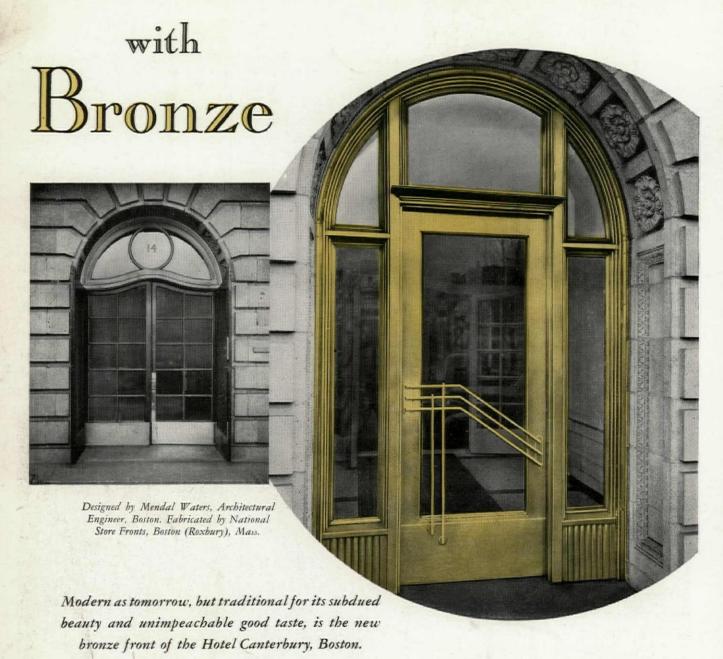
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# PENCII PONIS

1252

EPTEMBER 1940

# TRANSFORMATION



When Architects and owners seek metal work of richness and distinction, their first choice, with few exceptions, is Architectural Bronze... Moderate in cost and readily adaptable to original design, Bronze gives lasting service. It is easily cleaned and retains its original beauty with occasional attention. Even when bronze

work has been long neglected, cleaning and polishing restore its natural lustre.

The American Brass Company is the principal supplier of bronze, copper and nickel silver in the form of extruded shapes, drawn shapes, sheets, etc., as used in ornamental metal work of every description.

FOR ORNAMENTAL WORK



THE AMERICAN BRASS COMPANY, General Offices: Waterbury, Connecticut
In Canada: Anaconda American Brass Ltd., New Toronto, Ont. Subsidiary of Anaconda Copper Mining Co.

Pencil Points, published monthly by Reinhold Publishing Corporation at 258 Atlantic St., Stamford, Conn. Publication office, Stamford, Conn. Editorial and Advertising Offices, 330 West 42nd Street, New York, N. Y. Yearly subscription \$3.00, single copies 50 cents. Entered as second class matter, March 10, 1930, at the Post Office, Stamford, Conn., under the Act of March 3, 1879. Volume XXI, No. 9, Dated September, 1940.

THIS
ARGUMENT
HOLDS
WATER

GOOD design, good workmanship, good materials—that is the essence of sound construction, as typified by Wellesley College's new Recreational Building and Swimming Pool. Architect: William T. Aldrich, Boston. Contractor: Aberthaw Company, Boston. Cement: Lone Star.

Quality workmanship and quality cement are doubly important in structures which must keep water in or out. Use the right amount of water per bag of cement; proportion carefully; mix thoroughly; place without separation; then, and most important, keep the concrete wet until thoroughly cured. That kind of concrete, made with Lone Star Cement or 'Incor' 24-Hour Cement, gives watertight service through the years.

Where job conditions make it impossible to keep concrete wet for 6 days or longer, 'Incor' gives you watertight curing in 24 to 48 hours. Where time-saving and the added certainty of thorough curing offset the slight extra cost of 'Incor'\*, that is the cement to use; otherwise, use Lone Star. You gain either way, because better cement makes better concrete.

Write for copy of "Watertight Concrete." Lone Star Cement Corporation, Room 2247, 342 Madison Avenue, New York.

\*Reg. U. S. Pat. Off.



# LONE STAR CEMENT CORPORATION

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





"No fooling!...

These glass block partitions go up faster'n they

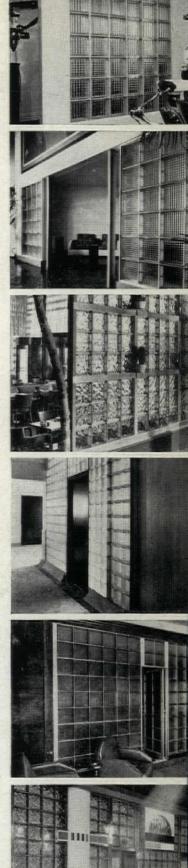
can make vice presidents'

You're due for a surprise if you haven't already prescribed your first partition of metal-locked glass blocks; it goes up so quickly and easily: It is strong and rigid, giving a feeling of permanence, yet it can be taken down and erected in a new location, with 100% of the materials salvaged.

The architect has been quick to recognize the decorative possibilities of glass block for interior work. Now he can allow free rein to his imagination, knowing that what's outmoded tomorrow can easily be changed to meet new requirements, and at low cost.

Extruded Aluminum shapes, used for the metal members in this construction, hold every course of blocks in uniform alignment. And Aluminum, with its subdued beauty and neutral color, fits in well with the sparkling beauty of the glass blocks. The smooth surfaces of blocks and metal are trim and neat in appearance, and are easily cleaned. Aluminum offers endless decorative possibilities, here and elsewhere, architecturally.

You can get complete data on metal-locked glass block construction from Owens-Illinois Glass Company, Pittsburgh Corning Corporation, Pittsburgh Plate Glass Company, and Revere Copper & Brass, Inc. Or write Aluminum Company of America, 2198 Gulf Building, Pittsburgh, Pennsylvania.





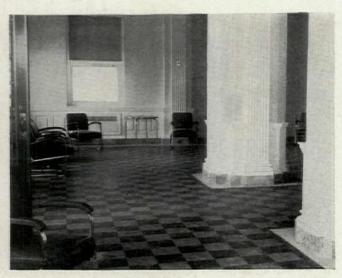


ALUMINUM

# **Sloane-Blabon Linoleum** One of Your Dependable Aids



A striking note is achieved by the use of special insets in this child's room of a home in Newton Center, Massachusetts.



Sloane-Blabon Battleship Linoleum was specified for installation throughout the new U. S. Veterans' Hospital at Dallas.



In the new Men's Dormitory at Ohio State University, Columbus, 10,000 square yards of Sloane-Blabon Battleship Linoleum was used.



Its durability, ease of maintenance and quietness made Sloane-Blabon Linoleum the choice for the offices of the Cities Service Company, N. Y.

You can bank on Sloane-Blabon Linoleum to meet your most exacting requirements when it comes to the floor covering. Whether the primary requisite is one of design and color to accent a particular decorative note in home or apartment, or whether the practical qualities of long wear, resilience and quietness are paramount, there is a Sloane-Blabon Linoleum to fill the bill.

Wherever installed, Sloane-Blabon Linoleum offers the plus advantages of cleanliness and of ease and economy of maintenance.

An exclusive feature of Sloane-Blabon Linoleum is that it is delivered to the job mill waxed, a factor that means a substantial saving in your cost estimates to the owner.

You can confidently specify Sloane-Blabon Linoleum for any flooring need. Sloane-Blabon Linoleum is giving satisfactory service in thousands of commercial, institutional and residential installations throughout the country. With distributors everywhere carrying complete stocks, it is quickly available whatever your specifications require.

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CORPORATION

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# FOR 50 YEARS THE LEADING

# STEEL PIPE



- \* LEADING in value
- \*LEADING in usefulness
- \* LEADING in sales

FIFTY years ago, steel pipe began its phenomenal growth. Many builders and industrial engineers soon found that this "new kind of pipe" was what they wanted - strong, durable, and low in cost. It proved so practical for so many applications that it moved

to leadership in the following years.

Today finds steel pipe still setting the pace-still ahead of the field-the world's largest-selling pipe-the most practical to use in the vast majority of applications.

changing needs of industry, NATIONAL Pipe, though still fundamentally the same strong steel pipe of fifty years ago, has been constantly improved. NATIONAL Pipe today is cleaner, stronger, more uniform, easier to work. Higher quality steels, processes for removal of scale, methods of retarding corrosion - all have contributed to give the greatest value per dollar of cost.

Distributors, located in strategic During all these years, to satisfy the parts of the country, are at your service.

## NATIONAL COMPANY



PITTSBURGH, PA.

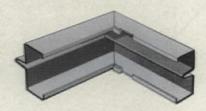
Columbia Steel Company, San Francisco, Pacific Coast Distributors . United States Steel Export Company, New York

# FOUNDATION-OF FACTS FOR FLOORS AND ROOFS

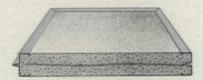
The fundamental purpose of gypsum units bound with steel is to obtain firesafe floors and roof-decks of masonry strength at a cost approaching that of wood. Gypsteel Plank\* gives the greatest satisfaction for this purpose because of the superior and unduplicated structural advantages of its design. It is a structural unit shaped like lumber. The core is of extra dense, nailable gypsum, which is encased at the ends and sides with a one-piece framework of galvanized steel. All four sides of this framework are tongued and grooved to lock and form a strong, continuous I-Beam. The gypsum core is reinforced with steel wire mesh. Plank is vermin-proof, termite-proof, will not shrink or warp. Here are the special advantages of Gypsteel Plank's design:



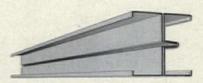
The steel tongues and grooves mesh tightly so that adjacent units work together. GYPSTEEL PLANK floors and roof-decks have greater, more uniform strength.



Note the unique way in which the steel binding is *locked* at the corners to form a one-piece frame. This assures still greater strength and a more rigid frame, and also eliminates damage in handling and shipping.



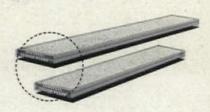
The binding is *clinched into* the gypsum surface to stay put. Cross-section shows how steel and gypsum are flush and smooth, presenting a level, uniform surface for flooring or roofing.



The binding meshes to form a steel I-Beam that gives Plank its definitely calculable strength and permits you to *safely* break joints between supports. Yet both steel and gypsum are flexible enough to use on curved or warped areas.



Slate, tile, shingle and other roofings and rough underfloorings may be nailed directly to Plank. No special equipment or training is required. It is like working with wood. You eliminate nailing strips and sleeper clips.



Every Gypsteel Plank unit bears an embossed signature on the groove end to identify it as the genuine original Plank— "Senior" for the heavy duty, "Junior" for the shorter spans.

Put this adaptable product to work on your next project that calls for a firesafe floor or roof-deck on steel framing and watch your labor costs go down. It inexpensively provides all the advantages of masonry construction. Full information in the 28-page Plank Bulletin. Write for your copy today.

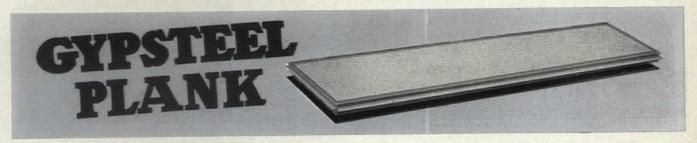
\*The term PLANK as applied to cementitious building products is a trade-mark of the American Cyanamid & Chemical Corporation.



# AMERICAN CYANAMID & CHEMICAL CORPORATION Structural Gypsum Division

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NEW YORK, N. Y.





WHEN a structural glass is used, only one which is mechanically ground and polished can contribute the maximum beauty and effectiveness to architectural design. Only ground and polished glass has the mirror-like reflectivity, the richness, the perfect brilliance of surface which can add so much to any installation.

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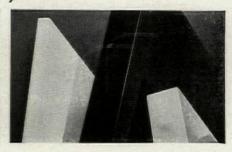
In addition to its beauty, Carrara has exceptional sanitary qualities. It is easy to clean. It is permanent. It offers a wide choice of colors, thicknesses and decorative treatments. We believe you will find our booklet "Carrara, the Modern Structural Glass" interesting and helpful. It is well illustrated, and contains complete information. Write for your free copy to Pittsburgh Plate Glass Co., 2046 Grant Bldg., Pittsburgh, Pa.

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CARRARA

The modern Structural Glass

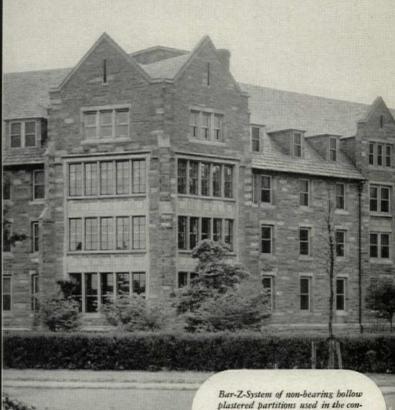
PITTSBURGH PLATE GLASS COMPANY





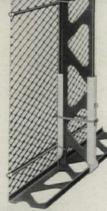
# BAR-Z-SYSTEM

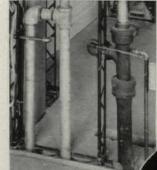
Provides
Fire Safety
Plus
Economies in
Construction



Bar-Z-System of non-bearing bollow plastered partitions used in the construction of the Home for Incurables, Philadelphia, Pa. Architect: Ballinger Co., Philadelphia.







Note how Bar-Z-Partitions permit the placing of piping and electrical wiring conduits prior to plastering.

Consisting of Bar-Z-Studs and Bar-X-Lath, the Bar-Z-System of hollow plastered partitions has no elements to burn. Government tests prove that Bar-Z-Partitions, plastered with 34" gypsum plaster, have a one hour fire rating. In addition to this vital protection, this construction offers sound deadening properties which are of great importance in homes for invalids and the aged, institutions and hospitals. Specify the Bar-Z-System and insure lasting protection for the beauty of your plastered interiors. Informative data upon request.

### "IT'S WHEELING STEEL"

"The Musical Steelmakers"—It's Wheeling Steel
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# Owners Wanting <u>Safe</u> Home Investment

SPECIFYING

CELOTEX GUARANTEED INSULATIO



W. C. Tackett, Inc., Builders, Chicago Herman Bruns, Architect

## Celotex Vapor-seal Sheathing and Lath Delights Owners With Lifetime Insulation, Fuel Savings, Low Net Cost

MOST home owners have a fairly defi-nite idea of what they want. Few of them are familiar with all the features they should have in a new home-to give it needed structural strength and yearround comfort-to make it economical to heat-to make it easily salable in case resale becomes necessary, thus protecting their investment.

They look to you for guidance on the points which are unfamiliar to them. For instance, most owners today know they want insulation. But in many cases it is

left to you to recommend the most serviceable, the most economical insulation for sidewalls and top-floor ceilings.

By specifying Celotex Guaranteed Insulation, you will earn their everlasting thanks. Because Celotex Vapor-seal Sheathing and Vapor-seal Lath provide needed structural strength and continuous fuel savings-because these products are permanently protected against termites and dry rot by the exclusive, patented Ferox Process-and because they are guaranteed in writing for the life of the building!\* Yet, with all these advantages, Celotex Guaranteed Insulation is eco-nomical—because it replaces other needed materials!

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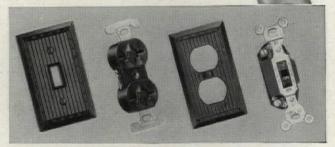
BUILDING PRODUCTS

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All members of the building industry agree that it is to everyone's advantage to have buildings wired adequately. Of course, true adequate wiring means more than the proper installation of heavy wires and sufficient circuits and outlets. It also means the use of dependable, quality materials that will give good service indefinitely.

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Three manuals have been prepared by General Electric offering suggestions for adequate wiring in factories, on farms, and in homes, and showing appropriate wiring materials. To obtain any one, or all three, of these manuals or to obtain further information on G-E Wiring Materials see the nearest G-E Merchandise Distributor or check and mail the coupon below.



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GENERAL & ELECTRIC



The Exide Emergency Lighting flashed on ...



# ...and stayed on for 18 hours

HIS HIGH SCHOOL has had a number of electric current interruptions in the last year. Previously, at the time of the hurricane, the Exide Unit was in use for 18 hours."—From the report of an Exide Operating Engineer.

For adequate protection in a school, restaurant, theatre, store, and especially in a hospital—the emergency lighting unit must spring into action within a split second, functioning both *instantaneously* and *automatically*.

This is what an Exide Unit does. That it also has ample reserve power to continue giving protection for long periods is shown by many instances such as that mentioned here—in which an Exide Unit furnished a school with emergency light for 18 continuous hours.

The utility companies take every precaution, but cannot control the effects of storms, floods, fires, or street accidents. An Exide Unit is absolutely dependable—and requires no other attention than the addition of water a few times a year.

If you are working on a project that needs this protection, write or wire the nearest Exide Branch and an experienced Exide Field Engineer will call promptly to help with plans and specifications.

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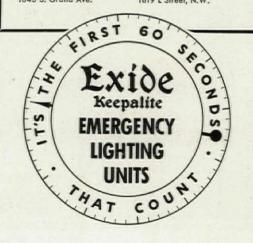
PHILADELPHIA Allegheny Ave. and 19th St. PITTSBURGH

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SEATTLE 1919 Smith Tower Bldg.

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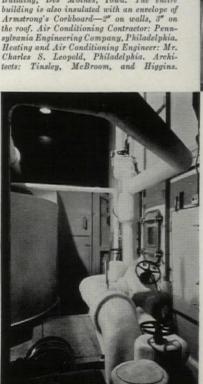


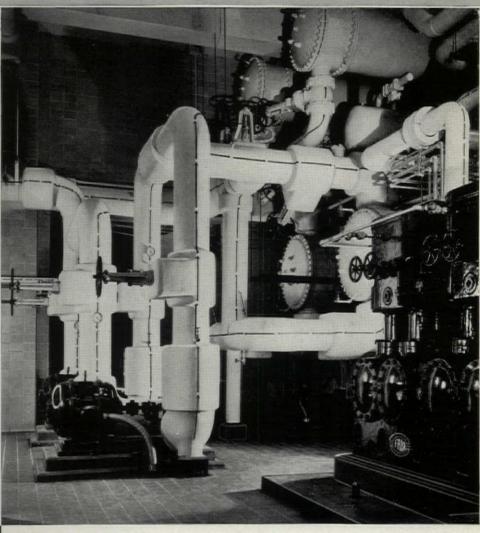
# BANKERS Life SELECTS CORK FOR INSURANCE OF COMFORT



Cold lines in this unique structure are insulated with ARMSTRONG'S CORK COVERING

Lasting protection against refrigeration loss and condensation is given these cold lines by their insulation of Armstrong's Cork Covering. The two views (right and below) show the main machine room of the Bankers Life Building, Des Moines, Iowa. The entire building is also insulated with an envelope of Armstrong's Corkboard—2" on walls, 3" on the roof. Air Conditioning Contractor: Pennsylvania Engineering Company, Philadelphia, Heating and Air Conditioning Engineer: Mr. Charles S. Leopold, Philadelphia, Architects: Tinsley, McBroom, and Higgins. LASTING PROTECTION against refrigeration





EVERY detail of design, material, and construction in the new Bankers Life Company Home Office in Des Moines, Iowa was planned to produce a building which would be outstanding. That's why you'll find cork on the job throughout: Armstrong's Corkboard insulates the walls and roof, and air conditioning ducts; Armstrong's Cork Covering insulates cold lines.

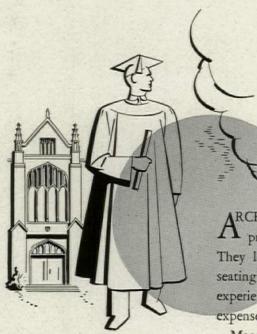
Take a look at the engine room, for instance. Cold lines of the air conditioning and cooling system are thoroughly insulated with Armstrong's Cork Covering . . . and here's why: Cork is efficient, and it stays efficient. Not only does this Cork Covering prevent condensation and

reduce operating costs when first installed, but it will also give the same good service for years.

This dependability is one of the chief reasons for the widespread use of Armstrong's Corkboard and Cork Covering in air conditioning. Cork is highly moisture-resistant; it presents a lasting barrier to the passage of heat. Armstrong's Cork Covering is strong and rigid, won't sag away from lines, valves, and fittings. It comes accurately molded to fit standard sizes of pipes and fittings and in thicknesses to meet every temperature need. Write today for complete data, to Armstrong Cork Co., Building Materials Div., 922 Concord St., Lancaster, Pa.

ARMSTRONG'S CORK COVERING

# They graduate ARCHITECTS without courses in public seating



ARCHITECTS who are familiar with public seating problems did not gain their knowledge in school. They learned about sight lines, floor slopes, maximum seating capacity and other such technicalities through long experience. Sometimes they learned the hard way—at the expense of costly mistakes.

Many of them, however, learned the easy way—by consulting specialists in this highly specialized field. They called upon the vast public seating experience of the American Seating Company.

Whereas most architects may deal with public seating problems only a few times in their careers, the American Seating Company deals with them every day in a wide variety of fields. As a result the widest and most specialized knowledge of public seating has been accumulated.

This great store of technical knowledge and experience in public seating is available to every interested architect without cost or obligation.

If you are planning a church, theatre, school, auditorium or any other building requiring seating, we invite you to consult us. We sincerely believe you will find our friendly cooperation extremely helpful.

American Seating Company

GRAND RAPIDS, MICHIGAN

Pioneers and pacemakers in theatre, auditorium, school, church, stadium and transportation seating Branch Offices and Distributors in Principal Cities



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EBERHARD FABER U.S. ... and his every sketch or drafting purpose there is a MICROTOMIC VAN DYKE of ideal softness or hardness of lead. So accurately graded are the 18 degrees that through a year or a lifetime in architecture the most delicate touch can discern no difference between VAN DYKE leads of the same degree.

MICROTOMIC VAN DYKE

THE EBERHARD FABER DRAWING PENCIL WITH THE MICROTOMIC LEAD ... 18 DEGREES ... AND 6 ALSO WITH CHISEL POINT LEADS

# HERE, THERE, THIS & THAT

# SOME "FIRSTS" IN THIS ISSUE

Several innovations in Pencial Points editorial treatment may be noted in this issue by our readers. For the benefit of those who find a particular interest in departure from the customary, we wish to call attention to the Bibliography on Page 552. This was compiled by Alan Mather to provide a ready reference for the housing field—which also will serve those just now turning their attention to this subject as a "key" to the store of professional information already available.

A bibliography of this sort seems so practical that the Editors have arranged with Mr. Mather to continue his highly productive library-browsing. He is at work on a bibliography of publications relating to Airport Design (for inclusion in our October issue) and will follow that with other bibliographies closely related to the subjects of the succeeding issues.

We are also departing from custom this month in treatment of one of our best-established features—the Selected Details. For the first time, we are presenting an entire set from the office of one architect, Antonin Raymond, of New York. This portfolio presentation is also unusual in that typed captions and nows (as used by Mr. Raymond) have been substituted for the usual lettering by our accomplished draftsman E. A. Bennett. It should be noted that the subjects are construction details originated by Mr. Raymond for execution by craftsmen of the Pennsylvania countryside where the examples illustrated have been built.

It would be unfair to omit mention here of that greatest "first" touched upon in this issue—the experimental and advanced Housing built during World War I. An appraisal of this successful pioneering effort is offered on Page 535 by Frederick Lee Ackerman, F.A.I.A., authority on Housing and Town

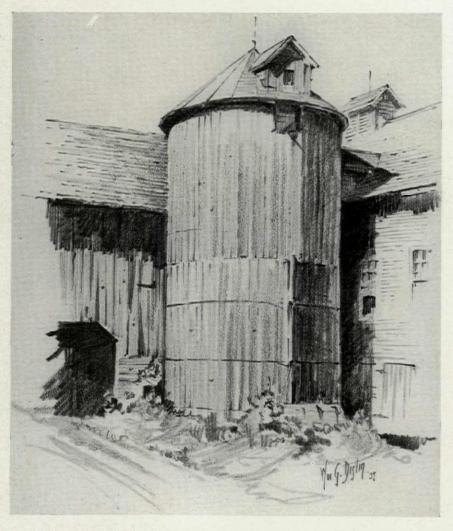
Planning. It is interesting to recall that the results represented something of personal triumph for Mr. Ackerman, as well as a contribution to Housing practice. Following his World War I activities as Supervisor of Design, Emergency Fleet Corporation, he received a gold match box engraved with a tribute from "the Project Architects, who in the year of America's participation in the great war, under his direction, designed towns for American ship builders, as a token of their appreciation of the breadth of his vision, the depth of his convictions, and the sweetness and unselfishness of his character - December 19, 1918."

### POTOMAC PATTER

If you've never been in your nation's capital during August (our humid season), you are lucky! There is so much moisture content in the air that unless concrete forms are designed and constructed at shrinkage scale, the finished result will be inches short. Why even the beaver-board partitions in the Commerce Building have assumed bulges. (Slight exaggeration, perhaps, but this is the season for puffery.)

Dan C. Jensen, Maritime stylist, couldn't understand why monuments should be going up at this time. From his window he can see the Straus Memorial foundation forms being erected directly opposite the Commerce Building — on government property. Logical to assume therefore that government funds were being expended. We explained: like the Mellon Art Gallery, it is being built with private funds—the government supplying the site. And again like the Mellon project, The Straus Memorial (in honor of Oscar Straus, the first Secretary of Commerce) was designed by the same office, John Russell Pope and Eggers & Higgins.

(Continued on page 20)



Inspiration for this drawing of a weathered Vermont silo was found by William G. Distin, Architect of Saranac Lake, New York, in a photographic portfolio of these simple Yankee structures, collected by Robert Imandt

# Turn old buildings into new...

# WITH THIS WALL 2 INCHES THICK

rchitectural Concrete Slabs provide an exrior facing with the structural strength of increte and steel and the lasting beauty of ushed stone aggregates in an endless variy of colors, patterns and textures.

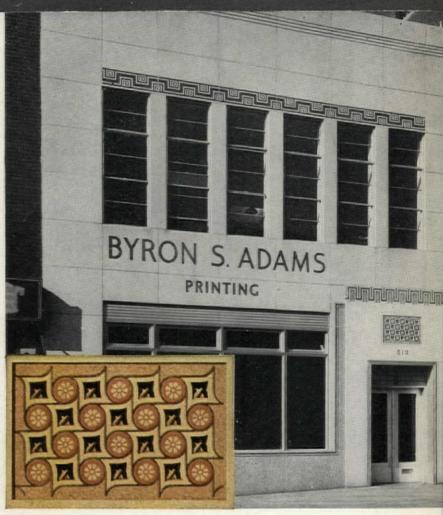
HESE thin slabs are quickly, easily and economically erected and anchored to old masonry. In a bare two inches thick, they are applied freently without ripping off old walls to keep within a building line. Their large sizes and varied shapes crease freedom of design and may eliminate up to of joints. A single slab often is used to include indow head above and window sill below, or to indee window head and coping.

Architectural Concrete Slabs are precast, factoryade units of strongly reinforced concrete. They are rge—up to 100 square feet or more—but only two ches thick. They are made with selected aggregates quartz, marble, granite, ceramics, or vitreous

e Adams Print Shop in Washington, D. C., looks new, due to its new ing of thin Architectural Concrete Slabs made with Atlas White nent. Color appears in the detail over the doorway (shown in close) and in decoration over windows. False joints make large slabs look all. Only one slab, for example, was used between upper and lower ndows. Architects, Porter and Lockie, Washington, D. C., awarded d medal of the Washington Board of Trade for this building, the best novizing" project in 1939. Slabs by John J. Earley, Washington, D. C.

chitectural Concrete Slabs modernized The Heidelbach Co. store, ltimore, Md. They are used for store fronts, office, bank and public ldings and theaters. Thinness and flexibility in size, shape, color, and sign offer advantages hitherto unavailable in a building material. tail shows almost unlimited color and design possibilities of thin Architural Concrete Slabs made with Atlas White cement. Architect, J. R. nnedy; Slabs by John J. Earley—both of Washington, D. C.

amel—exposed in a matrix of Atlas White portnd cement. They make possible new and economical
riations in colors, patterns and surface textures.
Write for more information on this new, modern
aterial for new as well as old buildings—for interior
well as exterior walls, or see SWEET'S CATALOG,
ection 4. Universal Atlas Cement Co. (United States
eel Corporation Subsidiary), Dept. A3, Chrysler
uilding, New York City.





ACS-21



MADE WITH ATLAS WHITE CEMENT



# The Ford Playhouse

AT THE NEW YORK WORLD'S FAIR

## A SYMPHONY IN GOLD, WALTER DORWIN TEAGUE, DESIGNER





The color scheme of the Ford Playhouse is as delightful and as unique as the multi-purpose theatre itself. First to catch the eye are two giant entrance pylons, and fourteen circular columns treated with Dutch Leaf Flexglass. U.S.G. acoustical blocks on the ceiling are gilded to blend with the golden tone of the glass columns. Gold-tufted satin walls above a wainscot of Pale Mahogany Flexwood, and Bigelow-Sanford carpeting in Ford Salon Red, complete a striking and luxurious ensemble. Adjoining the sitting area is a new kind of car Salon, with cars painted a pinkish beige to harmonize with the scheme. Other important Flexglass installations at The World's Fair are in The World of Fashion, The Chrysler Building, The Terrace Club and The Coty Building. Flexglass is real glass in 30 different colors and patterns in four types . . . opaque, flat mirror, rolled pattern mirror and metallics. Easily cemented to any hard, smooth surface . . . indoors or outdoors . . . Flexglass is exciting and exotic. Design and decorative possibilities are unlimited. Please write for sample and information.

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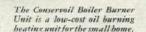
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Because of one source of supply, supervision is simplified when you mention "Heating by Crane" in your specifications.

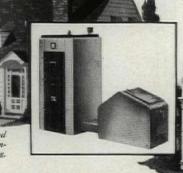
Because every item carries the name Crane, your clients are assured of a completely unified system—all parts working together for greatest efficiency.





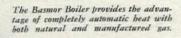
The Crane No. 10 Boiler can be installed

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(Continued from page 16)

Word comes to us that Harry B. Carter, erstwhile consultant for Public Buildings, is now back in his home town in Illinois and doing nicely. Good Luck, Harry.

Speaking of consultants, we understand that Public Buildings will soon be required to do some more slashing of the payroll and the only ones left (temporaries) are a couple of handfuls of architects and engineers, a few administrators, and four consultants. The last are Howard L. Cheney, Gilbert Stanley Underwood, William Dewey Foster, and Rudolph Stanley-Brown. P.B. is a quiet outfit these days and certainly more so in comparison to the activity of the present emergency defense building program carried on by the Construction Division of both the Quartermaster General's Office, War Department, and the Bureau of Yards and Docks, Navy Department.

Greenbelt, the pet dwelling project of the present Administration, is again in the limelight. Here is a project designed for a lower-income group of government employees and desirable to the extent of creating a

waiting list. It was inevitable that those whose income increased beyond eligibility to remain would be reluctant to surrender their habitat with its clean living and modern conveniences so well provided by your Uncle Sam. And at such cheap rental! Naturally such a group of ineligibles developed and, being in that aforementioned state of unwillingness to depart from an established homestead, began to look about for ways and means of remaining-if not in the Federal dwellings, at least on the adjacent public land, undevelopment notwithstanding. This group, together with some outsiders, includes about forty interested families who are now taking steps to become an entity by incorporation for the purpose of leasing nearby government land upon which to build their own homes. (Don't rush, boys! Designer Bob Humphries, Silver Springs, Maryland, and Architect Alfred Kastner, D. C., were seen in the huddle.)

Of course, the land would have to be improved with the necessary utilities but information is that the generous W.P.A. would provide same if

the cost of the houses is kept in the \$3,500 class. It has been suggested that about \$3,500 worth of decent house be built at this time, with provision made for future expansion. Some fun for the architects-even at six per cent!

Whether the action of this group has provided the solution to the Farm Security Administration's problem regarding the use of the acres around Greenbelt is a matter not revealed to us; but the fact remains that the FSA is now considering throwing the surrounding land open for lease (99 years) to private building enterprises. Of course, government standards must be maintained.

### DESIGN LECTURES

Modern industrial design as related particularly to advertising, retail merchandising and industrial architecture will be covered in a new program, beginning in late September, in the New York University School of Architecture and Allied Arts, according to Dean E. Raymond Bossange.

Ten of the outstanding industrial designers of the country will participate in a series of lectures.

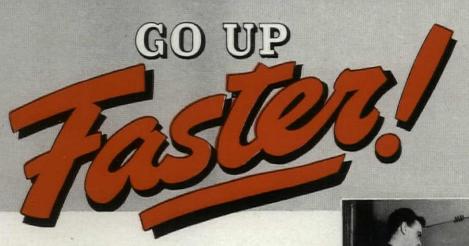


dental operation. We suggest you include Radio Control in your specifications. Complete information will be furnished on request.

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# STRAN-STEEL BUILDINGS



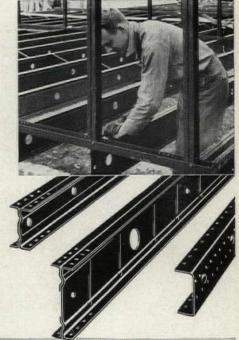
Speed of erection, now more than ever, is an important requirement of modern buildings. Buildings *must* go up faster, yet have great strength and rigidity. The logical material for that specification is Stran-Steel, the low-cost, fire-safe building material being used by leading architects and builders everywhere.

Stran-Steel is a lightweight, nailable steel framework for houses, apartments, barracks, airplane hangars, etc. The nailing feature alone permits unusual time savings in attaching collateral materials such as lath, sheathing, etc., all of which may be nailed direct to the steel.

The Stran-Steel design, with all the facilities for shop fabrication and speedy field erection of the pre-fabricated wall panels by well-trained crews familiar with this work, appeals to the general contractor as a definite time saver, a vital element in the successful organization of the job—and the consequent savings in overhead.

Complete technical data and descriptive literature on this modern, high-speed building material is available on request. Write for it today.







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UNIT OF NATIONAL STEEL CORPORATION



Ethelinda Whittlesey, who has been working in the office of Barber & Shelton, Architects, of Knoxville, Tennessee, made this pencil drawing of the Tellico Plains Methodist Church, which was designed recently in that office

### AALTO AT M.I.T.

Alvar Aalto, distinguished Finnish architect who was chosen to direct reconstruction of his country following the Russian invasion, will join the faculty of the M.I.T. School of Architecture for the new academic year, Dean MacCornack has announced. After spending some time in Finland starting the program of reconstruc-

tion, Mr. Aalto will return in the late fall to serve as research professor in architecture.

His work will be a step toward solving basic problems in low-cost housing as well as a method of advancing a teaching technique, according to Dean MacCornack. The Bemis Foundation will cooperate in carrying out this research program.

### BOSTON NOTES

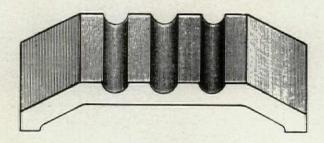
Popular demand, and financial help from the ski industry, have revived the Get-Summer Club. Henry Murphy accepted the lead, with a palm leaf fan in one hand, a sponge in the other, and drafted Arthur Manaselian to the presidency-in-charge-of-vice. First act of the new board was to announce a public essay competition; subject: "Do you accept summer as a fundamental necessity?"

But August's contribution, the blossoming Althaea (Hibiscus syriacus), somehow reminds us that the season and collar-wilt are on the run, that we may look forward to the happy whirl of the sered leaf and a coating of frost on somebody's pumpkins.

It seems pitiful to us New Englanders when human feet, albeit attached to well-known legs, are implanted in soft cement to give a sidewalk personality. The feet we use for such business may be a little rudimentary in appearance and the legs were styled for service, but they've been recorded in stone for millions of years (ever since there was ooze in Massa-

(Continued on page 24)

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# DRAWING PENCILS

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(Continued from page 24)

chusetts). In short, dinosaur tracks from the Connecticut River Valley!

The Nash Brothers of South Hadley, in this State, deal in just that item, with a side line of fossil fish and wood, and they have placed excerpts from the perambulations of our ancestors in more gardens, terraces, and rustic fireplaces than you could shake a stick at. Why not try a few among the stepping stones to your bombproof shelter?

The flight is on, and it gives us some concern. I've heard only one jobless man in recent weeks who is interested in possible chances for architectural employment, in the offices. Most of the boys are headed straight for the fringes, and purpose to stay there, so they say. Occasional "economic improvements" that occur in this readjustment help to make it a permanent desire or intention, because even if the adjusted one got homesick his wife would think of the old pay and have a bad attack of stomachic queasiness. Practical souls, these little women, when it comes to execking their private Departments of Ways and Means.

Only this afternoon an M.I.T.

graduate of my own ostensibly mature vintage, and who has no dissatisfaction with his own lot, outlined a complete disillusionment relative to anything the organized profession will do to save itself. He contends it is fundamentally maladjusted to the times, and will be but a dim recollection long before the dulcet memories of Ann Corio recede into the mists of our gathering years. He sees two sorts of useful draftsmen, one of whom purveys even great talent behind the shelter of a firm and is unworldly enough merely to tighten his belt when he's hungry; but the second won't do that if he can help it. He rails at the profession's tactical ineptitudes, its leisure class inertia in a fighting age; and gets out or gets the gravy if he can, in one of the mushrooming new departures of the building industry. There will always be building and a demand for draftsmen and it is a matter of social indifference to him whether he works for architect, engineer, or industrial con-

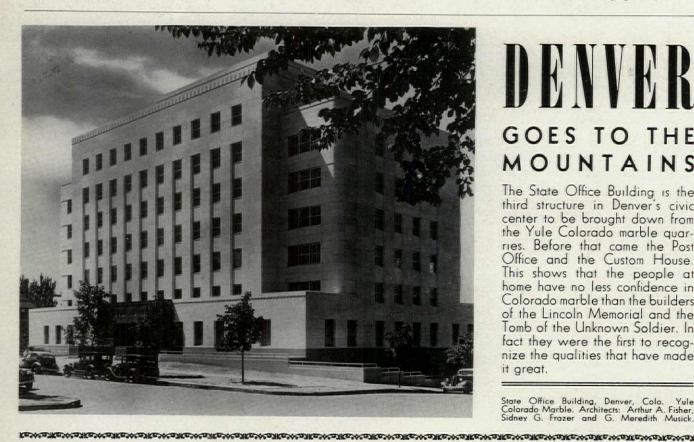
Thursday, July 25, a well-attended meeting of the Architectural League of Boston was held in the cool recesses of the Boston Architectural

Club. John T. Whitmore was unable to be present as speaker, but forwarded his material to a pinch-hitter. An open discussion which followed relieved general pressure and contended that the road ahead led to industry or the engineers. The architectural man as cog or monkey wrench in an engineering office received coverage, some declaring for the one and others for the useless latter. As these men were reporting from personal experience it was apparent that you could not generalize for the engineers any more than for the architects. The bent of an office and the degree to which its organization had been stratified made space for an architectural man or listed him as a liability.

Bela Sziklas outlined a proposed League seminar for intensive study of industrial construction and discovered plenty of customers. Altogether you got the impression that ten years hence, if our natural progress is unimpeded by foreign substances you may look for these changes in the New England draftsman-

(a) Disappearance of the broad

(b) Eether supersedes eyether. (Continued on page 26)



# GOES TO THE MOUNTAINS

The State Office Building is the third structure in Denver's civic center to be brought down from the Yule Colorado marble quar-Office and the Custom House This shows that the people at home have no less confidence in Colorado marble than the builders of the Lincoln Memorial and the Tomb of the Unknown Soldier. In fact they were the first to recognize the qualities that have made it great.

State Office Building, Denver, Colo. Yule Colorado Marble. Architects: Arthur A. Fisher, Sidney G. Frazer and G. Meredith Musick.

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Branches: Albany, 75 State St.; Boston, 44 School St.; Chicago, 5535 No. Wolcott Ave.; Cleveland, 4300 Euclid Ave.; Dallas, 1513 Wall St.; Houston, 310 Bringhurst St.; Los Angeles, 727 West 7th St.; New York, 101 Park Ave.; Philadelphia, 22nd & Westmoreland Sts.; San Francisco, 525 Market St.; Tacoma, 1120 East "D" St. In Canada write Ontario Marble Co., Ltd., Marie St., Peterboro, Ont.

Medusa White in terrazzo in chapel floor, St. Mary's Academy. Monroe, Mich. Contractor, Art Mosaic & Tile Co., Toledo, Ohio.



Medusa White stucco store front, Chicago, Kritzer Construction Company,
Oak Park, Illinois.



Medusa White stucco residence, Mineola, N. Y. Stucco, Hamlin Stucco Company, Garden City, New York.

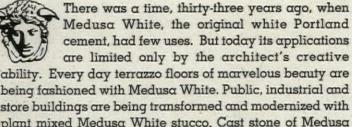


Medusa White in Italmo columns and wainscoting, Buffalo Airport Administration Building. Italian Mosaic & Marble Company, Buitalo, New York.

Medusa Products also made in Canada by Medusa Products Company of Canada, Limited, Paris, Ontario.

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# THE THRESHING FLOOR

# A SECTION DEVOTED TO BRUTAL FRANKNESS

We are indebted to A. D. TAYLOR, President of the American Society of Landscape Architects, for bringing to our attention the notable activities of the "Cleveland Professional Committee on Construction Preparedness," sponsored by the Cleveland Chapter of the A.S.L.A., A.I.A. and the A.S.C.E. Through monthly circulars the Committee is informing members of the various professional societies of developments in the National Defense Program. The following excerpts from the latest circular of the Committee, containing information to August 1 from the Federal agencies concerned, indicate the value of the Preparedness Committee's work.

THE Defense Program is now becoming crystallized, to the extent that the Advisory Board (working with the Construction Division of the Quartermaster General's office), and the Bureau of Yards and Docks, have awarded negotiated contracts on a "cost-plus-fee-basis" to contractors, engineers, and architects having organizations and professional experience qualifying them to proceed without delay on a number of large projects. These men, who have had applications filed with the Bureau of Yards and Docks in the Navy Department and with the Construction Division of the Quartermaster General's office, have been approved by the Advisory Committees in these respective agencies. Others who desire similar contracts as general contractors, engineers, architects, and landscape architects, are making their qualifications available in specific communications to the Quartermaster General's office in the Army, and to the Bureau of Yards and Docks in

the Navy. (See Item 15 in Circular No. 1, of July 20, 1940.)\*

In the immediate future, if this program of defense preparation increases, it is hoped that information will be available as to the specific sources of employment and the method of procedure to adopt, for those who wish to procure positions upon a salary basis in some of the government agencies, to provide technical planning and supervisory service. The effort in the government agencies (especially the War and the Navy Departments) at the present time is for the employment of offices to undertake construction and planning programs on a large scale. The opportunities for salaried employment, therefore, are through those offices who procure contracts on a fee basis, to provide technical services on a large scale.

2. Work on barracks; cantonments; army and navy bases; new industrial plants; air fields for the army and navy; civilian airports; highways; and housing for low rent occupancy, for skilled labor and personnel of the army and navy posts is rapidly getting under way.

\*Circular No. 1, Item 15: Following instructions have been issued by the office of the Quartermaster General, War Department, as to information required from architects and consulting engineers desiring consideration in design of Army construction projects:—

sign of Army construction projects:—
"Submit a letter to the Quartermaster General, Washington, D. C., requesting consideration in case design contracts for various projects are awarded to civilian architects or consulting engineers on a fee basis; letter to contain the following information:

"I. Full experience record indicating clients by name, location of project, type of project, and money value.

"2. Organization available with particular view to rapid completion of plans and specifications.

"3. List of projects designed for Federal agencies."

3. Information concerning the specific projects for which funds are allocated by the National Defense Council, by other agencies operating under the direction of the Defense Council, is available in the releases which from day to day or at intervals are sent out from the National Defense Council, the Quartermaster General's office, the Bureau of Yards and Docks, the Works Progress Administration, and the United States Housing Authority . . . Releases containing this information seem to be procurable as follows:

National Defense Council by writing direct to the National Defense Council, attention of the office of Mr. Horton, Federal Reserve Building, Washington, D. C.

Army projects—no list available to date for general releases. Specific releases sent as requested, through Construction Division (Major Grogan, Room 2012) Quartermaster General's Office, Munitions Building.

Navy projects—no general list available to date. Releases sent upon specific request to the Bureau of Yards and Docks (Room 2075, Commander Berry) Navy Building, Washington, D. C.

United States Housing Authority—on request, name may be placed on list to receive releases as and when issued covering housing projects for which funds are allocated.

Civilian air fields — specific information probably available through state offices of Works Progress Administration through whose funds the major part of this improvement will be accomplished.

(Continued on page 30)

# MAKE THIS TEST Prove BRIXMENT is BEST!



The photograph above shows a cylinder of Brixment mortar (left) and a cylinder of mortar made with portland cement and lime (right). Both specimens were made at the same time, and subjected to exactly the same treatment. After curing for 30 days, 1/4" of water was put into the tray and the



cylinders were alternately frozen and thawed 15 times. Note in photo 2 that the Brixment mortar remains intact, whereas the other mortar has crumbled badly. This simple test can be made in any ice-manufacturing plant, or in the freezing unit of a domestic mechanical refrigerator.

# BRIXMENT Mortar is More DURABLE!

FOR permanent strength and beauty, mortar must be durable—must be able to withstand the alternate freezing and thawing to which it is subjected many times each winter.

Brixment mortar is more durable. This greater durability is due partly to the strength and soundness of Brixment mortar, and partly to the fact that Brixment is waterproofed during manufacture. This waterproofing helps prevent excessive moisture from entering the hardened mortar—hence helps prevent scaling and spalling when the Brixment mortar is frozen.

Walls built with Brixment mortar therefore retain their original strength and appearance. Even in parapet walls and chimneys, where exposure is particularly severe, Brixment mortar will never require re-pointing.



# BRIXMENT

For Mortar and Stucco

6. It continues to be the attitude of the officials in the War and Navy Departments that projects will be awarded to the outstanding engineering construction firms who in turn will employ the necesasry professional technical abilities, and they will be reimbursed for the moneys expended for these technical services, as a part of the cost of the work on which the contractor's fee will be based . . . In most cases, direct contracts between the government and the professional technical men will be executed, in which procedure the government agency will select: (a) Architects and/or Engineers; (b) General Contractor; (c) Heating Contractcr; (d) Plumbing Contractor; (e) Electrical Contractor; etc. group of individuals will be asked to form a corporation for rendering service on specific projects on a costplus-fixed-fee basis . . . It seems that the Navy Department will make separate contracts with engineers, architects and other professional technical men when they find it necessary to employ civilian technical assistance...

7. Engineers, architects and landscape architects will be employed direct on the government payrolls on a salary basis, in connection with the projects now under consideration . . .

8. Defense Housing Program. Mr. C. F. Palmer, with offices in the new Lafayette Building (corner of Vermont and H Streets) has been appointed Coordinator for Defense Housing, working under the direction of the National Defense Advisory Commission, of which Mr. Knudsen is Chairman . . . There will undoubtedly be a large amount of defense housing, a great part of which it is proposed to construct under the United States Housing Authority through the local housing authorities. While the United States Housing Authority is concerned with low rent housing, it is entirely probable that through Executive order or otherwise, housing to care for the needs of skilled labor and other labor requiring housing not in the low rent class, will also be done by special arrangement . . . It is reported that a committee on defense housing has been created in the United States Housing Authority . . .

Applications from those who require additional housing because of expansion or new developments in the defense program will be made through the local housing authorities

or direct through the National Defense Advisory Commission in Washington.

It is quite possible that in the more permanent locations, some of this housing for the higher income groups will be financed by private capital in co-operation with the Federal Housing Administration.

9. Under the direction of the National Resources Committee located in the State Department Building in Washington, a comprehensive "Roster of Professional and Technical Ability" is now being compiled.

10. A very extensive program of work is in progress in the Civil Aeronautics Authority, which under the Emergency Relief Act of 1941, has been granted \$25,000,000 to supplement the sponsor's contribution on W.P.A. projects which may be approved . . . It is estimated that \$450,-000,000 or more could be expended to excellent advantage in order to create the desired and proper national

system of airports.

11. Through the office of "Government Reports" (1405 G. Street, N.W., Room 500, Washington, D. C.) a revised edition under date of July 1940 is being published of the United States Government Manual which provides up-to-date information on the functions and personnel of all government agencies, including the new defense agencies. It can be purchased through the United States Government Printing Office (price \$1.25) and is a valuable reference book for those professional men who wish to be fully informed on government procedures and organization under these conditions.

Through the office of "Government Reports" one may also procure a sheet entitled "The Principal Federal Agencies which are concerned with Housing." This sheet contains information assembled by the Central Housing Committee, and there is no indication on the sheet that any charge is made for this sheet.

Was the Parthenon a WPA job? LOUIS F. WAILLANT of Brooklyn, New York, appealed to us to refute a newspaper statement to that effect, but EDWARD MOULTHROP of the Princeton Graduate College did some research at our request and reports:

THE statement of course is true, but made startling by singling out the Parthenon as the relief measure; actually this building was but a part of a larger program.

The background for the actual program was the growing democratic nature of the Government at Athens, and then, Pericles' ideal of the rule of the people and the reduction of the influence of great families. Two of the four what would now be called planks on his platform were: payment of citizens for service to the State, particularly payment of jurors in law courts; and the outlay of public funds on the adornment and improvement of the city. The first of these was quite an innovation, for the idea of soldiers, sailors, and judges paid by the State was then unthinkable. Under Pericles, almost one-quarter of the population were "officials" engaged in public service, which shows to what extent it was a Social State.

As for the actual unemployment relief program, there is only a little definite information that I can find: in Pericles' defense of his use of moneys from the Delian League, he says, " . . . . It is but right that the city, once it is properly equipped to prosecute a war, should use the superfluity to construct such works as will bring to her eternal glory. Those works while in the process of construction will put that superfluity of money into circulation by using it for general employment . . . . "

Then Plutarch speaks of Pericles inventing enterprises such as festivals, processions, seamanship training cruises to "rid the city of a crowd of lazy busy-bodies"; and his anxiety that the "undisciplined mob" of laborers get their share of funds not by going on dole, but by being given work. Therefore he boldly suggested great projects that would give allaround employment for long periods and to a'l the various trades. (The Acropolis development was one.)

This expenditure program, however, was the cause of many vicious attacks on his policy, most of which were based on its non-conformity with the purposes of the Delian League treasury, from which source the money was mainly derived. Also, Pericles was accused of using this pregram as a means of winning popular favor; as it "strengthened his hold on the proletariat." (Pericles' office was one attained by popular election of a sort, an election which he won for fifteen consecutive terms.)

(Continued on page 32)



# WOOD-LINED STEEL FRAMES

WOOD for beauty — STEEL for strength. That's how Pella CASEMENTS are made! Frames are of 16-gauge rustproof, galvannealed (zinc impregnated) steel with all joints welded — and, full jamb width (5 %"). Lining is clear white pine (other woods if desired). Sash is genuine white pine, toxic treated.

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ROLSCREENS built in to preserve the beauty of clear, sparkling glass. Always in place — no putting up — no taking down. 10 YEAR GUARANTEE.

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CASEMENTS \* VENETIAN BLINDS \* ROLSCREENS

# CRITICAL YOUTH WIELDS THE FLAIL

EDITOR'S NOTE — Since the March issue, we have devoted at least two pages of each "Threshing Floor" to letters contributed by undergraduates in the various Schools and Departments of Architecture. This informal symposium of opinions freely expressed seems to the Editors such a stimulating forecast of the professional thought of Tomorrow that we propose to continue the inclusion of letters from those who are now equipping themselves to become members of the profession.

Just as we have sought to give full consideration to professional contributions from even the smallest minorities among those in practice, we have reason to believe that the critical opinions of these who will succeed to professional responsibilities should be heard and carefully weighed. It is these who will be the practicing architects of America within a very few years. What will be their approach to practice? What trends can we expect? We depend on the fledgling leaders to tell us in these columns

### AN INVITATION

September suggests to many of us the beginning of a new academic year. Of immediate concern, it is the hope of those who have made this column possible, that this particular issue of Pencil Points will serve to remind the Student Readers that it welcomes their thoughts and expressions about Architecture. The mere fact that he is still pursuing his training, gives the Student a license to dream, dare, and contest—although later he may hesitate to "speak up" because of his practise or his professional attitudes.

Therefore, why not rummage now in your thoughts and feelings about Architecture, and stimulate your own and others' interest in reaching intelligent conclusions. Accept the challenge this column makes to you to speak your mind and show a spirit of adventure and inquisitiveness in your profession, without fear of starting an argument or drawing criticism of your contemporaries or elders. P. P.

# DECLARATION OF INTENTIONS

It is my firm conviction that in order to make definite forward progress in any endeavor one must know where he is going, he must have an ultimate goal toward which he is striving. Otherwise he is likely to drift aimlessly, realize the utter hopelessness of his effort and become thoroughly discouraged. As I am an aspirant to the architectural profession, I have for some time been searching for that standard of perfection in architecture toward which I might direct my efforts. In my limited experience, the ideas I have heard expressed have all been in general terms, put forward in an evasive manner, with apparently the idea in mind of reserving the privilege of admiring any building which one might choose, even if it be designed and built in absolute contradiction to stated principles.

Despite the too-frequent atrocities of the so-called "modernists" I find myself in sympathy with their pioneering efforts. Too long have they been accused of lowering the artistic standards of the profession. Yet I have not seen or heard a satisfactory answer to the challenge, and there obviously must be one.

It is this confused state of mind which has prompted me to probe into the matter for myself, to dispel my own misgivings. I have emerged from my sincere though perhaps unscientific investigation with a feeling of reassurance, and I believe that my thoughts will be of interest to those who have also engaged in mental combat with this problem.

Before setting down my conclusions, I shall explain my procedure and my line of reasoning on several of the more pertinent questions with which I was confronted. First, I surveyed the history of architectural thought, collected the many theories that appeared, and grouped them for the purpose of observation and discussion. Each of these either has been or is a firm conviction of some great architectural thinker. However, some

were in direct contradiction to one another and others were at least inconsistent, so the next step was to consider each carefully and determine which promised to serve best as a dependable criterion.

The question of beauty has received more than its share of attention in the history of architecture. Bitter controversies have arisen concerning just what determines beauty in architecture. The elements of ornament, fair form, function, and proportion have each been proclaimed as being the only true source of architectural beauty. Even proponents of these were divided among themselves. Some advocates of good proportions, for example, believed in a numerical basis, some in one of many systems of geometric proportioning, while still others preferred to depend on modules based on musical intervals, or observations from nature. In spite of the elaborate investigations and apparent proofs by many respected architectural thinkers I am convinced that an architect should not encumber his building with fixed rules. Neither should style be the determining factor in design. Function, construction, and freedom of expression are at once endangered by either approach.

Ornament has likewise been the subject for widespread dispute among architectural thinkers. Modern architects are forsaking ornament and it is used very sparingly or not at all. There is a growing belief that it should be a spontaneous expression of the people who create it and live with it; otherwise it is bound to harm the building it is meant to enhance. We have certainly not exhausted the possibilities of our new materials and when they are better understood they will be used in such a manner as to impart a quality and texture to our buildings, relieving them of their barren coldness caused by the lack of

This detailed process of elimination and combination of the original list of theories finally resulted in the following standard of values, which I

(Continued on page 34)

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have tried to make all-inclusive, yet specific enough to be of practical value.

### Function-

- (a) careful consideration and conscientious solution of specific needs and problems;
- (b) climate and locality;
- (c) orientation;
- (d) social and economic concept.

### Construction-

- (a) should result simply from the function;
- (b) suitable and frank use of materials;
- (c) good construction details;
- (d) good craftsmanship.

### Beauty-

- (a) arises from fair form, dictated by function and construction;
- (b) proportions determined by architect, studied in perspective;
- (c) carefully studied details, not copied;
- (d) style has no place in architecture;
- (e) ornament should be spontaneous, otherwise avoided;

- (f) discriminate use of color;
- (g) unity, scale and simplicity.

As I have previously expressed my approval of modernism, the thought may occur to the reader that I have deliberately set out to defend modern architecture. However, I approached the problem with an open mind and employed only common sense logic, to the best of my ability, for each decision. As a matter of fact, the present century seems to offer few new architectural theories, although it does represent a more fervent belief in the principles of truthful expression of form, function and materials. Most of the surviving theories made their appearance long before 1900. In fact, the very basis of the entire standard of values-the three main divisions of architecture into function, construction and beautywas expounded by Vitruvius as early as the time of Augustus. The newest thought that appears is that of the social and economic concept of architecture. That is, that the architect is not only reflecting his society, but is also important in shaping it.

The primary consideration is the complete inter-dependence of the

three essential elements of function, construction and beauty. The early architects put too much emphasis on a conscious search for beauty, out of proportion with their consideration of the other two elements. It is equally dangerous to over-stress either function or construction. We must humanize our architecture if we are to make it livable.

My conclusions are admittedly guided by personal opinion and as each of the items is in itself a subject for lengthy debate I am well aware of my own audacity in attempting to arrive at definite conclusions on each, especially as I am equipped with such a meager supply of knowledge and experience. I do not profess to have found what exemplifies the ultimate in architecture, but have simply examined all of the existing theories of architecture known to me, preserved only what seemed to be unfailing principles and organized them to facilitate their use. The result is a standard of values which for myself is sufficiently ideal to serve as an ultimate goal, and I humbly submit these conclusions for comment and criti-NORRIS M. GADDIS

Columbia University

Student Articles appearing thus far in THE THRESHING FLOOR have contained such generous portions of food for thought that one cannot but anticipate other equally stimulating repasts as guests of PENCIL POINTS.

Unexpressed thoughts are immaterial, except to the thinker. For him they are the formulative substance of ideas or opinions which may be worthy of expression. There is no better way of discovering the true worth of these than by giving them the test of discussion from such a springboard as here is afforded where, subjected to interested analysis, they may perhaps contribute something of value to education far beyond the author's most optimistic anticipations. On the other hand, they may not fare so well or may simply help to strengthen (or weaken) a commonly-accepted belief.

While education in its elements may still be said to be, properly speaking, the acquisition of "wisdom and virtues," or "dispositions and qualifications" for various occupations of life gained from many sources and in many ways, open discussions of these elements as they apply to the life of today are vital parts of it. In an era scintillating with galaxies of variegated opinions—of experimentations, more or less drastic; of fads, fancies, and foibles, as well as several degrees of progressive conservatism, discussions of unanswered or even unanswerable questions of Architecture and Architectural Education from various angles are justified if they seek a clarification of objectives and steadiness of direction in attaining them.

This Column is dedicated to freedom of expression and frankness of opinion. On no other basis does it merit editorial space. Freedom is a gift that should not be wasted and frank opinions, however provocative or infectious on the one hand or soothing or inspiring on the other, are, it must be realized, inconclusive to all but the opinionated. However such an opportunity as this of breaking-into-print is too precious to let pass for the student who has a real concern. Others, also, will profit from his acceptance of the challenge and some of us will appreciate this type of evidence that our efforts are not in vain.

GEORGE SIMPSON KOYL.

University of Pennsylvania

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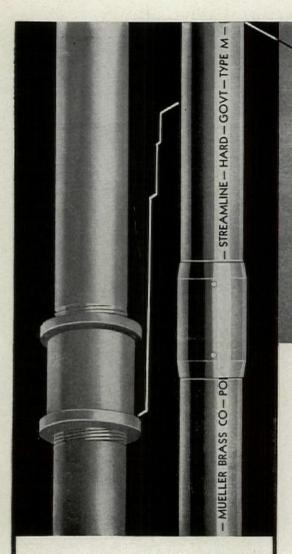
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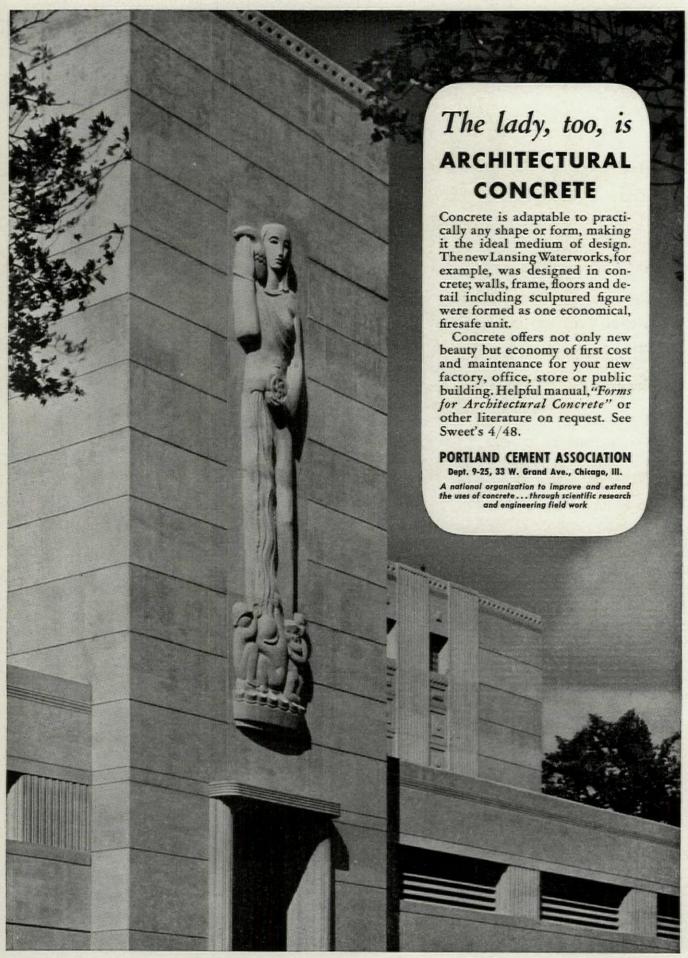


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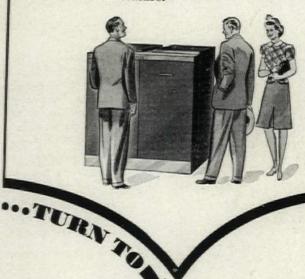


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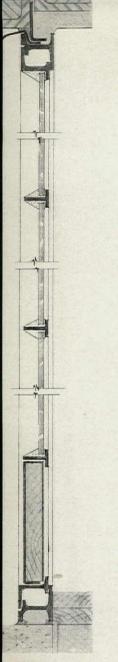
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AN APPRAISAL OF WAR HOUSING

FREDERICK LEE ACKERMAN

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Published Monthly by REINHOLD PUBLISHING CORPORATION, Stamford, Conn., U. S. A. Ralph Reinhold, President and Treasurer; H. Burton Lowe, Vice President and Secretary; Philip H. Hubbard, Vice President; Francis M. Turner, Vice President. Executive and Editorial Offices: 330 West 42nd Street, New York, 50 cents a copy, Yearly subscription \$3.00, two years subscription \$5.00, payable in advance, to the U. S. A. and all U. S. Possessions. To Canada, Cuba, Mexico. Central and South America, \$3.50 a year. To all other countries \$5.00 a year. Remittances by International or American Express Money Order or by Draft on a bank in the U. S. should be payable in United States funds. Subscribers are requested to state profession or occupation. Changes of address must reach us before the 20th of the month to assure delivery of forthcoming issue. Be sure to give both your old and new adversees. To Contributors: Articles, drawings, photographs, etc., sent with a view to publication will be carefully considered, but the publisher will not be responsible for loss or damage. Copyright, 1940, by Reinhold Publishing Corporation. Trade Mark Registered. All rights are reserved. Entered as second class matter, March 10, 1930, at the Post Office, Stamford, Conn., under the Act of March 3, 1879. Volume XX1, No. 9, September, 1940. Indexed in Art Index.

## HOW CAN I BE USEFUL?

A GUEST EDITORIAL

Today, in the midst of one of the gravest of world crises, one need not be a master of military tactics to acknowledge the fact that experts and, more especially, organizations of experts are winning this war; and that lack of experts is losing it.

What are we in the United States going to do about our experts, our specialists? Already much has been published about undertaking surveys of resources and of needs. This must be done. One must begin at the beginning; find out what is on hand; estimate what goal is to be reached; and from this knowledge determine those steps which must be taken now in order to develop, increase, and transform what there is into what there must be.

My own field is a special one. I am part of that huge and vague thing called "Building Industry." As such I am asking myself: "How can I be useful, how can I do my share?" How can we, experts in that particular field of building—architects, engineers, builders—serve?

Many of my friends are asking: "What are we in the United States going to do about construction? What about architecture?" Buildings are needed. Obviously all kinds of buildings: plants, shops, factories, garages, hospitals, barracks, administration buildings, airports, workers' houses, and shelters. What are we in the United States going to do about these? Where are our experts? Are we going to seek their advice? Are we going to ask them to pool their knowledge and to organize? Already much has been published about the billions which we are willing to spend. How will we spend them? What value will we receive for these large expenditures on construction — temporary value or lasting, real value?

Again I must emphasize, expenditures for mass production of engines, of guns, of

planes, are not things about which these experts — architects, engineers, builders — could advise us, but they could on construction, on buildings. Should we not have asked them to organize by now in self-reliant units, in order to have them ready to carry out work when the emergency comes?

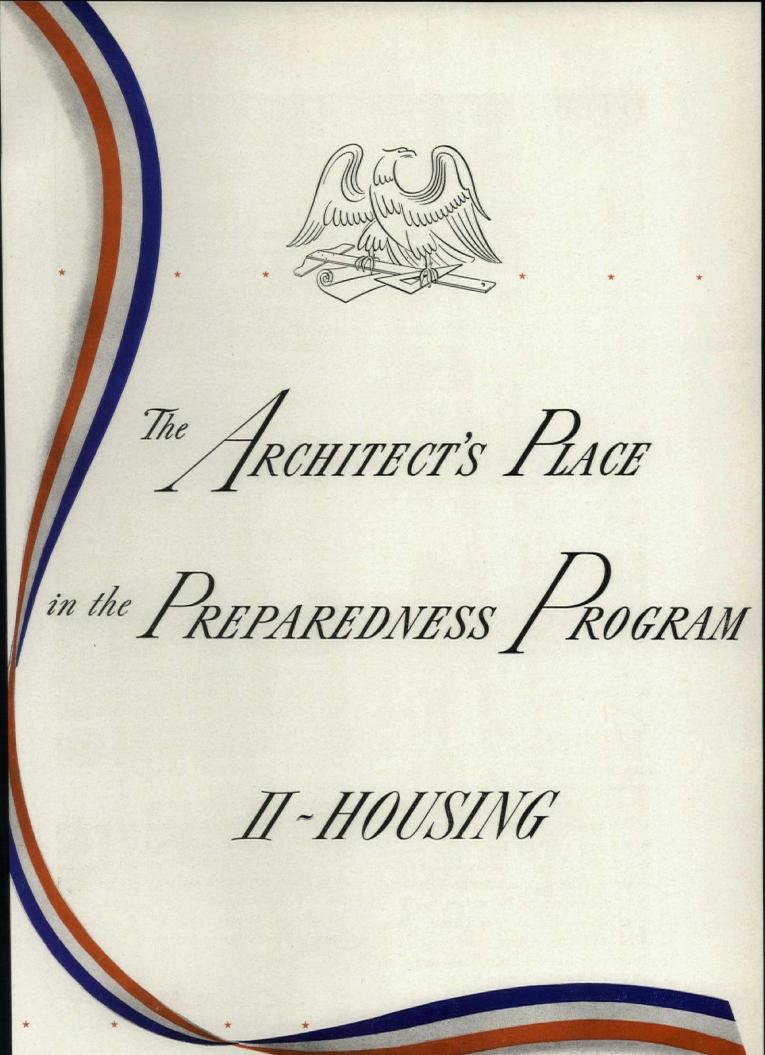
Let us be frank. In many places—official and political circles, War and Navy circles, in the mind of a large part of the public—the functions and the services of architects are not understood. Many people still hold to a Nineteenth Century notion. They still think that one shouldn't bother calling an architect in unless it's a matter of looks, of decoration; unless it's a building of marble and granite. And now they say that since we need useful structures, purely temporary, we really can't afford to have architects.

I say we can't afford not to enlist all of our experts. We can't afford not to insure that in each field, in each area, the right people be put to do the right job.

As a matter of fact, some architects have not waited until 1940 to re-discover and re-state what their true functions, their real services are. During the last twenty years, these men have perfected a technique — a method which is ready now to serve their fellow men intelligently and economically. That method is modern architecture.

Just as in 1939, it became quite clear and certain that the technique which had won the War of 1914-1918 would not be the technique which would win the present war; so it is becoming increasingly clear that only sheer folly or stupidity would suggest that we continue *thinking* and *building* today in terms of the Nineteenth Century.

Lenare





TYPICAL UNITS OF UNITED STATES HOUSING CORPORATION DEVELOPMENT (1918-19) AT BATH, MAINE, AS RECENTLY PHOTOGRAPHED BY KENNETH REID. PARKER, THOMAS, & RICE, OF BOSTON, ARCHITECTS

## AN APPRAISAL OF WAR HOUSING

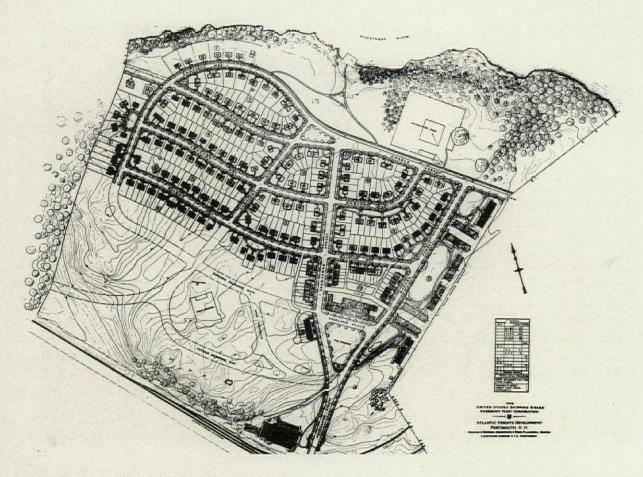
#### BY FREDERICK LEE ACKERMAN

A quarter century has passed since we launched a far-flung industrial effort to make the world safe for Democracy. We are now about to engage in another effort of staggering proportions, with aims phrased in much the same terms. Although the Great War of a quarter century ago was waged in the interests of Democracy, it is now plain that the terms of its settlement were such as to deny the aims under which it was fought. The purpose of this note is to deal primarily with one of the by-products of the first great industrial effort—with Housing, which was thrust out of the debased position it occupied as one of the channels through which brazen exploitation of land, light, and air was carried on openly and without censure, except on the part of a few reformers.

Before we actually entered World War I, not only munition plants and shipbuilding yards but a long list of industrial plants had been expanded and new ones built to fill the orders which came in a continuous stream from the European nations, later to become our allies. With few exceptions, this work of expansion had been made without forethought as to the imperative need of supplying some kind of shelter for those who were to provide the man power and skills. It was obvious that the launching of ships needed deep harbors, but from the record we know that it was then assumed that the workmen required to build and launch ships could get on somehow without additional provision for shelter. This is not to distort the point of view which gave rise to many months of delay before the exigencies of the case forced the Federal Government to abandon its attempt to load the full responsibility of supplying shelter for workers upon the owners of munition plants and shipyards, or upon the local communities within which this rapid industrial expansion was taking place. It should be recalled that Government or Municipal Housing was, at that time, an alien idea of revolutionary character-to be resisted as in the case of an alien enemy. Not until well into 1918 was it possible for members of Congress and Administration officials to summon sufficient courage to assume, by the appropriation of funds, the responsibility of housing workers upon whom, in a very large number of cases, depended the production of munitions and ships.

Looking back on that long period of delay it seems as if the debate sought to determine the relative consequences — the danger of losing the war against the danger of introducing Housing as a Governmental function, even though the aim was adequate preparation for a war which was to end war and save Democracy. Looking back now on that highly-prejudiced debate, a major question is raised whether we then had any very clear idea of what we were really trying to say, and what we were really trying to do.

Limited space does not permit going into the details of that first effort which was carried on under two Governmental agencies: The United States Housing Corporation, created to provide shelter for workers in new and



PLOT PLAN OF THE EFC DEVELOPMENT, "ATLANTIC HEIGHTS," AT PORTSMOUTH, NEW HAMPSHIRE (1918). KILHAM & HOPKINS, BOSTON, ARCHITECTS

expanded munition plants; and the Housing Division of the Emergency Fleet Corporation, whose function was to provide shelter for workers engaged in an enormously expanded program of ship building. To one who is familiar with the time schedules covering the production of housing projects today, the contrast is startling. The bulk of the work done by one of these agencies, which was not organized until the early months of 1918, was launched and completed within a twelve months' period. The urgency was such that in this case there was no time to manufacture enough red tape to entangle those engaged in the work; and there being no source from which to draw facts and data, there was nothing to do but to make use of a very limited experience and such criteria as could be drawn up from the ever-flowing wells of common sense.

The War Housing projects produced by these two agencies are in use today and one may now appraise them under the test of a quarter-century of unprecedented social and economic change. It is not for those who were responsible for those projects to pass judgment upon their adequacy and how they have stood the test, but it may be said that the way in which they have stood up generally, has exceeded the expectations of those who engaged in the hectic work of design and construction.

Whatever may be said in favor of or against the character and quality of our first venture in Governmental Housing, the responsibility, with minor qualifications, rests directly upon the technicians involved in the case-architects, engineers, and builders who had been called in, for the first time in our history, to guide and direct a piece of work of this kind. Technical men could be drawn into service by social forces which operated much the same as an official draft, for a dollar a year or for very low salaries or fixed fees--such was the emotional environment at a time when there was little else for them to do. Under such circumstances, it was, perhaps, logical that the work should fall into the hands of the more competent; and it should be recalled that there was not



TWENTY YEARS HAVE MUCH IMPROVED THE APPEARANCE OF "ATLANTIC HEIGHTS" AT PORTSMOUTH, NEW HAMPSHIRE, WITHOUT ALTERING THE SCENE BEYOND RECOGNITION AS THESE PHOTOGRAPHS SHOW. THE OLD PICTURE ABOVE INCLUDES THE SAME TYPE OF HOUSES SHOWN IN THE RECENT PHOTOGRAPH







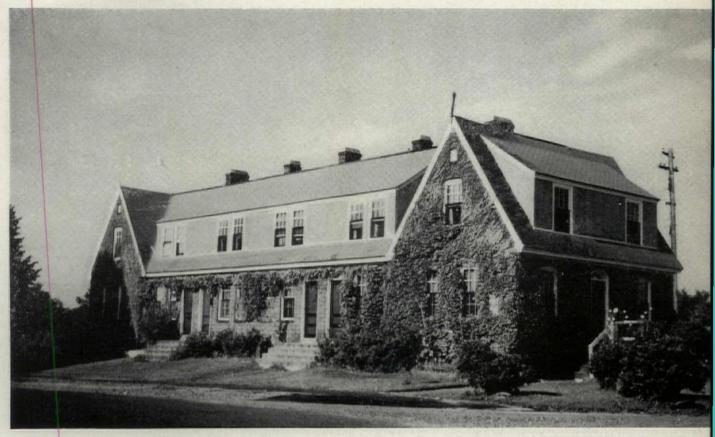
LOOKING AT THE PHOTOGRAPH ABOVE MADE RE-CENTLY AT "ATLANTIC HEIGHTS" IT IS DIFFICULT TO REALIZE THAT THE BUILDINGS WERE AS BLEAK IN 1918 AS THE LITTLE PICTURE BELOW INDICATES

sufficient time to run the organization charts through the wringers of patronage.

The legislation creating the two agencies and appropriating funds required that the Federal Government get out of this dangerous business of Housing upon the establishment of peace. This is a consideration of first magnitude in appraising what was then done in the light of what we are now doing. It was mandatory that those projects be so designed as to permit minute subdivision and sale of individual properties - hence the general absence of super-blocks and open spaces which might be used for play and recreation by the communities. And at that time, the ownership of an automobile was considered far beyond the economic reach of industrial workers. Like the silk shirt, it did not "belong" even though we were fighting to make the world safe for Democracy. Plans, which at sketch stage made provision even for future garages, were then viewed as a transgression of the will of Congress. Government Housing was, after all, a dangerous compromise with the status quo. It was an admission that the provision of shelter for humans was, under the circumstances, of the same order of importance as the sheltering of machine tools used in producing munitions of war and ships.

Recalling the long Congressional discussions which preceded the appropriations, it is plain that the intention was to provide shelter for individual workers, both men and women, in temporary hotels, and for families in single and two-family houses. But it was found in many instances that budgets could not be stretched to cover the need for shelter except through the introduction of multiple dwellings.

Naturally, the question of durable versus non-durable or temporary structures never ceased to be a matter of discussion. The ready-cut or, as later called, pre-fabricated house was pushed by its many sponsors; but at that time these types were in embryo rather than in infancy or adolescence, as now. The outcome of such investigations as could be made in respect to temporary and durable structures within the short time available ran to the effect that durability,





THE LARGER UNITS (6 DWELLINGS) OF THE "ATLANTIC HEIGHTS" DEVELOPMENT WERE HANDLED BY KILHAM & HOPKINS IN THE MANNER SHOWN IN THE UPPER PHOTOGRAPH—INTERESTING TO COMPARE WITH THE SAME SIZE BUILDING DESIGNED AT THE SAME TIME FOR "YORKSHIP VILLAGE," CAMDEN, NEW JERSEY, BY ELECTUS D. LITCHFIELD, NEW YORK ARCHITECT, ALSO FOR EMERGENCY FLEET CORPORATION



AERIAL PHOTOGRAPH OF EFC DEVELOPMENT, "YORKSHIP VILLAGE," AT CAMDEN, NEW JERSEY, (1918) DESIGNED BY ELECTUS D. LITCHFIELD, OF NEW YORK. PHOTO BY DALLIN AERIAL SURVEYS

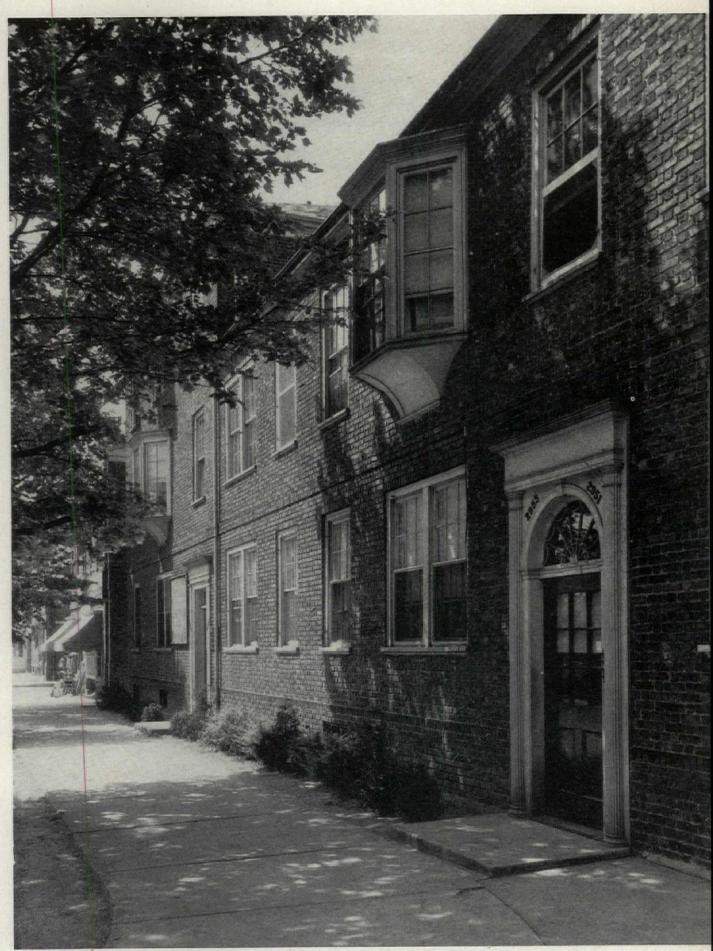
when all costs were included, did not add too much in view of the certainty that a serious shortage of houses would follow in the wake of war. And so, durable rather than temporary structures came to characterize the work of the two Federal agencies. These few items of history have been recalled, since World War I seems a remote page of history to those who are confronted with the present situation.

When one mentions this first Federal venture in housing in the presence of those who have been engaged upon New Deal programs, it is not unusual to hear the first effort referred to disparagingly. While a very few notable, moderate rental, housing projects were launched as limited-dividend-private-enterprises during the 1920's, it remains true that the Federal venture of 1918-19 had relatively minor influence upon Housing during the decade which followed, when the provision of shelter was very largely the by-product of a most fan-

tastic speculative adventure in which we went in for high urban population densities for rich and poor alike. At no previous period had we gone so far in our preparations for present-day urban discomfort as in that fantastic decade. More potential slums were financed, I suspect, in the 1920's than in any decade before or since.

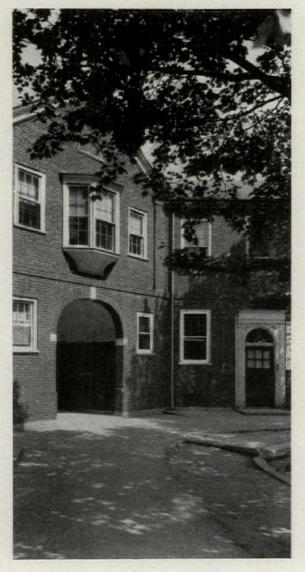
During the last twenty-three years, the writer has visited many of the war-time housing projects and has noted how the areas adjacent which, in many cases, were developed during the 1920's, fall short in many respects (except in the provision of gadgets) when compared with the hastily conceived war projects of 1918-19. Many of these 23-year-old housing projects stand out; some carry marks of distinction quite apart from style; and even now they arrest attention by reason of their unity.

The present program of Federal and Local Housing was launched under guidance of the aim to decrease unemployment. But it was necessary to float it upon a more popular idea—Slum Clearance. Notwithstanding the complete failure of the 1917-18 attempt to place the responsibility of financing and ownership other than upon the Federal Gov-



A RECENT PHOTOGRAPH OF THE APARTMENTS FACING ON YORKSHIP SQUARE SHOWS THE CHARM OF "YORKSHIP VILLAGE" AFTER THE PASSAGE OF TWENTY YEARS. PHOTOGRAPH BY SAMUEL H. GOTTSCHO

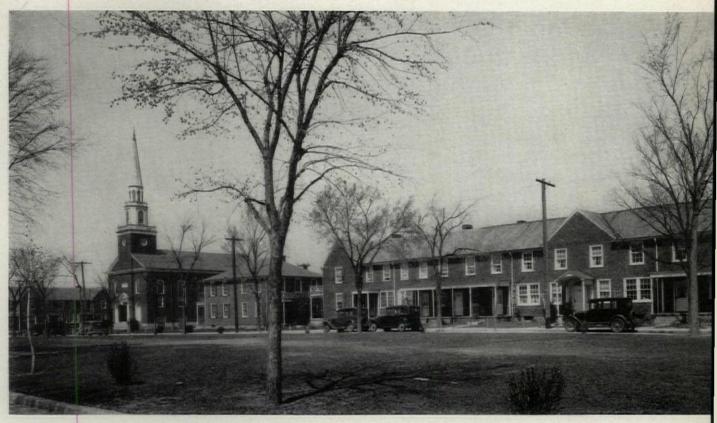




ernment, the depression program of 1933 was set up with the same ends in view. Naturally, this latter effort also failed: no one cared to venture an equity investment at a time when stability of mortgages was so much in question that another branch of the government was insuring lenders upon mortgages against loss. The Housing Division of the PWA was soon forced to initiate and assume all responsibilities and risks.

By the time the USHA was in working order a sufficient number of Local Authorities, created to function as equity investors, had been established to make it possible to launch a large program of Slum Clearance and Low Rental Housing under the terms of an Act of Congress. This Act provided a subsidy of sufficient magnitude to insure rentals within the reach of a very considerable proportion of the families which the projects were designed to serve. This work has been so thoroughly publicised that reference will here be made to only a few points of immediate bearing.

However one may view the present Federal Housing Program as contributing toward overcoming two of the most conspicuous failures of our economic system, it stands as an acknowledgment of those failures, and it

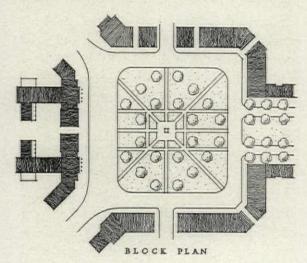


constitutes an attempt to do something about the discrepancy between family income and the cost of the use of shelter for a considerable fraction of our entire population. And it also is an attempt to replace areas of decayed and obsolete habitations, an essential step in the processes of growth which, in the case of urban centers, our economy seems designed to obstruct.

But one already notes a drift away from the original aims under which this Depression program was launched. Population densities, height and coverage are slowly creeping upward: and the importance of simple amenities of living is gradually falling into the background, among the aims. Some of the more recently built projects present a bleak and forbidding appearance; and the increasing height and coverage make some of them not readily distinguishable from surrounding obsolete structures when seen from a short distance.

Such a drift is to be expected under the operation of our price system, for notwith-standing the whole Housing enterprise being based upon the use of a large subsidy, it seems quite impossible to lift this work from the jurisdiction of criteria which have guided promotion and investment in habita-

THE COMMUNITY CHURCH, STORES, APARTMENT HOUSES, AND SOME DETACHED DWELLINGS OF "YORKSHIP VILLAGE" ARE GROUPED AROUND YORKSHIP SQUARE AS SHOWN BY THE SKETCH PLAN AND GENERAL PHOTOGRAPHS REPRODUCED HERE AND ACROSS-PAGE. A FEW BUILDINGS HAVE BEEN ADDED SINCE THE PROJECT WAS DESIGNED AND CONSTRUCTED BY ARCHITECT ELECTUS D. LITCHFIELD — BUT CREDIT FOR THE CHARMING GENERAL ASPECT UNQUESTIONABLY GOES TO THIS WELL-KNOWN ARCHITECT AND TOWN PLANNER



THE GENERAL VIEWS OF YORKSHIP SQUARE, ABOVE AND ACROSS-PAGE, WERE MADE BY PHILIP B. WALLACE. THE DETAIL PHOTOGRAPH PRESENTED ACROSS-PAGE WAS MADE BY SAMUEL H. GOTTSCHO tions which by reason of their dramatic inadequacy were obsolete upon the day of completion and due, therefore, rapidly to degenerate into slums.

The projects of the last decade of Depression differ in one radical way from those of the first Federal venture in War Housing. The latter were designed to become "Own Your Own Home" communities at the close of the War: the Depression Projects were designed to be leased under strict regulation as to their occupancy as defined by the enabling legislation. This mandatory requirement as to rental opened up new vistas in design: the super-block yielded better distribution of open spaces to serve the many functions of living.

But it should be noted that these new projects, except those designed for rural situations, become a part of an ancient and obsolete pattern of streets and transportation systems which surround them. We assume that by expanding these projects we will transform our cities. But as matters stand, this remains an item of wishful thinking. It is perfectly clear that as yet our urban centers are rigidly chained to their old pattern by the bonds of capitalization attached to items of decay and obsolescence. But such matters lie outside the field of these notes, which have to do primarily with Housing.

However vague the Program of National Defense at present, it is safe to say that a number of industrial plants will be expanded and new ones built. Where this occurs, additional housing facilities will certainly be needed—both temporary and permanent—as in World War I. Opinion will be divided and a strong plea will be made for structures of lowest possible cost.

It is highly probable that this work will be initiated in much the same way as in World War I; and hence the geographical distribution of the defense industries will take shape out of distribution of contracts through a combination of price competition and influence. But this time there should be no long debate and consequent delay in providing the needed housing, as in the last war. Federal, local, and State agencies are prepared to take on the job, though some new legis-

lation may be required. Not being at war, and still within a Depression, there will be no lack of competent technical men and workers to make the plans and turn them into effect.

Any attempt at this time to prescribe in detail what should be done in the field of Housing and Community Design would be as presumptuous as starting a cruise without chart and compass. No one can possibly see down the vistas of the years ahead, for they are blocked from view by the black pall of utter confusion which now hangs over the world. But in view of the general aims of the Program of National Defense it seems out of place to now debate how far down the scale we should go in providing the lowest-priced housing which can be designed, and communities minus the amenities of living. We have an abundance of material and ample industrial capacity, the knowledge and the skills, to produce adequate housing without curtailing the program of producing ships and munitions of war. There is no more reason for resorting to half-way measures in this field than in the production of ships, tanks, planes, and munitions of war. Our knowledge, experience and ability should also be turned loose upon this problem of Housing: it would give point to our expressed aims.

We have no more than a nebulous idea concerning the thing against which we are to erect our defenses: hence our shifting Program of National Defense. Only one thing seems clear. We are living within the frame, not of wars between powerful nations but of an all-embracing World Revolution. The old order is fading into the dusk of a predatory era. For better or worse, new institutional forms are being forged in deep anguish. Not only must we make these preparations to combat physical and economic aggression, but we must also make such institutional changes as will insure our autonomy within a new frame of world relations which will obtain at the provisional conclusion of the conflicts now raging.

Editorial Note — Other housing projects of the type referred to in Mr. Ackerman's article are shown on the following pages



AT BRIDGEPORT, CONNECTICUT, THE MOST IMPORTANT HOUSING CONSTRUCTION DURING WORLD WAR I WAS BACKED BY A PUBLIC-SPIRITED CORPORATION, THE BRIDGEPORT HOUSING COMPANY, WHICH HAS MAINTAINED THE PROJECTS IN EXCELLENT CONDITION AS SHOWN BY THESE RECENT PHOTOGRAPHS AT "MILL GREEN" (ABOVE) AND "GRASSMERE I" PROJECT, BLACK ROCK (BELOW), NEAR THE MCKESSON & ROBBINS PLANT. THE HOUSING DEVELOPMENTS OF THE BRIDGEPORT HOUSING COMPANY WERE DESIGNED BY R. CLIPSTON STURGIS & A. H. HEPBURN, ASSOCIATE ARCHITECTS, WITH ARTHUR A. SHURTLEFF AS TOWN PLANNER, AS PROJECTS SPONSORED BY THE UNITED STATES HOUSING CORPORATION (1918). MANY OF THE SUPERIOR QUALITIES WERE FOSTERED BY THE ULTIMATE OWNERS. PHOTOGRAPHS BY GEORGE VAN ANDA



## ARCHITECTS AND THE DEFENSE

#### BY TALBOT F. HAMLIN

In a recent Architect and Building News of London, H. S. Goodhart-Rendell, a past president of the R.I.B.A., wrote: "Official neglect of architectural services has already produced in our buildings for war a Nemesis almost comical in its severity." It is obviously the great task of the architects of America, as a profession, to see that this does not occur in the vast amounts of construction necessitated by our own defense program. This is a much deeper question than any matter of jobs for architects. It is rather a matter of seeing that the technical knowledge, the creative talent, the particular genius for planning, which are architects', should be made available to the body politic in a time of need. This is no time for false modesty. If the architects have contributions to make they must, if necessary, even force this contribution upon a thoughtless state.

And the possible contributions of architecture are colossal. It is architects who must preserve, as it were, the visual integrity of the country in all buildings, temporary or permanent; it is architects who can best envisage the human qualities in factories or housing developments made necessary by an increased industrial plant. The engineer may plan for efficiency or economy, but too often the engineer's training, the whole bias of his profession, is concerned with machines rather than with men.

Ultimately, of course, the problem is as essentially a human problem as it is a mechanical problem, for the health and welfare, the pleasantness of working conditions, and the richness and social efficiency of

dwelling communities must form, whether we plan it so or not, an essential part of the efficiency of our population. It is not enough to force these people into barracks unkempt and unplanned, with the thought that they too are making their sacrifices for the common cause; morale is as necessary in the civil population as in the military forces. The final defense against Nazism must lie, ultimately, in the attitude of our own people; and nothing could be more conducive to a breakdown in morale, to the loss of a real sense of the value of our own American ways, than to force large numbers of working people into conditions alike of work and of living that are tawdry, ill-planned, ugly. Democracy must vindicate itself in the quality of its technical services and its technical planning, and it must do this on the human level, so that every individual who is affected by the defense program may in the very course of his efforts for defense be cognizant at every moment of the fact that democracy stands for human welfare and the richness of human life.

To accomplish this, architectural leadership is the best if not the only way, for in public as in private work it is the architect as a professional man who mediates between the final aims of social good and the immediate necessities of individual or group buildings. He it is whose training and experience have enabled him to put himself into the position of each individual who uses or sees the buildings he has designed, he it is whose imagination pierces behind the needs of any one structure into the effect it will have on



THE PLEASANT CHARACTER OF ANOTHER OF THE PROJECTS OWNED BY THE BRIDGEPORT HOUSING COM-PANY IS SHOWN IN THIS PHOTOGRAPH BY GEORGE VAN ANDA OF GARDEN APARTMENTS AT "BLACK ROCK" ALSO DESIGNED BY R. CLIPSTON STURGIS AND A. H. HEPBURN, ASSOCIATE ARCHITECTS, WITH ARTHUR A. SHURTLEFF AS TOWN PLANNER, AS A PROJECT OF THE UNITED STATES HOUSING CORPORATION (1918). BUT THIS DID NOT ALWAYS APPEAR AS INVITING, AS THE OLD PHOTOGRAPH BELOW REVEALS



its community, he it is perhaps more than anyone else who is enabled to envisage not only the form of communities in being but also their aims and their effects. Although the buildings which he designs may be but temporary and the means at his hand insufficient and exiguous, nevertheless the true architect must always in them see opportunities to richer, to more perfect, to more efficient living; and, whether or not he succeeds in achieving his ideals, whether or not individual conditions at any one time may be such as to permit their final embodiment into houses and factories, schools and playgrounds, community buildings and street arrangements, he will judge his work by this larger and greater ideal and bring into it, as far as he is able, those qualities which will enhance personal life.

Now this, it seems to me, is one of the most pressing parts of the whole defense program. The official mind tends to see much of it in the shape of temporary buildings only and, since the buildings are temporary, tends to feel that any such matters as adequate technical architectural service are unnecessary-as though squalor and indecency, ugliness and confusion, were any less powerful because, forsooth, they were not to last forever All the structures we build are temporary in the larger sense; we live by all sorts of temporary or even momentary experiences. Yet the whole quality of life which we enjoy comes from the summation of these temporary or even momentary events. And the same is true of architecture. The fact that a building or a group of buildings is temporary should be no excuse for planlessness or chaos. In one sense, it is even more necessary to furnish adequate planning and design for so-called temporary projects than for those more permanent, because the very temporary nature of the project leads to a don't-care kind of attitude in its inhabitants. Only the most carefully planned, most clean and efficiently designed, most systematic and pleasant arrangement can overcome this disintegrating atmosphere.

The field for the architect, then, is large. It comprises building design of all types, tem-

porary and permanent. Especially is the field great in such things as camps to take care of increased military forces, and communities built around new factories to take care of increased military manufactures. The draft camp of the last war varied from adequate to horrible. Hardly any could be called really good, in plan, in use of site, or arrangement of buildings. There is no necessity for such mistakes now. The plan of military camps is, to be sure, held down by many technical requirements; yet every site is a different one, and the adequate adjustment of the military and technical needs to the special site in hand is a planning problem full of rich opportunities. Even the individual barracks or community buildings themselves, in such a camp, furnish endlessly interesting architectural problems. To use materials which are easily obtainable in stock sizes or lengths in such a way as to necessitate the least possible field labor, to compose of these units forms which have mass, simplicity, straightforward effectiveness, is something which is directly within the architect's field. The differences between the designed and the undesigned, between the satisfactory and the ugly, are matters frequently which have nothing to do with economy or available materials; they are matters of proportion and carefully thought out detail, and where there is opportunity for such architectural effect, where there is architectural talent clamoring to be used, it would be indeed tragic if through mere inertia or carelessness it was the ugly and confused which came to rule.

And what is true of barracks or camps is, of course, even more true of industrial communities. Here the record of 1917-19 in America is much better, for here the government felt or was shown the need of technical services, and the industrial housing groups which grew up by dozens all over the country were many of them excellent in layout and furnished residences which were homes as well as shelters. Strangely enough, this is the side of the government's effort during the last war which seems almost altogether forgotten. From it there are to be obtained any number of lessons of value, in



unit type planning as well as in community arrangement. There are lessons, too, in matters of larger policy-such, for instance, as the differences between temporary and permanent developments. Many of the World War communities designed only with an eye to short-time use still stand; fallen into private hands, they tend inevitably to form the germs of new slums, their cheap materials disintegrating, their maintenance overlooked. Others, designed obviously with the aim of more permanent occupancy, built at greater immediate cost, of better and more permanent materials, are also standing; but, instead of suburban slums, they form in almost every case attractive and value-making adjuncts to a locality. Yorkship Village, designed by Electus Litchfield, is still among the most attractive American towns of its size, despite its standardized units - or should we say because of them? - and because of its strong, direct plan conception. The great number of brick houses built in communities in and around Bridgeport, Conn., designed by R. Clipston Sturgis, have become lovelier and lovelier as the planting has grown around them, and the little open courts and quadrangles of which they are TYPICAL UNIT OF THE 1918 HOUSING PROJECT AT BATH, MAINE, DESIGNED BY R. CLIPSTON STURGIS OF BOSTON FOR THE EMERGENCY FLEET CORPORA-TION, OF THE UNITED STATES SHIPPING BOARD

chiefly formed and the curving streets which are part of their layout make them even to-day outstanding examples of suburban design. Bridgeport had the good fortune to have the greater amount of its war housing fall into the hands not of private speculators but of a public-spirited corporation, the Bridgeport Housing Company, so that effective maintenance has preserved and even improved its original architectural achievements.

Today I think we must go even further, by avoiding as far as possible cheap and temporary construction to form future slums, as well as by seeing to it that the housing which is built is adequately administered by local housing authorities and is continued indefinitely in public ownership. Only so can the vast expenditures of these years be vindicated in the future and become the means, not of enriching a future generation of land speculators, but of increasing the value and the decency of our towns and cities.

In this effort, of course, all problems of applied stylisms must be rigidly eradicated from our architectural thought. The necessity for an efficient economy should see to that. The greatest fault to be found with much of the past war housing was its affected picturesqueness of line and texture on the one hand, or its sometimes affected colonialesque formality on the other. In almost every case it is the simplest of houses which have worn the best, because the effect came from relationship of wall and window and roof. We must rigidly apply ourselves to contemporary thinking in this wartime building, or fall under the combined indictment of sentimentality and extravagance. We must see that every penny of architectural expenditure goes into real human values, which include of course æsthetic values, and is not used up to display our individual love of any one style or type, ancient or modern.

We are fortunate in having adequate machinery to take care of most of these matters. The United States Housing Authority and the local housing authorities between them have built up a large force of technically trained, socially minded, enthusiastic workers; and more and more as the architects of the country work on these housing projects of the present day they are building up an invaluable store of knowledge of the needs of communities and the ways to meet them. Not to use these facilities for largescale residential planning and design would be foolish in the extreme. One lesson which the housing authorities have learned is especially valuable today-the danger of overmuch centralization. In a country with the climate differences of America, with its enormous variations in materials and technique, to attempt blanket design in a centralized bureau would be fatal. Standardization of standards perhaps is permissible and may guarantee a certain basic adequacy, but standardization of design not only produces buildings unfitted for their locality but entails manifest waste. We must perhaps count even more strongly on local materials than in the past, for, once our great industrial defense program is well under way, transit

facilities for freight will become crowded, if not clogged, and pressures on centralized plants for manufactured materials will be instantly great. Any means of building adequately with materials requiring the minimum of haulage will prove a great assistance to the whole field of production, just as any means of designing buildings which will be adequately fitted for the people of any one region-although perhaps not to others-will aid in the development of community spirit and local efficiency. This will mean, of course, the employment of local architects as far as possible. Working under suitable supervision, it should do much to make the vast flood of architectural talent present in this country available and useful in this time of emergency.

How, then, may this result be achieved? Governmental bodies by and large have little idea of what architecture is or what the architect's service may be. As "practical men" they tend to lump architecture along with all the arts as something to keep the womenfolk interested and good enough even for a man's amusement in his spare time; but of architecture as a creative force, which forms our communities and to a tremendous extent governs the lives and the ideals of those who live in them, few of these men have the slightest conception. To the importance of architecture, as of all the arts, in forming national enthusiasms, in creating national morale, they are profoundly blind. Yet it is this type of man who will in large measure control defense expenditure, and it is this type of mind with which the architect must deal. There is no longer time for slow and patient education of the so-called "practical man." What the architects need first and foremost is selfconfidence, a belief not only that the job of building design is really theirs, but also the firm and confident faith that they can accomplish it. Armed with this, they can demand that their talents be used, and not, as too often heretofore, merely beg. With adequate leadership they should go far.

Speed in this effort is the great necessity. If as professional men we architects are interested in making our contribution to the

country's welfare as great as possible, we should not haggle over terms or methods by which this contribution can be made. Professionalism has, of course, two sides: one the great ideal of public service, the other the dignity and welfare of the practitioner. Today it must be the former of these which dominates our thinking. Whether in salaried positions, by fixed fee, or by ordinary professional methods, whether as government employees or as individual architects, we must make our skill count. We must enter into the great cooperative effort of seeing that national emergency becomes a means for national betterment and not for national disintegration. We must see that the necessary planning is planning of long-range validity and not mere snap-judgment extemporizing. Any means to achieve this is the architect's part today.

Nevertheless there is one professional danger to guard against. Whatever the details of the method of employment, it must be such as to guarantee to the country the best services the architect can give. He must never let himself be jockeyed into the position of becoming a mere draftsman for some "practical man's" magnificent ill judgment. He must never allow himself to be the mere line drawer of rashly conceived and ill-planned projects. For the sake of the country itself, the architect, in matters of building design and arrangement, in matters of community planning and creation, must demand to be the leader.

Such a position would be no innovation in American life. From the very beginning of the country, for over a half century, the architects were called on again and again. L'Enfant was commissioned to design Washington, Mangin was consulted with regard to the fortification of New York, and John McComb designed Castle Garden and the West Battery on the Hudson. Latrobe was the architect of much of the Washington Navy Yard and of the arsenal and military station in Pittsburgh; he was consulted over and over again with regard to other naval building and general matters of military construction. Robert Mills, in more peaceful times, built naval hospitals and customs houses all over the country. Four decades later the country called on its architects again for its wartime housing, and the contrast in excellence and adequacy of design between the greater number of these housing communities and the greater number of the draft camps shows something of what the architects gave then and could give now.

That housing effort was recent enough so that its lessons are still easy to read, though all too frequently now forgotten. Most of the men who worked on that enterprise are still with us to give the benefit of their experience. Henry Wright often said that one of the tragic things about the present-day American housing movement was the fact that it had so little studied the achievements of those years, and had had to learn all over again many of the lessons already taught. We should not repeat this fault. Would it not be an admirable time for one of the Institute committees, perhaps that on housing, to start at once on a study of those wartime communities today to find out which have lasted well and why, to seek the causes of obsolescence or of longtime life, to correlate design with true efficiency as these communities have exemplified it or the reverse? Another committee, perhaps that on structural materials, might study the temporary wartime construction of the past two years in Europe - barrack types, camp layouts, methods of combining decency with economy and speed. The materials for this study exist largely in foreign architectural periodicals, especially the English magazines; and from the lessons there to be learned much information could be gained about such questions as the possible use of evacuation or military camps for subsequent recreational purposes or other peacetime services. It is the answers to all of these problems which are going to determine whether the United States ten years from now shall be a country spotted with new slums, scarred with useless wastes and the ruins of cheap shacks, or whether it will be enriched with new communities modern, healthy, pleasant - new recreational facilities, new means for popular happiness and welfare.

## RECENT LITERATURE

## ON LOW-COST HOUSING

#### COMPILED BY ALAN MATHER

A selected list of those books, magazine articles and pamphlets published since 1935 which contain information useful to the designer of housing for the industrial wage-earner is presented herewith.

The magazines from which articles have been chosen are: Architectural Forum, Architectural Record, Pencil Points, American Architect, Architecture, Public Housing, Monthly Labor Review, and Housing Study Bulletin.

For literature of this nature published before 1935 see: BIBLIOGRAPHY OF PLANNING, 1928-1935, compiled by Katherine McNamara (Harvard University Press, Cambridge, Mass., 1936, 232 pages, \$3.50).

For a free list of the U. S. Government publications on housing write to the Superintendent of Public Documents, United States Government Printing Office, for Publications of Interest To Suburbanites and Home-Builders (Price List No. 72). This includes the reports of the tests of the National Bureau of Standards.

The Federal Works Agency: United States Housing Authority, Washington, D. C., will send, upon request, a list entitled PUBLICATIONS OF THE U. S. HOUSING AUTHORITY. This includes titles of all bulletins on policy and procedure covering site planning, dwelling unit planning, preparation of drawings and specifications, heating, etc.

Literature on air raid defense measures, some of which has a relation to the design of housing in these times is included in a selected list of references on planning against air raids, Harvard University, 1938. This was compiled in the library of the Departments of Landscape Architecture and Regional Planning, by Katherine McNamara. English magazines are full of the subject. "Structural Precautions Against Air Attack," a series of articles by Oscar A. Bayne in The Builder for Jan. 13, Feb. 24, March 24, and May 26, 1939 (supplements) deal with it fully. The Journal of the Royal Institute of British

Architects has annotated bibliographies on air raid defense measures in its issues of May 8 and May 22, 1939.

All the architectural literature listed here is in Avery Library, Columbia University.

Two publications which appeared before 1935 are listed here because of their exceptional usefulness. Of the printed matter which deals with public health, social and town planning aspects, only that is included here which has a direct bearing on architectural design. If the reader is amazed by the scarcity of magazine articles dealing with proportion, scale, texture, line, mass, history, and criticism—in a word, with architecture—let him realize that I have concentrated almost exclusively on those masterpieces of mechanical prefabrication—our architectural magazines.

A. M.

#### GENERAL WORKS

Books

• HENRY WRIGHT. Rehousing Urban America. (Columbia University Press, New York, 1935. 173 pages, \$7.50.) Relation between housing and city rehabilitation. Technique of planning group dwellings and apartment dwellings. Evolution of housing in Germany as observed by the author in his visit to that country in 1932.

Magazine articles

- NATIONAL ASSOCIATION OF HOUSING OFFICIALS. "Preliminary Report of the Committee on Physical Standards and Construction." Architectural Forum, Vol. 68, May 1938, page 22 of supplement. General statement of principles of site selection and development. Principles of planning low-rent dwellings.
- ALBERT MAYER. "A Technique for Planning Complete Communities." Architectural Forum, Part 1 in Vol. 66, Jan. 1937, pages 19-36. Part 2 in Vol. 66, Feb. 1937, pages 126 to 146. Outline of procedure followed by the Suburban Resettlement Administration, U. S. Department of Agriculture in planning Greenbrook, N. J., a projected satellite community. Part 1 contains a summary of research on living habits in the region; area calculations for various functions; highway and land acquisition maps; comparison of row houses and single houses. Part 2 contains information about road design and construction, orientation of buildings, electric light and power, basic plans for houses, heating, plumbing, etc.

#### CITY PLANNING ASPECTS

#### Books

- FEDERAL HOUSING ADMINISTRATION. The Structure and Growth of Residential Neighborhoods in American Cities. (U. S. Government Printing Office, Washington, D. C., 1939. 178 pages, \$1.50.) Segregation of land uses and patterns of residential rent areas described by text, maps and tables.
- CLARENCE ARTHUR PERRY. Housing for the Machine Age. (Russell Sage Foundation, New York, 1939. 261 pages, \$2.50.) Principles of planning single-family house and apartment house neighborhood units.
- THOMAS ADAMS. The Design of Residential Areas.
   (Harvard University Press, Cambridge, Mass., 1934. 296 pages, \$3.50.) The control of land subdivision; zoning; economic factors in housing; street types; comparison of costs of various block layouts. Plans for neighborhood units. Comparison of English and American model communities.
- ROBERT WHITTEN and THOMAS ADAMS. Neighborhoods of Small Houses: Economic Density of Low-Cost Housing in America and England. (Harvard University Press, Cambridge, Mass., 1931. 205 pages, \$3.50.) Present subdivision practice in the United States. Effect of density on acreage values and lot values. Plans for blocks and neighborhood units. Diagrams and data on density and costs for English model communities.

#### AUXILIARY BUILDINGS, AMENITIES

#### Pamphlets

• UNITED STATES HOUSING AUTHORITY. Planning for Recreation in Housing. U. S. Government Printing Office, Washington, D. C., 1939. 40 pages, 10 cents. Site plans contrasted to show revisions to allow for recreation facilities. Data pages on volleyball courts, spray pools.

#### Magazine articles

- "Nurseries in Housing Projects." Architectural Record, Vol. 83, Mar. 1938, pages 94 to 100. Plan, photo, nursery school at Arthurdale, West Va. General principles of planning nurseries for housing projects. Bibliography.
- "Check list of special requirements; Williamsburg Project."
  Housing Study Bulletin, No. 9, Oct. 1935, pages 4 and 5.
  Housing Study Guild, New York. Considerations affecting day nursery, and nursery school, store rooms, etc.
- MARY GOLDWATER. "Functional Community Planning." Housing Study Bulletin, No. 9, Oct. 1935, pages 6, 7, 8. Housing Study Guild, New York. Limitations of fact-finding studies as aids to planning. Considerations in designing laundries, nursery schools, recreation facilities.

#### SOCIAL AND PUBLIC HEALTH ASPECTS

#### Pamphlets

- AMERICAN PUBLIC HEALTH ASSOCIATION. Basic Principles of Healthful Housing. American Public Health Association, 1939. 32 pages, 25 cents. Outlines those details of planning and equipment which have relation to physiological and psychological needs.
- CATHERINE F. LANSING. Studies of Community Planning in Terms of the Span of Life. New York City Housing Authority, New York, N. Y., 1937, 43 pages. Information on age groups which is useful in establishing the proper proportion of varying sized apartments in housing projects. Some notes on apartment planning for aged persons. Bibliography.

#### SITE PLANNING

#### Books and pamphlets

• UNITED STATES HOUSING AUTHORITY. Planning the Site. (U. S. Government Printing Office, Washington, D. C., 1939. 84 pages, 60 cents.) Spacing, servicing and orientation of buildings. Treatment of open areas for recreation purposes. Planting and plant materials. Schematic plans for various arrangements of row housing. Some "defective plans"

and suggested revisions. Check list for development of site plans.

- FEDERAL HOUSING ADMINISTRATION. Planning Profitable Neighborhoods. (U. S. Government Printing Office, Washington, D. C., 1938. 36 pages, 20 cents.) Diagrams to illustrate principles of land subdivision and street layout favored by the FHA for neighborhoods of single-family houses. Examples of faulty planning and proposed revisions.
- FREDERICK L. ACKERMAN and WILLIAM F. R. BAL-LARD. A Note on Site and Unit Planning. (New York City Housing Authority, New York, N. Y., 1937. 69 pages. Data compiled by WPA. Some plan types and their assembly. Comments by Ackerman on our Debt Economy. Data on orientation of buildings.

#### Magazine articles

- O. K. FULMER. "Superblock vs. Gridiron." Architectural Forum, Vol. 73, July, 1940, pages 66 and 67. Data compiled by an architect presented in the style of a Henry Luce publication. Comparative plans and breakdown of site improvement costs for two developments having an equal number of dwelling units and equal area. Savings are claimed for the superblock
- "Site Planning for Low-Rent Housing." Architectural Record, Vol. 85, March, 1939, pages 83 to 120. Data and illustrations adapted from publications of U. S. Housing Authority. Model site plans and dwelling unit plans. Plans, renderings of Mexican housing project at Austin, Texas, and Queensbridge Houses in New York.
- "Housing and Subdivison." Architectural Record, Vol. 81, May, 1937, in Building Types section, pages 1 to 42. Site plans, photos, general description of privately-financed Buckingham, Va.; Hillcrest in Meadville, Pa., and of the Public Works Administration, Liberty Square, Miami, Fla.; Pickwick Landing Dam Community in Tennessee; Parklawn in Milwaukee and others. Check list of factors determining location and type of subdivision. Selected list of books and articles.

#### PLANNING OF DWELLINGS

#### Books and pamphlets

- FEDERAL HOUSING ADMINISTRATION. Architectural Planning and Procedure for Rental Housing. Federal Housing Administration, Washington, D. C., 1938. 27 pages. List of data to be submitted when applying for mortgage insurance under the provisions of Sections 207 and 210 of the National Housing Act. Unit plans. Standards for closets, rooms, etc. General discussion of site planning. Outline of criteria and minimum requirements in planning construction, finishes, and mechanical equipment.
- FEDERAL EMERGENCY ADMINISTRATION OF PUBLIC WORKS. Unit Plans. U. S. Government Printing Office, 1935. 69 unit plans. Glossary, site plans, construction details. Sample "ineffective plans" with remarks.

#### Magazine articles

- "Planning Standards for Low-Rent Housing." Architectural Record, Vol. 77, March 1935, pages 148 to 189. Unit plans for multi-family housing developed by the U. S. Federal Emergency Administration of Public Works. Recommendations on orientation, equipment, closets, etc. Space requirements for equipment of children's playground.
- ALFRED FELLHEIMER. "Planning American Standards for Love-Rent Housing." American Architect, Vol. 146, Feb. 1935, pages 12 to 28. The use of model dwelling unit plans developed by the Housing Division of PWA, discussed by a consultant of the division. 37 types illustrated.
- DON GRAF. "Rooms in Multiple Housing." Data Sheets. Pencil Points, Vol. 19, Nov. 1938, pages 708 and 709. Material taken in part from the FHA booklet on planning for rental housing.
- "Houses for Shipyard Workers." Architectural Forum, Vol.
   64, June 1936, pages 518 and 519. News article with plans, photos and construction outline for houses built for negro laborers of Newport News Shipbuilding and Drydock Company.
- "Building for Intensive Use of dollars and planning for intensive use of space." Architectural Forum, Vol. 64, April 1936, pages 232 to 241. A summary of the methods used by speculative builders to attain construction cost reductions, and of lunch wagon, yacht and airplane designers to achieve economies in space.

• WELLS BENNETT. "An Analysis of Housing Practice." American Architect, Vol. 146, June 1935, pages 30 to 48. Comparative tables of areas in apartments in twenty American and ten European housing projects. Plans of dwelling units and photos of the projects.

#### REVIEW OF PROJECTS

#### Pamphlets

• TEXAS PLANNING BOARD. Low-Income Housing for Southern Texas Conditions. Texas Planning Board, Austin, 1938. 44 pages. Site plans, dwelling unit plans, construction details, estimate of construction costs for a 100-family low cost housing project designed for Mexican and Negro families. Financial setup based on rent-paying ability of tenants—i.e. \$1 to \$3 per room per week.

#### Magazine articles

- "USHA Housing: four representative examples." Architectural Forum, Vol. 73, Jan. 1940, pages 13 to 22. Site plans, dwelling unit plans, photos, outline of construction, equipment and costs of Queensbridge, N. Y.; Brentwood Park, Jacksonville, Fla.; Santa Rita, Austin, Texas, and Willert Park, Buffalo, N. Y.
- "Low-Rent Suburban Apartment Buildings." Architectural Record, Vol. 86, Sept. 1939, pages 88 to 104 of Building Types section. Data developed from middle-income group housing experience of the Rental Housing Division of the FHA Model site and dwelling unit layouts. Site plans and dwelling unit plans, description of construction and equipment of FHAinsured Wynverwood Village, Los Angeles, Calif., and Interlaken Garden Apartments, Westchester, N. Y.
- "TVA Communities." Architectural Forum, Vol. 71, Aug. 1939, pages 99 to 108. Site diagrams, plans and photos of barracks, single and two-family temporary and permanent.
- TALBOT HAMLIN. "Housing Is Architecture." Pencil Points, Vol. 20, Feb. 1939, pages 81 to 97. Observations on design of public and privately financed projects in New York.
- "Housing at Clairton, Pa." Architectural Forum, Vol. 69, Dec. 1938, pages 477 to 481. Site plan, typical house plans, construction outline of a 300-house development near the Carnegie-Illinous' steel mills. Photos of installation of steel sill, steel staircase, steel windows, steel insulation and steel closets.
- "Apartments." Architectural Record, Vol. 84, Sept. 1938, pages 93 to 132 of Building Types section. FHA recommendations for site plans and apartment unit plans. Comparative tables for apartment plans. Plans, photographs, schedule of equipment and materials for ten FHA-insured multiple dwelling projects.
- "Public Housing." Architectural Forum, Vol. 68, May 1938, pages 345 to 424. A review of 32 PWA housing projects and of the Farm Security Administration's projects at Greenbelt, Md.; Greenhills, Ohio, and Greendale, Wis. Dwelling unit plans, construction outline, statement of costs for each.
- TALBOT HAMLIN. "Harlem River Houses and Williamsburg Houses." Pencil Points, Vol. 19, May 1938, pages 281 to 292. Critical analysis of two public housing projects in New York City.
- "Buckingham: Housing Laboratory." Architectural Record, Vol. 83, Jan. 1938, pages 68 to 82. Site plan, apartment plans, description of construction of one of the last housing projects designed by Henry Wright. Tables on financing, project areas.
- "Houses Designed by Technicians, of the U. S. Department of Agriculture, Resettlement Administration." Architectural Forum, Vol. 66, June 1937, pages 473 to 500. Twelve single houses of simple design suitable for use in small industrial communities. Plans, photos, construction outline. Examples have been picked for the suitability of their design to the materials, customs and climate of their region.
- "Comparative Architectural Details, in Greenbelt Housing." American Architect and Architecture, Vol. 149, Oct. 1936, pages 20 to 36. Thirty-six dwelling unit plans, wall sections, outline of construction and equipment for four projects planned for the U. S. Department of Agriculture.
- HENRY H. SAYLOR. "The Hillside Housing Development." Architecture, Vol. 71, May 1935, pages 245 to 252. Analysis of steps in the development of site and dwelling unit plans for a 26-acre apartment house development in New York.
- ALBERT MAYER. "A Critique, of the Hosiery Workers housing development in Philadelphia." Architecture, Vol. 71,

April 1935, pages 189 to 194. Discussion of planning, materials and equipment of the 1085-room apartment project built under the Housing Division of the PWA.

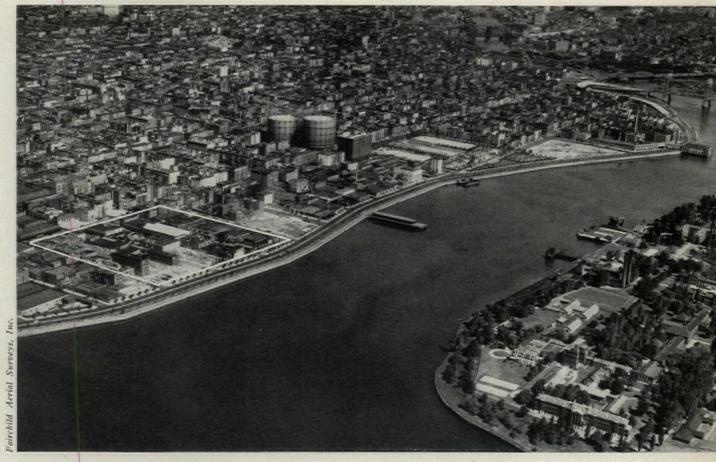
### CONSTRUCTION, MATERIALS, FABRICATION

#### Books and pamphlets

- NATIONAL BUREAU OF STANDARDS. Performance Tests of Floor Coverings for Use in Low-Cost Housing. In two parts. U. S. Government Printing Office, Washington, D. C., 1940. Each part 10 cents—Part 1: 14 pages. Floor coverings tested included several kinds of linoleum, felt-base floor coverings having various wearing surfaces, pressed fiberboard and strip-wood floors; Part 2: 20 pages. Included in the tests were battleship linoleum, rubber in sheet and tile form, felt-base floor coverings having various wearing surfaces, three monolithic floors and a number of asphalt tiles. Bibliography.
- NATIONAL BUREAU OF STANDARDS. Air Infiltration Through Windows. U. S. Government Printing Office, Washington, D. C., 1940. 21 pages, 10 cents. Summary of wind pressure tests applied to double-hung wood windows and light steel casements. Bibliography.
- NATIONAL BUREAU OF STANDARDS. Sound Insulation of Wall and Floor Constructions. U. S. Government Printing Office, Washington, D. C., 1939. 23 pages, 10 cents. Summarizes the data obtained in tests of about 170 panels. General discussion of the principles of sound insulation. List of selected references.
- NATIONAL RESOURCES COMMITTEE. Land, Materials and Labor Costs. Housing Monograph, Series 3. U. S. Government Printing Office, Washington, D. C., 1939. 101 pages, 30 cents. Contains report and recommendations on the heating and water supply and distribution system of Greenbelt, Md. Diagrams.
- NATIONAL BUREAU OF STANDARDS. Water Permeability of Masonry Walls. U. S. Government Printing Office, Washington, D. C., 1938. 35 pages, 10 cents. Tabulated results of tests of walls of brick, structural clay tile and hollow concrete unit masonry.
- FEDERAL HOUSING ADMINISTRATION. Recent Developments in Dwelling Construction. U. S. Government Printing Office, Washington, D. C., 1937. 17 pages, 5 cents. Summarizes the points which should be considered in making a comparison between traditional and "prefabrication" methods of construction and outlines prospects for the latter. Concerns offering systematized metal, wood and concrete construction are listed and their systems described.
- ALBERT F. BEMIS. The Evolving House, Vol. 3: Rational Design. The Technology Press. Massachusetts Institute of Technology, Cambridge, Mass., 1936. 625 pages, \$4.00. Outlines the principle of the cubical modular system of house design as a step toward prefabrication and mass assembly of housing. Contains abstracts and diagrams of American and foreign systematized construction units.

#### Magazine articles

- "Masonry Cavity Walls recommended for leakage resistance, economy." Public Housing, Vol. 2, No. 1, July 2, 1940, page 3.
   Government Printing Office, Washington, D. C. 5 cents. History, description, tests, construction requirements of a wall system universally used for housing purposes in England and Australia.
- "Labor and Unit Costs in PWA Low-Rent Housing." Monthly Labor Review, Vol. 49, No. 3, Sept. 1939, pages 578 to 586. U. S. Government Printing Office, Washington, D. C. 30 cents. Tables showing percentage distribution of expenditures by type of material and location of project; average cost per dwelling unit and per room; cubic content and cost per cubic foot.
- "Cost Reductions in Red Hook Houses, New York." Architectural Forum, Vol. 69, Nov. 1938, pages 405 to 408. Outlines changes made in the interest of economy in the plans, details and specifications of a Housing Authority project.
- HOUSING STUDY GUILD. Construction Systems Analysed. Architectural Forum, Vol. 60, June 1934, pages 423 to 430. Graphic presentation of a portion of a study of floors, walls and partitions for low-income group housing, together with statement of square foot costs.



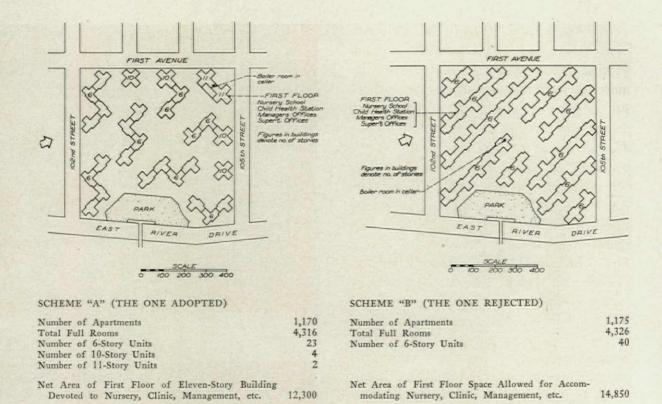
THE SITE OF EAST RIVER HOUSES IS OUTLINED AT THE LEFT OF THIS AIR PHOTO WHICH SHOWS ITS POSITION BETWEEN 102ND AND 105TH STREETS WHERE THEY MEET THE EAST RIVER DRIVE. WARD'S ISLAND APPEARS AT THE LOWER RIGHT. MANHATTAN TRIBOROUGH BRIDGE APPROACH AT UPPER RIGHT

## EAST RIVER HOUSES

#### A HIGH DENSITY HOUSING PROJECT

East River Houses, a United States Housing Administration project, now being erected under the sponsorship of the New York City Housing Authority, was designed by a group of Associated Architects comprising Voorhees, Walker, Foley & Smith, Alfred Easton Poor, and C. W. Schlusing, with Perry Coke Smith as Chief Architect. The designers not only profited by the accumulated experience of earlier housing projects but made a number of noteworthy contributions to the art of low-cost urban housing, a few of which are recorded hereafter.

First in importance, perhaps, in the list of innovations is the introduction of buildings taller than six stories into the low-cost housing picture. In this project, buildings of ten and eleven stories have been placed on the north and west sides of the property with the result that it has been possible to reduce the land coverage materially without reducing the accommodation provided. And this has been done at a substantial saving in cost if we may believe the rather careful comparative study recorded in part on the following page. The contrast between Scheme "B," in which all the buildings were to be



#### COST COMPARISON ON BASIS OF ESTIMATES BY ARCHITECTS AND THREE GENERAL CONTRACTORS

	Contractor "X"	Contractor "Y"	Contractor "Z"	Architects
Scheme "A"	\$4,372,670	\$4,194,116	\$4,162,220	\$4,173,000
Scheme "B"	\$4,506,978	\$4,275,188	\$4,215,260	\$4,205,000

Note: These estimates were made on the basis of identical unit plans, the two site plans shown above, and the specifications used for Queensbridge Houses, another project completed under the same Authority on a site only a few miles distant. Scheme "A" was consistently less costly and was consequently adopted

#### BREAKDOWN OF COMPARATIVE ESTIMATE FIGURES SUBMITTED BY CONTRACTOR "X"

	Scheme "A"	Scheme "B"		Scheme "A"	Scheme "B"
General Conditions	\$ 160,758	\$ 168,461	Bathroom Accessories	\$ 936	\$ 960
Excavation	53,354	63,210	Painting	147,810	150,840
Foundations	99,568	125,272	Incinerator Iron	2,645	3,400
Reinforced Concrete	637,473	642,534	Clothes Dryers	2,372	2,400
Masonry (including Slate)	562,482	569,379	Plumbing	396,640	396,600
Cement Finish	91,074	91,796	Heating and Ventilation	296,594	304,004
Metal Lath-Plaster	382,908	383,373	Electric Wiring	156,768	159,982
Marble (Safes only)	593	600	Electric Fixtures	15,677	15,998
Tile	24,154	23,765	Elevators	203,337	216,760
Asphalt Tile	96,730	93,105			
Carpentry (including Weather-				\$3,848,951	\$3,972,597
stripping)	166,572	173,713	Commission 5%	192,448	198,630
Roofing and Sheet Metal	35,874	43,914			
Waterproofing and Caulking	16,775	20,125		\$4,041,399	\$4,171,227
Steel Lintels (included in Misc.			Landscaping	84,560	76,000
Iron)			Power Plant	65,991	65,991
Ornamental and Misc. Iron	75,319	81,150	Piles and Pile Caps	162,220	175,260
Metal and Kalamein Work	64,732	63,035	Underground Drains, Piping and		
Steel Windows	105,256	111,856	Electrical	18,500	18,500
Glass and Glazing	42,550	44,365			
Finish Hardware	10,000	12,000	TOTAL	\$4,372,670	\$4,506,978

of six stories, and Scheme "A," in which some taller ones were included, is quite striking. It can hardly be doubted that the more open arrangement of the site will result in a more livable and architecturally desirable group than the other.

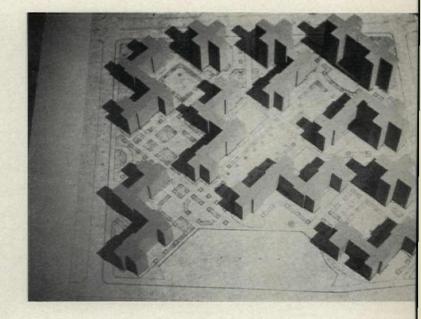
The placing of the buildings parallel to the diagonals of the site, instead of to the bounding streets, came about through the requirement that 46,000 square feet of park had to be turned over to the City, rather than through any considerations of orientation. This park had to be located so as to include the approach to a proposed foot bridge which may some day be built over to Ward's Island. The designers concluded that a triangular shape for this park would be most logical, the long side fronting the river drive and the others extending back at about 45 degrees. This idea was accepted at the outset by Park Commissioner Moses and subsequent studies for the placing of the buildings to best advantage developed naturally into the diagonal scheme.

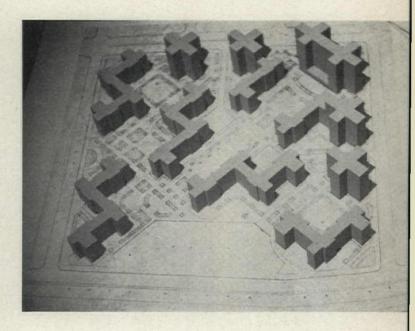
In arranging the buildings on the site, great attention was paid to the proportioning and disposition of spaces between the buildings. The property was well broken up into open areas of agreeable dimensions, so that extremely long vistas through unbroken space, such as have been found unpleasant in some earlier projects, were avoided.

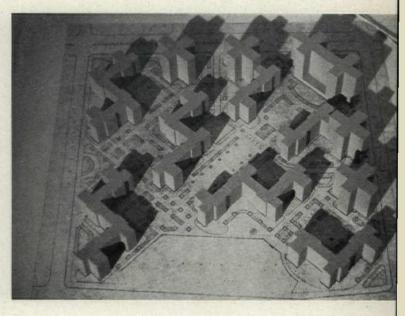
The result is a well balanced composition in which the open areas are in good scale relationship with the buildings.

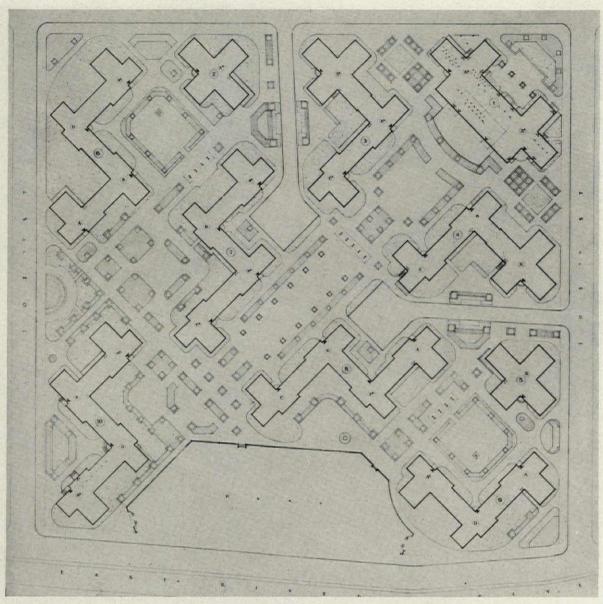
The next noteworthy innovation in this project appears in the treatment of the land-scape work. Since the population density un-

PHOTOS ON THIS PAGE WERE TAKEN UNDER THE
"SUN MACHINE" AT COLUMBIA UNIVERSITY AS A
CHECK ON THE SUNLIGHT AND SHADOW CONDITIONS FOR THE GROUP OF BUILDINGS AT DIFFERENT SEASONS AND TIMES OF DAY. THIS STUDY HAD
NO EFFECT ON THE ORIENTATION WHICH HAD
ALREADY BEEN ESTABLISHED AS SHOWN BY THE
SMALL SCALE BLOCK MODEL BUT MERELY DEMONSTRATED THAT LIGHT CONDITIONS WOULD BE
SATISFACTORY UNDER THE ADOPTED SCHEME.
MANY SUCH PHOTOS WERE MADE COVERING ALL
ESSENTIAL SIGNIFICANT SUNLIGHT DIRECTIONS









GENERAL SITE PLAN, EAST RIVER HOUSES SHOWING LANDSCAPING ARRANGEMENT BY ALFRED GEIFFERT

der the terms of the program was quite high (the project contains 403 people to the acre), the problem was definitely urban in character. In treating a project in the suburbs, where density is not so great, it might be proper to begin by assuming that most of the area should be grassed in. Circulation for automobile and pedestrian traffic might then be provided as needed in the form of driveways and paved walks. Trees and shrubbery could be arranged to enhance the effect.

In this case, the designers proceeded along totally different lines. In close consultation with Alfred Geiffert, who was responsible for the landscape design, they undertook to provide for a maximum of pedestrian circulation by assuming a maximum of paved

space. Shrubbery was confined to relatively small areas contiguous to the buildings. Planting in these areas is to be hardy, thorny shrubs, mostly barberry, designed to keep people at a sufficient distance from the lower story windows to insure privacy and reasonable quiet for the tenants. The rest of the space was laid out for maximum use, the necessary greenery being supplied by a large number of trees planted so as to afford an agreeable pattern and provide shade for the people walking about or sitting on benches under them. Along and under the rows of trees, rectangular strips paved with Belgian block were employed to develop a feeling of orderliness and break monotony. The rest of the surface will be paved with asphalt. This treatment will make practically the en-



DRAWING BY CHESTER B. PRICE WHICH SHOWS GENERAL ASPECT OF THE PROJECT FROM THE SOUTHEAST

tire property open for foot passage, so that every tenant may proceed on a rather direct course from the bounding streets to his own entrance door.

Only two automobile driveways were found necessary, each terminating in a square turnaround near the center of the property. These will take care of deliveries, removal of garbage, etc. No entrance doorway is more than 200 feet from vehicle access.

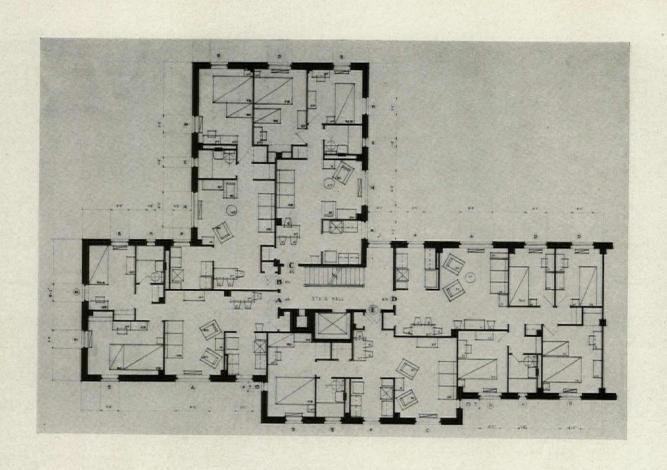
Elevators in the six-story buildings will stop only at the first, third, and fifth floors. The taller units will be equipped with two elevators, one stopping at first, third, and fifth, and the other at first, third, fifth, seventh, eighth, ninth, tenth, and (in two units) eleventh floors. Tenants on second, fourth, and sixth floors will walk down one flight

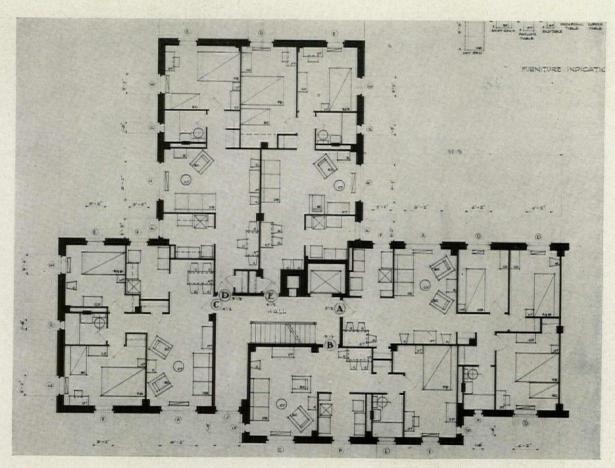
from the landing above in each case. No stair climbing will be necessary except for top floor tenants of six-story buildings who will walk up one flight.

It is obvious that the placing of the taller units will not interfere with the sunlight so far as the project itself is concerned. In the case of adjacent areas to the north and west, more light will get through between the well-separated high buildings than would be admitted over the tops of the solid rows of six-story buildings necessary to provide equal accommodations.

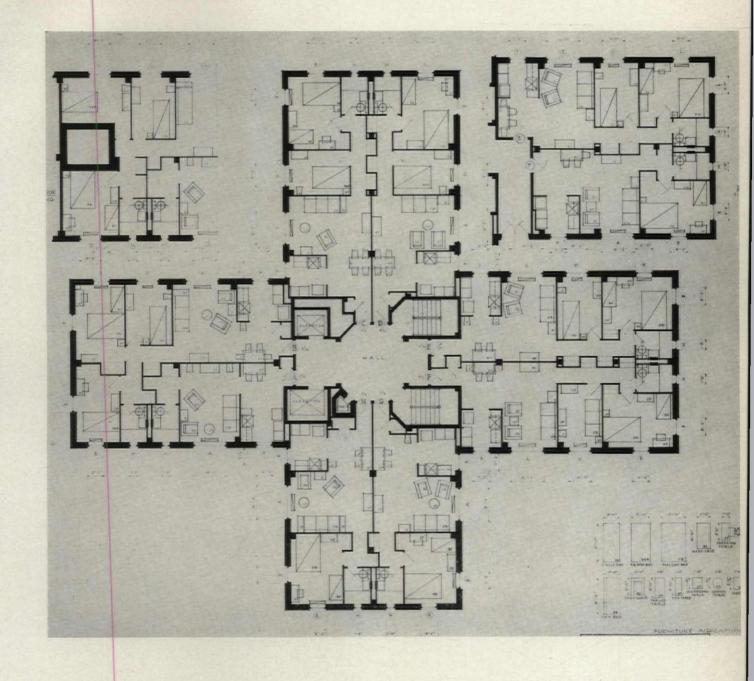
The two following pages of details show two minor innovations worth noting. The ornamental detail, thoughtfully designed to add interest and variety to the building ex-

(Continued on page 566)



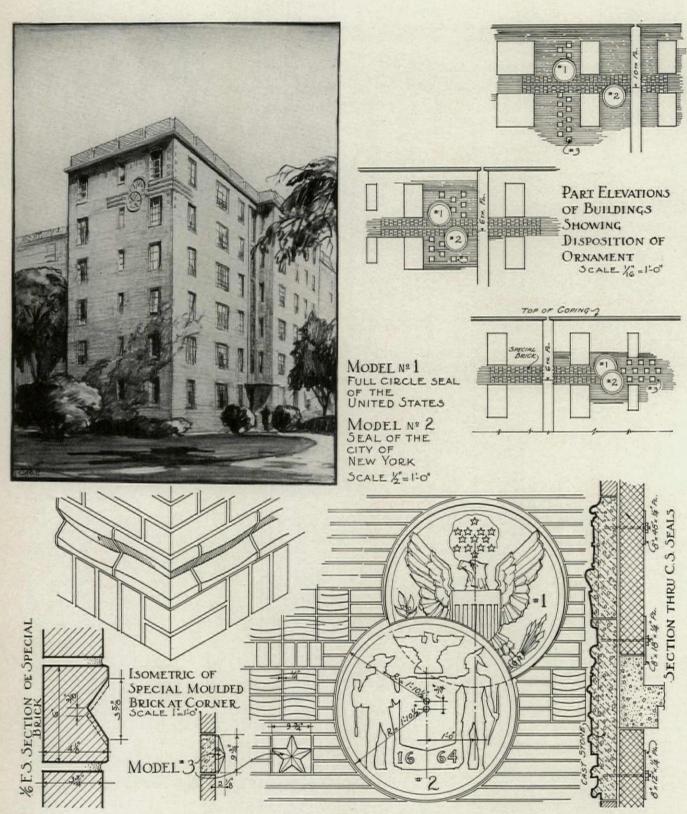


EAST RIVER HOUSES, BOROUGH OF MANHATTAN



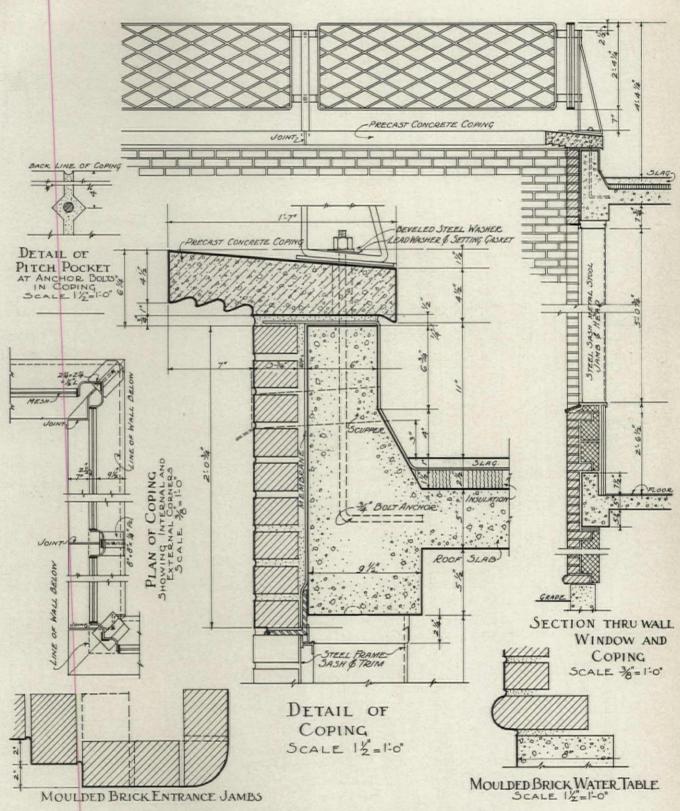
THE THREE UNIT PLANS SHOWN ON THESE TWO PAGES ARE TYPICAL OF THE FIVE BASIC ARRANGEMENTS USED ON EAST RIVER HOUSES. A NOTEWORTHY CONTRIBUTION WAS MADE BY THE ARCHITECTS IN THE FORM OF A CAREFUL STUDY OF FURNITURE ARRANGEMENTS IN CONNECTION WITH THE LOCATION OF DOORS, WINDOWS, AND STEAM RADIATORS. ASSUMPTION WAS MADE OF THE PROBABLE FURNITURE NEEDS OF THE TENANTS, PARTICULARLY FOR BEDROOMS AND LIVING-DINING SPACES. A FULL-SIZED BED, A BABY CRIB, A CHEST OF DRAWERS, AND A DRESSING TABLE WERE ASSUMED FOR ONE BEDROOM IN EACH APARTMENT. LIVING ROOM FURNITURE INCLUDED ONE SOFA, TWO EASY CHAIRS, AND SEVERAL TABLES OF DIFFERENT SIZES AND TYPES. WITH THESE AS A BASIS THE RADIATOR AND WINDOW LOCATIONS WERE CHANGED IN SEVERAL PLACES TO REDUCE INTERFERENCE. THE UNITED STATES HOUSING ADMINISTRATION THOUGHT SO WELL OF THIS TYPE OF FURNITURE STUDY THAT IT IS NOW A STANDARD REQUIREMENT

EAST RIVER HOUSES, BOROUGH OF MANHATTAN



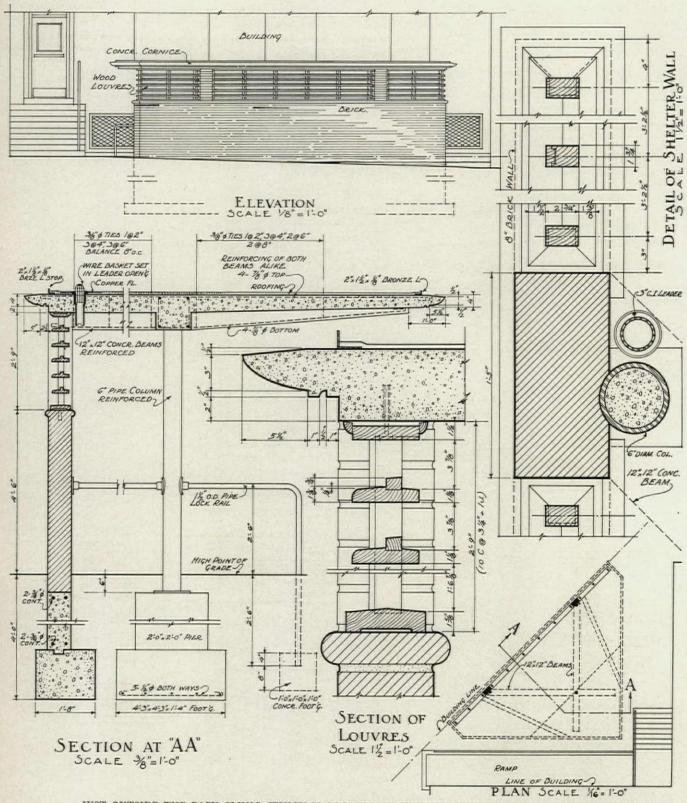
A DISTINCTIVE YET SIMPLE AND INEXPENSIVE FORM OF ARCHITECTURAL EMBELLISHMENT WAS DEVISED BY THE DESIGNERS OF EAST RIVER HOUSES IN AN EFFORT TO GET AWAY FROM THE COMMONPLACE USE OF BELT COURSES FOR THIS PURPOSE. THREE STANDARDIZED CAST STONE UNITS AND ONE TYPE OF SPECIAL MOULDED BRICK, COMBINED IN 11 DIFFERENT WAYS AT 22 POINTS CAREFULLY DISTRIBUTED ABOUT THE GROUP, WILL NOT ONLY SATISFY THE DESIRE FOR ORNAMENT BUT MAY SERVE AS CONVENIENT MARKS OF IDENTIFICATION BY WHICH TO DISTINGUISH ONE BUILDING FROM ANOTHER. THE BRICK IS THREE SHADES OF RED (NORTH RIVER COMMON) AND CAST STONE UNITS ARE COLORED TO THE INTERMEDIATE SHADE. CHESTER PRICE'S SKETCH SHOWS ONE OF THE ORNAMENTAL COMBINATIONS IN PLACE

EAST RIVER HOUSES, BOROUGH OF MANHATTAN



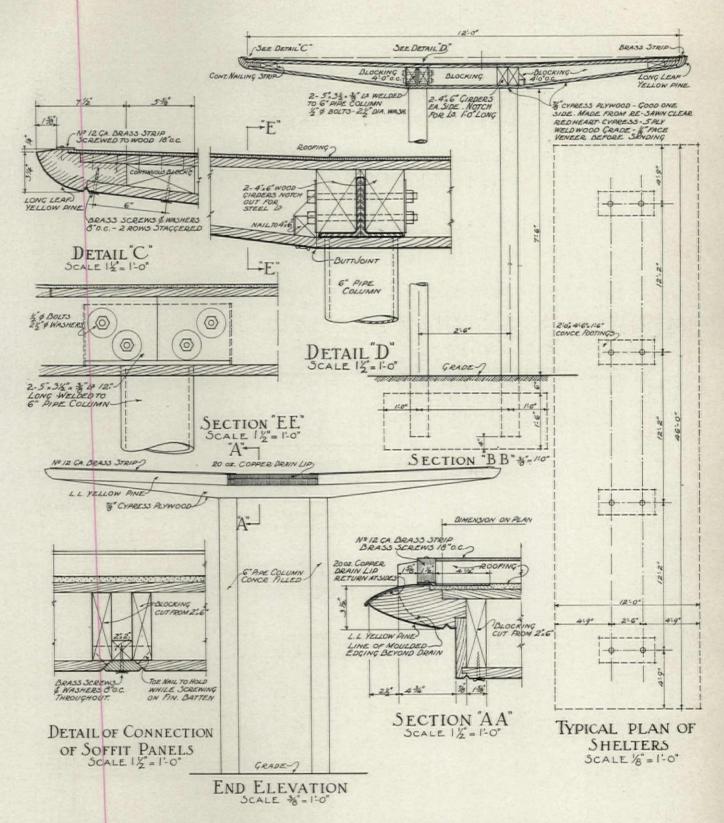
TO GET AWAY FROM THE TWELVE-INCH THICK BRICK PARAPET COMMONLY USED ON BUILDINGS OF THIS TYPE (BUT WHICH OFTEN DEVELOPS CRACKING AND EFFLORESCENCE AT THE COURSE WHERE THE FLASHING IS CARRIED THROUGH), A MOST INGENIOUS GALVANIZED IRON RAILING WAS DESIGNED TO BE ECONOMICALLY FABRICATED AND EASILY ASSEMBLED. THE RECTANGULAR PANELS ARE OF EXPANDED METAL ROAD REINFORCEMENT, EACH ENFRAMED WITHIN A 2½" x ½" RIM WELDED ALL AROUND AND CARRYING AT EACH END TWO CURVED CLIPS WITH SLOTTED HOLES. THE SUPPORTS ARE OF THE SIMPLEST POSSIBLE DESIGN. EASE OF ASSEMBLY IS OBVIOUS AND THE CURVED CLIPS TAKE CARE OF EXPANSION AS WELL AS TOLERANCE FOR DIMENSIONS. COSTS WERE LESS THAN FOR THE BRICK TYPE

EAST RIVER HOUSES, BOROUGH OF MANHATTAN



JUST OUTSIDE THE BABY CLINIC, WHICH IS LOCATED ON THE GROUND FLOOR OF THE 11 STORY BUILDING AT THE NORTHWEST CORNER OF THE SITE, IT WAS FOUND DESIRABLE TO PROVIDE A SHELTER FOR PERAMBULATORS. BRICK, WOOD, CONCRETE, AND IRON PIPE WERE COMBINED TO PRODUCE A SIMPLE, INCONSPICUOUS, AND HIGHLY USEFUL STRUCTURE AS DETAILED ABOVE. WHILE IT HAS, OF COURSE, NOTHING TO DO WITH THE DETAIL, ATTENTION IS CALLED TO THE MISSPELLING OF THE WORD "LOUVER" ON THE DRAWING. OUR DRAFTSMAN, IN COMMON WITH MANY OTHER PEOPLE, CONFUSES THE WORD PROPERLY SPELLED "LOUVER" WITH THE MORE FAMILIAR "LOUVRE" WHICH APPLIES ONLY TO THE FAMOUS MUSEUM OF THE SAME NAME. TAKE CARE, GENTLEMEN, THAT IT DOES NOT HAPPEN AGAIN—AND WE WILL TOO

EAST RIVER HOUSES, BOROUGH OF MANHATTAN



AT THREE STRATEGIC POINTS ON THE GROUNDS OF EAST RIVER HOUSES, CONVENIENT TO THE PLAY AREAS (AS MAY BE SEEN BY REFERENCE TO THE SITE PLAN ON PAGE 558), ARE LOCATED SHELTERS OF ANOTHER TYPE, DESIGNED TO BE USED IN CASE OF UNEXPECTED RAIN. THEY ARE FOR STANDEES ONLY; HENCE NO BENCHES ARE PROVIDED UNDER THEM. PLENTIFUL SHADE FOR PROTECTION AGAINST THE SUMMER SUN IS AVAILABLE EVERYWHERE UNDER THE TREES WHERE BENCHES OF COMFORTABLE DESIGN WILL BE PROVIDED IN ADEQUATE NUMBERS. THEIR LOCATION, INCIDENTALLY, WAS MADE THE SUBJECT OF A CAREFUL STUDY TO THE END THAT THEY SHOULD BE PLACED SO AS TO INSURE MAXIMUM UTILITY AND COMFORT TO USERS, AS WELL AS CONTRIBUTING TO THE GENERAL ORDERLINESS OF THE GROUNDS

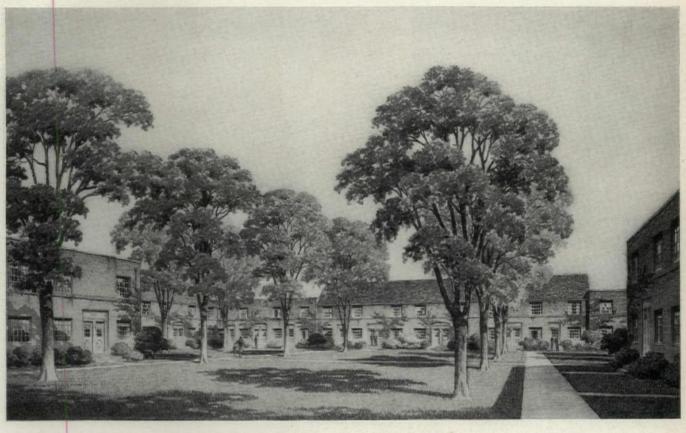
EAST RIVER HOUSES, BOROUGH OF MANHATTAN

teriors, is at the same time economical. The cost of this feature for the entire project will be less than \$5,000. The parapet treatment is an ingenious effort to add distinctiveness without adding expense. By this means also certain construction difficulties that arise with brick parapets are avoided.

A number of money-saving practices which have been developed on other USHA projects are being employed on this one as well. All closets are doorless except for one in each apartment which is provided with a door that can be locked. Iron pipe curtain rods and clothes poles are built-in so that they cannot be removed, an improvement over the removable type used on other projects. Saddles are being shop-welded into the door-bucks before they are delivered to the

job, a practice that has been found to make for efficient and economical installation. Partitions are two-inch solid plaster throughout, supported by 3/4" channels and metal lath. The structural design, which placed a row of columns down the center of each wing, eliminated any need for ceiling beams, the floor slabs carrying the load between supports.

Taking everything into consideration, it may be reasonably said that the designers of East River Houses have done a thoughtful piece of work into which they have incorporated many of the ideas developed out of the profession's experience on other projects and have introduced a number of first-rate ideas of their own to carry forward the art of low cost urban housing.



### LIBERTY PARK PROJECT AT DUNDALK, MD.

GUSTAVE W. ISER, ARCHITECT

The Architect who is engaged to build the successive units of a growing housing development has more than "another job" if he seizes that opportunity to make a continuing study of the needs of the tenants and of planning economics—as shown by the work of Gustave W. Iser, New York Architect, at Dundalk, Maryland. The start of work there on "Liberty Park Project," the second unit of a privately-financed low-income dwelling community, is significant because Iser has cut unit costs and rentals under those of the first unit, without sacrifice of those amenities which have made the project a success.

The architectural character of the new project is depicted by Burt Sullivan in the drawing, above, representing one of the three courts of "Liberty Park." This is being built adjacent to the first Dundalk unit, which was completed in 1937 and houses 272 families. (See photographs overpage and plot plans on pages 570 and 571.)

Families living in the first Dundalk unit are satisfied and show good community spirit, according to Iser, largely because of the privacy created for each family and the planning of the project as a unit, with land coverage of but 22 per cent. The owning corporation also purchases gas and electricity for tenants, giving them the benefit of wholesale rates and including the utility charges in the low rental.

The unit now under construction will house 136 families in duplex apartments at the following monthly rental scale: 3½ rooms, \$38.50; Junior 4½ rooms, \$45.50; 4½ rooms, \$50.75. This rental includes heat and hot water (from four plants), gas, and electricity. The rental scale is made possible by the full cooperation of the sponsors with Architect Iser and the builder, Parklap National Builders, Inc., of New York. The architect and builder are paid in stock of the owning corporation, and have coordinated their efforts as efficiently as possible.



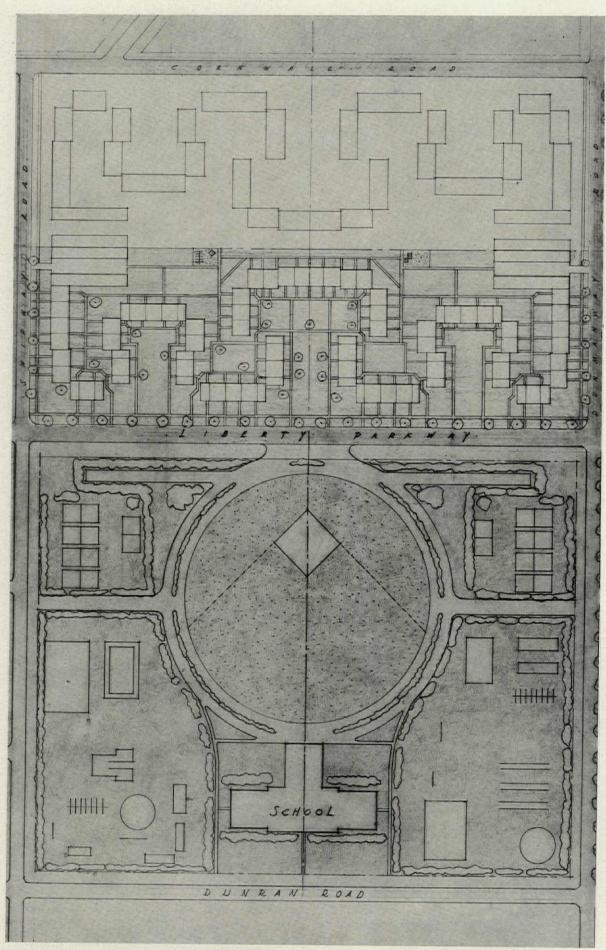
THE FIRST UNIT OF THE DUNDALK PROJECT DESIGNED BY GUSTAVE W. ISER, NEW YORK ARCHITECT, IS SEEN ABOVE FROM THE COMMUNITY SCHOOL GROUNDS. A COMFORTABLE RESIDENTIAL SCALE HAS BEEN ACHIEVED BY AVOIDING LONG, UNBROKEN FACADES AND BY A PLEASING DISPOSITION OF THE BUILDINGS AND PLANTED AREAS. THE VIEW BELOW IS ACROSS THE EXISTING UNIT, LOOKING TOWARD THE SCHOOL GROUNDS AND THE SITE OF THE SECOND UNIT WHERE CONSTRUCTION HAS BEEN STARTED. THE STREET FRONTS OF THE BUILDINGS HAVE BEEN KEPT RATHER FORMAL, BUT PRIVATE PORCHES HAVE BEEN PROVIDED FOR ALL THE DUPLEX UNITS ON THE SHELTERED SIDE OVERLOOKING THE INDIVIDUAL GARDENS





A VISTA ON ONE OF THE STREETS OF THE FIRST DUNDALK UNIT EXPLAINS THE PRIDE TAKEN IN THE COMMUNITY BY THE RESIDENTS. EACH DWELLING HAS ITS OWN ENTRANCE, AVOIDING THE TWO OR FOUR-APARTMENT HALLWAY WHICH IS SO OFTEN AN OBJECTIONABLE FEATURE OF THE MULTIPLE DWELLING. THE PHOTOGRAPH BELOW SHOWS THE SUBSTANTIAL CONSTRUCTION OF THE UNIT NOW BEING BUILT. ISER MAINTAINS THAT ECONOMIES IN LOW-COST HOME BUILDING SHOULD BE ATTAINED THROUGH CAREFUL PLANNING RATHER THAN THROUGH STINTING ON MATERIALS OR BY FAILING TO PROVIDE FOR THE TENANTS COMFORTS EXPECTED AND USUALLY PROVIDED IN AN AMERICAN WORKINGMAN'S HOME





PLOT PLAN OF DUNDALK PROJECT—UNIT UNDER CONSTRUCTION, "LIBERTY PARK," JUST ABOVE CENTER OF PAGE. NOTE THAT IT WILL BE DUPLICATED ULTIMATELY ON OTHER HALF OF THE BLOCK (AT TOP)

### LEGEND - LIBERTY PARK AT DUNDALK, MARYLAND

(One-Half Now Being Built)

Gross Area of Land 623'-0" x 980'-0"=610,540 Sq. Ft.

Net Area of Land 558'-0" x 920'-0"=513,360 Sq. Ft.

Land Coverage-22 per cent.

Persons per acre (including field of school)— 42 persons.

Public Utilities included in cost of project as follows:

- Paving, sewers, water mains for Cornwall Road, Shipway Road, and Liberty Parkway. Plot Plan indicates present sewers and size. Dunmanway Road now paved but has no utilities.
- Include new paving shown for garages including all necessary utilities and also storm drainage.

 Gas and Electric utilities will be installed by Utility Company at no expense to project except cost of permits which is to be verified.

Project consists of 272 building units as follows:

112—3½ Rm. Duplex Apts.

48—Jr. 4½ Rm. Duplex Apts. 112—Sr. 4½ Rm. Duplex Apts.

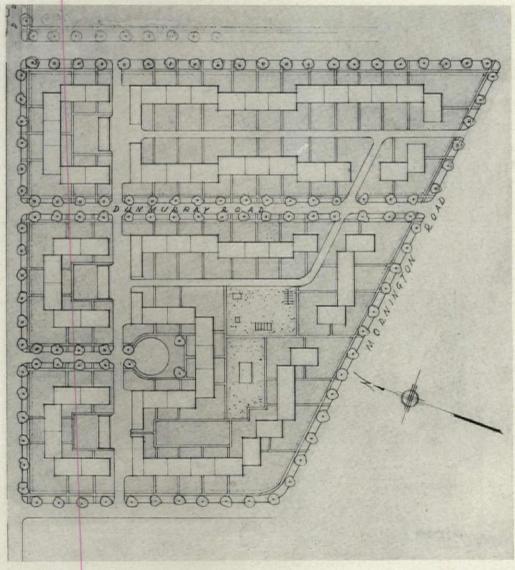
Total 272 Apts.—1112 Rms.

8 Central Heating Units

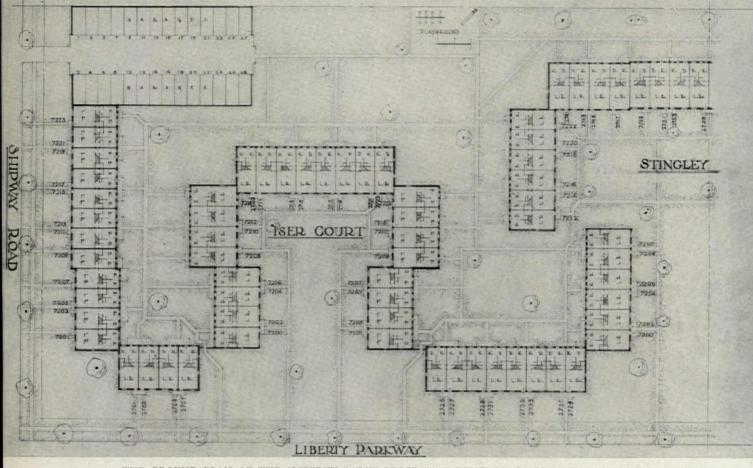
112 Garages

All brick garden walls about 3'-6" high

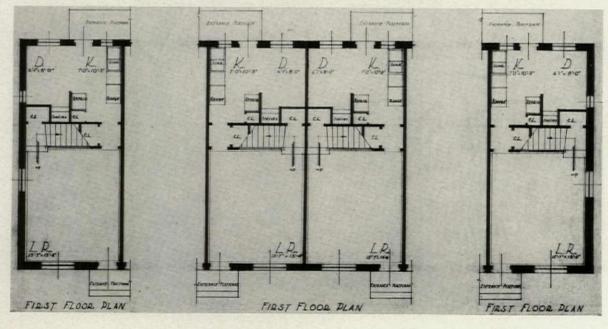
2 Complete playgrounds (children)

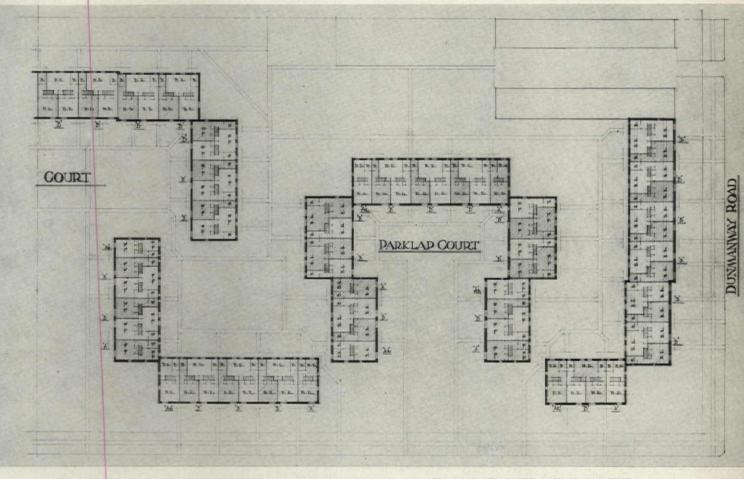


THE FIRST UNIT OF THE DUNDALK PROJECT IS SHOWN HERE, FACING THE SCHOOL BLOCK, DIAGONALLY ADJACENT TO THE UNIT NOW BEING BUILT. BUILDINGS COVER 22% OF LAND

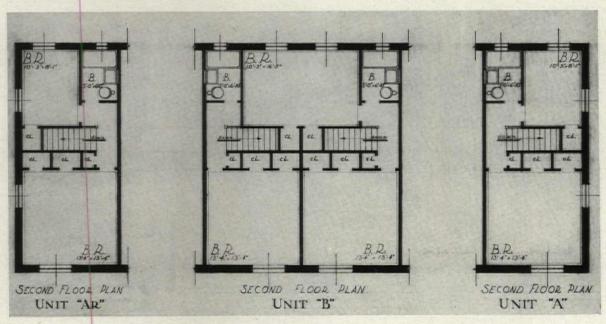


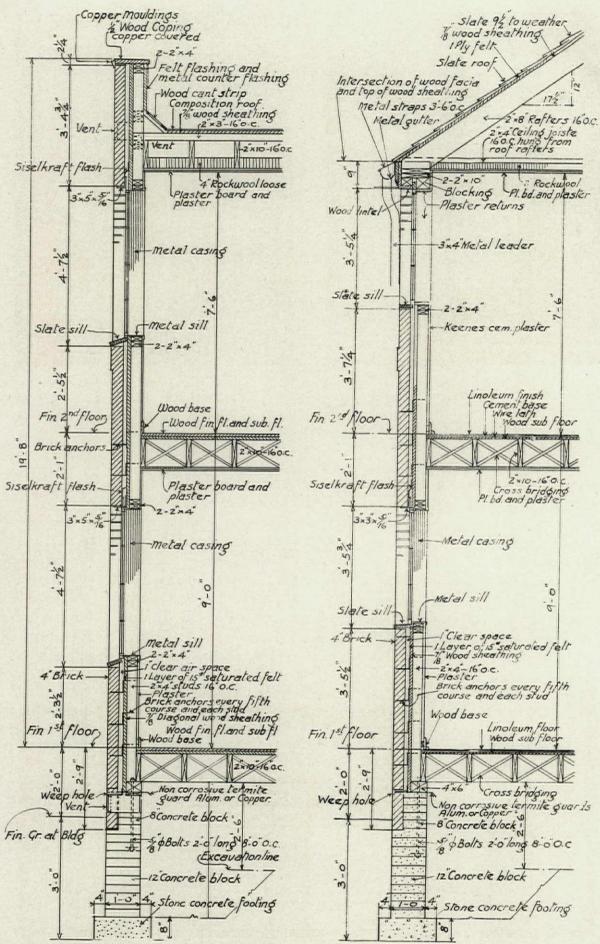
THE GROUND PLAN OF THE "LIBERTY PARK" PROJECT AT DUNDALK, MARYLAND, DESIGNED BY GUSTAVE W. ISER, IS SHOWN BY THE DISPOSITION OF THE HALF-PLANS OF THE FIRST AND SECOND FLOORS, ABOVE AND ACROSS-PAGE. THE CORRESPONDING DWELLING UNIT PLANS SHOWN BELOW ILLUSTRATE SOME OF THE ECONOMIES WHICH HAVE RESULTED IN LOWER RENTALS. THE UNIFORM UNITS ARE 14'-0" WIDE, SO THAT STOCK LENGTH JOISTS CAN BE USED FOR FLOORS AND FLAT ROOFS WITHOUT CUTTING ON THE JOB; STAIRS ARE ALL TYPICAL AND FRAME PARALLEL WITH THE STRUCTURAL FRAMING TO ELIMINATE HEADERS, TRIMMERS, ETC.; KITCHENS BACK-TO-BACK AND BATHROOMS (THE SAME) DIRECTLY ABOVE THEM PERMIT ONE SOIL LINE FOR FOUR SETS OF PLUMBING, AND AS ALL THESE ARE IN LINE AT THE REAR OF EACH BUILDING, HOUSE DRAINS ON ONE SIDE ONLY; THE BUILDINGS ARE CLOSE TO THE FINISHED GRADE AND HAVE NO CELLARS, EXCEPT FOR THE SEVERAL CENTRALLY-LOCATED HEATING PLANTS



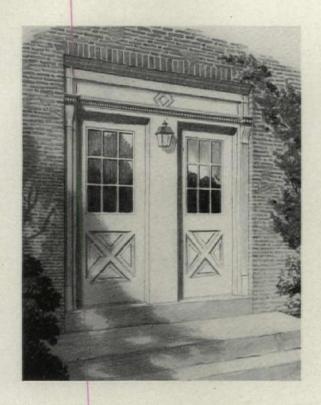


EACH OF THE DWELLING UNITS OF "LIBERTY PARK" PROJECT HAS ITS PRIVATE ENTRANCE FROM THE STREET OR FROM A GARDEN COURT, ALSO A SERVICE ENTRANCE FROM THE SERVICE COURTS. PLAY-GROUNDS ARE LOCATED AWAY FROM TRAFFIC AND ARE EASILY ACCESSIBLE FROM ANY APARTMENT, ACROSS THE ENCLOSED SERVICE AREAS. EACH DWELLING UNIT HAS CROSS-VENTILATION, AT LEAST SEVEN CLOSETS, AMPLE WALL SPACE FOR FURNITURE IN EVERY ROOM, A DINING ALCOVE OFF THE KITCHEN, AND A SOUNDPROOF PARTITION SEPARATING NEIGHBORS. RAILINGS WERE CONSIDERED UNNECESSARY AT THE ENTRANCES AS THEY ARE ALL CLOSE TO THE FINISHED GRADE. IT SHOULD BE NOTED THAT THE GARAGE COURTS ARE READILY ACCESSIBLE FOR ALL RESIDENTS BUT ARE CLOSE TO STREETS AND ARE SEPARATED IN PLAN FROM PLAYGROUNDS AND PEDESTRIAN WALKS. NOTE THAT IN UNIT B, BELOW, THERE IS AN APARTMENT WHICH HAS ONLY ONE BEDROOM AND THE BATH ON THE SECOND FLOOR



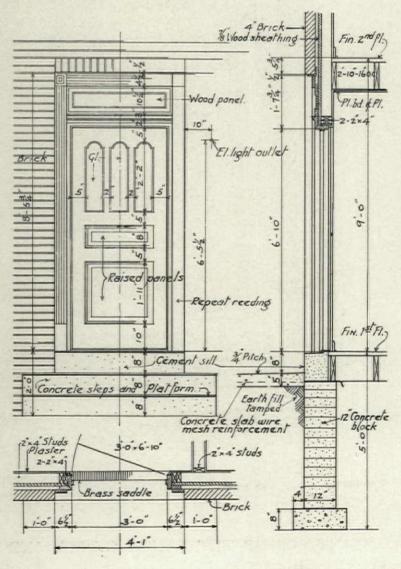


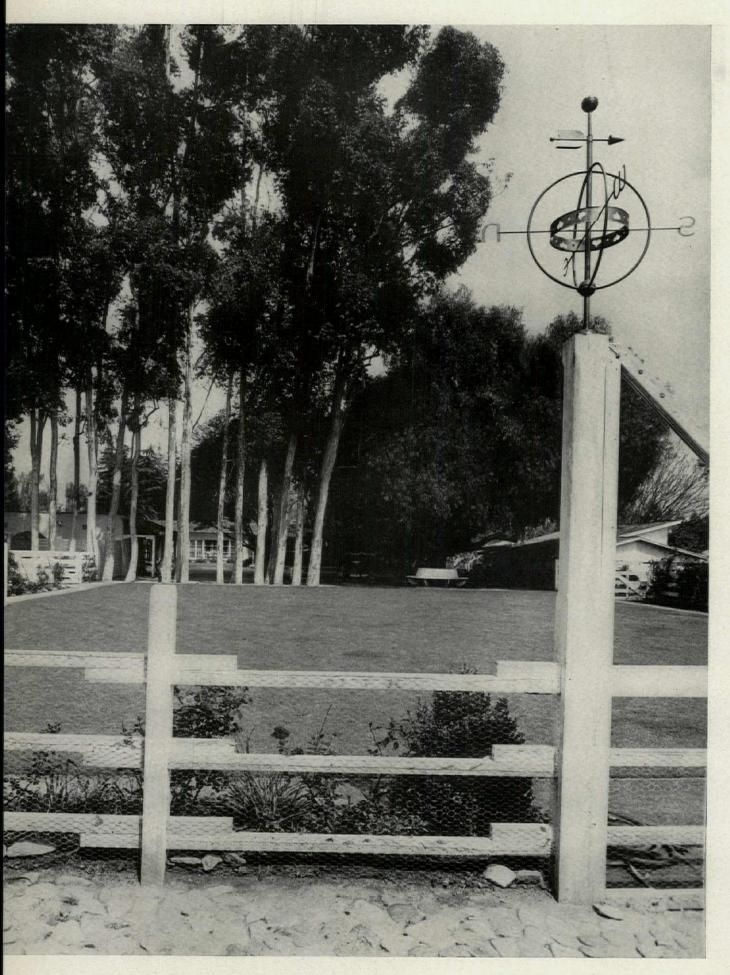
"LIBERTY PARK" DETAILS — TYPICAL WALL SECTYPICAL WALL SECTION WITH PITCHED ROOF,
TION OF PROJECT UNIT, TYPE WITH FLAT ROOF
TAKEN AT KITCHEN AND BATHROOM WINDOWS





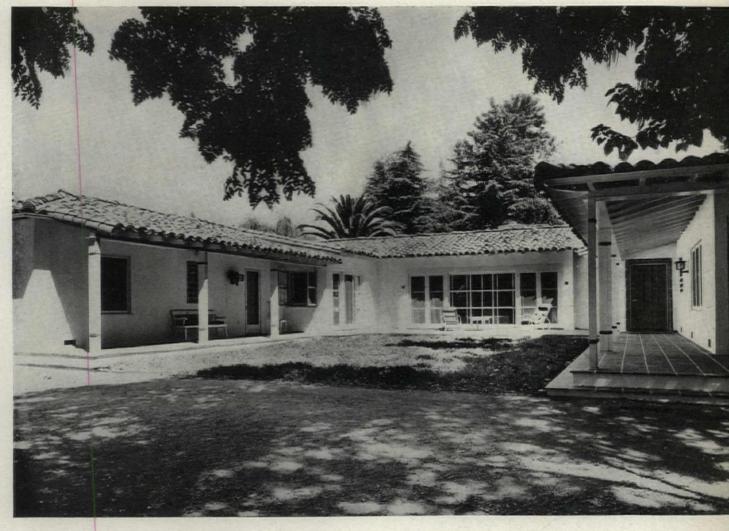
ENTRANCES OF "LIBERTY PARK" DWELLING UNITS ARE STOCK DOORS SINGLY OR IN PAIRS IN FRAMES DESIGNED BY GUSTAVE W. ISER



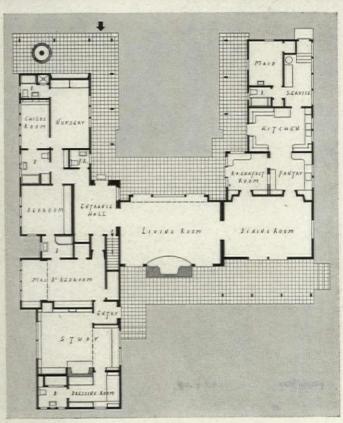


"PEASANT ACRES," THE RANCH OF MR. AND MRS. HENRY BLANKE
576

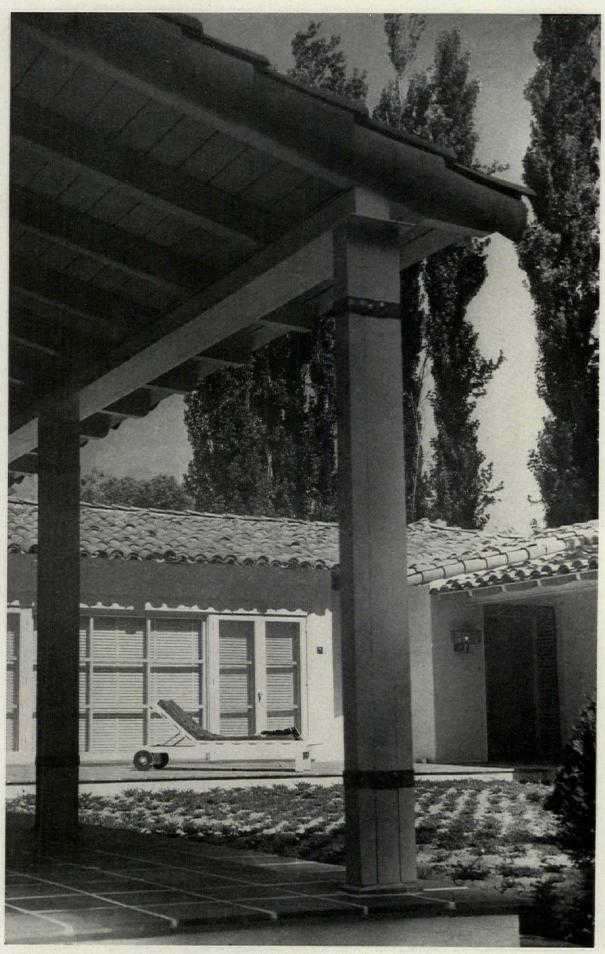
PENCIL POINTS



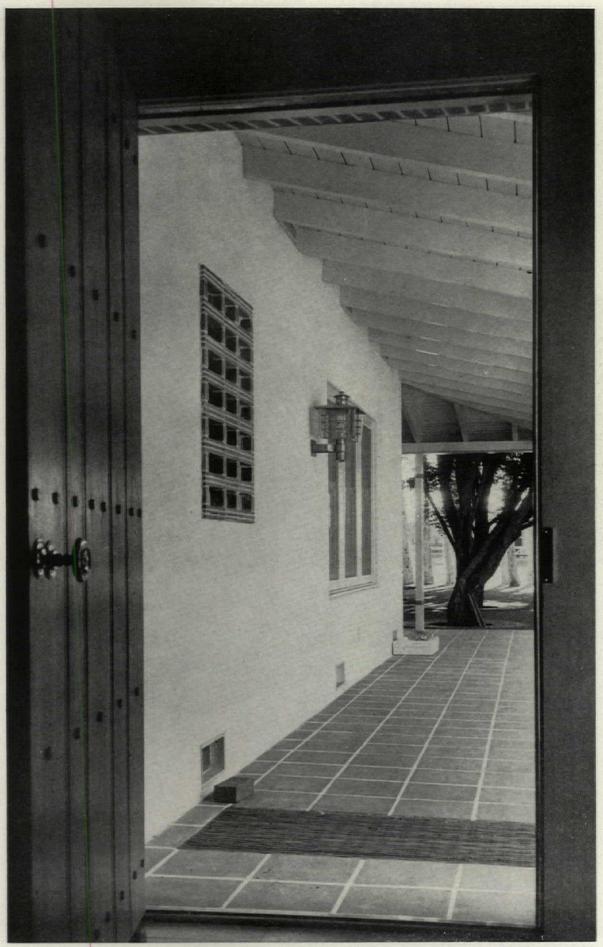
"PEASANT ACRES," THE FORMER RANCHO BONITA AT TARZANA, CALIFORNIA, WAS RECENTLY REBUILT UNDER THE DIREC-TION OF PAUL LASZLO OF BEVERLY HILLS AS THE COUNTRY HOME OF MR. AND MRS. HENRY BLANKE. THE HOUSE, THE PATIO, AND SURROUNDING LAWNS ARE SUITED TO INFORMAL ENTERTAINING IN THE MANNER OF SOUTHERN CALIFORNIA. MR. BLANKE IS A MOTION PICTURE PRODUCER. THE HOUSE IS FRAME CONSTRUCTION ON CONTINUOUS REINFORCED CONCRETE FOOTING. THE EXTERIOR WALLS ARE FIN-ISHED WITH THREE COATS OF STUCCO ON GALVANIZED WIRE MESH. THE ROOF IS OF MISSION TILE OVER SOLID SHEETING AND TWO LAYERS OF 15-POUND ASPHALT-IMPREGNATED RAG FELT MOPPED WITH HOT ASPHALT. WINDOWS ARE WOOD SASH CASEMENT TYPE. THE PHOTOGRAPHS ARE BY HAVEMAN AND BY JULIUS SHULMAN



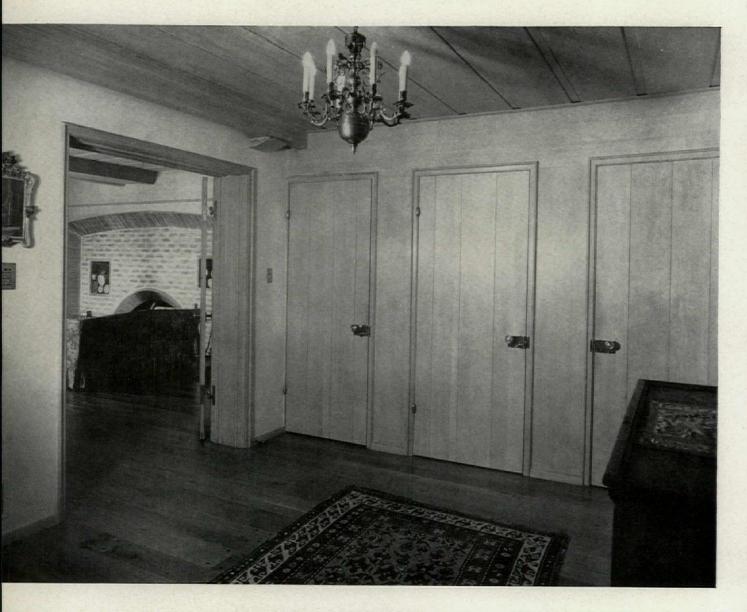
CALIFORNIA HOUSE REBUILT BY PAUL LASZLO, BEVERLY HILLS



THIS VIEW IN THE PATIO SHOWS THE STURDINESS OF THE CONSTRUCTION AND THE IMAGINATIVE DETAIL DEVISED BY PAUL LASZLO WHEN REBUILDING "PEASANT ACRES," A SOUTHERN CALIFORNIA RANCH HOUSE



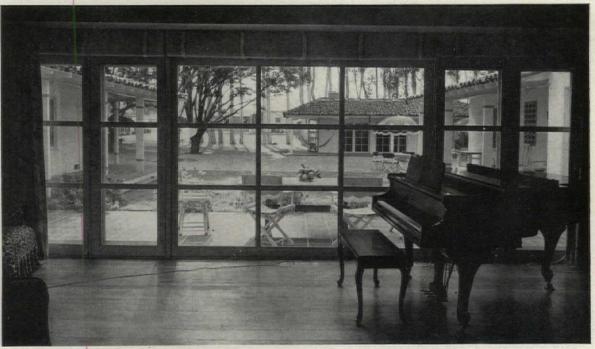
THE APPROACH TO THE FRONT DOOR OF "PEASANT ACRES" IS ALONG ONE SIDE OF THE PATIO THROUGH AN OPEN GALLERY PAVED WITH BRICK AND TILE. THE HEAVY NAIL-STUDDED DOOR IS OF OREGON PINE





ENTRANCE HALL ABOVE AND A CORNER OF THE OUTDOOR KITCHEN AT "PEASANT ACRES," AT TARZANA, CALIFORNIA

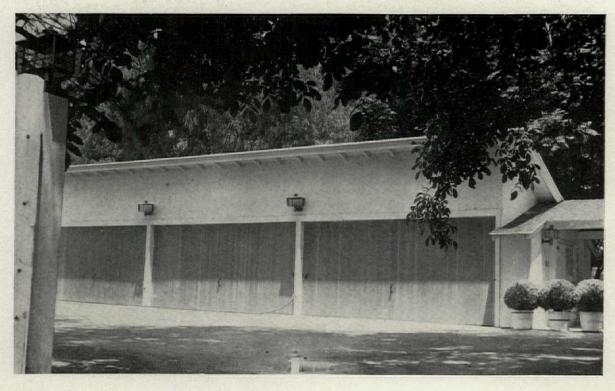




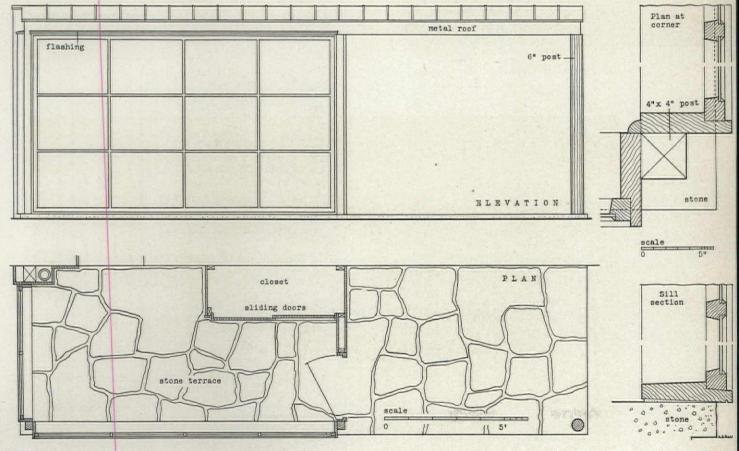
TWO VIEWS OF THE LIVING ROOM OF "PEASANT ACRES." THE FLOORING IS PLANK OAK, WALLS ARE PLASTERED, AND THE CEILING IS BLEACHED OREGON PINE. THE INVITING PATIO VISTA IS FROM THE HEARTH



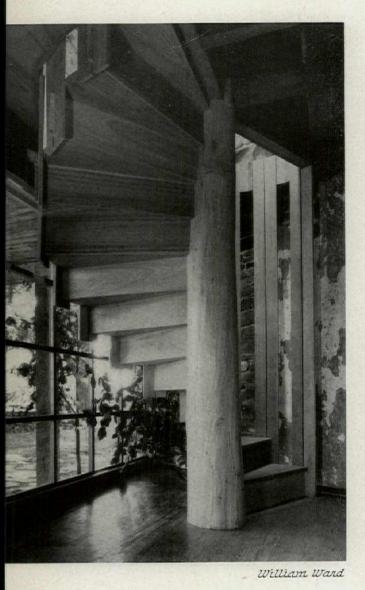
THE APPROACH TO THE RANCH HOUSE AT "PEASANT ACRES" IS THROUGH THIS PLEASANT COVERED PASSAGE BESIDE THE SIX-CAR GARAGE (BELOW). THIS VISTA CROSSES THE MAIN AXIS OF THE HOUSE THROUGH THE LIVING ROOM AND PATIO. THE DOORS OF THE GARAGE ARE THE OVERHEAD TYPE. OTHER BUILDINGS ON THE RANCH INCLUDE DRESSING AND SHOWER ROOMS BESIDE THE SWIMMING POOL, STABLES, AND AN OUTDOOR KITCHEN AND SMOKE HOUSE. THERE IS A VEGETABLE GARDEN AND ALSO AN ORCHARD OF CITRUS AND ALMOND TREES NEAR THE HOUSE. PHOTOS BY HAVEMAN AND SHULMAN

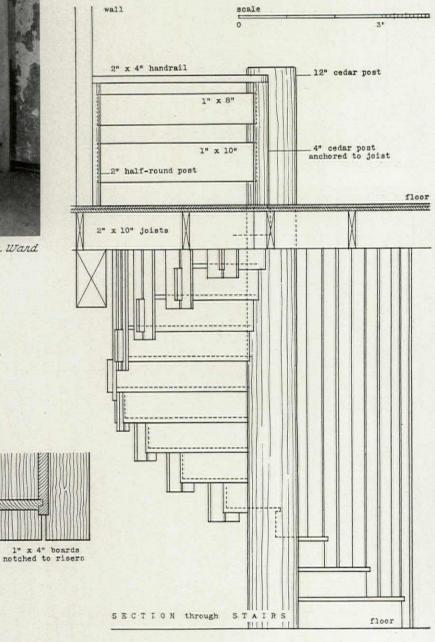






SELECTED DETAILS—THE WORK OF ANTONIN RAYMOND, ARCHITECT



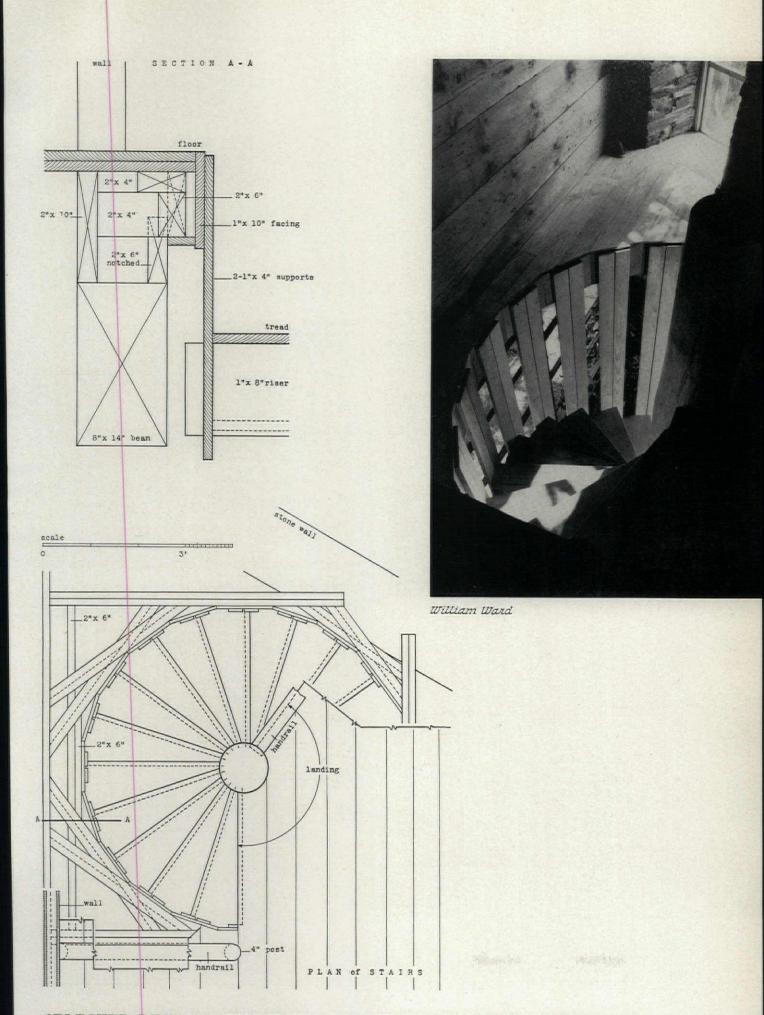


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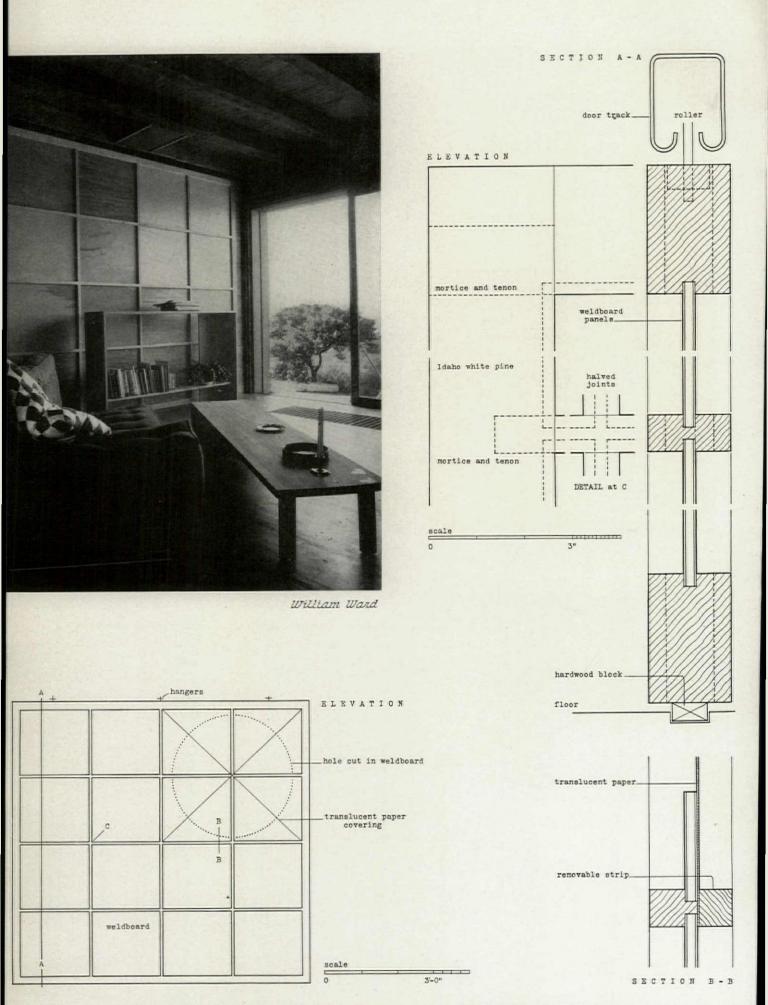
DETAIL of

STEP

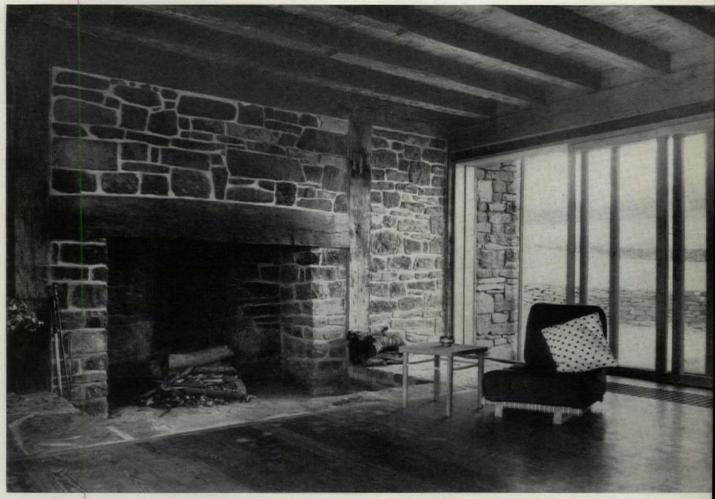
tread



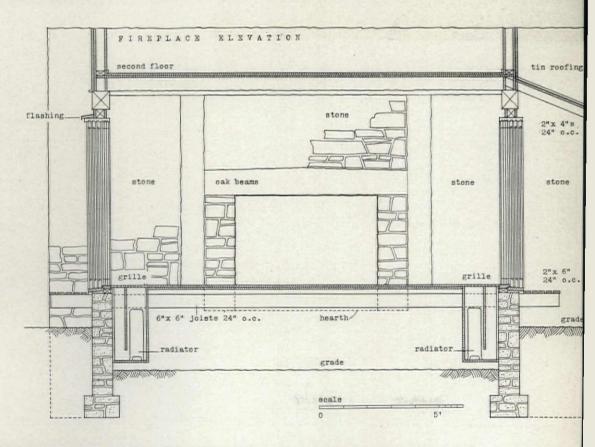
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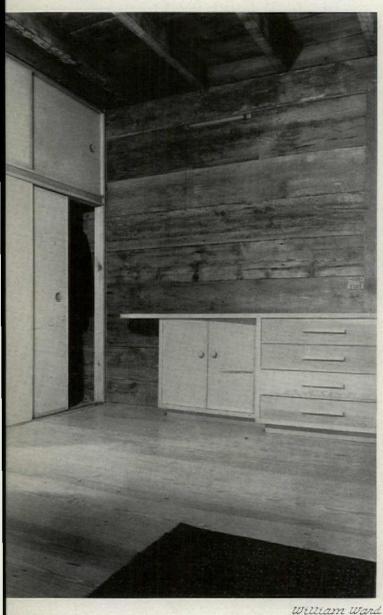
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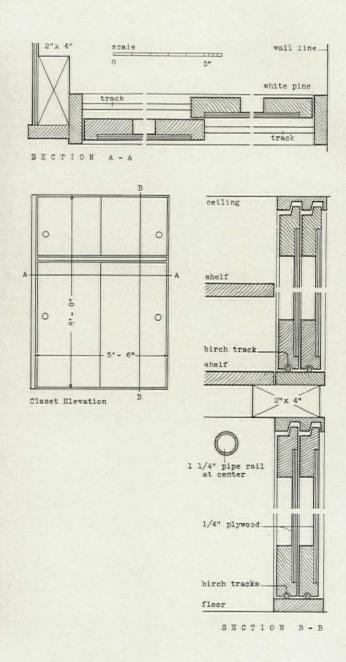
William Ward

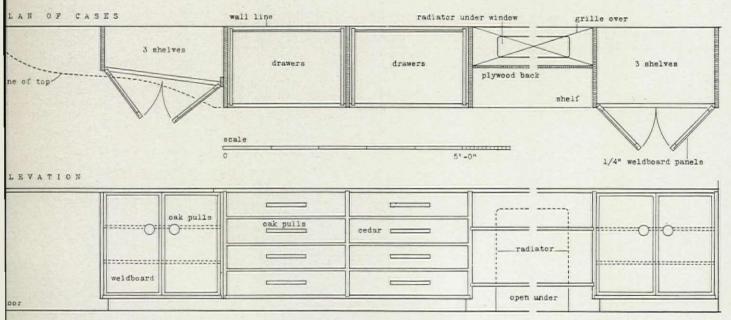


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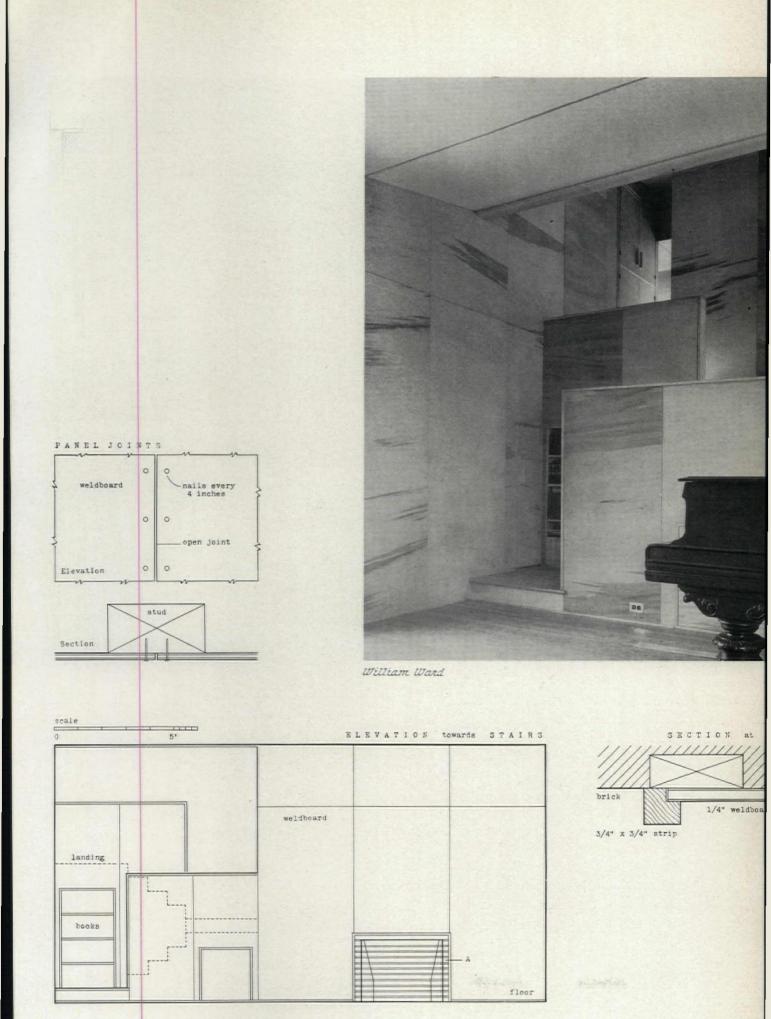


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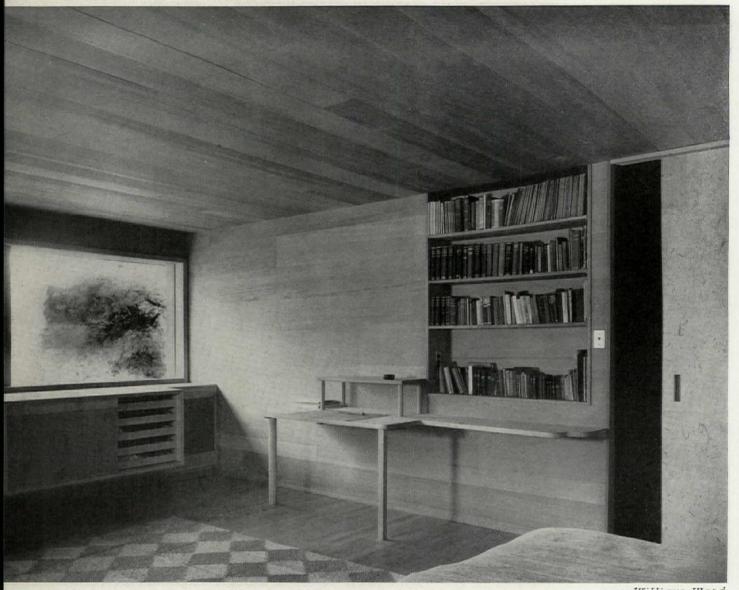




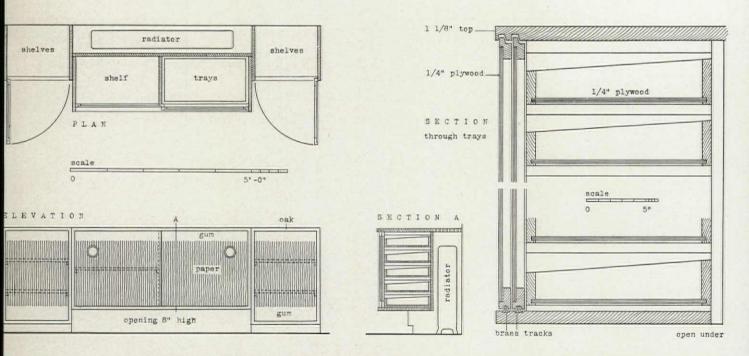
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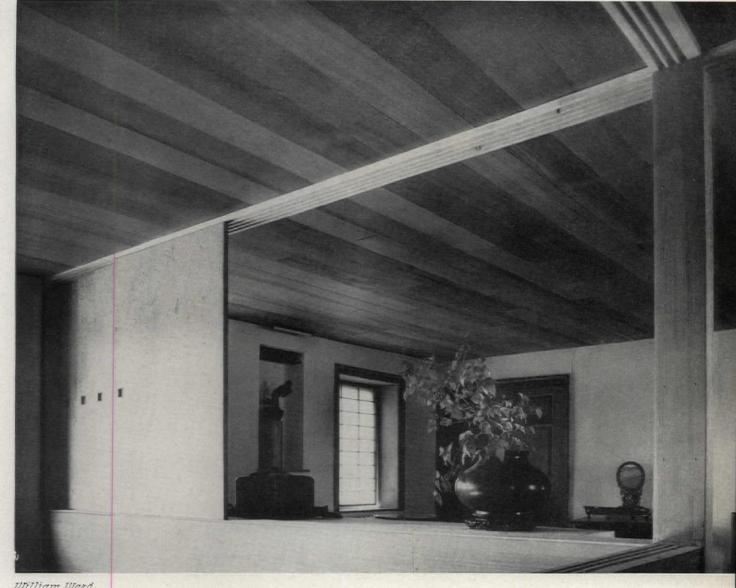
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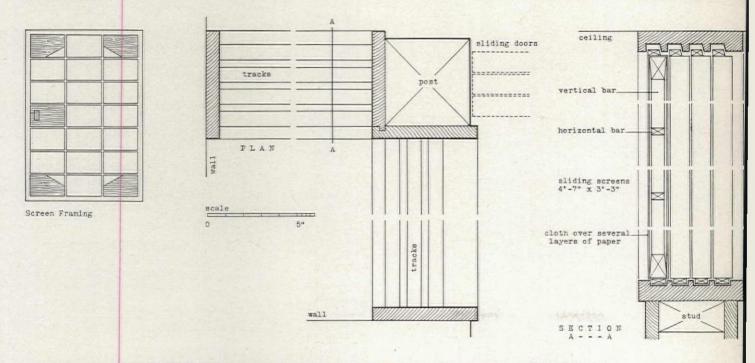
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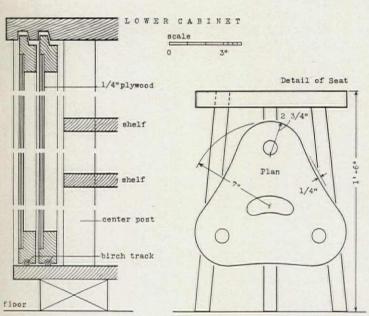


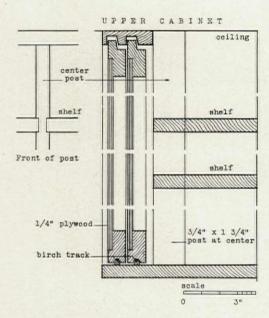
William Ward



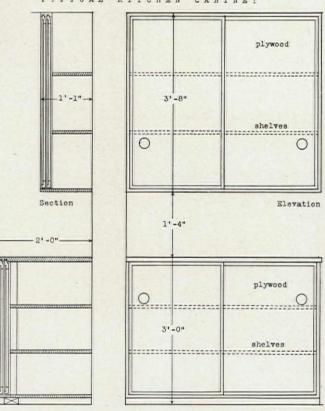
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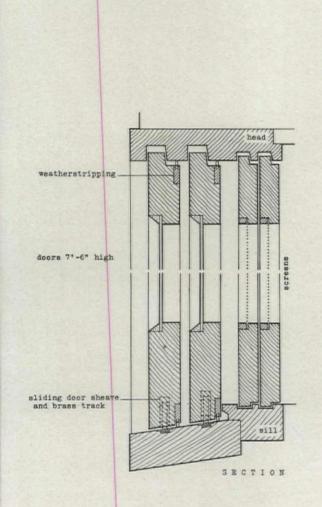




TYPICAL KITCHEN CABINET

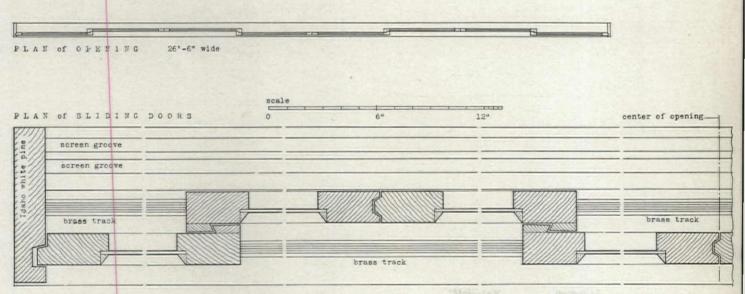


SELECTED DETAILS—THE WORK OF ANTONIN RAYMOND, ARCHITECT





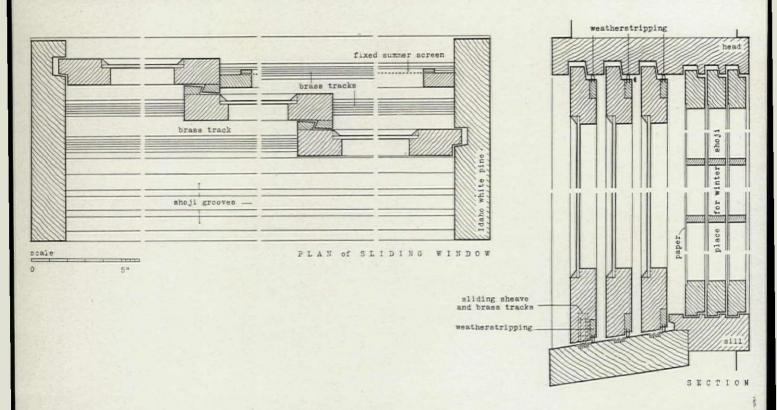
William Ward



SELECTED DETAILS—THE WORK OF ANTONIN RAYMOND, ARCHITECT



William Ward



SELECTED DETAILS—THE WORK OF ANTONIN RAYMOND, ARCHITECT

PENCIL POINTS

### PENCIL POINTS DATA SHEETS

Prepared by DON GRAF, B.S., M.Arch.

#### MANUFACTURERS' DATA SHEETS AVAILABLE

MANY prominent manufacturers have had their products data-ized. Manufacturers' Data Sheets consist of information which is identical in format and method of presentation with the PENCIL POINTS series. These manufacturers' Data Sheets describe basic principles in typical Don Graf de-bunked style—they contain no sales talk for the products. They are indexed to fit into the filing plan of the Data Sheet Notebook.

Do not write to PENCIL POINTS for these manufacturers' free Data Sheets; these sets are available only from the companies who have issued them. All you have to do to obtain these free sets is to send a post card or your letter-head to the individual manufacturers and say, "Please send me your Don Graf's PENCIL POINTS Data Sheets."

Allegheny Ludlum Steel Corp., Brackenridge, Pa. A set of 4 Data Sheets on Ludlite Bord.

American Laundry Machinery Company, Norwood Station, Cincinnati, Ohio. Six Data Sheets showing actual plans of laundry layouts for hospitals, hotels, clubs, schools and residences.

Arkansas Soft Pine Bureau, Boyle Building, Little Rock, Ark. A set of 8 Data Sheets on Arkansas Soft Pine for finish and structural uses.

Barber Asphalt Corporation, Perth Amboy, N. J. Four Data Sheets which not only tell you how and where to use mastic, but also tell you how not to use it!

W. A. Barrows Porcelain Enamel Co., Cincinnati, Ohio. A set of 4 Data Sheets on Porcelain enameled letters for signs, including details and photographs. These letters are "custom-made" to the Architect's designs, and are the answer to most commercial sign problems.

Carbide and Carbon Chemicals Corporation, Pyrofax Gas Div., New York, N. Y. A set of 4 Data Sheets on gas service for homes beyond the city mains.

Carnegie-Illinois Steel Co., Carnegie Building, Pittsburgh, Pa. A set of 16 Data Sheets on the properties and installation of porcelain enameled iron. The most complete treatise on this subject ever published.

### AUTOMATIC SPRINKLER LOCATION

Index No.

F 17 b

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

Sprinklers in fire section of small area may be fed from riser in another section if warrented. Holes thru partition walls allowing sprinklers to distribute water to either side are not effectual.

Each fire section should have one or more separate risers. Each riser to be of sufficient size to supply all sprinklers on riser on any one floor

L-Sovinkers should be installed under stairs. If stair town has independent riser consider as one fire section. Non-combustible shefts require sprinkers only at top and bottom. However, if the or more separate fire sections are served by shaft, sprinkers are required at each landing

SET

18

SEP

1940

5 — Maximum distance between lines and between sprinklers on lines A—Maximum square foot protection area allotted per sprinkler

1940 1/25—Maximum distance from wall or partition to first sprinkler is 1/2 allowable distance between sprinklers in the same direction. With OPEN JOIST construction end sprinklers on alternate lines are spaced 2-0" max. fend sprinklers on other lines are spaced 4-0" max. from walls or partitions

#### TYPES OF CONSTRUCTION

OCCUPANCY HAZARD	FIRE- RESISTIVE		MILL		SEMI- MILL		OPEN JOIST Lines placed at right angles to the joists		
	S	A SQFT.	5	A SQ.FT.	S	A SQ.FT.	S tween sprinklens		A
							Right angle to joists	Parallel to joists	SQ.FT.
LIGHT	14:0"	196	14'-0"	168	14-0"	144	8'-0"	10'-0"	80
ORDINARY	12:0"	100	12:0"	100	10:0"	90	8'-0"	10'-0"	80
EXTRA	10:0"	90	10:0"	80	10'-0"	80	7.0"	10'-0"	70

OCCUPANCY HAZARD	TYPES OF SHEATHING										
	plaster b	mum thick bard, metal. th¢ plaster	or con	d boarding nbustible board	Cement or gypsum plaster on metal lath						
	5	A SQFT.	S	A SQ.FT.	S	A SQ.FT					
LIGHT	14'-0"	168	1240"	120							
ORDINARY	10-0"	80	Same as for OPEN JOIST		12:0"	100					
EXTRA	Same open	us for JOIST		as for	10-0"	80					

TABLES FOR MAXIMUM SPRINKLER SPACING

# AUTOMATIC SPRINKLER INSTALLATION

Index No.

F 17 c

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

Distances of deflectors from ceilings

of mill or other smooth construction, or bottom of joists of open joist construction, should be 4" minimum, 10" maximum, with 5" to 8" preferred. Ordinarily, sprinklers are installed in upright position. Pendent position

upright position. Pendent position requires type approved for purpose.

MILL OR OTHER SMOOTH CONSTRUCTION

4"Minimum—
In fire resistive construction distances between deflectors and ceilings may be increased to 1".2" max. If conditions warrant. In all types of construction sprinklers should be placed at least 1"O" away from all obstructions so as to permit distribution of water—

FIRE-RESISTIVE CONSTRUCTION

9

Sprinkler deflectors installed parallel to ceilings, roofs, or incline of stairs. When in peak of pitched roof sprinklers should be horizontal.

Dimensions given above should be adhered to so as to insure proper distribution of water on ceilings; proper protection of area below sprinklers, and quick response to early heat waves from a fire.

INSTALLATION OF SPRINKLERS

9

RISERS to be adequately supported by attachments direct to riser or by shangers located on horizontal connections close to riser.

CROSS MAINS require one hanger between each two branch lines.

BRANCH LINES require at least

one hanger for each length of pipe between sprinklers with 12°0" maximum distance between hangers.—
Hangers placed 1°0" minimum from sprinklers. However, under fire resistive construction, round hangers may be placed 3"minimum from sprinklers.

be placed 3"minimum from sprinklers.

One hanger placed within 2"6"from end sprinkler on line.

LOCATION OF HANGERS

Hangers should be of round wrought iron U-type or approved adjustable type. Cast iron hangers or parts of hangers should be malleableized.

Pipes should be supported by hangers attached directly to structural members, by means of floor plates and thru bolts, or by approved inserts set in concrete when the suitability of the concrete has been definitely determined.

Where pipes are run thru concrete beams proper sleeves should be provided. Such sleeves should not be used for support of pipes.

SET

18

The Electric Storage Battery Company, 19th and Allegheny, Philadelphia, Pa. Seven Data Sheets on the selection of proper units for emergency lighting of hospitals, theaters, banks, stores, etc.

Elkay Manufacturing Co., 4704 W. Arthington Street, Chicago, Ill. Originally 6 Data Sheets to which 2 supplementary sheets have been added, on standard and custombuilt stainless steel kitchen sinks and cabinet tops.

Michael Flynn Manufacturing Co., Allegheny Avenue and Tulip Street, Philadelphia, Pa. A set of 8 Data Sheets on the famous Lupton residential casements — first Data Sheets on steel windows.

The Hart Manufacturing Company, Hartford, Conn. Eight Data Sheets on the control of large electrical loads by a simple hand switch, time clock, thermostat, photoelectric cell or other device.

Hoffman Specialty Company, Inc., 500 Fifth Avenuo, New York, N. Y. Eight Data Sheets outlining the advantages and shortcomings of various types of steam heating systems.

Holland Furnace Company, Holland, Mich. A new set of 7 Data Sheets describing 2 systems of Holland heating, outlining the design process for warm air heating systems. This set supersedes an earlier set of Holland Data Sheets.

The Imperial Brass Mfg. Co., Chicago, III. A set of 4 Data Sheets on the "Floatless" Automatic Electric Sump Pump and Cellar Drainer, giving dimensions and diagrams of installations of sump pumps.

Independent Protection Company, Inc., 1507 S. Main Street, Goshon, Ind. Four Data Sheets describing the protection of buildings against lightning, with construction drawings.

Koppers Company, Koppers Building, Pittsburgh, Pa. Twelve Data Sheets on dampproofing, roofing, with construction drawings on the waterproofing of pools.

Marsh Wall Products Company, Dover, Ohio. Four Data Sheets covering Marlite—a light-weight, easily installed and completely sanitary wall covering which is available in many attractive colors.

Milcor Steel Company, Milwaukoe, Wicc. A set of 6 Data Sheets, on the Milcor Steel Stud for Hollow Partitions and Milcor 2" Solid Plaster Partitions.

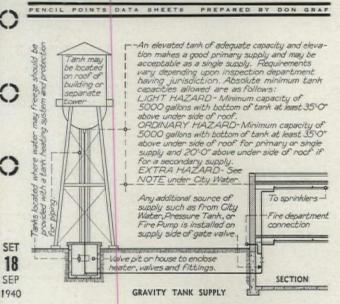
National Electric Products Corporation, Fulton Building, Pittsburgh, Pa. A set of 6 Data Sheets which cover the latest development in Plug-in Strips for convenience outlets and Lumiline lighting. Carefully made drawings show exact installation for various typical locations.

(Continued on page 598)

## AUTOMATIC SPRINKLER WATER SUPPLIES

Index No.

F 17 d



A pressure tank makes a good primary supply and in some cases may be acceptable as a single supply. Minimum requirements are as follows:

LIGHT HAZARD-2000 gallons minimum amount of available water.

ORDINARY HAZARD-3000 gallons minimum amount of available water.

EXTRA HAZARD-See NOTE under City Water. Pressure tank ordinahily kept 2/3 full of water and an air pressure of 75 lbs. maintained. Pressure tank should not be used to supply other than

used to supply other than sprinklers or hand hose attached to sprinkler pipir Pressure tank preferably located above top level of sprinklers, but if conditions warrant tank may be located in basement or elsewhere.

Fire department Sprinklers connection

Source of supply such as from Gravity Tank or Fire Pump is installed on tank side of valve.

SECTION

PRESSURE TANK SUPPLY
FIRE PUMP SUPPLY

A properly located fire pump of adequate capacity and reliability makes a good secondary supply. An electrically driven and automatically controlled fire pump, taking water from an adequate source, may be acceptable as a single supply. LIGHT HAZARD-250 G.P.M. min. pump capacity. ORDINARY HAZARD-500 G.P.M. min. pump capacity. EXTRA HAZARD-See NOTE under City Water.

AUTOMATIC SPRINKLER WATER SUPPLIES

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

Index No.

Cross Main

Gate valve located so as

to control all sources of

supply except fire department connections Each separate source

of supply except fire department connections should also have at least one gate valve

Feed Main

Branch lines to sprinkler heads

F17 e

Fire department connection thru which water can be pumped into the sprinkler system makes a desirable auxiliary supply. Number and location of connections determined according to specific requirements. On wet pipe systems with single riser connection made on system side of gate, check and alarm valves in riser. On systems with two or more risers connection made on system side of the shut-off valves controlling other water supplies but on supply side of separate riser shut-off valves.

Piping from water supply to sprinkler riser should be at least as large as riser. All main water supplies to connect with sprinkler system at foot of riser.

SET

Sprinkler alarm valve or other water flow detecting alarm device installed if required.

City supply main preferably not any smaller than 6". Connections to dead end mains should be avoided.

A connection from a reliable water works system is preferable as a primary or single supply. Minimum requirements are as Follows:
LIGHT HAZARD-Supply to provide a residual pressure when delivering 250 G.P.M. of not less than 151bs under the roof.
ORDINARY HAZARD-Supply to provide a residual pressure when delivering 500 G.P.M. of not less than 151bs under the roof.
EXTRA HAZARD-See NOTE below.

CITY WATER SUPPLY

-Any additional source of supply such as from a Gravity Tank, Pressure Tank, or Fire Pump is installed on supply side of gate valve controlling the sprinkler system.

SECTION

NOTE Supply needed for EXTRA HAZARD and other various occupancies must be determined by a study of the conditions in each case. Consideration should be given to number of sprinklers that may operate.

Every automatic sprinkler system should have at least one automatic water supply of adequate pressure, capacity and reliability. The necessity for a second independent supply, which is desirable, should be determined by a study of conditions in each case and consultation with the inspection department having jurisdiction.

National Lightning Protection Co., Jefferson at Eugenia, St. Louis, Mo. Four Data Sheets giving a complete open specification for the lightning protection of various buildings.

National Terrazzo & Mosaic Association, 1420 New York Avenue, N. W., Washington, D. C. A set of 8 Data Sheets, giving short form specification and details for all kinds of terrazzo work.

Pecora Paint Company, 3501 N. 4th Street, Philadelphia, Pa. A set of 4 Data Sheets on the use of calking compounds, dampproofing, mortar stains, waterproofing and mastic setting of structural glass and acoustical tile.

Rotary Lift Company, Memphis, Tennessee. A set of 6 Data Sheets with very complete installation drawings showing details of Freight-Passenger Elevators, Sidewalk Elevators and Dumbwaiters for travels of 30 feet or less.

The Ruberoid Company, 500 Fifth Avenue, New York, N. Y. Six Data Sheets giving a complete outline of both pitch and asphalt roofings for all types of roofing decks.

The Sisalkraft Company, 205 W. Wacker Drive, Chicago, III. Six Data Sheets which tell you how to use 3 kinds of Sisalkraft for better construction.

The Sisalkraft Company, 205 W. Wacker Drive, Chicago, Ill. A set of 6 Data Sheets showing details of 6 uses for Sisalkraft, which complement the first set of Sisalkraft Data Sheets.

The Stanley Works, New Britain, Conn. Four Data Sheets on the construction of garage doors and doors operated by photo-electric cells.

The Stanley Works, New Britain, Conn. Second set of 4 Data Sheets on school wardrobes, accordion doors and the location of butts for ordinary doors.

The Stanley Works, New Britain, Conn. Third set of 4 Data Sheets on the planning of closets—either wide shallow closets or deep narrow closets—together with dimensions of fixtures, coat hangers, men's and women's clothing.

Henry Weis Mfg. Co., 941 Oak Street, Elkhart, Indiana. A set of 6 Data Sheets describing unit shower stalls for residences, society buildings, schools, etc.

The Yale & Towne Mfg. Co., Stamford, Conn. A set of 4 Data Sheets describing the Phantom Doorman, with the necessary provisions for an economical installation.



FISHING BOAT AT DOUARNENEZ, BRITTANY



LESSON 6-STRUCTURE AND FOLIAGE OF OAK TREES

PENCIL POINTS

#### PENCIL BROADSIDES-6

#### BY THEODORE KAUTZKY

In discussing the correct drawing of trees, I wish to make it clear that my interest in distinguishing between species is not that of a scientific botanist, nor do I pretend to any botanical exactitude in my drawings. I regard the trees I draw from the point of view of an artist who wishes to be convincingly truthful and who loves trees for the sake of their interesting forms, the rhythmic lines of their structural elements, and the play of light and shade and color through their foliage masses.

The oak, which is the subject of this lesson, offers marked contrast to the pine, which was treated in the last plate. Characterized by great strength of structure, its heavy trunk and gnarled twisting limbs support a broad, heavily-leafed crown. I have chosen to illustrate here a rather symmetrical example—one whose spreading branches extend about as far horizontally as the tree reaches vertically. The general shape of the whole might be roughly contained within a great sphere and if you keep this thought in mind it will help you to feel the form as you render it.

As usual we begin by drawing lightly the structure of the tree, its thick sturdy trunk tapering up from the ground, dividing itself into several principal limbs which throw off heavy branches as they ascend with many undulations towards the top, reducing gradually their diameters until they divide into many smaller branches and twigs which carry the leaves. From the main limbs extend occasional turning, twisting minor limbs, struggling their way in many directions towards the enclosing sphere, crossing

and recrossing each other as they go and casting their shadows on their neighbors. We also sketch in the foliage masses and suggest lightly the shades and shadows preparatory to their final expression with broad strokes. The light in this case is falling from the left, above and behind the observer. Keeping in mind the ball-like general mass, you will be able to determine where the lighter and darker portions will occur and cast the foliage shadows on branch, trunk, and ground. When you have drawn your tree something like the little diagram at the top of the plate, only much lighter, you will be ready to go ahead, knowing that the essentials are established.

Start with the darkest areas, putting them in with broad strokes, rather short to suggest leafage and remembering to silhouette the edges of each mass sharply against the sky with appropriately irregular profile. Heavy limbs in shadow may be shown by strokes running either lengthwise or crosswise. The short strokes running crosswise give a slight vibration to the profiles of the limbs which is in accord with the roughness of the bark and at the same time helps to suggest the play of reflected light. Longitudinal strokes may be used for the smaller branches and for limbs which catch the light on one side. Remember that limbs and branches passing in front of dark areas should be left white where they catch the light or gray where you want them to show up in shadow. Against the light sky they should show up as clean dark strokes, their values varying with light conditions. It is these many contrasts which give the sparkle to your drawing and make it full of life.

As you render the foliage masses, have in mind the way the leaves radiate from the twigs and branches. While you do not draw in each leaf, your individual strokes will suggest their directions, particularly around the edges. Try as you draw to feel the form of each mass and to model it with variations of tone while keeping its general value in proper key with the whole.

Observe how on the darker side of the trunk and principal limbs and even in the darkest foliage masses I have taken into account the reflected light from the ground which helps to express form and adds interest. Your skill in maintaining variety of surface in every part of your sketch while keeping it all in proper relation to the whole will develop with practice, just as mine did. Do not be content with just one or a few trials.

Make many. Go outdoors and draw from nature for a while. Then come in and apply what you have learned. Compose some trees of your own.

Do not forget throughout all this that the proper and frequent sharpening of the pencil is a fundamental preliminary to this particular technique. Success depends upon the clean-cut and precise application of pencil to paper with each stroke calculated to be of maximum expressiveness. You can't do it with an uncontrollable point.

The next lesson will deal with the birch, a still different type of tree with quite distinct characteristics. When you have done with this series I hope you will have developed a reasonably large repertoire of tree forms so that you will be fully equipped to sketch any common variety with confidence in your ability to express its character beyond question. That's worth working for, eh?

#### \*TYPHONITE ELDORADO PENCIL PAGE

# Softball Diamond

#### .... A Gree Blueprint

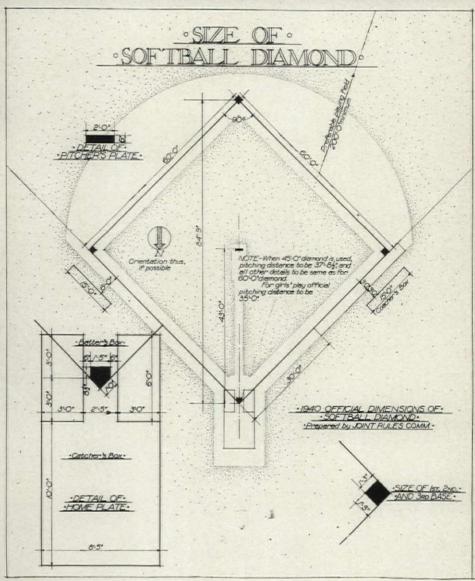
of this drawing offers a convincing demonstration of  $\mathcal{T}yphonite$  Eldorado quality. The blueprint is made directly from the original  $\mathcal{T}yphonite$  Eldorado pencil drawing. For your copy, just write the address below and ask for blueprint No. 167-J9.

This Dixon Typhonite Eldorado drawing should be useful to architects and landscape architects in

planning the grounds of Y.M. C. A.'s, Y.W.C. A.'s, industrial, public and school playgrounds and for commercial purposes. The diamond is similar to a baseball diamond but reduced in size because of the difference in the ball that is used.

In this drawing a Typhonite Eldorado F was used for heavy lines, solid blacks and hatchings; 2H for the light lines. It demonstrates the adaptability of Typhonite Eldorado to lines, hatchings and notes such as would occur on the small scale plot plan.

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# S E R V I C E DEPARTMENTS

THE MART. In this department we will print, free of charge, notices from readers (dealers excepted) having for sale or desiring to purchase books, drawing instruments, and other property pertaining directly to the profession or business in which most of us are engaged. Only those items will be listed for sale which we can no longer supply from our own stock. Such notices will be inserted in one issue only, but there is no limit to the number of different notices pertaining to different things which any subscriber may insert.

PERSONAL NOTICES. Announcements concerning the opening of new offices for the practice of architecture, changes in architectural firms, changes of address and items of personal interest will be printed free of charge.

FREE EMPLOYMENT SERVICE. In this department we shall continue to print, free of charge, notices from architects or others requiring designers, draftsmen, specification writers, or superintendents, as well as from those seeking similar positions.

SPECIAL NOTICE TO ARCHITECTS LOCATED OUTSIDE OF THE UNITED STATES: Should you be interested in any building material or equipment manufactured in America, we will gladly procure and send, without charge, any information you may desire.

Notices submitted for publication in these Service Departments must reach us before the twelfth of each month if they are to be inserted in the next issue. Address all communications to 330 West 42nd Street, New York.

#### THE MART

WANTED: A copy of Architec-tonics, The Tales of Tom Thumtack, Architect, published by William T. Comstock Company, 1914. State price and condition of book. Communicate with Miss Flagg, care of Pencil Points.

We will pay 35c per copy, plus postage, for the following copies of Pencil Points: July and December 1939, and May 1940. Must be in good condition. Subscription Department, care of Pencil Points.

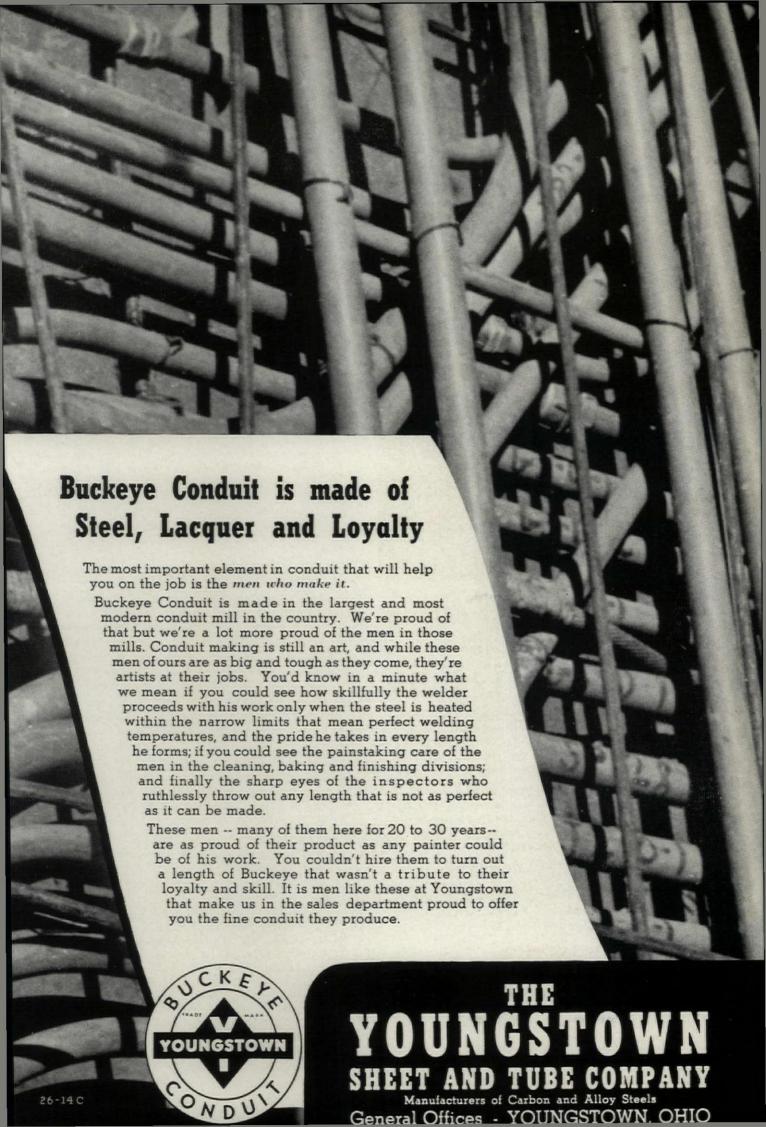
WANTED: Drafting table, at least 40x60, tilt top, preferably tilting to vertical position. Must be in good condition. W. E. Chapman, Jr., 39-13 219th Street, Bayside, L. I., New York.

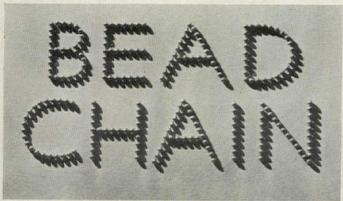
Goldwin Goldsmith, University of Texas, Austin, Texas, has the following copies of Pencil Points: June, September, October, November and December, 1920; September 1921; September 1923.

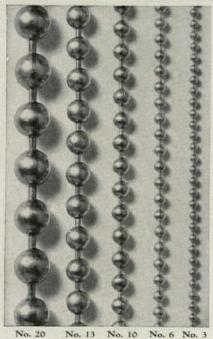
Sydney S. Sylvester, 3312 Perry Avenue, Bronx, New York, has the following architectural publications for sale, in extra fine condition: Architectural Review, 16 volumes (old copies); The Tuileries Brochures, 17 volumes (old copies); Service Sheets, all working drawings, Architectural Service Press Co., Philadelphia; Sketches Abroad, Julius A. Schweinfurth.

R. W. Albers, 611 Underwood Building, San Francisco, Calif., has the following books for sale: Electric Wiring, A. L. Cook, 1933, Wiley; Simplified Engineering for Architects and Builders, Harry Parker, 1938, Wiley; Interior Decoration, Sherrill Whiton, 1937, Lippincott; Illustrated Handbook of Art History, F. J. Roos, Jr., 1937, MacMillan; The Church Edifice and Its Appointments, Rev. H. E. Collins, 1936, Dolphin Press; The Supervision of Construction, W. W. Beach, 1937, Scribner; American Architect's Time Saver Standards,

(Continued on page 52, Advertising Section)







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(Continued from page 50, Advertising Section)

from July 1935 through April 1940, cut 8½ x 11, indexed and filed in binder. Please make offer for all or in part, to be sent express collect.

Edwin Todd, Assistant Professor of Art, Park College, Parkville, Mo., would like to obtain a copy of *Modern Kerken in Europa en Amerika*, Dr. J. G. Wattjes, published in Amsterdam. Please state price and condition of book. He is also interested in any books having pictures of modern style churches.

DESK ROOM: Full office equipment, use of stock and shipping rooms, if desired, at no additional cost. Quiet office, very reasonable rent. Times Square section, New York City. Box No. 900.

Barnett Yurdin, 239 Mt. Hope Place, New York, N. Y., has the following books for sale: Old Philadelphia Details, J. P. Sims and C. Willing; Architecture of Southern Spain; Northern Italian Details; Small Houses of the Late Georgian Period; Davanzati Palace, L. C. Rosenberg; Georgian Period, Student Edition; Monograph of the Work of Mellor, Meigs and Howe; Boston Architectural Club, 1924 and 1925; French Gothic.

#### **PERSONALS**

JAMES ROSS GILLIE and ROBERT DUBOSE BUR-BANK, Designers, have formed a partnership under the firm name of Burbank & Gillie, for the practice of architectural and industrial design, at 10 Rockefeller Plaza, New York, N. Y. This firm was erroneously listed as Architects in the June issue.

STRUCTON COMPLETE BUILDING SERVICES have opened an office for the practice of architecture and building at 1847 Virginia Road, Los Angeles, Calif.

SIDNEY ASTOR, Architect, has opened an office for the practice of architecture at Office No. 213, Latta Arcade Building, Charlotte, N. C.

GAARWOOD M. GRIMES, Architect, has moved his office from the Republic Building to Room 312, Speed Building, Fourth and Guthrie Streets, Louisville, Kentucky. (Visitors welcome.)

ELY JACQUES KAHN, WILLIAM I. HOHAUSER, ETHAN ALLEN DENNISON, *Architects*, have opened offices for the Fort Greene Houses, Section No. 2, at 101 Park Avenue, New York, N. Y. Mr. Carl A. Vollmer is office manager. Interviews between 4 and 5 o'clock.

HARRY L. ALPER, Architect, has moved his office to 551 Fifth Avenue, Fred F. French Building, Suite 425, New York, N. Y.

LAUREN PARROTT and CLARENCE A. SMITH II, Associated Architects, have opened a new office in the Bowen Building, Fitzgerald, Georgia. Mr. Parrott has been practicing in South Georgia for 12 years, and Mr. Smith was formerly associated with Massena & duPont, Wilmington, Delaware, and with L. Phillips Clarke, West Palm Beach, Florida.

JAMES T. CANIZARO, Architect, has moved his office to 503 Capital National Bank Building, Jackson, Miss.

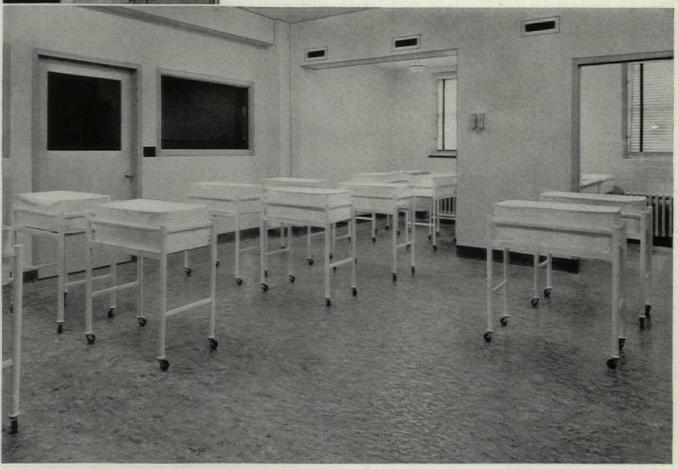
OLIVER C. KJAR, Builder and Contractor, has opened new offices at 6901 Easton Avenue, St. Louis, Mo.

PIER L. CHERICI, Architect, has moved his office from 277 Broadway, New York, N. Y., to 50 Court Street, Brooklyn, N. Y.



## HOSPITAL FLOORS MUST BE CLEAN AND QUIET

This maternity ward nursery in St. Vincent's Hospital, Erie, Pennsylvania, has a sanitary Armstrong's Linoleum Floor—an attractive Marbelle pattern. The cribs roll easily—and quietly—over its smooth surface. Architects: Meyers and Johnson. Contractor: Erie Mantel and Tite Company.



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# PUBLICATIONS ON MATERIALS AND EQUIPMENT

of Interest to Architects, Draftsmen and Specification Writers

Publications mentioned here will be sent free unless otherwise noted, upon request, to readers of Pencil Points by the firm issuing them. When writing for these items please mention Pencil Points.

SADDLES AND THRESHOLDS. — A.I.A. File No. 14-b-53. Manual, containing useful source material for the architect and drafting room, shows a wide variety of architectural bronze and aluminum and hot rolled steel sections which may be used for the construction of elevator and door saddles and thresholds of all types. 16 pp. 8½ x 11. Julius Blum & Co., Inc., 532 W. 22nd St., New York, N. Y.

FLEXGLASS COLOR CHART. — Spiral-bound folder presenting reproductions of the numerous colors obtainable in Flexglass, a glass that will bend concavely and convexly, and can be cemented to any smooth, hard surface. Descriptive information is included. United States Plywood Corp., 103 Park Ave., New York, N. Y.

CERTAIN-TEED WAYS TO MAKE YOUR HOME STAY YOUNG. — New book designed in magazine form giving useful facts for home owners and those about to build. Descriptive data, accompanied by illustrations in full color, is presented covering such Certain-teed products as shingles, siding, structural insulation, wall board and gypsum items. 24 pp.  $8\frac{1}{2}$  x 11. Certain-teed Products Corp., 100 E. 42nd St., New York, N. Y.

NEW SMITH MILLS 25 HEATING BOILER.—Set of two folders describing and illustrating the new Smith Mills 25 line of heating boilers for oil burning and automatic coal firing designed especially for use in roadside restaurants, monitor stores, garages, small public buildings and large residences. Specifications, dimensions, domestic hot water heaters and allowances, water boiler ratings, etc. 4 pp. 8½ x 11. The H. B. Smith Co., Inc., Westfield, Mass.

NEW HEAVY-GAUGE FERRO-THERM INSULATION.—Folder discussing the advantages of a new line of heavy-gauge insulated steel sheets which reflect 95% of all radiated heat and are protected from corrosion and deterioration by their alloy coating. 4 pp. 8½ x 11. American Flange & Mfg. Co., 30 Rockefeller Plaza, New York, N. Y.

MILLER FLUORESCENT TROFFERS. — Folder describing and illustrating Miller fluorescent Troffers, a continuous recessed lighting for the general illumination of offices, factories, drafting rooms and similar locations. Wiring diagrams, installation data, etc. 8 pp. 8½ x 11. The Miller Co., Meriden, Conn.

Published by the same firm, "Miller Fluorescent Lighting Units." Catalog pages describing a series of three new Miller fluorescent lighting fixtures designed for use in stores, offices, schools, colleges, public buildings, etc. 8½ x 11.

TILES BY SPARTA.—Valuable reference book for architects and designers presents a history of usefulness about plastic clay tiles; planning recommendations; characteristics and advantages of Sparta tiles; and many of their current uses such as for schools, hospitals, Y. M. C. A. buildings, swimming pools, public and commercial buildings, apartments and residences. Included are detail drawings, specifications, data on accessories and trim shapes, also numerous four-color plates showing designs and color combinations. 64 pp. 8½ x 11. The Sparta Ceramic Co., East Sparta, Ohio.

G-E HOME WIRING HANDBOOK.

—Valuable reference guide for planning electrical wiring for homes of any type or size. Included are discussion of wiring requirements for houses, specifications, description of a complete line of G-E home wiring materials, charts and tables. 26 pp. 8½ x 11. General Electric Co., Appliance and Merchandise Dept., Bridgeport, Conn.

CHOOSE FROM THESE 5 TYPES.—
A.I.A. File No. 35-h-6. New brochure presents illustrations in color, enabling architects, builders, and owners to choose the type of partition that will facilitate creating the proper environment for toilet rooms in almost any type of commercial, industrial, municipal, or school building. Detailed descriptions accompany each of the 5 types illustrated. 8 pp. 8 x 11. The Sanymetal Products Co., Inc., 1705 Urbana Road, Cleveland, O.

(Continued on page 56)

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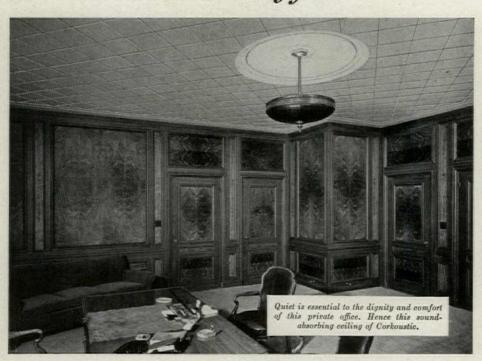


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Let us send you all the facts about Corkoustic. A file-sized, illustrated booklet "Tune Out Noise" is yours for the asking. "Sweet's" also contains complete Corkoustic data. Armstrong Cork Company Building Materials Division, 1227 State St., Lancaster, Pennsylvania.

# PUBLICATIONS ON MATERIALS AND EQUIPMENT (Continued from page 54)

DONOVAN AWNING TYPE STEEL WINDOWS.—New reference manual covering Donovan mechanically-operated awning type steel windows for schools, hospitals, auditoriums, gymnasiums, armories, power houses and public buildings. Included are specifications, typical window layouts, details, types and sizes, etc. 20 pp. 8½ x 11. Truscon Steel Co., Youngstown, O.

Published by the same firm, "Truscon Pivoted Steel Windows." A.I.A. File No. 16-e. Catalog, dealing with the subject of Truscon pivoted steel windows, presents descriptive and specification data, sizes and types, construction details, installation instructions, etc. 22 pp. 8½ x 11.

THE MEMORY STONE.—Issue No. 1, of Vol. XV, of this monthly publication devoted to the subject of marble, illustrates a number of applications of this kind of stone for churches, residences, memorials, etc. 8 pp. 8½ x 10¾. Vermont Marble Co., Proctor, Vt.

INGERSOLL KOOLSHADE SUN SCREEN TEST DATA. — Brochure presenting a report on the calculation of solar heat gain through windows equipped with Koolshade sun screen, based on tests made by Pittsburgh Testing Laboratory. 8 pp. 8½ x 11. Ingersoll Steel & Disc Division, Borg-Warner Corp., 310 South Michigan Ave., Chicago, Ill.

NEW FRANTZ NO. 10 COM-PLETE GARAGE DOOR UNIT.— Folder announcing and describing the new Frantz No. 10 Over-the-Top complete garage door unit, consisting of door and hardware complete, prefitted for 8 ft. wide by 7 ft. high openings. Installation details. 4 pp. 8½ x 11. Frantz Mfg. Co., Sterling, III.

CRANE DURACLAY BATHTUBS.

—Bulletin giving detailed description of a line of bathtubs made of a new clay product known as Duraclay. Dimensions. 8½ x 11. Crane Co., 836 So. Michigan Ave., Chicago, Ill.

FLO-LINE TANKLESS TACO. — Data sheet No. 42-40 presents descriptive and engineering data covering the Flo-Line Tankless Taco which is offered for buildings requiring a large volume of domestic hot water during heavy peak demand periods. 8½ x 11. Taco Heaters, Inc., 342 Madison Ave., New York, N. Y.

(Continued on page 58)

# Armstrong's ACOUSTICAL MATERIALS

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## WHAT WOULD YOUR CLIENTS SAY TO THIS?



This is just a typical case—one of hundreds in the Kinnear files. Other Kinnear Doors have rolled up even longer records of "excellent service." That's why, for two generations, architects have been able to specify Kinnear with complete confidence.

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# ROLLING DOORS

# PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 56)

THINGS YOU SHOULD KNOW ABOUT YOUR ROOF. — Revised edition of Johns-Manville's built-up roofing book contains new features and illustrations showing methods of application and advantages of J-M built-up roofs. Also illustrated and described is J-M's recently developed perforated asbestos felt for smooth-surfaced asbestos roofs. 48 pp. Johns-Manville, 22 E. 40th St., New York, N. Y.

Published by the same firm, "Ideas for Decorative Floors." Attractively illustrated book in full color, on the subject of Johns-Manville asphalt tile flooring, presents stimulating ideas on effects to be attained with the J-M product on the floors of commercial and institutional buildings and in the home.

THRUSH DIFFERENTIAL TEM-PERATURE CONTROL. — Folder discussing the advantages of the Thrush differential temperature control with the Thrush flow control system of hot water heating in apartments, industrial buildings and tourist camp cabins. 4 pp. 8½ x 11. H. A. Thrush & Co., Peru, Ind.

ARTSTONE ROCOR PRODUCTS.—New brochure describing a line of cement paint and colored finish coat materials, including Artstone stucco, Firetard, Artstone colored mortar, Rocor cement paint, Rocorlite interior paint and Preservall No. 1. Included are illustrations showing a group of architecturally correct textures produced with Artstone stucco. 12 pp. 8½ x 11. Artstone Rocor Corp., 45th St. and 1st Ave., Bush Terminal, Brooklyn, N. Y.

PAINT PROGRESS.—A.I.A. File No. 25. Issue No. 3 of a series of monthly publications, dealing with the subject of paint research conducted by the New Jersey Zinc Co., features the following articles, "Revised Federal Standards for Casein Paint Are Issued," "Meeting Paint and Painter on Friendly Terms," "Drying Stability" and "Sour Crude Oil Tanks Test Paint Durability." 12 pp. 8½ x 11. The New Jersey Zinc Co., 160 Front St., New York, N. Y.

STANDARD SANITARY CATA-LOG REVISIONS.—Set of 80 new and revised pages in effect May 20, 1940 for insertion in the Standard general looseleaf catalog. American Radiator & Standard Sanitary Mfg. Co., Pittsburgh, Pa. GUTH FLU-O-FLECTORS. — Series of three folders, Nos. 681, 682, and 683, covering fluorescent equipment for industrial, store and office lighting. Strips, reflector strips, industrial Flu-O-Flector, Tru-Co-Lite, Guth-Glo strips and the new Guth plastic diffusers are listed and described. Brief illumination data is included. 8½ x 11. The Edwin F. Guth Co., 2615 Washington Blvd., St. Louis, Mo.

FEDDERS TYPE K HEATING COILS.—A.I.A. File No. 30-f-4. Catalog AC601, just issued, dealing with the subject of Fedders type K heating coils, presents much helpful material which saves time for those who design large heating systems. Included are series of useful time saver charts and fully developed tabular data arranged to simplify tabular coil selections, together with piping diagrams. 52 pp. 8½ x 11. Fedders Mfg. Co., Inc., Heating Division, Buffalo, N. Y.

NEW McDONNELL HUMIDIFIER WATER CONTROL. — Folder describing the construction and operation of a new type of snap-action humidifier water control. 4 pp. 8½ x 11. McDonnell & Miller, Wrigley Bldg., Chicago, Ill.

BENJAMIN FLUORESCENT LIGHTING EQUIPMENT. — Bulletin No. 40. New looseleaf reference manual presenting facts and data needed to determine how and where to use fluorescent lighting to best advantage in factory, office and store, together with information on fluorescent lamps and their operation. Included, also, are complete descriptions, specifications and listings of Benjamin fluorescent lighting equipment. 46 pp. 8¾ x 11¼. Benjamin Elec. Mfg. Co., Des Plaines, Ill.

NEW WESTINGHOUSE GAS-FIRED BOILERS. — Bulletin 9HC-0624 describes the new GBE series of completely automatic gas-fired boilers for homes. Construction details, specification table, etc. Westinghouse Elec. & Mfg Co., Air Conditioning Dept., East Springfield, Mass.

REDWOOD VACATION HOMES. FIFTH EDITION. — Brochure containing suggested designs and floor plans for a group of cabins of various sizes that can be built with redwood log cabin siding, milled sidings, shakes, shingles, etc. 20 pp. California Redwood Assn., 405 Montgomery St., San Francisco, Cal.

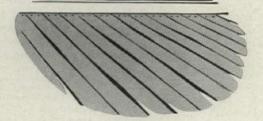
CARRIER AIR CONDITIONING, REFRIGERATION AND UNIT HEATING SERVICES TO INDUS-TRY .- Catalog illustrating the adaptability of air conditioning to industry. Complete equipment is shown from a window ventilator handling a few hundred c.f.m. to heat diffusers delivering b.t.u. in hundreds of thousands. Self-contained room coolers for individual spaces and central station installations handling thousands of c.f.m. are also listed. The use of refrigeration by industry ranges from a 1/5 hp condensing unit for cooling drinking water units to a 1,000 ton centrifugal refrigerating machine producing temperatures as low as 150°F. below 0°. Complete descriptive information includes application, operation, installation and specification data, as well as tables of capacities, dimensions, ratings and performance. 16 pp. 81/2 x 11. Carrier Corporation, Syracuse,

Published by the same firm, "Carrier Air Conditioning Data." Air conditioning data bulletin presents Carrier psychrometric chart which has been revised for greatest accuracy with convenience in the solution of all psychrometric problems. The addition of a correction table makes the chart universal in its application. Vapor pressure tables are included. Also, fifteen examples are worked out to show the use of the charts.

TRANE CONVECTORS FOR MODERN COMFORT HEATING. - Bulletin S380 is available in two editions - one with a French fold cover for presentation by architects, engineers, contractors and builders to their preferred clients; the other, with regular trimmed flush cover punched for the convenience of Trane binder holders. Contains series of color views illustrating types of Trane convector applications in residences both elaborate and modest, period and modern, and in theatre lobbies, offices, shops, and schools. Numerous other illustrations suggest further application possibilities in hospitals, kitchens, asylums, churches, mountain lodges, museums, public buildings, apartments and housing projects. Among the subjects covered is a thorough explanation of convection heating, as well as Trane convector advantages. Small color sketches afford a quick picture of the principles of convection heating, the method of installing recessed convectors and convector parts and construction. Ten styles and models are illustrated as representative of the large number of Trane convector styles available for every heating application. 24 pp. 81/2 x 11. The Trane Co., La Crosse, Wis.

(Continued on page 60)

No one would think of nailing flooring at the ends only...



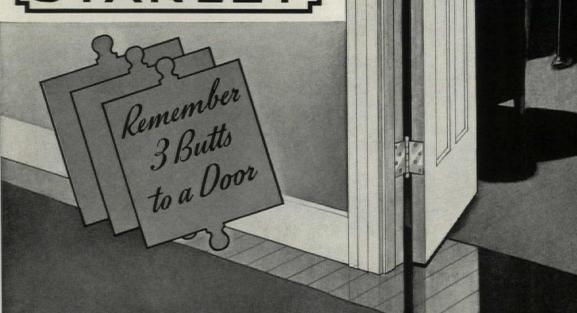
# Warping can be eliminated in doors, too ... use a third butt

Don't blame green lumber for warped and twisted doors. No door can be expected to remain true when supported at top and bottom only.

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Armstrong's Temlok De Luxe is just such a material. It is made in five factory-applied colors and in panels, planks, and boards which can be combined into interesting and highly decorative effects. In addition, the new Temlok De Luxe Structural Units, 34" thick, provide a full measure of insulating efficiency. Dimensions in multiples of 16" permit erection directly against standard framing when true and even, or against furring strips 16" on centers.

On the practical side, Temlok is first—effective insulation. It cuts heating costs and increases year-round comfort. Second, it has high light-reflection value. Third, it quiets noise—especially important in schools and public buildings. Fourth, Temlok De Luxe is quick and inexpensive to install, and there need be no waiting for plaster to dry! Temlok can be erected against furring strips with convenient Tem-Clips. Where the base is plaster,

gypsum lath, or a similar material, special Temlok Adhesive does the job quickly, easily, and efficiently.

All these advantages make Armstrong's Temlok De Luxe the popular choice of architects and building owners throughout the country. Get full details about this modern insulating interior finish in Sweet's

(Insulation), or write to Armstrong Cork Company, Building Materials Division, 911 Concord Street, Lancaster, Pennsylvania.



#### NEW TEMLOK DE LUXE STRUCTURAL UNITS

Give your clients 50% more insulation at no increase in installed cost with new Temlok De Luxe Structural Units—made in 34" thick panels and planks with dimensions in multiples of 16". This extra strength permits installation direct to framing members (when true and even) or to furring strips, 16" o. c., with Tem-Clips. The slight additional cost of this thicker insulation is more than offset by economies in other materials and in labor.

## Armstrong's TEMLOK INSULATION

DE LUXE INTERIOR FINISHES

TEMSEAL SHEATHING - LATH '- ARMSTRONG'S MONOWALL

#### PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 58)

INSULITE PRODUCTS. — Valuable reference manual for architects covering the complete line of Insulite insulating products. Construction details, engineering data, specifications, installation photographs, etc. 62 pp. 8½ x 11. Insulite Co., Builders Exchange Bldg., Minneapolis, Minn.

#### MANUFACTURERS' DATA WANTED

SIDNEY ASTOR, Architect, No. 213 Latta Arcade Building, Charlotte, N. C. (Data for complete A.I.A. file.) CHARLES IRWIN THIELE, Architect, 551 Main Street, Niagara Falls, N. Y. (Data on mechanical and structural equipment, hardware, fixtures, etc., for minimum house construction.)

STRUCTON COMPLETE BUILD-ING SERVICES, Architects, 1847 Virginia Road, Los Angeles, Calif.

BURBANK & GILLIE, Designers, 10 Rockefeller Plaza, New York, N. Y. (Data for A.I.A. file, and samples of all materials that apply to architectural and industrial design.)

GAARWOOD M. GRIMES, Architect, 312 Speed Building, Fourth and Guthrie Streets, Louisville, Kentucky. (Salesmen and visitors welcome.)

SAMUEL BLANC, Architect, 421 Lafayette Avenue, Grantwood, N. J. EDWARD N. BLISS, Architect, P. O. Box 1524, Amarillo, Texas. (Data on equipment for retail food stores, markets, and bakeries.)

VINER A. RANTANEN, Engineer, 18945 Greenlawn Avenue, Detroit, Mich. (Data for complete A.I.A. file.) M. D. PEARCE, Architect and Builder, 221 Hodgson Avenue, Houston, Penna.

ROBERT CODY, Draftsman, Box 551, Route 4, Louisville, Ky. (Data for drafting room use and for complete A.I.A. file.)

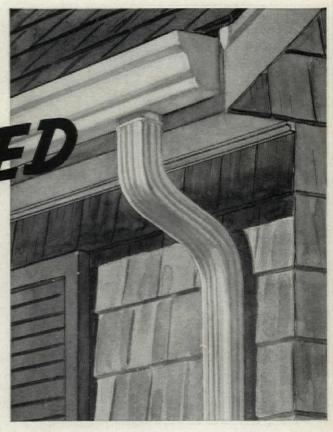
NEIL R. KOCHENDOERFER, Draftsman, 3068 East Burnside Street, Portland, Oregon. (Data for complete A.I.A. file, especially on residence work.)

EDWIN F. KEATING, Draftsman, 319 E. 8th Street, Brooklyn, N. Y. (Data for complete A.I.A. file.)

GLEN GLASPEY, Student, Route 2, Walla Walla, Washington. (Also data for complete A.I.A. file.)

ARTHUR ADDISON, Student, 926 Parsons Avenue, Columbus, Ohio. (Data for complete A.I.A. file.) CHARLES CHODL, JR., Student, 116 W. Schiller Street, Chicago, Ill. (Data for complete A.I.A. file.)

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Figure No. 1. A Galvanized section finished with two coats of paint. Exposed in Florida 18 months. Paint peeled from most of the surface.

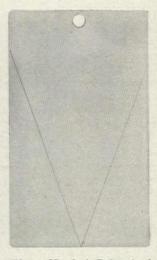


Figure No. 2. A Galvanized and Bonderized section. Finished same as section No. 1. Exposed in Florida 18 months. Surface O.K. Adhesion good.



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ARCHITECTURAL DRAFTSMAN, registered in New York, 12 years' experience, graduate in architecture, seeks position with architect or interior decorator in New York area. Box No. 902.

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DRAFTSMAN, experienced automatic machines, plant layouts, restaurant and bar equipment installations, perspectives. Excellent references. W. Rubenstein, 1760 Jerome Ave., New York City.

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ARCHITECTURAL JUNIOR DRAFTSMAN, 19. Wentworth Institute graduate, 2-year course architectural construction. A. Kenyon Avery, 24 Gordon Ave., Hyde Park, Mass.

ENGINEERING STUDENT, 23, 1 year engineering drawing, 1 year's surveying experience, wishes drafting apprenticeship, preferably locomotives. Harold Miller, 66 Emerson Place, Valley Stream, N. Y.

ARCHITECTURAL DRAFTSMAN — University honor graduate 1933, B. Arch. Seven years' experience, principally concrete and masonry construction, as draftsman, reinforcing detailer, estimator, job and office supervisor. Now employed b major building steel corporation, priningham, Alabama. Seeking opportunity with architectural or engineering firm. Box No. 906.

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CONSISTING of channel-shaped joists of Wheeling rust-resisting Cop-R-Loy, the Long-Span System permits quick construction of a fireproof floor or roof deck. These joists are prefabricated for the job of the proper length to span from girder to girder or from truss to truss. They can be quickly welded into a rigid deck or floor which serves immediately as a working platform for tradesmen—roofers, steamfitters, electricians, etc. Write for details and specifications on this modern warp proof, fireproof steel floor and roof system.

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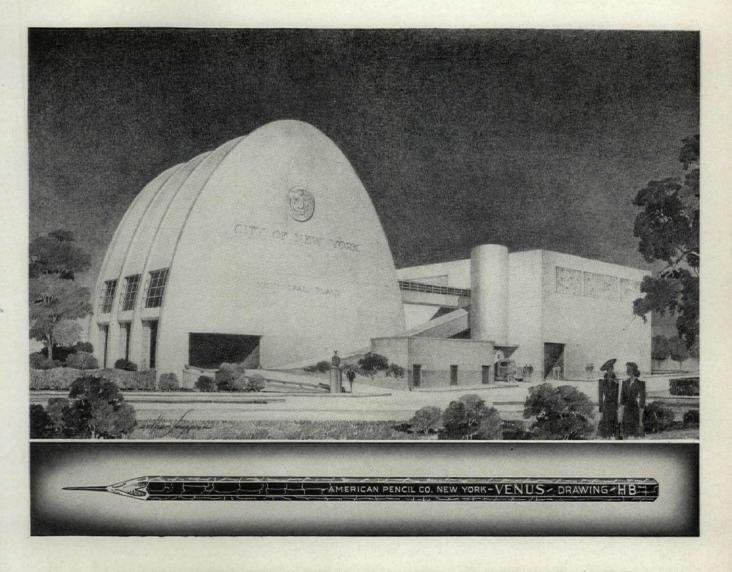
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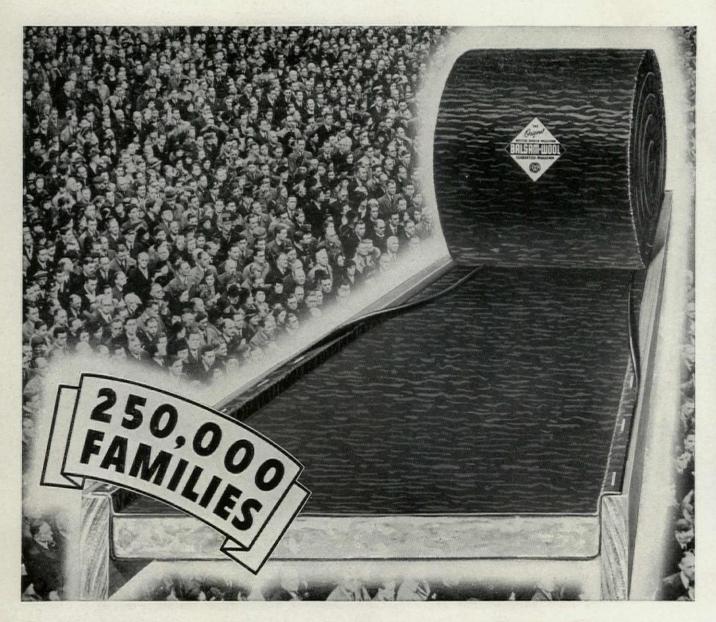
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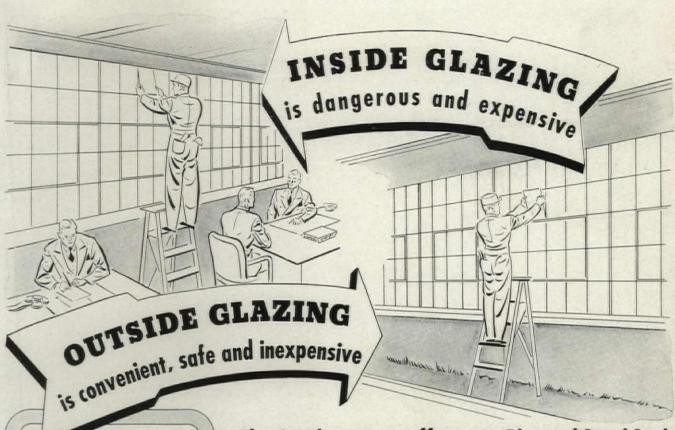
moisture barriers, has never had a "moisture problem." That is why Balsam-Wool gives full protection from wind—settling—decay and vermin. That is why Balsam-Wool is highly fire resistant—high in *lasting* efficiency, and why it has been possible to sell Balsam-Wool under a money-back guarantee of complete satisfaction.

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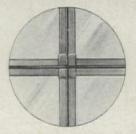
#### WOOD CONVERSION COMPANY

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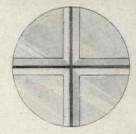


Inside View of **OUTSIDE GLAZING** 



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OUTSIDE GLAZING has been unanimously chosen for its efficiency by owners of modern factory buildings. A whole office can be disrupted by replacing window panes from the inside...whereas replacing panes from the outside does not disturb busy employees or endanger costly furniture. And, unquestionably, the elimination of inside putty gives a clean-cut streamlined effect to office interiors which adds vastly to the appearance.

Not only are these important factors to be considered in specifying OUTSIDE GLAZING...

but remember, also, IT'S INEXPENSIVE. So much safer, too ... for possible accidents due to climbing over cumbersome equipment ...work benches and office furniture...are completely eliminated.

Wherever your design calls for horizontal or commercial projected steel windows, add these important words to your specifications... "sash shall be glazed from the outside" ... and assure your client of the utmost in attractiveness, safety, convenience, at no added expense.

See the 24-page Mesker catalog in Sweet's 1940 Architectural Files, section 15-15

• CASEMENT WINDOWS • DETENTION WINDOWS • INDUSTRIAL WINDOWS

. INDUSTRIAL DOORS . METAL SCREENS . MONUMENTAL WINDOWS

Manufacturers of Genuine Wrought Iron Windows ... Steel Windows with Wrought Iron Sills and All Steel Windows

SINCE 1879 SOUTH 7th

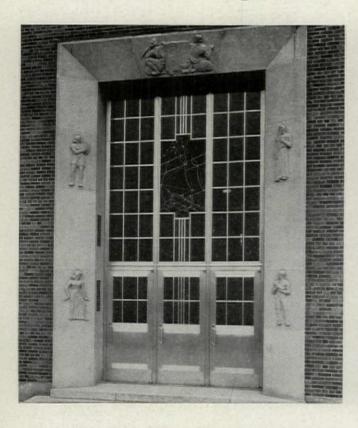
ST. LOUIS, MO

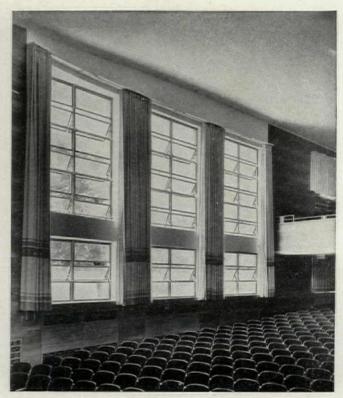
· ST. LOUIS, MO. MESKER BROTHERS



Pierre Van Cortlandt Elementary School Croton-on-Hudson, N.Y. Windows & doors fabricated of aluminum Adolph H. Knappe, Architect

Bloomfield Junior High School Bloomfield, N. J. Windows fabricated of aluminum Starrett & Van Vleck, Architects





During more than twenty years, General Bronze has built a reputation for its skill and craftsmanshipits care and precision - in the fabrication of nonferrous metal products.

Illustrated are two distinctive General Bronze installations in public schools.

Should you be designing monumental buildings,

institutions, schools, apartment houses, or private residences, we shall be glad to furnish detailed specifications or illustrated folders on ornamental architectural metalwork, windows, revolving doors, entrances, grilles, gates, lamp standards, marquees, railings, signs. We invite your inquiries. Our catalogs are filed in Sweet's.

#### GENERAL BRONZE CORPORATION

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MANUFACTURERS OF ARCHITECTURAL METAL WORK, WINDOWS, REVOLVING DOORS, TABLETS AND STATUARY IN BRONZE, ALUMINUM, STAINLESS STEEL AND NICKEL SILVER

# Five FITZGIBBONS Steel Boilers



New York City Housing Authority project will provide moderate cost homes for 1170 families.

Where operating costs are figured closely, Fitzgibbons Steel Boilers are the logical selection. The reasons are set forth in the Fitzgibbons R-Z-U catalog. Write for your copy.

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Centre Theatre and WFBR Broadcasting Station, Baltimore, Md., Armand Carroll, Philadelphia, Pa., Arch.; Alberene Black Serpentine facing and bulkheads.

The use of black is a distinct design feature of modern architecture. Instead of monotoned buildings with accents obtained by ornamentation, contemporary designers resort to strong, accenting changes of materials. The demand for a black material which will retain its color and maintain its polish is met by Alberene Black Serpentine, and the wide-spread use of this natural, quarried stone by outstanding architects and designers attests their satisfaction with it. Having great toughness and density, Alberene Black Serpentine can be cut into sections as thin as 7/8", which makes it even more economical for panels, spandrels, bulkheads and facing. The Centre Theatre in Baltimore, where the stone is used with Roman Travertine, shows a pleasing, accent-

ing use. The stone is neither reflective nor mirror-like. A request on your business letter-head will bring you samples, conveniently boxed, showing the range of stones, including black and mottled dark blues and greens. Please address Alberene Stone Corporation of Virginia, 419 Fourth Avenue, New York. Quarries and Mills at Schuyler, Va. Sales offices in principal cities.

# Alberene

#### BLACK SERPENTINE

Moderate in cost . . . negligible in upkeep



#### This Pair of Doors Called for Effective Concealed Control . . . and Got It!

When architects C. Howard Crane and Associates came to details on the entrance of the new Hughes & Hatcher store in Detroit they were sure of two points: control of these big, beautiful Herculite doors (1) must be concealed and (2) must be smooth, positive and thoroughly reliable.

#### **LCN Supplied the Answer**

Construction was such that floor type control was indicated in this case. Center pivot hanging of the doors was also desired. LCN No. 06 Single Acting Floor Type Door Closers were chosen (illustrated at right, No. 3) with results alto-gether pleasing and satisfactory.

Note in the picture above that no part of the door closer is seen-no mechanical feature mars the beauty of the designer's work, yet the necessary, effective control

is fully supplied. Here, as with all LCN closers, the sound practice of carrying the door's weight independently of the closer mechanism is followed. Also the LCN practice of using a lever arm to transmit

power wherever conditions permit (as in all single-acting closers) makes for efficient operation.

#### LCN in 86 Types and Sizes

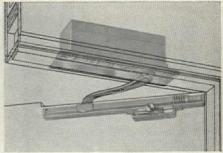
Today a wide variety of closers is needed for adequate door control in a sizable project. Design, draft and traffic conditions vary so much that hardly two doors are alike in their requirements. To meet these needs LCN supplies no fewer than 86 different types and sizes of door closers in three general classes—overhead concealed, floor concealed and surface (exposed) closers.

#### "One Thing Done Well"

The entire LCN plant and technical staff are devoted to one job and one alone

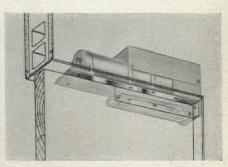
 designing and manufacturing the best door control devices it is possible to produce. See our catalog in Sweet's, section 16/25; call our nearest representative; or write us directly; your inquiry will be welcomed and promptly answered.

NORTON LASIER COMPANY, 466 W. Superior Street, Chicago Sales and Service Representatives in 25 Cities



#### 1. Single Acting Overhead Concealed Closer

Nos. 202, 204 and 206. Preferred for entrance and important interior doors. Has typical LCN full rack-and-pinion mechanism with two-speed adjustment easily accessible. Closer box installed in head jamb, taking only 4" to 4½" height, 3½" to 3 7-8" width, 11" to 11½" length. Lever arm folds into stop. Shock absorber standard. Holdopen feature if desired.

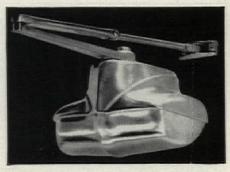


2. Double Acting Overhead Concealed Closer
Nos. 444 and 466. Ideal for heavy traffic, double
acting doors, for example, in entrances of variety
and grocery chain stores; double acting doors in
corridors, operating rooms, kitchens, etc., of
commercial buildings, schools, hospitals and other
institutions. Full rack-and-pinion control, stopping
door on center without "flaps". Special bronze
ball-bearing center pivots furnished.



#### 3. Single Acting Floor Concealed Closer

Nos. 02, 04 and 06. Door hung on special bronze ball-bearing pivots (furnished). Door's weight rests on closer box, independent of mechanism. Power efficiently applied by lever arm engaged in concealed track. Typical LCN full rack-andpinion control, finely adjustable. This closer is widely used for entrance and vestibule doors.



#### 4. LCN "Miracle" Streamlined Door Closer

Here is the mechanically superior standard LCN surface type closer encased in a smooth metal housing of modern design which can easily be given any finish to meet your specification, at surprisingly low cost.

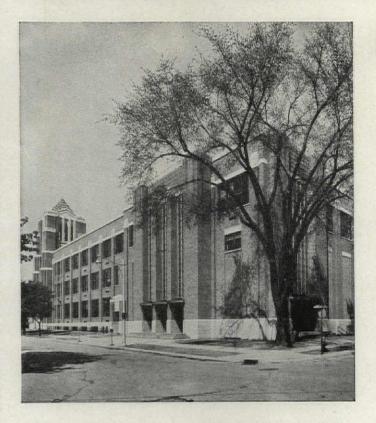


# No Roofing Bond Protects Your Clients Against This:

The best roofing bond goes only half way in protecting your clients against unnecessary expense. It's true that if the roof fails at any point, the bond covers repairs. But only those needed to the roof. No bond pays for the damage that such failures can cause to the building or to the costly equipment underneath!



## That's why we say: SPECIFY A ROOF WITH



HERBST & KUENZLI, architects, Milwaukee, Wis., specified a Smooth-Surfaced Asbestos Roof for the Wauwatosa Senior and Junior H.S., to protect their client's building and equipment. Like all J-M Asbestos Roofs, it is built with a safety factor that is far more important than any bond.

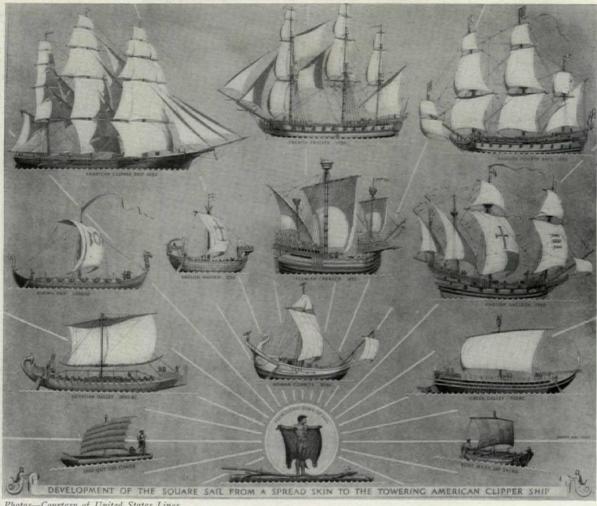
## A SAFETY FACTOR

WHEN you specify a J-M Smooth-Surfaced Asbestos Built-Up Rcof, you don't need to worry about the shortcomings of roofing bonds. For these roofs are engineered with a "safety factor," exactly like steelwork or foundations. At flashings, drains, copings, skylights and angle supports, where 75% of all roof leaks start, J-M specifications call for a generous margin of safety, anticipating unusual punishment at these critical points. Such careful engineering is far more important than any bond, because it gives your client full and real protection to both building and equipment.

And this sound construction is backed by the finest materials that more than 60 years of research and roofing experience can produce. The felts used in J-M Smooth-Surfaced Roofs are made of *asbestos* . . . fireproof and rotproof, impervious to the intense drying-out action of the sun.

Check the facts yourself . . . and you'll see why J-M Asbestos Built-Up Roofs consistently outlast their bonds . . . give 25, 30 and more years of service with little upkeep. For details and specifications, write Johns-Manville, 22 East 40th St., New York, N. Y.

JM JOHNS-MANVILLE Smooth-Surfaced ASBESTOS BUILT-UP ROOFS THE ROOF
WITH THE SAFETY
FACTOR



Photos-Courtesy of United States Lines



#### DECORATIONS OF LINER

When the luxury liner "America" was put into service last month by the U.S. Lines it attracted wide notice as the largest and finest ship of its class ever built in this country. Embodying latest developments in marine architecture and engineering (Gibbs & Cox, Naval Architects) the "America" is also notable for her interior architecture and decorationin which a dozen well-known muralists collaborated with the Architects, Eggers & Higgins, and the Decorators, Smyth, Urquhart & Marchwali

Representative of the works of art adorning the 23 public rooms of the liner are the murals and decorations shown here and across page. In the mural above, which has the place of honor in the main library and writing room, Griffith Baily Coale (who is something of an authority on the "family tree" of the "America") has depicted in twelve steps man's development of "sea wings" from the first spread skin to the intricately-rigged clipper ship of the past century. The bleached woods and soft blue carpet of the room complement the decorations.

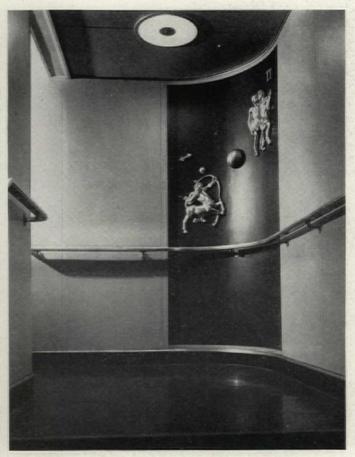


#### "AMERICA" DISTINCTIVE

Above is a view of one end of the richly-furnished white, silver and red ball-room—a dramatic setting for a twenty-foot mural by Andre Durenceau, who also decorated the ship's swimming pool. In subtle tints he has here depicted Neptune driving four spirited steeds through the waves. The lighting of this mural, back of the musicians' platform, affords a brilliant contrast with the general illumination which is readily changed from a brilliance to mysterious half-lights.

The aluminum sculptures shown below recall the extensive use of metals in structural and decorative detail — a modern note that gives luster to the ship's interiors. Off-white walls, aluminum hand-rails and black floors help to center interest on the dark red panels of the main stair well, where Austin Purves has fixed 26 sculptures, 18 inches high, of the Zodiac symbol's and signs. These are repeated on the after stair well on background panels of light grey.

The "America's" length of 723 feet and her 26,454 gross tons make her the largest liner built in an American yard.





ANOTHER EXAMPLE OF THE WORK OF ANDRE DURENCEAU, INTERNATIONALLY KNOWN AS A MURALIST AND COLORIST, IS THIS STYLIZED PAINTING OF MEXICAN WOMEN—A DECORATION WHICH IS DISTINGUISHED FOR ITS ARCHITECTURAL QUALITY. IN COLOR THE ORIGINAL (A TEN-FOOT PANEL) IS WARM, AS THE FLESH TONES ARE HEIGHTENED BY THE BRILLIANT BANDS ON THE WOMEN'S SKIRTS AND BY THE CLEAR PATTERNS OF THE POTTERY INTRODUCED IN THE COMPOSITION. OTHER MURALS BY DURENCEAU DECORATE THE EXTERIOR OF THE METALS BUILDING AND THE INTERIOR OF THE SCHAEFER CENTER AT THE NEW YORK WORLD'S FAIR. HE ALSO EXECUTED A SPECIAL MURAL COMMISSION FOR THE CITY APARTMENT OF CORNELIUS VANDERBILT WHITNEY, FOR WHOM HE HAD PREVIOUSLY PAINTED A STIRRING "CRUCIFIXION." MORE RECENTLY DURENCEAU DECORATED WALLS OF THE STAIR HALL OF THE NEW QUEENS BOULEVARD RESTAURANT OF THE HOWARD JOHNSON CHAIN. A NATIVE OF BRITTANY, DURENCEAU HAS LIVED AND WORKED IN THIS COUNTRY FOR 15 YEARS, MAINTAINING HIS STUDIO IN NEW YORK

MEXICAN COLONNADE — BY ANDRE DURENCEAU OF NEW YORK

# An Architect speaks of

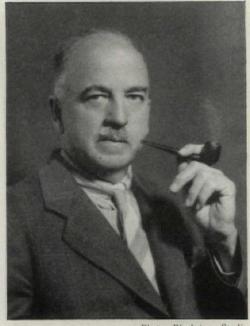


Photo: Blackstone Studio

## OIL BURNING SYSTEMS FOR HOTELS

JAMES OTIS POST, of the firm of George B. Post & Sons, nationally-known architects of many of the country's finest Hotels, has this to say of Oil Burning Systems:

"Based on my own experience together with that of our engineers, I have found that oil burning systems, when adapted to their special requirements, operate with the highest efficiency and satisfaction to owners and occupants. The Petro Oil Burning System gives a consistently good performance in the way of dependability and low operating costs, backed up by exceptional service from the company."

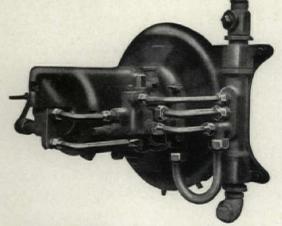
Normal demand on the heating plant of a modern hotel fluctuates over a wider range than in other types of structure. Hotel heating is complicated by fluctuating occupancy of guest space and use of public rooms, and the hot water supply must be equal to maximum demand, while still having very low points.

To meet these demand characteristics adequately and economically requires the firing equipment to maintain high combustion efficiency and practically instantaneous response at all points.

Petro's economy record in hotel installations is due in large part to Petro's Thermal Viscosity system for firing with the cheapest, preheated fuel oils. Whether the over-all operations of the burners be Automatic, Semi-automatic, or Manual, the Thermal Viscosity System eliminates the "Human fallibility" element from the vital factors of oil temperature and combustion rate.

The Petro burner in itself embodies many years of design-development to make such fueland labor-saving operation depend-able and practical. The burner's strength and relative simplicity is evident to a degree in the adjacent illustration of a fully automatic Petro burner for preheated No. 6

Used with the Thermal Viscosity operation includes "Cold Starts"—



CAPACITIES: To 100 gal. per hr. 336 boiler h.p. 47,000 sq. ft. steam E.D.R.







Fuel pumping, with integral pump
—Instant self-adjustment of firing

supply at flow rate, and temperature correct for maximum com-

ture correct for maximum combustion efficiency. Seven sizes, Models W 2½ to W 8, are available for either No. 6 oil (preheated) or No. 5 and lighter oils. Any size, for either type oil, may be had for Automatic, Semi-automatic, or Manual operation. Each Petro Model W is a self-contained assembly of motor, fan, pump, rotary cup atomizer, and interlocked oil and air adjustments.

rate to meet fluctuating demand-Accurately automatic control of oil

Petro's Engineering Division will gladly answer questions. . . . The Petro Industrial Equipment Catalog will be sent promptly on request.

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-Makers of good Oil Burning Equipment since 1903- CONNECTICUT STAMFORD



# Specify HILLYARD FLOOR TREATMENTS

FLOORS CAN BE PROTECTED and kept beautiful at nominal cost. Hillyard Floor Treatments will protect and prolong the life of any floor, more than that, the rich coloring of the floor is brought out and maintained when Hillyard Hi-Quality Products are used.

#### HILLYARD Specification Cards



FLOORING MANUFACTURERS, Contractors and Leading Architects APPROVE Hillyard Floor Treatments and Methods. Write for SPECIFICATION CARDS on any type floor, or see Sweet's Catalog, Section 17, Pages 40.

FREE The Hillyard Manual on Proper Floor Maintenance, full of practical, helpful ideas on economical maintenance. Write for copy today.

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#### COMPETITIONS

As its first major undertaking, the new Department of Industrial Design of the Museum of Modern Art, New York, is preparing an extensive program to discover young designers "capable of a fresh approach to design problems and for development of their designs beyond this stage into production."

Eliot F. Noyes, Director of the new department, announces that the first stage of this program is a Competition which will be open to anyone in the United States, Cuba, Mexico, Central or South America. The complete program for the Competition which will cover such fields as furniture, fabrics and lighting, will be ready in the early Fall and will be distributed widely in all these countries.

Entries will be judged early in December by a jury selected by the Museum of Modern Art. Arrangements are being made for the winning designers to receive commissions for the production of their designs and for royalties or fees instead of cash prizes. A large exhibition of the designs submitted and of the pieces produced from them is scheduled in the Museum for the early Fall of 1941. This exhibition will later be sent throughout the country by the Museum's Department of Circulating Exhibitions, representing a Contemporary Design Expression.

As they are completed the Museum will mail programs and entry blanks to any designers interested.

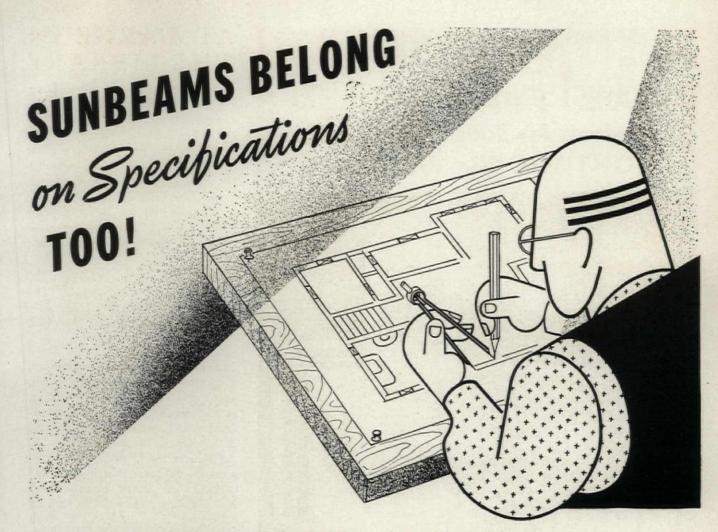
#### COOPER UNION PRIZES

Prize awards to students in the Day and Night Art Schools of Cooper Union, for "general excellence and scholastic achievement throughout the past academic year," have been announced by Guy Gayler Clark, Art Director. The prizes are given annually to students of outstanding talent — underclassmen as well as seniors.

The winners of this year's architectural prizes are as follows:

Day Art School — Lina Martha Rudat, Ridgewood, L. I., fourth year student; Robert P. Metz, St. Albans, L. I., third year student.

Night Art School — Fred Charles Heine, Brooklyn, N. Y., fourth year student; John Maier, North Merrick, L. I., third year student.



Windows are playing a greater part in home decoration, in health and in charm than ever before. That's why windows must be trouble-free—to let in healthful sunbeams and not leak air or heat.

Eight years ago, Curtis introduced SILENTITE, the first "insulated" window. For the first time, homeowners could have windows which didn't rattle, jam or stick. And they got the further benefit of a window with built-in weather-stripping to provide greater year-round comfort and to help save up to 25% of the average fuel bill. Over 100,000 American homeowners are enjoying SILENTITE windows today.

Here are some of SILENTITE's patented features to

remember when you're selecting windows for the modern home: 1. Lifetime springs replace weights and cords; 2. Sash glides smoothly in metal channels; 3. Sturdy, built-in weather-stripping (Pittsburgh Testing Laboratory says it's the most effective known). 4. All wood parts given Curtis toxic-dip; 5. The beautiful designs of Mitertite trim add to room beauty; 6. "Pre-fit" sash—speeds installation costs; 7. Narrow mullions admit more light and look better.

Let us tell you more about the entire SILENTITE window family—first choice with America's leading architects. If you live in Canada, write to W. C. Edwards & Co., Ltd., 991 Somerset Street West, Ottawa, Ontario.

CURTIS WOODWORK SOLD BY RELIABLE DEALERS EVERYWHERE

# CURTIS WOODWORK SILENTITE PRE-FIT the "Insulated" window

THERE IS ONLY ONE SILENTITE AND ONLY CURTIS MAKES IT its patented features aren't available in any other window CURTIS COMPANIES SERVICE BUREAU Dept. PP-9, Clinton, Iowa

Please send me full details on the SILENTITE Window Family.

I'd like to know about other Curtis Woodwork too.

Name .....

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The American way of guarding against sluggish business is to provide customers with more diversified service, added conveniences, and greater comfort. The business-getting value of modern air conditioning is recognized by stores, restaurants, hotels, and other places of business which live by serving the public. And "Control by Johnson" is applied to all types of air conditioning . . . In the stores pictured above, Johnson automatic temperature and humidity control systems are the "brain" of the air conditioning installations. Direct expansion coils are used for cooling. Johnson's distinctive Modulating Control of the refrigerant is an essential feature of the cooling systems.



JOHNSON SERVICE COMPANY, MILWAUKEE, WIS. & BRANCHES IN PRINCIPAL CITIES

#### AT LARGE IN THE LIBRARY

Houses for Good Living, by Royal Barry Wills (\$4.00, 104 pages 9" x 12", 150 illustrations—Architectural Publishing Co., Inc., New York, N. Y.).

The Modern House in America, by James Ford and Katherine Morrow Ford (\$5.00, 134 pages 8½" x 10¾", 318 illustrations—Architectural Publishing Co., Inc., New York, N. Y.).

Chinese Houses and Gardens, by Shao Chang Lee (\$5.00, 150 pages 9" x 12", 200 illustrations —Fong Inn's Limited, Honolulu, Hawaii).

In reviewing a book on Architecture, it is extremely difficult to stay within the logical limits of book-reviewing, and to refrain from the challenge offered by the contents as Architecture, or by its author as an Architect.

"Houses for Good Living" presents the dilemma, but it defies the challenge on every count! Royal Barry Wills already enjoys a national reputation as a designer of small houses; his book bears witness to that peculiar sense of fitness in his buildings which justifies his reputation. It serves to identify permanently the position of one who-if he is not radically modern—is more completely contemporary than most. The 150 plans and photographs, selected from some 1,000 residences which he has designed, are no prophecy for the future, but an interpretation-comfortable and reassuring at that-of a searching, changing, yet hesitant present. It is an excellent monograph of houses in which tradition is translated in terms of modern living; and, hence, a record of an age which still sees much of life in this way.

In the foreword, frightening in its length but absorbing in its context, Mr. Wills outlines the problems involved in building a house; and then, with a real punch, proves that only a specialist can solve them all adequately. It would have been interesting if he had pointed out in detail how this had been done in each of the houses reproduced, for one suspects strongly that he is entirely capable of it.

His philosophy, however, supplies (Continued on page 84)

## Here are some things we haven't told you about FREON refrigerants



"Freon" refrigerants are safe. Almost everyone interested in air conditioning knows it. They meet all the specifications for safety of life and property set by the Underwriters' laboratories and other responsible organizations.

But safety is far from being the only advantage of "Freon" refrigerants! Consider, for example, the flexibility of equipment using "Freon" refrigerants. It is light weight and compact. It requires little headroom. Because of the safety of the refrigerant and the quietness of operation, it can be placed right in the room to be cooled, or close to the material to receive the refrigeration effect. These features make possible the most efficient use of building space, and frequently reduce the amounts of ducts needed.

The initial cost of equipment is low.

Systems using "Freon" refrigerants operate at low pressures, permitting lighter castings. No automatic purging apparatus is needed for decomposed gases, because "Freon" refrigerants will withstand repeated evaporations, compressions and condensations without disassociation.

Operating costs are also low. "Freon" refrigerants have no corrosive action on any of the metals used in refrigerating machinery. This permits selection of materials which provide maximum heat transfer and efficiency. "Freon" refrigerants are miscible with mineral lubricating oil, assuring positive lubrication and avoiding oil logging of condensers, receivers and evaporators.

So many and so obvious are the advantages of "Freon" refrigerants that they have come to be used almost exclusively for air conditioning, and in a majority of new commercial refrigeration units. They are as adaptable to small fractional horsepower units as to commercial apparatus of hundreds of tons capacity. Some of the largest refrigerating systems in the world use "Freon" refrigerants.

Why not get a fresh estimate of air conditioning costs with the modern 1940 equipment employing "Freon" refrigerants. You may be pleasantly surprised to find how low they are.



"'Freon' is Kinetic's registered trade-mark for its fluorine refrigerants.

KINETIC CHEMICALS, INC., TENTH & MARKET STREETS, WILMINGTON, DELAWARE

(Continued from page 82)

the necessary integration between text and illustrations. To quote, "... it is hardly the architect's place to convert the owner..."; "... the Architecture, not the owner, should be bent to fit ...," and "... Architecture should be judged by its effect on those within its walls ..." This does not sound very different from "... of the people, by the people, for the people ..." and if this were the sole merit his work possessed, it is quite enough, I believe, to justify its high place in contemporary American design.

\* \* \*

A book on Modern American residential architecture that leaves little to be desired is "The Modern House in America." Examples have been selected from one end of the country to the other; the 300-odd illustrations are accompanied by outlines of individual problems in each case (too often omitted from books in this field), such as "family composition," site, climate, local construction, and, especially, price.

This denotes a broader point of view on the subject than most books suggest. The authors further illustrate their close association with modern architecture not only by discussing the most important "schools" and their more prominent adherents, but also by tracing the development of new techniques and the use of modern materials during the last decade. Last, and far from least, there is

further enlightenment in the statements made by each of the architects represented, on the subject, "Modern American in contrast to Modern European."

If one is willing, for the moment, to overlook the modern house as a national social and economic problem, one is bound to admit that "The Modern House in America" is a most thorough and interesting book on the subject.

\* \* \*

There is another book whose presentation implies great breadth of vision, this time in the reader rather than in the writer. The architect who appreciates thoroughly the internationalism of art and beauty, who is alert to new solutions of age-old problems, to new interpretations of the art of life, must acquaint himself with "Chinese Houses and Gardens" by Shao Chang Lee.

This is the first book to come to our attention which deals at length with the Chinese point of view toward such details as home decoration, furnishings, and, especially, landscaping. It illustrates a spirit which combines simplicity with ingenuity, directness with great charm, in a way that is not in the least foreign, but strangely modern. The 100-odd photographs and as many beautifully reproduced details, along with the articles on Chinese history and culture, will broaden the vocabulary of every architect.

ROBERT HENRI MUTRUX

Japanese Architecture, by Prof. Hideto Kishida (35c a copy, 133 pages 5½" x 7¾" — Board of Tourist Industry, Japanese Government Railways, Illustrated).

This volume is one of a series published to acquaint the tourist with various phases of Japanese culture. The book describes the styles of architecture in Japan, over a period of twenty-six centuries. There are numerous illustrations of ancient architecture as well as the designs of contemporary Japanese architects.

#### GRAPHIC ARTS

The appearance of a new quarterly magazine deserves special mention when the publication is as handsome as *Print* which is now being published for the Graphic Arts Industry. Priced at \$5.00 a year, it is 7" x 10" and Volume I, No. 1 has 120 pages.

The contents range from a history of printing to informative discussions of prints, advertising, and text book design. The scope reflects the editors' definition of "Graphic Arts" including "all of the means by which ideas are reproduced in visual form—by use of graphic symbols such as alphabets, illustrations, photographs." It is interesting to note that a discussion of wall paper is illustrated by inclusion of several actual samples of recent printing in color.

The first issue demonstrates all of the principal printing processes and would be fascinating even to the most casual page-thumber.

## Carely BONDED BUILT-UP ROOF

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## INDUSTRIAL RAYON CORPORATION PLANT

This ultra-modern, windowless, air-conditioned plant of Industrial Rayon Corporation, Painesville, Ohio, has been engineered for highest efficiency. To protect the building and its costly equipment, a CAREY Roof was specified, indicating the architect's confidence in CAREY'S ability to supply the best roof protection money can buy. For a building extension, increasing plant capacity 50%, a CAREY Roof has also been specified.

Sixty-seven years experience in the manufacture of depend-



Architects: Wilbur Watson & Associates, Cleveland General Contractors: Hunkin-Conkey Construction Co., Cleveland Geo. A. Rutherford Company, Cleveland

able building products are back of every CAREY Roof. This experience, plus the practical skill of CAREY applicators, are basic reasons why CAREY Roofs last longer, cost less per year. Write for book—"Master Specifications"—address Dept. 54.

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Chosen for the new Kansas City Food Terminal—The "OVERHEAD DOOR" with the MIRACLE WEDGE, built at Hartford City, Indiana. Three hundred and fifteen doors . . . yet this multiple installation was a simple job for "OVERHEAD DOOR" engineers.

One door or many—outside or intercommunicating—manually or electrically operated—modern production and distribution demand The "OVERHEAD DOOR" in every type of factory and warehouse. Our local representative will make a complete survey without obligation. Phone him today.

LARGE HOMES OR SMALL

Give every client a good garage door
—The "OVERHEAD DOOR". Stock
designs are well within the smallest budgets. Sold installed.

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#### PERSIAN BRICKWORK

The photographs and text of the portfolio on "Old Persian Brickwork" by Donald N. Wilber in the August issue were supplied through The Iranian Institute of New York. This organization has been active for the last decade in promoting an interest in the culture of Persia and its neighbors. It will be remembered that The Iranian Institute sponsored the recent exhibition "6,000 years of Persian Art" in New York and architects will recall the several shows of architectural photographs displayed in recent years at the Architectural League. Ten expeditions headed by Arthur Upham Pope, the Director of The Iranian Institute, have visited the limits of remote Persia and have reported the colorful and great monuments in thousands of photographs, many of them in color, and in some 200 drawings and plans. The photographs used in the August portfolio were by Arthur Upham Pope, Donald N. Wilber, and Stephen Nyman.

#### TEXAS SOCIETY

The Texas Society of Architects has scheduled its first convention in Aus-

tin, September 26-28, to discuss means of promoting better public service among the Texas members of the profession and a Statewide basis for architects' participation in the National Defense Program. A three-day program has been arranged by George L. Dahl, of Dallas, Vice-President and Convention Chairman.

#### DEFENSE PARLEY

Plans to aid the National Defense Program will be made at a Mid-West Architectural Conference to be held at Cranbrook Academy of Art, Bloomfield Hills, Mich., September 12 and 13, under auspices of the A.I.A.

Progress in the preparedness movement which is being conducted by the Institute will be reported by Edwin Bergstrom of Los Angeles, president. Results of a nationwide survey to ascertain how every architect in the country may most effectively cooperate in defense measures are being assembled at the Institute's national headquarters in Washington. Another aim is the selection of competent architects for direct participation in defense activities.

#### NEW YORK STATE ASSOCIATION

The Third Annual Convention of the New York State Association of Architects will be held September 26-28, at Rochester, New York. Highlights of the convention program, announced by *James W. Kideney*, of Buffalo, Association President, are as follows:

Wednesday, September 25—Registration 3 to

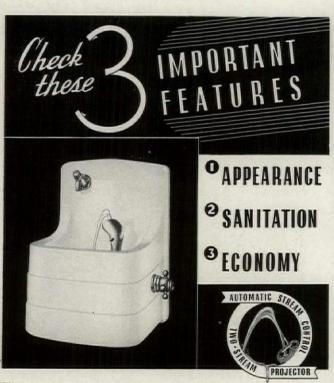
Thursday, September 26 — Registration 9 A. M. to 5 P. M. Opening of Materials Exhibit 10 A. M. Sectional meetings on "Hospitals" and "Schools" 10:30 A. M. Opening of the Convention 12:30 P. M. First Assembly 2 P. M. Informal dinner 6:30 P. M.

Friday, September 27 — Sectional meetings ("Hospitals" and "Schools" continued). "City Planning and the Architect's Opportunity." "Large Scale Housing." Convention luncheon 12:30 P. M. (Second Assembly). Third Annual Banquet 7 P. M.

Saturday, September 28 — Third Assembly 10 A. M. (Final report of Resolutions Committee). Convention luncheon 12:30 P. M. Trips and exhibits.

#### THE FINE ARTS

A series of symposia in the Fine Arts will be conducted September 16-18 at the University of Pennsylvania during a Bi-Centennial Conference arranged in commemoration of the 200th anniversary of the University.



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This book presents a new and thoroughly tested method for making perspective drawings without the use of a vanishing point. It is based on sound principles and has been used for many years by the author.

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Curved Line Figures
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Domes, Foregrounds, and Interiors
The Author's Drafting Room Method
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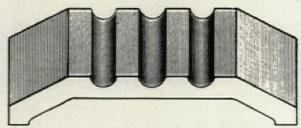
Reinhold Publishing Corp., 330 W. 42nd Street, New York

#### NEW PRODUCTS

NEW METHOD OF WELDING DOOR SADDLES
TO STEEL BUCKS

Julius Blum & Co., Inc., 532 W. 22nd St., New York, has recently developed a 3-in. wide hot rolled steel saddle to meet the new requirements of narrow bucks where thin partitions are used. It is  $\frac{1}{2}$  in. high,  $\frac{7}{32}$  in. in thickness and has three grooves in the top.

Previously all saddles were installed after the bucks had been set which meant a distributing job and then drilling the floor for the necessary screws to fasten the



saddles down. For the apartment entrances in the East River Housing project and the Kingsboro Housing project for which the new saddles are specified, the saddles will be welded to the bucks and the complete unit set at one time, assuring squareness and exact size. This eliminates the use of spreaders at the bottom of the bucks as was necessary without the saddle welded. The saddle actually becomes the bottom spreader assuring the exact width of door opening the same as the header of the buck assures the exact width of door opening at the top.

#### NEW TYPE PEN FILLER

In an effort to give better service to the users of Higgins American drawing inks, the Chas. M. Higgins & Co., Inc., is experimenting with a new type of pen filler in place of the genuine goose quill which is so familiar to artists and draftsmen. The new filler is made by the Plastic Quill & Novelty Corp., 280 Madison Ave., New York, and is called the Little Big Dipper plastic pen filler. The end of this filler is shaped like a scoop the bottom of which is slit.



The Big Dipper pen filler is made of Polystyrene, a Bakelite product, and is used because there is no possibility of it decomposing or softening in the solution for which it is intended. It is stated that under ordinary usage the material will not break up or splinter. The walls of the new filler are of additional thickness to prevent nicking and catching on the blades of the ruling pen. The scoop of the filler is so designed that surface tension will cause it to hold more ink than the goose quills hitherto used. There is little danger of spattering or spilling the ink from the scoop.

(Continued on page 90, Advertising Section)



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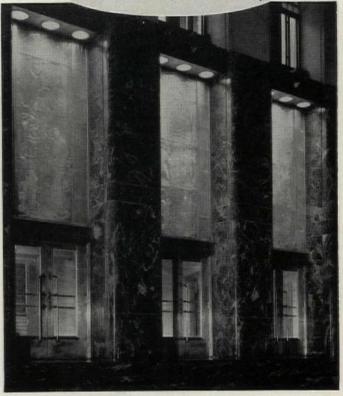
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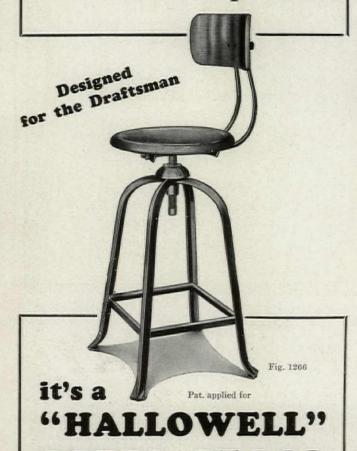
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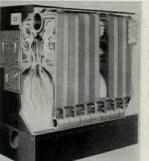
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(Continued from page 88, Advertising Section)

#### NEW NO. 25 SMITH-MILLS BOILER

In order to meet the need for a modern heating unit designed for such buildings as roadside restaurants, monitor stores, garages, small public buildings and large residences, The H. B. Smith Co., Inc., Westfield, Mass., has developed a compact Mills type boiler specifically designed for this in between size of building. The No. 25 Mills is a jacketed sectional boiler available in a wide range of sizes and models for oil, stoker and hand fired fuels. Ratings run from 1300 sq. ft. standing steam

radiation to 2300 sq. ft.



Castings are made of rugged grey iron to insure low maintenance costs and long life. Vertical water tube construction provides an unusually high ratio of direct heating surface.

Gas travel is vertical and lateral as well as horizontal, thus, it is said, assuring maximum surface contact resulting in high efficiencies. Fins have been placed where

gases are hottest to provide additional heat absorption.

Automatic firing units have such features as 14-in. base to provide ample combustion space; provision for all necessary controls and tight fitting doors to prevent air leakage.

Built-in trombone type tank or tankless heaters for domestic hot water are optional equipment. The 360 gallon per hour instantaneous unit is ample for the needs of the ordinary 12 suite apartment house.

#### NEW GLASS THAT BENDS

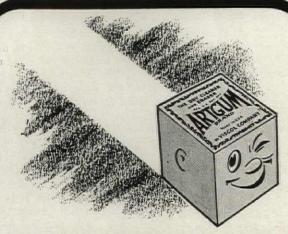
A new design material known as Flexglass has been recently introduced by the United States Plywood Corp., 103 Park Ave., New York. Flexglass will bend concavely and convexly and can be cemented to any smooth, hard interior or exterior surface.

Many uses for Flexglass are evident in the field of architectural design, among which are theatres, store



fronts, bathrooms, bars, cocktail lounges, restaurant equipment, store fixtures, fine furniture, and wherever glass that will conform to curves is desired. The accompanying illustration shows the use of Dutch Leaf Flexglass on the columns of the Auditorium of the Ford Pavilion Theater at the New York World's Fair, designed by Walter Dorwin Teague.

(Continued on page 92, Advertising Section)



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(Continued from page 90, Advertising Section)

Flexglass is genuine glass of a nominal thickness of 16 in. mounted on an extensible and compressible fabric and then divided into a series of units-squares or rectangles. The result is a sheet of gleaming facets very pliable and easily handled. A sheet with the individual units cut to ½ in. x 2 in. size may be formed safely to a 5 in. radius, either inside or outside curvature to the glass surface.

There are four types of Flexglass - opaque, flat mirror, rolled pattern mirror and metallic. It is available in thirty different colors and patterns. Color chart can be obtained upon application to the company.

#### NEW TRANSPARENT MENDING FILM

Vanishing Patch which was recently introduced by Seal, Incorporated, Shelton, Conn., is an entirely new type of

transparent mending film.

Vanishing Patch is said to work particularly well on torn tracings, as well as on blue prints, drawings, etc. When running a tracing that has been mended with Vanishing Patch through a blue printing machine none of the adhesive will ooze up and gum up the glass on the blue printing machine. Likewise, when a quantity of tracings are filed away, there is no danger of the adhesive seeping out from under the tape and thus sticking valuable tracings together.

After a blue print has been made from a tracing that

has been mended with Vanishing Patch, it is absolutely impossible to detect where the patch was placed on the tracing.

Vanishing Patch is applied with a handy little ther-

mostatically controlled gadget known as the patch welder, which works on 110 volt, alternating current, and requires about two minutes of heating before it is ready for use. Since the Patch Welder is thermostatically controlled, there is no danger of burning or scorching the tracing.

Vanishing Patch comes packaged in kit form. A kit consists of 250 1" x 11" strips of Vanishing Patch strips, one Patch Welder, and one felt rubbing pad. It is also possible to purchase the strips by themselves in a handy little refill package, which contains just the 250 strips of film.

Samples and complete information regarding Vanishing Patch can be obtained by writing directly to the manufacturer.

#### CRANE ANNOUNCES DURACLAY BATHTUB

A bathtub made of a new clay product known as Duraclay is announced by the Crane Co., Chicago. The Duraclay bathtub has all the easy cleaning properties of vitreous china because the hard, acid resisting surface is actually composed of glass over vitreous china completely fused to the Duraclay base under intense heat. Because of the strength of Duraclay, the weight of this bathtub is no greater than that of a cast iron tub of the same size, instead of greatly in excess as is the case with solid porcelain bathtub.

The new bathtub, known as the Delmar, has the low rim and flat bottom now well recognized as safety features for bathtubs, and in addition has a wide flat rim serving the three-fold function of a seat, a splash lip to

(Continued on page 93, Advertising Section)

(Continued from page 92, Advertising Section)

keep water from splashing over, and a hand grip for the

bather when entering or leaving.

In addition to the Delmar bathtub, a line of hospital sinks and baths of Duraclay is already in production, and kitchen sinks for domestic use will follow soon.

#### NEW HEAVY-GAUGE FERRO-THERM

The American Flange & Mfg. Co., 30 Rockefeller Plaza, New York, manufacturers of Ferro-Therm metal insulation, announces that Ferro-Therm is now made in

heavy-gauge sheets up to 10 ft. in length.

This new heavy-gauge Ferro-Therm is said to have all the advantages of light-gauge Ferro-Therm—the same high insulating value, with a reflectivity of 95% of all radiated heat. Ferro-Therm, it is stated, also has the same structural strength, gauge for gauge, as ordinary coated steel, and its alloy coating gives it the same high resistance to corrosion.

#### NEW TIMKEN AIR CONDITIONING OILFURNACE

The Timken Silent Automatic Division of the Timken-Detroit Axle Co., Detroit, Mich., announces the introduction of a new air conditioning oilfurnace designed especially for medium to large size homes. The new unit comes in two sizes, models FFR-140 and FFR-170. They are identical in all respects except capacity. The FFR-140 has a capacity of 140,000 BTU's and the

FFR-170 has a capacity of 170,000 BTU's.



Both of these units are built around the Timken Model H wall-flame oil burner, which has only one movable part, and this part is self-lubricating by a forced feed system. The burner is equipped with the patented Timken chromium steel flame rim, which is said to cut warm-up time 87%. Leads for the electric ignition are of equal length and

center grounded to reduce all possibility of radio interference.

The new Timken unit furnishes complete winter air conditioning as it filters, humidifies, warms and circulates air. The cabinet is made of 20 gauge furniture steel, spot welded for strength. The finish is in two-tone green Hammerloid.

#### NEW AUTOMATIC DOMESTIC COKE STOKER

The successful completion of several years of experimentation by the Koppers Company, Pittsburgh, Pa., in the perfection of a wholly automatic domestic coke stoker, which can be sold within a moderate price range, has just been announced. The Bryant Heater Company, Cleveland, O., it also is announced, has been selected to manufacture the stoker and to conduct the merchandis-

ing campaign.

The Bryant stoker will be wholly automatic, it is stated, since it will deliver coke direct from the bin to the furnace or boiler without requiring any attention by the householder. A silent type of conveyor extending from the bin to the heating plant is said to be one of the features which assure the permanently noiseless operation of the new stoker. No blower is required since coke does not need a forced draft. A dustless ash removal system will remove ashes automatically from the ash pit to a covered ash can at the side of the furnace.



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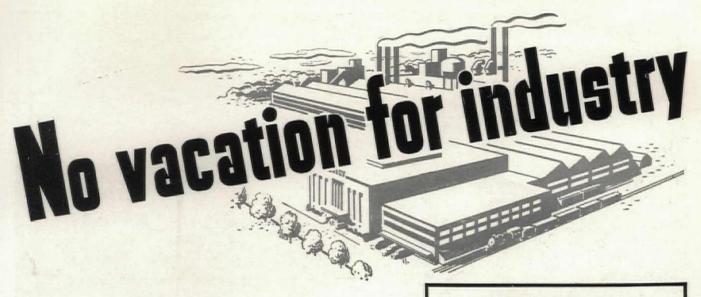
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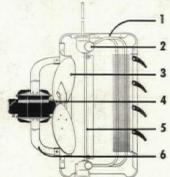
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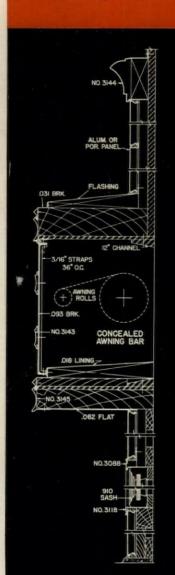
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