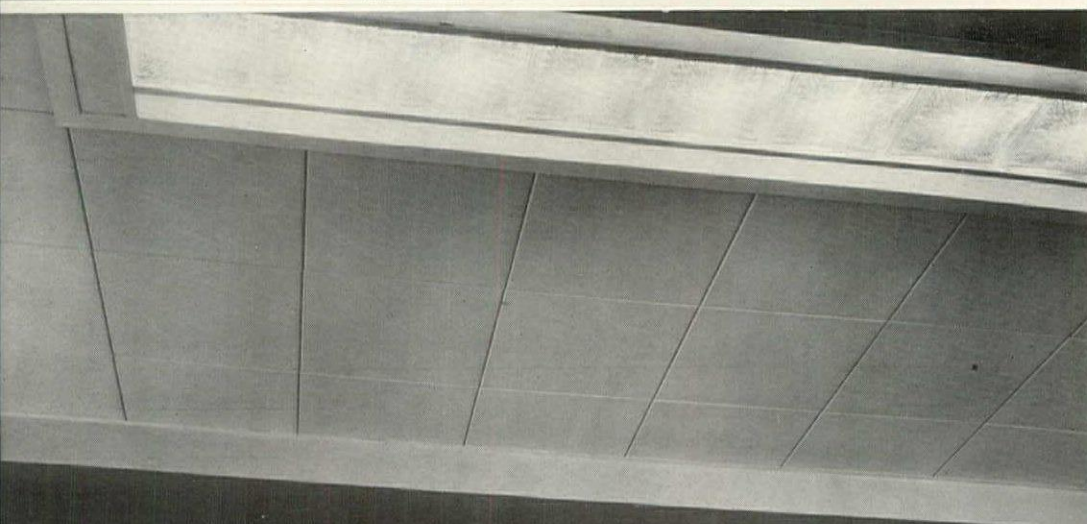
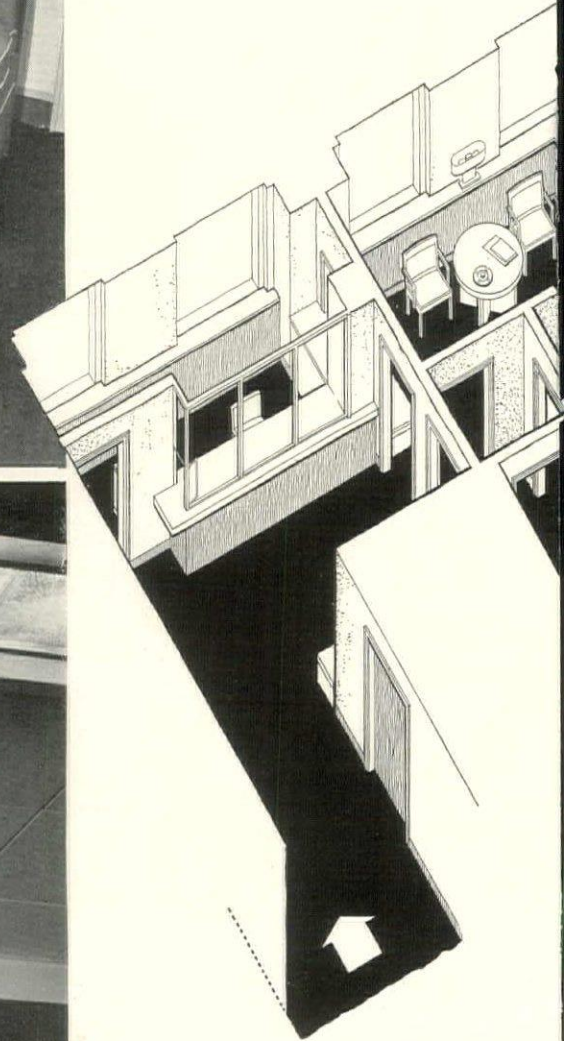
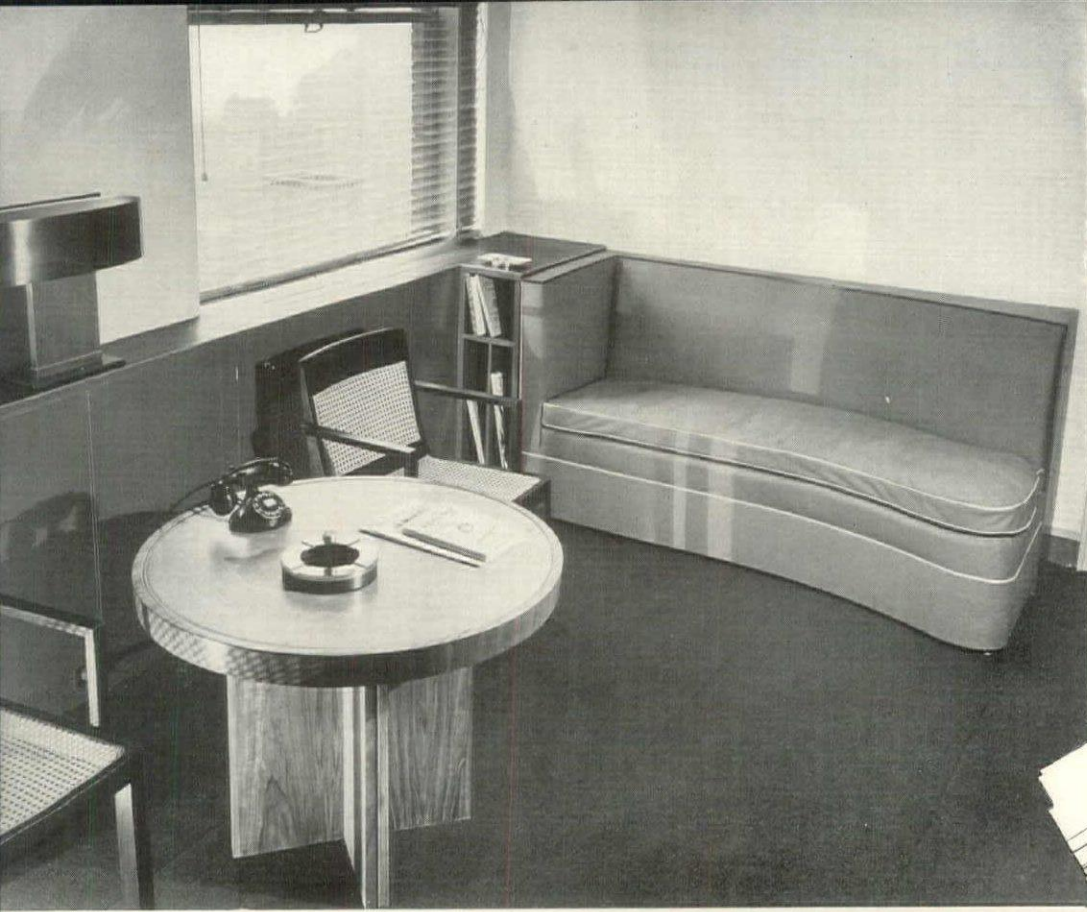
PHOTO: NYHOLM

OFFICES FOR A FOUNDATION, NEW YORK, N. Y.

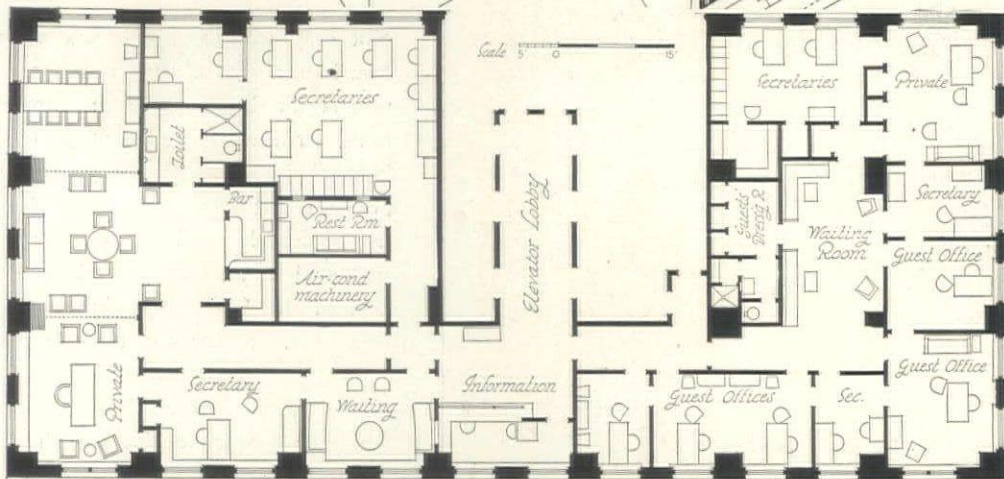
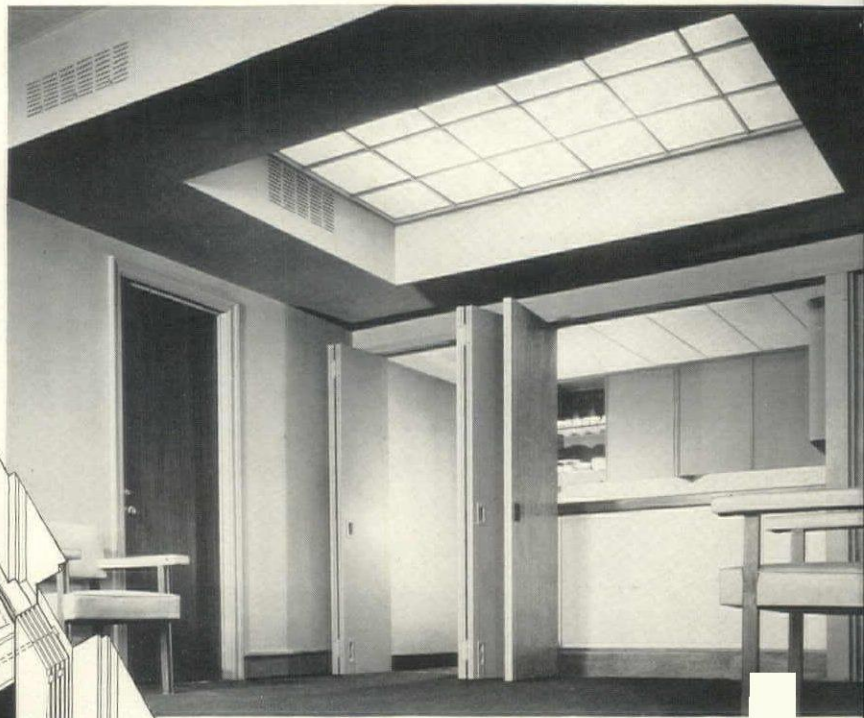
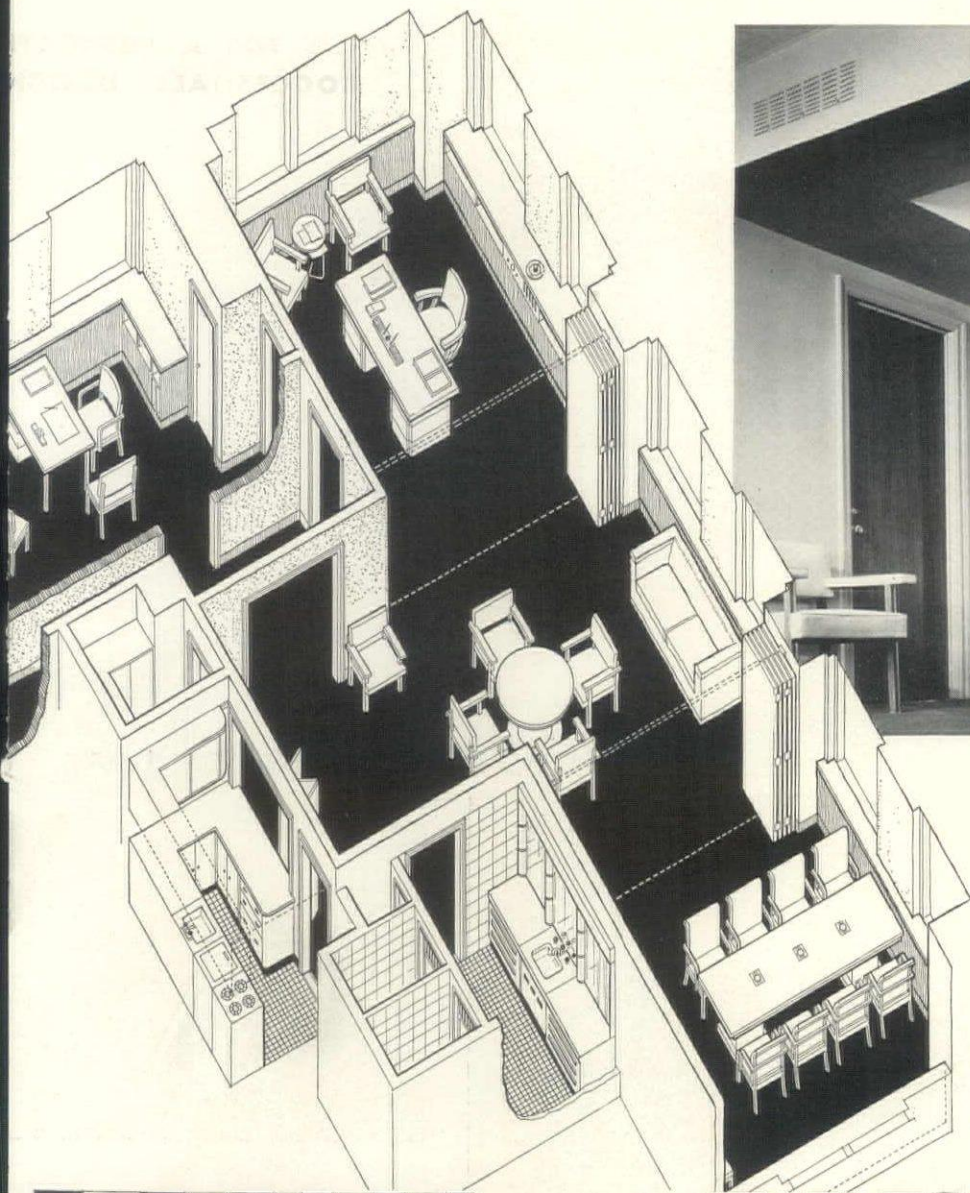
C. COGGESHALL, DESIGNER . . . INTRAMURAL, DECORATOR

Not so many years ago most offices, if they were decorated at all, looked as if they were designed for the head of no less than the East India Company. This was even worse than the golden oak period which, if undistinguished, was at least honest. Today most businessmen realize that Georgian paneling, despite its handsome appearance, is scarcely in keeping with the modern business tempo. As a result, they are demanding clean, simple, cheerful and comfortable places in which to work. The case in point is an excellent example of an efficient background for efficient work. (Above) The reception desk behind a glass screen is a welcome change from the usual peep-hole in a blank wall

**OFFICES FOR A FOUNDATION
C. COGGESHALL, DESIGNER**

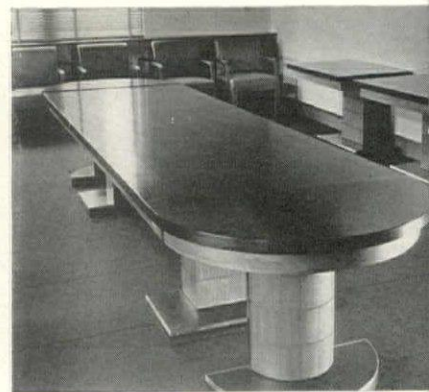


One of the main requirements for this job was that the executive offices be extremely flexible. This was accomplished by means of folding screen doors which serve as auxiliary walls and the use of a consistent decorative scheme. A specially woven navy



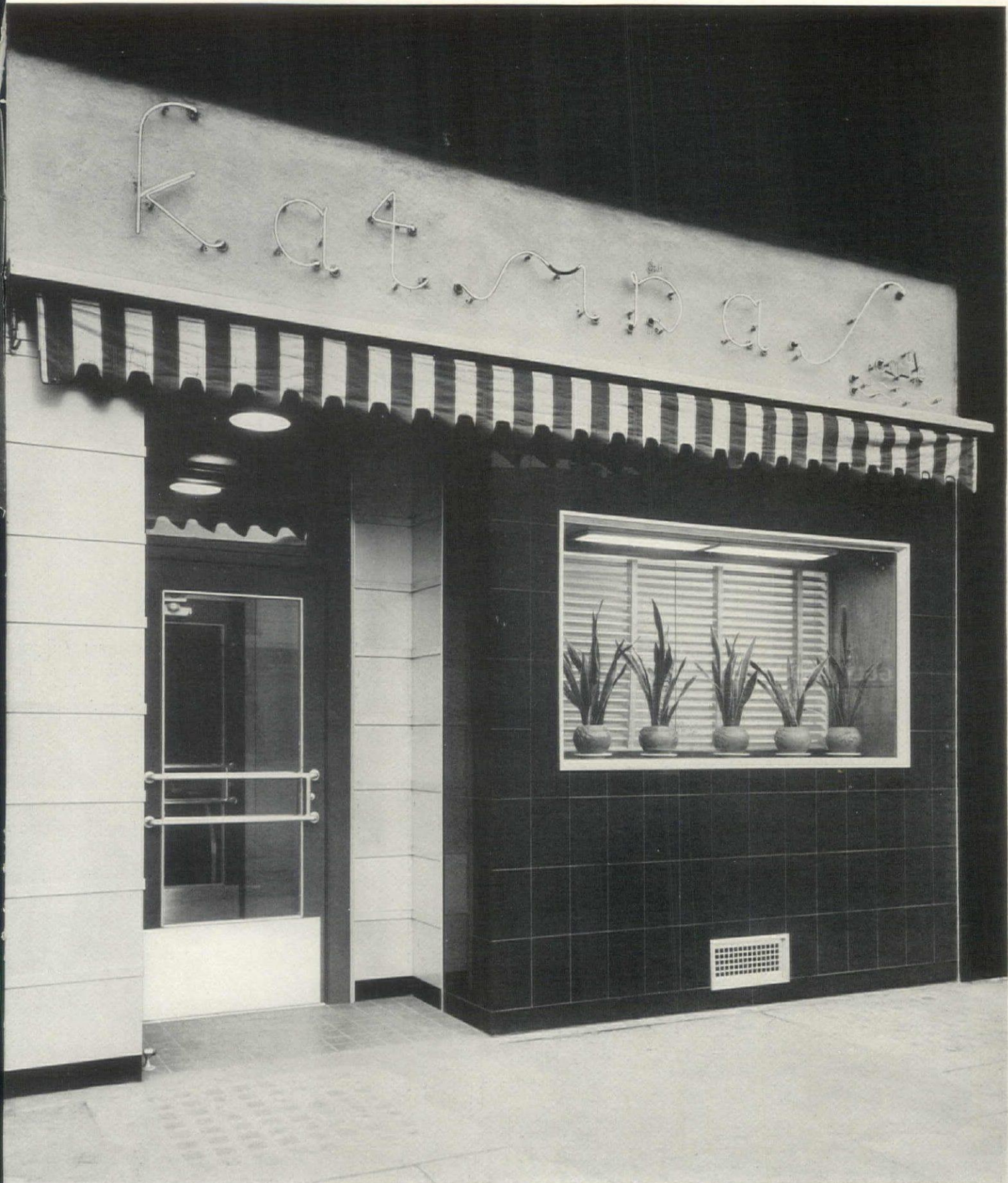
carpet was used throughout in combination with light warm gray walls, walnut furniture and leather upholstered chairs. The sofas in the small waiting

room are upholstered in dark gray canvas. Ceilings of Sanacoustic tile include Holo-phane lighting. The cleverly contrived desk (right) has a Formica top . . .



Not only were arrangements made for board meetings of varying sizes, but it was required that there be accommodations for serving meals at these meetings. This presented a special furniture problem that was cleverly solved by the use of flexible furniture. Great attention was paid to various small details which lend an air of refinement in no sense ostentatious. Instances of this are the saddle stitching used on the leather chairs, the lavatory finished in Markwa, and the gray lacquer cabinets with chromium hardware and the black tile floor.

**OFFICES FOR A FOUNDATION
C. COGGESHALL, DESIGNER**



PHOTOS: HEDRICH-BLESSING

CAFE, CHAMPAIGN, ILLINOIS

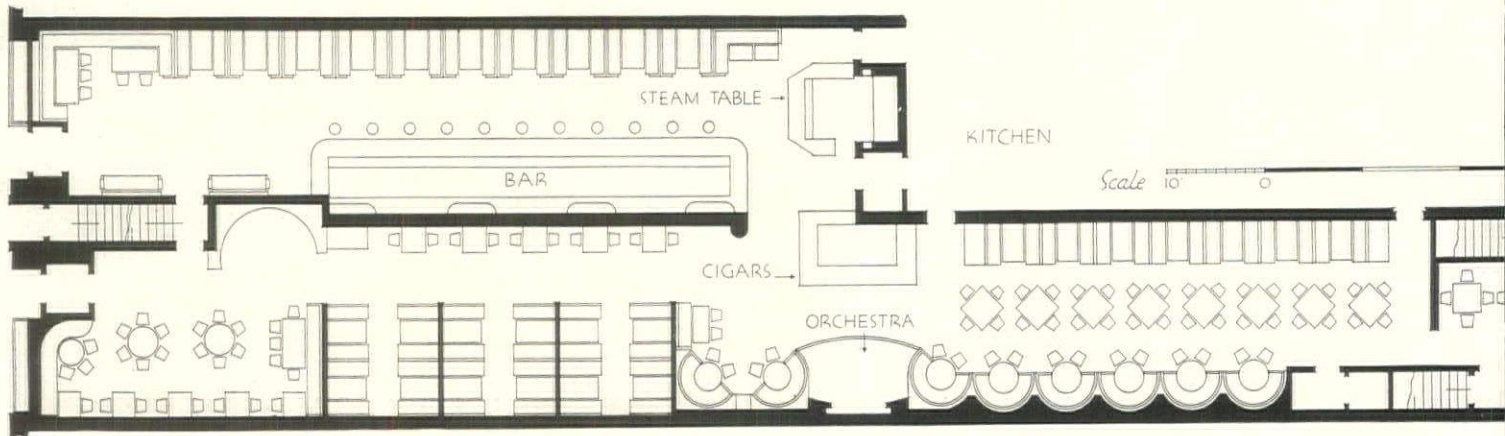
ARTHUR F. DEAM, DESIGNER • JAMES D. HOGAN, COLOR • WILLIAM A. GANSTER, ARCHITECT

CAFE, CHAMPAIGN, ILLINOIS . . . ARTHUR F. DEAM, DESIGNER

JAMES D. HOGAN, COLOR . . . WILLIAM A. GANSTER, ARCHITECT



Popularity of the small restaurant (upper part of plan) proved such that within a year the adjoining building was taken over and the ground floor altered as a cafe. Serving as a rendezvous for local college students, provision was made for the addition of a small orchestra platform in the grouping of booths. Location of the orchestra immediately opposite the opening between the two units allows the music to be heard in both rooms.





lighting is almost entirely indirect. A cove trough with 25-watt lamps on one foot centers has two lights regularly alternated, and is supplemented by a two-circuit neon tube system. Each type has one red and one white circuit. Walls and ceiling are painted a variety of warm grays and sepia





Furniture upholstery is warm
 bright green, henna and sepia.
 bar is of Philippine mahogany. C
 woodwork is birch with a natural b
 finish. Floors are of asphalt
 and interior metal trim is chrom

CAFE, CHAMPAIGN, ILLINOIS ... WILLIAM A. GANSTER, ARCHITECT

THE DIARY

Henry Taylor



and the progressive apprentice system on which the Bauhaus ideas are based.

Saturday, September 4.—Every once in a while the old subject of rammed earth walls has a renaissance of interest. Several architects have written me in recent months about this form of building—*pisé de terre*—but information regarding it has been rather difficult to find. Now, however, the Department of Agriculture has reprinted Farmers' Bulletin No 1500, "Rammed Earth Walls for Buildings," in which M. C. Betts, an architect now deceased, and T. A. H. Miller, an engineer, brought together an interesting history of the process and the practical techniques employed. If you have any sort of an impression that this is a make-shift form of wall building, you may be interested in the fact that watch towers constructed of rammed earth by Hannibal were in use two hundred fifty years after completion. There is a house in Washington, D. C., the main portion of which was built of rammed earth in 1773.

Tuesday, September 7.—In to see a model of the interior of the Oregon State Capitol, used as a means of study by Barry Faulkner and Frank Schwartz for their work on the murals. The central part of the Capitol is going to surprise a lot of people—a cylindrical lantern form set directly upon a square base without the use of any pendentives. The form is certainly not put to use for the first time, since it appears frequently in the Alhambra, and has been used as recently as in Rockefeller Center. I rather think it will be liked as a perfectly frank solution of a problem without recourse to traditional devices inherent in other forms of construction. The framing here, of course, is built upon an octagonal steel base, four sides of which coincide with the four walls of the lobby.

Thursday, September 9.—Saw a new development of the trailer today—a roving chapel, the interior of which was designed for the Paulist Fathers under the supervision of the Liturgical Arts Society. Miss Adelaide de Bethune designed in miniature the Stations of the Cross. The color scheme

for interior and exterior, the fabrics, the seats, the removable altar, and the necessary appurtenances such as cross, candlesticks, altar cards, and the like were made by individual craftsmen, nothing having been procured through the usual sources of stock church supplies. The trailer combines travelling quarters for two, a tiny chapel which is also used as a confessional, and an elaborate sound amplifying system. The rear end of the trailer is opened up to show the altar as a center from which the voice of the officiating priest may reach a large congregation. The trailer is drawn by an automobile which has mounted upon it an electric generating system to serve the lights, sound amplification, and electric accessories. There are photographs of the chapel trailer in the "Trends" section of this issue. Tomorrow the roving chapel will be off for missionary work in Tennessee.

Saturday, September 11.—The scene is a tennis court under construction. The contractor's foreman, welcoming the architect upon a tour of inspection, says, "Why the salt?" The architect, having recently written his specification for the clay court on the basis of Time-Savers Standards No. 56, cogitates upon just why that salt is mixed with the clay and sand. It might be to keep the weeds down. It might be to keep the earthworms out. After the manner of architects on inspection, however, he plays safe by saying that it should unquestionably be there, and for a rather complicated purpose. That purpose is rather hard to run down. However, the ultimate source of knowledge regarding tennis court making explains that the "common farmer's salt" is included in the mixture because of a mysterious quality it possesses of binding together the clay and sand.

Possibly it is not enough to give merely accurate facts in the Time-Savers Standards; a reason now and then would be relished, at least by the architectural inspector.

Monday, September 13.—America has long had the reputation of being supremely plumbing conscious. It is growing more so. Dealers in water supply equipment and plumbing fixtures have suddenly awakened to a new market in tourist camps, cottages, and trailer parks. One of these men who juggles figures at the end of his pencil estimates that thirty million people will have patronized these temporary homes this summer in the United States. More and more they are insisting upon plumbing and hot water service that is no less up-to-date than that to be found in their own homes.

Tuesday, September 14.—Elizabeth Gordon, who with Dorothy Ducas recently wrote the book, "More House for Your Money," gave me a new picture today of the way in which the modest home builder gets his plans and

Tuesday, September 1.—Today marks inauguration of a new experiment in American community life—an experiment of various potentialities.

To go back a little, the town of Greenfield, Md., is the result of an effort to build shelter and amenities of a community from scratch, rather than in the slow, laborious traditional way of haphazard growth. The town is finished, ready for a community of one hundred families to move in. This community was built with the idea of giving decent quarters and a pleasing environment within the reach of a low-income group, the members of which were unable to finance such things under the existing conditions.

And now comes the second step of the experiment—an effort to satisfy the everyday needs of these nine hundred families through a co-operative conduct of the town's business. Edward A. Filene,* Boston merchant and philanthropist, has provided the capital of a million dollars to operate a general merchandise store, a food and meat market, a drug store, a motion picture theater and other services, the corporation to run without seeking a profit. The corporation, of course, will have to rent for its store spaces, and it will do this through an arrangement with the Government by paying a percentage of gross sales as rent. The purpose, of course, will be to supply the everyday needs of the community at cost or just above cost, the remaining profit, if any, to be devoted to other needs of the community. It is recognized as a possibility, and a desirable one, that the residents of the community themselves will eventually take over the entire management and responsibility of the co-operative organization.

The experiment will bear watching. Through the Government and through this anthropic aid, it has the ideal environment and presumably the utmost in economy of living. Whether a self-contained community such as this will lift its standard of living, or through complacency lower it, remains to be seen.

Wednesday, September 2.—L. Moholy-Nagy stepped into the office today on his way to Chicago where he will attempt to bring about a rebirth of the Bauhaus idea. With his pupils at Harvard, Moholy-Nagy in Chicago, and two or three other members of the Bauhaus staff here or coming, the United States seems to have taken over definitely from Germany the idea and its execution.

Moholy-Nagy, in the comparatively short time he has had to see America, is already impressed with the eagerness of Americans to understand and apply the fundamental principles of basic craftsmanship, a deeper understanding of space relationships,

we go to press, news comes of Mr. Filene's death on September 26.

builds his house. The Misses Gordon and Ducas have, for some time, conducted a department in the Sunday *Herald-Tribune*, which brings them in particularly close contact with the prospective home builder and his problems. The stock plan, in spite of its being more or less of a red flag to the architect, is gaining in use, and probably also in quality. Even if it were ideally suited to an individual's need, however, he is bound to suffer for lack of the other services that an architect could give him—advising regarding contractual relationships and seeing that he gets his money's worth in the building. The problem of how the architect is to be employed in this essential service is as much a problem today as ever.

Thursday, September 16.—Speaking of designing the small house, I hear that Frank Brangwyn has been planning "a perfect house for young married couples, price £837," the first example of which is now being built near Brighton. One of his advisers says, "I ought to make it clear that in doing what he is, Mr. Brangwyn is working without a fee." As if this fee cutting practice had not gone far enough already!

Saturday, September 18.—Apparently we have got to be very chary about using our cold water supply for cooling processes in our air conditioning. In Chattanooga, Atlanta, Columbus, Dallas, St. Paul, Scranton, and South Bend, for example, present water facilities are already being used to full capacity. Increased drain upon this, through apparatus which discharges additional large quantities of water into the sewer, puts a new problem up to civic authorities.

Monday, September 20.—Those who see in the great principle of standardization the answer to most, if not all, of our troubles, might pause for a moment to listen to a word from H. S. Goodhart-Rendel, without whose thoughts I should probably never complete a month's Diary. He points out that since the architectural profession has never succeeded in getting bricks made to a uniform size and shape, is it likely to succeed in standardizing completely even the little buildings that are now designed over and over again with only small and ineffectual variations? Not that he sees any harm in trying. Such stock patterns, however, he thinks have a better chance of being produced and used if they are not marked by any great individuality. Quite possibly such stock types as we might generally accept should be designed not by one architect, but by a group.

Tuesday, September 21.—Dr. Charles Gray Shaw, professor of philosophy at New York University, says that, "the manner in which a people builds betrays the kind of world it will make for itself, its vital intentions." A people who would build a Pyramid and

put a Sphinx in front of it, obviously was not intrigued by the joy of life, but rather was impressed with life's heaviness and mystery. To a people, on the other hand, who erected a bright temple, making use of color and gold, sculpturing upon its frieze noble forms on parade, the ideal of joy is not far off. So far so good, but when the Doctor says that "to observe a Gothic cathedral of the Middle Ages, to note its groined arches within and flying buttresses without and to feel its dynamic system of thrust and counterthrust, is to be impressed with the strong piety of its builders," it seems to me a *non sequitur*. The qualities mentioned reflect, rather than piety, a marvelous knowledge of engineering and a great joy in applying that knowledge.

Wednesday, September 22.—The Government has been building a lot of post offices lately, and we have not heard much fault-finding about them. Ernest L. Woodward of Le Roy, N. Y., however, thought his home town post office too squat, and put up the money to build a parapet, a sloping roof, and a cupola upon it. Inasmuch as Mr. Woodward had given the building site and enough money so that it could be built of stone instead of brick, perhaps he had a right to think it too squat.

Friday, September 24.—A piece of news heard today interests me strongly. They say that the air conditioned office or home staves off baldness. The scalp is said to react more readily to abnormal air conditions than any other part of the skin. I am afraid the news comes too late.

Saturday, September 25.—Now that the Wagner-Steagall Bill has become the Housing Act of 1937, only thirty states out of the forty-eight now have laws on their books which will enable their municipalities to authorize housing authorities. Without such authorities, the municipalities are unable to participate in benefits of the Act. Up to 1933 there were no states which had specifically authorized local housing authorities. PWA was largely responsible for bringing the states into line with local housing laws, and that administration even drew up model laws which, in many cases, were adopted without change.

Monday, September 27.—I was asking Charles E. Peterson some time ago what had become of the scheme for the Museum of American Architecture in St. Louis, a project which had been proposed as a suitable form of national memorial to Thomas Jefferson. While nine million dollars has been available for some time, legal snarls and squabbles between various real estate interests have put spokes in the wheels of progress. Any idea involving such an elaborate piece of work is not likely to find smooth sailing and be built in a hurry.

There will have to be manifested an unmistakable desire of the public for a Jefferson National Memorial in this particular form.

Wednesday, September 29.—I wrote, a some time ago, a number of letters to architects widely scattered geographically, asking what gives the most trouble after completion of a building—wall tightness, heating, air conditioning, floors, windows, or what? Strangely to report, with air conditioning, for example, in the childhood period of technical and with electric wiring being elaborated daily, the architects report that the most difficulty still is keeping the water out. Raining, flashing, wall tightness still rank as trouble makers. Curious, that with our experimenting indoors, the shell still remains the main source of trouble.

Thursday, September 30.—An architect friend of mine was rebuking me severely today for the publication of so much of what he called "this modern tripe." "The magazines should realize their responsibility to the profession as to what material they elect to show. The profession at large for its estimate of what is being done in this country almost exclusively from the pages of its professional journals, and the members pattern their individual output upon these well publicized examples.

"You know and I know that all this talk about function relates to a subject that is no newer than the Pyramids—the architect has been taught the principles of building according to function ever since he was a freshman. Having developed a really workable plan, his elevations should develop themselves. If the plan is good, the elevations will be good.

"Nowadays some of these radical designers seem to think that they must evolve a bizarre plan rather than a simple one for the sake of getting an exterior that looks like nothing that has ever been built."

All of which brings up the old question: who establishes the character of a country's architecture? Certainly it is not the magazines. Certainly it is not even the architects. In the end, it is the public. They know nothing about architecture, but they "know what they like" and will have and pay for just that. It seems to me that no individual architect in history, and possibly no group of architects, has ever deliberately initiated a decided departure from the prevailing style. Of course, there are being produced, constantly, changes in the way of minor improvements—a fresh development of established motifs, new and ingenious devices in planning—none of these things has ever been enough to stop the march of a style and change its direction. Architectural style has been likened to a broad river of steady flow. Tributaries come into it, freshen it, percolate it somewhat, but the river flows on without abrupt change of character or

THE PORTFOLIO
Entrance Doorway Steps



**PORTFOLIOS IN PREPARATION—Doorway Side-lights,
November . . . Resilient Floors, December . . . Roof
Textures, January . . . Rain Leader Heads, February**

The Editors welcome photographs of these subjects . . .
Forms close eight weeks in advance of publication. A
list of the subjects that have appeared will be sent upon
request. Certain of these past Portfolios are available to
subscribers at 25 cents each; or five subjects for one dollar

Oakland, Calif.
Frederick H. Reimers

**NUMBER 132 IN A SERIES OF COLLEC-
TIONS OF PHOTOGRAPHS ILLUSTRATING
VARIOUS MINOR ARCHITECTURAL DETAILS**

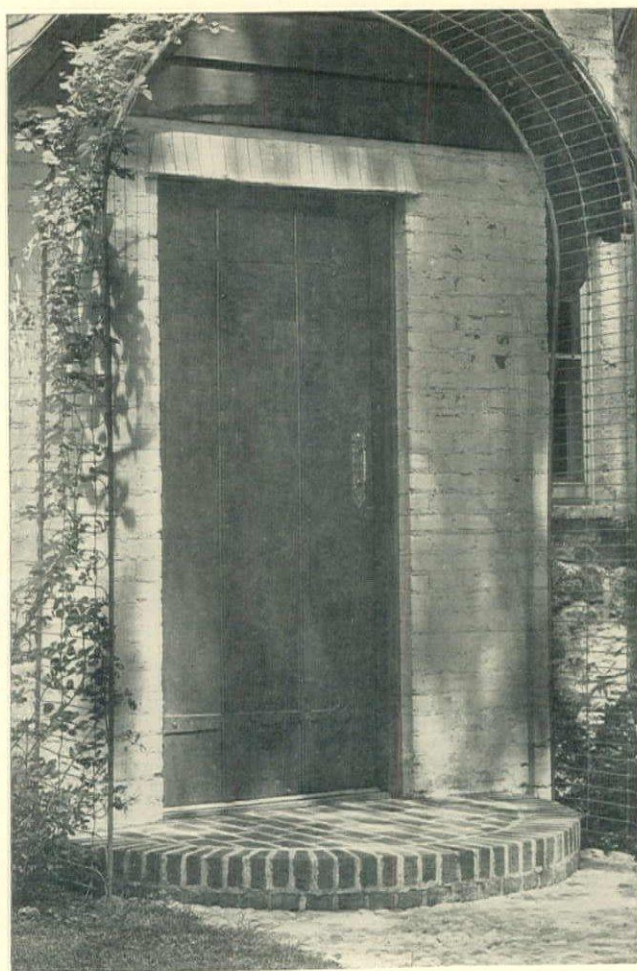


Kent, Conn.
George H. Van Anda

Beverly Hills, Calif.
Paul R. Williams

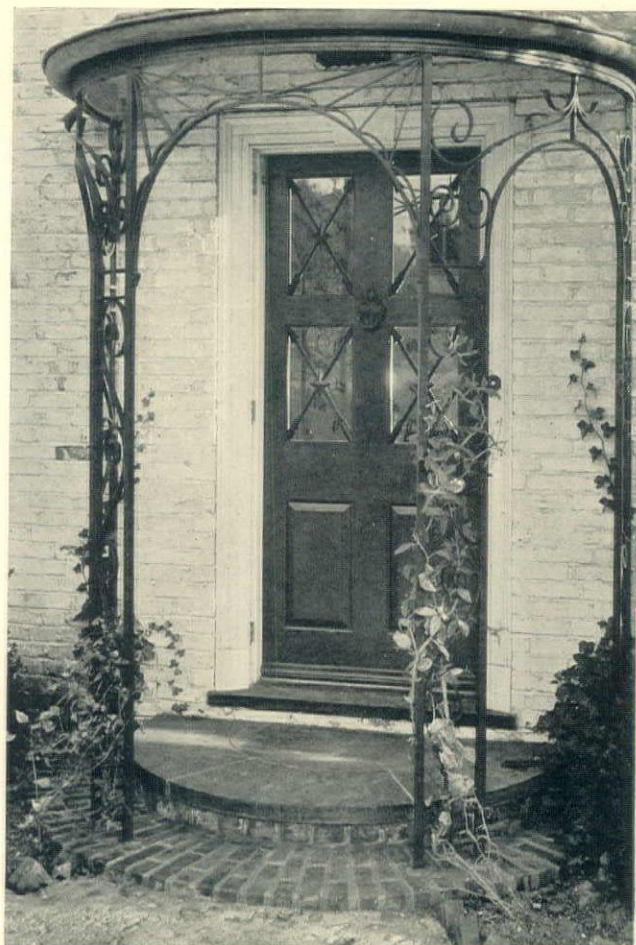
Huntington, N. Y.
Lawrence Baraud; A. Booth

Bedford Village, N. Y.
Godwin, Thompson & Patterson





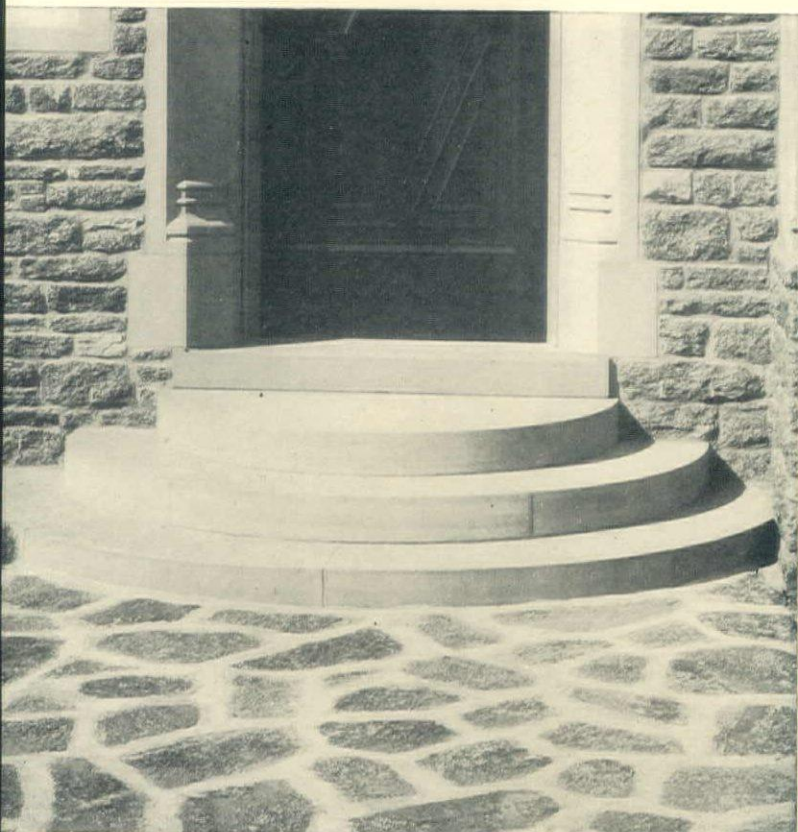
Greenwich, Conn.
Frank J. Forster



Hempstead, N. Y.
Godwin, Thompson & Patterson

Greenwich, Conn.
D. Everett Waid

Glens Falls, N. Y.
Tooker & Marsh





Pleasantville, N. Y.
James Renwick Thomson



Bridgeport, Conn.
Charles W. Walker

The Rectory, Old Warden
Northamptonshire, England

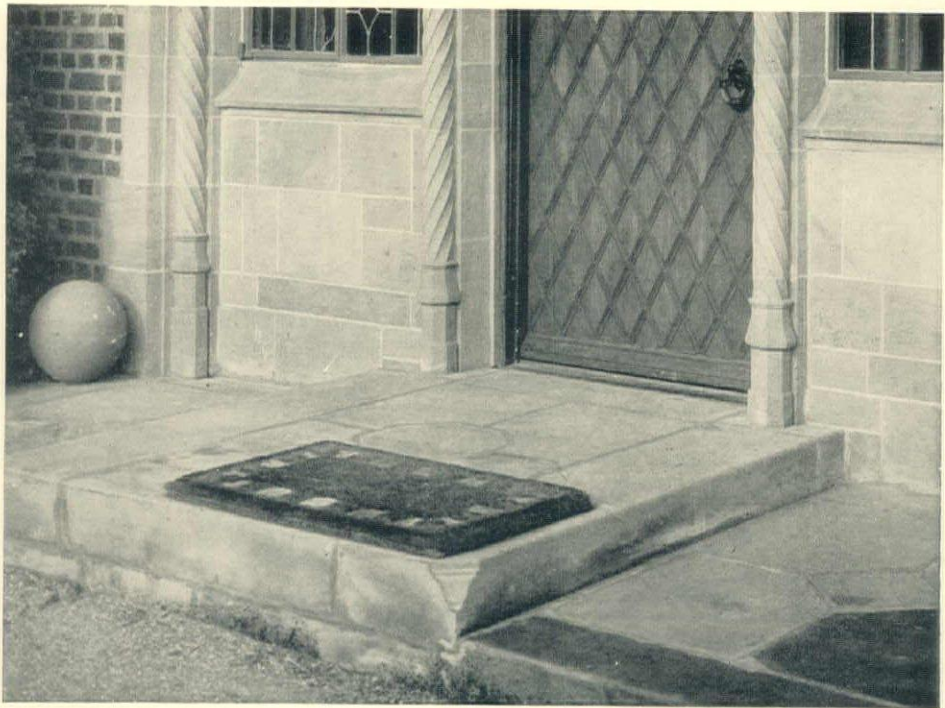


Detroit, Mich.
Richard H. Marr



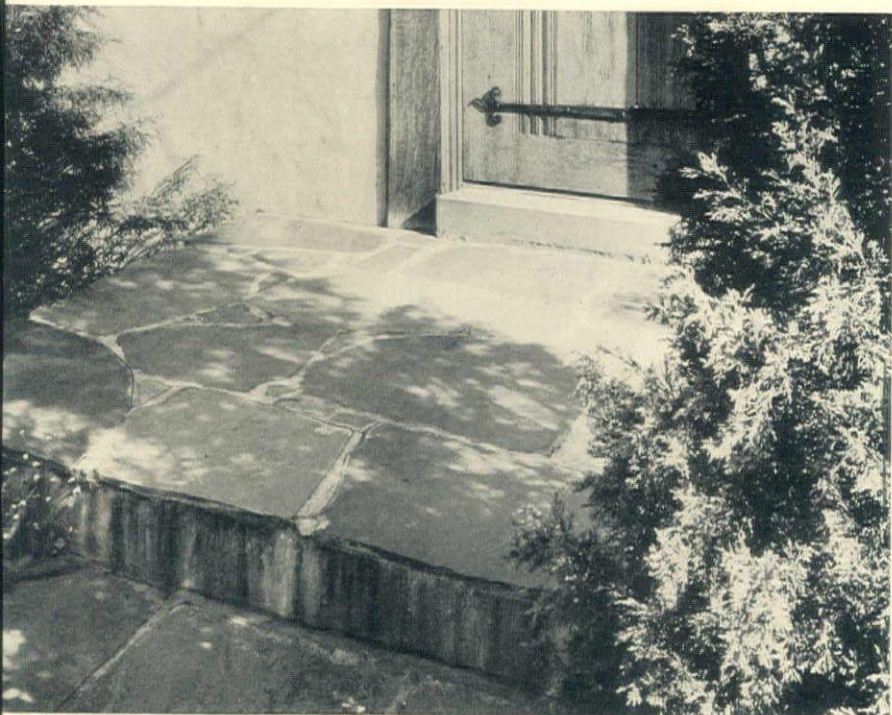


Bedford Village, N. Y.
Godwin, Thompson & Patterson

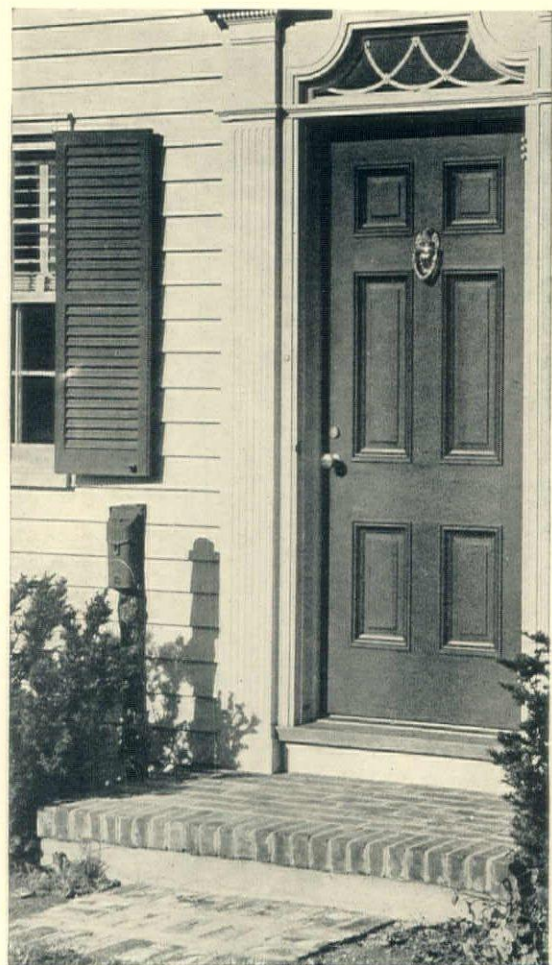


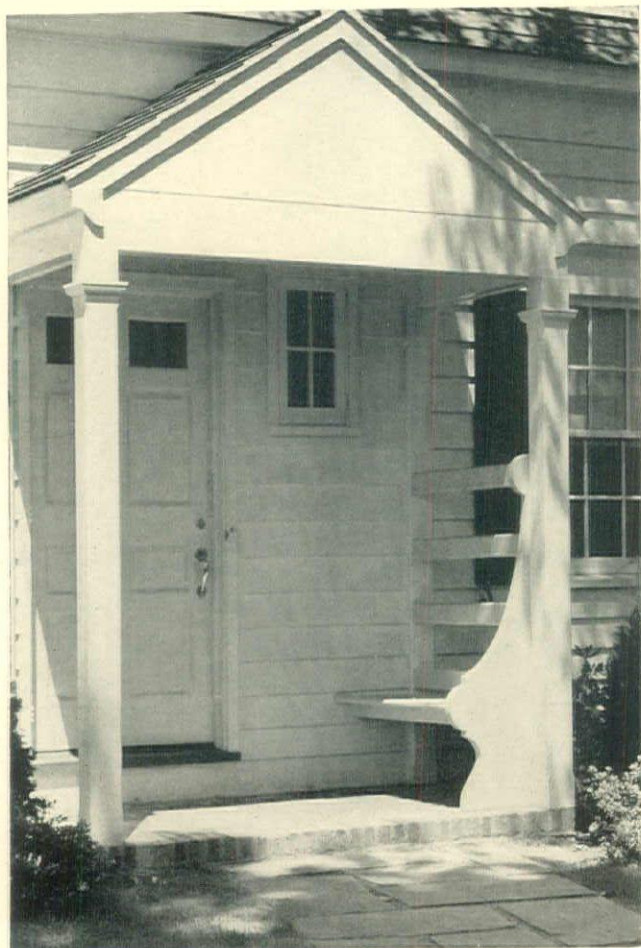
Whitestone, N. Y.
Dwight James Baum

Port Washington, N. Y.
Paul Arnold Franklin



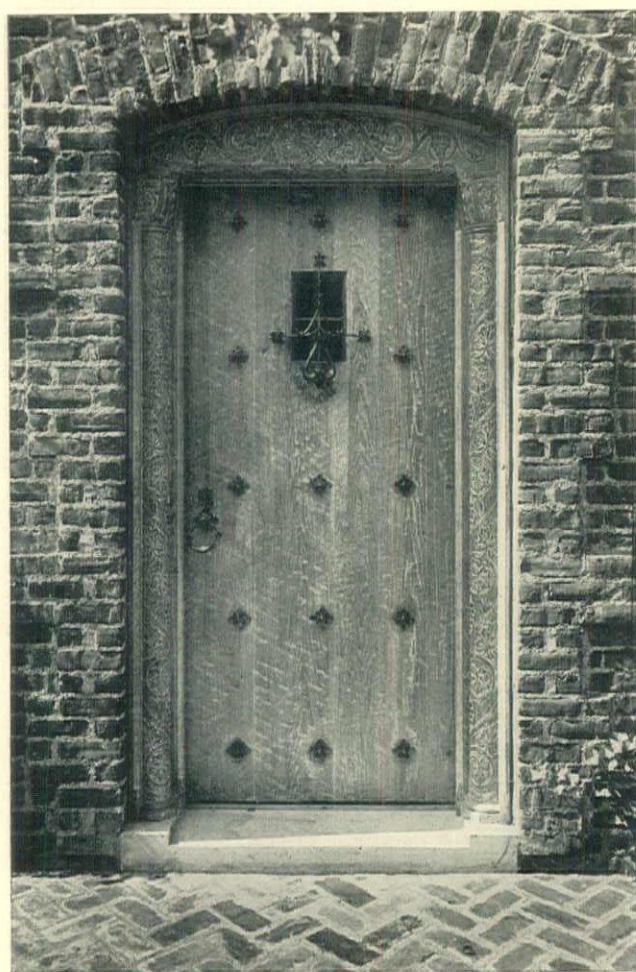
Short Hills, N. J.
Bernhardt E. Muller





Westport, Conn.
Burton Ashford Bugbee

Westfield, N. J.
Ray O. Peck



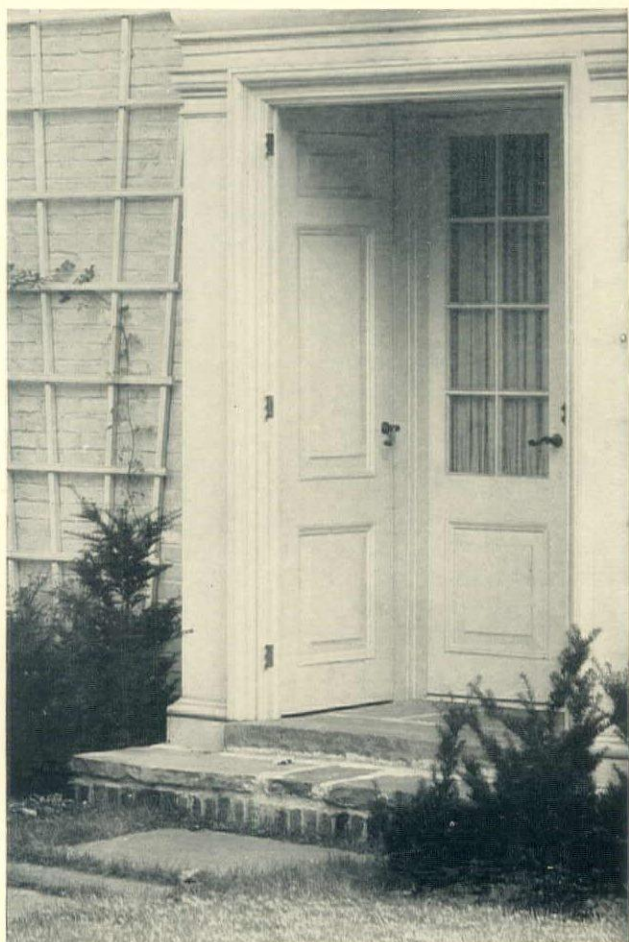
Hartsdale, N. Y.
Andrew J. Thomas

Red Bank, N. J.
Robert M. Carrere





Manhasset, N. Y.
DeWitt Clinton Pond

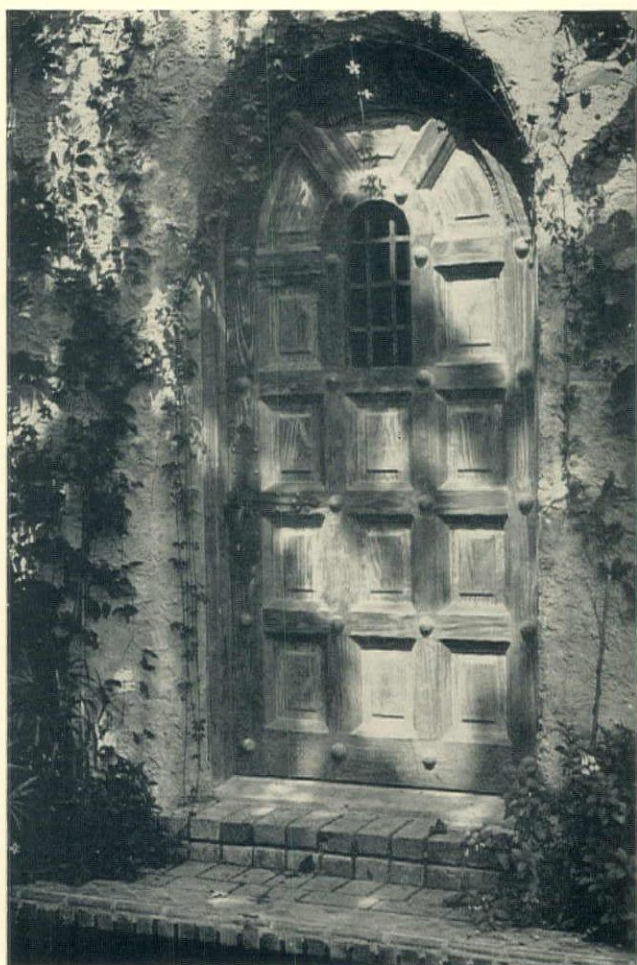


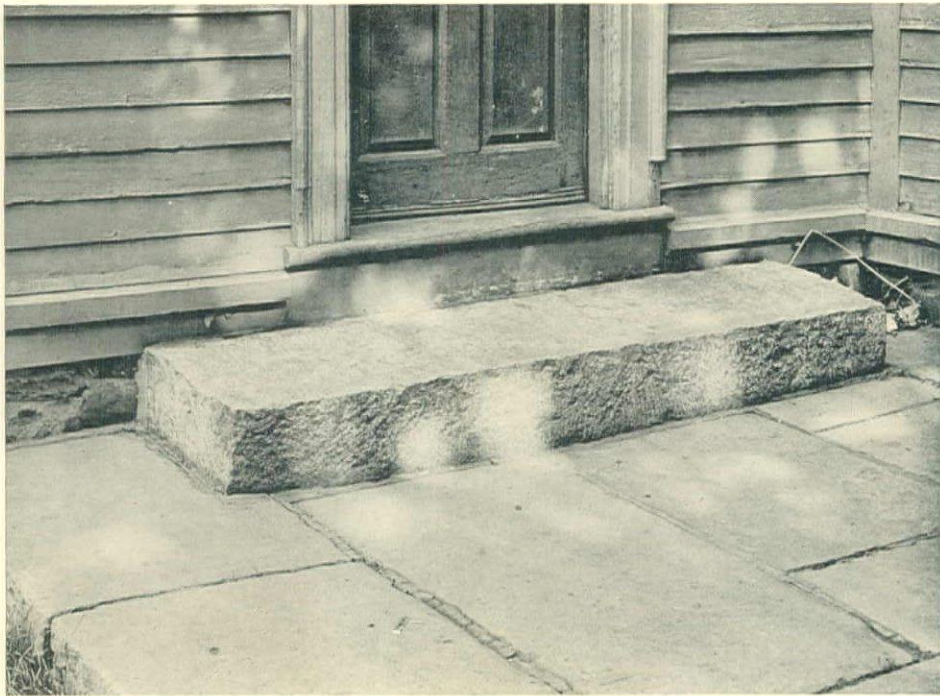
Summit, N. J.
Clark & Arms

Kansas City, Mo.
Edward Buehler Delk

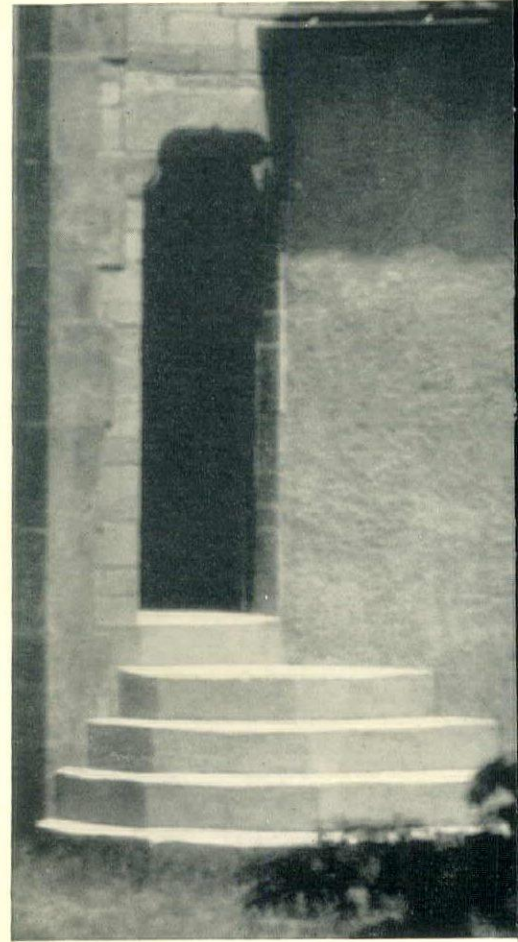


Tuxedo, N. Y.
Walker & Gillette



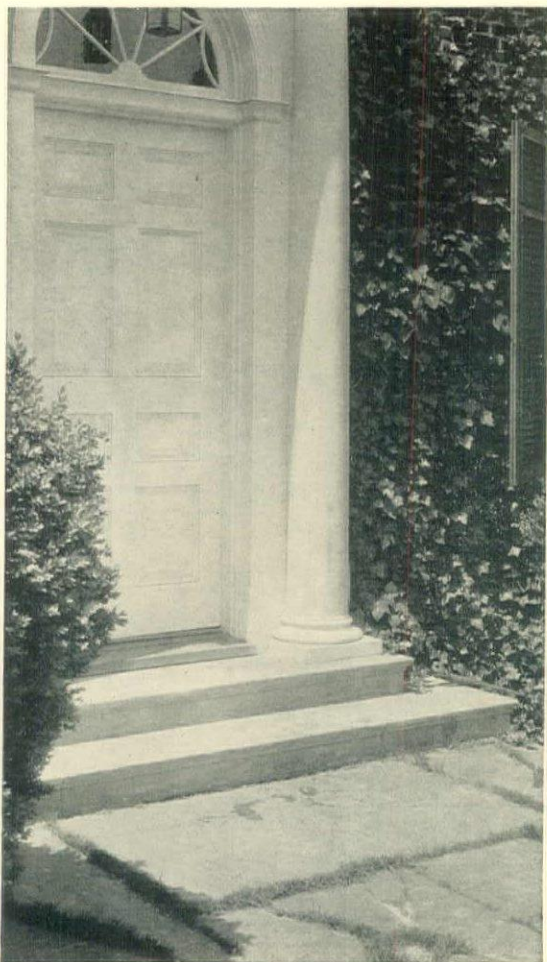


Edward Devotion House
Brookline, Mass.

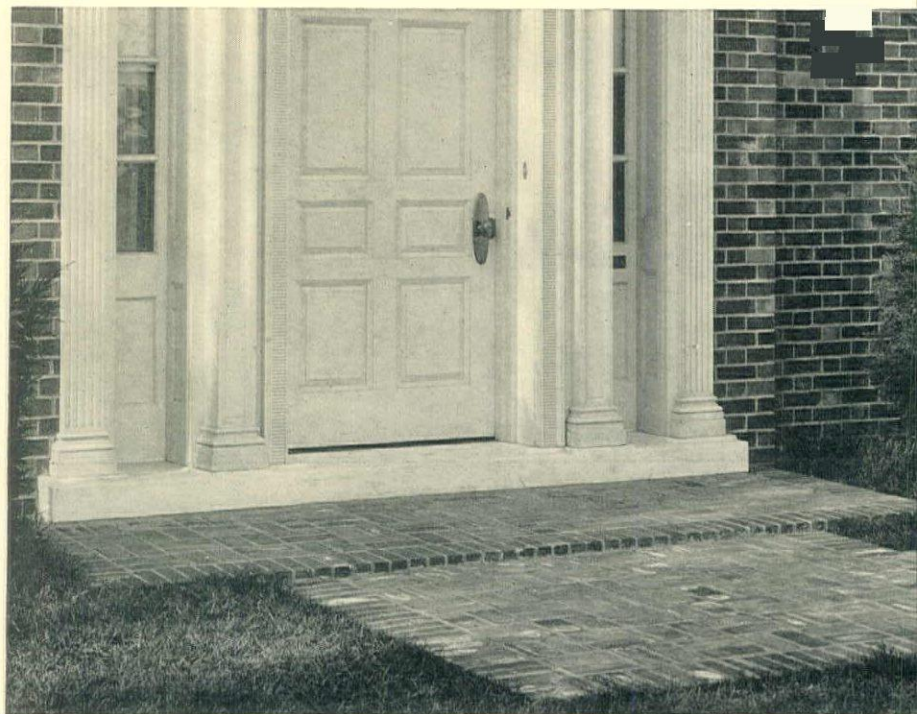


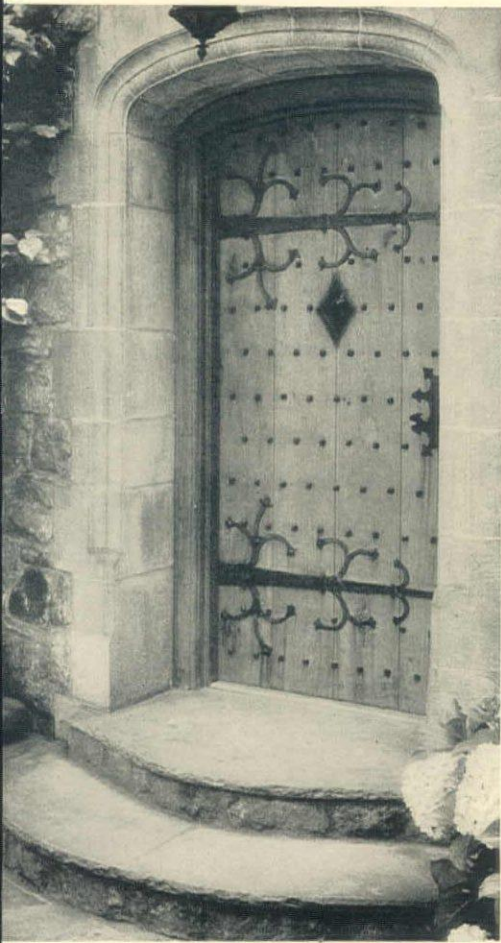
Red Bank, N. J.
Alfred Hopkins

Tarboro, N. C.
Dwight James Baum

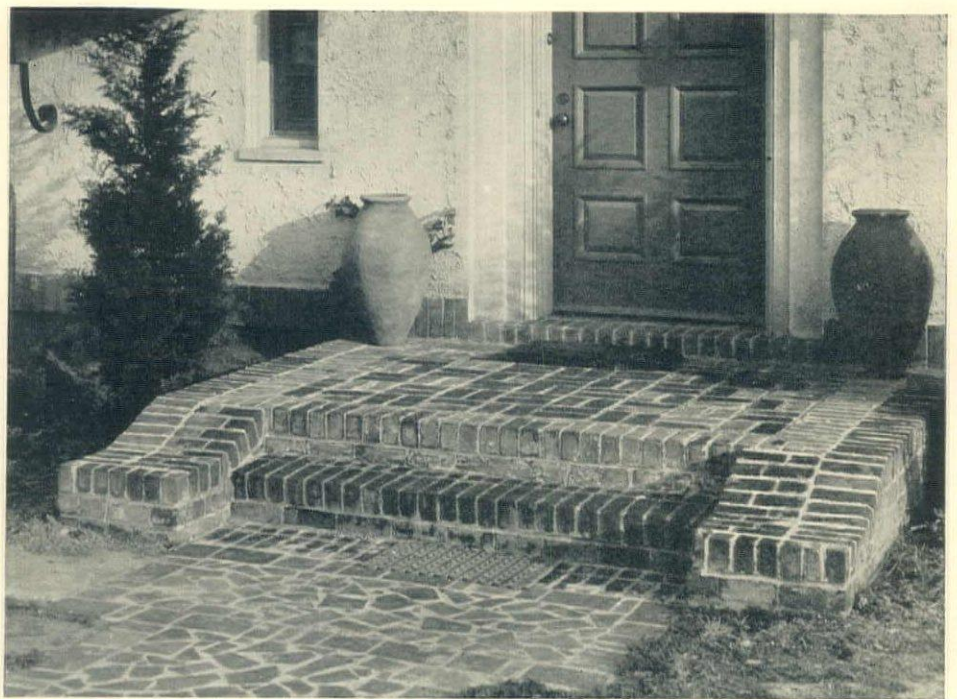


Kansas City, Mo.
Edward Buehler Delk





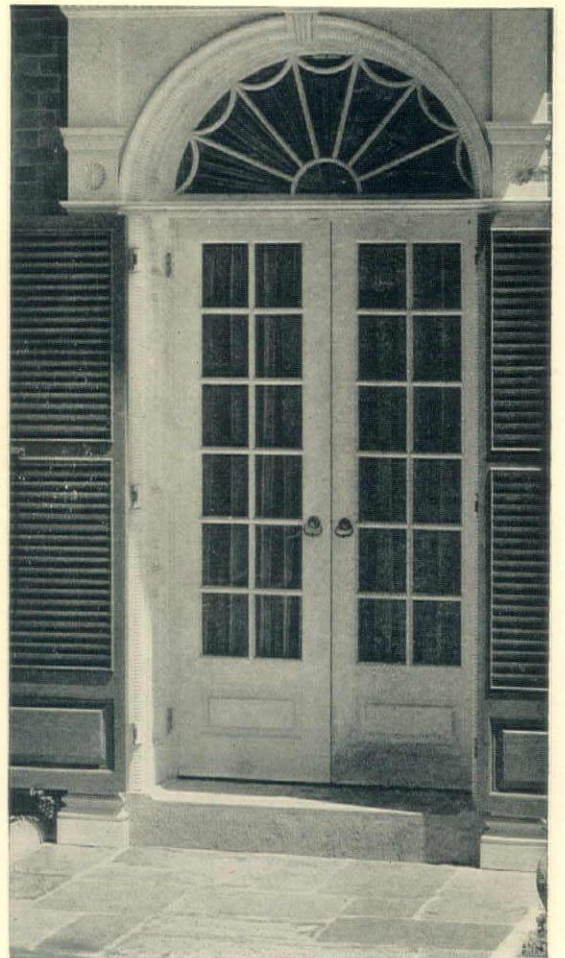
Goldens Bridge, N. Y.
Lewis Bowman

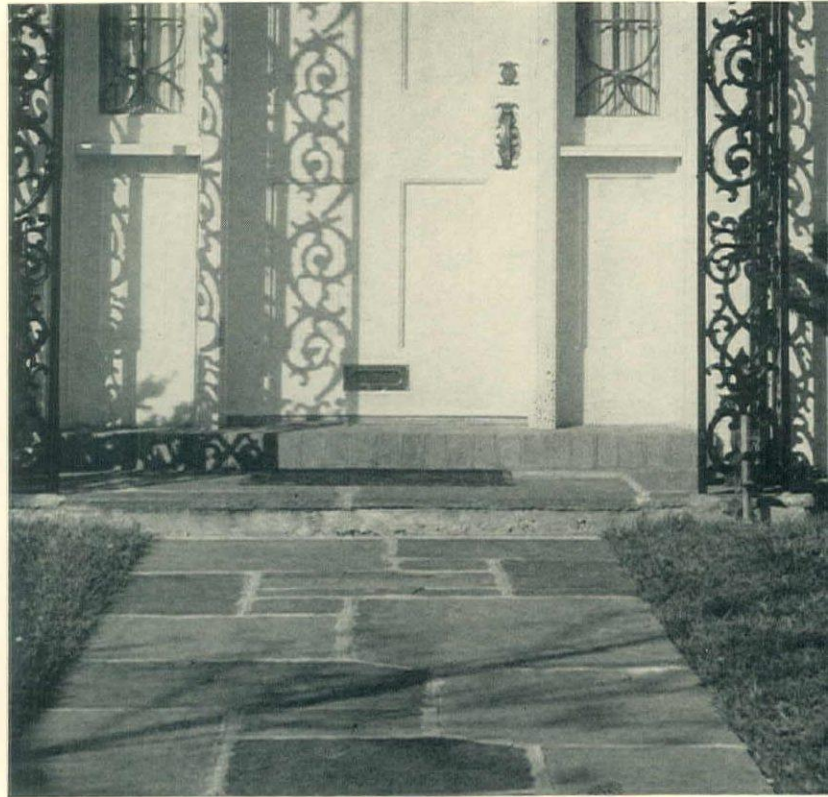


Richmond, Va.
W. Duncan Lee

Pelham, N. Y.
Pliny Rogers

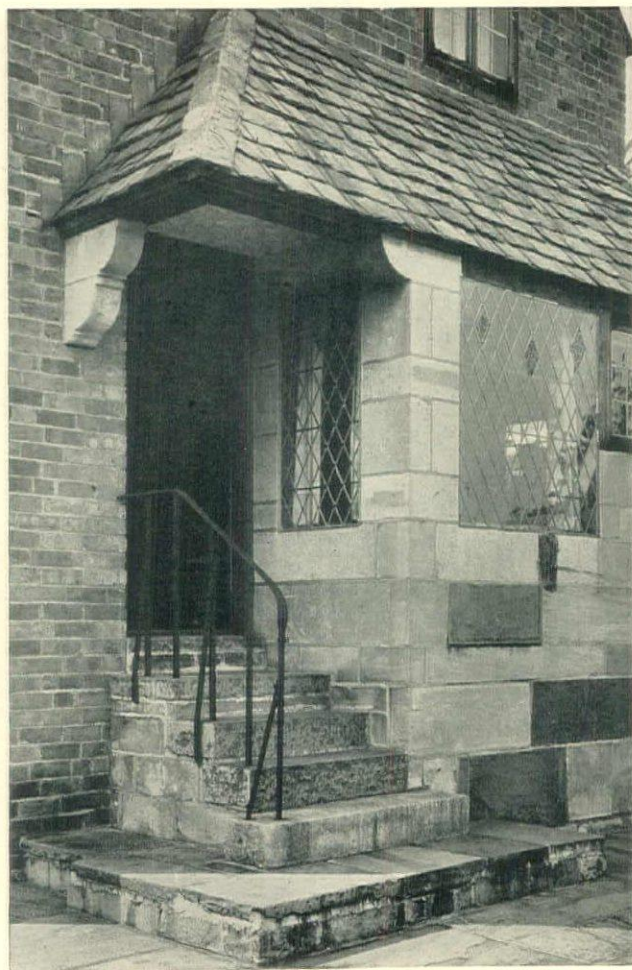
Kansas City, Mo.
Edward Buehler Delk





Brookville, N. Y.
Bottomley, Wagner & White

Washington, D. C.
Horace W. Peaslee,
Gertrude Sawyer; J. H. Lapish



Hackensack, N. J.
Wesley Sherwood Bessell

Oyster Bay, N. Y.
Pennington & Lewis





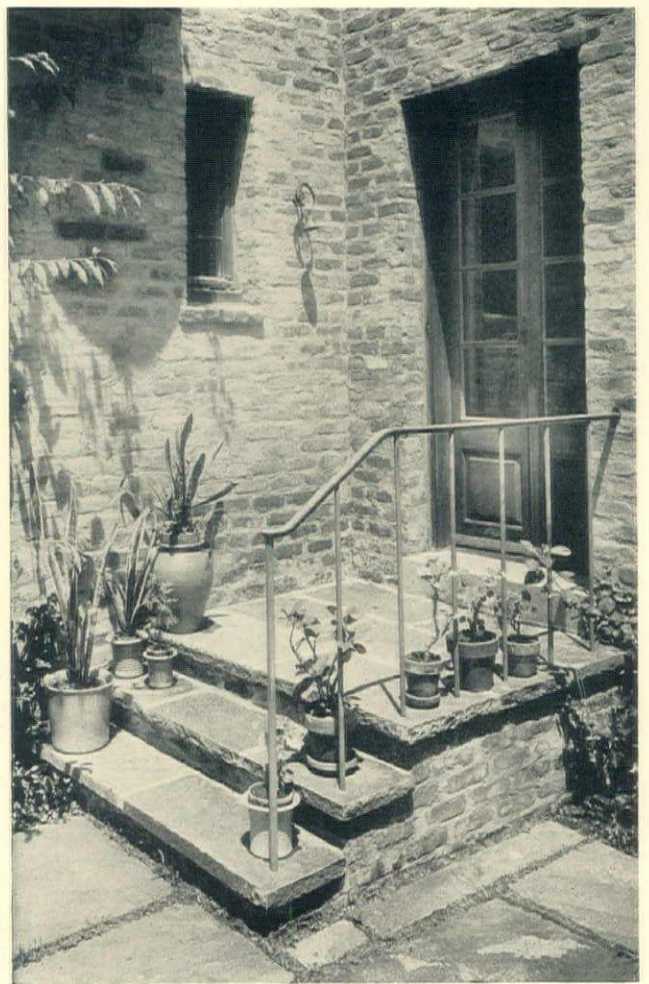
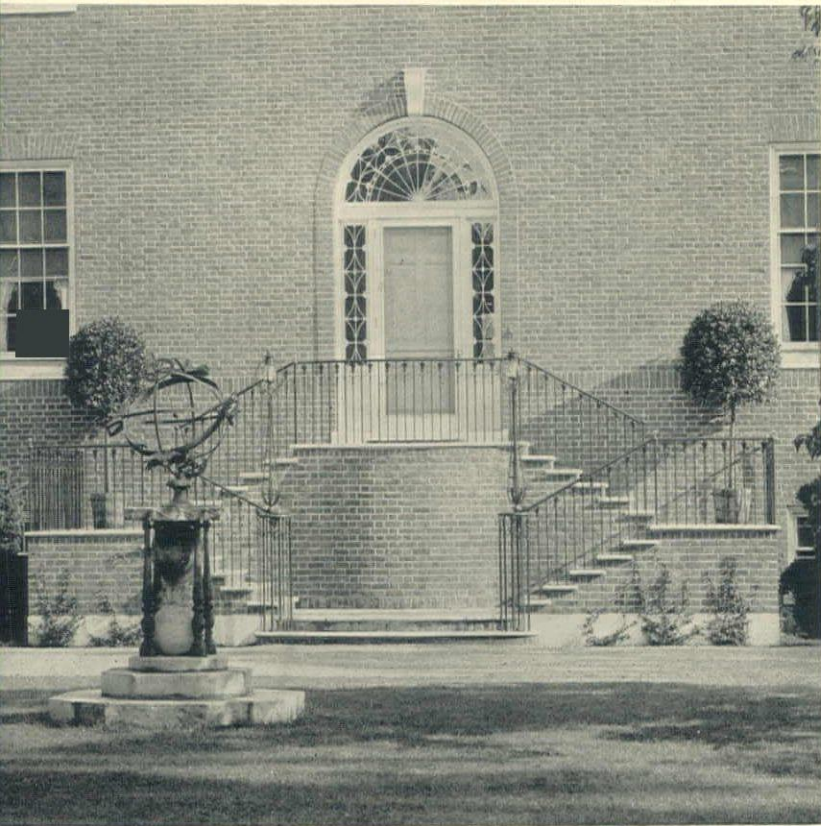
Montclair, N. J.
Wallis & Goodwillie

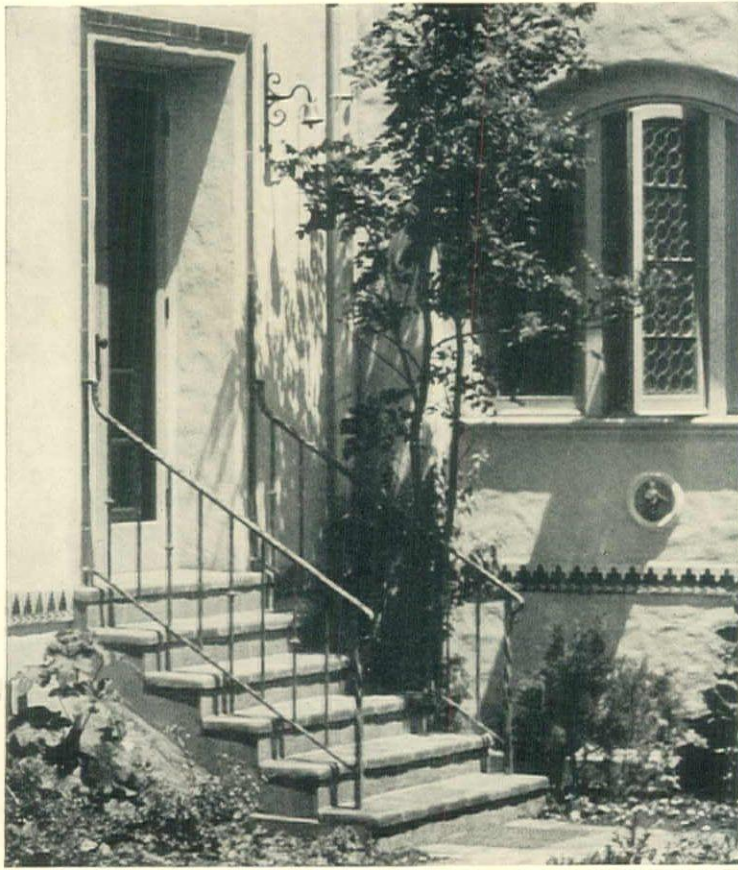


Brook Haven, N. Y.
Wyeth & King

Syosset, N. Y.
Delano & Aldrich

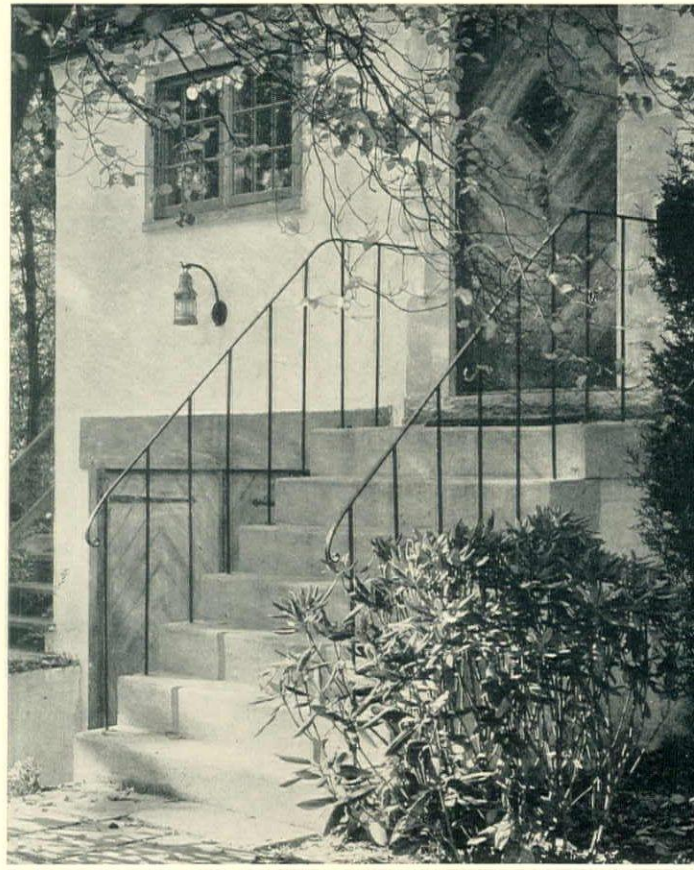
Greenwich, Conn.
Frank J. Forster





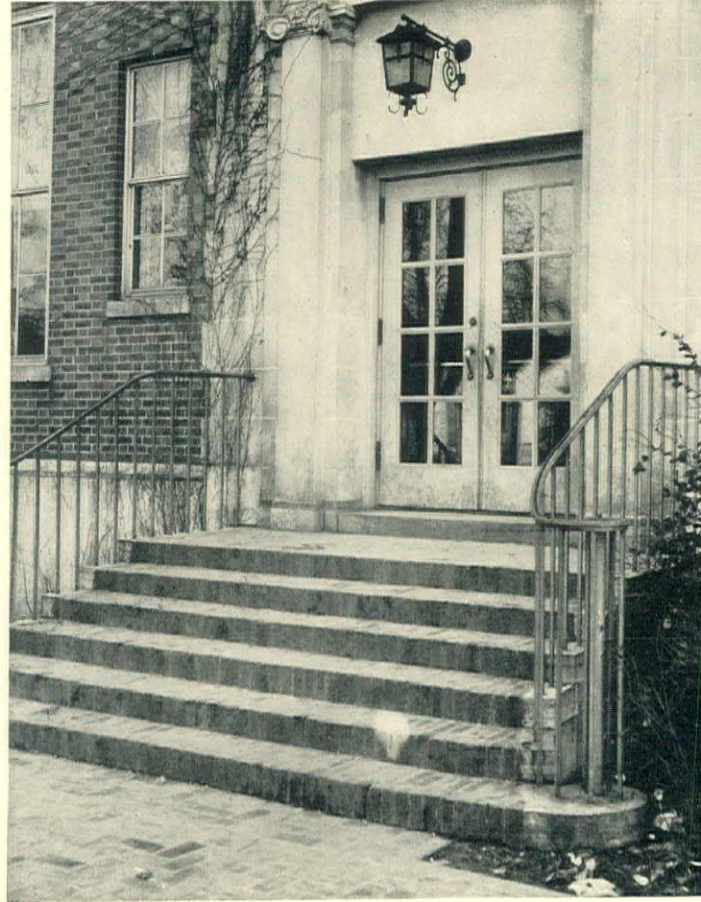
Cimarron, N. M.
Edward Buehler Delk

Bartlesville, Okla.
Edward Buehler Delk



Great Neck, N. Y.
Frank J. Forster

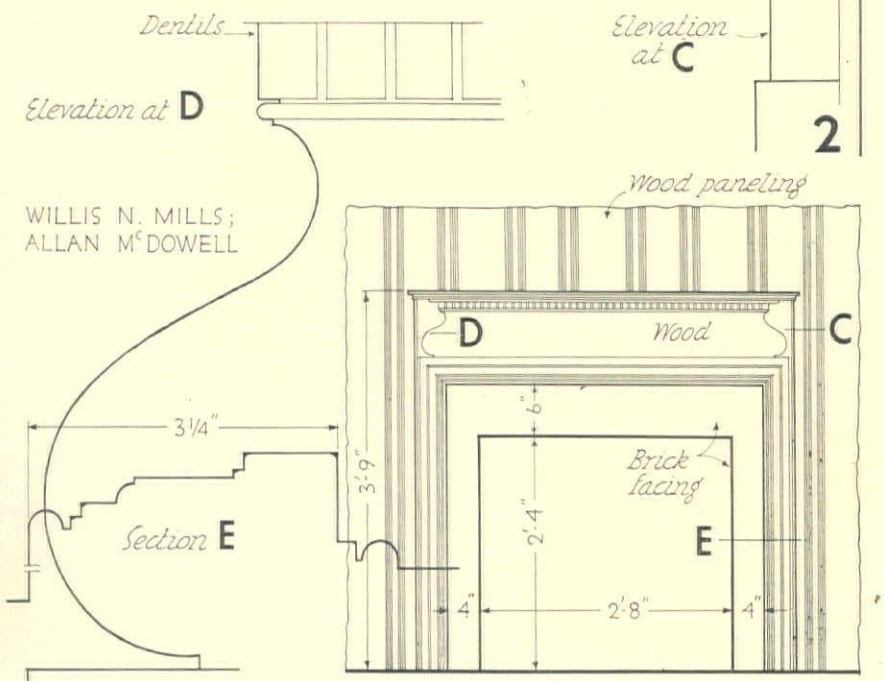
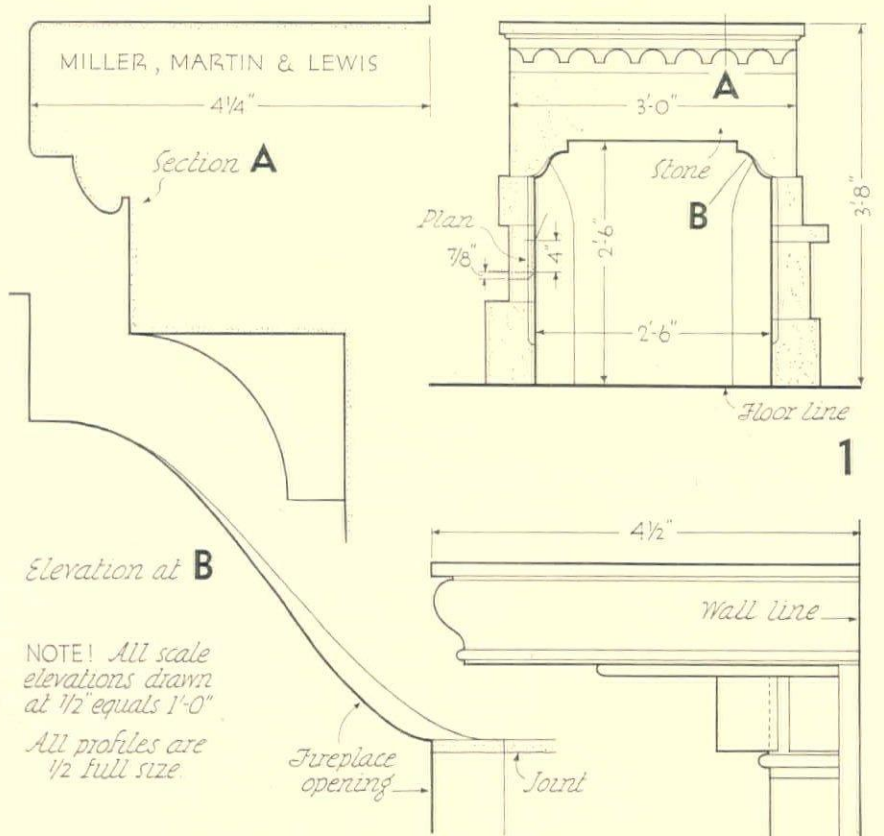
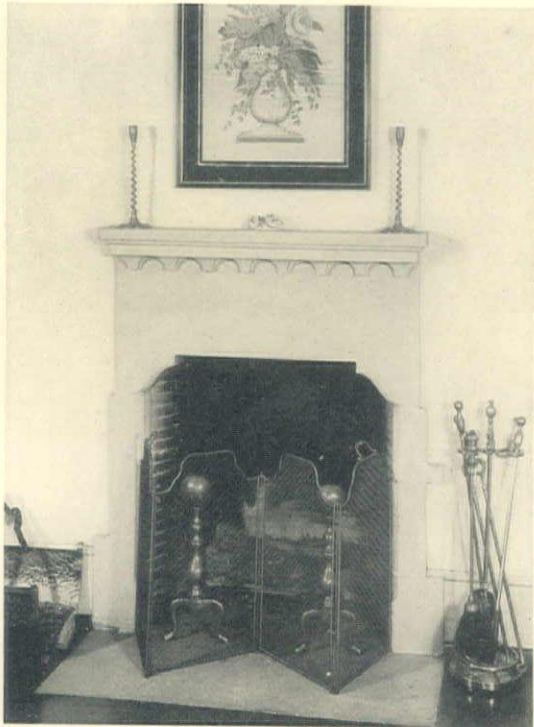
Cincinnati, O.
Garber & Woodward



FAVORITE FEATURES

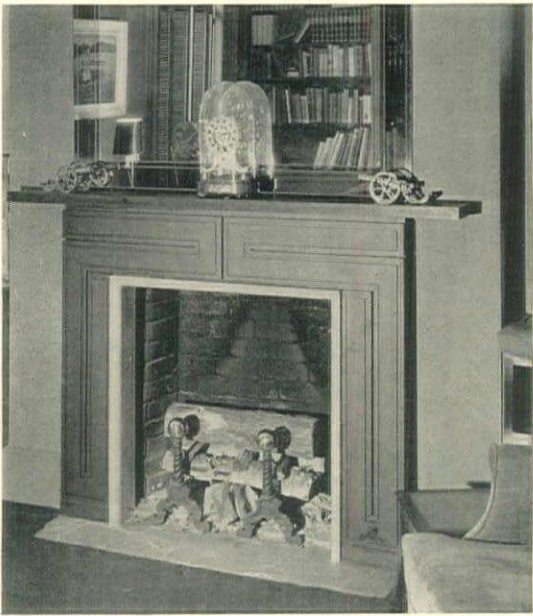
Common problems of design in everyday practice—how the results look and how the drafting-room detailed them

Simple Mantels





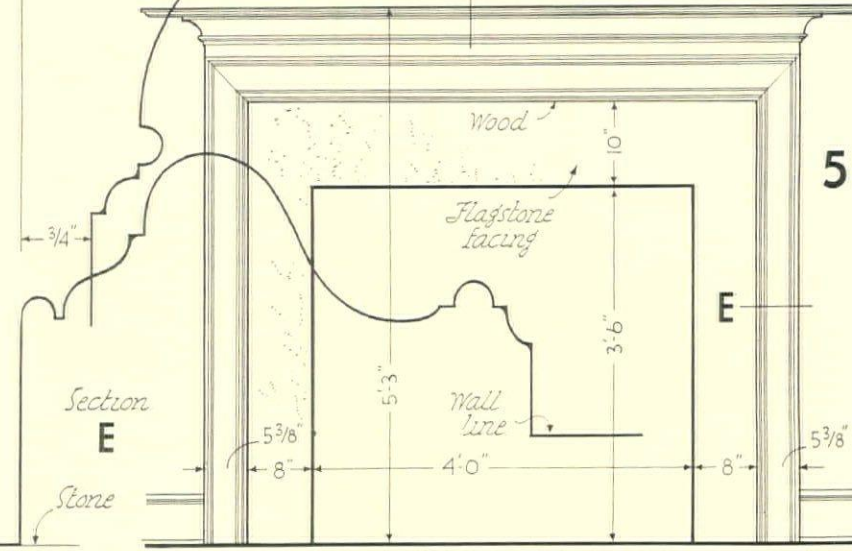
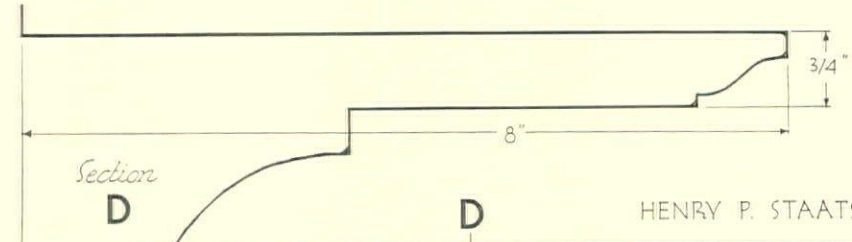
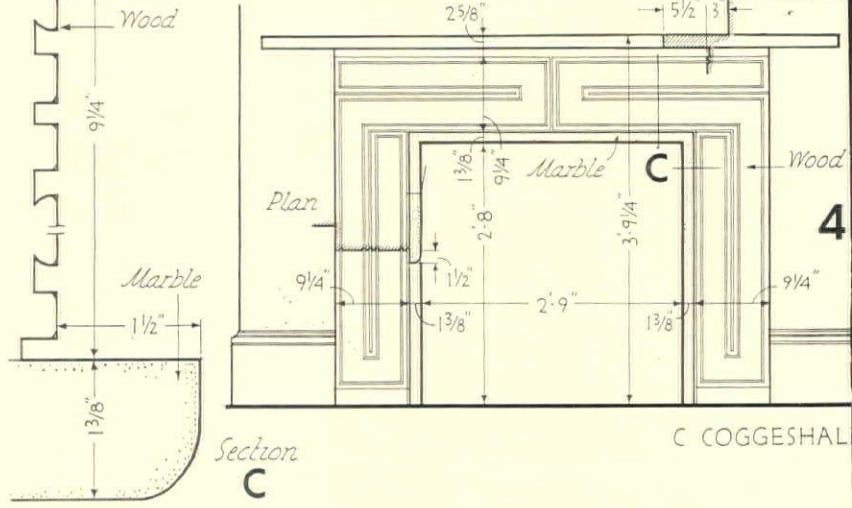
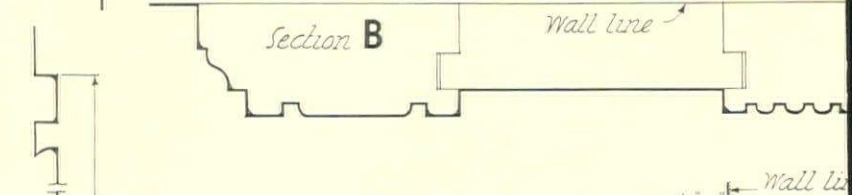
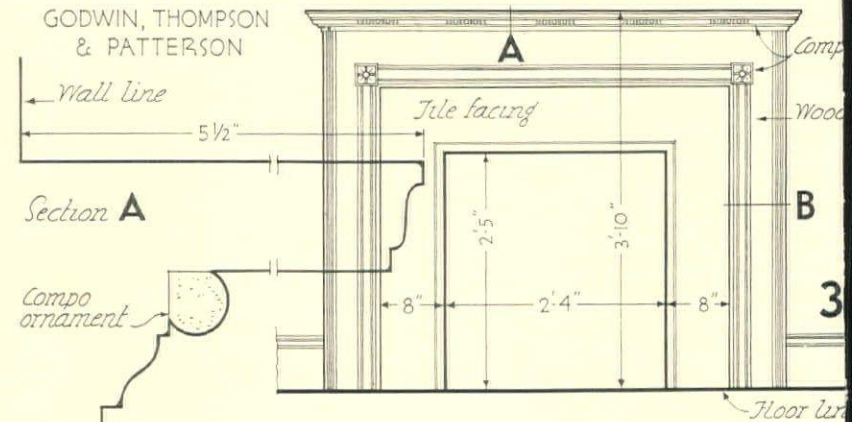
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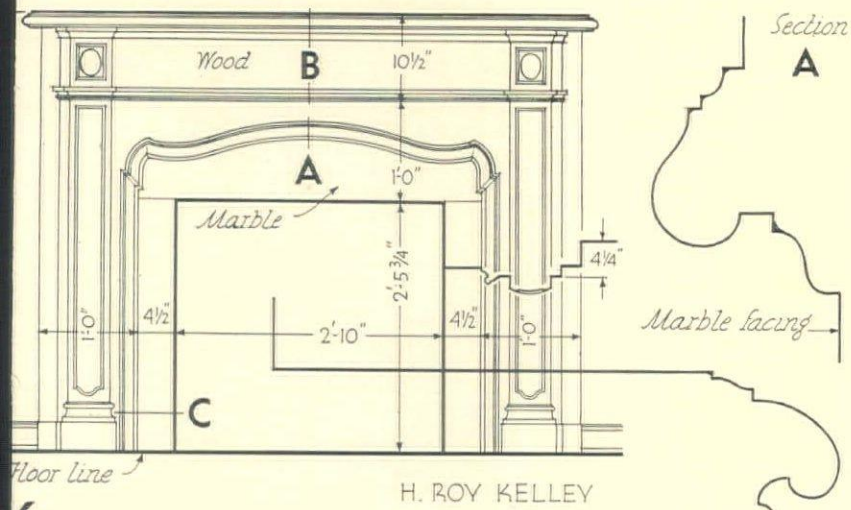


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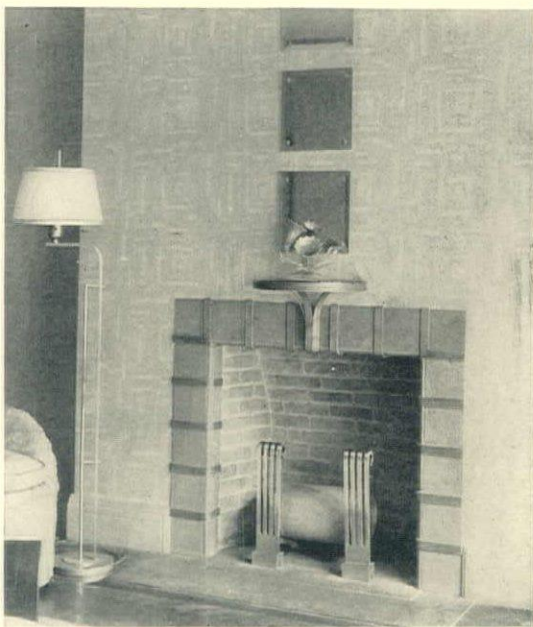
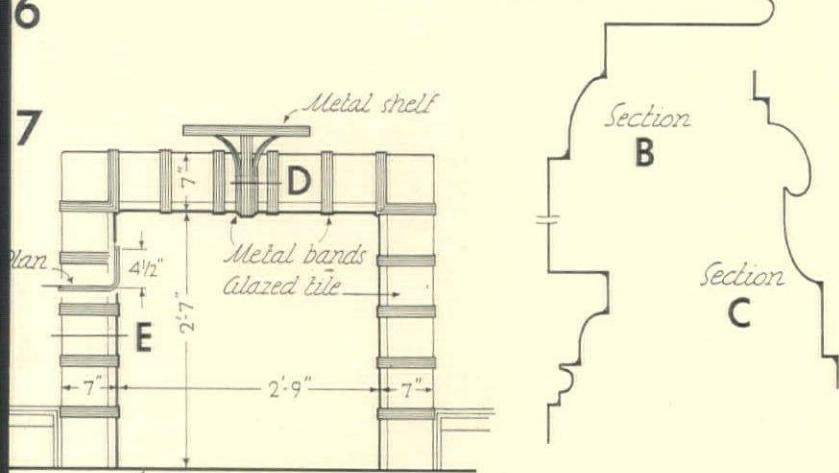


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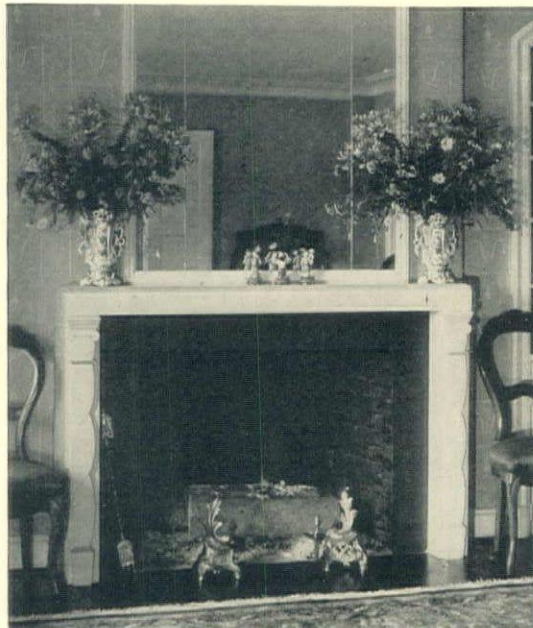
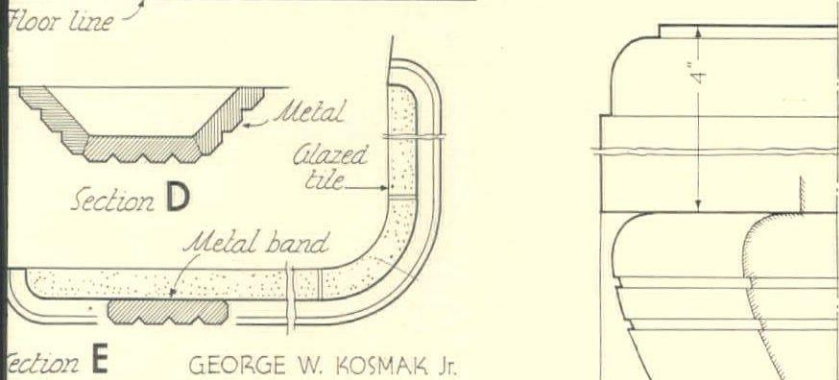




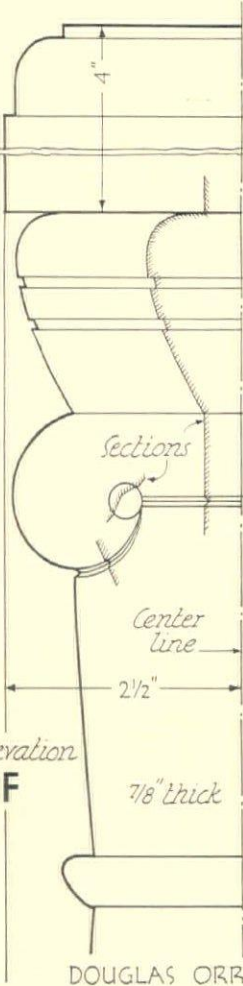
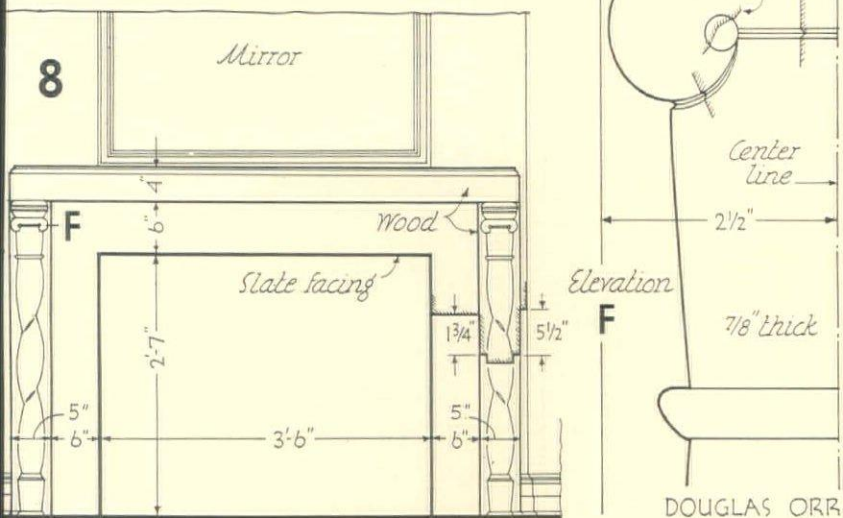
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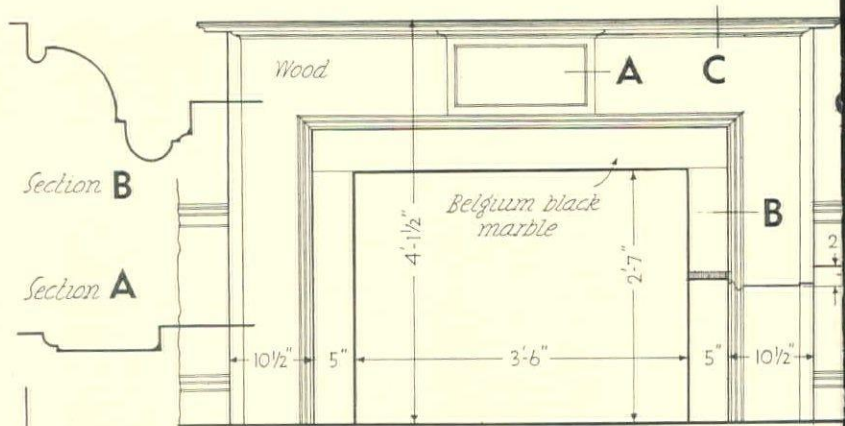


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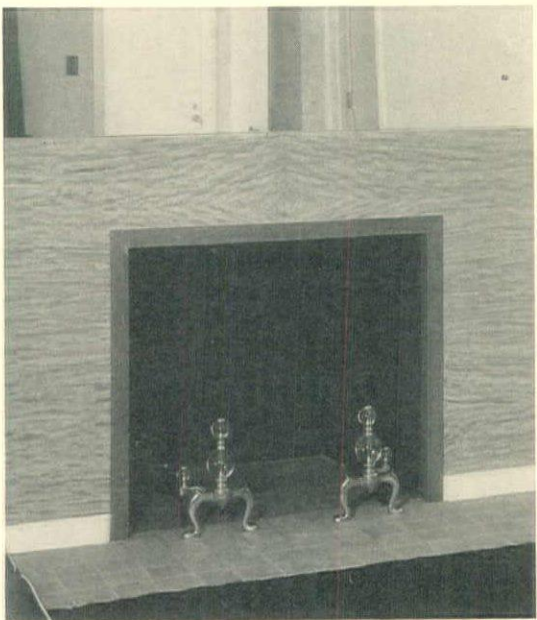


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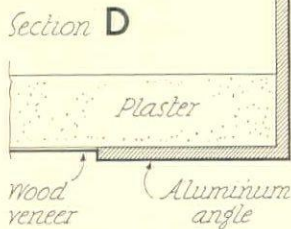


WILLIAM WEBB SUNDERLAND

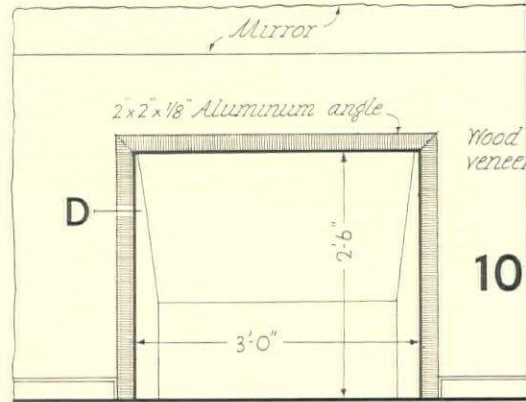
7 1/2"



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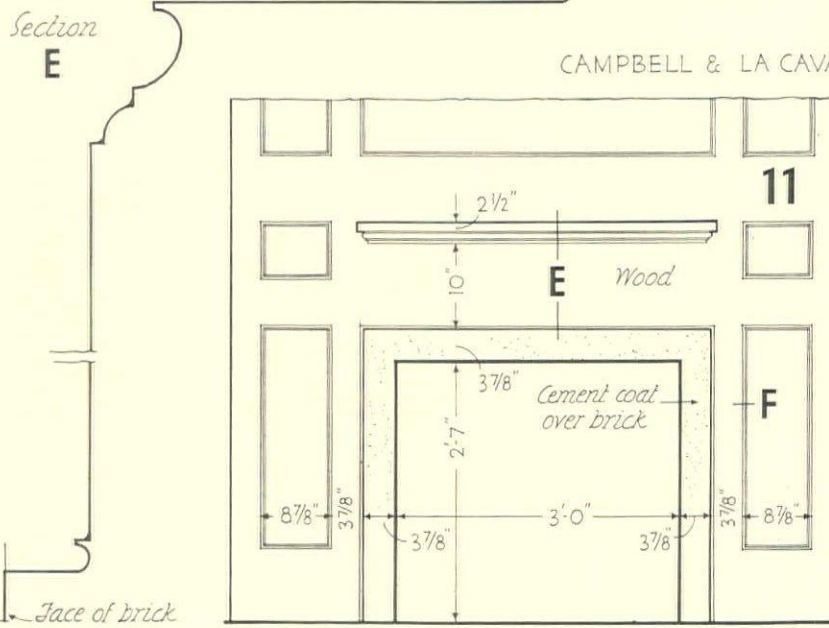
DITCHY - FARLEY - PERRY



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CAMPBELL & LA CAVA

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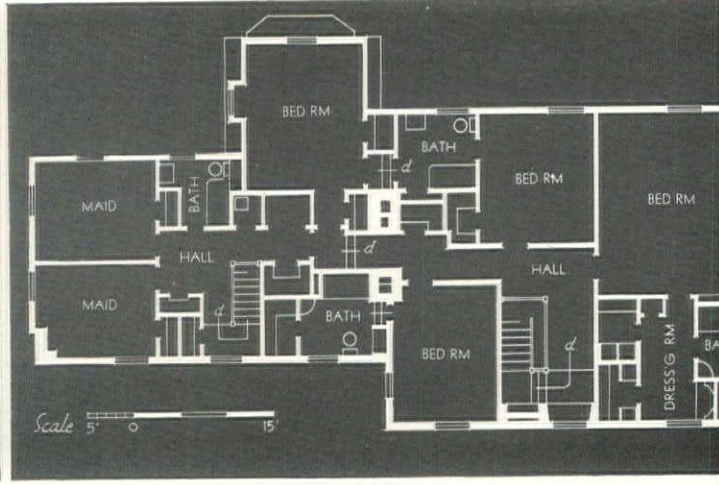
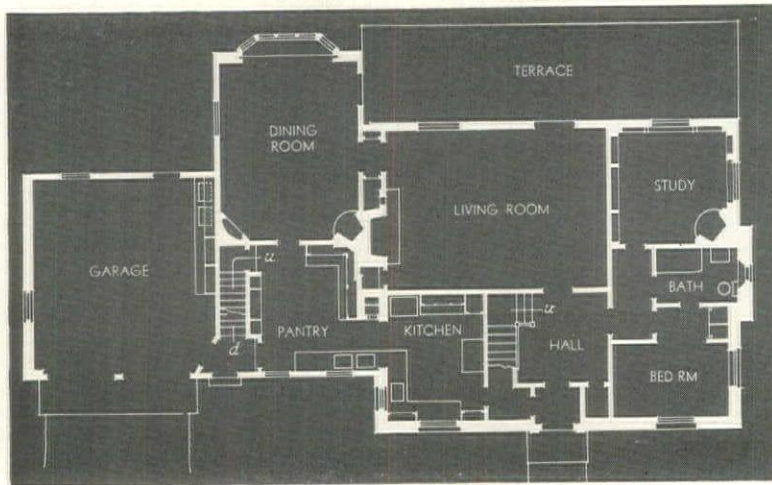
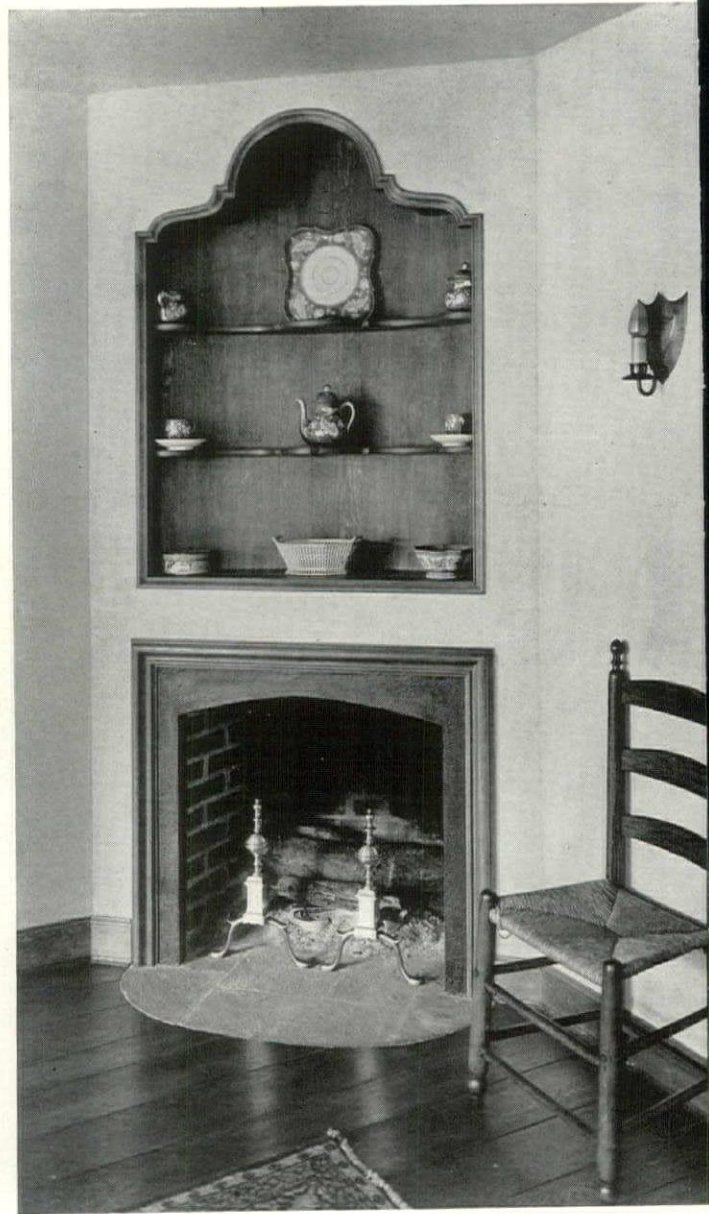
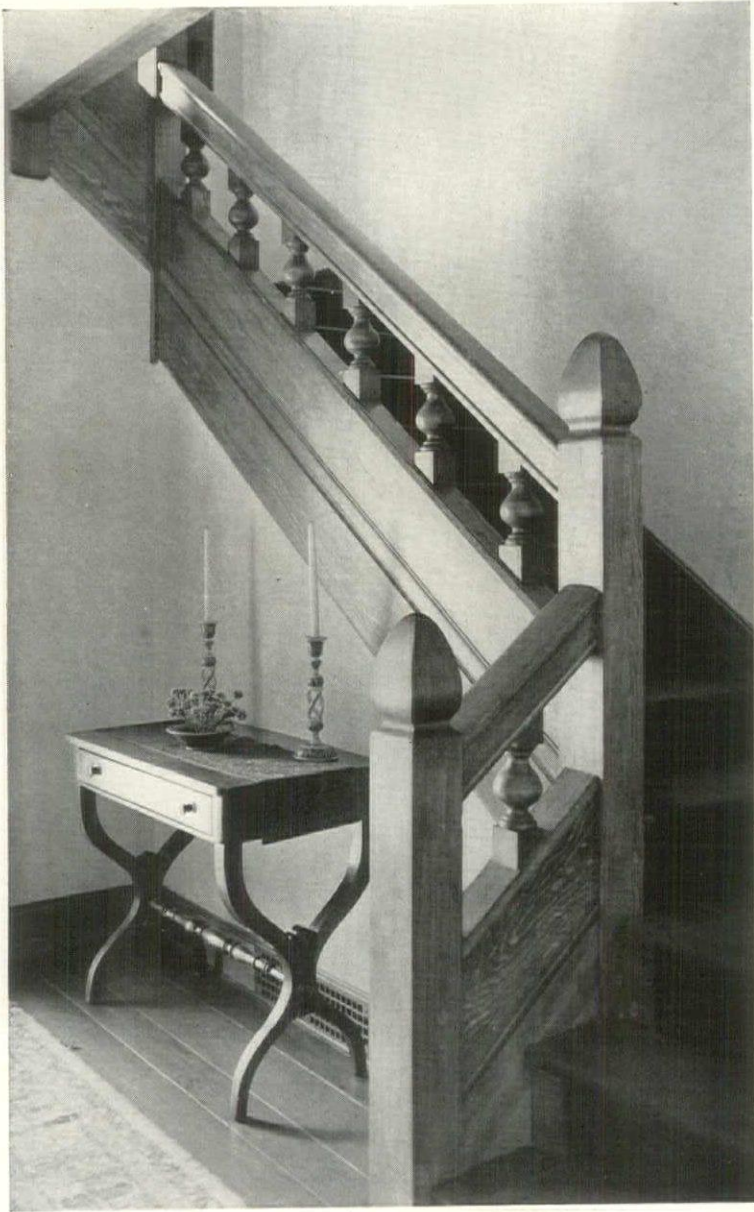


PHOTOGRAPHS BY SAMUEL H. GOTTSCHO

HOUSE OF DR. F. F. HARRISON, COOPERSTOWN, NEW YORK

Free adaptation of Colonial precedent, whether in wood, brick, or stone and wood is commonplace for contemporary domestic buildings. Unfortunately, the results are not always as successful as this example. One thing is very clearly indicated by this superficial romanticism. American architects and their clients are no longer preoccupied with an archeological approach to style, but are interested in developing an architecture for the America of today. Here warm colored stone is laid in random ashlar while vertical siding and hand-split shingles are painted a harmonizing cream color. Blinds are blue green and the shingle roofing is in variegated grays

GREVILLE RICKARD, ARCHITECT
WILLIAM F. DREWRY, JR., ASSOCIATE



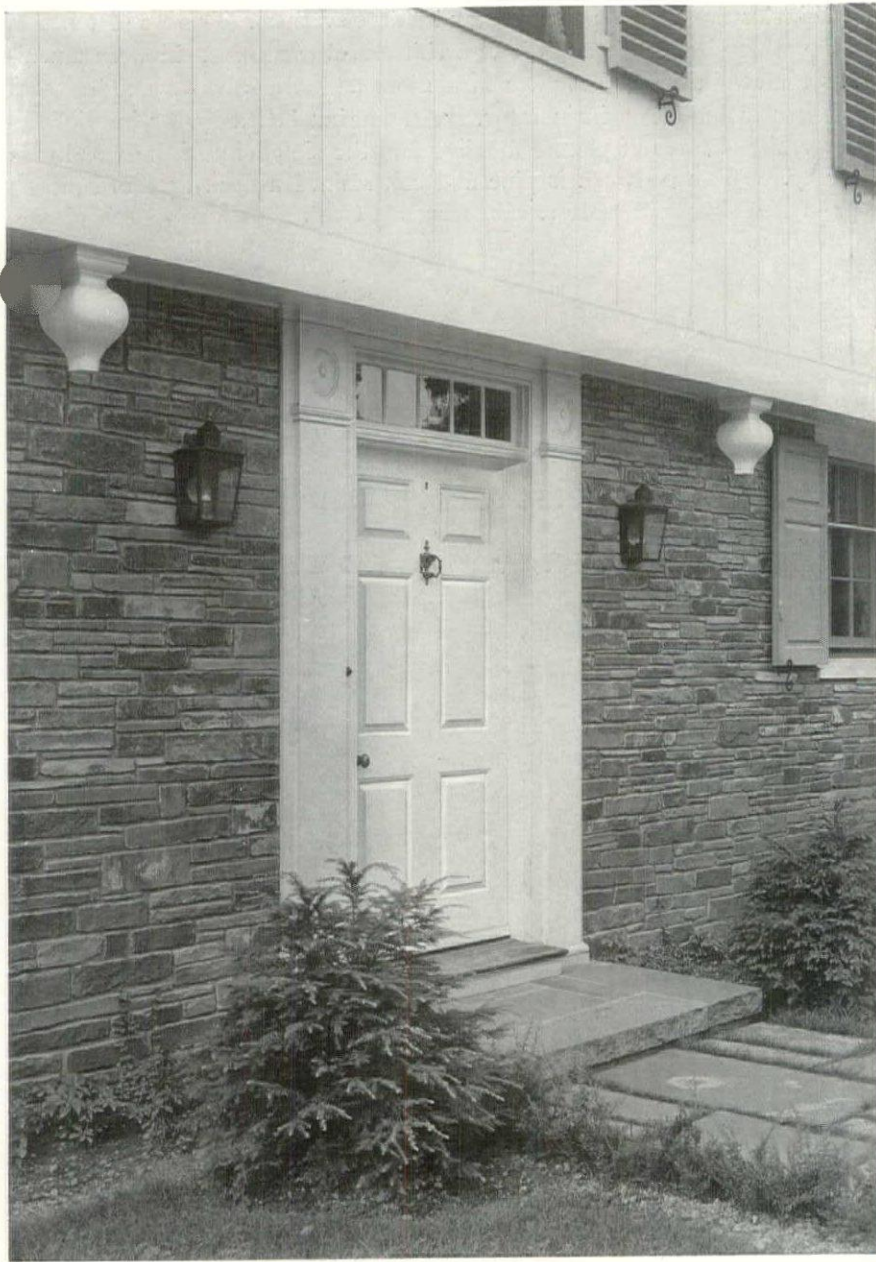
Because the gardens and the pleasantest view are toward the rear, all the main living rooms are on that side of the house. The projecting rear wing shields the living terrace from the service wing. View (above, left) of stairway, and (above, right) of corner fireplace and shelves in dining room

Hand-split shingles are used on the rear and side elevations. These add textural interest to the otherwise simple and direct architectural treatment. Modern amenities, such as air conditioning, complete insulation, a thoroughly well-studied and equipped kitchen including an incinerator, are somewhat belied by the interior detail. However, the absence of picture molding and the simplicity of the woodwork are noteworthy. This woodwork is pine and oak stained a dark tone to contrast with the pre-tinted light buff plaster. Flooring is of oak in random width planks.

HOUSE OF DR. F. F. HARRISON, COOPERSTOWN, NEW YORK
GREVILLE RICKARD, ARCHITECT; WILLIAM F. DREWRY, JR., ASSOCIATE



PHOTO: VAN ANDA



A fine appreciation for rich textural contrasts is evidenced in both the exterior and the interior of this house. The fireplace in the living room is red brick. The hearth is of flagstone and the lintel is of granite. The dentils under the shelf are red against the white.



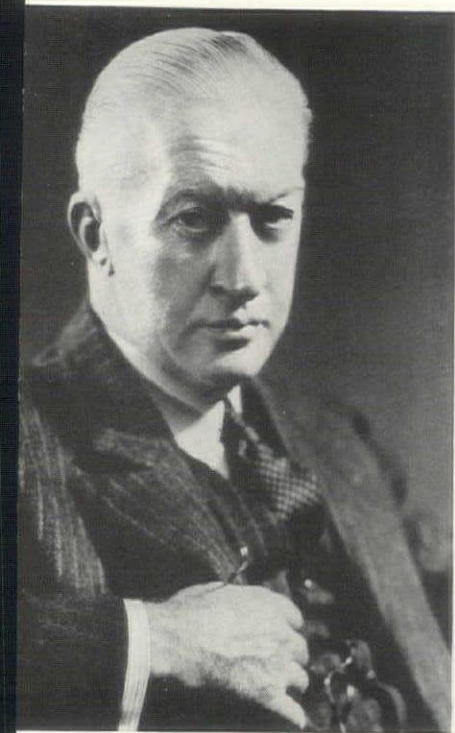
HOUSE OF DR. F. F. HARRISON
GREVILLE RICKARD, ARCHITECT
WILLIAM F. DREWRY, JR., ASSOCIATE

PHOTOS: SAMUEL H. GOTTSCHO

JOHN RUSSELL POPE

1874-1937

By FISKE KIMBALL



John Russell Pope American architecture has lost an artist of authentic gifts, enriched it with works of abiding value. At the time of his entrance to practice and his first triumphs, this value was not questioned, indeed it was acclaimed almost universally. That was a moment of dominance of the classical influence in America, then won by the works of McKim, White, and Wells, which derived strength and reverence from the heritage of the Early Renaissance. Then the only voices raised against dominance were those, powerful to be heard, of two isolated artists of genius, Sullivan and Wright, then crying in the wilderness. Pope's death comes at a different moment, when the value of any neo-classic work is called into question, not only by Wright, but by a host of secondary men, themselves most-imitators, followers, aping the creations of a different school, who identify merit only with conformity to current tendencies. It is one who values only the creative element in art, which alone, and rarely, gives things valid claim to the precious distinction of being works of art, I must protest against this equation of value with style. Things in themselves have no magic either to confer or preclude merit. That is solely a prerogative of the personal gifts of the individual artist—to impress on the body of his work, and on his individual works, an inner coherence which fuses and crystallizes their elements into new entities having henceforth independent life.

In the classical tendency of a generation with its emphasis on geometrical simplicity of form, there were such artists and their works, few as always, which alone gave life to the movement. There were also, in greater number, as always, the thronging men with no right to the title of artist,

competent builders perhaps, whose works were no more works of art than are school-boys' Latin verses, with their collection of classical tags.

No less, in the "functional" movement of that time, the achievement was confined to the leaders and to their works, in which a vital form was achieved—works misunderstood by imitators and travestied by speculative builders.

No less, too, the "international style" of the present, the new form created by a few leaders in France and Germany—form quite as much abstract as suggested by function—is merely parroted and travestied by most adherents and admirers.

True, at a given time in the history of art, one trend is always waning, another waxing. It is human for youth to identify value only with the newer, to regard the older as worthless obstruction; just as it is human for age to identify value only with the older trend, to view the newer as subversive nonsense. True, also, that in a new generation the greater creative opportunity is with the newer trend, in line with obscure but powerful forces of the new time; but it is just as true that the creative spirit of the past generation will have expressed itself in quite other ways. We need not expect the creative artist himself to admit these axioms; the great artist in his work must be a bigot, even a fanatic, and is apt to be so in his thought. His error, itself forgivable, is only in his denial of the endless flux which brings his own work into being; which will bring, after him, not pursuit of his "style," but necessarily its renunciation; and which brought, before him, work which he abhors from a lifetime of struggle, yet which may equally have its own coherence and individual value.

The position of an artist in the flux of his time cannot itself determine the estimate of him. We recognize the late Gothic builders of Saint Maclou and of Beauvais, with their ecstatic line, not less as authentic artists because the calm spatial music of the Renaissance masters had already begun.

The possibility of artistic creation with traditional elements has indeed been often

questioned, even as to the masters of the Renaissance, yet only the fanatic can deny that they achieved it. To the neo-classic artists, still involved in the passions of contemporary struggle, it is harder to render justice. They cannot hope, of course, for that veneration reserved only for the men who inaugurated vast movements of fundamentally original character, like Michelangelo, like the architects of Saint Denis, but we can still judge them on the success of their efforts to fuse the derivative elements in new wholes, and thus in works of art worthy of the name.

Such an artist was John Russell Pope. His work was far removed from that of the plan-factory in which classical motives served chiefly as handy formulae, ready to be served up in varying banal combinations with a minimum of time and study. Nor was he, like too many men masquerading as architects, actually an entrepreneur, or promoter, or salesman. His mind and heart were directed to an activity purely artistic. His designs were ripened, matured, digested—transmuting the elements into a work which was his own.

It is well known that Pope was not alone in his activity, that Otto Eggers and Daniel Higgins formed with him a team of extraordinary effectiveness. Indeed their abilities were such that the uninformed may have supposed that Pope's relation to his office was a distant and external one, limited to occasional appearance as a critic. No one who had experience with him could preserve this misapprehension. Almost to the very day of his death his relation to his clients and his buildings was one of full personal and professional responsibility. His associates remain, not only to carry out his unfinished projects, but to continue the practice in which their part was large.

Jack Pope is gone. We could have spared the modernist pretenders who cling to the skirts of the few giants of our day, as we could have spared the multitude of classical hacks of yesterday, rather than have lost the sensitive master of form who was John Russell Pope.

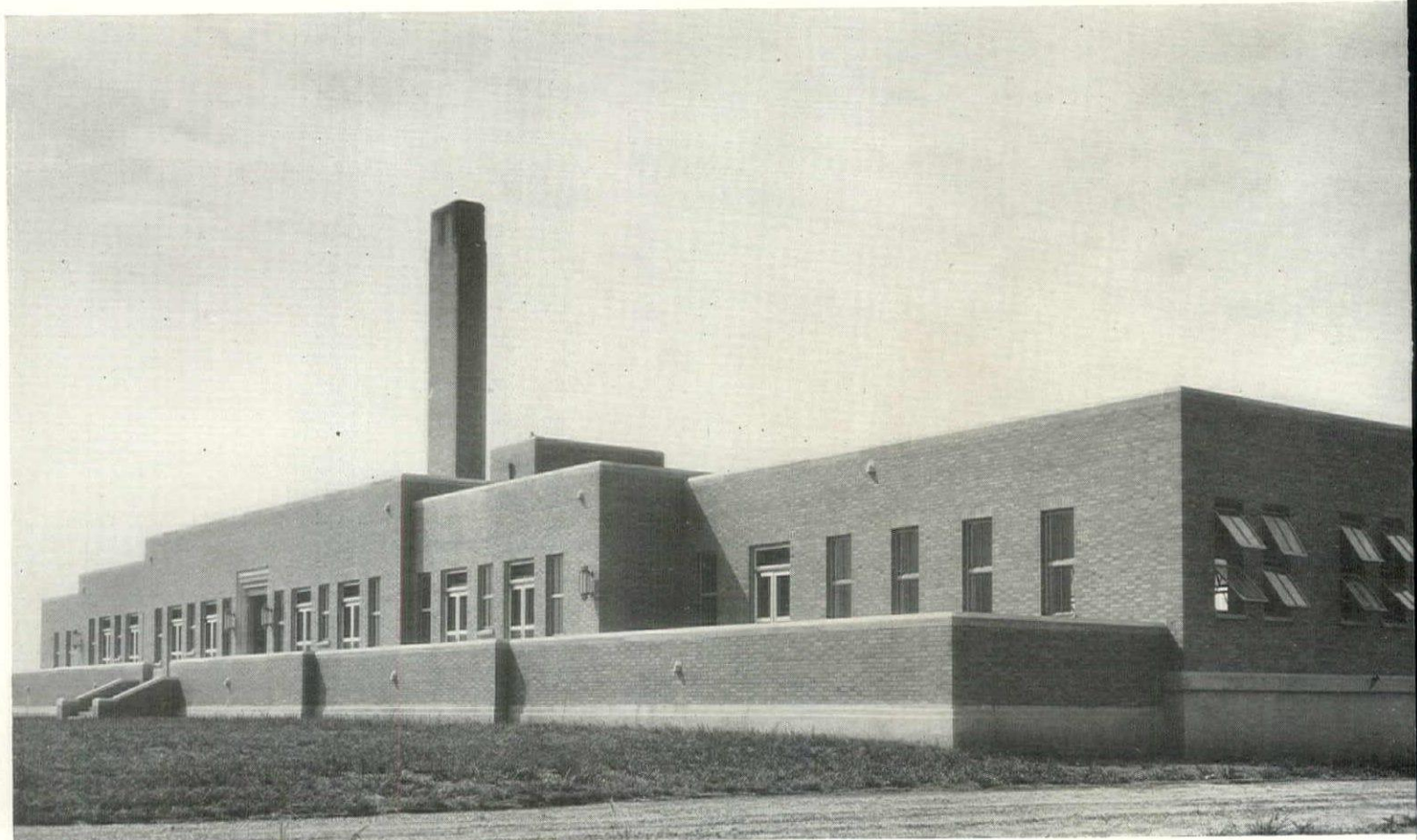
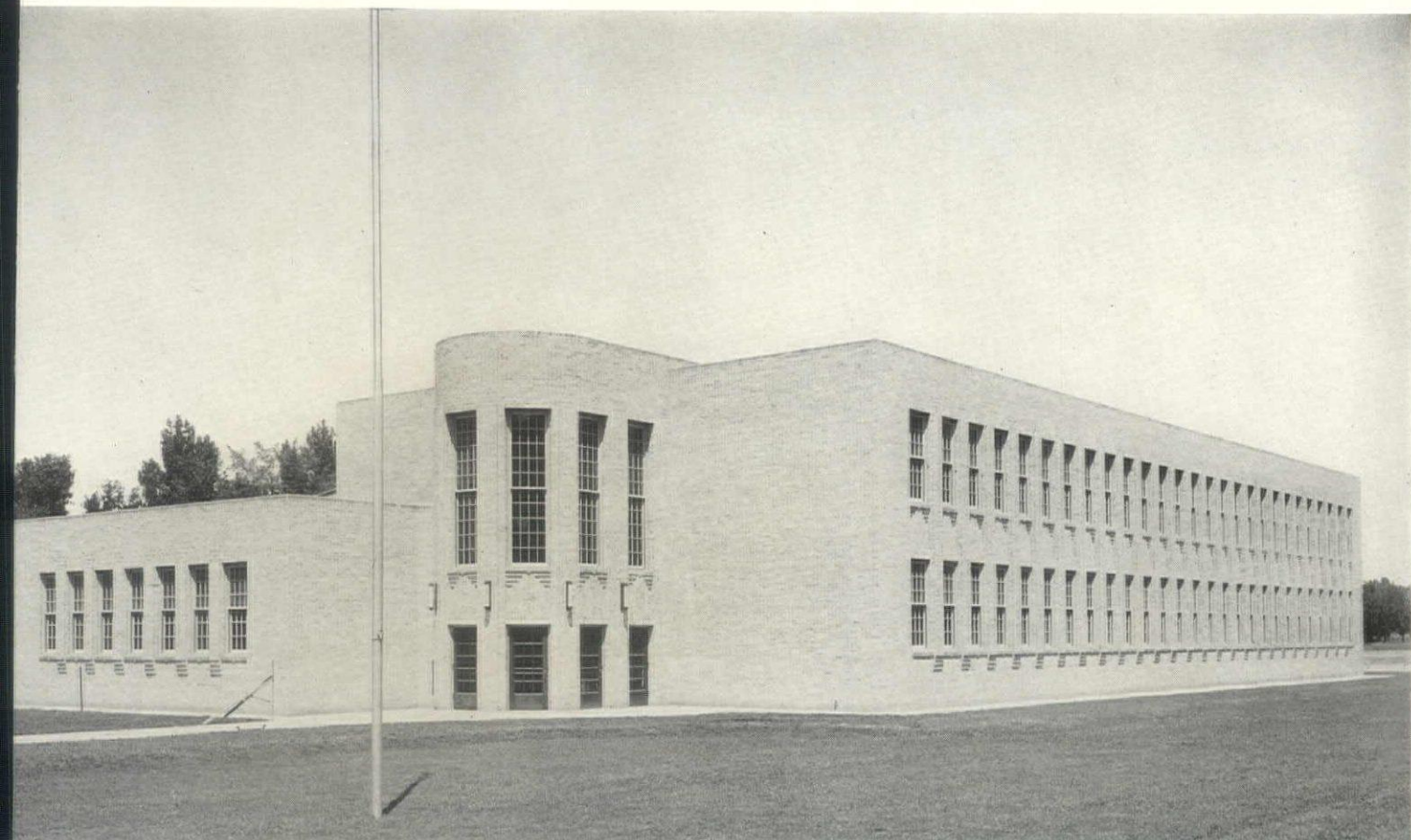


PHOTO: COURTESY P.W.A.

TUBERCULOSIS HOSPITAL, RONEY'S POINT, WEST VIRGINIA
FREDERIC FARIS ARCHITECT

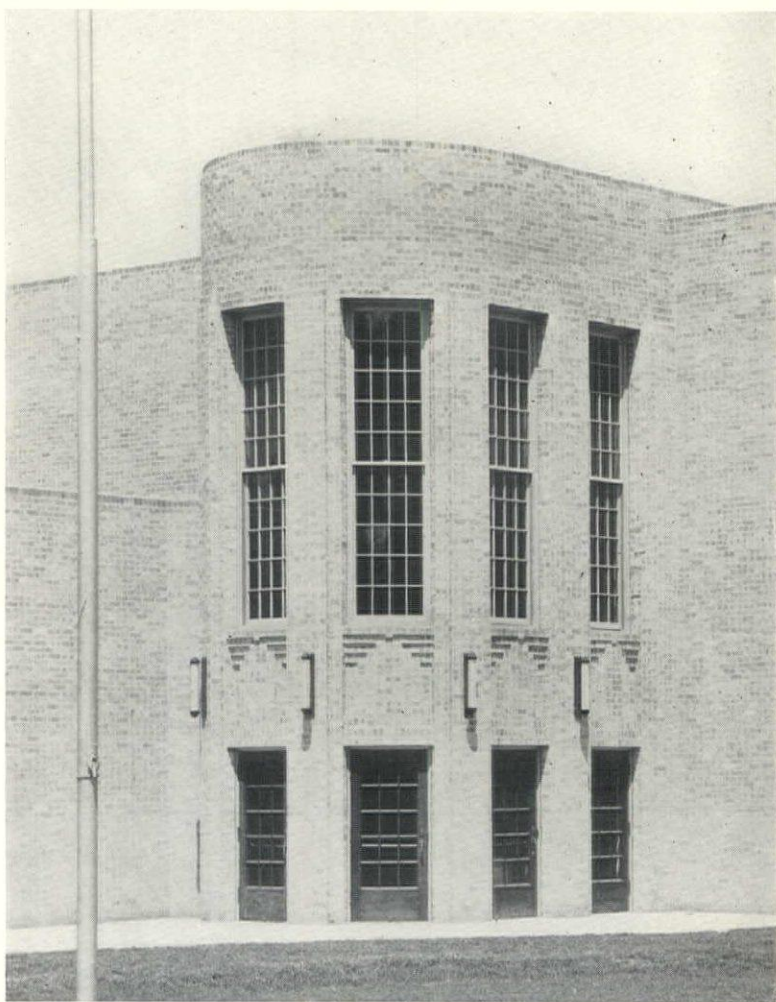
The first unsung genius who patted a piece of clay into brick form, with which to build, was the first prefabricator. Since then literally billions of bricks of all sizes, colors and shapes have been used to build all kinds of buildings, in every possible style in nearly every country in the world. The reason for this is obvious. Brick is not only an efficient and beautiful building material, but it is an incredibly flexible one. Whether the discovery of the simple arch was due to the use of brick is still an unsolved question. At any rate, brick contributed greatly in the development of new structural forms and can be used for nearly every other building purpose. So today, when there is a search for new forms to express our time, brick still plays a leading part.

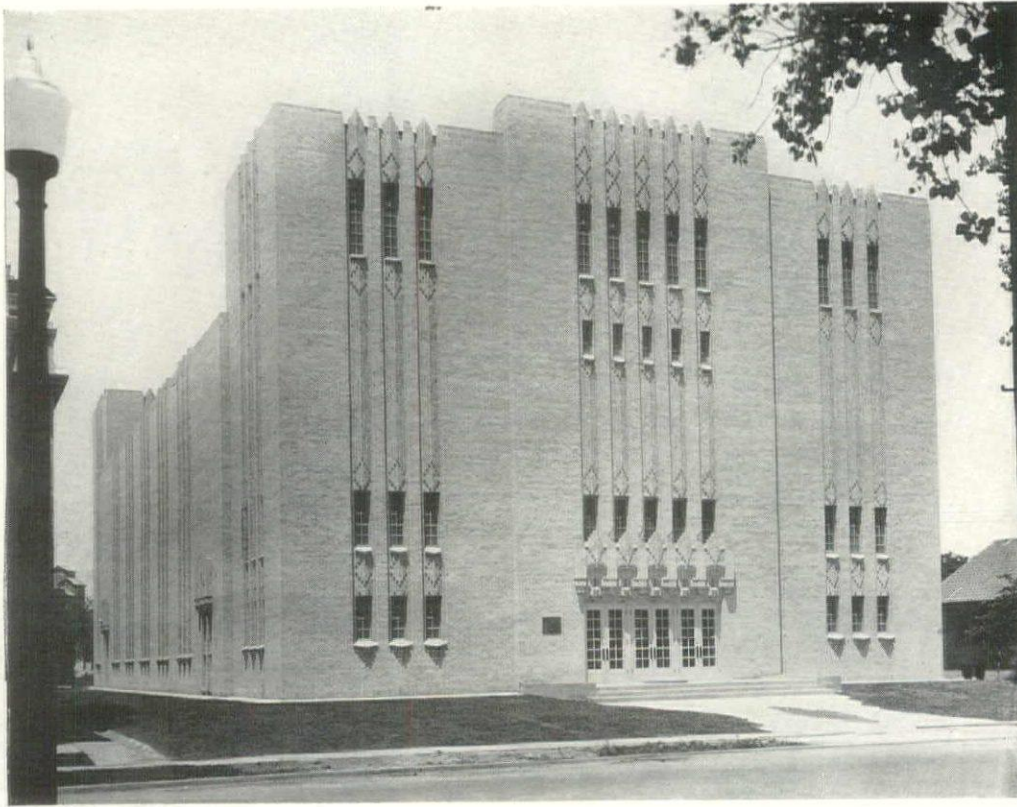
RECENT EXAMPLES OF BRICK BUILDING



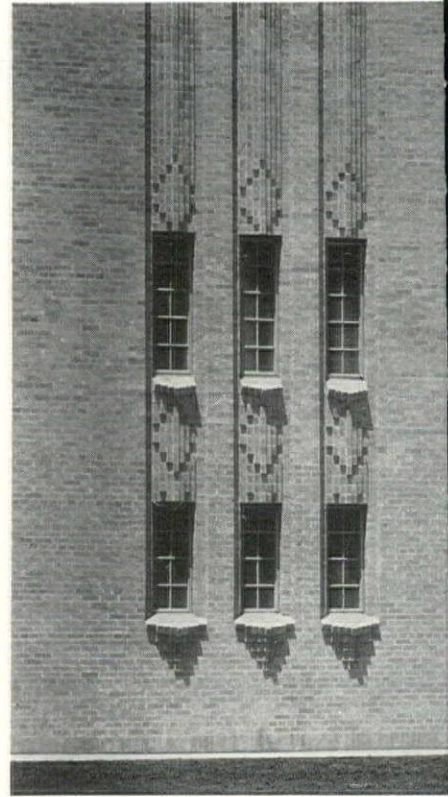
GH SCHOOL, FRUITA, COLORADO
H. BUELL & CO., ARCHITECTS

strated on these and succeeding pages is the
 le range of architectural effect that is obtain-
 e by the use of brick. Simplicity is the key-
 e of the manner in which this material is used
 the Tuberculosis Hospital (facing page). In
 school building (above and right) the restraint
 exercised in the use of brick as decoration
 ds just the proper amount of interest to
 at otherwise would be dull and uninteresting

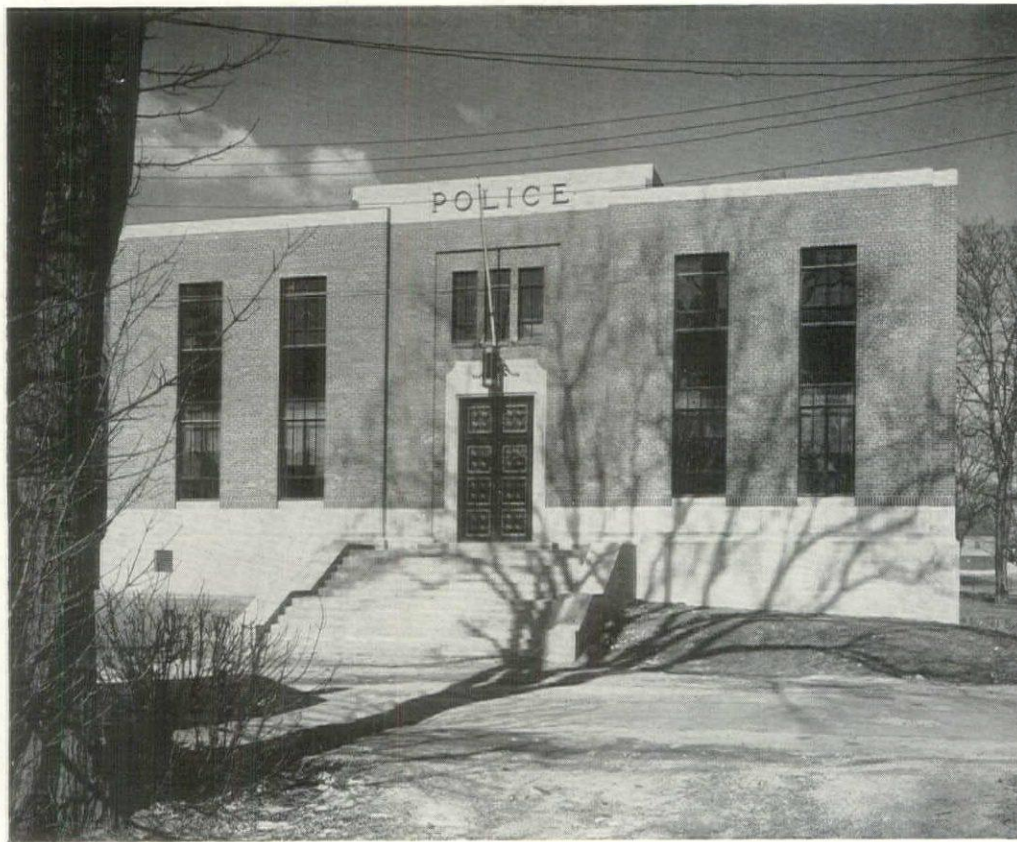




MEMORIAL AUDITORIUM, STERLING, COLORADO



T. H. BUELL & CO., ARCHITECTS



POLICE STATION, WATERTOWN, MASSACHUSETTS
CHARLES G. LORING, ARCHITECT

RECENT EXAMPLES OF BRICK BUILDING



idence, GLENVIEW, ILLINOIS

WHITE & WEBER, ARCHITECTS



ARTMENT, BROOKLYN, NEW YORK
RIS W. DORFMAN, ARCHITECT

ibility of use has always been a character-
 of brick, and is aptly expressed in its adapt-
 to style as illustrated by the Memorial
 itorium (facing page). As a material used in
 dings definitely of this decade and yet in har-
 y with surrounding traditions, the New
 land police station (facing page) serves as
 ood example. Either painted as in the resi-
 ce above, or left natural as in the apart-
 t house (right), brick has long been asso-
 ed with the construction of shelter of man.

BRICK MASONRY—I—Workmanship and Textures

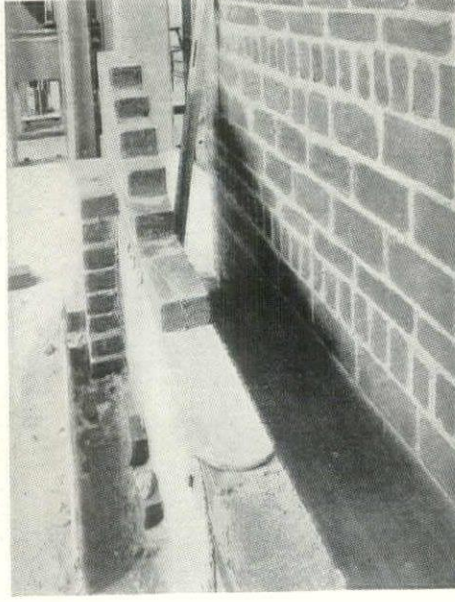
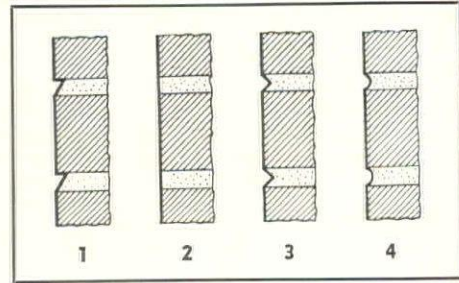


FIGURE 1, at the extreme left, shows an improper method of making mortar beds. The furrowed mortar will not spread sufficiently to adhere evenly to brick. FIGURE 2, center, shows flat bed joints essential for proper strength and bond

FIGURE 3, below, illustrates common treatment of exposed joints: (1) weathered, (2) flush, (3) "V" joint, (4) concave. All are superior in weather-resistive qualities to struck joints (not illustrated), which are similar to No. 1 except that mortar faces slope inward from top to bottom



Appearance, weathering properties and enduring strength of brick masonry are closely linked to both the workmanship employed in construction and the formation of joints, bonds and patterns to create desired designs and textures. Principal factors to be considered by the designer are summarized in this sheet.

WORKMANSHIP

Good workmanship is an essential requirement to effective performance of brick masonry, and is not incompatible with speed of production. Tests conducted by the Bureau of Standards have shown that a wall constructed according to approved principles will develop a strength 70% in excess of that of an identical wall constructed in violation of these principles. Nevertheless erection of the stronger wall was accomplished in no greater time than required by the same mason for erection of the weaker wall.

The two essentials of good workmanship are flat bed joints and complete filling of vertical joints.

Bed Joints. From the standpoint of strength alone, the flat bed joint (Figure 2) is probably the most important single factor. The uneven and irregular bedding characteristic of the furrowed mortar bed (Figure 1) produces bending stresses in the brick and causes local concentrations of load. A furrowed mortar bed may, in addition, permit the entrance and retention of moisture.

Vertical Joints. Proper treatment of vertical joints in accordance with the purpose for which a wall is used will basically affect the appearance, durability, resistance to water penetration and strength of the wall. Types of joints include: (a) Shoved Joints, (b) Grouted Joints, (c) Open Joints.

Shoved Joints are made by pressing brick downward and side-wise on a bed of mortar slightly thicker than required for the finished joint. This causes the mortar to rise and fill the vertical joints. Shoved joints are strong and watertight.

Grouted Joints are made by filling vertical joints with a grout made of the bed mortar with water and cement added. Grouted brickwork accomplishes much the same purpose as shoved brickwork at lower cost. Outside wythes are laid with trowel mortar on beds and with vertical joints buttered, thus forming a barrier to keep the grouts from trickling over the face of the masonry.

Open Joints may be used in the interior course or back of an exterior wall where joints exposed to the weather are shoved, or in the full thickness of an interior partition. Every fifth course should be a header course with filled joints. Walls built with open joints are cheaper to lay, dry more quickly, and are amply strong for ordinary loads.

Thickness of Joints. Joint thickness affects to some extent the strength of the wall. Although no definite relationship has been proven, walls with thin joints tend to have a somewhat

higher strength. For standard brick, a $\frac{1}{2}$ " joint is most useful in forming patterns and bonds, since two headers plus the joint exactly equal the length of the stretcher. $\frac{5}{8}$ " and $\frac{3}{4}$ " joints are used extensively, the difference in unit length of a stretcher and two headers plus joint being compensated by variations in the width of the vertical joints. Brick masonry walls with $\frac{3}{4}$ " joints and over require more time for erection.

Exposed Joints. The color, section and texture of joints will affect to a marked degree the interest and quality of the finished wall. Color of the joints should be kept uniform despite gradations in the brick shading. Dark colored mortar tends to subdue shadows and deepens the tone of the wall. Light or natural colored mortar gives a play of brilliant shadows.

Texture of the joint may resemble that of the brick or contrast with it, and is controlled by the use of a steel or wood surfacing tool, and the use of coarse sand or fine gravel in the mortar mix. Four types of exposed joints are illustrated in Figure 3. Tooled joints (types 3 and 4) which compress and spread the mortar after it has set slightly, produce the best weathering properties.

(1) **Weathered Joint.** This is formed as a plain cut joint, finished with the trowel after the mortar has slightly stiffened. Each course of brick will throw a horizontal line of shadow along the wall. It is a water-shedding, low cost joint, much to be preferred over the struck joint (not illustrated).

(2) **Flush or Plain Cut Joint.** This is formed by cutting surplus mortar from the face of the wall. If a rough texture is desired, the joint must not be manipulated with the trowel. For an extremely rough joint, the surface may be tapped with the end of a rough cut piece of wood after the mortar has slightly stiffened.

(3) **"V" Joint.** This is similar in method of forming and performance to the Concave Joint. It should be formed with a special tool, but may roughly be made with a square-edged board, rubbed at an angle along the joint.

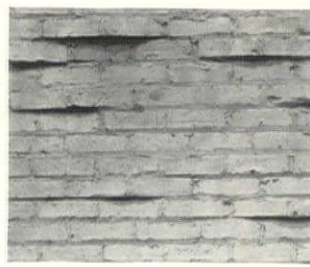
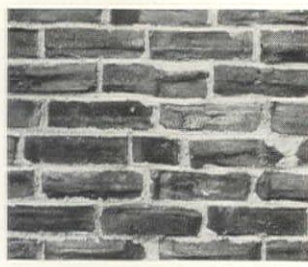
(4) **Concave Joint.** This is best formed with a special tool or a bent iron rod. It is weather resistive and inexpensive.

(5) **Struck Joint.** This is the most simply formed of all joints and is widely used for interior walls. Its use for exterior walls is not recommended, however, because its weather resistive qualities are distinctly inferior to the other joints illustrated.

PROTECTION DURING CONSTRUCTION

The absorption of excessive moisture during construction should be carefully avoided. Unfinished walls should be covered at night with canvas, tar paper or boards as a protection against weather. Where concrete or reinforced brick slabs are built simultaneously with the walls, the wash from their surfaces should not be permitted to come in contact with the wall face. During freezing weather, bricks should be thoroughly dry and free from ice when laid.

BRICK MASONRY—I—Workmanship and Textures



Textures in brickwork (left to right): Smooth brick of hand molded type with concave tooled joints; over-burned brick with rough, contrast-

ing joints; light colored brick, occasional stretchers skintled; a combination of contrasting joints and occasional over-burned brick

CLEANING COMPLETED BRICKWORK

Care in building exposed brick surfaces will limit the amount of cleaning necessary. No job is finished, however, until it has been thoroughly cleaned and washed down. A 5% solution of muriatic acid should be used where necessary for cleaning brickwork or washing away efflorescence, followed by a washing with clear water.

TEXTURE

Texture in brickwork is the product of the character of the bond or integral pattern, type and color of joints, color range of the brick or the use of whitewash and other paint coating, and the employment of irregular or special brick shapes. Each of these is capable of wide variation, and an almost limitless range of surface textures is therefore possible.

Bond is the controlling factor in determining surface pattern. Primarily for the purpose of binding the wall together so that it will act as a unit in resisting stress, bond serves the additional purpose of forming geometric patterns on the wall surface. This influences both the quality of the brickwork and the character of the architectural design.

There are three basic bonds, and wide variations of each:

Running or Stretcher Bond is made up of stretchers with joints broken on centers. Each alternate course has a header at the corner. This bond is weak transversely, because of lack of headers.

Common Bond is a variety of running bond with every fifth, sixth, or seventh course a header course, either "full" (all headers) or "Flemish" (alternate headers and stretchers).

A three-quarter brick is used to start each header course at the corner of the wall. Other courses need not be cut at the corners to make them break joint. Joints are lined perpendicularly for exposed walls; for unexposed work considerable variation in joint placing will not affect bond.

Common bond is the most widely used of all bonds, and is the lowest in cost for solid walls.

Flemish Bond is made up of rows of alternate headers and stretchers. This kind is widely used due to the ease with which it is laid, and its attractive appearance. Double Stretcher

Flemish Bond and Garden Wall Bond are variations of Flemish, and use two stretchers followed by a header in each course. In Double Stretcher Flemish bond, the joint between the pairs of stretchers is a blind or invisible joint.

COLOR EMPHASIS

The basic pattern determined by the bond may be further accentuated by color emphasis in the brick, or color variation may be used to emphasize irregularity in surface texture. Hard-burned or "clinker" bricks may be used at random, or in geometric pattern, for specific accents.

Mortar Texture may be controlled to approximate the texture of the brick or contrast with it. Mortar color may likewise contrast or blend with brick color. The section of mortar joints may be used to accentuate the surface pattern, as in recessed joints, or subdue it, as in extruded joints.

INTEGRAL PATTERN

Bond pattern may be varied by diamond, herring bone, basket weave and other simple patterns. These may be further accented by alternating courses of recessed and projecting brick, adding the play of light and shade to the other elements of surface texture. The inherent possibilities for decorative variation in brickwork are almost limitless.

SURFACE COATING

Whitewashed and painted brickwork has long been used for certain types of architectural effect. The irregular weathering, characteristic of such painted surfaces, produces additional variation in surface texture.

SKINTLED BRICKWORK

A wide variety of informal and coarse-textured patterns is possible through the use of irregular and warped bricks, or through irregular aligning and placing of bricks according to a studied or haphazard design, known as Skintled Brickwork.

For more comprehensive data on brick construction, textures, bonds, etc., see publications of Brick Manufacturers Association of America, Cleveland, Ohio, from which data presented here have been derived.

Pattern brickwork in which bond is emphasized by use of contrasting headers. Basket-weave, herringbone and other patterns are also common

Molded brick as used in chimney illustrated below, or in molded base courses, panels, copings and cornices, offer wide design possibilities



PURPOSE

Vertical construction of brick falls into two broad classes—solid masonry and hollow masonry. Solid brick walls and piers have maximum strength, durability and fire resistance. They are normally used for foundations and for all heavy load bearing structures. Hollow walls of brick built with air spaces between withes use less material, are lighter and somewhat less strong, but offer economies and advantages which suit them to residential work and similar light load construction. The air space within hollow walls is designed to increase the overall insulation value of the masonry, and when so arranged as to permit condensation and seepage to drain off, may produce a drier wall than one of equivalent thickness built of solid construction.

FOUNDATIONS

Brick foundations should normally be of solid construction. All joints should be filled, either by trowel work throughout, or by grouting the interior joints after the face joints (bed and vertical) have been made with the trowel.

All masonry foundation walls below grade should be dampproofed or waterproofed according to soil conditions and the possibility of hydrostatic pressure from ground water. In all cases foundation walls should have footing drains extending around the exterior at the footing level and carried to an outfall below the footing level.

Foundation walls that are not normally exposed to hydrostatic pressure may be dampproofed against capillary action by either of two methods: 1—Two or more brush coatings of cutback asphalt applied hot or cold to the exterior face of the wall according to the manufacturer's instructions, and preferably protected against backfill by a cement mortar coating; 2—A plaster coat of one part Portland cement to 2 parts sand may be applied to the exterior face and thoroughly troweled to a hard smooth finish.

Foundation walls below grade that are subject to any hydrostatic pressure whatever should be waterproofed by either the plaster coat method or by membrane waterproofing according to the designer's judgment in view of existing conditions. The plaster coat method involves the application of two or more coats of Portland cement mortar with admixtures of iron oxide compounds prepared for this purpose. Manufacturers' instructions should be followed accurately. The iron oxide plaster cast should be applied on the exterior face when conditions permit but may be applied on the inner face if no subsequent construction will interrupt its continuity or impair its bond.

Membrane waterproofing consists of alternate layers of asphalt and asphalt-saturated felt. This is employed where severe water conditions are encountered. The membrane must be continuous across the floor, through the foundation, and up the outside of the walls, and must be supported by masonry construction designed to resist the hydrostatic pressures which may occur.

RECOMMENDED SPECIFICATIONS FOR BRICK AND MORTAR

Brick—All brick used in brick masonry (except reinforced brick construction) should be of a quality meeting the requirements of the A.S.T.M. tentative specification C62-37T for grade MW brick. Where exposed to severe weathering and frost action, use Grade SW. Quality of brick may be specified by requiring that all brick be sound, hard burned, free from cracks and other defects and having a minimum compressive strength of 2,500 pounds per square inch. Such brick usually produce a metallic resonant ring when struck together.

Interior brick partitions and back-up or core brick in exterior walls may be salmon or underburned brick if permitted by local codes.

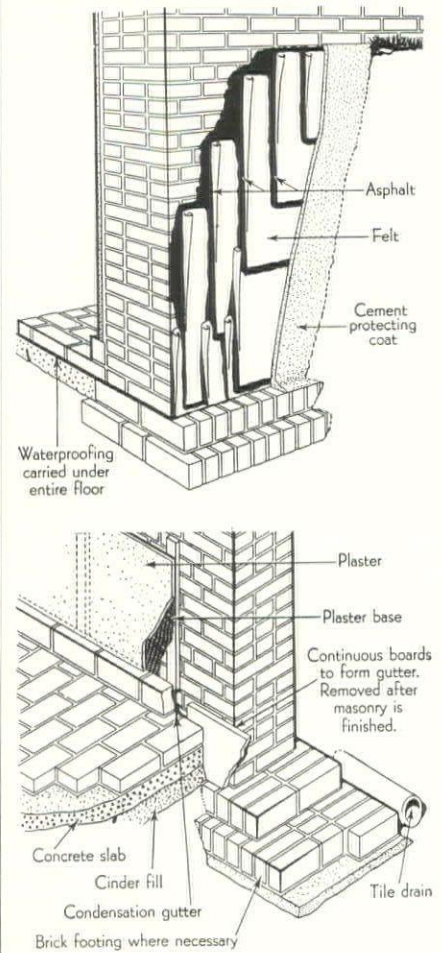
Mortar for Brickwork. For load bearing walls above grade, mortar should be proportioned by volume, one part cement, one lime, six sand. For increased weathertightness in walls above grade, with slight reduction in total strength, the ratio may range up to one part cement, two lime, nine sand. For load bearing walls and piers, above or below grade, use four parts cement, one lime, twelve sand.

Mortar for Grouted Masonry
When ordinary brick work has interior vertical joints grouted, the grout may be made of the bed mortar with additional water and cement in the proportion of one bag of cement to each 6 gallons of additional water (or 4 lbs. cement to 1 qt. water).

Mortar constituents: Portland cement should be of standard brand; meeting A.S.T.M. Specification C9-30; highly plastic lime meeting A.S.T.M. Specifications C6-31 (hydrated) or C5-26 (quick lime); sand clean, sharp and well graded to include fine, medium and coarse grains.

FIG. 1

FOUNDATIONS



HOLLOW WALLS

Where hollow construction is desired in superstructures in order to gain the advantages of intervening air space or to reduce cost due to the reduction in materials the designer has a choice of a wide variety of types that have been tested in practice. In general these fall into three classes: Rolok walls, cavity or barrier walls, ribbed (economy) walls.

Rolok-type Hollow Walls. The term rollok implies a construction in which part or all of the brick used in a wall are laid on edge rather than on their flat beds. In Fig. 2 are shown 8" and 12½" all-rollok walls in which all brick are on edge except the through headers used for bonding purposes; 8" and 12½" all-rollok walls in Flemish bond in which even the header brick are laid on edge and create a Flemish bond pattern on the exterior face; 8" and two types of 12½" rollok-back walls in which the outer withe is of brick laid flat in common bond and

the inner withe or withes are of brick laid on edge. The difference between standard and heavy-duty construction is indicated in the diagrams.

Barrier Walls consist of two independent withes of brick separated by an air space and transversely bonded by rigid metal wall ties imbedded in the horizontal mortar joints. This type of construction has been developed with the primary objective of having a continuous air space between the inner and outer surfaces to increase insulation value and, in some instances, to permit plastering directly on the inner face of the wall with a minimum likelihood of dampness penetrating to the plaster through the outer surfaces.

Two types of barrier or cavity wall construction may be used. One employs brick laid flat in both withes with a central air space of approximately 2" to form a 9½" wall. The other has one

BRICK MASONRY—2—Walls and Foundations

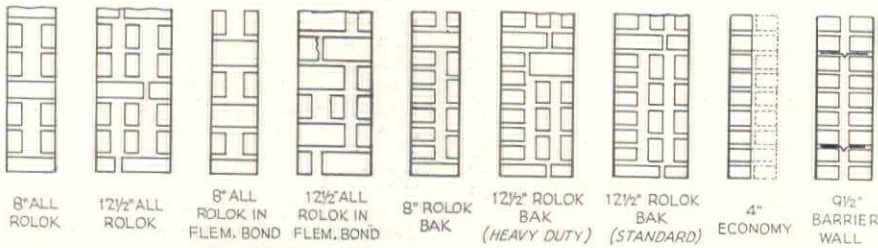


FIG. 2—TYPES OF HOLLOW WALLS

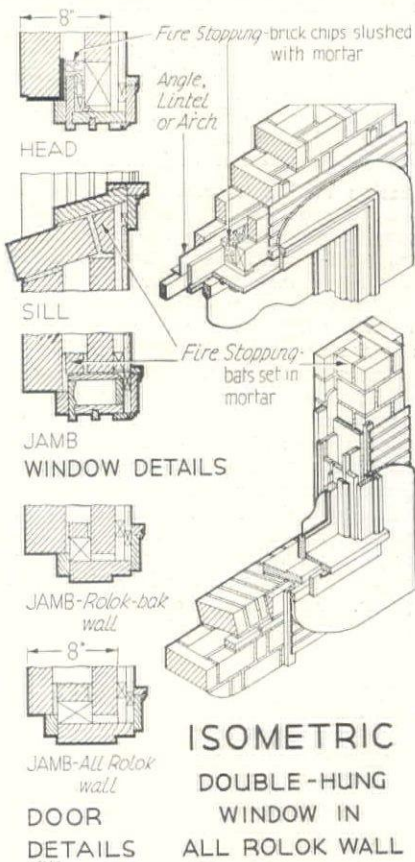


FIG. 3—ROLOK WALLS

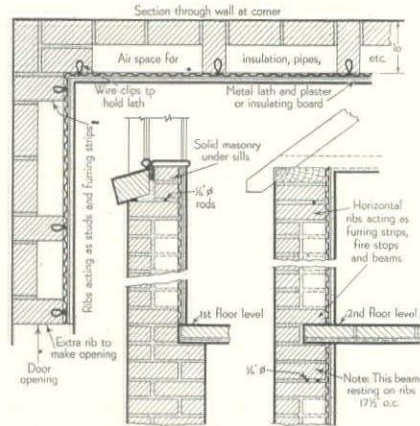
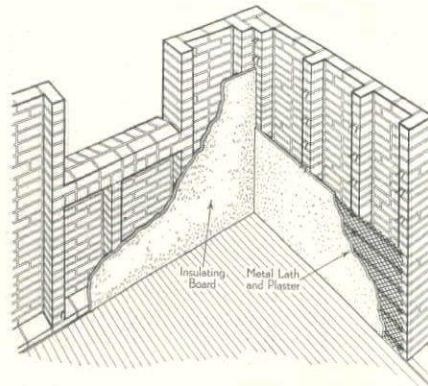
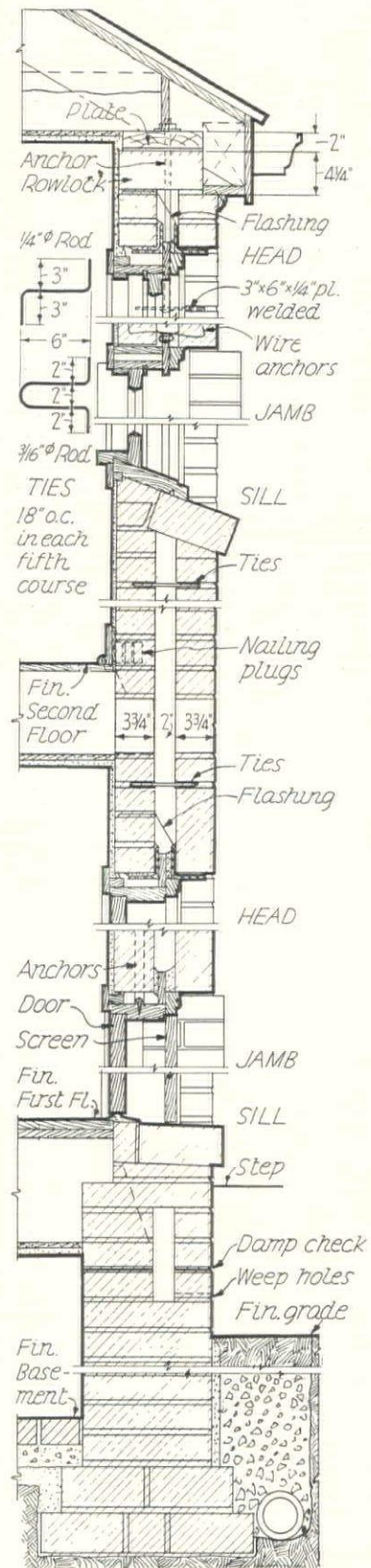


FIG. 4—ECONOMY WALLS



**FIG 5
9 1/2\"/>**

withe of brick laid flat and one with brick laid on edge, generally employing a 2" air space to create a wall having an overall thickness of 8".

In both cases bond is effected by Z- or U-shaped metal tie rods as shown in the details at the right. Tests indicate that this type of construction has adequate strength to support all normal types of residences of not over two stories and parapet height.

Care must be taken during construction of cavity walls to keep mortar from dropping into the air space and filling the lower end of the cavity. Dampproofing courses must be included at the foundation and roof levels, and at all window and door heads and sill levels. This dampproofing course normally must be laid in alternating courses so as to pitch any water within the cavity toward the outside wall where weep holes may be provided.

Ribbed or Economy Walls consist of a single withe of brick laid flat in common bond reinforced vertically by 8" piers

formed of headers. The ribs thus created serve as furring strips to which wire lath or structural insulating board may be attached to receive plaster on the inner face. Details of construction are shown in Fig. 4. Note that foundations are carried up as solid construction and that piers are thickened where necessary to support concentrated floor loads. This construction is suitable for garages, bungalows and other 1 or 1 1/2 story buildings where local building ordinances permit.

Openings in Hollow Walls may be detailed substantially as shown in Fig. 3. Standard door and window casings and trim are normally employed, backed by fillers of brick or blocking to close off the hollow space and to form the necessary nailing points.

The details and recommendations presented herewith were supplied by Brick Manufacturers Association of America, Cleveland, Ohio. This organization has supplementary literature available to architects on request.

REINFORCED BRICK MASONRY—Design and Tables

PROPERTIES AND USES

Reinforced brick masonry is a structural medium of particular usefulness where brick textures, bonds and characteristic joint work are desired on exposed surfaces, or where the relatively light weight of reinforced brickwork and its structural economy offer advantages over heavier masonry of equivalent strength. In normal building services, reinforced brick masonry finds advantageous use in floors (especially for porches, stoops, balconies and rooms where exposed brickwork is desired); in beams and lintels supporting other brickwork; for columns and piers; arches and domes; for retaining walls; and for circular structures such as silos, towers, storage bins, chimneys, sewers and conduits.

Properly designed, reinforced brick masonry combines the characteristics of reinforced concrete with the durability, appearance values, and weathering qualities of brickwork. It requires horizontal forms, which need not be watertight.

MATERIALS

As in all structural design, the ultimate strength and total weight of reinforced brick masonry is governed by the properties of the elements employed.

Brick. Any standard well-burned brick, normally suitable for construction work, may be employed. Minimum requirements are: Compressive strength, 2,000 lbs. per square inch for average of five tests; modulus of rupture, individual minimum 300 lbs., average of five tests 450 lbs.; absorption determined by full immersion in water for 24 hours, 70 F, individual minimum 4%, individual maximum 20%, average of five tests not to

exceed 16%. These requirements correspond to grade M of Federal Specification SS-B-656, grade B of A.S.T.M. Standard Specification C62-30, or grade MW of the tentative A.S.T.M. Specification C62-37T.

Mortar mix ordinarily satisfactory for RBM. contains (by weight): 1 part highly plastic lime putty, 5 parts Portland cement, 15 parts well graded sand. Volume equivalents are approximately: 1:4½:16. Prepare lime putty according to manufacturer's directions at least 24 hours (preferably 21 days) before using. Mix cement and water, add lime putty and sand and mix thoroughly. Allow mortar to stand 30 to 45 minutes before working again and using.

Grout. It is recommended that grout be used wherever possible in interior vertical joints. This grout shall be composed of the same proportions for mortar recommended above, with the usual amount of water for normal plasticity, to which is added sufficient cement and water to produce a consistency that will flow. The additional cement and water is in the ratio of one bag of cement to six gal. of water, or 4 lb. cement to 1 qt. water.

Steel. Reinforced steel should conform to A.S.T.M. specifications according to the type of steel used, which may be concrete reinforcing bars, cold drawn steel, wire or other approved reinforcing steel, including expanded metal and welded fabrics for light slab loadings.

Testing. Whereas cylinders are tested as an indication of the compressive strength of concrete, the field test specimen for RBM is a prism, usually 8" square and approximately 25" long. The prism is built of unselected brick from the stock pile, laid horizontally as stretchers in

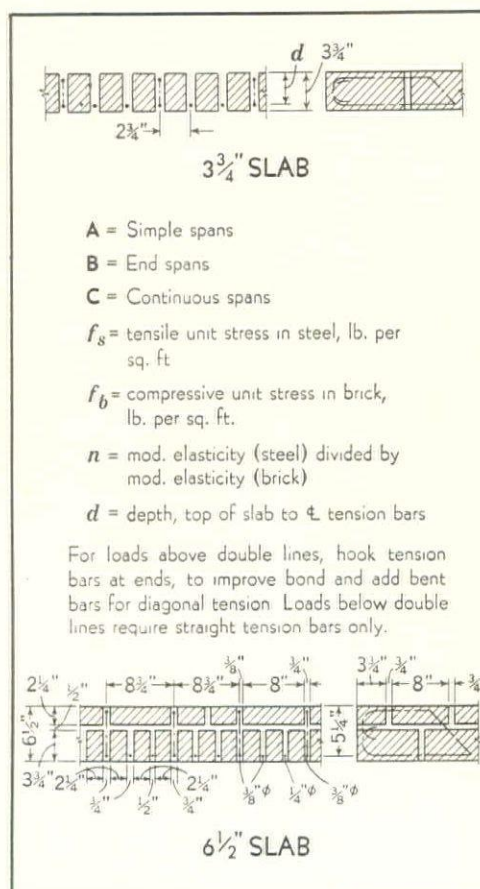
running bond in the same mortar and grout mixture used or proposed to be used. Prisms are tested in a vertical position with bricks in end compression. Average ultimate 28-day compressive strength for each set of three prisms should be not less than 2½ times allowable (design) compressive strength (f_b).

DESIGN

In general, reinforced brick masonry is designed in accordance with the same principles followed by reinforced concrete construction and follows the same theory, whereby the steel takes tensile stresses and masonry the compressive stresses: the two acting together. For complete data on theory and detailed methods of design, see "Brick Engineering, Volume III, Reinforced Brick Masonry" by Hugo Fillippi, and other literature published by the Brick Manufacturers Association of America.

Design Tables. Normal design problems encountered in building construction may be solved by the use of accompanying charts and tables. Table 1 shows safe live loads uniformly distributed for slabs 3¾" thick (one brick on edge) with reinforcement in one direction. Table 2 shows safe live loads for a slab 6½" thick.

Conservative values for the compressive strength of masonry (f_b) have been used with three values for the tensile strength of steel (f_s). The loads indicated above the double lines will require hooked ends for bond and bars bent up for diagonal tension, as indicated on the sketch. Slabs designed as continuous will require additional rods near the top for negative moment over intermediate supports. The weight of reinforced brick masonry is taken as 125 lb. per cu. ft.



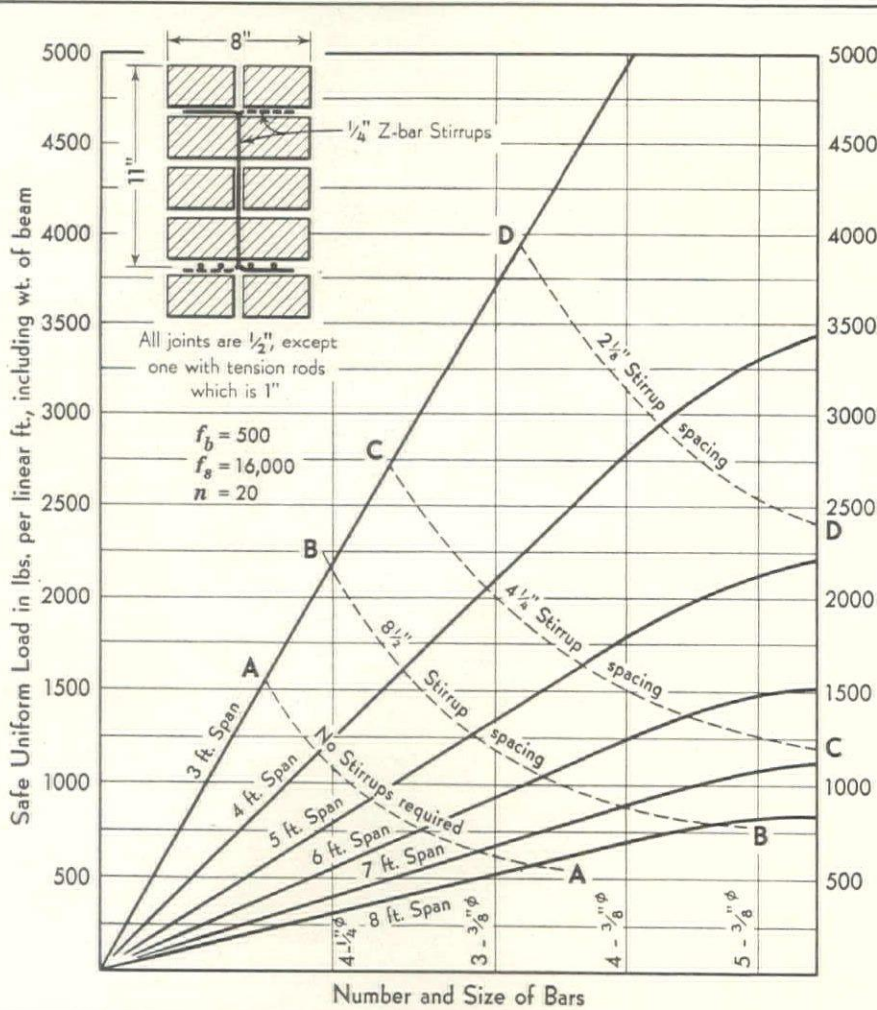
I - SAFE LOADS for R.B.M. 3¾" SLABS												
Uniform Live Loads in Lb. per Sq. Ft.												
SPAN in. ft.	$f_s = 16,000, f_b = 500$ $n = 20; d = 3"$			$f_s = 18,000, f_b = 600$ $n = 18; d = 3"$			$f_s = 20,000, f_b = 700$ $n = 15; d = 3"$			$f_s = 18,000, f_b = 600$ $n = 18; d = 2¾"$		
	A	B	C	A	B	C	A	B	C	A	B	C
3	620	790	950	700	890	1080				620	780	940
4	330	425	500	380	480	590	430	550	670	330	420	490
5	200	260	320	230	295	365	260	340	410	200	250	300
6	125	165	200	145	195	240	170	220	275	125	160	200
7	80	100	140	95	130	150	115	150	180	80	100	130
8	50	75	100	65	90	115	79	105	135	50	75	100
9				43	65	85	54	75	100			
10				28	45	60	36	54	73			

II - SAFE LOADS for R.B.M. 6½" SLABS												
Uniform Live Loads in Lb. per Sq. Ft.												
SPAN in. ft.	$f_b = 500; n = 20$ $f_s = 16,000$			$f_b = 600; n = 18$ $f_s = 18,000$			$f_b = 700; n = 18$ $f_s = 20,000$			CANTILEVER (Section inverted Steel near top)		
	A	B	C	A	B	C	A	B	C	Span	$f_b = 500$ $f_s = 16,000$ $n = 20$	$f_b = 600$ $f_s = 18,000$ $n = 18$
5	650	830	1000	745	950	1150	875	1050	1300			
6	425	550	675	490	630	775	565	720	875			
7	300	350	475	345	440	550	400	500	625			
8	210	275	300	245	320	375	280	375	450			
9	150	195	250	190	250	310	210	280	350			
10	110	150	200	145	180	230	160	215	270	4'	210	245
11	80	115	150	100	140	180	120	160	200	4'-6"	150	180
12	55	85	115	75	110	145	90	125	160	5'	110	135
13	39	65	90	50	80	110	65	100	135	6'	80	100
14	24	45	70	35	60	85	45	75	105	6'-6"	55	70

REINFORCED BRICK MASONRY—Design and Tables

OCTOBER 1937

III - 8" x 14" R.B.M. BEAMS AND LINTELS, 5 Courses Deep



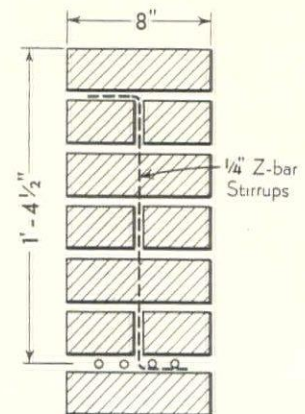
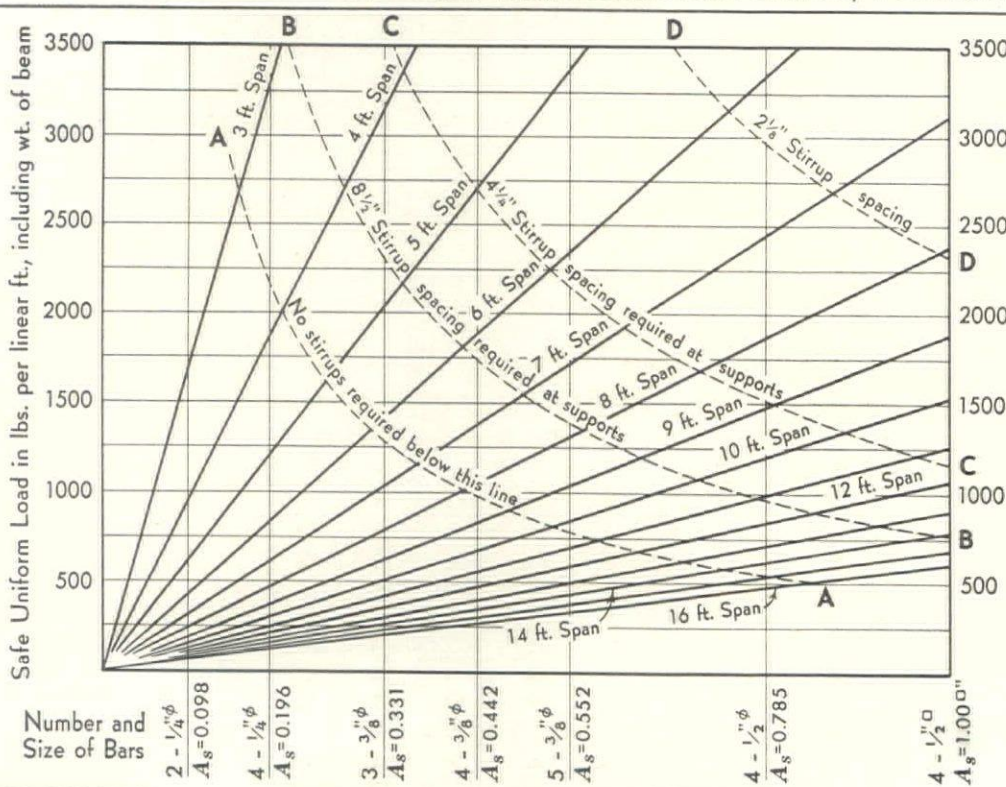
Design of Beams. Chart Nos. III and IV show safe loads for two sizes of R.B.M. beams: 8" x 14" and 8" x 19", for spans ranging from 3 to 16 feet. Beam sizes are nominal and will vary slightly with number of brick courses and thicknesses of joints. Stirrups (1/4" and 3/8" round) in either Z or U shape are used to overcome diagonal tension. These are usually spaced 8 1/2" and 4 1/4" on center to fit into mortar joints. Stirrups may be closer, breaking header brick if necessary.

The charts show the stirrup spacing required for various loads. No stirrups are required below line A-A. If the design load comes between two lines, use the smaller spacing, placing the first stirrup half this spacing from the support and gradually increasing the spacing, not to exceed half the depth of beam. The distance from the support at which no stirrups are necessary may be determined from the chart. For example, assume a span of 7 ft. with a total uniform load of 1700 lb./ft. including weight of beam. Using Chart IV, it is noted that five 3/8" round bars are required and the minimum stirrup spacing had better be made 4 1/4" as indicated by line C-C. The distance from O to line C-C (OC) represents half the span (1/2)

and $\frac{1}{2} \times \frac{CA}{OC}$ is the distance from the support at which no stirrups are necessary. At a distance $\frac{1}{2} \times \frac{CB}{OC}$ from the support, the stirrup space may be increased to 8 1/2".

All data contained herein have been supplied by the Brick Manufacturers Association of America, Cleveland, Ohio. Tables and charts have been copyrighted.

IV - 8" x 19" R.B.M. BEAMS AND LINTELS, 7 Courses Deep



Normal joints allow 4 1/4" and 8 1/2" spacing. For closer spacing, break headers and group two or more in the 4 3/4" space. Bottom joint is 1", all others 1/2"

$f_b = 600$
 $f_s = 16,000$
 $n = 18$

BOOKS FOR THE ARCHITECT'S LIBRARY

Note: Readers desiring to secure copies of any publications mentioned below are advised to have their local bookseller obtain them, or write to the publisher, either directly or in care of AMERICAN ARCHITECT AND ARCHITECTURE

THREE HUNDRED YEARS OF FRENCH ARCHITECTURE, 1494-1794.

By Sir Reginald Blomfield. 130 pages, 6 by 8 $\frac{1}{4}$ inches. Illustrations from photographs. Printed in Great Britain. London: 1937: Alexander Maclehose & Co. Available in America from The Macmillan Co. \$3.

Sir Reginald has attempted many formidable tasks in his architectural writings, but perhaps none so staggering as this particular section of French architecture. To crowd into one hundred thirty pages the history of Blois, Fontainebleau, Chenonceaux, the Trianon, Vaux-le-Vicomte, and a host of other such architectural achievements, required balanced knowledge and discrimination that few other than Sir Reginald could have brought to the task. The work is intended, of course, for the general reader, Sir Reginald having himself produced his four volume "History of French Architecture," covering the more technical details.

SHEET COPPER. 130 pages, 8 $\frac{1}{2}$ by 11 inches. Illustrations from drawings and photographs. Flexible board binding. New York: 1937: Copper & Brass Research Association.

A handbook for architects and sheet metal workers, dealing with the application of sheet copper in the construction of buildings. This is a second edition, superseding previous handbooks on the subject, such as the various editions of "Copper Roofings" and "Copper Flashings." The information is compactly presented, the detail drawings well adapted to the architect's purpose, and there are added specifications in the various branches which have been prepared from a background of wide experience. Practically everything that an architect would need to know about copper in construction is to be found between these covers.

CURRENT DEVELOPMENTS IN HOUSING. 286 pages, 6 $\frac{1}{4}$ by 9 $\frac{1}{4}$ inches. Illustrations from diagrams. Philadelphia: 1937: The American Academy of Political and Social Science. \$2.50, cloth; \$2.00, paper.

The March 1937 issue of *The Annals* of The American Academy of Political and Social Science is given over to this subject. It is a broad survey of housing problems chiefly in our own land, but also abroad. Many of the well known names among writers and other authorities on housing are found herein attached to some particular phase of the subject: Newman, Vinton, Lewis, Holden, Colean, Wood, Woodbury, Ihlder, among others.

AIR CONDITIONING IN THE HOME. By Elmer Torok. 296 pages, 6 by 9 inches. Illustrations from graphs and diagrams. New York: 1937: The Industrial Press. \$3.

The author has attempted the rather difficult task of making a book that will serve not only the architects and engineers, but the home owner as well. Naturally, therefore, the text and general manner of presentation are rather more informal and less condensed than in the usual exposition of a technical subject.

HOUSING OFFICIALS' YEARBOOK, 1937. Edited by Coleman Woodbury. 212 pages, 6 by 9 inches. Chicago: 1937: National Association of Housing Officials. \$3.

Under the editorship of Coleman Woodbury, this yearbook is rapidly gaining recognition as the official annual survey of our progress toward better housing. With the torrential flow of articles, surveys, opinions on the subject

of housing, an authoritative annual survey of this kind particularly useful. Among those who have contributed are Gray, McDonald, Fahey, Alexander, Longan, Bauer, Blouk, Maslen, Augur, and others, as well as Coleman Woodbury. In addition to a valuable glossary of housing terms, there again included a directory of housing agencies—federal, state, national, and municipal.

ACCELERATED WEATHERING TESTS OF MINERAL-SURFACE ASPHALT SHINGLES. By Hubert R. Snoke and Braxton Gallup. Research paper RP1002. 28 pages, 6 by 9 $\frac{1}{2}$ inches. Illustrations from photographs. Pamphlet binding. Washington, D. C.: 1937: United States Department of Commerce. 10 cents.

THE END OF DEMOCRACY. By Ralph Adams Cram. 262 pages, 6 by 9 inches. Boston: 1937: Marshall Jones Company. \$3.

Dr. Cram is always provocative in his writing, and certainly no less so when he steps outside of his profession and surveys the present social and political framework. The basis of this most interesting volume is an examination of the fundamental question, "Is it possible, with an unlimited privilege of the ballot, to achieve a progressive and stable government?" We think today of the universal ballot as the foundation stone of democracy. It was not thus when our Republic was founded, for the franchise was limited to men of property—those, who, it was assumed, had a superior intelligence which would make for the better government of all.

A GUIDE TO ESTHETICS. By Aram Torossian. 344 pages, 6 by 9 inches. Illustrated with three or four photographs. Stanford University, Calif.: 1937: Stanford University Press. \$3.25.

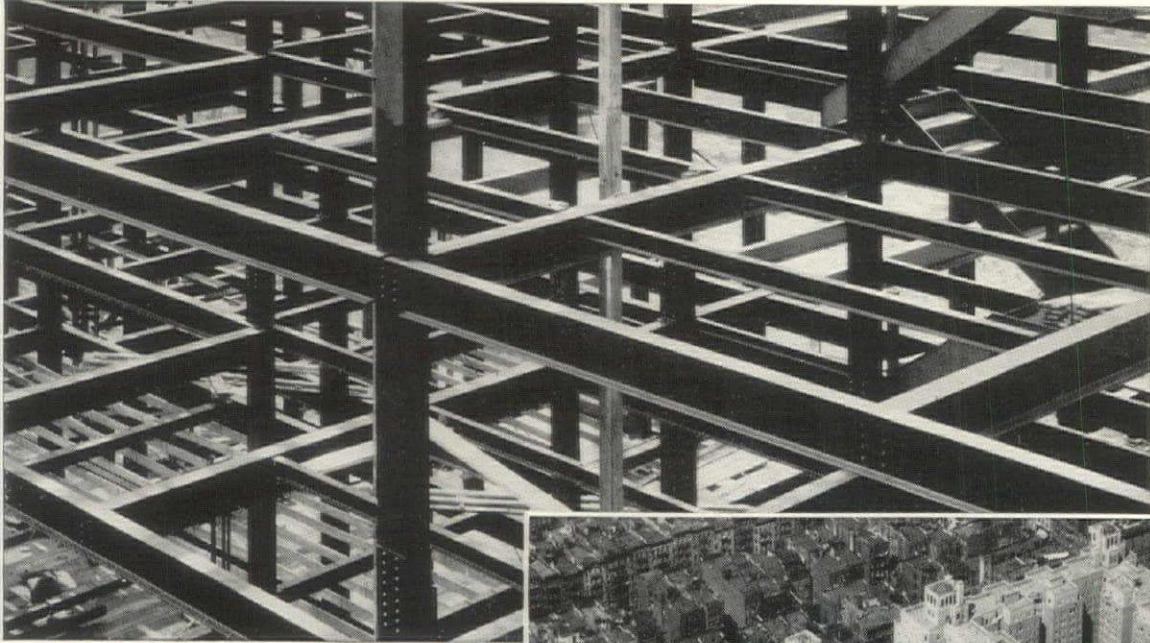
A penetrating analysis of why we think of an object as beautiful or ugly. The author, who is assistant professor of architecture at the University of California, is not content with this, however, but discusses with great erudition the means to develop an intelligent appreciation and enjoyment of art in its many forms, including, of course, the mother of the arts, architecture. An excellent text book for instruction in esthetics and art appreciation, the work should also serve to help the general reader to a larger analysis of esthetics, and incidentally, to a wider knowledge of the many phases and comparative values of various methods of art expression.

THE NEW ARCHITECTURE IN MEXICO. By Esther Born. 144 pages, 9 by 12 inches. Illustrations from photographs and plans. New York: 1937: The Architectural Record. \$3.50.

There is a new approach to the subject here. Mrs. Born, the wife of Ernest Born, architect, and a trained and gifted photographer in her own right, looks at the new architecture in Mexico, not with the eyes of an archaeologist or an architectural stylist, but with the eyes of one who is interested in the social and creative aspects of a new movement. For Mexico unquestionably has awakened, and has tackled with a new vigor the building to meet twentieth century needs by twentieth century methods. The book touches also upon contemporary painting and sculpture. In view of what is apparently an impending stampede of architects and students to the country south of us, Mrs. Born's book should form a valuable aid in pointing out some of the more important things that should be seen there.

WICK TEST FOR EFFLORESCENCE OF BUILDING BRICK. By John W. McBurney and Douglas E. Parsons. Research paper RP1011. 8 pages, 6 by 9 $\frac{1}{2}$ inches. Illustrated with a photograph. Pamphlet binding. Washington, D. C.: 1937: United States Department of Commerce. 5 cents.

Basis OF DESIGN FOR ECONOMY



**where live loads
are light**



Knickerbocker Village, in New York City. John S. Van Wart, *Architect*; Alexander D. Crosett, *Engineer*; Fred F. French Company, *General Contractors*; Harris Structural Steel Company, *Fabricators*.

WHEREVER live load ratings are relatively low, Bethlehem Light Sections open the way to definite economies in the use of steel in floor construction. A typical example of their effective use is found in the floor beams of Knickerbocker Village in New York. In this installation their strength and dimensions made it possible to keep floor slabs within economical limits and materially reduce the total tonnage of steel.

Bethlehem Light Sections were developed to supplement the familiar Wide-Flange Sections and to be used wherever loads do not utilize the full capacity of regular

heavy sections of depth called for by the span. They are rolled of the same grade of steel and to essentially the same shapes as Wide-Flange Sections, with ample thickness of metal in web and flange to comply with all building code requirements. In addition to their use as floor beams, Light Sections are used effectively as columns in upper stories, as struts between columns and as purlins in roof construction.

Complete data and the advice of Bethlehem engineers on the most efficient and economical use of Bethlehem Light Sections are always available to interested architects.

BETHLEHEM STEEL COMPANY



TECHNICAL DIGEST

KEY TO PRESENTATION

Typical reference: 15 O'37:14-26 **gptv**

This indicates: Issue of October 15, 1937, pages 14 to 26, inclusive, presented according to the following key:

d—detail drawing **g**—graph **p**—plan
s—section **t**—text **v**—photo view

Accordingly, **gptv** means graph(s), plans(s), text and photographic view(s) in the article mentioned.

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COLOR

Colour Pro Domo. (Ozenfant). Architectural Review (London). Ag'37:77-80 **tv**

Application of color to mural decoration in modern architecture. Important news to some designers and critics that modern work need not restrict function to physical needs—that beauty is a function of architecture. Portable murals are advocated, a more careful use of materials, and the use of mural reliefs and tapestries. The latter are completely non-reflective without loss of coloring power.

The figure illustrations are in an unfamiliar vocabulary of form and line, lack color, and will not be pleasing to a majority. No one should fail to recognize, however, the amazing care taken to gain textural effects.

CONSTRUCTION

New York's new Building Code. (G. E. Strehan). Engineering News-Record. 19 Ag'37: 316-321 **dt**

A tabular comparison of old and new codes. History of code change and a frank critical analysis. Discusses classification of structures on basis of fire resistance, extension of fire limits, egress requirements, materials, stresses and loads, design methods, timber, steel, concrete and welded construction, administration and structural affidavits.

A number of errors are noted and the code found to have too great detail for most flexible use, although the author admits a general liberalizing effect.

Foundations of steel-framed structures. (S. K. Jordan). The Builder (London). 16 JI'37:46 **pst**

Part II—Underpinning methods and procedure with timber, mass and reinforced concrete.

23 JI'37:163 **dst** Part III—Retaining walls: reinforced concrete cantilever type.

30 JI'37:205 **st** Part IV—Walings of concrete cast in place.

6 Ag'37:248-251 **pst** Part V—Steel-framed cantilever retaining wall; steel-framed strutted retaining wall; grillage foundations, tanking (waterproofing) of basements.

Plywood houses. (R. E. Sangster). American Builder. Ag'37:69-71, 118, 120 **dptv**

Plywood in place of conventional sheathing, rough floors and wall finish. Method will eventually use shop-fabricated story-height panels for all openings with plain wall sections filled in on job. A 2x4 is run around the top to tie wall together. Panels on both sides of wall are butt-jointed and glued over 1/4-inch plywood strips attached to studs. There is a construction outline or brief specification for houses which are built according to this system.

Reinforced concrete houses. Journal Royal Institute of British Architects (London). 17 JI'37:901-909 **ptv**

An examination of the technique of reinforced concrete design (not structural) illustrated by two recent English houses. The author classifies all construction as either (1) Solid continuous wall structure supporting beams and floor slabs; (2) framed construction with panel filling; or (3) post and panel construction. This third type is claimed a logical expression of reinforced concrete. A fourth type, arched construction, is now in disuse.

Intelligent arguments are given for the third method, based on the peculiar advantages of the type of supports, foundations, flat roofs. The changed esthetic conception necessary to understand and to appreciate these houses is very ably developed.

The Lane concrete-rib wall. The Federal Architect. JI'37:47, 58 **dt**

An ingenious insulating and damp-resisting, patented construction of poured concrete or precast units consisting of a thin wall with vertical reinforced ribs inside and out, staggered to give structural strength and to avoid solid concrete through the wall. Exterior veneer and interior finish make a wall with double voids which permit passage of pipes and conduits and which may be filled with loose insulation.

Consolidating concrete by vibration. The Builder (London). 16 JI'37:48 **t**

The introduction of reinforcement made concrete placing more difficult. Use of wetter mixes to increase workability is "reason why the increase in the strength of concrete during the past thirty years has not kept pace with the improvements in the strength of cement."

Electric or pneumatic vibrators clamped to forms or inserted in concrete have proved successful in helping to place stiff mixes. It is important not to use a mix which is too wet, to avoid segregation.

One of the advantages of vibration is

the creation of a skin of mortar on surface, next to the forms, providing waterproof skin and a smooth surface which can be easily cleaned. Vibration should be stopped, however, before too much mortar is brought to the surface.

Placing concrete by means of mechanical vibration. South African Builder (Johannesburg). JI'37:41, 69 **tv**

The many types now used include Spud, Spade, Platform, Table, Form Brators, and Vibrator Screed. Portable units may be used also for finishing concrete or terrazzo, sawing, post drilling or pumping with different attachments already available. Vibration frequencies range from 3000 to 9000 per minute. Power can be furnished by gasoline, electric or compressed air equipment.

Reinforced brickwork. (Clay Products Technical Bur. Report). South African Builder (Johannesburg). JI'37:25, 27, 29 **tv**

Brief historical note. Factors in structural design include the attainment of bond between brick face and mortar adequate to resist some amount of diagonal tension and shear. Grout has been found to develop a good bond—with stiff mortars the bond has been seen to depend upon the suction of the brick. One result is that second-hand brick is not desirable for this kind of construction.

It is claimed that even a thin layer of rich mortar will prevent dangerous corrosion of steel.

Only simple forms are necessary for beams and slabs, and none for walls and columns. No expensive plant is required and ordinary masons quickly learn the work. Curing requires 3-14 days. Average weight of reinforced brick per cubic foot is 10-15% less than of the reinforced concrete.

There is additional technical data in the article.

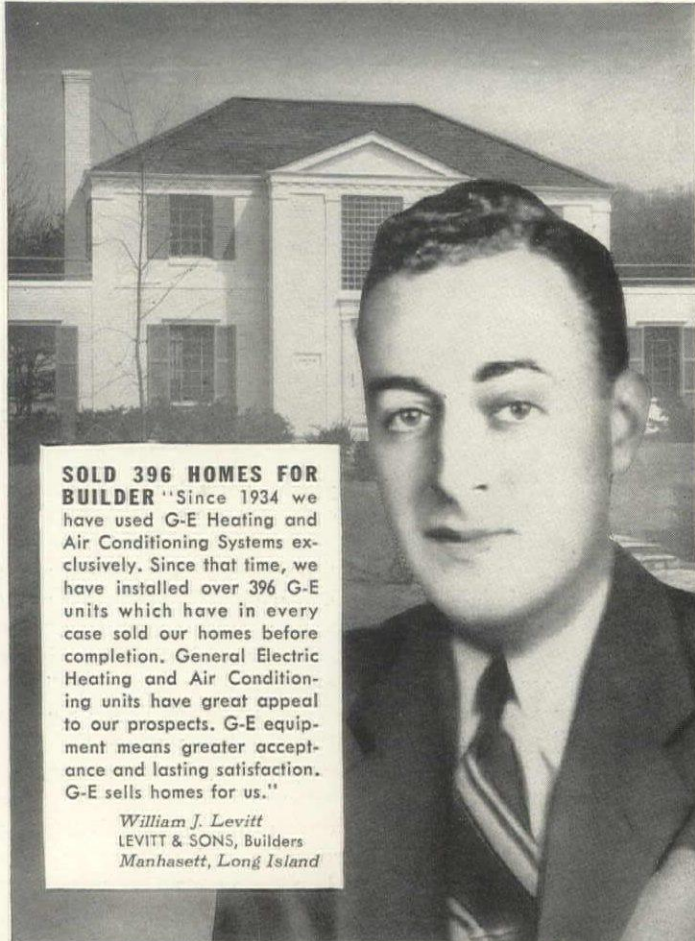
Brick school built earthquake resistant. (C. H. Fork). Engineering News-Record. Ag'37:227-229 **dtv**

Reinforced brick construction was used in this new Los Angeles school to meet California seismic requirement for lateral resistance ($g/10$). The longitudinal walls are designed as vertical beams (for transverse horizontal force) and floor slabs as horizontal girders carrying accumulated forces to transverse walls which function as vertical cantilevers transferring accumulated lateral forces to ground.

Exterior and interior walls are 13-inch brick, floors and roof of tin-pan concrete construction with 3-inch slabs. Three brick shapes were used to permit the placing of rods and grout: (1) standard brick; (2) 3/4, or L-shaped brick (to p

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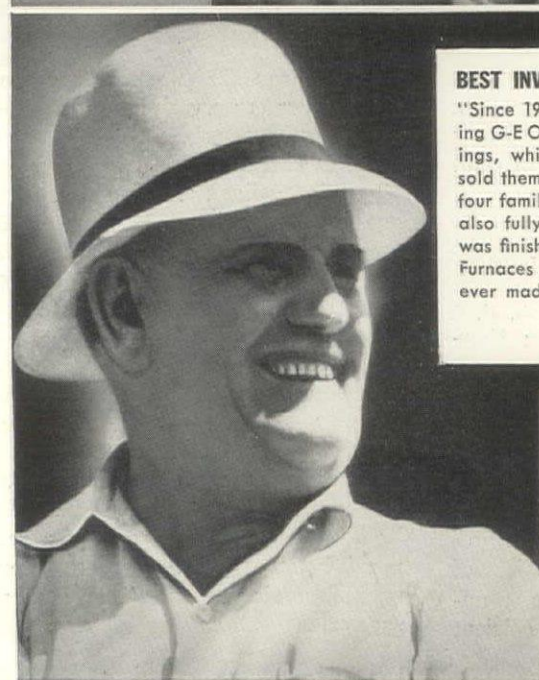
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vertical rods); and (3) 1/2, or long and narrow brick (to pass horizontal rods). Special methods of pouring grout and making forms were used, steel being set completely for each tier before brick.

Data are included on mortar proportions, absorption and strength.

Monolithic brick houses. (A. W. Luse). *American Builder*. Ag'37:80, 82, 84 †v

Reinforced brick panels, 4 inches thick, fabricated horizontally in a form with sand bottom, are now being used for residential walls, partitions and floor slabs. This article gives progress photo views of this new type of construction for low-cost houses. No studs or backing up are required since these units are load bearing and self-supporting. Wiring, etc., is run in steel I-pans, 4 inches deep. Corners of the structure are made by dove-tailing brick panels.

ELECTRICAL WORK & LIGHTING

Old No. 14—Our sacred cow! (E. Whitehorn). *Electrical Contracting*. Ag'37:10-11 †

For more than 50 years No. 14 gauge wire has been standard practice for residential work and most other jobs. This breezy article shows the unfortunate results of this tradition. Modern accessories make increasingly greater demands, and this inadequate wiring causes home-made extensions, disuse of accessories and fewer purchases of new ones because they are slow or inconvenient.

Voltage drop appears and all equipment becomes inefficient. A drop of 10 volts, and it is claimed there are many such, causes 15% loss of actual money paid for current used to heat wire!

In 1915 the average annual residential consumption was 260 Kwhr. In 1925, 398. Today, 743 and going up. Use No. 12 regularly in branch circuits!

Problems of modern lighting. (G. V. Downer). *Architect & Building News* (London). 16 JI'37:86 †

Light and the Architect, Part I—Discusses reflection, color and gives a few general notes on illumination of offices.

23 JI'37:115 † Part II—Indirect light, distribution, diffusion and intensity.

30 JI'37:147 † Part III—Methods of obtaining satisfactory illumination: The artificial daylight (skylight), much improved by modern glasses and equipment; the artificial window; and panel or beam lighting. In the latter type it is claimed that a panel 6-9 inches wide and 3-12 feet long can be evenly lighted throughout its length with a single lamp. Improved cornice or cove lighting and several other methods are also described.

6 Ag'37:179 † Part IV—Concluding installment. Modern methods for commercial and industrial buildings.

HEATING

Smoky chimneys. (Abridgment of a 1796 essay by Sir Benjamin Thompson, Count Rumford—notes by A. F. Duffon). *The Builder* (London). 23 JI'37:144-147 †st

An apparently sound technical article recommending, among other features, a 4-inch chimney throat, splayed fireplace sides with the width of the back 1/3 the width of the opening, sufficient depth from wall face to back of fireplace, horizontal smoke shelf above throat, smooth interior finish and rounded internal angle at top of fireplace opening.

Rumford claimed to have cured over 500 smoky chimneys and his recommendations have been tested recently with success in more than 100 cases by the British Building Research Station.

Factors in the selection of an oil burner. (A. H. Senner). *Heating & Ventilating*. Ag'37:55-57 †

Abstract from recent Dep't. of Agriculture Circular No. 406.

At least 1/5 gallon of oil per hour will be required for each 100 sq. ft. hot water radiation, and 1/3 gallon for each 100 sq. ft. steam radiation, during severest weather, without providing for domestic hot water. This gives a clue to maximum capacity of burner required (not seasonal oil consumption).

Gun, vertical rotary, pot and other types must be considered in relation to boiler used. Vertical rotary burners work best in round boilers. Pot or gun is less limited by fire pot shape but vertical rotary or pot types are more efficient in many types of boilers which are short in flue travel. Guns are easier to build, install and service. Removability is important to permit coal firing if service is interrupted. Quiet action, gas and electric service requirements, maintenance and service reliability are all important considerations.

Steam traps and their characteristics. (T. N. Adlam). *Heating & Ventilating*. Ag'37:51-54 †st

Part II—Float and bucket traps.

Operation of typical float and thermostatic traps, capacity, traps for industrial work. Operation of inverted bucket traps and vertical open top bucket traps.

MATERIALS AND FINISHES

Plastic flow in concrete. (R. E. Davis, H. E. Davis & E. H. Brown). *Engineering News-Record*. 29 JI'37: 180-182 †

Abstract of an A. S. T. M. Convention paper on this rather mysterious property of concrete—gradually increasing deformation under sustained load—by some believed closely related to shrinkage. It is still impossible to calculate or to predict accurately in advance the effect of this action which sometimes is not undesirable, making possible more efficient

use of steel and perhaps a better distribution of stress. The paper summarizes scope of studies of the subject, gives data on long-time stress changes, aggregate-cement and water-cement ratios, flow-tension and compression (former greater at first), effect of different cements (low heat types have greater flow), final formation of cracks and effects of thermal stresses.

Excerpts from Bureau of Standards Circular on Plastering Materials. *The Plastering Craft*. 15 JI'37:10-12 †

Detailed description of properties, general actions and reactions of plastering materials. Lime, gypsum, portland cement, Keene's cement, sand, fiber and water. References are made to the respective A. S. T. M. specifications.

Paint protection against corrosion. (P. Scholberg). *Architects' Journal* (London). 5 JI'37:39-40 †

Mention of a new paint, called "Rust Eater," evolved by Thomas Parsons, reputable British manufacturer, which is claimed to "digest the rust present on a surface and convert it into part of a protective film"—a dark blue which turns black. Four-year tests of single corrosion showed no trace of corrosion.

Atmospheric corrosion and electrolytic action. (P. Scholberg). *Architects' Journal* (London). 5 Ag'37:238-239 †

Good brief note on corrosion and electrolysis of metals. Table listing metals in order of resistance: Silver, copper, nickel, tin, iron, lead, zinc, aluminum. Theoretically, a metal preceding another in this order will accelerate the corrosion of the latter when the two are in contact in presence of moisture. Sometimes, however, the corroding metal forms a protective surface film. The typical protective and non-protective films formed on these metals are very concisely described.

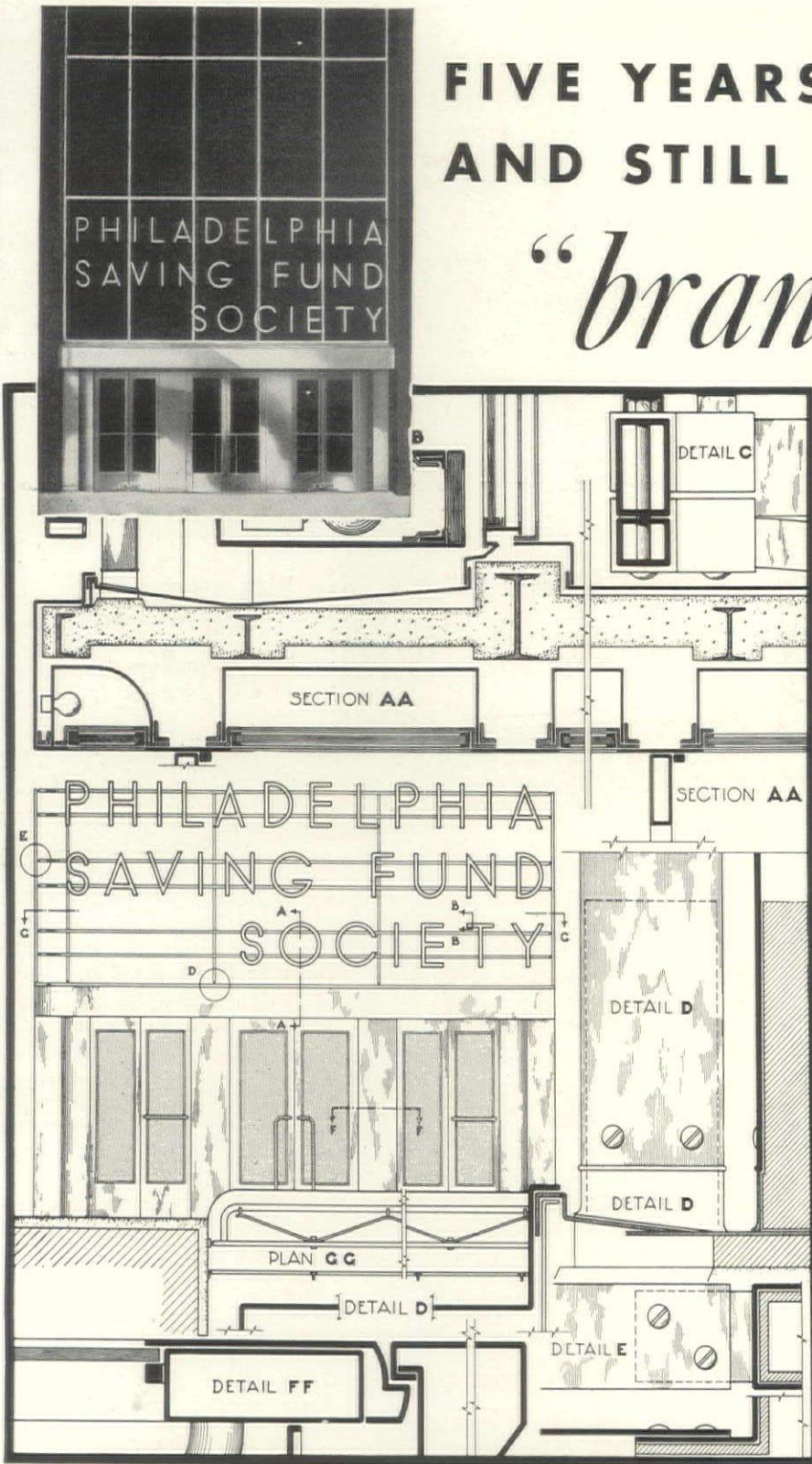
Building with treated lumber. *Building Trends*. JI'37:12-17 †dv

Wood can be pressure-impregnated with proper preservatives which also prevent termite attack. It is claimed that termites cause annual repair charges of 40 million dollars, and that decay loss is one-fifth of yearly cut of lumber. There are 56 species of termites, both subterranean and non-subterranean, the former being most common. Decay is caused by a fungoid organism.

To be effective a pressure injection must be poisonous to both decay fungi and to wood-destroying insects. Surface coatings are not effective. Vacuum and high air pressures (100 to 200 lb/sq. in.) and temperatures above 150° F., followed by kiln seasoning, are parts of a recommended process. There are two general methods used: pressure-cresote and pressure salt. (Continued on page 12)

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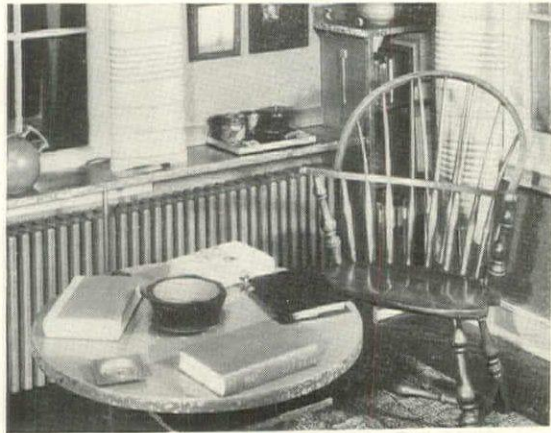
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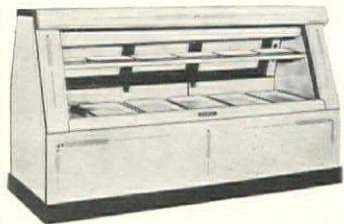
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TECHNIQUES

METHODS . . . MATERIALS . . . RESEARCH PRACTICES

REFRIGERATED DISPLAY CASE

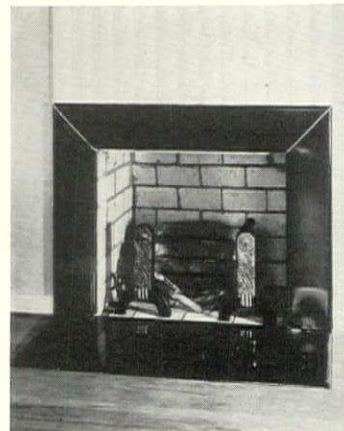
A new seven-foot display case has been added to the line of refrigerated units manufactured by Norge Division, Borg-Warner Corporation, Detroit, for use in grocery and delicatessen stores, meat markets, and other commercial establishments. Exterior construction is of white vitreous porcelain on special enameling iron, black vitreous porcelain edging and kick plate. Display glass section is of 1/4" plate triple glass, rubber sealed to prevent fogging. Service doors are of moulded hard rubber, finger tip sliding on hard rubber track, equipped with three plates of 1/4" plate glass. Interior construction is also of white vitreous porcelain on special enameling iron. Bottom of storage compartment is of acid-resisting vitreous porcelain. Display platters are 3/4" deep. Top shelf is equipped with six 8 1/2 x 12" platters, and lower shelf with six 12 x 23 1/2" platters. Accessible through two large service drawers, a storage compartment with gross capacity of 12.9 cu. ft. is located below display section. Display section is equipped with six bulbs mounted in front of glass, protected by one-piece porcelain guard reflector. A 1/3 hp. Norge Rollator condensing unit is flexibly mounted in machine compartment on lower right hand side of case. Standard electrical equipment is furnished for alternating current, 110 volt, 60 cycle, single phase.



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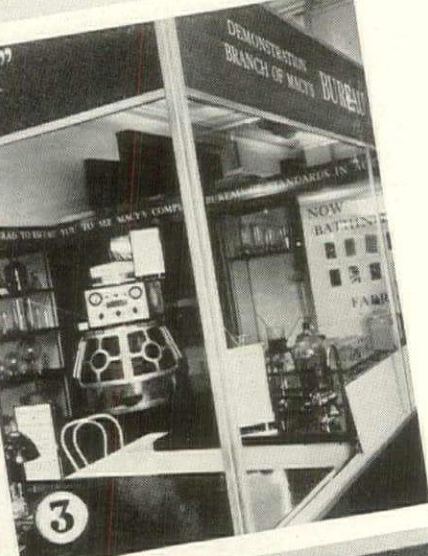
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REVIEW

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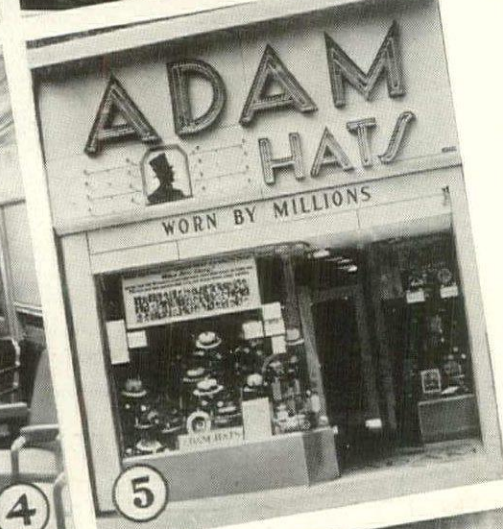
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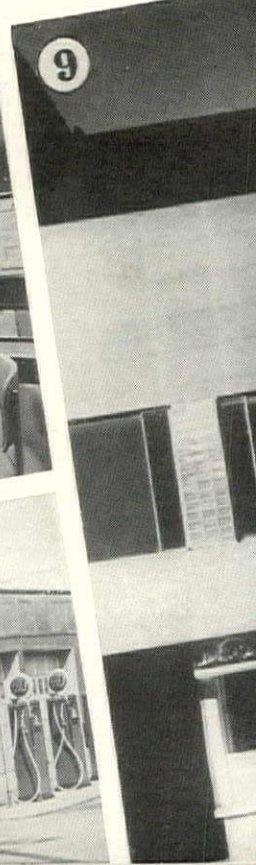
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KEY TO PICTURES 1. Manhattan Laundry Company Building, Washington, D. C. Architect: Bedford Brown IV, 3428 N. Glebe Road, Washington, D. C. **2.** Storefront for Brooklyn Edison "Wonder House," Brooklyn, N. Y. Architect: Albert Hart Hopkins, Buffalo, N. Y. **3.** Bureau of Standards Booth at R. H. Macy & Co., N. Y. City. Designed and Built by Owner. **4.** New York Central System Diner-Lounge Car. Designer: Miss F. D. Allen. **5.** Adam Hat Stores, Inc. Designer: H. Nielson Jackson, Jr., Cincinnati, O. **6.** Boston Consolidated Gas Co., Boston, Mass. Architects: Kilham, Hopkins & Greeley, Boston, Mass. **7.** Formica Exhibit Room, 101 Park Avenue, N. Y. City. Architect: F. W. Kirkland, Rome, N. Y. **8.** Gulf Gasoline Filling Station, Rome, N. Y. Architect: F. W. Kirkland, Rome, N. Y. **9.** Dog Bath Club, 144 E. 57th St., N. Y. City. Architect: Bloch & Hesse, 18 E. 41st St., N. Y. City. Architect: Wis. Architect: Ernest W. Wagener, 5112 W. Wellington St., Hancock St., Quincy, Mass. **10.** Old Colony Gas Company, Whitman, Mass. Architect: E. J. Batty, 1431 Wis. Architect: Ernest W. Wagener, 5112 W. Wellington St., Chicago, Ill. **11.** State Theatre, Rhineland, Boston, Mass. Designed and erected by Donnelley Electric & Neon Co., Boston, Mass. **12.** Store Building, Fargo, N. D. Architect: Paul W. Jones, A. I. A., Fargo, N. D. **13.** Kane's Furniture Store, Boston, Mass. **14.** Cunard White Star Line Building, Boston, Mass. Architects: Kilham, Hopkins & Greeley, Boston, Mass.

- U. S. Patents No. 1,973,795; 2,005,994; 2,012,070; 2,073,277; 2,078,278. Other Patents Pending. Canadian Patents No. 360,122; 365,123.

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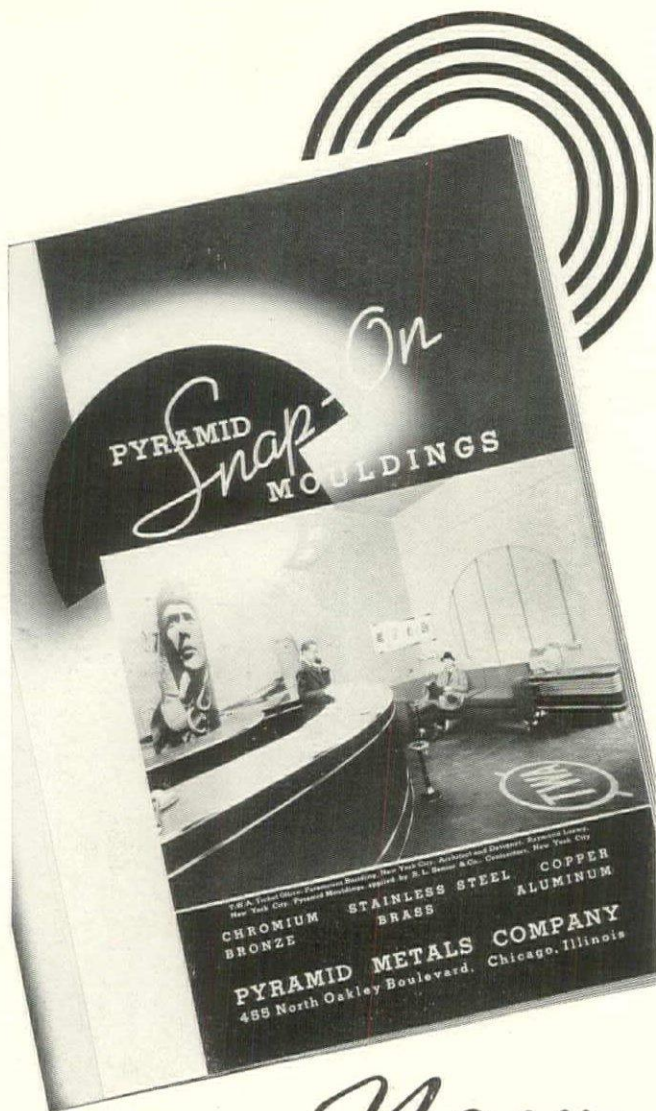


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New

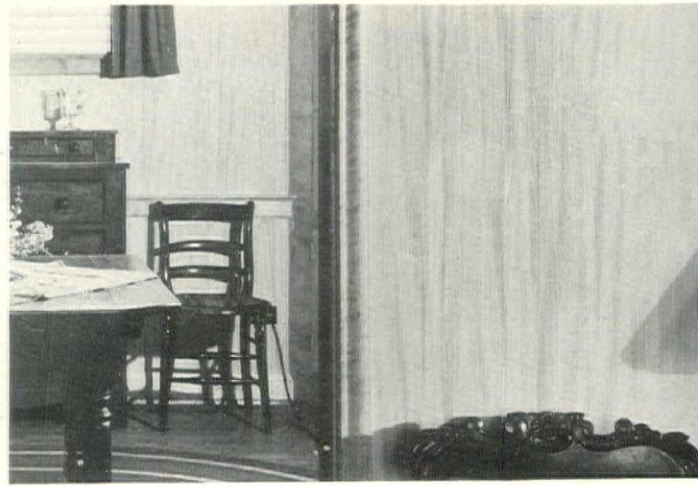
Illustrated booklet, just off the press, shows many late modern uses of Pyramid Metal Mouldings.

Pyramid Moulding patterns are reproduced in actual sizes. The easy SNAP-ON method of installation, which often affords a labor-saving of fifty per cent, is fully explained and illustrated.

Pyramid Stainless Steel Mouldings can be either Satin or Mirror finishes. Bronze, Brass and Copper are also available. There are hundreds of standard patterns and sizes.

Booklet showing many of these is FREE. Send for your copy now --- and be informed on this new, economical and modern metal moulding.

PYRAMID METALS COMPANY
460 North Oakley Boulevard, Chicago, Illinois

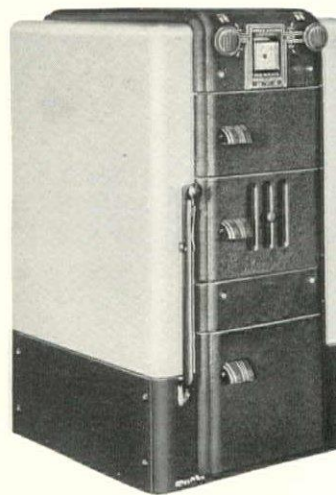


studding or furring; that it is unaffected by dampness; that it will not craze nor check; and that it remains flat in place. It can be had in twenty-one different cabinet veneers, and in widths of four feet and lengths of 4, 6, 8 and 12 feet. Carstenite was developed and patented by A. N. Carstens of Chicago, and is manufactured by Algoma Plywood & Veneer Company, Chicago.

851M

RESIDENTIAL HEATING BOILER

A new residential heating boiler for hand, stoker or oil firing has been announced by the National Radiator Corporation, Johnstown, Pa. The boiler is finished in baked enamel of Matador Red and Stygian Black. The rounded corners of the side panels and a double roll at each edge of the center front panel aid in presenting a smooth contour free from projecting instruments. Among the features of the new boiler is a foot pedal to open the ash-pit door, operating like similar equipment on refrigerators. Control knobs, operating on the radio dial principle, serve as a means of adjusting the damper regulator and smokehood damper. The control knobs are located at the front of the boiler and are co-ordinated with numbered dials which indicate the relative setting or position. There are only six parts in the grate shaking mechanism. All of the parts usually found projecting from the base front have been eliminated and the shaker handle is the only part visible from the outside. Numerous extended fingers are placed on the sides of the water legs and along the flueways, adding heating surface. The hand-fired type has a built-in domestic hot water heating coil recessed in the back section. All of the piping to the water heater is taken from the rear of the unit. Provision is made on the stoker-fired and oil-fired types for two sizes of storage and two sizes of tankless hot water heaters, together with tapping on the rear section for all controls required for automatic heating.



852M

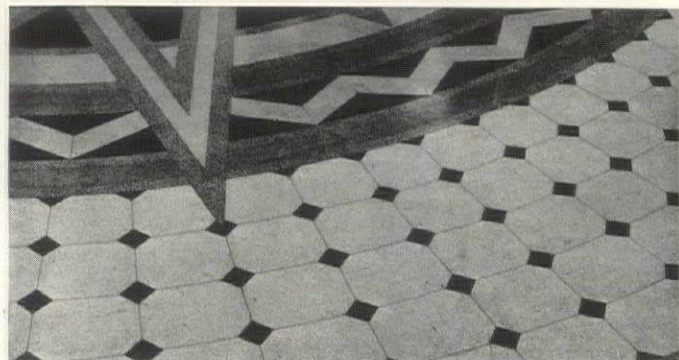
NEW ROOFING PRODUCT

A chief feature of a new roofing product, known as Republic Perfected Triple Drain Channel Roofing lies in the use of four ridges and three valleys in each channel unit. Because of this innovation, it is claimed that neither driving rain nor capillary attraction can cause leaks. A beaded channel makes a tight fit at the overlapping edge, creating a vacuum action. Any rain passing this point is carried into the center channel through the

SEE HOW *Versatile* TERRAZZO IS...



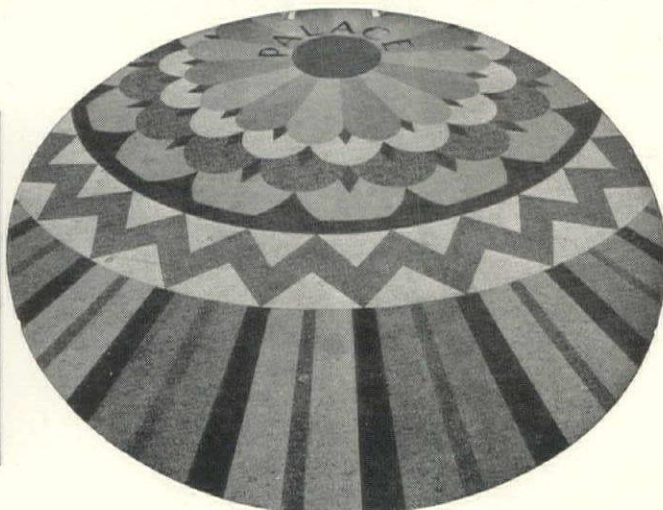
Whether it be food or flooring, good taste is essential to a restaurant. Here good taste in flooring was achieved with interesting terrazzo—beautifully designed, inviting, hard to mar, easy to keep clean.



Durability is the first order of a public floor. In this public building, terrazzo fulfilled that demand... and added rich beauty as well.



For ornamental work terrazzo performs a two-fold service—it allows free rein in creating design—it can be made to harmonize perfectly with existing decorative themes.

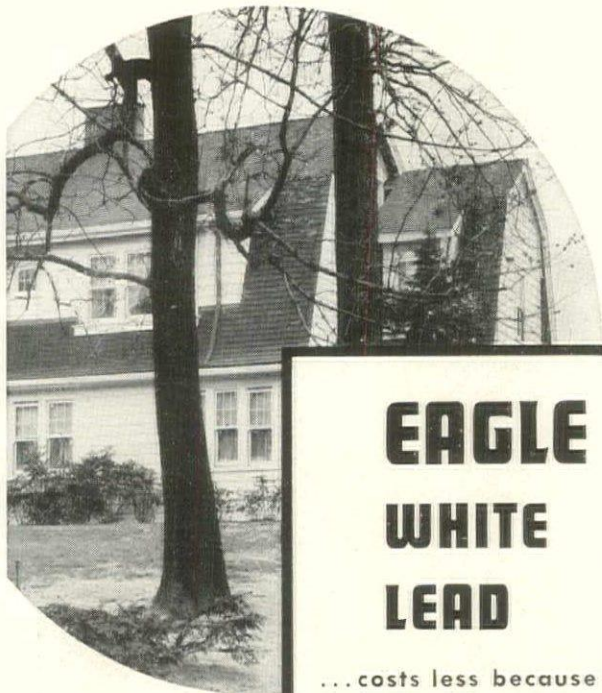


How to get a lobby floor that's attractive, that can take the constant punishment of scuffling feet, yet be easy to maintain—that was the problem of this theatre. Like thousands of other theatres, they found the answer in *terrazzo*.

★ ★

Terrazzo has the durability of marble and concrete. It is richly, *permanently* beautiful. Comparable in cost with other high-grade floorings. Inexpensive to maintain. And terrazzo allows you absolutely free rein in design and color schemes. Detailed information and established specifications for terrazzo may be obtained from The National Terrazzo and Mosaic Association, 1406 G Street, NW, Washington, D. C.

THE NATIONAL TERRAZZO AND MOSAIC ASSOCIATION



EAGLE WHITE LEAD

... costs less because it wears longer!

● When mixed with linseed oil, this chemically active pigment forms a tough, deep-anchoring, elastic paint film. Resists weathering... wears by a gradual even chalking... won't crack or scale. A safe standard specification for wood or brick.



THE EAGLE-PICHER
LEAD COMPANY
CINCINNATI



Smyser-Royer Company Cast Iron Veranda Design No. 69
White Estate, Miami, Fla.
Architect: John Mead Howells, 156 E. 46th St., N. Y. C.

SMYSER-ROYER CAST IRON VERANDAS

Smyser-Royer Cast Iron Veranda units may be combined to meet almost any required dimensions. A wide range of stock designs available.

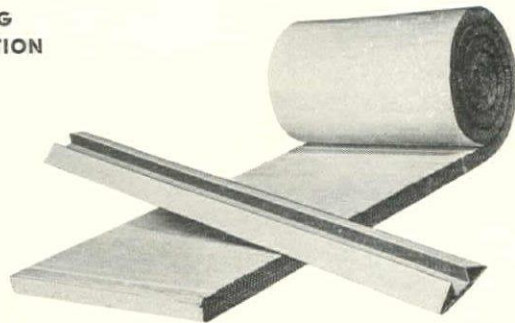
A new catalogue will gladly be furnished on request. Write Smyser-Royer Company, York, Pa. Philadelphia Office, Architects' Building, 17th & Sansom Sts.

SMYSER-ROYER COMPANY

action of gravity. For convenience, the proper area for nailing this new roofing is indicated clearly by blue lines on each sheet. It is available in three types of metal—steel, copper-bearing steel and Toncan Iron. It is furnished in 26, 28 or 29 gauge and lengths ranging from 5 to 12 feet with a covering width of 48 inches. Triple Drain Channel Roofing is a new product of Republic Steel Corporation, Cleveland, Ohio.

853

BUILDING INSULATION



Based on the principle of producing an insulation combining the largest relative volume of confined, non-circulating air with the least possible proportion of solid materials, the new Ideal Building Insulation manufactured by The Hinde & Dauch Paper Company, Sandusky, Ohio, contains only 5% solids by volume and 95% confined, non-circulating air. It is purely mechanical structure. A chemically pure all-kraft paper of great density and extreme thinness is used to make an air-cell type material that may be worked as other building materials. It is held in place by edging strips tacked to joists and rafters. Radiation is stopped by being overcome by interposing a number of plain sheets in the heat path as barriers to the passage of heat rays; convection is stopped by the proper spacing of the barrier sheets—all air movement is stopped with a structure of about ten barrier spaces one inch thickness; conduction is reduced to a minimum by use of air-cell structure requiring less than 5 per cent solids by volume, and use of strong, dense materials. Tested at a maximum temperature of 75 F°, this insulating material is said to possess a thermal conductivity less than 0.260 Btu per sq. ft. per inch thickness per degree F per hour.

854

INTERCOMMUNICATION SYSTEM

A new intercommunication system, known as the "Handy-Phone" has been developed by the General Electric radio division in Bridgeport, Conn. Essentially a loudspeaker phone system, the new apparatus is designed for use in offices, hospitals, stores, homes or any similar place where speedy voice communication is desired. The system consists of one master station and from one to four remote speaker-phone stations. The latter may be located at any points within 2000 feet of the master unit, or at greater distance with special arrangements. An individual at the master station may have two-way conversations with any of the remote stations, may speak to all of them at one time. He merely turns a five-point selector switch to the desired position, presses down the "talk-listen" control lever and speaks. When he is ready for his answer, he releases the lever and it automatically returns to the "listen" position. Remote stations may talk back to the master station without the operator using hands, switches or keys. The stations are housed in walnut veneer cabinets. The system operates on either a.c. or d.c., 115-125 volts; 25, 50 or 60 cycles.



855

Erection or relocation of Transite Walls is a completely dry process, accomplished with remarkably little dirt, disturbance, cost. Concealed steel holding devices and studs provide a framework virtually as enduring as Transite itself.



MOST MODERN OF OFFICE PARTITIONS A PERMANENT WALL THAT CAN BE MOVED

WITH TRANSITE, a material of time-established durability, engineers devised an ingenious construction method and developed the first truly modern office partition.

In effect, it is a permanent wall that can be moved. Transite—an asbesto-cement product—is inherently proof against fire, rot and deterioration. Permanent and sound-resistant, Transite Walls offer the solidity and privacy of fixed walls. Yet, by virtue of a simple construction method and conveniently handled standard-width sheets, any change in layout—or even complete relocation—is accomplished quickly, economically, and with 100% salvage!

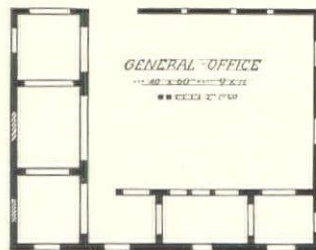
Moreover, the flush, projection-free

surfaces of Transite Walls are admirably adaptable to any decorative scheme or type of finish. Lacquers, paints, wood veneers, fabrics or any other treatment can be readily applied.

Here, then, is a partition adaptable to every modern office layout or service . . . to any revision in construction. As a result, Transite Walls enable the architect to plan intelligently today—and to anticipate future changes or expansion with an economy heretofore unknown.

The story in full will interest you. A Transite Walls brochure, giving product and structural data, and also a list of the many installations made to date, will be sent on request. Simply write Johns-Manville, 22 E. 40th St., New York, N.Y.

When Transite Walls are used to partition off private offices from general service areas, one side can be finished to suit any decorative scheme called for, while the other side, facing the service space, can be treated in as simple a manner as desired.



**STADIUM FINISHED 6 WEEKS SOONER
'INCOR' SAVED \$9400 ON FORMS ALONE**

**24-HOUR CEMENT USED IN L.S.U. STADIUM
5-STORY DORMITORY UNDER GRANDSTAND**

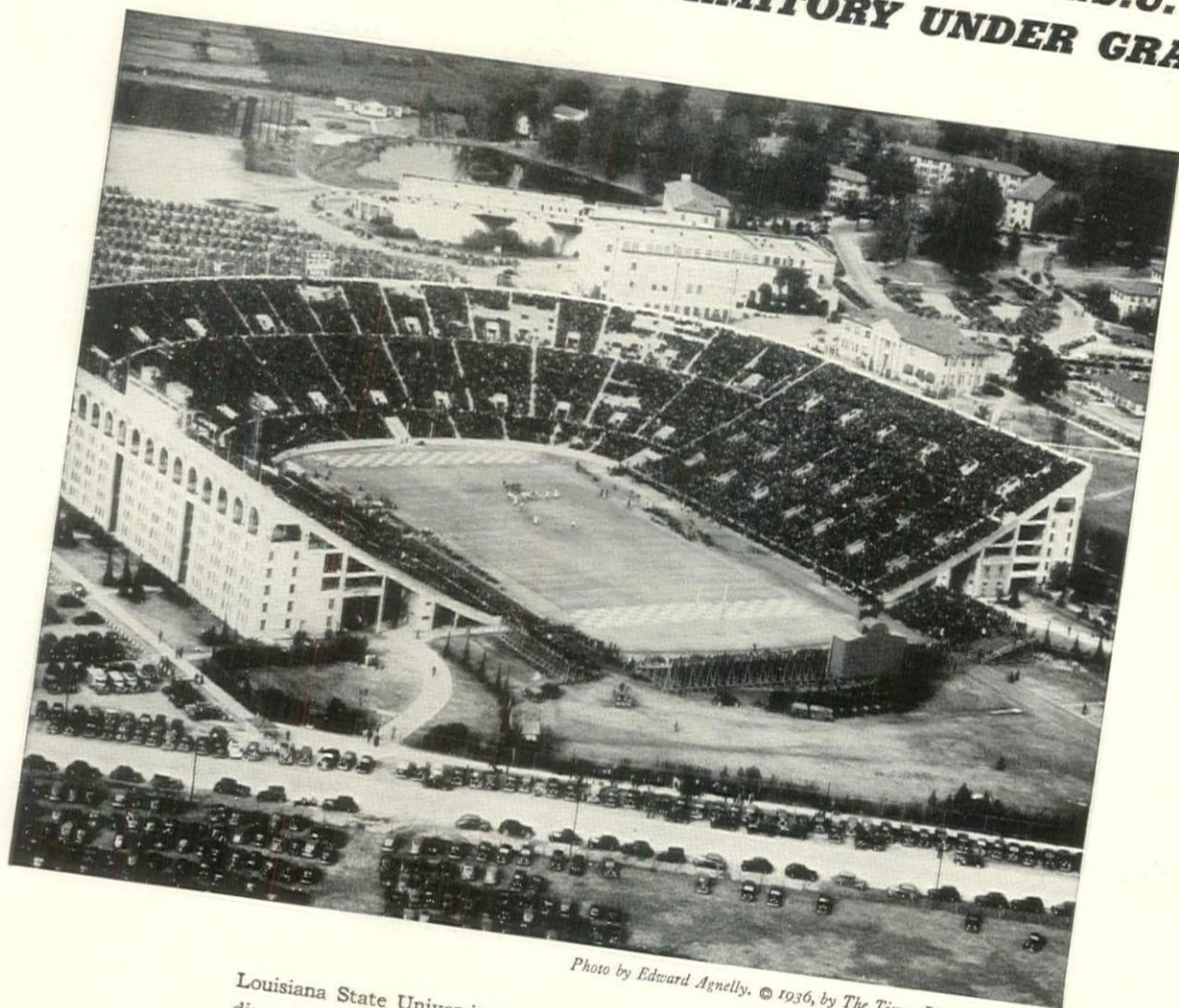


Photo by Edward Agnelly. © 1936, by The Times-Picayune Publ. Co.

Louisiana State University's new Baton Rouge stadium is a profitable structure. The concrete grandstand, seating 46,000, roofs a 5-story dormitory housing 1,000 students in 499 rooms; yearly rental, \$108,000. Designed by Weiss, Dreyfous & Seiferth, architects, New Orleans, the stadium was erected with W.P.A. labor, under supervision of George A. Caldwell, of L.S.U. Preliminary plans indicated completion by last New Year's Day. By using 'Incor' 24-Hour Cement, the stadium was ready for big game Thanksgiving Day—6 weeks saved. Reason:

'Incor' is self-supporting 5 times as fast. You fill forms with concrete one day, strip them the next. That speeds completion, reduces form costs—forms are used over and over again, fewer forms needed.

On L. S. U. stadium, for example, 'Incor' saved

\$9400 on form material alone. Not to mention 6 weeks saved on contractor's fixed costs or overhead. Figuring time at a nominal \$50 a day, 6 weeks saved means \$2100.

And, in winter, 'Incor' cuts heating costs, because it is safe from freezing days sooner. On 5 jobs recently surveyed, 'Incor' saved 45¢ to \$1.22 a cu. yd. of concrete.

Savings like these, on large jobs and small, suggest that architects encourage contractors to figure every job two ways—with both Lone Star and 'Incor'. Use 'Incor'* if it saves money; if not, use Lone Star. You gain either way, because better cement makes better concrete. Write for book, "Cutting Building Costs." Lone Star Cement Corporation, Room 2245, 342 Madison Ave., New York. *Reg. U. S. Pat. Off.

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

AMERICAN ARCHITECT AND ARCHITECTURE, OCTOBER 1937

14 Story Bank Building Completely Air Conditioned

WITHOUT INTERRUPTING BUSINESS

Skillful Installation of
Carrier System Prevents Loss
of Single Day's Activities

Carrier Air Conditioning



① NO "YOUNGSTER," the Whitney National Bank Building in New Orleans was erected 27 years ago—in 1910. Two years ago the owners decided to install Carrier Air Conditioning, and, thanks to Carrier Technique, the complete job was done without inconvenience to the bank or its rental tenants.

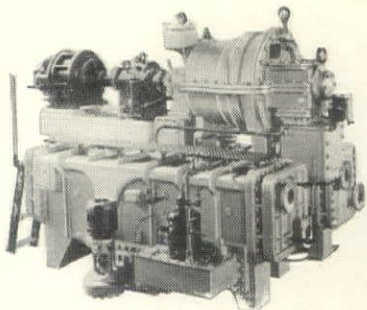
② WHILE THE CITY SLEPT, ductwork to carry the conditioned air was put in place, covered with metal lathing preparatory to plastering. Each morning, the workmen were gone—and with them all traces of construction debris.

Let Carrier Solve YOUR Problems

● Planning to air condition an office building? A theatre? A hotel? A residence? Any enclosed space? Then call Carrier—no matter how large or small the job may be.

For Carrier, through devoting 35 years exclusively to air conditioning—through making countless installations in 99 countries of the world—has developed a technique that saves you time, saves you money, and assures lasting satisfaction with the completed job. Take Blauner's retail store in Philadelphia, for example. There the architect was faced with the problem of providing air conditioning for eight separate buildings—each with varying ceiling and floor levels—from a central plant. Carrier solved the problem. In Cleveland, air conditioning was required for the 12th floor of a building where the water supply was limited by old-fashioned water mains. Again Carrier provided the answer. And the files are filled with such examples.

There's no obligation involved in enlisting the assistance of your Carrier representative. Why not call him today?



④ MACHINES LIKE THIS — Carrier Centrifugal Compressors, provide the necessary refrigeration and work in connection with a Carrier Central Dehumidifier. This equipment was also installed without interference to daily business.



③ COMPLETED, the offices look like this—all ductwork concealed, with merely an attractive grill to indicate where the cool, clean, properly humidified air enters the room. More than 1,400 such outlets were used throughout the building.

CARRIER CORPORATION, Desk 525
Syracuse, New York

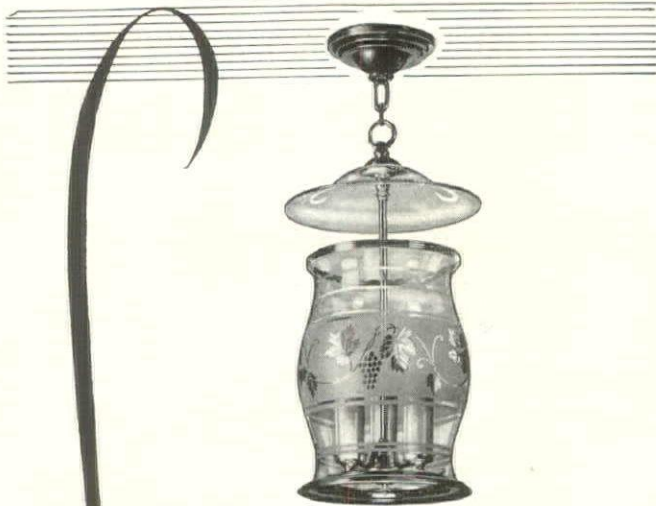
Without obligation send me name
of nearest Carrier representative;
 Catalog in Sweet's.

Name.....

Company.....

Address.....

City.....



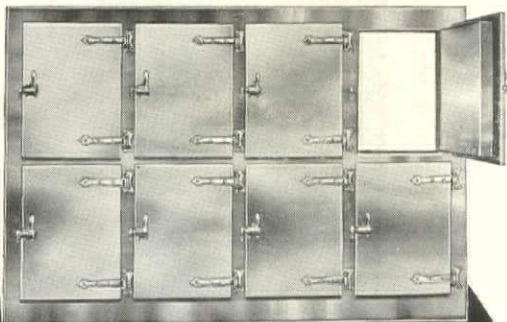
A Colonial Lantern—executed with the same care and skill as the hall for which you specify it. Modern manufacturing and distribution facilities make it possible to enjoy Lightolier fixtures at attractive prices. Plan the lighting when you're planning. Write for "The Charm of a Well Lighted Home."

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GUARDIAN of PROFITS

Refrigerator fronts in all special finishes, such as monel, chrome nickel steel, porcelain, etc.



Refrigeration plants noted for high efficiency prove every day that JAMISON-BUILT COLD STORAGE DOORS increase income by reducing outgo. Faster operation, tighter seal, modern improvements, and longer wear are the reasons... For maximum profit, specify only JAMISON-BUILT DOORS. Free bulletin on request.

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See Our Catalog in Sweet's Catalog File

UNITED STATES BUILDING AT NEW YORK WORLD'S FAIR

The Government's building at the New York World's Fair 1939, is to be designed by the Procurement Division of the Treasury Department, and Howard L. Cheney has been appointed as the designing architect. Eugene F. Savage, painter and sculptor, and a member of the Federal Commission of Fine Arts, has been appointed to design the murals and decorations. Edward H. Burdick has been appointed Director of Exhibits in the building, and it is interesting to note that Mr. Burdick is a graduate of architecture of the University of California. He was director of the exhibits in the United States Building at the Dallas Centennial, and in 1904 he was engaged in the architectural department of Chicago Century of Progress Exposition, being in charge of the design and construction of scale models.

STREET CARS FOR HOUSING

Fifteen discarded street cars are likely to be used as an emergency measure for housing as many families in Detroit. The Street Railway officials have offered to turn over the cars to the Welfare Department without cost. The Welfare Department now pays an average of twenty dollars a month to landlords housing families on the relief rolls, and it has become more and more difficult to find landlords willing to rent properties at that figure.

Partitions are to be erected in each street car, dividing the space into three or four rooms. In each car there will be installed a toilet, stove, sink, and drop leaf table. Electric lighting, water, and sewer connections will be added to each car. It is planned to establish the cars near an old public school, and the families dwelling in the cars will use the shower bath in the basement of the school. In warm weather the children could utilize the school playground. All of which is to be regarded simply as an emergency measure for the duration of the housing shortage.

AIR COOLING IN CAIRO

American science worked behind the scenes to keep King Farouk the First comfortably cool while he was being invested July 29 as the King of Independent Egypt.

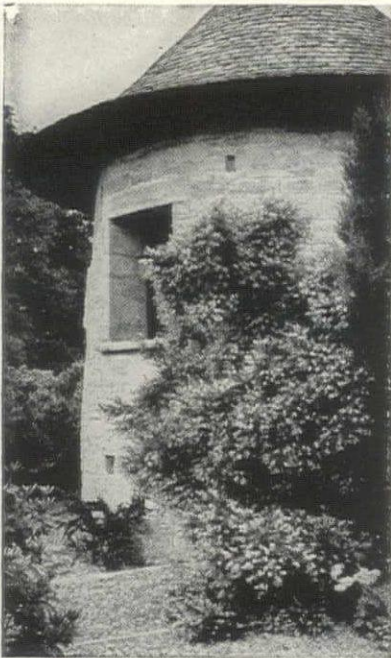
The youthful monarch took oath in the air conditioned Assembly Chamber of Parliament Hall, Cairo.

Farouk the First ordered the system so that it would be in operation for the colorful ceremony. He sent Abdel Rahman Feyed, Egyptian engineer, to study air conditioning first hand and learn how to operate the Cairo system. He returned to Cairo with Peter Gray, American engineer, and the apparatus, which has a capacity of 150 tons. The installation was rushed to completion just in time for the ceremony.

COMPETITION FOR ELEVATED HIGHWAY

The American Institute of Steel Construction sponsors a national competition to produce an improved design for an elevated vehicular highway. It is hoped that something new will be developed that will better conform to the architectural requirements of city streets.

The design competition will be open to all architects, engineers and others interested throughout the United States. For the best design a cash prize of \$5,000 will be paid. The



Garden Decoration and Ornament for Smaller Houses

by **G. A. Jellicoe**

The author, who is well known as a town-planner and designer of houses and gardens, analyzes in this profusely illustrated volume the structural features and ornaments of gardens for small country houses, suburban and town houses. *The London Times Literary Supplement* praised it for its "beautifully chosen illustrations" and spoke of it as "of a quality rare in modern garden books . . . full of stimulating ideas." *Country Life* says "it should be of great value to home and estate owners and garden lovers all over the world." \$6.00

The Supervision of Construction

by **W. W. Beach**

This book is perhaps the first comprehensive treatment of the supervision of construction to be published and is indispensable to architects, engineers, construction superintendents, technical libraries, students and all interested in architecture and engineering. Written by one of the best-known architect-engineers in the Middle West, it is an authentic, up-to-date handbook that fills a long-felt need. Within its 488 pages are included all the details of the superintendent's work; there are appendices, 20 diagrams and illustrations. \$6.00

Contents

The Duties of Superintendents
A Superintendent's Records
The First Day on the Job
Beginning the Work
Contract Changes
Foundations and Masonry Materials
Concrete Form-Work
Concrete Work
Concrete Reinforcement and Other Built-in Members
Waterproofing and Dampproofing
Finishing Concrete Surfaces
Roughing-in by Pipe Trades
Job Progress
Masonry
Terra-cotta, Cut-stone, and Pre-cast Stone
Structural Steel
Miscellaneous Metal-work
Structural Carpentry
Roofing and Sheet-metal-work
Furring, Lathing and Plastering
Marble-work and Tiling
Finish Carpentry
Finish Hardware
Glass and Glazing
Painting and Varnishing
Electric Work
Heating and Ventilating
Plumbing
Completion and Acceptance
Cost-plus Construction

C H A R L E S S C R I B N E R ' S S O N S



BUILDING A ROOM AROUND A FIREPLACE

Symbol of the hospitality of the house . . . architectural focal point of the room . . . the simple Regency mantel is perfect for the interior photographed above.

Whatever type of room you're planning you'll find the authentic mantel and accessories at Wm. H. Jackson's where the collection of antiques and reproductions has been famous for over a hundred years! Free consultation on construction problems.

Wm. H. JACKSON COMPANY

"Everything for the Fireplace"
16 East 52nd Street New York
Established 1827

STOPS OVERHEATED WATER



*Reduces
Fuel Losses*

**POWERS Hot
Water Tank Regulator**

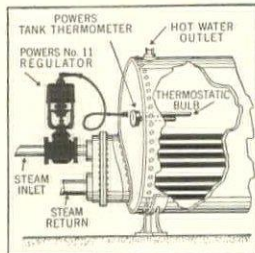
**Ends
Hot Water
Complaints**

Pays back its cost several times a year

OVERHEATED water causes complaints, wastes fuel — shortens life of valves and plumbing fixtures and increases deposit of lime in pipes. • Powers regulators will help to reduce these losses. Install them on your hot water heaters. They keep the water at the right temperature. Fuel savings alone often pay back their cost several times a year. As they usually last 10 to 15 years they pay big dividends. *Write for Bulletin 2035.*

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Offices in 45 Cities. See your phone directory. 2751 Greenview Avenue, Chicago; 231 E. 46th Street, New York City; 1808 West 8th Street, Los Angeles.
45 Years of Temperature Control

**POWERS
AUTOMATIC
WATER TEMPERATURE CONTROL**



will be a second prize of \$2,000, a third prize of \$1,000, and ten prizes of \$100 each. Only employees of the American Institute of Steel Construction may not compete.

The competition will close March 31, 1938. A jury select the prize-winning designs will consist of Harlan Bartholomew, City Planner of St. Louis; Col. Willard Chevalier, President of the American Road Builders Association; Paul P. Cret, Architect of Philadelphia; Lorain Gayton, City Engineer of Chicago; Paul G. Hoffman, President of the Studebaker Corporation; Albert Kahn, Architect of Detroit, and C. M. Pinckney, City Engineer of New York.

A program giving full details may be had upon application to the American Institute of Steel Construction, Inc., 200 Madison Avenue, New York, N. Y.

THE PRODUCERS' COUNCIL

Seven large companies have been recently admitted to membership in the Producers' Council, according to an announcement by Russell G. Creviston, president.

These companies include the International Nickel Company, National Radiator Co. of Johnstown, Pa., and The Flintkote Co. of New York, Detroit Steel Co. of Detroit, Curtis Companies of Clinton, Iowa, Gladding McBean Co. of San Francisco, and the Richmond Screw Anchor Co. of Brooklyn.

These companies bring the total membership of the Producers' Council, which is affiliated with the American Institute of Architects, to fifty-one.

EXHIBITORS ADVISORY COUNCIL

Additions to membership in the Exhibitors Advisory Council are: Bethlehem Steel Corporation, Bethlehem, Pa.—representative: S. H. Yorks, Advertising Department; General Alloys Company, 387-405 West 1st Street, Boston, Mass.—representative: H. H. Harris, president; Iron Fireman Manufacturing Company, 3170 West 106th Street, Cleveland, Ohio—representative: Dale Wylie, Sales Promotion Manager.

COMING EVENTS

The American Institute of Steel Construction will hold its Fifteenth Annual Convention at the Greenbrier Hotel, White Sulphur Springs, West Virginia, the last week in October. General business sessions will be in the mornings of October 26 to 29, inclusive, leaving afternoons free for special functions, conferences, and group meetings.


The Annual Convention, National Association of Real Estate Boards will be held in Pittsburgh, the week of October 19 to 23.

The Porcelain Enamel Institute will hold its Seventh Annual Meeting in Chicago, October 11 and 12. The Second Porcelain Enamel Institute Forum will be conducted at the Ohio State University, Columbus, Ohio, October 13, 14, and 15.

The National Metal Congress opens October 18, in Atlantic City, N. J.

OBITUARIES

Robert Waterman Gardner, architect and archaeologist, died September 7, in the Southampton Hospital, Southampton, Long Island. Major Gardner's home was at Hampton




BRIXMENT

CAN'T CAUSE

EFFLORESCENCE

IF YOU are troubled by efflorescence on your brickwork, use Brixment for mortar. ★ ★ Brixment never causes efflorescence because it is so free from soluble salts. Even when soluble salts are present in the sand or brick, the waterproofing in Brixment prevents their being brought to the surface. ★ ★ Easier to mix. Makes more plastic mortar—enables the bricklayer to do faster, neater, more economical work. *Waterproofed.* Won't fade mortar colors. Is stronger than the brick itself. One part Brixment, three parts sand, make perfect mortar for all masonry and stucco. Louisville Cement Company, *Incorporated*, Louisville, Kentucky. ★ ★



SAMSON SPOT

sash cord

Samson Spot Sash Cord has never abused the confidence of an architect, builder, dealer or user. Known for more than 40 years as the most durable material for hanging windows. Made in **one grade only** from the finest 3-ply cotton yarn, spun in our own mills. Firmly braided and smoothly finished to resist wear and stretch. Always identified by the **Colored Spots** — our trademark.

In addition to Samson Spot, we manufacture other brands of sash cord to meet all requirements for quality and price; also braided cord of all kinds and sizes including awning line, mason's line, shade cord, venetian blind cord, etc. Samples gladly sent upon request.

SAMSON CORDAGE WORKS BOSTON, MASS.

NEW!! A DRAWING PENCIL

CREATED FOR MODERN DRAFTING ROOM USE

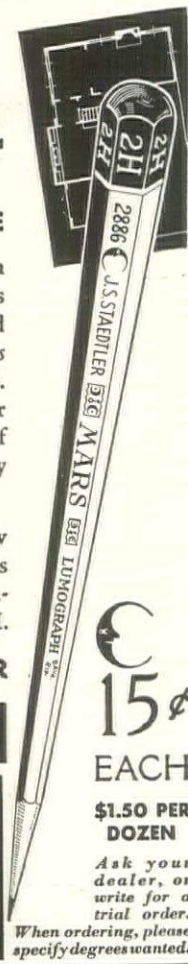
With the introduction of the Mars Lumograph Pencil, reproductions from pencil originals became universally practical. A new, patented light resisting element, *found only in Mars Lumograph*, produces sharp, clear blueprints. It is no longer necessary to make tracings, or "ink in" your finished work. The majority of your drawings can be blueprinted successfully from your Mars Lumograph originals.

Give your pencil drawings a new blueprinting strength with the Mars Lumograph pencil. There are seven true degrees, from ExExB to 7H.

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15¢ EACH

\$1.50 PER DOZEN

Ask your dealer, or write for a trial order.

When ordering, please specify degrees wanted.

Bays, Long Island, N. Y. He was born in Jackson, Miss., attended school in Buffalo, and studied architecture with Vaux & Radford, and also with Clarence Luce in New York City, from 1887 to 1891. He began his practice in New York in 1905.

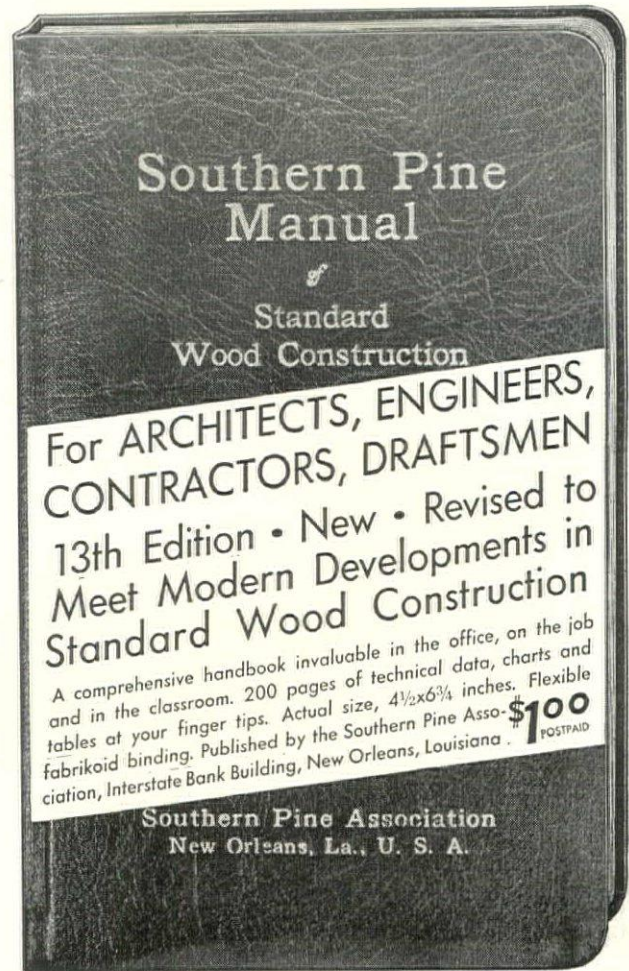
Major Gardner, who was in the Ordnance Department, U. S. Auxiliary Reserve, was known in the profession chiefly for his researches in the possible mathematical base of design in Greek architecture. Major Gardner was the author of "The Parthenon: Its Science of Forms," in which he developed the theory that the Greeks achieved their mastery of proportion solely by means of the square and compass.

Major Gardner was for a time a lecturer on reinforced concrete at New York University. He was a former president of the New York Society of Craftsmen.

OF THE OFFICES

Upon the retirement of Lois Lilley Howe, F.A.I.A., from active practice, the architectural firm of Howe, Manning & Almy has been dissolved. Miss Howe will be available for consultation at 2 Appleton Street, Cambridge, Mass. Mrs. Eleanor Manning O'Connor, A.I.A., will continue in active practice with an office at 381 Beacon Street, Boston, and Miss Mary Almy, A.I.A., will continue in active practice with an office at 101 Tremont Street, Boston.

Stanley Worth Hahn, A.I.A., announces the opening of an office for the practice of architecture in the Muskegon Building, Muskegon, Mich.



FORMICA DESK TOPS



FOR MODERN OFFICES:

IN the attractive and functionally adequate design of C. Coggsell for a modern office, Formica was used for desk tops and ledges because of its durability and the fact that it is not spotted by cigarettes or ordinary liquids.

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FORMICA FOR FURNITURE AND FIXTURES.

in the Wagner-Steagall Housing program. According to a newspaper dispatch, to receive grants under the Act for slum clearance and low-rent housing construction, cities must have "a population of more than 230,000 and less than 250,000" . . . thus excluding every big Texas city except San Antonio! Maybe it will be straightened out before operation of the Act begins.

LABOR

A bulletin has been received from the Federation of Architects, Engineers,

Chemists and Technicians relative to the third annual convention of that group in Detroit the second week in October. Because of current interest in the activities of such organizations, we quote this bulletin in full:

"An extensive national drive to organize the technical and professional men in industry throughout the country with the aid of the CIO and its international unions, will get under way at the third annual convention of the Federation of Architects, Engineers, Chemists and Technicians to be held at the Book-Cadillac Hotel, Detroit, October 7-8-9-10.

"The Federation was chartered by the CIO as the union to which technical and professional employes will belong, and through which these groups may arrange their economic adjustments with the various firms for which they work. In this way the technical professionals will be better able to work out their own problems and also to co-operate with the CIO unions.

"The Convention is significant in that it is the first to be held by a CIO union of professionals and has been made possible through the close co-operation of the CIO. During the past few months membership in the Federation has reached the 5,000 mark and the group is receiving active support from other technical groups that comprise an additional 4,000 members.

"Speakers who have been invited to the Convention include Senators Wagner and Robert La Follette, Coleman Woodburn and others. Adolph Germer, CIO Regional Director for Michigan, will represent the CIO. In addition invitations are extended to all engineering societies as well as technical men everywhere either send delegates or be present in person.

"The aims of the Federation are set forth briefly in the call to the Convention a copy of which follows."

In this the aims of the convention are stated to be:

"This call goes out in answer to the challenge of modern times, of changing trends and conditions of which the technical professions have been forced to take heed—to make new appraisals of their scientific and technological contributions of their social relationships and economic needs.

"This call is more than a call to membership alone. It is an invitation to members of the technical professions and their societies to attend a series of extraordinary convention sessions on the important questions raised by the report, June 1933 of the Sub-Committee on Technology of the National Resources Committee, appointed by President Roosevelt. These sessions, dealing with the social and economic aspects of technology, will endeavor to develop new understanding of policies and organizational forms necessary for immediate guidance and in anticipation of the future. What can the technical professions do through organized effort to secure the benefits of modern science and technology in relation to productivity and utilization of resources, human needs, employment opportunities and 'the abundant life'?

"This call is an invitation to the study of organization, of the achievements, programs and plans of technical professional men and women who have organized for economic security, for unifying their efforts with those of others to secure improved working and living conditions.

"This call marks the advance and

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"Our efforts to improve professional and economic standards in all fields have been welcomed by the co-operation of other organized groups in many professions. The solution to our problems lies in further co-operation toward our common objectives. We therefore urge that you participate in this convention, hoping that out of this initial step will grow the basis for relationships and accomplishments of mutual benefit. You are cordially invited to attend our convention, to send fraternal delegates or observers, and to invite your membership to attend the special sessions."

ROBERT MIFFLIN SENTMAN,
National President.

FAIRS

APPOINTMENT OF SCULPTORS—one of the first necessities in planning any fair—has been announced by San Francisco's Golden Gate International Exposition, which will be held in 1939 on Treasure Island.

Edgar Walter, with Olaf C. Malmquist, William G. Huff and Adelaide Kent, were chosen by Arthur Brown, Jr., head of the architectural commission, to work out decoration of the central tower, central court and its pavilions. Haig Patigan was chosen, with Ettore Cadovin and P. O. Tognelli, to carry out sculpture for the north long court, south court and gardens—designed by the late George W. Kelham. The north square court has been assigned to Ralph Stackpole, who will be assisted by Jacques Schnier, Brents Carlton, Sargent Johnson, Carl George, Adelaide Kent, Ruth Wakefield and Cecilia Graham. Selected by architect Lewis P. Hobart to adorn the east long court and east square were Walter, Schnier, Michael Von Meyer, Huff and David Slivka. Sculptors for the Temple of Music, Lake of All Nations and East towers—designed by William G. Merchant—will be Schnier, Lulu H. Braghetta, Beniamino Bufano, Von Meyer, Robert B. Howard, and Huff. Donald Macky will do sculpture — under architects Ernest E. Weihe and John Bakewell, Jr.—for the main entrance towers and ferry boat terminal. Edward L. Frick is chief of the Exposition's division of architecture.

SCHOOLS

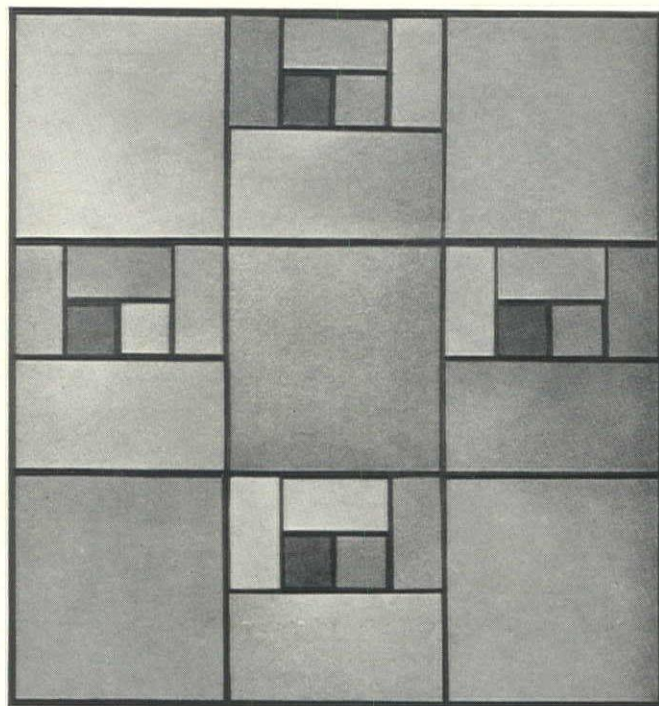
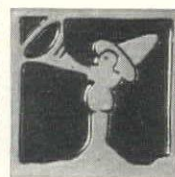
THIS BEING THE BACK-TO-SCHOOL SEASON, we have received catalogs and notices from several centers of learning which pertain to architecture and allied subjects. Having got under way the latter part of September, all these institutions are now in full swing—with the following newsworthy additions and amendments to their curricula:

The New School for Social Research, of New York City is offering quite a few extension courses having to do with architecture and art. Chief of these are:

Contemporary Housing and Rehousing, a lecture series under the chairmanship of Charles Abrams. Construction and Interiors as a Mirror of Our Times, conducted by Paul Zucker; Interior Planning, taught by Hilde Reiss; Sculpture in Wood and Stone—Jose de Creeft; and Mural Painting in Oil and Fresco, taught by Camilo Egas.

New York University is sponsoring a course in Housing by Carol Aronovici which will trace the evolution of housing, its present status in the U. S. and European experience in housing applicable to our problems.

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Abbott, Merkt & Co., Inc., well-known New York firm of Architects and Engineers, specified the Webster Moderator System for this large installation. Jarcho Brothers, Inc., of New York, acted as heating contractors under the Turner Construction Co., the general contractors. There is a total of 135,642 square feet of installed direct radiation under control.

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NYU is also conducting lecture courses at the Metropolitan Museum of Art, many of which will attract an architectural audience. The first term of these lectures began on September 23rd, the second term being scheduled to get under way February 2, 1938.

The Henry Wright Library has been established at the Federation Technical School as a "living memorial" to Henry Wright, one of America's foremost planners, and will be used as a working library by students in this department.

Columbia University announces its usual complete array of evening courses under the supervision of the University's Department of Architecture. Nineteen courses are offered, which cover Acoustics of Buildings, Air Conditioning, Building Construction, Design, Graphics, Housing Developments and Urbanism, Modern Materials and Theory of Architecture and Research.

Pratt Institute of Brooklyn is making several innovations in its school of Fine and Applied Arts. A new subject has been added to the curriculum . . . "Socio-Economic Architecture," which is being taught by Marshall Shaffer, of Washington, D. C. and New York City. A second addition to the architectural faculty is Theodore Kautzky, who will teach presentation and rendering.

The Architectural course at Pratt Institute is being extended this fall from three years to four.

TECHNICAL DIGEST

(Continued from page 102)

The latter method may employ either Wolman Salts or chromated zinc chloride. Creosote should be used only for underground timber, etc., since it is odorous and unsuitable as a base for paint. Only foundation timbers, those in contact with ground, cellar partitions, stairs, siding for 18 inches from grade, lattices, first floor joists, first sub-floor, plates and sills on masonry foundations need be treated. This means 70-80% of lumber used in average house does not need protection.

PLANNING

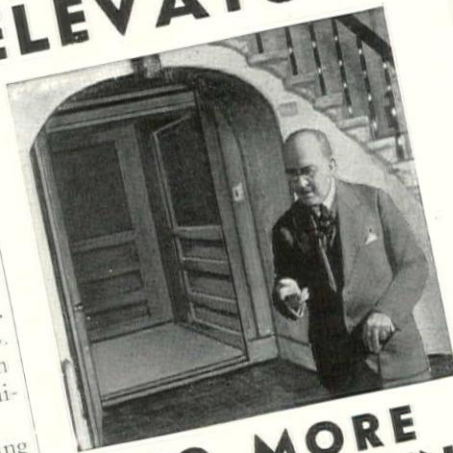
Hospitals—Reference article. (F. E. Townsend, R. L. Stubbs & B. E. Verstone). Design and Construction (London). J1'37:340-361 ptv

Descriptive analysis of examples and brief text on services adjacent to operating theaters. Views and plans of eight British hospitals and sanatoria, five operating theaters, and two foreign hospitals. Several detail photos.

Planetaria. (C. A. B. Garay). Revista de Arquitectura (Buenos Aires). Je'37:261-265 dpstv

A short reference article in Spanish giving history and development of the

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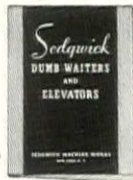


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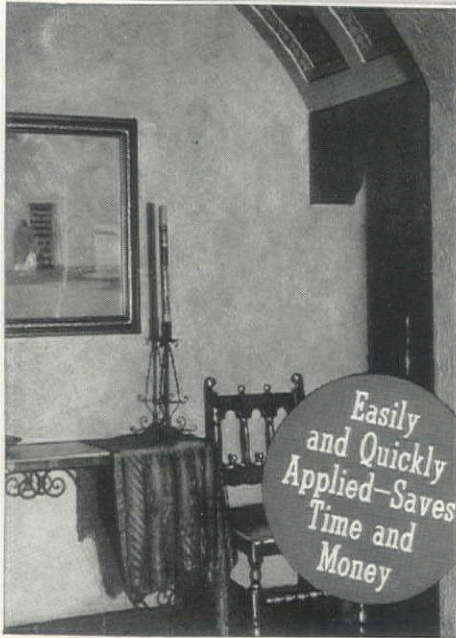
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planetarium abroad and in America. There are views and plans of several examples and a few construction details.

Recent developments in city planning and housing in the U. S. A. (R. L. Reiss, from paper). Architect & Building News. 16 JI' 37: 93-94 †

A brief survey, frank and comprehensive. Among topics discussed in a preliminary way are: government, corruption, local taxation, high buildings, residential decentralization, racial differences and individualism. The city planning and housing situation in 1932 is rightly described as "terrible." Activities during the past four and a half years are described and explained, ending with the Green Belt Town Projects.

Italian pavilion at Paris Exposition 1937. Casabella (Milan). JI'37:14-33 ptv

Includes thirty photo views of modern display methods. Lengthy Italian and French captions.

PLUMBING

Solar water heaters. Domestic Engineering. Ag'37:74-76 ds†

Widely used in California and Florida, this equipment may be designed to work by solar heat alone, or arranged to carry over spells of cloudy weather with auxiliary heating.

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Water heating. Domestic Engineering. Ag'37: 70-73, 165-167 dt

Study of safety measures in designing domestic hot water systems. Any one of three conditions, excessive temperature, pressure or vacuum, can cause failure and consequent hazard to equipment and life. Each of these is considered at length with diagrams explaining various arrangements of the piping and control of the relief devices.

Circuit or loop venting. Domestic Engineering. Ag'37:82-85 st

Diagrams and text discussing bathroom connections, crown venting, fresh air inlets, single traps, drainage fittings, peak loads and condensing tanks.

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NEXT month AMERICAN ARCHITECT AND ARCHITECTURE presents in its Unit Planning and Time-Saver Standards series a comprehensive study of the basic essentials in the design of hotel bedrooms and baths, by Jule Robert von Sternberg. The data sets forth sizes for the most economical planning, details of structure and maintenance, and the relation of a room and its bath. It discusses the 5 types of bedrooms and their individual requirements . . . heating . . . air-conditioning . . . sound-proofing . . . carpets . . . hardware . . . closet equipment . . . accessories, such as radio . . . ice water . . . door deliveries, etc. In a word, the essentials without which no architect planning a hotel can achieve a satisfactory and economical result.

ALSO IN THE NOVEMBER ISSUE OF AMERICAN ARCHITECT AND ARCHITECTURE

ARCHITECTURAL COMPETITIONS FOR PUBLIC BUILDINGS: By the Hon. Otha D. Wearin, U. S. Representative from Iowa, member of the Ways and Means Committee, one of the few men in government who has intelligently concerned himself with architecture and architects.

SYMPOSIUM ON THE WAGNER-STEAGALL BILL: Articles by the Hon. Langdon Post, Director of the New York Housing Authority; Clarence Stein, long prominent as a housing specialist; Albert Mayer, formerly associated with the Resettlement Administration; and others who have made this great need their first concern.

ARCHITECTURAL OVERTONES: Old and important monuments of Peiping.

PARIS FAIR: By Talbot Hamlin of Columbia University. A critique, illustrated by excellent photographs and sketches, of a tremendously significant architectural influence.

FLORIST SHOP: Los Angeles. Morgan, Wells, and Clement, architects. Modernism combined with Georgian tradition.

PORTFOLIO: Entrance door side-lights.

FAVORITE FEATURES: Garage doors.

AMERICAN TWIST DRILL BUILDING: Detroit. Clare W. Ditchy, architect.

A fine example of a one-story factory, with more than adequate fenestration.

DISTRIBUTING WAREHOUSE: Newark. Frank Grad & Son, architect. Well studied for storage, shipping and light.

CHICAGO DISTRICT POLICE STATION: Paul Gerhardt, Jr., architect. A fine example of a branch station adaptable for use in a smaller city.

CRIMINAL COURT AND JAIL: Knoxville, Tenn. Frank O. Barber, architect. A recent example of combination criminal court and jail.

SIX RESIDENCES in various parts of the United States, ranging from a year-around house to ocean-front week-end house; and from fieldstone to wood siding.

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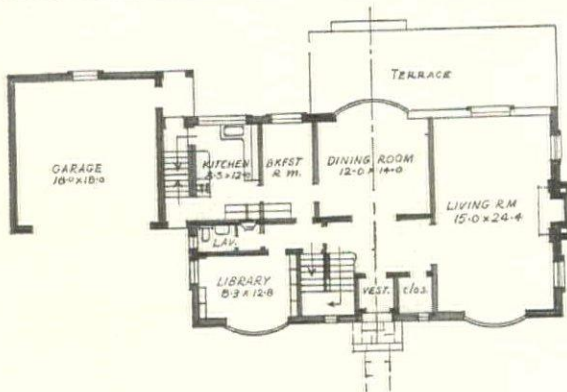
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Leaflet P. 155 gives interesting data on this process together with hints on the choice of degrees. We shall be glad to mail you a copy together with our latest illustrated catalog.

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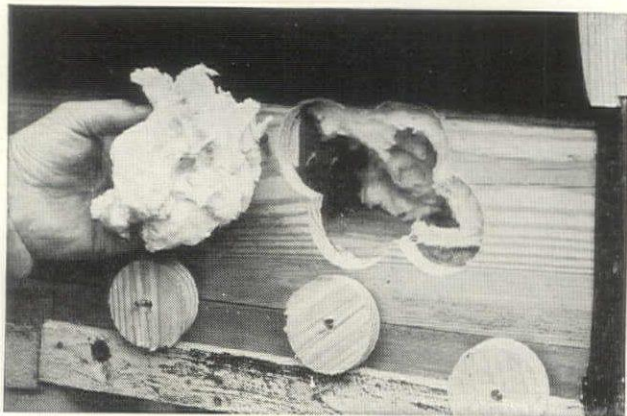
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Actually, we did more than "X-ray" these 90 houses—we performed a major operation on them. And as a result, this report reveals exactly what goes on in the walls of a house when insulated with rock wool to full wall thickness.

The report tells the interesting story of the J-M laboratory tests and then shows how they were confirmed in

the field study. It shows how we found, on opening the walls, that after one to ten years of service, the rock wool was in the same condition as when it was applied . . . the framing woodwork bright and clean.

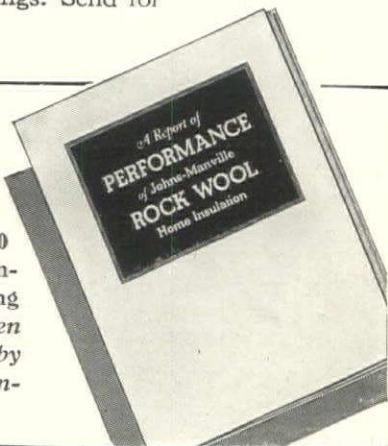
The report, the result of months of preparation, is now on the press and will be ready about October 15th. It discusses the practical requirements of a good insulating material for houses and shows how perfectly J-M Rock Wool fills these requirements. It gives definite reasons why you can recommend Johns-Manville Rock Wool to your clients with perfect confidence, that it is "sound as a nut" and will bring them the maximum degree of year-round comfort and fuel savings. Send for a copy today.



HOW WE CHECKED: 90 houses in northern United States were selected at random. In the presence of impartial engineers, whose reputation and professional knowledge was beyond question, we opened the walls as illustrated above. The rock wool and the framework of the house were minutely examined. Samples of the wool itself were sent to the Johns-Manville laboratory for test and analysis.

WHAT WE FOUND:

Complete details of the condition of rock wool insulation and framing timbers in all 90 houses examined are included in this interesting report. *All facts have been checked and verified by impartial observers of unquestioned integrity.*



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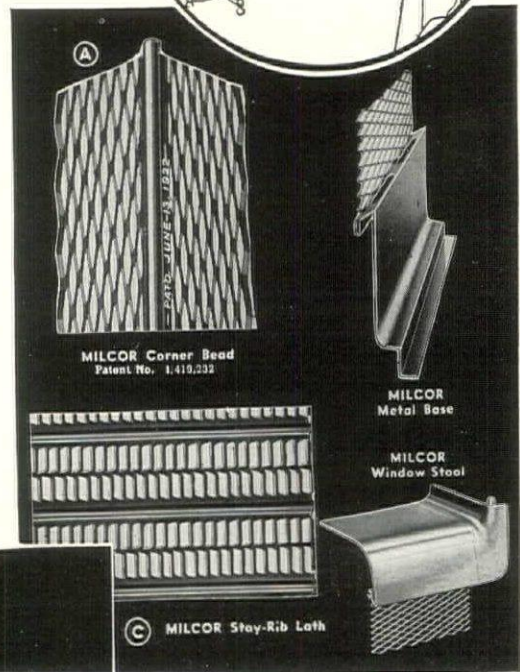
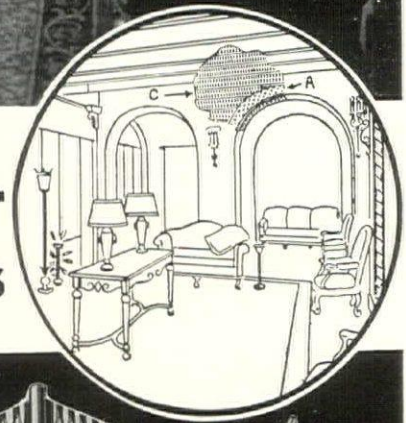
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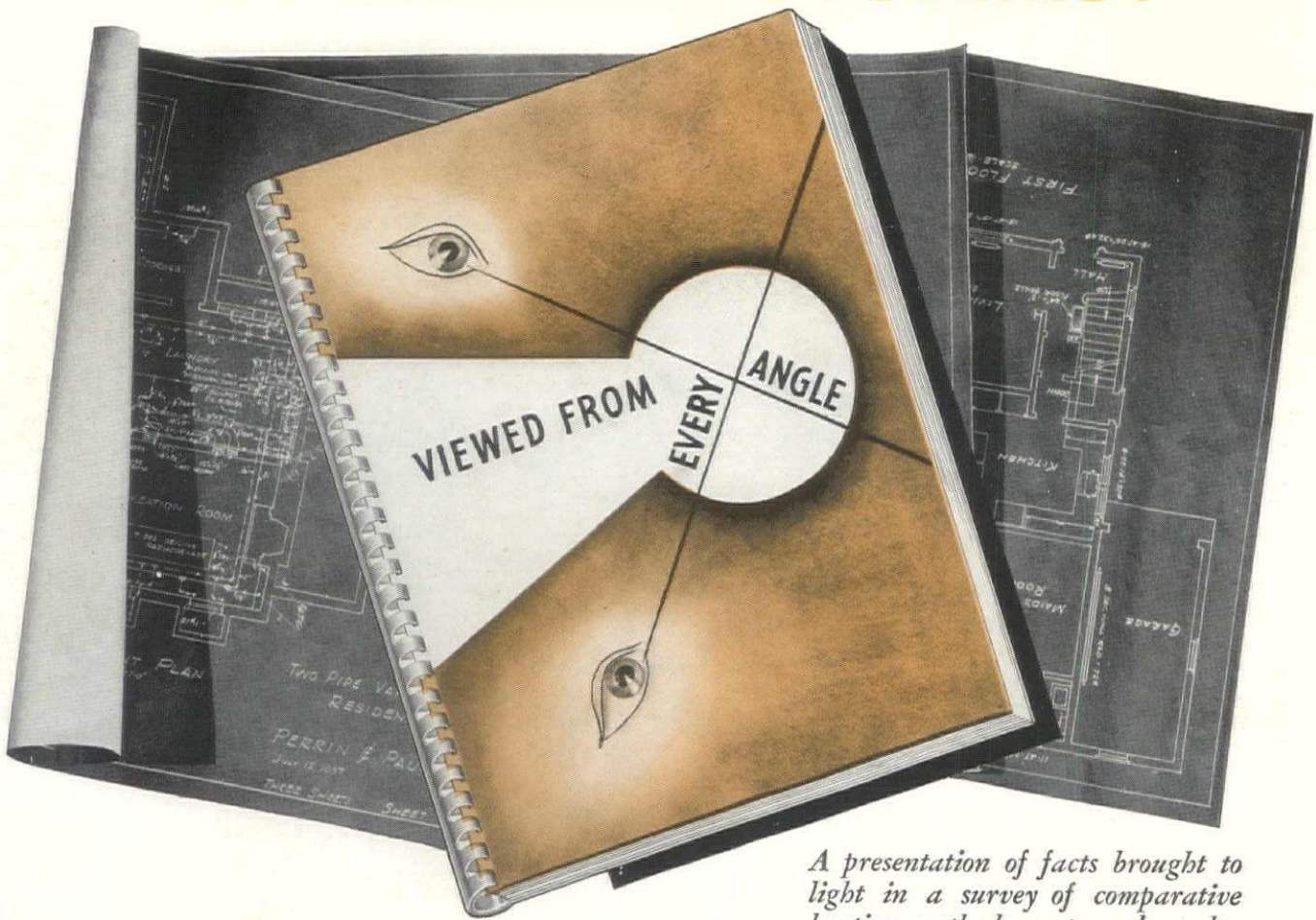
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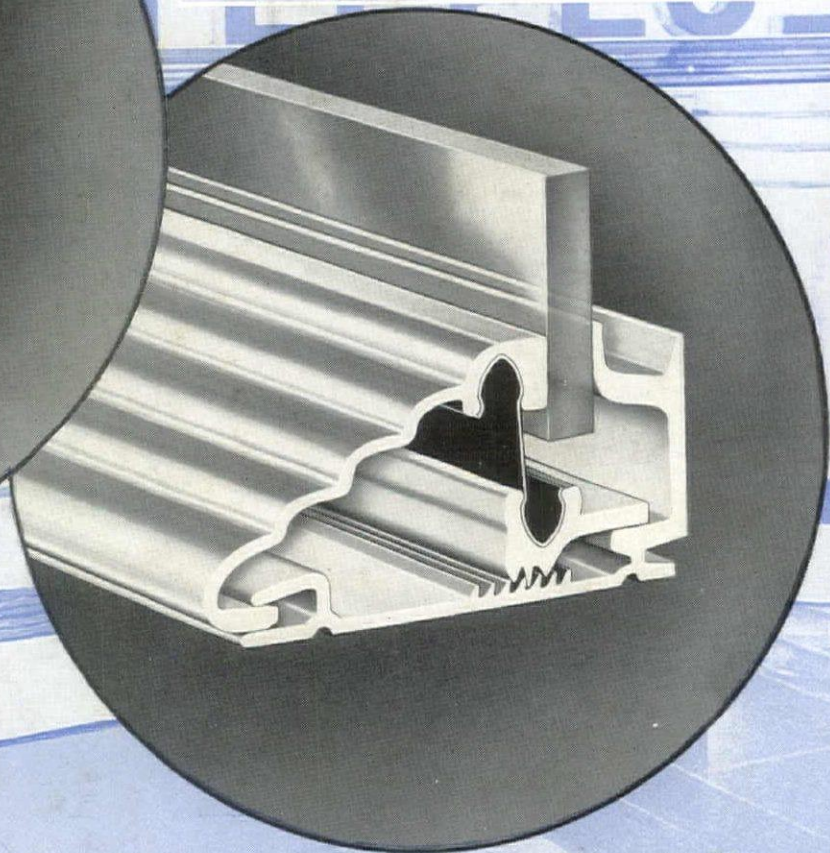
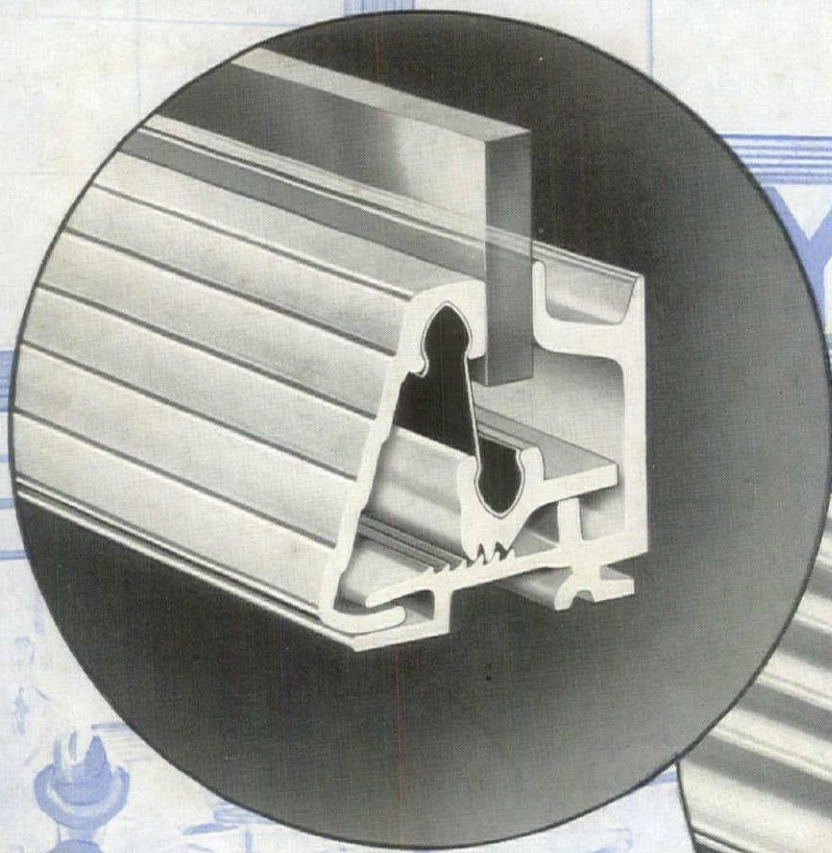
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