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PENCIL POINTS

APRIL
1941

Not a Penny for Repairs in **47 YEARS**

Record of copper cresting on Home Life Insurance Building leads to re-roofing with 20-oz. Anaconda Copper . . . and a saving of 25 tons in weight!

When horse-cars labored down Broadway and "Gentleman Jim" Corbett wore the heavy-weight crown, a new building reared its copper crest along Manhattan's budding skyline; the year, 1893. Since then, not one cent has been expended for repairs to the copper cresting. Such a record naturally led to the choice of copper to replace the old tile roof.

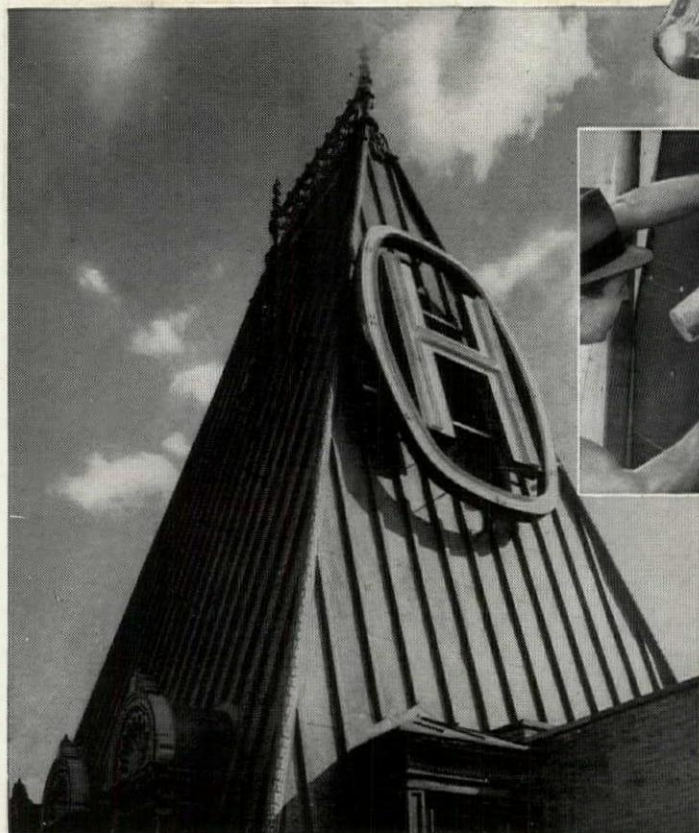
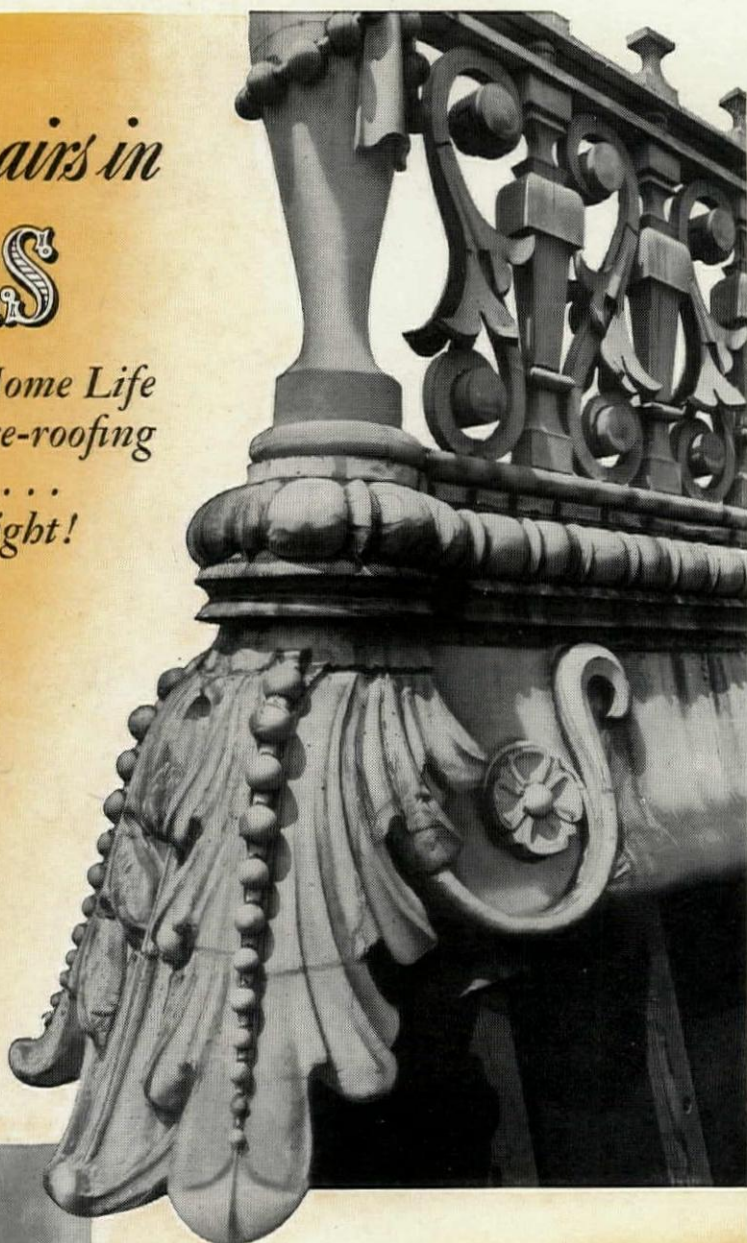
Unique Installation

Interesting is the fact that not a bit of solder was used in installing the new copper roof; also that Nicholson & Galloway, Inc., did both the cresting job in 1893 and the new batten-seam roof in 1940!

Specify Anaconda Copper

You can't go wrong with Anaconda Copper. Specify it for light weight, good appearance, durability. In the long run, it saves money.

4044



The Home Life Insurance Company, now in its 81st year, built New York's first fire-proof, all-steel constructed building in 1893—at 256 Broadway. The original copper cresting is still in good condition after 47 years of rain, sleet, snow and burning sunshine.

(At left) 20-oz. crimped Anaconda Copper batten-seam roof recently installed without solder on this roof by Nicholson & Galloway, Inc., New York. The architect was Samuel R. Bishop, New York.



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The Webster Moderator System of Steam Heating has been specified by Meyer, Strong and Jones, Inc. for such installations as Miriam Osborne Home, Harrison and Rye, New York, where it has been in operation for six years, and Hudson House, Ardsley-on-Hudson, New York, where it has been in operation for four years.

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ALUMINUM, DEFENSE, AND YOU

1

WE INTERRUPT our regular messages to report what's what with aluminum.

AT THE MOMENT delivery for civilian use must make way for defense. Everybody knows the reason. Defense requires and is using more aluminum per month than peacetime America ever consumed.

NEVERTHELESS, we intend that no one shall have to forego the things aluminum can do best one minute longer than we can help.

THERE IS NO SHORTAGE of bauxite, nor of anything else, except time. And Father Time is being given the race of his life.

WE ARE MOVING, for example, 35,000 yards of earth a day at Alcoa, Tenn., to get 50 acres under a single roof by September. It will require 193 carloads of roofing felt. Some of the operations in that plant will start even before the walls are up. That's an annual rolling capacity for 120 million pounds of high strength alloy sheet coming along fast.

LAST MARCH WE STUCK the first shovel in a cow pasture near Vancouver, Wash. In September a 30 million pound plant was delivering metal. It has been doubled, already. A third 30 million pound unit starts delivering in April; a fourth in May; a fifth in June. From cow pasture to 150 million pounds annual capacity in 15 months.

A SIDELIGHT: To make that 150 million pounds of aluminum, we first have to build factories to make 120 million

pounds of carbon electrodes. We have to obtain the equipment (transformers, rectifiers, and the like) to feed 162,500 kw. of electricity into the reduction furnaces. This is a generating capacity equal to that of the state of Delaware plus twice that of Mississippi.

WHAT OF TOTAL PRODUCTION? In addition to Vancouver further installations are being made at other of our plants, so that in less than a year their total capacity will be more than double that of 1939, when 327 million pounds were produced.

IN THE VERY MIDST of this demand we have lowered the price of aluminum ingot 15%. We state, without reservation, our hope that the price can be still further reduced.

DEFENSE APPLICATIONS use aluminum for exactly the same reasons you do. Defense priorities on aluminum simply say that there are some fundamental things that aluminum does supremely well. It will do them still better as important lessons in production, fabrication, and application are learned from every additional pound being produced and used.

YOU, SIR, have been using aluminum windows and sills, copings, spandrels and doors. It has been a favorite decorative material. It is not easy nor convenient to have to substitute other materials temporarily. We want you to know that we intend to make this hardship as short-lived as possible. Your aluminum is on the way. It is a promise.

ALUMINUM COMPANY OF AMERICA



★

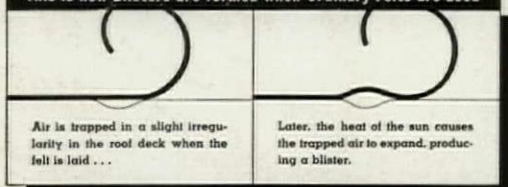
MILLIONS OF TINY HOLES ... Make a BETTER ROOF!



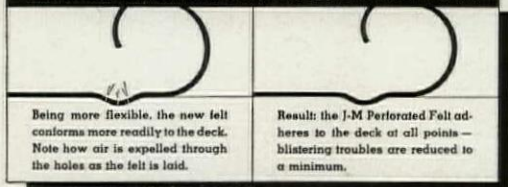
J-M's 15-LB. *Perforated* ASBESTOS FELT

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This is how Blisters are formed when Ordinary Felts are used



This is how the new J-M Perforated Felt reduces Blisters



LONG FAMOUS for fire-, weather-, wear-resistant built-up roofs, J-M now offers a new-type felt! It's the *Perforated Asbestos Felt*... and it increases roof service by reducing blistering hazards to a minimum.

As every architect knows, when laying conventional felts, "air pockets" are often formed. As the sun's heat causes the trapped air to expand, blisters result. The J-M Perforated Asbestos Felt is provided with millions of tiny perforations—"check valves" that open upward to allow trapped air to escape during application, but are completely sealed by the waterproofing asphalt when the roof is laid. Result: The Perforated Felt adheres closely to the roof deck... blistering troubles are minimized.

Specify this protection for all your clients. They'll appreciate the continued trouble-free roofing service J-M Perforated Asbestos Felts provide. For full details and specification data, write Johns-Manville, 22 East 40th Street, New York, N. Y.



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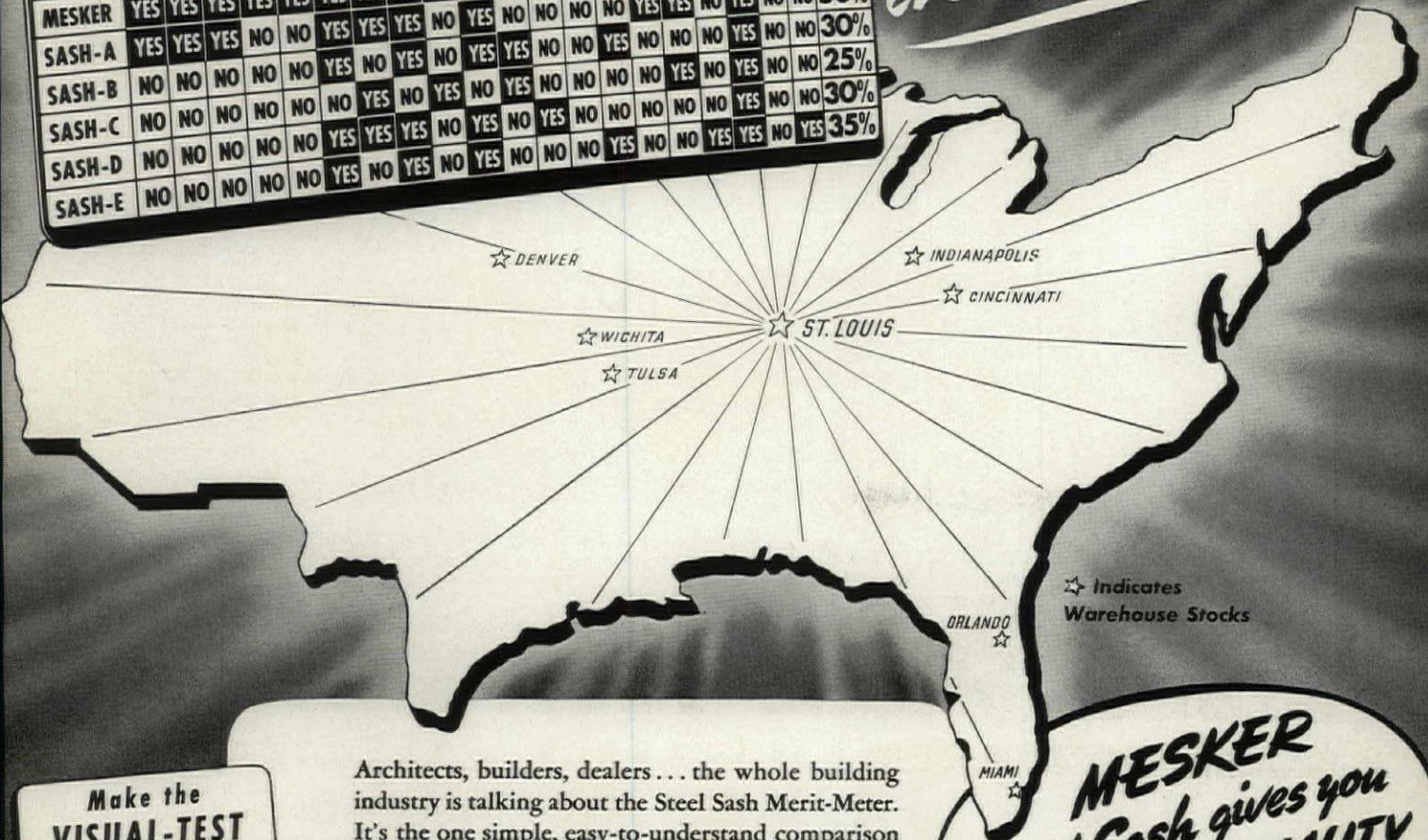
**THE ROOF
WITH THE SAFETY
FACTOR**

IT'S BIG NEWS... to the Building Industry

★ STEEL SASH "MERIT-METER" ★

* STEEL SASH MATERIALS																					
POINT NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
SWORN BASIC FACTS USED ARE FROM 1940 SWEETS CATALOG	Frame Bars 1 1/2" deep	Ventilator Frame Bars 1 1/2" deep	Muntin Bars 1 1/2" deep	All weathering members hot rolled 1 1/2" angles	Rustless Bronze bearing cup pivot	Pivoted Frame Corners	Welded Frame Corners	Bristed Ventilator Corners	Welded Ventilator Corners	Interlocked Muntin Joints	Welded Muntin Joints	Cam lock & push bar handhold	Vertex Corners on All weathering members	3/8" Masonry Anchorage	Available with wrought iron sills or all wrought iron	Flat Outside Surfaces	Available in Tacon Iron	Available with Phosphate rust proofing	One piece hot rolled frame section for outside glazing	Integral buffer on Ventilator Bar	
MESKER	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	85%
SASH-A	YES	YES	YES	NO	NO	YES	YES	YES	NO	YES	NO	NO	NO	NO	YES	NO	NO	YES	NO	NO	50%
SASH-B	NO	NO	NO	NO	NO	YES	NO	YES	NO	YES	YES	NO	NO	NO	NO	NO	YES	NO	NO	NO	30%
SASH-C	NO	NO	NO	NO	NO	NO	YES	NO	YES	NO	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO	25%
SASH-D	NO	NO	NO	NO	NO	YES	YES	YES	NO	YES	NO	YES	NO	NO	NO	NO	NO	YES	NO	NO	30%
SASH-E	NO	NO	NO	NO	NO	YES	NO	YES	NO	YES	NO	NO	NO	YES	NO	NO	YES	YES	NO	YES	35%

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- 2. REINFORCED FRAME OF STEEL AND WOOD** — Made of 16-gauge rustproofed galvanized steel, full jamb width 5 $\frac{1}{8}$ ". Hinges are riveted to this steel frame for extra strength. Frame faced with clear White Pine (other woods if desired). Genuine White Pine Sash — "WOODLIFE" toxic treated.
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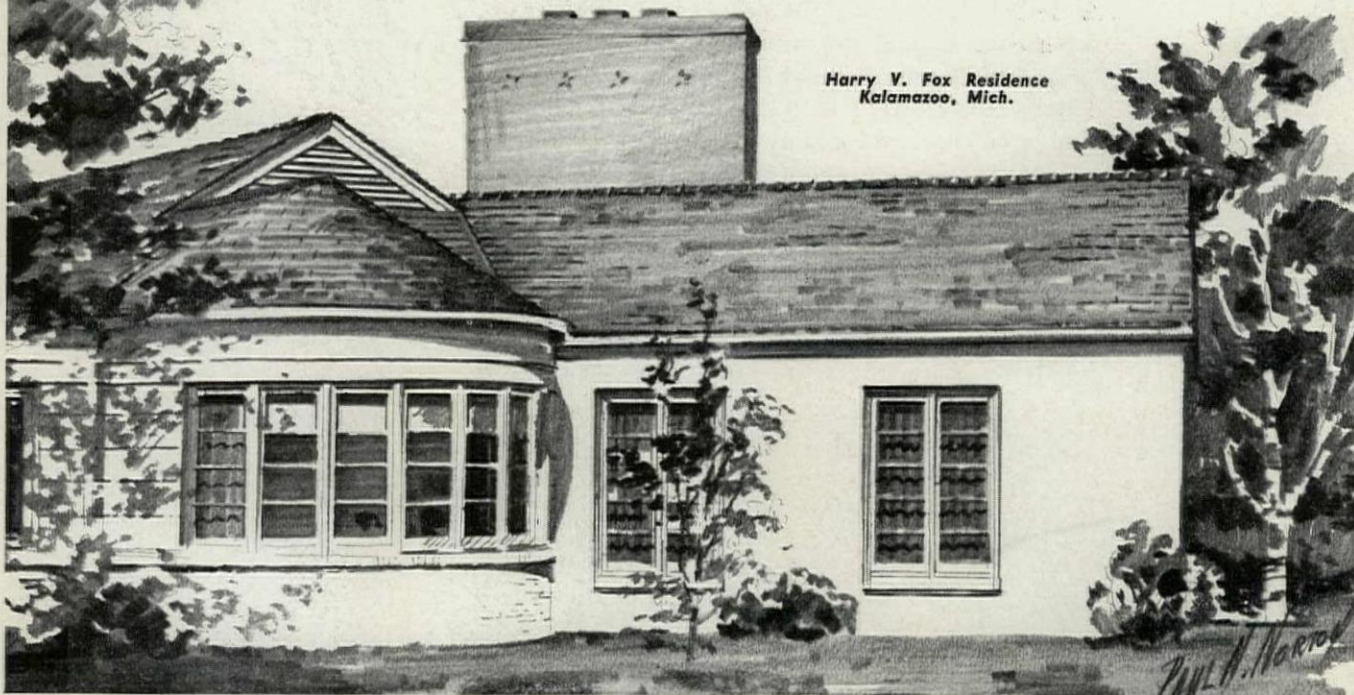
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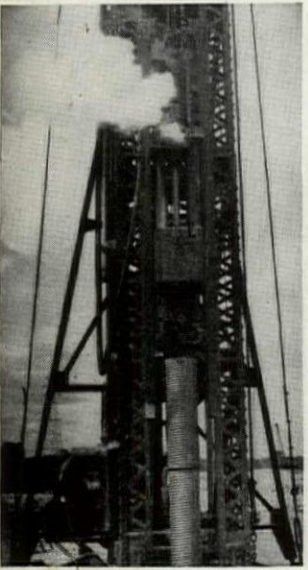


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THE THRESHING FLOOR

Architects and manufacturers of building materials could convince the public that the "Consult Your Architect" slogan is almost mandatory, GILBERT RAYMOND GOLDING, Draftsman of Denver, Colorado, claims in this letter advocating a concerted effort that would certainly benefit both groups if undertaken promptly.

First of all, I believe there should be some sort of mass condemnation by the profession of the lay magazines which publish monthly the "Model House" attempting, and no doubt they do, to sell a "complete" set of working drawings and specifications for the nominal sum of \$1.50. To my mind, the architectural profession is the only one which has allowed such conditions to exist and continue undisturbed. Not only is a condemnation in order, but action of some form should be taken to stop this encroachment.

To the layman, is not the house the instrument by which he truly judges the architect? Nevertheless, the architect's connection with the small house is becoming more and more remote. The contractors, builders, etc., are assuming authority on design and construction methods. If we are to permit the continuance of this, the glory and respect of our profession is bound to go down to ignominious defeat.

Innumerable times I have heard architects state, in regard to these "modern houses," resulting from the fruitless efforts of the architect to produce such, "Isn't that a disgrace, to the profession to see such things happen?" (I borrow the word *architractor* from Mr. Don Graf who has used it to such advantage.) How true the above quotation is, but if no action by us is forthcoming, who can predict the future of the architect in connection with the small, or even large, house?

The architect is very convincing in interviews with his clients. By allowing him to handle the job from start to finish he consequently saves the client a "tremendous service fee." This is his argument, and as long as the architect remains timidly in the background, bound by ethics, the layman finally comes to believe all this; ignorant of the fact that the "un-

necessary service fee" will be paid over and over again in the end.

Publication of an article in only the professional magazines is not enough to stir public opinion. The basic reason for this writing is merely to sound out the architects and designers. The public must be educated to the fact that an architect is no longer a luxury but a necessity to the advancement of the building industry; commercial, institutional, public and private. Advancement cannot be made in the residential field as long as houses continue to crop up which are branded both in plan and elevation with all the characteristics of the early twenties! It is not the architect nor the designer who is responsible for such monstrosities.

Why not adopt some sort of scheme whereby *all* material manufacturers would include in their advertisements the slogan, "Consult Your Architect." The main thing at present is to put the architect before the eyes of the public to such an extent that when a building is contemplated, from mansion to potato cellar, one single phrase is thought of first, last and always—"Consult Your Architect." Strange as it may seem, many are of the belief that the contractor does all the planning and drawing, the architect merely dropping in to add a few pretties.

If a law were put into effect whereby every house from \$3,000 on up required the services of an architect or competent designer, the architects' offices today would be able to absorb the young men fresh from school and enable them to acquire the experience they need to pass the state examinations. A law of this kind would also force a large percentage of the smaller contractors into competitive bidding and no doubt would eliminate many incompetent builders, thereby giving people more for their money—in more ways than one. But many architects today refuse to have anything to do with a house under \$8,000!!

Once again I state that the time has come for action to be taken. It is up to the architects to join forces and save themselves. If this is published, may it start the bee buzzing. I should like to hear what others have to say. How about it readers?

This letter from CARL F. SCHMIDT, Architect of Rochester, New York, is double-barreled, being an able comment on American craftsmanship as well as a tribute to the critiques of TALBOT F. HAMLIN. That the latter are widely appreciated we already knew, but we rarely can persuade Mr. Hamlin to publish his "fan mail."

I have been a constant reader of your criticisms in PENCIL POINTS and I hope they will continue. It is the only good reading material published by any of our architectural magazines. I have had occasion to re-read several of your papers, as "America," "Form and Content," and "Challenge to the Architect." To me it seems that you are constantly groping and searching for the reason, the noumenon back of our lifeless, beautyless, thrill-less architecture. That has for years been a very interesting subject to me. Why was there so much good work done before 1830, and why is there so little good architecture done today?

You speak at various times of the harmony, quality, dignity, skill, handling of materials, which I grant you are all prime essentials to good architecture, but I believe all these qualities are the result of "good craftsmanship." It is *good craftsmanship* that is the lost art here in our country.

From all my researches in the colonial, the post-colonial, the Greek Revival, and the cobblestone architecture of this country the noumenon behind the phenomenon is good craftsmanship. It is good craftsmanship that we must have first, in any work, if it is to arouse our emotions. Craftsmanship is the dominant phenomenon in the early stages of any architectural style. We always find that the height of artistic development is reached when craftsmanship and skill (building technique) are about equally balanced.

As workmen become more skillful, skill begins to dominate over craftsmanship and the decline of that particular art is on the way. This fight between craftsmanship and skill is so clearly shown in the cobblestone architecture of this area, that I have many times pointed out this very fact to audiences, with the use of close-up views with kodachrome slides.

I wondered when I saw the beauti-

ful work that is being done in Mexico. Why should they be able to do such beautiful work, and not we? What has the architect "south of the border" that we haven't here? After watching the bricklayers in Cuernavaca, the tile setters at work in Zitacuaro, and a few other Mexican craftsmen, it dawned upon me that I was watching craftsmen at work: craftsmen who still retained the art of building with sufficient skill to produce a work that had feeling. Their work would produce the same feeling or emotional response as the line drawn by the master draftsman, the deft stroke of a brush by the painter, or the single stroke of the bow by the master violinist.

It is only when craftsmanship and skill are nearly balanced that great works of architecture have been produced. But where are our craftsmen today? With only a few exceptions, craftsmanship is non-existent today in our country. Skill, yes, in fact too much skill, but no craftsmanship. Is there any wonder that there is so little architecture to give us a thrill, that there is so little beauty in our building?

Tapping industrial reserves is fine if Architects are "tapped" too, in the opinion of B. H. WHINSTON, New York Architect, whose letter was prompted by our publication of a recent radio address by MORRIS L. COOKE, Consultant on Management Engineering, in the OPM offices in Washington.

I have read excerpts from your broadcast speech as published in the February issue of PENCIL POINTS and I consider the facts you raised of great interest.

I am interested to know if the suggestions you made regarding "farming out" of defense orders to the smaller plants, cannot also be applied to the architects.

I have noted regretfully that the more the defense program gets into accelerated action, the less private construction work is to be had. This has caused many architect's offices to come to a standstill for lack of work to do and their plant lying idle, such as my own which can employ at least 15 people, while at the same time several government departments are swamped with work properly belonging to the architect's sphere of influence and many defense contracts are being repeatedly awarded to the same

few builders and architects, the only ones that are now so busy that their normal facilities have been choked up.

Cannot the OPM work out a "farming out program" for the vast amount of energy and skill of architect's offices that now find themselves in this anomalous situation, who have idle offices, ready and willing to keep them open and going to help in expediting the great amount of plans, supervision, etc., required in connection with the construction work to be carried out for the defense program?

These idle architects are all set "to go" to help in this momentous undertaking. Why not put them to work also?

I would be interested to know your reaction to these suggestions and how they may be carried out in a practical manner.

SPEAKING OF DEFENSE!

"Owing to the character of this national emergency, the usual blue print stages of building must be abbreviated and contracts will in a great many cases be awarded to general contractors who in turn may make subordinate arrangements for the necessary technical services."

*Travis G. Walsh, A.I.A.
Cleveland*

"No one knows yet what the demands upon the communities on the Defense Program are going to be. We in industry don't fully understand what its demands are to be on our factories and our workers, but by the middle of 1941 we will probably find two things have become definite community problems — one, manpower; and two, houses for this manpower."

*John L. Lovett, Gen. Mgr.,
Michigan Mfrs. Assn., before the
Conference on Expansion
of Industrial Communities*

"In order to insure delivery of fabricated structural steel in accordance with the promise of the fabricator, it is timely to point out to all purchasers the wisdom of having their design drawings complete and correct at the time of placing contracts . . . The delivery of the finished product is governed not by the date upon which the contract is awarded but rather on the date by which the fabricator receives the completed plans."

*American Institute
of Steel Construction*

Specification writing requires clear thinking and a few five-dollar words, in the opinion of DR. A. D. TAYLOR, of Cleveland and Washington, who hits out in the letter below at the superficial theses that some offices continue to produce from the "dust bins of time."

It seems to me that the whole procedure of specification writing has been getting progressively worse as the years have passed. The errors, like those in connection with some fields of research, have been accumulated because of the superficial approach by some of the individuals who have dug the information from the "dust bins of time."

There is great necessity for "streamlining" the procedure of specification writing.

We have in most specifications "five-cent" words and not enough "five-dollar" words. We also have a preponderance of verbs and adjectives, about two-thirds of which could be omitted in the cause of concise and clear grammatical construction. I realize that there is in every specification a certain minimum of words commensurate with clearness of the specification. Horace W. Peaslee is 100 percent correct in his statement that there should be an elimination of the abundant repetition of clauses, by the introduction of a term which serves every purpose.

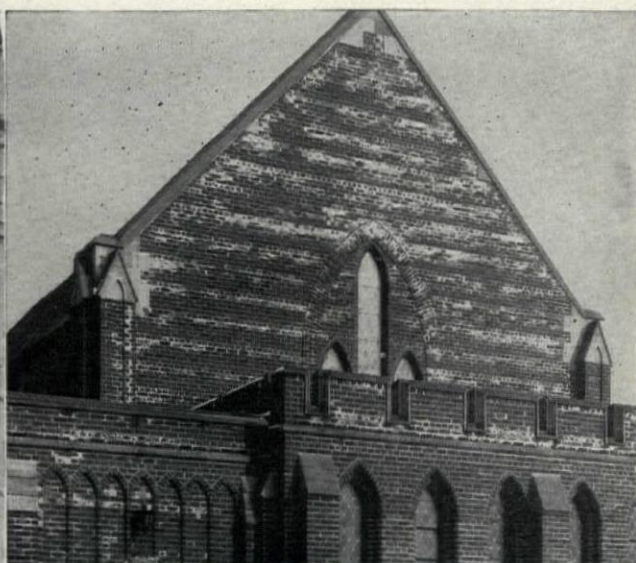
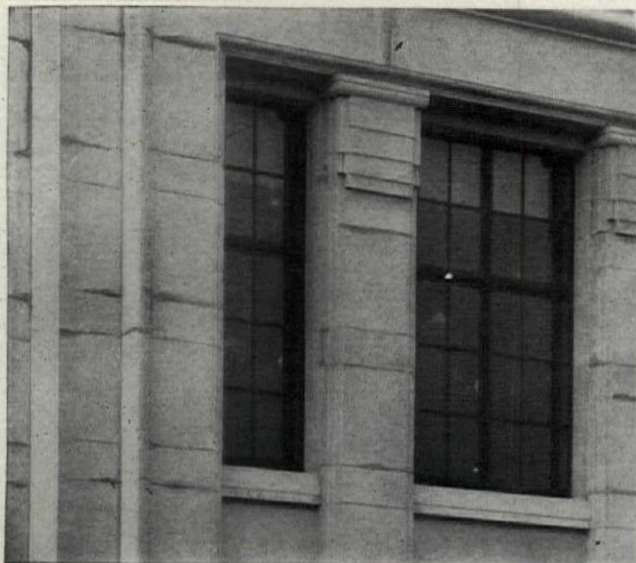
The principle of good specification writing is the same, whether in the field of architecture, engineering, or landscape architecture. There is no more exact science to be practically applied in an equitable way, if the contractor and the owner alike are to be fairly considered.

One has only to examine closely the average specification (and many Government specifications, in particular) to understand how the contractor is often penalized because of clauses included in the specifications, only (and seemingly) to cover the shortcomings of the specification writer of the contracting agency.

It is not generally appreciated that a special type of mind is required, in order to properly prepare a specification. Good specification writers are generally born and not made. Such work requires not only experience, analytical mentality, but also clear, constructive, and logical thinking, fortified with a fundamental knowledge in the subject to which the specification relates.

How

TO PREVENT WEEPING JOINTS and EFFLORESCENCE



● Illustrated above are the two enemies of masonry construction—weeping joints and efflorescence. Many an architect has seen his beautiful work disfigured by one of these two evils.

Weeping joints are those long dark stains originating at the bottom of a vertical joint between blocks or slabs of facing, and often extending horizontally across the course. They are caused by moisture absorbed at the surface of the joint or leaching through from the back, carrying with it soluble ingredients from the mortar or the stone itself, which are deposited when the water dries out.

At the right is a living example of efflorescence, that white, powdery disfiguring deposit of

soluble salts left on the brick wall's surface by the evaporation of water in which alkali salts have been previously dissolved.

Weeping joints and efflorescence can be prevented! Specify all ornamental stone facing and face brick be set up in mortar made with Medusa Stoneset, the non-staining waterproofed mortar cement. Because Stoneset is waterproofed, it repels all water at the surface of the joints so that it cannot possibly enter and absorb disfiguring soluble alkalies, thereby causing weeping joints and efflorescence. Stoneset has minimum shrinkage. It is inexpensive and can be used for mortar in the backup wall. Send the coupon below for detailed information on Stoneset.

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CRITICAL YOUTH WIELDS THE FLAIL

THE NEW "FOE"

Modern architecture, having at last gained the attention of almost everyone, the acceptance of many, and the understanding of a few, stands today in a position more crucial than ever before.

As long as the ideal of a New Architecture was opposed by logical arguments of the conservatives, there was no real danger. It was merely a matter of winning them over by intelligent discussion. Now there is a real menace. This new foe is not a malicious one; but an unconscious one. He is not trying to undermine the new principles or even attack them. He is the man who, without thought or reflection, suddenly proclaims himself a "modernist." Overnight he becomes the most ardent and articulate of protagonists. He has as much understanding of contemporary architecture as Clovis, King of the Franks, did of the spirit of Christianity when he made his famous statement to the effect that if he had been at Calvary with his trusty soldiers, he would have killed every Jew who took part in the proceedings. Certainly Clovis was not lacking in enthusiasm, just understanding.

Just as it must have taken Clovis some time to become a real Christian with a full understanding of the spirit of love, so the man who would become a modern architect must be willing to spend much time in sincere and conscientious study.

Understanding modern architecture is something more than a matter of looking at the pictures in architectural periodicals! Honest and sincere thought must be translated into honest and sincere building if success is to be reached. No matter how clever the overnight copyist may be, he can never become more than a copyist. The forms he develops will be ugly because they will show lack of understanding. This will bring harm to the whole cause, as people will again become skeptical of modern architecture and return to traditional forms.

In my opinion it is the duty of everyone engaged in the practice of architecture to *reflect often* on the work he is doing. He should check

carefully to make sure that what he is producing is an honest attempt at creating, and not blind copying of another man's work.

CARLETON WINSLOW, JR.
University of Southern California

SUN AND STRUCTURE

Professor G. M. Beal has in the last year completed a sun-machine which he calls the Inside-Outside Heliodon. This machine is a novel one, for it shows not only the exterior of the building in sunlight but, by means of floorless models, the interior lighting can be studied.

A flood light is made to revolve about the stationary model in an arc corresponding to the sun's apparent path. The heliodon is adjustable to latitudes of two-degree intervals from pole to pole. Moving slowly from dawn to sunset it compresses a complete day into half a minute.

From playing and experimenting with this machine we have found that the sun can and should play an important part in the design of a building. More than just the usual routine. We have put clay and balsa wood models of our buildings under the light, watched the sun rise and set, and by its aid have visualized the proper fenestration, interior lighting, and determined the orientation. But most of all we discovered timing.

Timing is the important point in the integration of the sun with the structure. The sun should be let in or shut out according to the activity and the time at which action takes place. For instance, take an imaginary problem, a dress shop. It is found that most dresses are sold between the hours of eleven and three. Then in designing the building, the structure must be arranged, in order that, between these selling-hours a soft light which brings out color will be admitted into the selling area.

Really to integrate the sun with the structure allows for no conventions of design, for which I am glad, and gives the problems of design a broader scope.

LYMAN ENNIS
University of Kansas

ON SPEAKING UP

There seems to be a wave of pessimism, or at least of apprehension, among architects, both professional and student, in regard to the future of the profession. This uncertainty may or may not be warranted, but there can be no denying the fact that the practice of architecture is passing through a period of flux. A period in which a new understanding — a new conception of architects and their services—probably will be evolved.

It would be hard to conceive, and perhaps impossible to have, private building of any character and value without architectural service as it is now known; but in public work, and in large industrial work, unless the architect makes a careful estimate of the impending situation and takes preparatory steps to fit himself to cope with it, he will become an employee, in fact if not in name.

Working on the policy that a sharp offense is the best defense, should not architects stifle this impending subservience by stating their rightful professional place as leaders and coordinators of all building; and put construction engineers, financial men that specialize in the problems of the building industry, men that are expert organizers of plant production methods, and others necessary in carrying out large construction projects on *their* payrolls where they should be?

With this organization of the office, a restatement of architectural services could be made to include not only design and supervision, but complete handling of the work—financial, technical, etc. This centralization of the responsibility for the complete project from thumbnail sketches to the handing over of the keys would be more efficient and economical, would simplify the client's relationship with the work, and insure more than ever that the client was getting the best service and the best building available.

To make this adjustment capably, present architects will have to put more emphasis on understanding phases of the work heretofore left to others (the Others that now are



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Expanded Metal

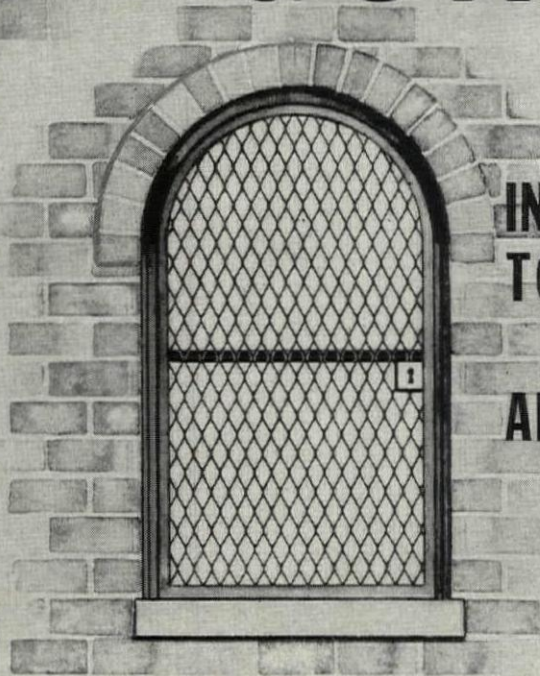
WINDOW GUARDS

NEW TOP-HINGED CURVED STYLE

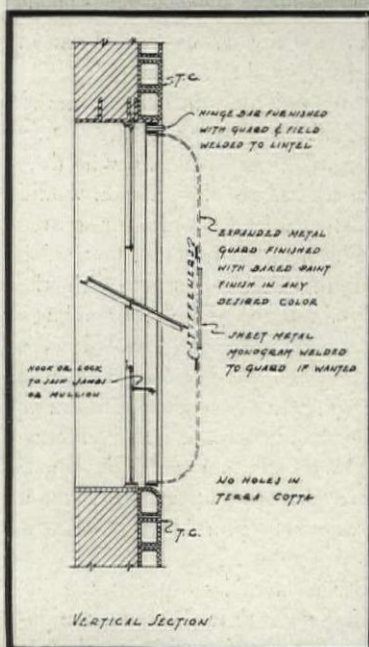
The guard has hinge bar at top which can be tack-welded to the steel lintel over window. See detail drawing below.

NEW SIDE-HINGED ARCH TOP STYLE

For use on arched windows. Jamb bars are anchored to masonry.



IN NEW DESIGNS
TO HARMONIZE
WITH YOUR
ARCHITECTURAL
PLAN



Inconspicuous window guards, designed and finished in baked enamel paint in a color to harmonize with the architectural treatment of any modern office building, apartment house, industrial plant or other type of structure are now available made from Steelcrete Expanded Metal. Each guard consists of a section of expanded metal and frame, with hinges or other fixture for fastening to the building. A wide selection of meshes permits choosing a type of guard for protection against glass breakage, illegal entry or exit or damage due to thrown objects.

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(Continued from page 12)

usurping the field). Students are in an enviable position; for they can anticipate this coming change and plan their curricular and extra curricular activity to prepare for it.

In recent years, architects have become increasingly more skillful in designing functional buildings. The time seems ripe to "streamline" the office set-up to keep pace.

R. S. LUNDBERG
M.I.T.

A DECLARATION

Woman's place in Architecture has been widely discussed. However, when one observes members of the fair sex in an office, their exact position in relation to Architecture becomes less of an enigma.

Their definite opinions, their spontaneous ideas for the treatment of detail, their ability to make a great barn of a room by gathering the hall, stairway, living room, dining room, and sundry other accommodations all in one—plus their reckless demands on the physical properties of materials—are extremely stimulating even to an already-vivid imagination. Despite the fact that the physical properties of materials actually fall far short of their ambitions for them, credit really must be given to their great daring and, by such reasoning, others may be inspired to create the new materials that *will* do their bidding!

Withal the most exciting experience is in dealing with the untrained woman *client*—not the trained woman *architect*. Her motto is, "Be the first by whom the new is tried and the first to lay the old aside." Not only do all standards of architecture succumb to her onslaught—but also the architect. He may have a delicacy of taste, he may have studied at home and abroad and practiced for years, and he may have many fine examples of his work standing here and there. So what! She has been to the latest World's Fair, devoured several current periodicals, received advice from her fifth cousin in Alaska, and descended upon the office ready to engage the services of a trained architect as the *personal draftsman* of her ideas.

She has even built up a vocabulary of her new profession. She speaks glibly of split systems of heating, understands the regulation of humidity to avoid condensation, knows the relative cost of practically all mate-

rials, and just the proper treatment and finish for the treatment. Awe-inspiring above all else is the facility with which scores of new ideas are generated in a night's sleep. This is matched only by her readiness to cast all of yesterday's suggestions aside, as quite obsolete.

So the house progresses, designed by the client and drafted by the architect as an interesting little monument to her notions. By the time she has moved in and printed "Fancy's Folly" on her station wagon, the architect, needless to add, is taking the cure.

PAUL PIPPIN
Columbia University

FOR INNER MAN

Everyone studying architecture is undoubtedly something of an artist. Therefore I do not have to prove to you that there is something in the make-up of every man which cannot be riveted down, which cannot be analysed by any formula: a craving . . . a desire to possess, to express, to love . . . that sort of feeling which incites adventure, beautiful expressions, sculpture, architecture.

AFTER FOUR YEARS

After four years in school, the student begins to formulate various ideas and ideals about architecture. Some never get beyond the thought that to make a comfortable living is sufficient. They feel that if the client is satisfied—satisfied enough to tell his friends about Architect Smith—he, as "Architect," has done enough. If he must bastardize his architecture; if he must submerge himself in the client, all well and good, provided he can make his \$5,000 a year. It is not for such as these that I write.

I write for those with *ideals*. For those who think architecture the most important thing in life; for those who think devotion to a cause more important than devotion to avarice. I write for those who believe the architect should give not mere superficial satisfaction, but rather a more fundamental satisfaction—both physical and psychological; both social and philosophical. I write for those who aim higher than self.

Ideals once achieved, must be kept. The three years which must be spent

The architect should be trained to provide for this craving of the inner man, through forms or spaces which make you feel, which help satisfy that thirst for beauty, for rest or for action. And it is our duty, the duty of the embryonic modern architects of today, to supply to the new architecture a fresh stream of life, of human feeling, of human passion . . . A space for living that satisfies the inner man can be called a home, while a space for living which is just an assembly of well-controlled, functional, economic, rational volumes, is only a house.

What good is the most economical, functional, rational, practical architecture if it is cold and lifeless as a bolt, or as a crude chip of stone? It might be a matter of taste, but if I thought that we shall never be able to give warmth to our new architecture, I'd say that the case of the *Bauhaus*, *Taliesin*, and our own ateliers is lost. For at present, I would much rather live in an old-fashioned home with a large shady patio and thick walls (and even mouldings) in which I know I have found atmosphere, love, and romance.

JORGE GONZALEZ-REYNA
University of Texas

in an office, if spent incorrectly, can be enough to completely revise one's ideals. It is the type of office into which he must go to keep these ideals that must be the serious consideration of the June graduate.

What kind of office and man? First of all, a congenial one. Only consider working for a man who does work you admire—designs you would like to study. Work only for a man from whom you can learn. Get a job in a small office—contact with the boss should be invaluable. In a large firm, you will be pigeonholed as a door or window detailer; you will become soft and contented (unlike cows, architects should never be content). Work for a man with whom you can become diversified: from specifications to plumbing; from details to designing.

Never be afraid to quit if the job is wasting your time. Better a temporarily unemployed architect, than a permanently unprincipled one.

JOHN RANDOLPH SUYDAM
Pennsylvania State College



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A



A. The dark background behind the house consists of broad, curved, short strokes in various directions, with a flat Venus 6B pencil point. Note the care taken to indicate proper contrast between light and dark values and sharpest contrast at point of interest (the house).

B



B. The water is indicated with strokes, as shown above, with Venus 2B. Beginning and ending of stroke are light and delicate, with increasing pressure at the middle.

HERE, THERE, THIS & THAT

POTOMAC PATTERN

If this "defense housing" weren't so serious, I would probably have the affrontery to crack that some of the doings pertaining thereto hand one a laugh. As a matter of fact, there is a laugh in it. The instance: after "Balcony Bill" Lescaze gave out on "architecture by architects" at the February meeting of A.I.A. local chapter, wherein he stressed the point of giving the work out to private architects and in the same breath suggested that regional offices under Government supervision be established, John J. Klaber proclaimed that under such conditions private architects so employed would become Government architects — to the satisfaction of everybody. Some of us may object, but I'll wager that 99% of the little fellows — the draftsmen — wouldn't mind. That good o'd bi-monthly pay check (even if not a heavyweight) means something.

There are those who would condemn the PBA work on "defense housing" as inefficient and wasteful because of inexperience. Yet when asked to name a list of architectural firms experienced in the kind of housing now needed, the answer becomes vague because too few large architectural firms (the only outfits able to handle major projects) have had any association with housing developments in the \$2500 class. However, they assume that some firms formerly connected with USHA and FHA projects do have the required experience. Are we now to have the same experience with private architects on defense housing that we had with them in the recent Post Office program? Yes, one is specialized and so is the other; particularly as part of the defense program calls for "demountable houses." We are gratified to note that this was one of the strong points made by the Washington Chapter Associates in their solution to the problem of Defense Housing (see February

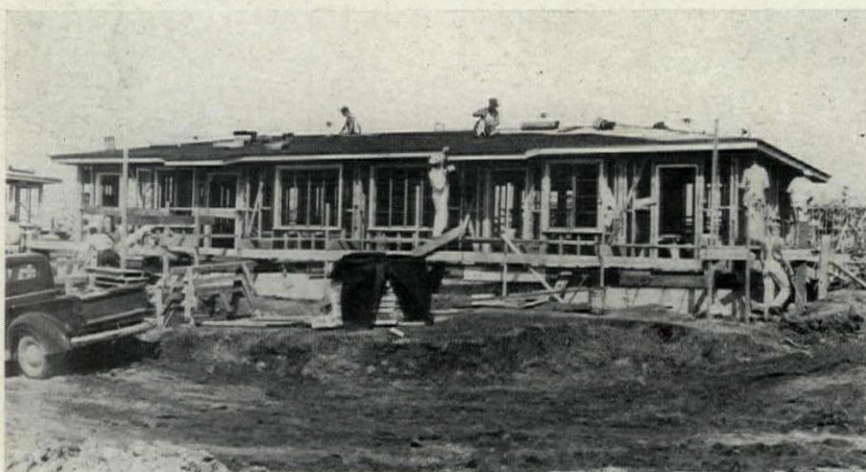
issue PENCIL POINTS). Yet these critics would have us believe that because demountable or high-salvage-value housing has not been done before, it is something to be played with but not taken seriously. No doubt, they would prefer to see this phase of

the work left with the Government lads. PBA recently awarded a contract for 200 of 650 prefabricated demountable dwelling units to be constructed at Indian Head, Maryland — at an average cost of \$2,761 each.

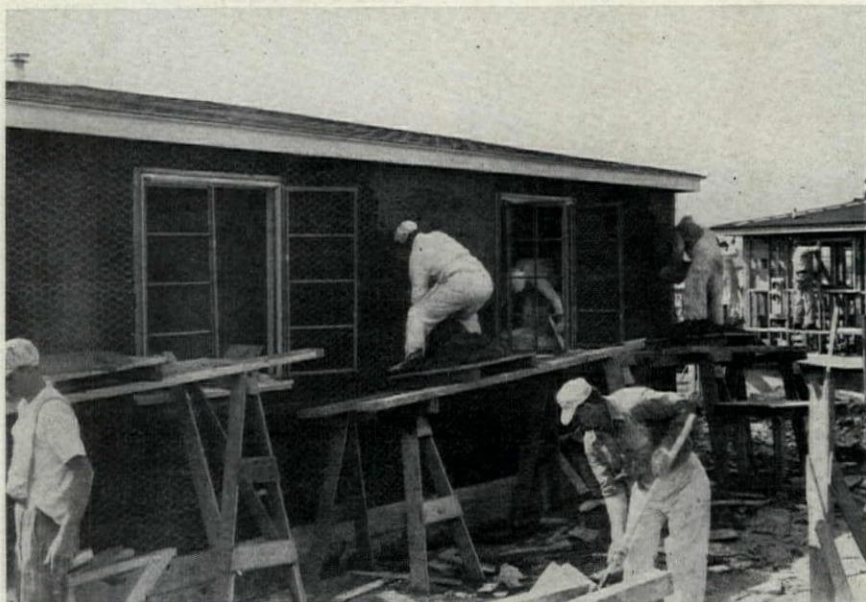
(Continued on page 20)



More than 12,000 persons will be housed in the PBA defense housing project which is under construction at San Diego, California, on an 800-acre site



Roofers are shown at work on one of the 1,704 buildings of the project, estimated to cost \$9,070,000. It includes 3,000 units of 1, 2, 4, and 6 rooms



The type of construction is shown in this picture of metal lath and plaster workers following close on the heels of the carpenter crews. Photos by PBA



● Panel Designed by
JOHN and DREW EBERSON
For Times Theater, Cincinnati

In hundreds of theatres designed by these well-known theatre architects, Formica has been used for entrance doors, ticket office paneling, lobby wall covering, decorative panels behind water fountains, and similar uses. Its colors lend themselves to either highly theatrical or restrained effects.

Formica in Colorful Inlays is Genuinely Decorative

COLOR in all degrees and combinations is available in Formica and many architects have found it a most flexible and striking decorative medium. The color is embedded in a hard, dense, durable plastic surface. It does not fade or change with time and it never requires refinishing.

Inlays of one color over another or of metal over color make an endless variety of simple designs possible so that individuality is easily attained.

The material is suggested especially for wall covering and doors in stores, public buildings,

theatres, ships and trains, and has been widely used for all of these purposes.

In addition to its decorative value it has practical qualities of great utility: it is not brittle and will not chip or crack; it is chemically inert and therefore cannot be stained by ordinary liquids; for horizontal surfaces it is available in a cigaretteproof grade.

The range of colors, pictures of typical uses, design suggestions and architects' details are available in literature that is yours for the asking. Send for it.

FORMICA

The Formica Insulation Company, 4620 Spring Grove Ave., Cincinnati, O.

FOR BUILDING PURPOSES

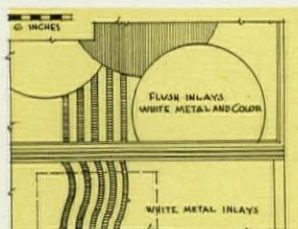


FORMICA DOORS The colorful doors were produced complete by Formica except for glazing and attaching the hardware. Cores are carefully built and reinforced with hardwood where hardware is attached.

Details of Formica Application

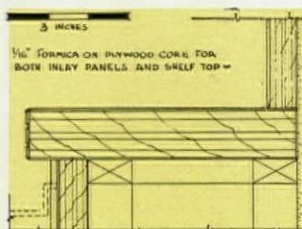
FORMICA is available in three fundamental forms. It may be had as 1/16 of an inch thick veneer, which is veneered to plywood to form doors, table tops, counter tops, counter paneling, or wall paneling. It may be had as wall board

5/32 or 5/16 of an inch thick, which may be applied to vertical surfaces with the use of moldings. It may come fully veneered from the Formica factory in the form of doors, counter tops, table tops ready to install.



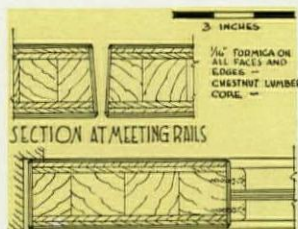
PART ELEVATION OF DRINKING FOUNTAIN

• The inlaid panel behind the water fountain is made with 1/16 inch inlaid Formica sheet veneered to plywood. The back of the panel is covered with a sealing ply of Formica to prevent warping. Screws at edges covered with molding.



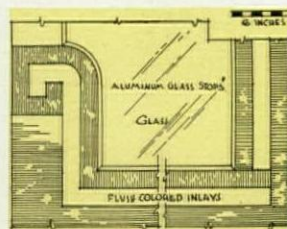
SECTION AT DRINKING FOUNTAIN

• Sketch shows the black Formica ledge over the drinking fountain. It is 1-1/4 inches thick made of black Formica veneered on plywood with metal covered Formica edges that have been routed out to show alternate lines of black and silver.



SECTION AT DOOR JAMB AND HEAD

• The doors are 1-3/4 inches thick. A solid door without cutouts weighs 4 pounds per square foot. Doors must be covered with Formica on both sides to balance the assembly. Door edges are beveled at the factory.



PART ELEVATION OF DOOR

• Cutouts in the doors are made at the factory and aluminum glazing strips as shown in the detail may be provided with the doors or purchased separately by the contractor. The hardware is usually attached on the job by carpenters.

FORMICA

The Formica Insulation Company, 4620 Spring Grove Ave., Cincinnati, O.

FOR BUILDING PURPOSES

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And So Safe!

The hand of the tiniest boy in school tells the story.

Yet, let us say once more that Von Duprin devices provide the safest, fastest, surest known means of exit.

Made of drop-forgings so tough and dense that they only laugh at hard work on busy doors, these devices serve with little or no attention through all the years the building endures.

To be sure, to be safe, write into your specifications . . .

Von Duprin

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Von Duprin Fire and Panic Exit Latches Are Listed as Standard by Underwriters Laboratories, Inc.

(Continued from page 16)

I have no particular desire to defend the PBA but I am interested in fair play and, judging from the greater number of advantages, I am inclined to believe that the work is being produced with better results—not alone to the Government but to those directly engaged in it. (I can not take this hair-pulling seriously. It started back in 1934 with the Green Bill and is still continuing.)

I can understand reservist *Henry S. See* resigning from PBA to help the Army with his particular talents

but what is *John H. Savolaine*, PBA, doing in the Brooklyn Navy Yard? Pray tell us, John. Of course, I do know of cases where land architects have successfully switched to designing public spaces on Maritime's deluxe passenger liners, viz., *F. Carl Weigelt* and *Paul Windom*—who by the way has just about licked a seven-week illness—but what kind of land architecture, if any, is applied to battle-wagons?

In this man-made chaotic world, Fate, if you will, steps in to bring a note of sanity. Just as nature thrives

on contrasts, so the Goddess Clotho spins her thread of life and in it are good and evil. On March 15th, our President in a momentous speech spoke of the evil and the need of its obliteration. On March 17th, he spoke of good and its retention, when he dedicated the National Gallery of Art. In addition to what you got over the ether, through movies and print, I wish to add this for the benefit of those disputatious individuals and one Catholic University student in particular who opine that the structure is "archaic."

Quoting *James Waldo Fawcett*—a feature writer for the *Washington Star*—who offers the following: "*Mr. Eggers and Mr. Higgins* in a joint statement concerning it have said: 'The architects have felt it proper to keep constantly in mind the belief of both Washington and Jefferson that the style of architecture for the Capital City should not depart, under any temporary pressure of vacillating ideas, from the original broad base of the classic. There undoubtedly will be voices raised in protest that the design is not in the spirit of a 1941 broadcasting station or the latest steel-frame office building—something specifically representative of our day. If contemporary thought alone were permitted to determine the architectural style, the building might have been Richardson Romanesque, French Renaissance, Art Nouveau, or Venetian Gothic, according to the year in which it was conceived. The National Gallery is built in the thought that it may serve its purpose for many centuries. America's finest architectural traditions—those of which the vast majority of Americans never tire—have seemed to the architects the one straight beam of light pointing the way through an epoch strongly marked by perplexity and irresolution. Time and the leisurely judgment of the American people eventually will decide whether that light has suddenly become a will o' the wisp.'"

Once each year the Washington Chapter A.I.A. has a Ladies' Party. This year's "drag" affair was of no mean success as is usual when things are run by the Associates. Under the chairmanship of *Norman E. Hansen*, the Committee cooked up a real old-fashioned get-together—no soup and fish but rather an informal conviviality. For excitement, a professional

(Continued on page 22)

Now! MR. ARCHITECT . . .

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THE TEST

**tells how paint
sticks to this
galvanized metal**

The SCRATCH TEST shows how ARMCO Galvanized PAINTGRIP Sheets hold paint. Half the sample was PAINTGRIP-treated. On the other half the galvanized coating was left untreated. Then the sample was painted and permitted to "age." Observe how the paint over the untreated galvanized section flaked under the knife. Then note how difficult it was to scrape the paint off the PAINTGRIP-treated section.

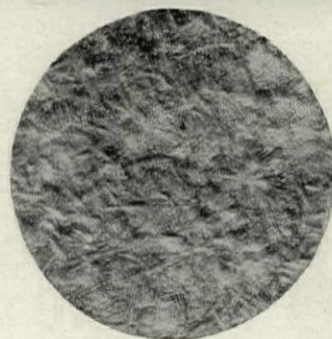


WHY is this test of interest to architects and other building men? You may be considering the roof-drainage system for a house — or air-conditioning ducts to be painted. Ordinary galvanized metal is usually acid-etched before painting and this sacrifices some of the galvanizing. The usual zinc coating also tends to dry out paint oils and cause early peeling.

But ARMCO Galvanized PAINTGRIP Sheets have a special *bonderized* film that insulates the paint from the galvanizing and preserves it. Exposure tests show that good paint lasts at least 150% longer on PAINTGRIP than on ordinary galvanized metal. And the work can be painted *immediately*.

Use ARMCO PAINTGRIP Sheets for metal roofs, roof-drainage, for exposed air-ducts, for furnace casings . . . wherever you want the accepted protection of galvanizing and the added protection and beauty of paint.

Write for a free SCRATCH TEST sample and a copy of our descriptive folder for building men. The American Rolling Mill Company, 970 Curtis Street, Middletown, Ohio.



• This photomicrograph, at 40 diameters, shows the mat-like surface of the mill-applied bonderized finish. It not only takes paint but preserves it!



**ARMCO
PAINTGRIP SHEETS**

(Continued from page 20)

escape artist was engaged but it seemed that your Uncle Sam had a priority claim on him and at the last moment called him into the Service. As *Julian Berla* pointed out, "That's one trick he couldn't beat." Add similes: *as easy as beating the draft*. For their fun, the 60 or so paying guests witnessed games of chance and skill. And of particular note is the fact that President *Leon Chatelain* won the thumbtack pulling contest — flat heads—long stems and in semi-hard wood. Leon hasn't pulled a tack since his last million (?) dollar job. RED

PENN STATE WILL STUDY MATERIALS

A recognition of the interest in the accumulation of research data which will lead to the improvement of standards of living in the three fields of food, clothing, and shelter has led the Trustees of The Pennsylvania State College to establish the Ellen H. Richards Institute as a consolidated working research unit covering some of the investigations formerly carried on in the Departments of Chemistry and of Home Economics and in the Agricultural Experiment Station.

Investigations of the suitability of many new materials for the construction of houses or parts of houses, and of the performance of various new types of household equipment have recently interested some of those working at The Pennsylvania State College, and a study of some of these physical aspects of housing is in immediate prospect in the newly created Institute.

The Ellen H. Richards Institute was named for the first woman to receive a degree in chemistry from one of the great institutions of learning and research in the country, the Massachusetts Institute of Technology, a woman who was the founder of household science in this country in its modern sense.

Dr. Pauline Beery Mack, who has been on the staff of the School of Chemistry and Physics at the Pennsylvania State College since 1919 and Director of Research in Home Economics at the College since 1935, will be the first director of the Institute.

BOSTON NOTES

About one hundred and fifty of us sat through a registration bill hearing on March 10th. Two of them in fact, for the engineers came first.

They presented their case clearly and had plenty of character witnesses, but the "aginers" howled, "discrimination — class legislation." Those were the boys who came up the hard way, sensed an *Ethiop* in the woodpile, and did not purpose to have a mess of callow silver-spooners lording it over them.

The architects' bill was quickly and neatly presented by Messrs. *Gulick*, *MacGonack*, and *Burr*. Opposition produced no "have-nots" because nobody has more nots than the architect, but there was one source of opposition. You've guessed it, the realtors, whose lawyer representative was instructed to oppose only those clauses that might hamstring his client.

The realtor (which I am given to believe is a picaresque word meaning "impounder of gravity") seems to be spiritually unimproved by the acquisition of his classy title. He is still a city-slicker to the architect's young ingenuousness, taking the latter for free sketches and service of all kinds on glittering schemes which seldom click loudly enough for the latter to hear. Then, when it comes to a *bona fide* job with a little loose change that

(Continued on page 24)



New
H.B. Smith MILLS
"20"
BOILER FOR MEDIUM SIZE HOMES!

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DESIGNED EXPRESSLY
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Architects with medium size homes now on their boards should make it a point to investigate the possibilities of this new unit.

Just send the coupon below for complete information.

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Please send me complete information on the New MILLS "20" for ☐ Oil Firing ☐ Stoker Firing

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A Store Expert



speaks of OIL BURNING SYSTEMS

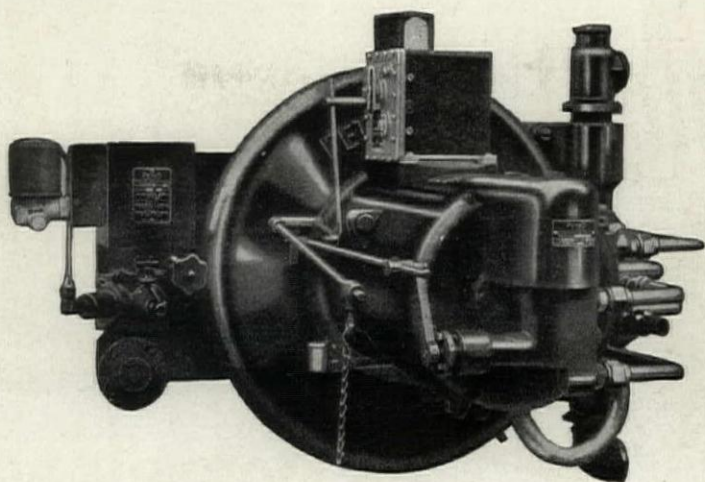
Morris Ketchum, Jr., New York Architect and designer of many new and outstanding Store Buildings, says this about oil burning systems:

"In my experience I have found the installation of oil burning systems to be highly economical and efficient for Store Buildings. The selling space in the basement of a Store is rendered free from noise and dust where oil systems are used, and overhead is cut down as a janitor's time is not necessary for checking on the oil burner. Oil systems are also the most efficient in combination with air conditioning. I am thoroughly satisfied, and my clients are too, with the accomplishments and service of the Petro Oil Burning System."

Store designing covers such a wide range—from small shops on one floor to block-square, multi-floored structures—that only one line of oil burning equipment matches this range.

Architects familiar with Petro know they can safely specify Petro for any load from a few hundred feet of steam with light fuel oil, on up to batteries of big boilers using Bunker "C" oils. They know, too, how effectively Petro's Engineering Division co-operates toward correct solution of unusual firing problems.

Month after month these pages have quoted outstanding Architects whose comments prove that the performance of Petro Systems have been as wholly satisfactory as Petro's range of application is wide.



CAPACITIES: to 145 gal. per hr.—487 boiler h.p.—68,000 sq. ft. steam E.D.R.



Petro Industrial Burners for Automatic operation with preheated No. 6 oil, or with No. 5 or lighter oils, are available in eight sizes, Models W-2½ to W-9 inclusive. Each burner is a self contained assembly of motor, fan, pump, rotary cup atomizer and interlocked air and oil adjustments, except W-9 which requires separate pump.

In the use of preheated No. 6 oil, the Petro Thermal Viscosity System is an integral part of a Petro installation,

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Semi Automatic and Manually controlled Model W Burners and "Mechanical" type units are also available to meet circumstances which do not require automatic operation.

To the Architect in domestic building, Petro offers a complete line of burners for use with existing heating plants and complete oil fired boilers and winter air conditioners.

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



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Cuts Steam Costs



PETROLEUM HEAT & POWER COMPANY

STAMFORD

—Makers of good Oil Burning Equipment since 1903—

CONNECTICUT

(Continued from page 22)
might help to atone for the buggy rides, does he give the sucker a break? Occasionally, but not in general, as long as he can hire youngsters who will sweat for an hebdomadal song (which sometimes holds the promise of an elusive bonus).

Therefore be it resolved that although a few of our harder-bitten brethren can pin the slicker down, or have something on him, the most of us are just plain putty; not even glazing compound.

Following the hearing there was a luncheon and meeting of the Massa-

chusetts State Association of Architects, at the Boston Architectural Club. Members from all parts of the Commonwealth had taken the time to come on and manifest their interest in the bill, and they showed every disposition to make a fight for it. Could this be Massachusetts?

The bill went into committee on March 10th, where it may repose for several weeks.

Fortunately for the cause of registration many newspapers have seen fit to give it space. In Boston we are indebted to the *Globe*, the *Post*, the *Herald*, and to the *Transcript*—even

editorially. Eight or nine out-of-town journals crashed through, and in particular the *Springfield Republican* did a very complete and intelligent job. Of our professional publications we have this admirable magazine to thank for valued registration data furnished on short notice.

Our ace publicity man is a volunteer from the field of architectural publications, *Arthur F. Ball* of the Publishers Clearing House, who personally sells more subscriptions for PENCIL POINTS than any other known man, woman or child. There must be a reflected implication of professional worthiness in Mr. Ball's ready and invaluable help at all hours of the day or night, because his attitude towards architects and registration has been developed from contacts with almost every practitioner and draftsman in New England, while on his regular duties. After such a dose of professionals as that, could it be considered at all strange if he sort of aped the native of a French perfumery district who set up his armchair by the *tas de fumier* behind the barn, where he could escape the unremitting stench of "Nuit d'Amour" that pervaded the countryside?

The Boston Society of Architects invited the new (fuzz is hardly worn off yet) State Association to its meeting on March 4th. Another guest, and one who was getting his first impression of architects in bulk, was *Willard F. deLue*, Night Managing Editor of the *Boston Globe*. To him it was entirely natural when a reporter and cameraman appeared to record proceedings, but the B.S.A. must have said, "Them Mmmmsaa's had a hand in this!" But we all parted friends and enjoyed the talk on private defense housing by *William H. Neaves*, President of the Federal Home Loan Bank of Boston.

Geographical location of Boston architects continues to shift uptown, the latest batch including *James H. MacNaughton* (to 234 Boylston St.), *Henry & Richmond* (to 551 Boylston St.), and *Clifford Allbright* (to 137 Newbury St.). Why anyone should choose the specious elegance of the sixty-dollar hat district in preference to the heart of the city has never been satisfactorily explained.

LEON KEACH

Edward P. Chrystie is showing "Comparative Historical Views of New York" at the Advertising Club, 25 Park Ave., N. Y., until April 12.

How to Modernize Bathrooms with WEISWAY CABINET SHOWERS

Not many years ago this was considered a luxurious bathroom. The swift advance of modern design, building practice and bath equipment, however, left it outmoded and obsolete!



BEFORE



AFTER

In the same space as before, the bathroom now includes a complete, leak-proof Weisway Cabinet Shower in harmony with the modern fixtures and affording far greater enjoyment of the shower way to bathe.

SPARKLING appearance, comfort, convenience and livability are provided by Weisway Cabinet Showers, the feature fixtures around which many striking bathrooms, both new and modernized, are now designed. Weisways are 4-way protected against rust, by bonderized galvanized metal under synthetic enamel, or by vitreous porcelain enamel finish. No-Slip floor of vitreous porcelain is safe, sanitary and sound-proofed.

There are Weisway models suitable for new and modernized homes of every size and cost.

MAIL COUPON NOW FOR DETAILS



HENRY WEIS MANUFACTURING CO., INC. (Est. 1876)
421 Oak Street, Elkhart, Indiana

Gentlemen: Please send details and specifications on the complete line of Weisway Cabinet Showers.

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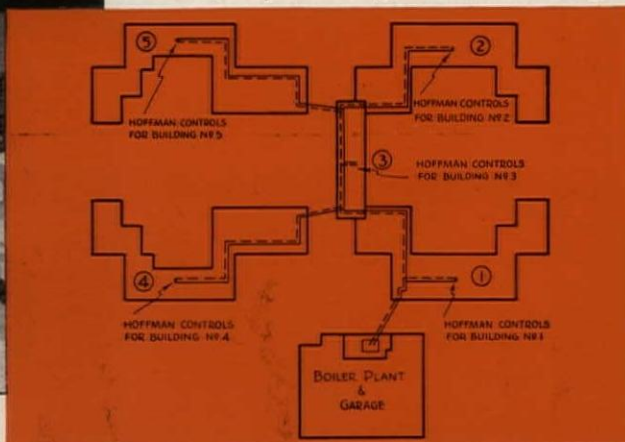
City _____

State _____

AN UTTERLY NEW STANDARD OF HEATING COMFORT



For every type of building



Hoffman Dual-Controlled Continuous Circulation regulates Radiator Temperatures to Exactly Offset Building Heat Loss

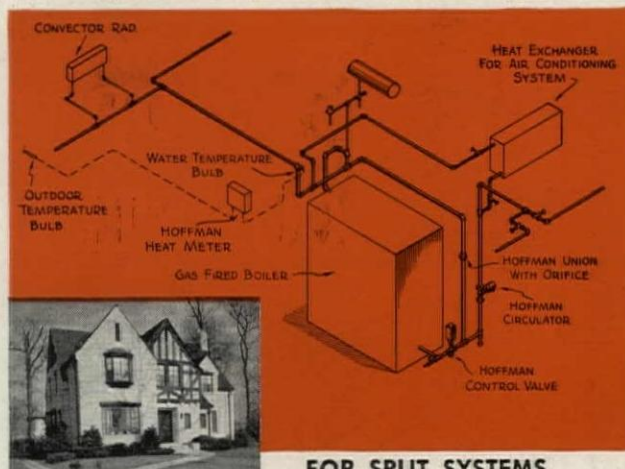
In buildings of every conceivable character, Hoffman Hot Water Controlled Heat is delivering comfort never before attainable. This system improves standard forced hot water heat in four ways:

1. It *continuously circulates* the water to avoid intermittent bursts of heat to the radiators and to permit gradual changes in the temperature of the circulating water.
2. It automatically maintains radiator temperatures at the degree which exactly offsets the building heat loss for any given outdoor temperature. Radiators always have enough heat to prevent air stratification and "Cold 70."
3. It conserves fuel by positively preventing overheating.
4. It employs smaller size, easily concealed radiators.

Only three units of equipment are required. A Hoffman Circulator to *continuously circulate* the water . . . a Hoffman Control Valve to admit hot water from the boiler to the circulating stream as often as required . . . and a Hoffman Temperature Controller (actuated by outdoor and circulating water temperatures) to open and close the Control Valve. These three units are adaptable to any type of automatically-fired hot water boiler. For fully illustrated literature write to the Hoffman Specialty Co., Inc., Dept. PP-4, Waterbury, Conn.

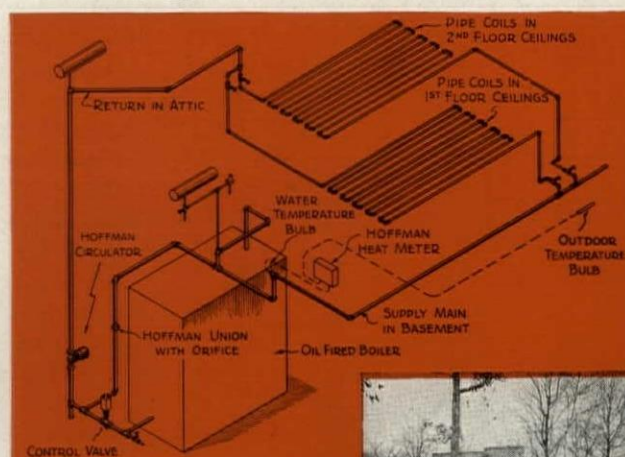
FOR APARTMENT BUILDINGS

Completely Automatic Zone Temperature Control for each building without need for thermostats.



FOR SPLIT SYSTEMS

An accurate balance of heat between the radiation and the air conditioning units. Automatic and trouble-free.

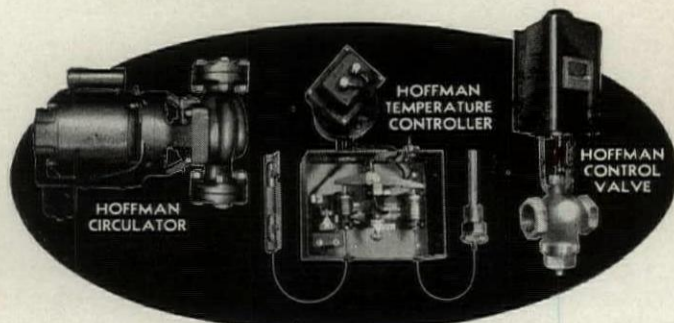


FOR PANEL HEATING

All control of temperature is at the boiler, eliminating any need for getting at the pipe coils.



HOFFMAN
Hot Water
CONTROLLED HEAT



SAN FRANCISCO CLUB IS ACTIVE

Guest speaker at the regular business meeting of the San Francisco Architectural Club which was held on Wednesday, March 5th, was *James Toler*, coordinator for the construction activities of the Bethlehem Steel Company, Shipbuilding Division. Mr. Toler addressed the membership on the need for trained workers in the immense shipbuilding program now underway. He stressed the importance and absolute necessity of time's being

the most vital factor in developing qualified technicians in the shipbuilding industry. Of particular interest to the Club, in view of its contemplated ship drafting classes, was Mr. Toler's contention that it is impossible to convert any Architect or structural engineer into a valuable ship draftsman in the short three- to six-month training classes usually proposed in the Vocational Training for Defense Program. A long range program of instruction was suggested by Mr. Toler for those architectural men in-

terested in qualifying for ship work. President Clyde F. Trudell wielded the gavel at the meeting.

The annual S.F.A.C. Dinner Dance was held at John's Rendezvous on Friday evening, February 21. Nearly one hundred Club members and their ladies partook of the famous Rendezvous dinner and hugely enjoyed the entertainment and dancing that followed. *Ira Springer*, Chairman of the evening, reported that the affair had resulted in a handsome profit for the Club coffers.

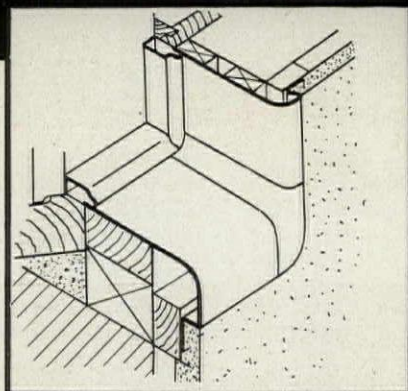
Through the co-operation and courtesy of *Paul Verdier* and *Charles Gassion* of the City of Paris, San Francisco's finest department store, gallery space has been provided the Club for a display of the 1940 Paris Prize Travelling Exhibit of sixty-five drawings, including both preliminary and final projects. Because of the international strife, the annual award of Scholarships to the *Ecole des Beaux Arts* in Paris has been discontinued and the current showing of Paris Prize drawings may be the last to be seen in this country for some years to come. The display, sponsored by the S.F.A.C., will be held in the City of Paris Art Gallery from March 17 to 25 and the public has been invited to view the exhibit.

Chairman *Fred Barss* of the Class Committee announces that there is being currently displayed in the Club Quarters an exhibit of thirty of the outstanding Beaux Arts problems of 1940, representing the work of the leading American Architectural Schools and including the winning designs of the 1940 Emerson Prize.

Plans are being made for the regular tri-annual Club Initiation to take place at the April business meeting and small talk is already being bruited about anent the mammoth super-colossal Club Jinx planned to celebrate the Club's Fortieth anniversary come September 27th.

For the first time in many years there appears to be *no unemployment* among the Club membership! Several offers of drafting jobs have been posted on the Club Bulletin Board during the last month with no takers. Requests made of the Club to provide draftsmen have had to be filled from non-members who have applied to the Club for employment. Treasurer *John Arndt* even reports that the Club finances are comfortably in the black and payment of dues is coming in most satisfactorily. GERRY HOLT

Modern Metal Trim for SAFE, SIMPLE, PRACTICAL CONSTRUCTION



The above detail shows stool No. 302
with trim No. 302 used as a jamb

WHEN you choose Knapp Products for interior trim, you are combining these essentials of modern construction: Beauty . . . Utility . . . and Economy.

The graceful contours of Knapp window trim and stools — the simplicity and durability of Knapp base — the practical and decorative value of Knapp chair rails — give an interior the attractiveness and permanence you seek in your design.

Knapp Metal Trim is fireproof, vermin-proof, and is not subject to warping or decay. It is truly the modern trim for today's modern construction. We would like to send you a complete set of full sized details of all Knapp trim for your files. Write for them today.

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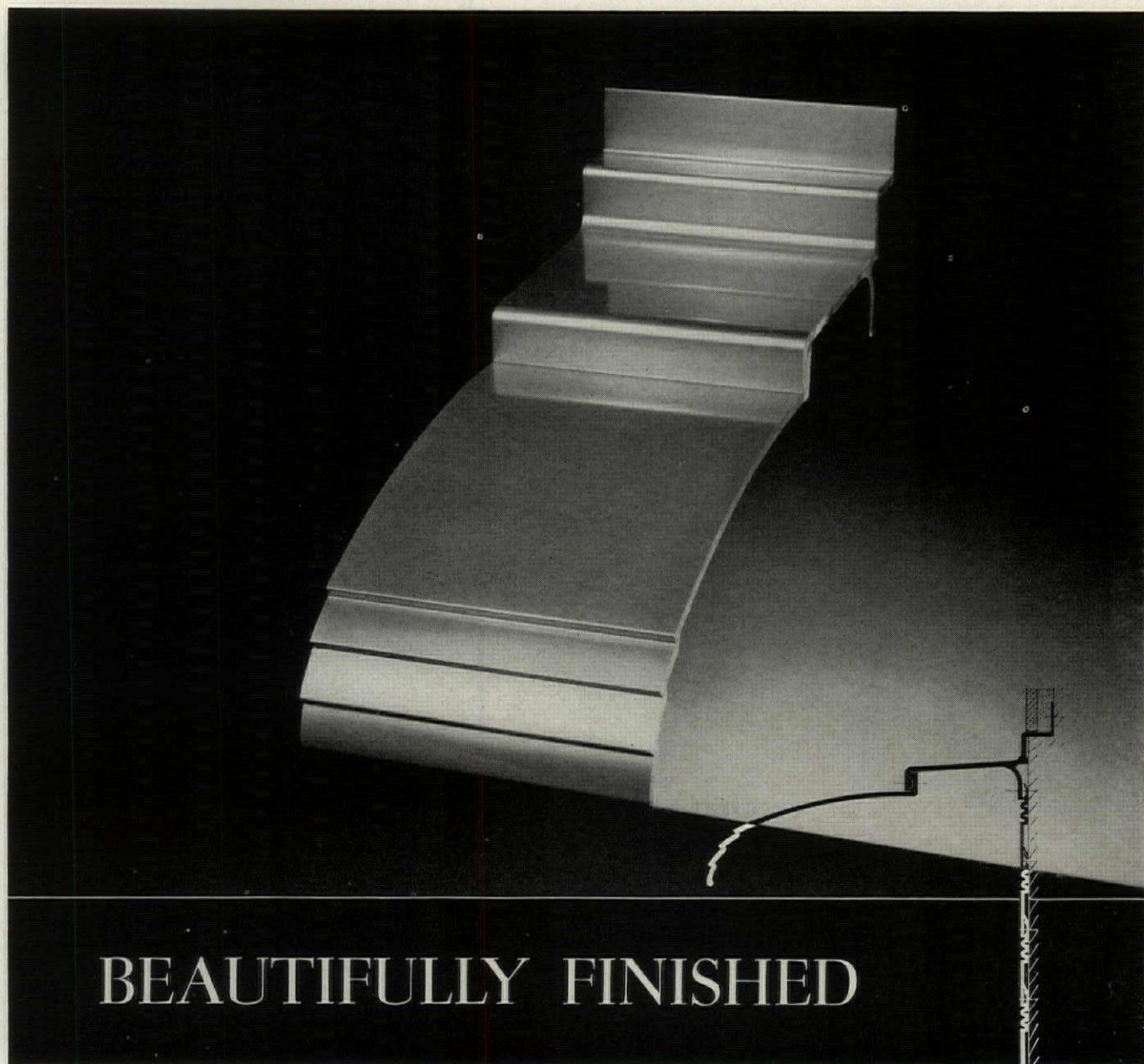


The leadership of Knapp metal trim was attained through 30 years of manufacturing and supplying this complete line:

Window and door trim • window stools • baseboards • chair rails • blackboard trim and chalk trough • picture moulds • corner bead • grounds • screeds • and many other kindred products.

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BEAUTIFULLY FINISHED

IN the finishing of Pittco Store Front Metal, quality is the primary consideration, regardless of production cost. The unusual care and skill in finishing technique applied to every piece of Pittco Metal, result in a finish reminiscent of that characterizing the finest types of metal craftsmanship. Pittco finishing equipment is modern and complete in every detail. And whether the Pittco finish is Alumilite on aluminum, or polished, satin or statuary on bronze, it is marked by the same high degree of uniform excellence. An examination of any Pittco Metal installation will confirm these statements. Pittsburgh Plate Glass Company, Grant Building, Pittsburgh, Pa.

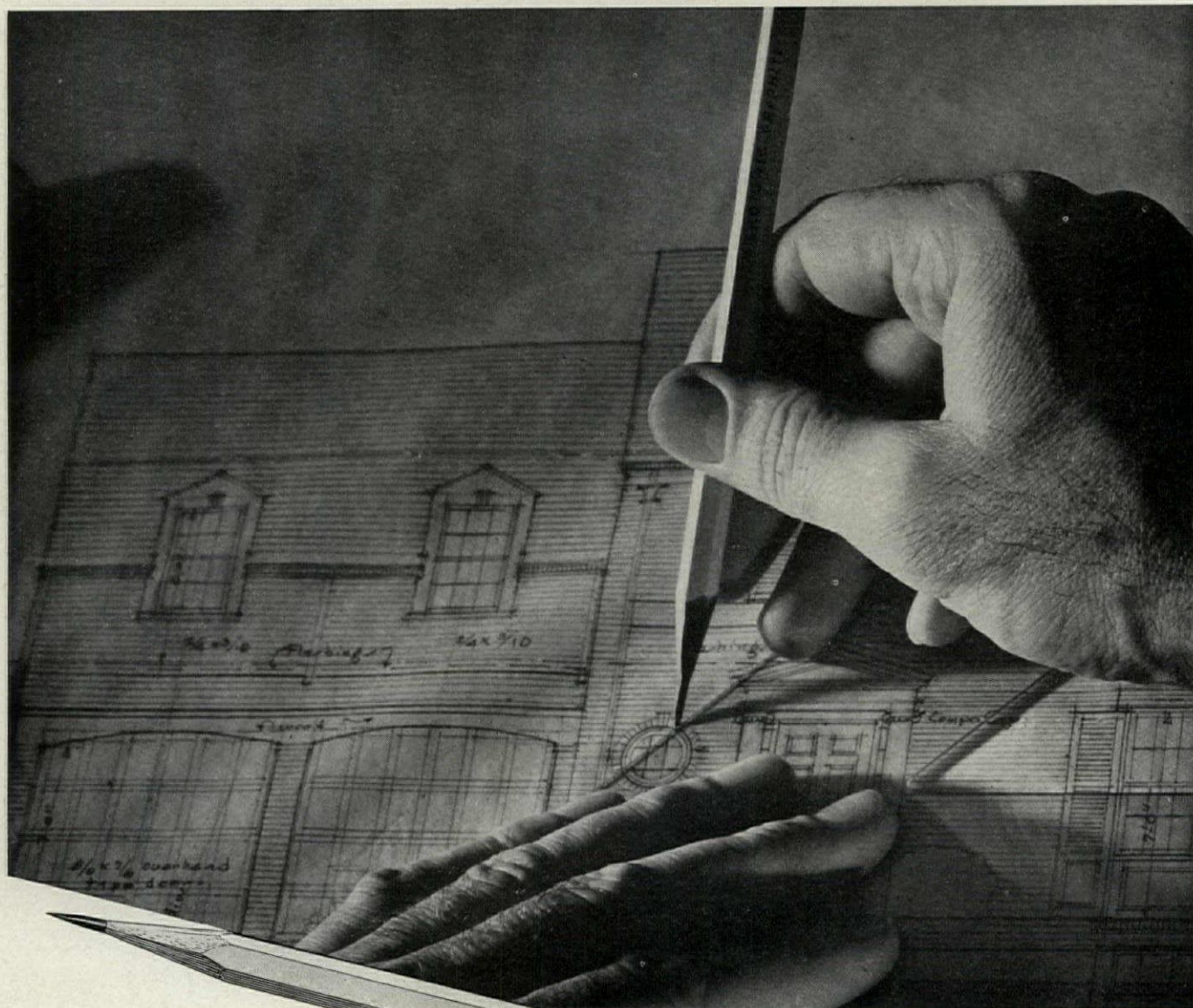
DETAIL

Unretouched photograph of the hood member of a Pittco awning bar, showing typical quality finish. Like all Pittco mouldings, it is solid and strong, yet designed for pleasing balance of line and plane. Awning bar: 60. Hood members: PX 119 and PX 120.

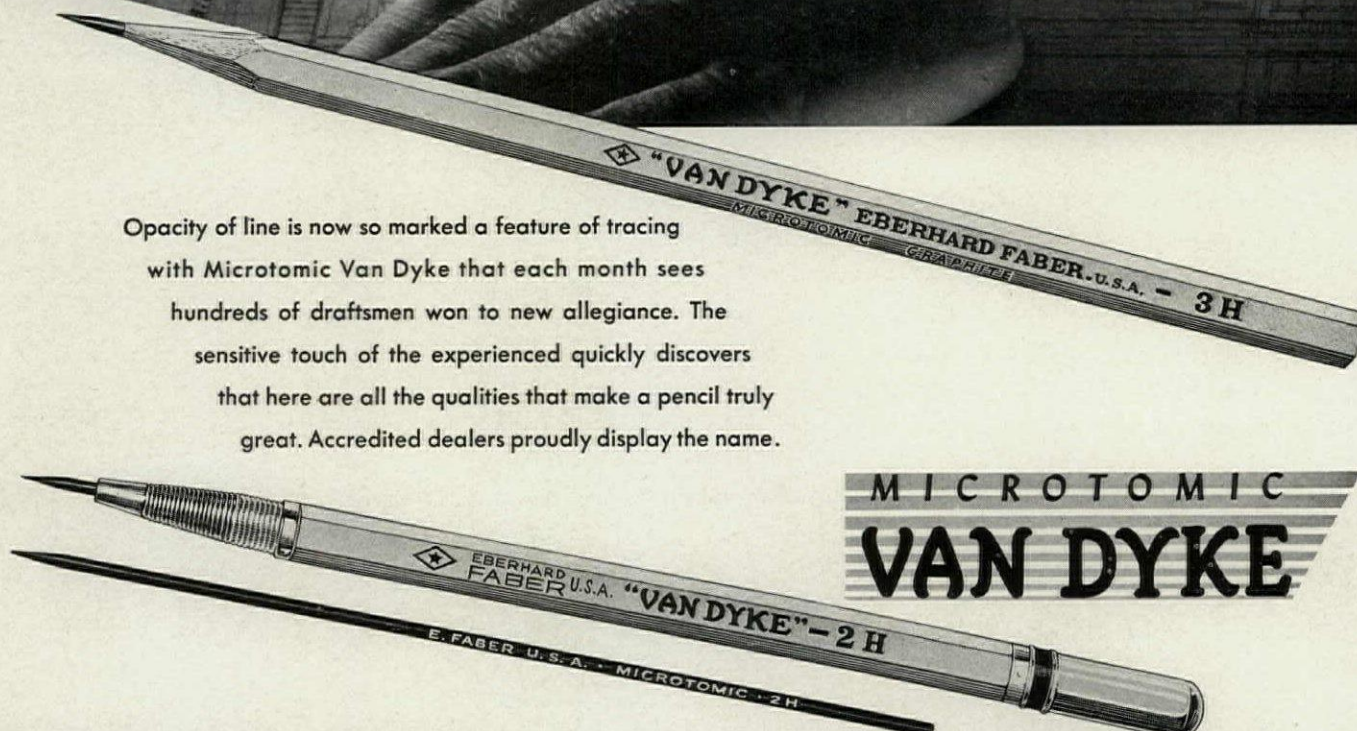
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PITTSBURGH PLATE GLASS COMPANY

"PITTSBURGH" stands for Quality Glass and Paint

Blue Prints take on EXTRA CLARITY



Opacity of line is now so marked a feature of tracing with Microtomic Van Dyke that each month sees hundreds of draftsmen won to new allegiance. The sensitive touch of the experienced quickly discovers that here are all the qualities that make a pencil truly great. Accredited dealers proudly display the name.



MICROTOMIC
VAN DYKE

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

MAKE THIS TEST -
Prove **BRIXMENT is BEST!**



1

Take some Brixment mortar and some 50-50 lime and cement mortar. Try shoving a full head-joint with each mortar. You'll find that with the Brixment mortar



2

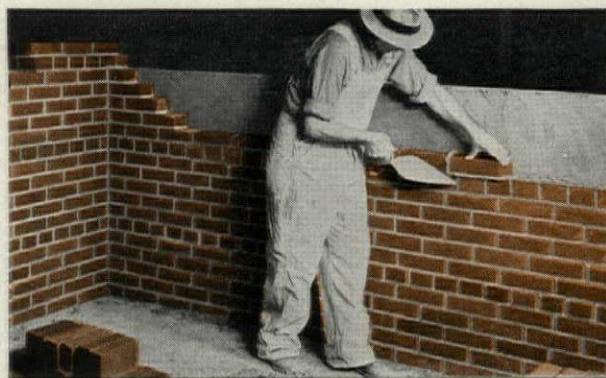
(1), it is much easier to shove the brick accurately into place, with a full head-joint, than it is to do the same thing with the other mortar (2).

BRIXMENT *Makes a More* **PLASTIC Mortar!**

One of the most important characteristics any mortar can possess is *plasticity*. Within certain limits, plasticity is the greatest single factor not only in the *economy* of the brickwork, but also in its strength, its neatness and its resistance to the passage of water.

One of the most outstanding characteristics of Brixment mortar is its unusual plasticity. For nearly twenty-five years, bricklayers all over the United States have agreed that the working qualities of Brixment are comparable to those of straight lime putty. This exceptional plasticity makes it easy for the bricklayer to secure neat, economical brickwork, with the brick properly bedded, and

the joints well filled. And because of this unusual plasticity, a bag of Brixment will carry three full cubic feet of sand and still make an ideally workable mortar.



BRIXMENT

For Mortar and Stucco

Louisville Cement Company, Incorporated, Louisville, Kentucky. Cement Manufacturers for Over a Century.



Stuck on a ceiling job?



Try Temlok De Luxe!

EFFECTIVE INSULATION provided by the attractive cream Temlok De Luxe ceiling helps keep customers comfortable in the Pasadena Cafeteria, Pasadena, Calif. Unwanted noise is reduced, too, thanks to Temlok's sound-absorbing quality.

WHEN you're at a loss for just the *right* ceiling material—one that will offer clients something new and different—yet, at the same time, something practical and economical . . . try Temlok De Luxe! Clients will quickly approve your choice because this factory-colored interior finish does *several* important jobs at *one* reasonable cost!

Armstrong's Temlok De Luxe insulates effectively—saves fuel and increases comfort. It is *highly decorative*, too . . . comes in attractive, fast colors, and in panels, planks, and boards. In addition, Temlok has *high light-reflection* value and desirable *noise-quieting* qualities.

Furthermore, you save time and

money on the job by installing Temlok De Luxe. In new construction, it replaces plaster and paint, and is quickly erected with either adhesives or the new Tem-Clips. There's no waiting for plaster to dry. In remodeling, Temlok can be installed over old plaster walls and ceilings with a minimum of delay.

Why not plan now to put all these client-pleasing, time-saving features in your next interior? See "Sweet's" for full facts, or write now for a sample and complete information to Armstrong Cork Company, Building Materials Division, 911 Concord St., Lancaster, Pennsylvania.



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PUBLIC RELATIONS

A SECTION EDITED BY D. KNICKERBACKER BOYD

On what may seem to us to be appropriate occasions, this Section will place emphasis on matters of seasonal appeal. We here remind Architects that Memorial Day, next month, though originally dedicated to ceremonies connected with the decorating of graves of soldiers, has now taken on a wider significance.

Observed on different dates in May in the North and in some places in the South, it is now the occasion of honoring not only those who have died in military service but also those who have died distinguished in civil affairs.

Why should not the profession of Architecture memorialize, on such a day, those of its members who during their lives have dignified that profes-

sion by adding architectural beauty to their communities or have served the public welfare?

Some may not regard this as a matter of Public Relations. But why not? Accord among ourselves, as evidenced by selecting those to be honored by us and extolling their accomplishments before the public, so that all who read may know of what architects have done and can do, might surely be improving our relations with that public.

Elsewhere in this section will be found an "Open Letter" to all officials in our professional organizations, offering what it is hoped will be found to be timely suggestions by:

D. KNICKERBACKER BOYD

4 South 15th Street, Philadelphia, Pa.

LAY MAGAZINES

This illustration indicates the appreciative attitude toward the services of the architect expressed many years ago in the Advertising of the Company which is now part of *American Radiator and Standard Sanitary Corporation*. Later a similar attitude was evidenced through the medium of the RADIO, when on February 3, 1935, in connection with a "Fireside Recital" Broadcast, over Station WEAf and the Red Network of NBC, Graham McNamee said, in an "ANNOUNCEMENT TO HOME OWNERS" "The Budget Book of the *American Radiator Company* cannot take the place of the valuable services of an architect. This book will help you formulate your ideas—show you the things the modern home should have.

"But if your plans call for any major alterations at all—be sure to consult an architect.

"The Architect's fee may be included in the modernization loan. In the long run, his services will cost you nothing, because often he can save you more than his modest fee in lower costs, assurance of quality and service, satisfaction and peace of mind in a job well done."

The Company courteously notified all prospective architect listeners of the time of the Broadcast, in advance, in a pamphlet which also stated:

"This message to home owners who contemplate Home Modernization is of decided interest to all architects. It also offers the Modernization Budget Book, a publication which might be useful to you in your dealings with owners who are unfamiliar with construction and owners who wish to go through their homes from basement to attic to check the state of repair and modernization needs."



Trust your Architect

A GREAT host of homes will be erected this year.

May we make a suggestion to the men and women who will live in these homes?

It is this: *Trust your architect.*

Many a home owner has paid, in life-long regret, for the trifling fee that he saved by trying to do without an architect. Many a costly error has been built into a home because the owner insisted where the architect demurred.

Your architect has planned hundreds

of homes. Profit by his long experience. Trust him in the important matter of warmth.

Ask him about the IDEAL TYPE A HEAT MACHINE, if your home is fairly large, or about ARCOLA if your home is small.

For your home is a long time investment; you want your heating equipment to pay for itself in the fuel it saves, and so prove an investment too.

Nothing will mean more in your comfort than this. *Trust your architect.*

AMERICAN RADIATOR COMPANY

IDEAL Boilers and AMERICAN Radiators for every heating need

104 West 42nd Street, New York

Dept. —

816 So. Michigan Ave., Chicago

PUBLIC OFFICIALDOM

(1) When a great Mayor of a great "Town," as Fiorello H. LaGuardia affectionately called New York City, is elected to and accepts in person membership in a Chapter of the A.I.A., it not only makes news but reaches a top height in advancing the cause of better Public Relations.

The occasion was the largely attended 84th Annual Meeting and Dinner of the New York Chapter on Feb. 25th in the Exhibition Gallery of the Architectural League.

His Honor accepted membership as a personal, rather than as an official tribute. In a delightfully informal but sincere manner he classed himself with those present and other technically trained persons as working together for the advancement—physically, socially, and otherwise — of America's greatest metropolis. He credited the architects with fine assistance and assured them of his desire to continue and expand this relationship and he offered his fullest cooperation at all times.

Appreciation Expressed by a Public Official

(2) At the Rochester Convention of the New York State Association of Architects last September, throughout the several important sessions there was this constant refrain: That architects themselves must earn recognition and deserve greater appreciation by means of adequate and ever-expanding services in community affairs, as well as by informing the public as to the functions of the competent architect.

Better expression of this need, coupled with appreciation, could not be given than by quoting from the enlightening address of The Honorable Edward Weinfeld, State Commissioner of Housing, when he said:

"During little more than a year, since I became head of the Division of Housing, I have learned a great deal about Architects. On the basis of my only occasional contact with members of your profession before that time, I am frank to confess I thought of Architects, as I believe most laymen think of them, as people who draw plans for buildings, who exercise some sort of supervision over construction and who wrangle with contractors and owners.

"To the public mind, Architects as a group lean to the artistic side, and therefore cannot be expected to be hardheaded and practical. This picture leaves no room for the concept which I have come to believe is much closer

to the truth: the concept that the Architect is truly the designer of the structure in which our urban civilization functions; that the physical setting which he creates for our communities must determine to a large extent the degree of efficiency, attractiveness, economic soundness, and personal satisfaction for each individual which our towns and cities achieve.

"I have come to know in this last year that this is the Architect's rôle and I think that it is a matter of keen regret not only for Architects themselves but for the community as a whole that this concept is not more generally recognized and accepted. In not presenting this side of architecture more clearly to the community, I think Architects have sold themselves short, have done less than an adequate public relations job. I would recommend, that if the opportunity offers, your conference give some thought to this task.

"Particularly at this time it would be helpful if the people of our towns and cities, and all Architects as well, accepted such a concept."

NEWSPAPERS

(2) *Cooperation offered by Newspapers.* The following exchange of correspondence is self-explanatory.

January 3, 1940

"Mr. J. David Stern, Publisher,
The Philadelphia Record.

My dear Mr. Stern:

"In this community among all your readers there are many thousands including architects, contractors, material producers and building trades workers who are interested in pictures and descriptions of buildings which appear in your paper.

"When these do not include any mention of the architect's name, especially when the reproduction is from 'the architect's drawing' as in the notice which appeared in the Philadelphia Record, Sunday, December 24, a photostatic copy of which is enclosed, I am confident that a vast majority of these readers have cause to feel disappointed in that the news in which they are interested is not complete. May I suggest that in the future such omission be corrected by a standing order to that effect?

"This will not only oblige me as an architect and a constant reader of the Record but will, I am sure, be appreciated by all the architects and others referred to, in this city and surroundings.

"With best 1940 wishes for your own good health, happiness and prosperity in which I know the Record will share, believe me,

Very cordially yours,

(Signed) D. Knickerbacker Boyd"

The prompt answer:

January 4, 1940

"Dear Mr. Boyd:

"Thank you very much for the constructive criticism contained in your letter of January 3rd. I am asking our News Department to make it a rule to give credit to the architect wherever we run a picture or description of a new building.

"With best wishes for the New Year,

Yours sincerely,

(Signed) J. David Stern"

When these letters appeared in *The Octagon* for March, 1940,

that issue was sent to Mr. Stern and elicited the following reply:

March 12, 1940

"Dear Mr. Boyd:

"Thank you for sending me copy of *The Octagon* containing your letter and mine. I take it for granted that you or someone in your organization will keep a watch on us to see that we carry out our commitment, and will let us know if we ever fail to do so.

(Signed) J. David Stern"

(3) *Naming the Architect in Newspapers.* Is not the heading itself given to an architect's letter, making a request for recognition of architects, in the Philadelphia Inquirer, perhaps one of the answers? This is the way it appeared on the Editorial Page of Dec. 15, 1939, issue:

"MAYBE THEY'RE TOO MODEST"

To the Editor of the Inquirer:

I recently read in the Philadelphia papers a description which was accompanied by a reproduction of a sketch, describing a large addition to the group of buildings comprising the University of Pennsylvania Hospital.

In searching for the name of the architect who had designed the building, I did not find it and was reminded of an episode which I hope will amuse you as much as it did me.

Almost two years ago, early one morning, I was awakened by a telephone (this was not amusing to me) to be asked by a reporter for a list of the more important buildings designed by a well-known architect who had died the previous evening. As soon as I was completely awake I gave him a list so impressive that he said, "You fellows don't advertise yourselves very well, do you?"

It amused me to think that if, upon the death of an architect, a list of his former works becomes news, how much simpler it would be for the papers and his surviving fellow architects to publish the designer's name with the announcement of each new project, in which case they would have the records available to list at the time of his death.

It has often puzzled me why the public was more interested in the name of the lawyer defending a petty criminal or that of the doctor who treated an accident case than in the name of an architect who had designed an important building.

G. W. PEPPER, JR.

MISCELLANEOUS

Clair W. Ditchy, Great Lakes Regional Director, A.I.A., was the speaker on the evening of January 14, 1941, in the auditorium of Northwestern High School, Detroit, before a group of adult laymen.

In his talk, one of a series planned for this season on "Your Home in the Winter," Mr. Ditchy discussed storm windows, weatherstripping, caulking, insulation, and other factors.

EXHIBITS & EXHIBITIONS

(3) Exhibitions in Department Stores

(a) ALTOONA. This will be described in a later issue under "Traveling and Circulating Exhibits."

(b) BOSTON. This letter to William Orr Ludlow, then Chairman of Public Information Committee, A.I.A., as published in *The Octagon*, July 1938, is here printed to further offer suggestions which others might well follow.

"This year the Boston Society of Architects' committee decided to concentrate its efforts on a few things rather than make scattered efforts throughout the year.

"We recently conducted an exhibition in conjunction with the Boston Society of Landscape Architects. In order to attract wide public attention it was decided to request the cooperation of the Jordan-Marsh Company, one of Boston's leading department stores. They came through in magnificent style, not only by making their excellent gallery available to us, but they also did the following things:

"They took care of the expense of all necessary printing and mailing of catalogs and invitations. They especially opened this department of their store on a Sunday afternoon for a private view. Tea was served during the afternoon. Pourers were Boston society women, and the Jordan-Marsh Company even saw to such thoughtful details as providing corsages for each of the pourers. Society and art editors of the newspapers were invited. During the course of the exhibition the Jordan-Marsh Company paid for an advertisement which appeared in at least one of the Boston papers each day.

"Many thousands of people attended the exhibition, and the various newspapers gave much space to the event in their columns.

"I was interested to ask Mr. John R. Sloane, who handled the exhibition for the Jordan-Marsh Company, what they got out of it. His remarks were as follows: 'It's hard to place your finger on every good result. There is the same kind of intangible good in this kind of exhibition as there is in our fashion shows. It shows that the store is progressive. It provides a good kind of publicity and establishes much good will. It brings people to the store, and on their way to the gallery they must go through the store. To sum up, we consider it just good business.'"

ISIDOR RICHMOND, *Chairman,*
Committee on Publications
and Information,
Boston Chapter, A.I.A.

BOOKS & PAMPHLETS

(3) Documents prepared by the American Institute of Architects. (Continued from March issue)

d. The Committee on Public Information, A.I.A., in 1938 prepared, and the Institute issued, a pamphlet, titled "The Value of the Architect." This contains eight concise paragraphs under



YOU NEED AN ARCHITECT

PEOPLE TOO FREQUENTLY fail to appreciate the value of an architect; they too often feel that by getting along without one they "save" the amount of his fee.

This is a serious error, for in most cases an architect's fee, rather than being an extra cost, is paid out of the money he saves you.

In the first place, experience shows that architect planned and supervised houses are more saleable, and bring a better price. They definitely have greater value.

This is true because your architect is much more than an artist who draws plans and pretty pictures. He is an expert on construction, on materials and their erection as well as on planning and design.

Under his direction you will get the floor plans and room arrangements which fit your family's way of living. You will get exterior appearance that is architecturally right and pleasing to the eye.

Your architect will give you sound advice on materials, impartially steering you away from both the extravagant and shoddy. As homes have the habit of outgrowing their budgets, he will guide your pruning operations

so that you will not sacrifice any of the really essential elements of sound construction.

We suggest that the agreement with the architect include his supervision of construction. Thus you will be sure that his specifications are carefully followed.

In many communities, architects are grouping together to provide plan and supervisory service, for small homes, at reduced costs. It will pay you to find out whether such a plan is effective in your community.

We suggest that when you and your architect decide on materials, you definitely request them by brand name and type, establishing them as the standard against which any other make of product must be measured. In this way you will be sure of getting the products you want to use.

Finally, remember that you can rely on your architect's skill and experience to lead you around many pitfalls and obstacles, for he has done many times that which you may be undertaking for the first time. Considering the mistakes you may make without him, your architect may save you, in actual cash, considerably more than his fee, and your finished home will be a better investment because of his supervision.

The United States Gypsum Company has produced a handsome 116-page booklet, "How to Have the Home You Want," and has distributed it to thousands of laymen. At the very beginning occurs the page reproduced above. This emphasis on the importance of the architect cannot fail to direct many potential clients to your doors

the sub-heading "Eight Reasons Why You Should Employ an Architect." It has been distributed to the extent of many thousands and may be secured from Institute Headquarters, 1743 New York Avenue, Washington, D. C., singly or in lots, for a nominal sum.

(4) The Crane Co. has had the "Value of the Architect" printed in the form of an attractive folder which it has generously given a wide distribution. Modestly enough, the Company has attached only its name without any reference to its business of plumbing and heating products. This Company has also had the original Document framed and hung conspicuously in all of its Display Rooms, throughout the country.

(5) Another interesting example

of cooperation by a manufacturer is shown by this letter received under date of May 15, 1940:

"The pamphlet issued by The American Institute of Architects entitled, '8 REASONS WHY YOU SHOULD EMPLOY AN ARCHITECT,' has just come to our attention.

"You will be interested to know that we are enclosing a reproduction of this pamphlet in the new booklet, 'RUSSWIN Residential Hardware of Distinction,' which we have just issued for direct mailing to over 100,000 prospective home builders throughout the country . . .

"We are of the belief that these '8 REASONS' should be brought to the attention of the prospective home builder by all those interested in the building industry, because the owner certainly benefits and the material and supply men have an opportunity of doing a better job."

Yours very truly,
RUSSELL & ERWIN DIVISION
by W. J. Ziegenheim

MEMORIALIZING ARCHITECTS

*An "Open Letter" to the Officers of
each Chapter, A.I.A., any Local
Society and all State Associations*

April 15, 1941

My dear Sirs:

May I respectfully bring to your notice the possibility of observance by architects of Memorial Day, which is yet far enough away to allow time for making the few preparations necessary.

If your Chapter, or any committee or group of individual architects, locally or in the State, has not already arranged to observe the practice of placing a token of respectful remembrance on the graves of some distinguished departed architects in your locality, why not consider putting this or some other form of ceremony into effect for next Memorial Day?

The thought, so far as I know, originated with the Washington Chapter where the members, according to Horace Peaslee,

"turn out generally in good numbers and stand by the grave while some one of us voices a brief eulogy of the departed. We generally notify relatives (or descendants) who are often present to take part in the service. Sometimes we get a speaker who may be interested, and have had several eloquent addresses by congressmen, lawyers, etc., who can talk."

In Philadelphia, we have had a very simple but effective observance. A little Special Committee of the Chapter, consisting of four veteran members, have selected the names of a few outstanding deceased architects and submitted them to the Executive Committee. Upon the graves of the few selected in any year we have placed with respect, but without any special ceremony, a simple floral spray with a ribbon, and a card with the name of the architect, seal of the Chapter and the inscription "In Memoriam, Philadelphia Chapter, A.I.A." This our Committee has done in person.

Whenever possible we have arranged to notify relatives, in writing and in advance, of our intention, without naming the hour. We have also sent to our local newspapers and other publications a brief account of the occasion with the names of those remembered and a succinct citation of their qualifications for this special tribute.

I have had prepared five sheets containing letters from other Chapters, notices, clippings, sample citations and photographs, showing the

palm-sheaf, ribbon, and mounted card and the seal of the Chapter as used in Philadelphia. These pages also reproduce some of the notices which have appeared in newspapers and publications. The page referring to the 1939 observance by the Central Pennsylvania Chapter shows that prepared citations may be issued as statements, without holding ceremonies. These have been photostated and a set will be sent gladly to any official making the request to me.

May I express the hope that some of you will like to consider this idea? In closing, it gives me pleasure to quote Delos Smith:

"The Memorial Day services have been held by the Washington Chapter for some years past with a view to their reactions—not only upon the public—but upon our own morale. Call it an attempt to recapture the spirit in which the medieval guild entered in a familiar way into the lives of its members. They were evidently like a big family and, while our attitude is less intimate, architects today can at least emulate their good feeling for each other—alive or dead."

Very cordially yours,

D. KNICKERBACKER BOYD

RADIO

Talks by Architects

(5) In connection with an Exhibit of Architecture placed in a Home Show in Birmingham, Alabama, and continuously maintained by the local architects (as described in *The Octagon*, Dec. 1939), William T. Warren, F.A.I.A., was afforded the opportunity to deliver a three-minute radio talk, as follows:

One of the most important events in the life of any family is when they decide to build a home for themselves. It is important because as a rule it represents the largest single expenditure of money ever to be made by that family, and because it is to be their home where they will live for many years. This large investment should give them full value for their money—comfort in living, permanence in construction, and pride of possession in beauty of surroundings. In order to get these things in their home, they should consult a competent Architect, whose job it is to design and plan houses and supervise their construction.

Many people have the mistaken idea that it is more economical to build without an Architect, that it saves money to cut out the cost of an Architect's fee. Let us assume that they expect to spend \$5,000 on their house. Do you think for an instant that if they had a lawsuit on their hands involving \$5,000 they would attempt to be their own lawyer or would accept the free legal advice of a kind neighbor who happened to be a grocer or a farmer? If they wanted to sell a \$5,000 lot or farm would they think it extravagant to pay a real estate broker \$250 as a fee for selling the property for them? A lady who wants to make a dress for herself will pay \$5.00 for material and then she will not consider it an extravagance to pay fifty cents for a pattern or plan from which to make the dress.

Yet many of these same people will spend \$5,000 or more for building a new house and will not be willing to pay for the services of an Architect, the only man who by training and experience is qualified to give them a home suited to their individual needs, a home convenient in arrangement, economical and substantial in construction, and beautiful in design. The Architect makes definite plans and specifications so that you can get competitive prices from different contractors, all bidding on the same basis. The contractor can give you his lowest price because he is not gambling on unknown quantities as he would be in trying to estimate the cost from crude, vague drawings on which it would be impossible to make a definite contract.

Furthermore, the Architect supervises the construction of the house and, as your agent, sees to it that you get what you are paying for. By employing a good Architect, you will add much more than the cost of the Architect's fee to the value of your home. There is a big difference between the cost of a house and the value of a house. Two houses of about the same size, the same number of rooms, and built of the same kinds of materials, may have cost the same amount to build. But one of the houses built without an Architect is inconvenient in arrangement, has a large amount of waste space in halls and elsewhere, is of flimsy construction, and is ugly and commonplace in appearance.

The other house, designed and supervised by a good Architect, is convenient to live in, there is no waste space, the construction is substantial, it is in good taste and lovely to look at. They cost the same, but which has the greater value, which would be pleasanter to live in, in which house would you have a greater pride of ownership? Ask your real estate man which house would be easier to sell for a fair price, considering its cost. The best value received for any money put into your home is the value which comes from the fee paid to your Architect.

* * * *

Of this opportunity, so well made use of by Mr. Warren, he says:

"My talk was made from the radio station. Other architects and prominent citizens were interviewed over the radio at the show as part of the general publicity. No charge was made for radio time for these talks. WAPI was very generous and public-spirited so far as the architects' educational program was concerned, and I hope they made some money on the advertising time sold to exhibitors."

(6) A progressive architect in Philadelphia, who subscribes to "Advertising Age" and similar extra-curricular publications, noted the reference to the "Coast Architects' Radio Program" (page 38 in this Section for February, 1941) and wrote to California for more information. He received a cordial reply from Walter R. Hagedohm, Chairman, Radio and Publicity Committee, of the Southern Section of the State Association of California Architects, and a set of mimeographed Bulletins, 27 in number, each summarizing a particular broadcast. These contain so many excellent arguments in favor of architectural services that they will be frequently quoted in these pages.



TRANSITE WALLS with Vinylite lacquer are shown here in the Lounge Café, Waldorf Astoria Hotel, New York; Architects: Schultze and Weaver.

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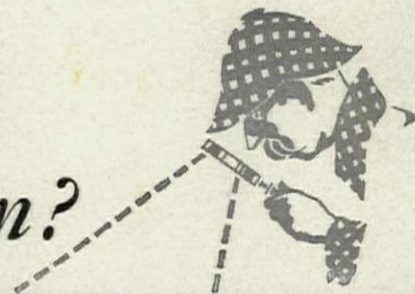
Two types of Transite Walls are available—the well-known Imperial Type and the newer, lower priced Universal Type. For details, see Sweet's Catalog or write for brochure TR-22A. Johns-Manville, 22 E. 40th St., New York, N.Y.



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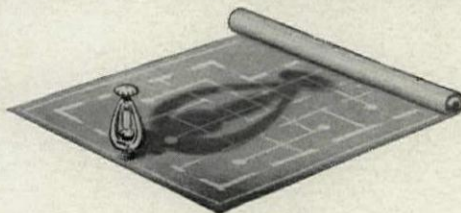
Over sixty years of intensive fire protection engineering experience enables Grinnell engineers to work with complete understanding — of both your plans and your clients' needs. You'll appreciate the ingenuity they contribute in developing mechanically-effective "concealed" sprinkler layouts.

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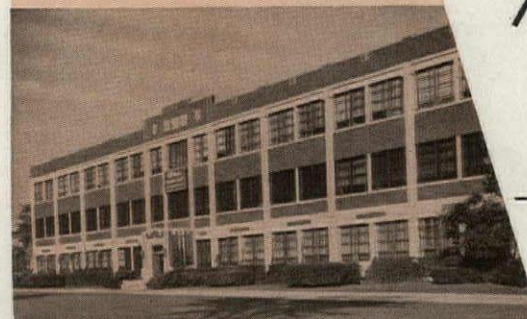


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• Isaly's Lunch Room, Canton, Ohio. Note how KOOLSHADE stops sun heat and sun glare; does not spoil view.



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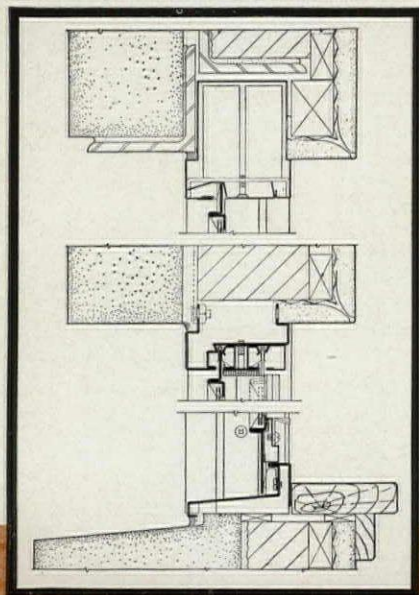
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ARTICLES

AN ARCHITECT'S VIEW OF LOW-RENT HOUSING	W. POPE BARNEY	221
VACATION HOUSE	{ GEORGE KOSMAK ERNST PAYER	230
ARMSTRONG SHOWROOMS	DON E. HATCH	241
CONTRA-VERSUS	TALBOT F. HAMLIN	253
BASEMENTS AND SAVINGS	LLEWELLYN PRICE	275
A CLASSIFICATION FOR DRAFTSMEN	D. KNICKERBACKER BOYD	278
MONTHLY WASHINGTON REPORT	A. D. TAYLOR	281
DEFENSE WORK AT YALE	C. L. V. MEEKS	285

PLATES

LONG ISLAND STUDIES	TET BORSIG	267
PALM SPRINGS HOUSE	PAUL LASZLO	287
DOGWOOD IN YOSEMITE	ANSEL ADAMS	262

THRESHING FLOOR

LETTERS AND DISCUSSIONS BY GILBERT RAYMOND GOLDING, CARL F. SCHMIDT, B. H. WHINSTON, A. D. TAYLOR, CARLETON WINSLOW, JR., LYMAN ENNIS, R. S. LUNDBERG, JORGE GONZALEZ-REYNA, JOHN RANDOLPH SUYDAM, AND PAUL PIPPIN	9
--	---

PUBLIC RELATIONS

A SECTION EDITED BY D. KNICKERBACKER BOYD	31
---	----

DATA SHEETS PREPARED BY DON GRAF

PLAYGROUND POOLS; SIZES OF CHINAWARE; SHOW WINDOW DESIGN PRINCIPLES; CORRECT STUCCO CONSTRUCTION	263
--	-----

HERE, THERE, THIS, AND THAT

NEWS FROM THE FIELD, COMPETITION ANNOUNCEMENTS, AND BOOK REVIEWS, ETC.	16
--	----

COVER DESIGN AND TYPOGRAPHY BY GUSTAV JENSEN

PENCIL
POINTS

KENNETH REID, EDITOR, CHARLES
MAGRUDER, MANAGING EDITOR
DON GRAF, TECHNICAL EDITOR
THE MONOGRAPH SERIES
RUSSELL F. WHITEHEAD, EDITOR

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ON SEEKING PUBLIC FAVOR

EDITORIAL COMMENT BY KENNETH REID

It is our persistent belief that every architect, every day, can and should do something, however small, to advance himself and his profession in public esteem. Every job he does, every contact he makes, affords an opportunity to register upon the lay mind a favorable impression and a clearer understanding of architects and architecture. Even that much, conscientiously done by every individual practitioner, would have an expanding total effect. That it is not universally done is a pity.

But we must, both as individuals and as members of a group, do more. We must actively seek ways and means of reaching the public eye and ear with evidence that proper architectural service pays and that seeking to build without it leads to neither savings nor satisfaction.

To place before the profession suggestions of many ways in which public attention can be gained, we recently instituted a new section on Public Relations, now in its third month of existence. Under the competent editorship of D. Knickerbacker Boyd, it is becoming a clearing-house for ideas whereby the good cause may be advanced. We urge you to read it, to make use of it, and to contribute to it.

Public relations activity is no new subject for discussion among architects, nor is it fair to say that nothing has ever been done by the profession towards public education. It is true, however, that what has been done has been sporadic and scattered. What is needed is a broad, strong, general campaign by architects, well-organized and directed on a national scale. There is evidence of a growing sentiment in many localities among architects who are aware that they must either exert themselves on their own behalf or go

down before the wave of non-professional competition. Is it too much to hope that the forthcoming convention of the American Institute of Architects, in which many of the State Associations are going to participate under the unification plan, will consider the problem and make a move to develop such a campaign?

* * * *

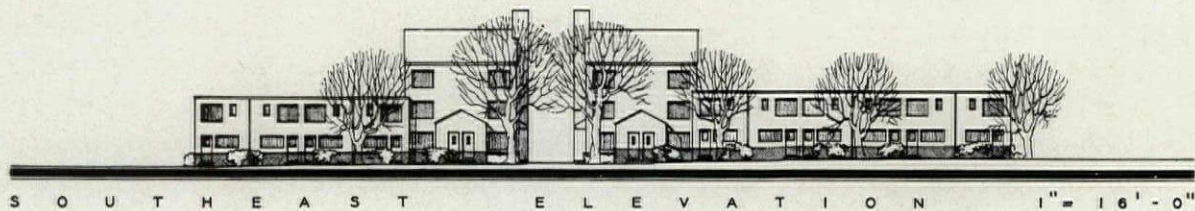
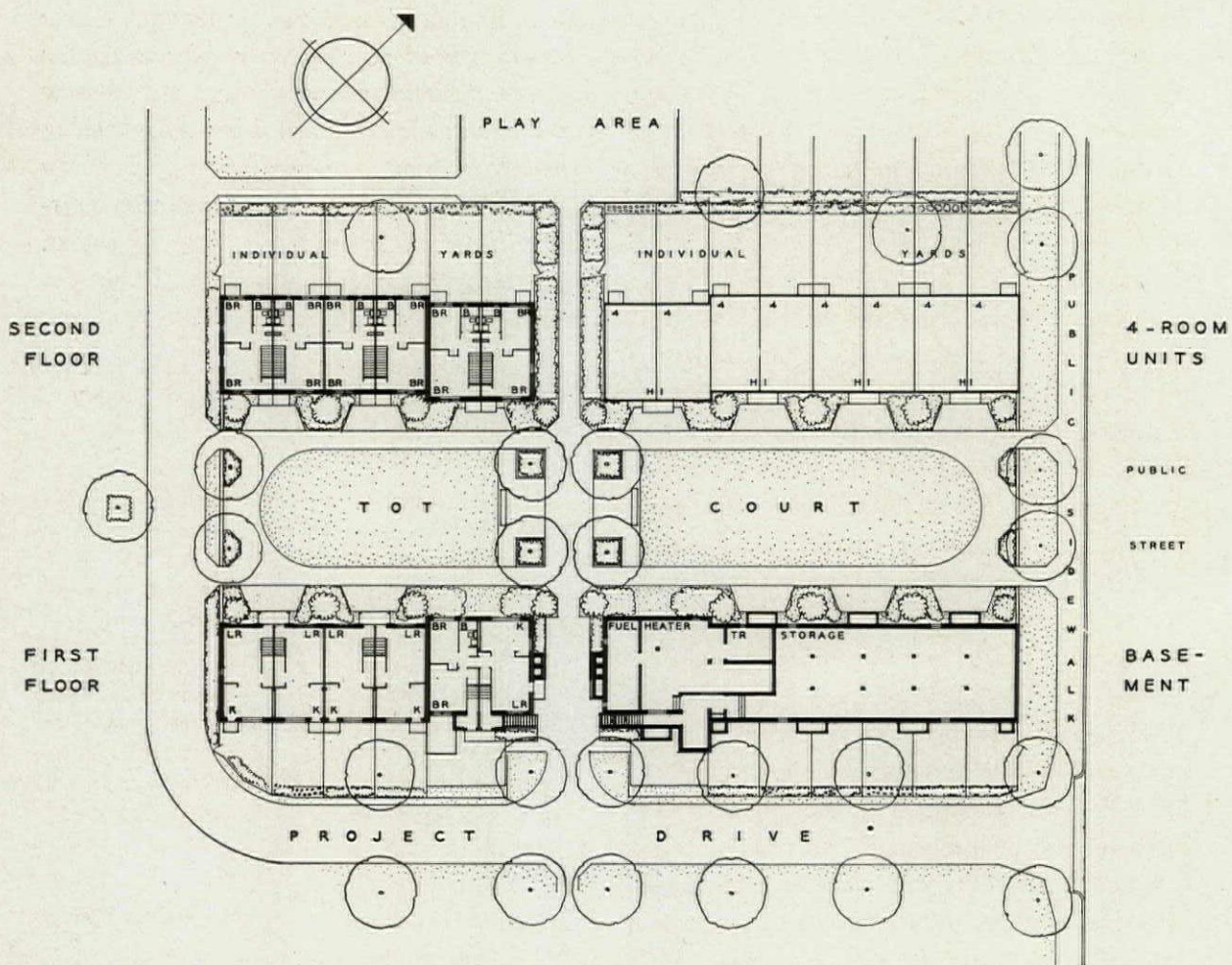
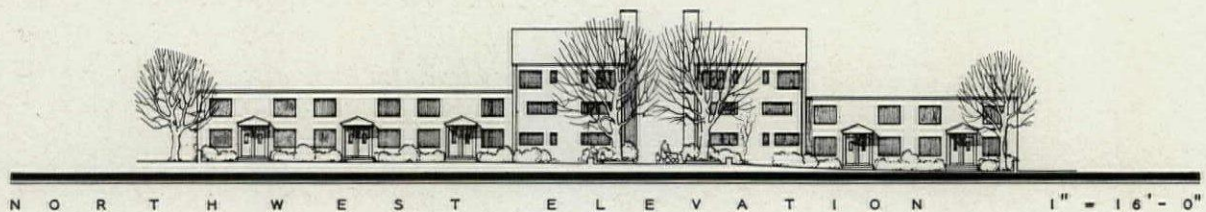
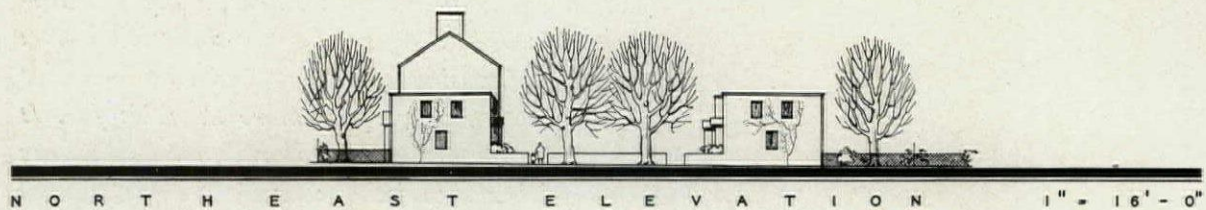
No word has reached us as to the final decision by the Massachusetts General Court on the pending registration act. As the last populous State to remain in the ranks of those without registration for architects, Massachusetts has been slow to follow the example set by Illinois some forty years ago. She should, when she finally acts, have a model set-up, using the experience of other States as a guide to perfection.

Oddly enough, while the hearings on the bill were in progress, public attention was focussed on the need for some sort of controls over the practice of architecture, by an untoward disclosure during the trial of the Mayor of Cambridge for political corruption. Several architects admitted on the stand that they had "kicked back" a third of their fees on city work in accordance with established local custom. The effect of these admissions was not, of course, beneficial to the general standing of the profession, even though it is recognized that most architects do not become involved in such shady practices, no matter how tempted.

The architects in question were granted immunity for their testimony but their professional brethren will no doubt inflict appropriate discipline. Meanwhile the pending legislation will perhaps benefit from the whole incident and be passed speedily.

If we can believe what we hear, many an architect has been saddened at the completion of a low-rent housing project to find that he is out of pocket, having spent more than his fee. It becomes important, therefore, to examine any method or technique whereby the cost to the architect of producing an adequate set of drawings for this special class of work may be lowered. W. Pope Barney, of Philadelphia, discusses on the following pages some of the things he and his associates have discovered by experience on several housing projects, and particularly on the Glenwood Project for the Philadelphia Housing Authority. His findings are thus placed at the disposal of other architects who may find them applicable in their own work. We expect that practitioners in other cities will later on add to the discussion from the point of view of conditions in their communities. The pooling of such information is one way of arriving at a condition where architects can do low rent housing and still remain solvent.

K. R.



TYPICAL FOUR-ROOM UNITS IN PLAN AND ELEVATION

GLENWOOD PROJECT—PHILADELPHIA HOUSING AUTHORITY

AN ARCHITECT'S VIEW OF LOW-RENT HOUSING

AND A TECHNIQUE APPLIED IN PHILADELPHIA

BY W. POPE BARNEY

Much has been said (some of it very pun-
gently behind closed doors) by the profes-
sion on the subject of Housing, but little has
been written by those who have actually per-
formed the architectural services required.
This evinces a wisdom understandable by
those who have had the experience but it is
not conducive to technical progress since they
only can write with an authority born of dif-
ficulties encountered and in some measure
mastered. At the risk therefore of seeming
dogmatic, I shall try to present our case.

To the uninitiated, Housing seems a simple
Architectural problem. Simple it is from one
standpoint, but that standpoint presupposes
a number of conditions ordinarily possible of
predetermination but which are in reality
impossible of such predetermination in the
case of Low Rent Housing.

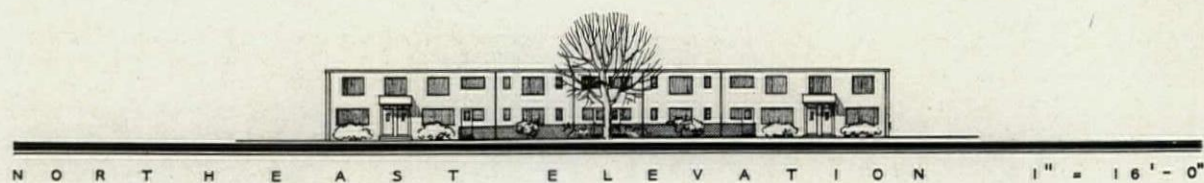
The client being an unknown group of low
income individuals, is inarticulate and rarely
has either the organization, the opportunity,
or the necessary intelligence to state the pro-
gram of needs. This must therefore be stated
by social workers or other technicians, who
are without similar former experience and
are reaching for factors that are capable of
wide divergence of interpretation. If the
program in its entirety could be authorita-
tively predetermined, its architectural solu-
tion would not be very difficult. The experi-
ence of our group, however, is a clear proof
of the impossibility of such clear-cut state-
ments of the program. The competition
which we won had as a program a document
which had been given the most exhaustive
thought by trained and experienced individ-

uals. The fact that our group was placed
first in a field representative of the profes-
sion in Philadelphia would indicate that we
had at least approached a solution. Never-
theless, the final working drawings are com-
pletely different from the competition draw-
ings. This difference came about by the re-
consideration of certain points in the pro-
gram.

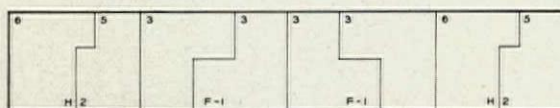
1. The percentage of land coverage, which in
the program had been left to the Architect's
judgment, was later set at a different figure by
the Housing Authority.
2. The relation of streets within the project to
those of the city plan which had been left to
the judgment of the Architects was later set by
certain policies of the City Planning Commis-
sion and other City Authorities.
3. An exhaustive investigation by mechanical
engineers retained separately by the Philadelphia
Housing Authority, prior to the retention of the
architects, had resulted in some extremely inter-
esting conclusions which would only be tenable
if the individual living units were designed so as
to make the installation of the engineers' heating
scheme simple and economical.

These three changes were so fundamental
that little of the original concept could be
salvaged.

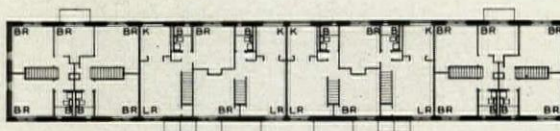
It is therefore my opinion that in Low Rent
Housing *The Program and Its Solution
Must Evolve Simultaneously*, each contrib-
uting to the final determination of the other
—and this evolution must be under the
leadership of the Architect. It is in this way
only that the Architect can perform his real
function of coordinator. Throughout his
professional life the Architect endeavors to
do just this. He should naturally, by reason



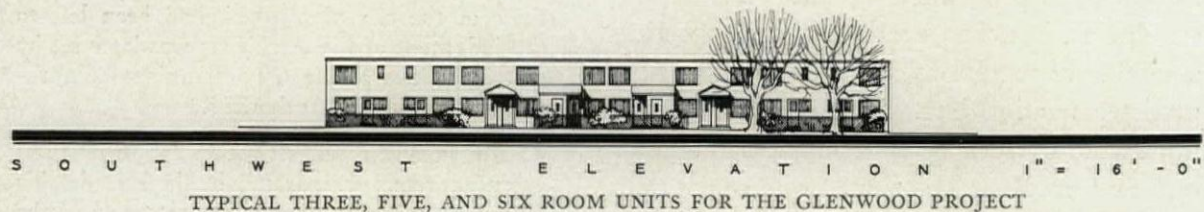
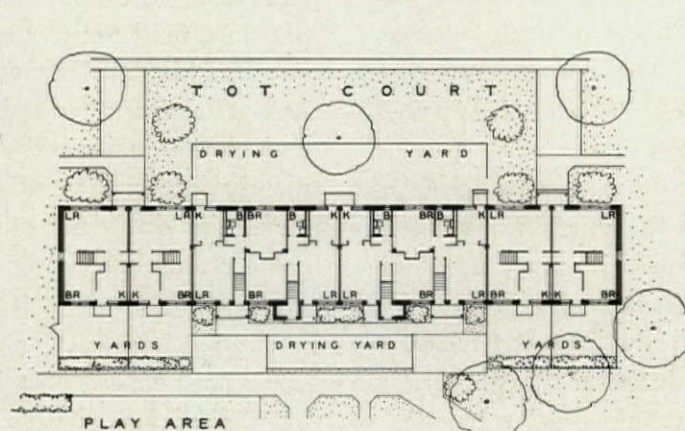
3-5-6 ROOM
UNITS



SECOND
FLOOR



FIRST
FLOOR



TYPICAL THREE, FIVE, AND SIX ROOM UNITS FOR THE GLENWOOD PROJECT

of his experience and training, have a comprehensive view of the entire problem—social, economic, structural, mechanical, and Architectural. I am convinced that real progress in Housing will come only from demonstration on the part of the Architect of increasing ability to see detail in its proper perspective, and harmonize the divergent claims of the various personalities and factors involved. *This Is the Real Problem of Housing; Coordination.*

The Site Plan, giving building locations and the allocation of ground for service yards, open areas, play and sitting areas, walks and drives, etc., is the essence of the problem from a planning standpoint. Living units for any particular locality may be narrowed

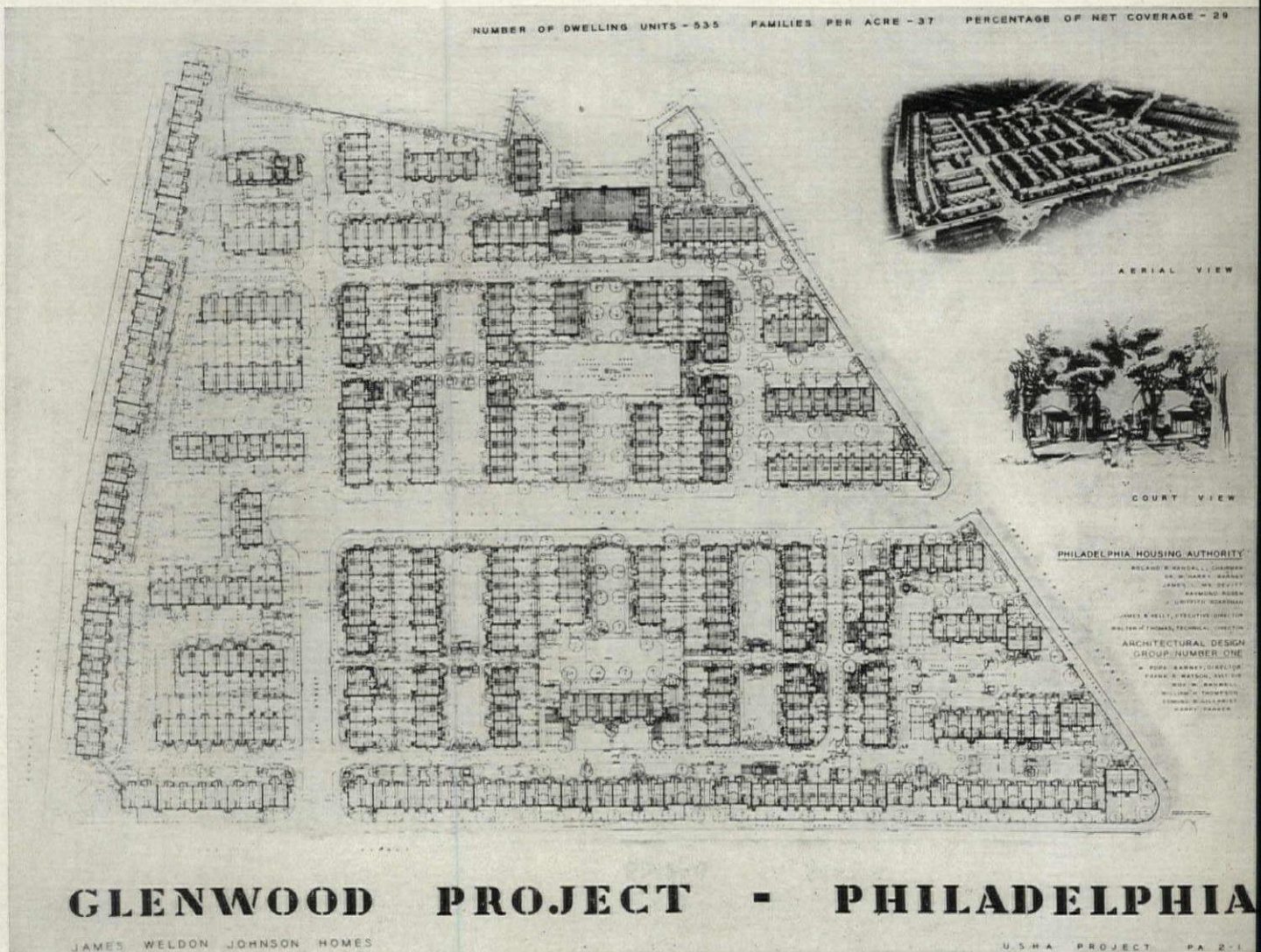
down to a few variations but the Site Plan has so many possible expressions, even after its fundamentals have been agreed upon, that it presents one of the great hazards for the Architects. Until a clear philosophy can be stated and agreed upon by all concerned, it is almost profitless to make studies. The fundamentals underlying such a philosophy of Site Plan consists of:

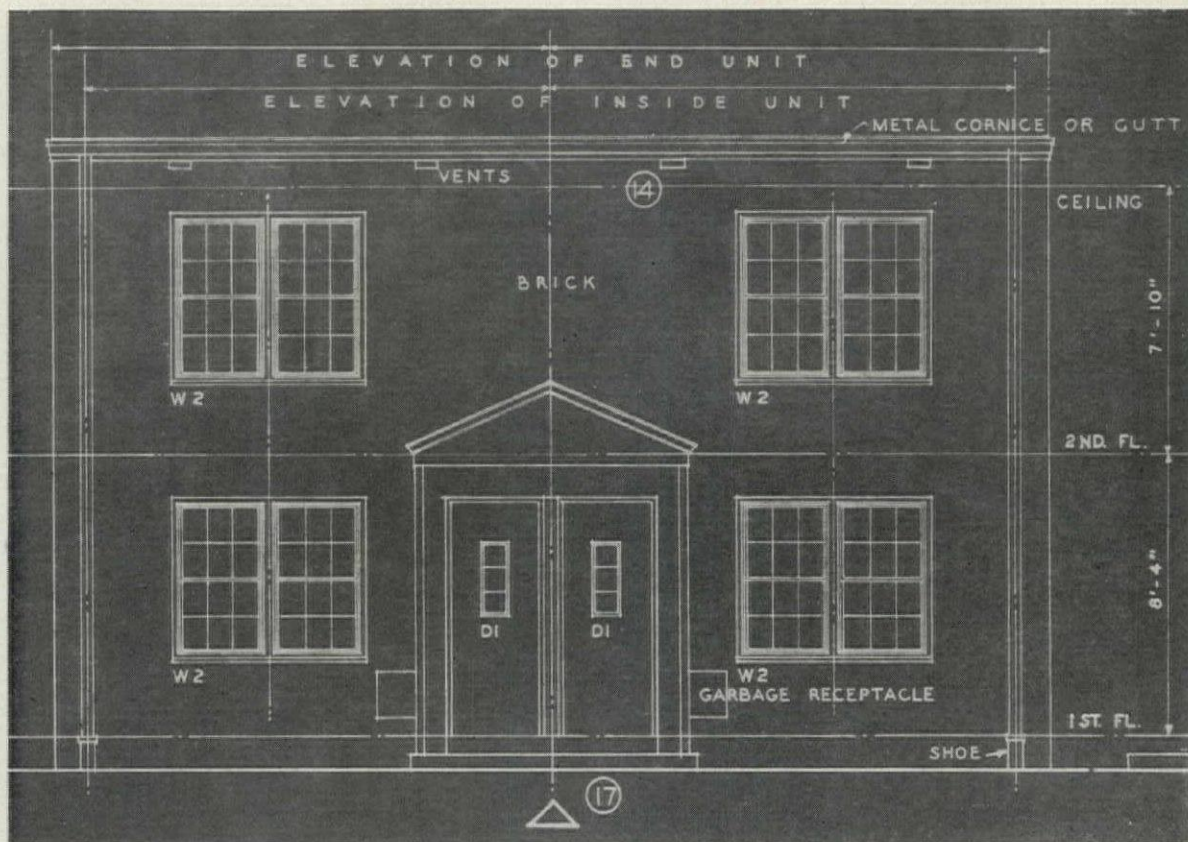
1. Public street system
2. Project drives and walks
3. Servicing of the Living units, for incoming persons and goods and outgoing refuse, both garbage and trash
4. Allocation of outdoor spaces for communal use and for individual tenant use
5. Desirable provisions for recreation for all ages
6. Relation to sun and prevailing breezes

Of the above, the servicing of the living units and the policies of project recreation are most apt to cause difficulties and, by reason of last-minute changes, violate the fundamental philosophy of the plan so that it all has to be done over at great expense and dislocation of related work.

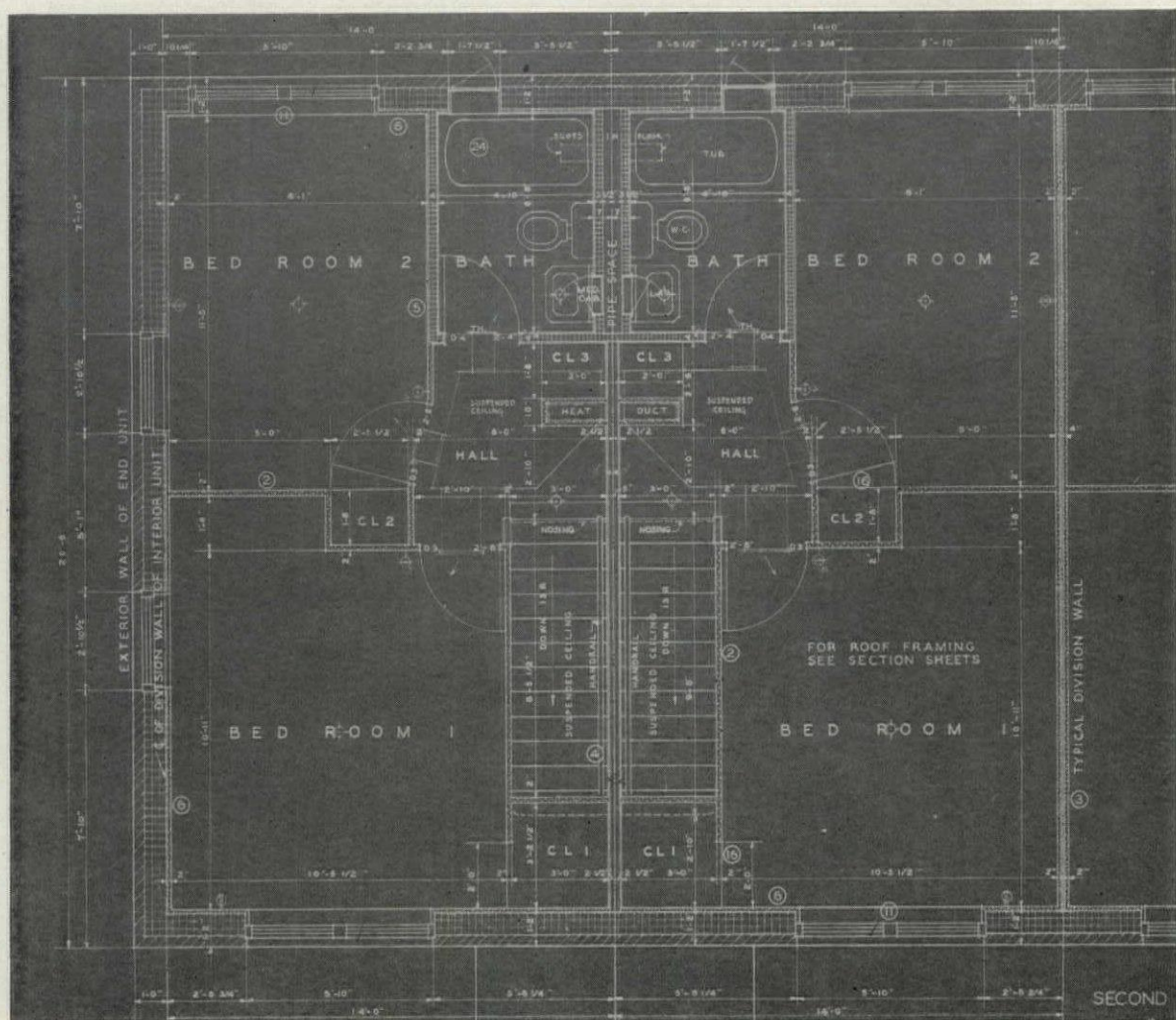
A vital point little understood by those who have not performed Architectural services on low cost housing projects is the necessity for extraordinarily complete working drawings, specifications, and shop drawings. Each living unit is so simple a structure that one is inclined at first to feel that an ordinary set of working drawings, specifications, and shop drawings would be quite adequate. This is a fallacy. Ordinarily, so simple a building would have an intelligent foreman or superintendent who would have a thorough grasp of the entire operation. In a Housing group of 530 living units it would

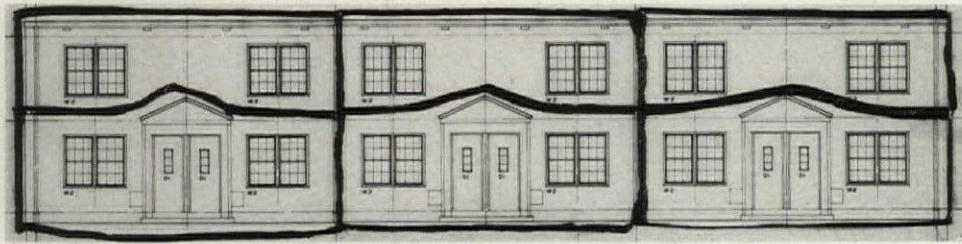
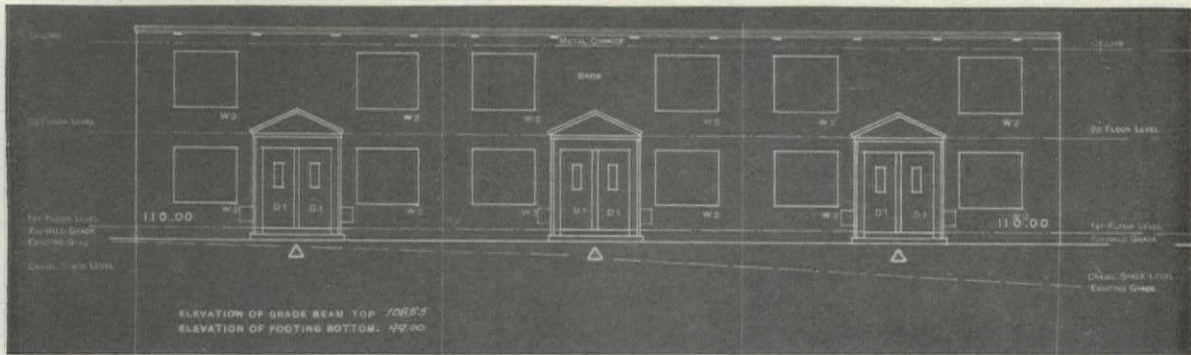
be impracticable to have 530 such foremen and, since a great number will be in the same stage of operation at the same time, the working drawings, etc., must be extraordinarily complete or else the problem of supervision is well nigh impossible. Architects in the United States with much of their large experience gained on the skyscraper type of building are prone to think of a Housing development as being somewhat like a skyscraper laid down on its side. However, the skyscraper construction starts from the foundation and follows an orderly procedure from floor to floor with much repetition where experience gained on the lower floors can be made available for the construction of the floors above. It is one building and, despite its many complications, is essentially more simple than a low cost housing project which may conceivably consist of 50 to 100 buildings, all of which must ultimately be



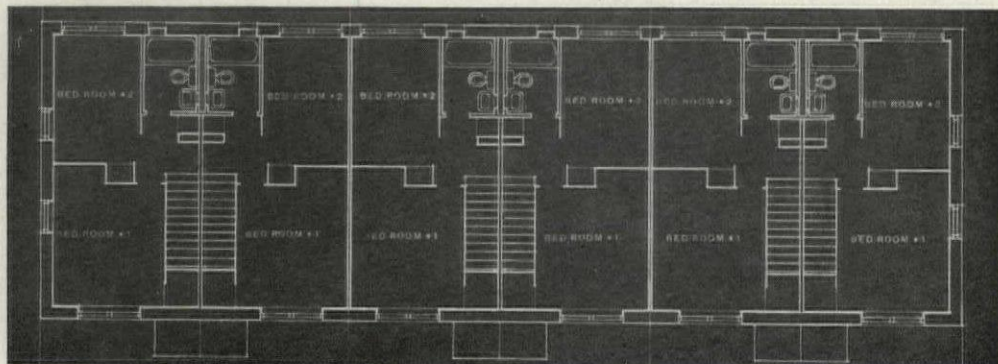
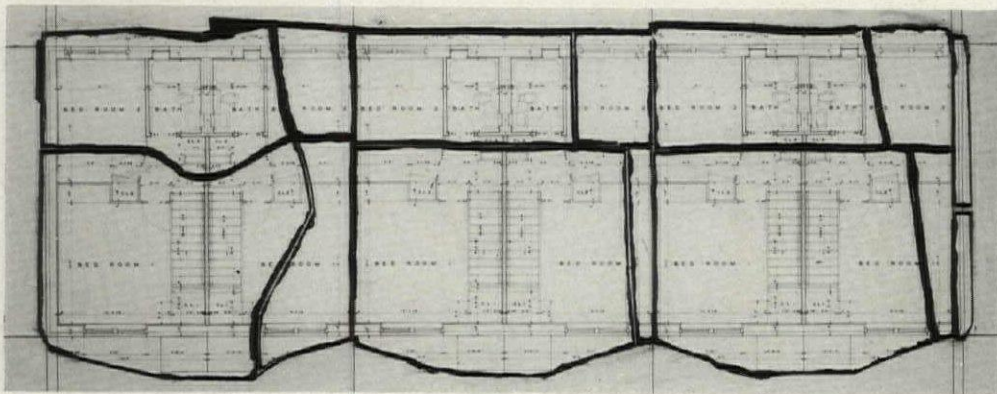


HALF-INCH SCALE TYPICAL DETAIL DRAWINGS FOR THE GLENWOOD PROJECT





TO INCREASE POSSIBLE NUMBERS AND EFFICIENCY OF DRAFTSMEN UNFAMILIAR WITH THE DESIGN, ONE THOROUGHLY SKILLED WORKER CUT AND ASSEMBLED PHOTOSTATS REDUCED FROM THE HALF-INCH TYPICAL DETAIL DRAWINGS. THESE WERE USED AS A GUIDE TO TRACE OVER IN MAKING THE DIAGRAM-MATIC EIGHTH-INCH PLANS OF EACH BUILDING. TO INSURE ACCURACY PHOTOSTATS WERE CUT ALONG THE HEAVY LINE SHOWN AND REASSEMBLED TO GUIDE LINES DRAWN ON THE CARDBOARD MOUNT. THIS PROCESS RESULTED IN INKED-IN LINENS IN THE SAME AMOUNT OF TIME THAT PENCIL DRAWINGS COULD HAVE BEEN LAID OUT IN ORDINARY TECHNIQUE IN PREPARATION FOR TRACING AND WAS FURTHERMORE ALMOST FOOLPROOF. THE COMPLETENESS OF THE HALF-INCH SCALE DETAILS IS INDICATED OPPOSITE. PRINTS AT TOP AND BOTTOM OF THIS PAGE ARE FROM TRACINGS MADE OVER THE MOUNTED PHOTOSTATS



completed at the same time. The problem which the Architect faces is how to produce instruments of service in such a form that they may be absolutely complete and yet with a bulk that is not so great as to present an obstacle to those seeking information in the field. More research could be well done in this direction. The physical area covered by a large housing development is so great that it is a real problem for the foreman in charge of any specific piece of work to get his information from the site office. More than one site office brings in complications of administration. The answer, therefore, would seem to be a set of drawings so made up that the needs of foremen can be reasonably provided for with a minimum of drawings on the site. To produce a set of ordinarily complete drawings and specifications is nothing new to an experienced architect. But to produce a set that anticipates the unique field construction problem of a Housing Project is something which has not been completely solved and is being given less thought than it deserves by many of us.

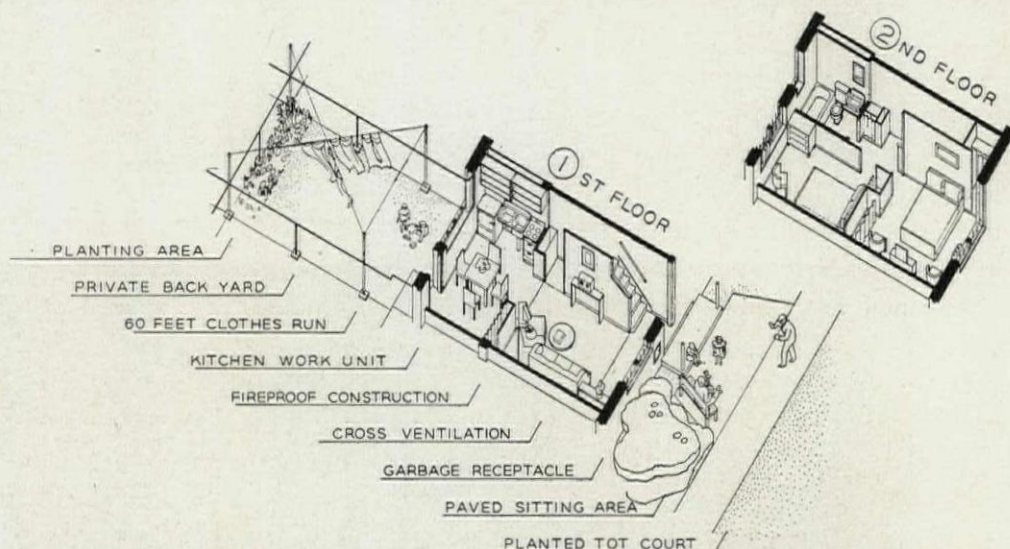
In connection with the above, the use of a location diagram on each drawing to show its relation to the whole site is of course extremely helpful.

For the purpose of estimating, diagrammatic plans of all buildings at small scale, together with large scale detailed drawings of each dwelling type, are adequate and in the interest of efficiency; but for construction pur-

poses individual buildings need full information and all variations of dwelling types should therefore be available at large scale. No matter how simple that variation may seem to the designer in the drafting room, it is complicated and confusing to the constructor in the field unless fully shown at large scale.

Full-size details should be a part of the drawings at the time of estimating. They will then receive more consideration from the standpoint of minimum costs to attain a given end than they will if made later. One of the essential differences between Low Rent Housing and ordinary practice is the tremendous increase in importance of small savings on any repetitive element. It is this realization, on the part of the Architects and Housing Authorities, that accounts for the slowness with which successful projects have been evolved.

This slow progress becomes very hazardous to the private Architect because of the rapidly mounting overhead costs if his drafting room organization is built up more rapidly than is warranted. At the start of a project, very few men can be effectively used. It is then the work of a small design staff which increases as site plan consideration gives place to study of more detailed unit plans. It does not become a subject for the drafting room proper until everything has been designed at small scale and definitely approved in writing by all of those who have authority



DIAGRAMMATIC VIEW OF TYPICAL 4-ROOM UNIT (H-1) WITH LIVING ROOM AND KITCHEN ON 1ST FLOOR (13'7" x 24'2"), TWO BEDROOMS AND BATH UPSTAIRS. GLENWOOD HOUSING PROJECT, PHILADELPHIA

to make changes. Full-size details should then be developed and not until these have been determined can any great number of draftsmen be effectively used. At this point the maximum number which can be adequately overseen should be put to work.

The developing of a project being the work of so many minds in the social, economic, real estate, financial, engineering, architectural, and even political fields, a complete system of minutes of meetings, records of research, and agreements reached becomes extremely important. The proper handling of this will take most of the time of one clear-thinking individual, who might also be giving consideration to the architect's costs in relation to his fees. Our experience has been that for the preliminary drawings and working drawings the relation of costs to fees (if these have been set in fair relation to prevailing fees on private work) remains what one would expect from his former experience. For the stage of shop drawings and supervision, the cost is abnormally high if these functions are performed in the rather unique manner which Housing by its very nature should demand.

Landscaping assumes great importance, both for making certain areas more useful for their purpose and also for giving a legitimate variety against an equally legitimate background of standardization in the buildings themselves. From an æsthetic standpoint the designer is in fact working almost entirely with landscaping and orderliness in site plan. There is little opportunity to change proportions in buildings and openings, since they are so intimately connected with inflexible functions. Even small ornamentations become a large item of cost when multiplied by the number of houses. Furthermore, the tremendous repetition of ornament becomes æsthetically as well as financially, questionable. Grading assumes an unusual importance as compared with the common experience of most architects. The magnitude of the areas involved and of the proportion which by reason of paving and buildings can not absorb rain water, makes the surface drainage a matter of meticulous care. Our own experience has been that

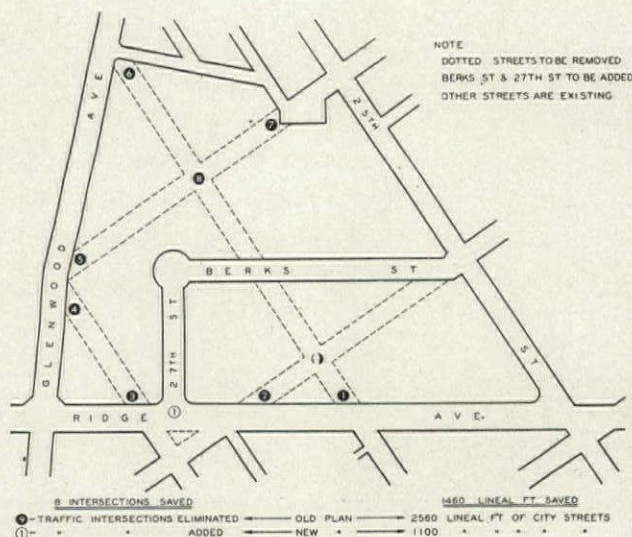


DIAGRAM SHOWING RESTUDY OF STREETS ON THE GLENWOOD PROJECT BY WALTER H. THOMAS, DIRECTOR OF TECHNICAL BOARD FOR PROJECTS OF THE PHILADELPHIA HOUSING AUTHORITY

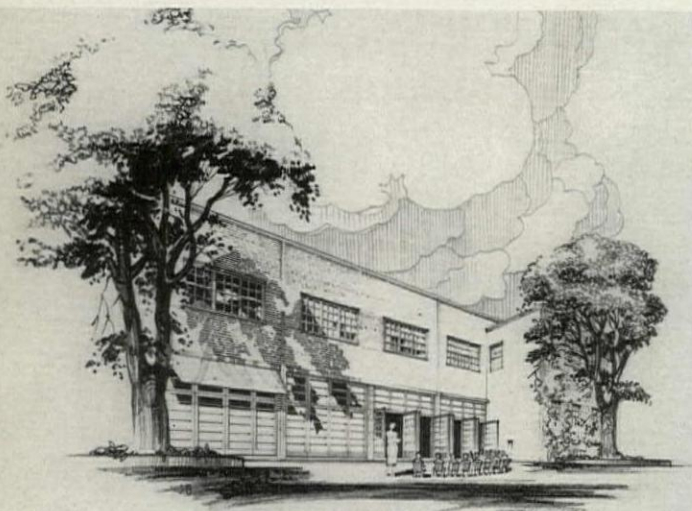
specialists are needed at this point just as in landscaping or mechanical engineering. Mechanical and electrical work require their own drawings but should be diagrammatically shown again on the Architect's sheets for convenience of the other trades.

The existing pattern of living of those to be rehoused should not be changed to any great extent. It is from this fundamental that variations in solution for different locations will come and it is a failure to recognize the full implication of this fundamental that has proved so disastrous to housing in only too many instances. If people are in the habit of living in row houses, two stories in height with certain ground area which they can call their own, both in front and in the rear, it is of questionable wisdom to attempt to house them in multi-storied apartment buildings with all land devoted to communal use.

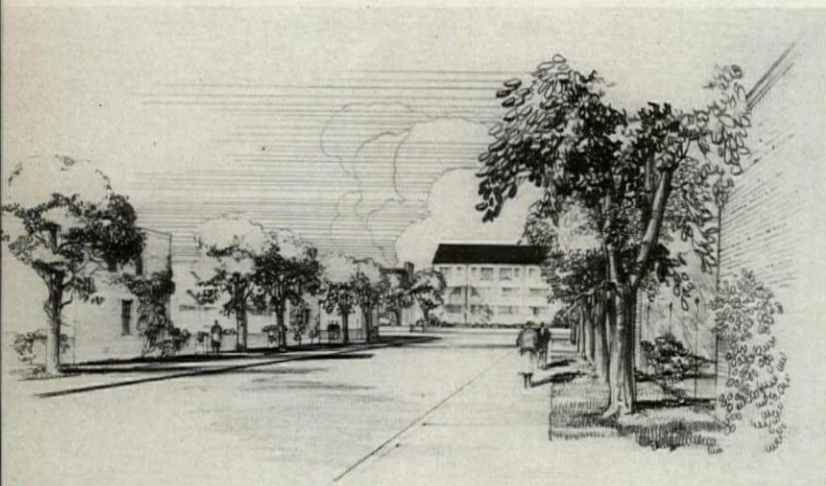
The following two pages describe in some detail the Glenwood Project of the Philadelphia Housing Authority which has been used here for illustrative material. The architects for this project were W. Pope Barney, Director; Frank R. Watson, Assistant Director; and Roy W. Banwell, Harry Parker, Edmund B. Gilchrist, and William H. Thompson, Associates.



*Looking West At Buildings 2, 3 and 4 ...
Glenwood Housing Project.*



*Community Building - Nursery School Play Court
Glenwood Housing Project*



*Looking Northwest on Berks Street
Glenwood Housing Project.*

Recognizing that the Philadelphia pattern of living of the low income group to be housed is closely related to the type of building which in Philadelphia represents the greatest amount of cubical content per dollar of expenditure, we determined on a large percentage of two-story row house type. These comprise the backbone of the scheme and are shown in detail in the accompanying cuts. At certain points in the Site Plan where heating plants were located, this row house unit, two stories high, was varied by the adoption of a three-story unit which consists of a complete apartment on the first floor and two two-story single-family houses on the second and third. Around the periphery of the Site, apartment house units two stories high were used. Thus the entire project has no living room which is more than one flight above the ground.

The land value made possible two-story units throughout but the desirability of high mass formation at heating-plant chimney units suggested the inclusion of some three-story buildings with sloping roofs. The site originally was an old cemetery, disused for so many years it constituted a center for spreading depreciation in neighboring real estate. The project, therefore, in addition to improving the safety of abutting streets by a restudy and reduction of traffic intersections and providing adequate housing for the Low Income Group, constitutes a real improvement of land and a reversal of adjoining property decline.

The apartment house unit (*F1*), the two-story row house unit (*H1*), the three-story combination unit (*DF*) comprises all the variations of types used except for a small number of two-story housing units which have three bedrooms (*H2*), thus it would seem that considerable standardization had been attained. However when slight projections, heating plants, storage basements, and specific location and orientation are taken into account, the number of variations becomes very great and the resulting multiplicity of drawings to show the varying conditions becomes extremely burdensome, not only to the Architect in his work but to everyone concerned in the final construction. This seriously affects costs and leads to my conviction that the effort toward standardization and elimination of variations is to be more earnestly sought than was true in our case.

Hoping that the Glenwood Project would be some contribution to the solution of Philadelphia Low Rent Housing, we endeavored to remove the faults of the present row house. These faults were:

1. Monotony
2. Little utility or beauty possible in yards individually developed, because of small frontage
3. Lack of safe, convenient and attractive provision for play of small children and for outdoor "Neighboring" of older people.

These objections were met by:

1. Limiting length of the row and creating individual back yards completely private
2. Communal front yards with open space for play of younger children under the eyes of their parents who have a communal sitting area under the trees at the center of each typical court
3. Providing for larger children four large play areas, some with a hard surface and some with a clay surface. (Organized games to be on a community playground near, but off, the site.)

Following the Philadelphia custom for trash collection periodically, containers are placed either at the doors of each unit or on the sidewalks of the nearest street of service drives. In the latter case the carry is never more than 125 feet. Garbage collection, following the local custom, will be by city employees from the entrance doors of each living unit. Built-in wall garbage receptacles are provided adjacent to the entrance door for each family.

There is a Maintenance Building where shops and store-rooms occupy the basement and first floor and there is a Community Building housing the offices of administration and providing meeting rooms for various sized gatherings up to 250. The largest meeting room is arranged so that it may be used also as a nursery school and health clinic for the younger children. Laundry yards for the row house units are individual, for the apartment units communal. Where possible, the latter have been placed so as not to interfere with the view, yet close to the living units for convenience.

The construction of the exterior walls is a combination of brick and cinder-block, 12" combined thickness, furred and plastered on the inside. Interior partitions are 2" solid plaster on wirelath. Floor construction is concrete slab and beam. Roof construction timber with tar and gravel for the flat roof and slate for the sloping roofs. Windows are double-hung metal except where glass areas or ventilation requirements pointed to the desirability of steel casements. Walls and ceilings are painted. Floors are unfinished exposed concrete.

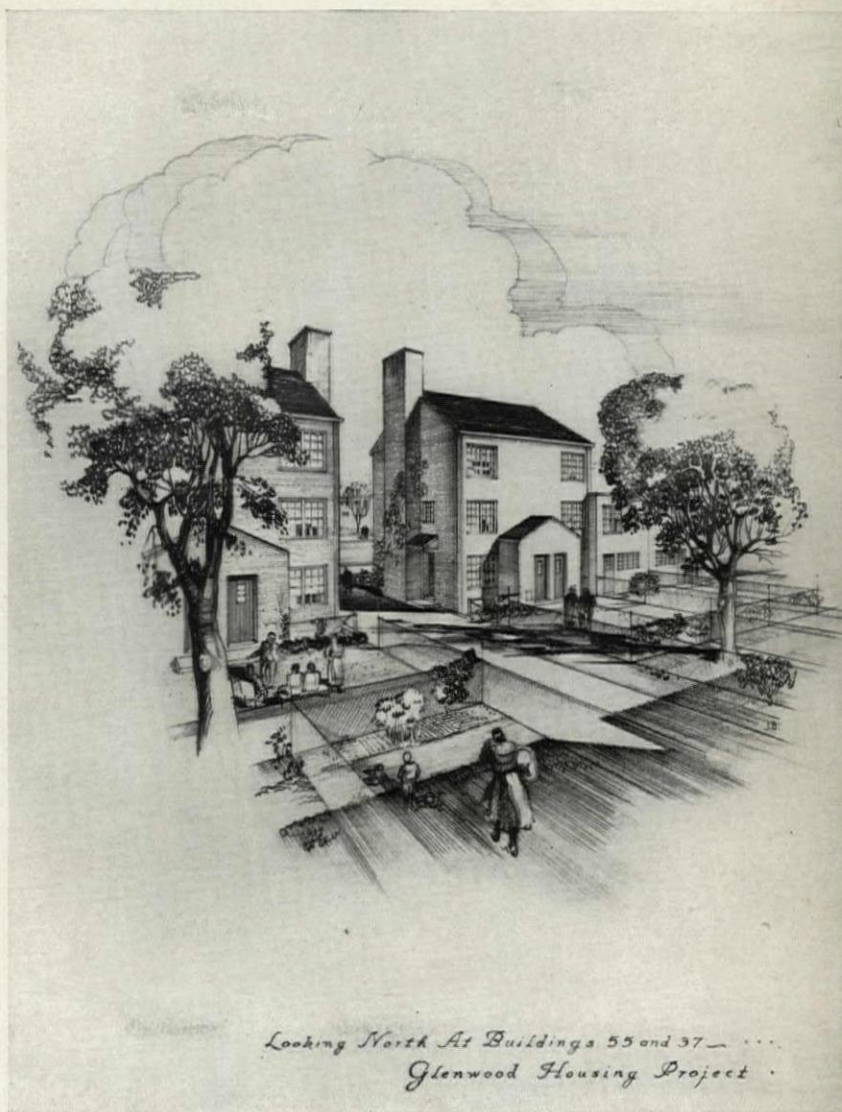
Electric lighting is from standard unit fixtures controlled by wall switches. Heating is by hot air circulated by an individual fan in each living unit, the air passing over a fin type radiator in each such unit. This radiator is supplied by hot water from an automatic coal stoker heating plant common to about 58 family units. The whole system is automatic and requires very little supervision.

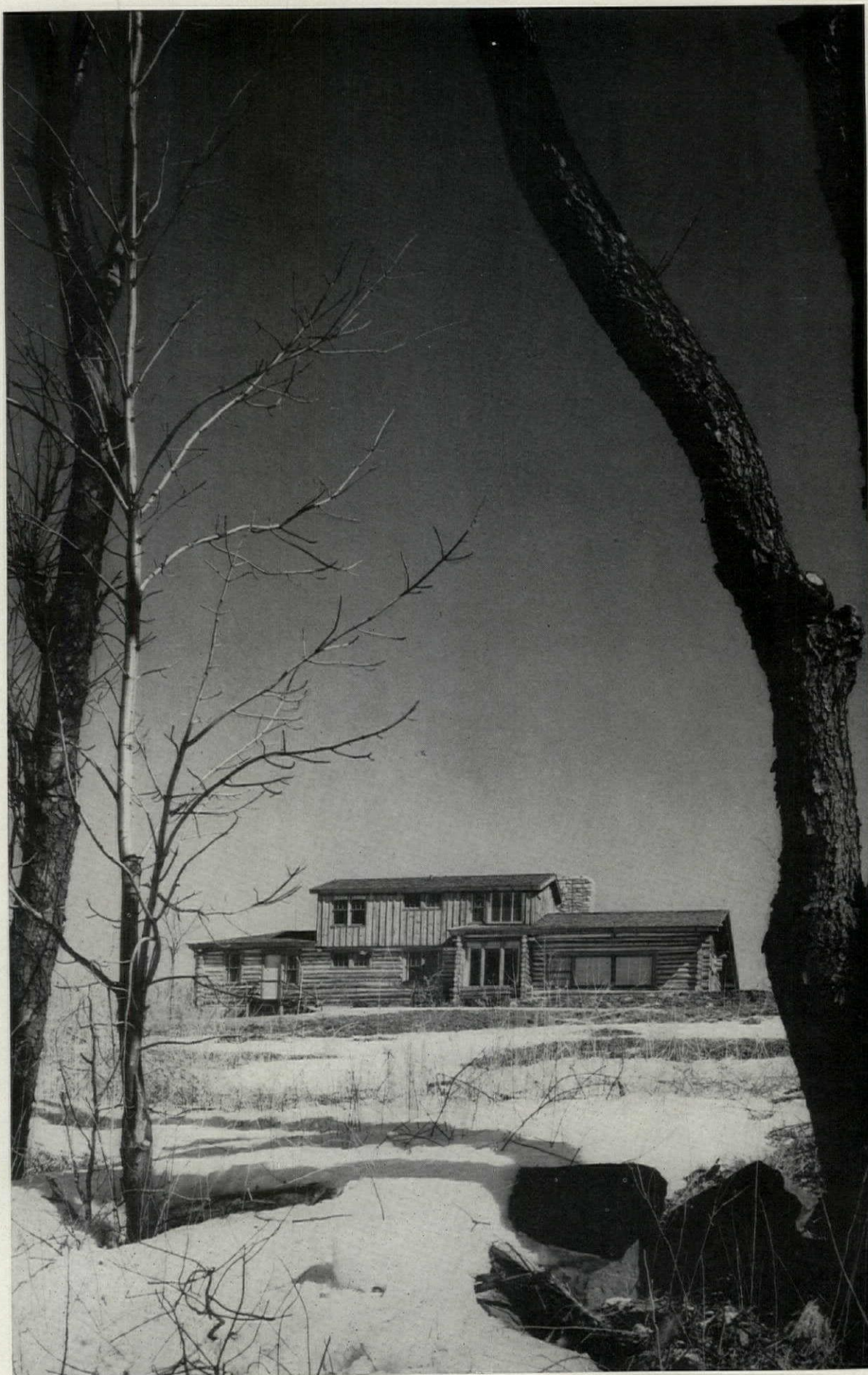
The plumbing consists of a combination laundry tub and sink in the kitchen of each living unit and a three-fixture bathroom in each living unit.

The kitchen equipment will include individual gas stove, electric refrigerator, and open-faced steel shelving. One closet in each living unit is equipped with a door but all other closets are without doors, curtains insuring ventilation at all times.



THESE SKETCHES OF THE GLENWOOD PROJECT
BY JOSEPH F. BALIS OF MR. BARNEY'S OFFICE





Richard Garrison

LOG HOUSE — BY GEORGE KOSMAK AND ERNST PAYER, ARCHITECTS

VACATION HOUSE IN DUTCHESS COUNTY

GEORGE KOSMAK AND ERNST PAYER, ARCHITECTS

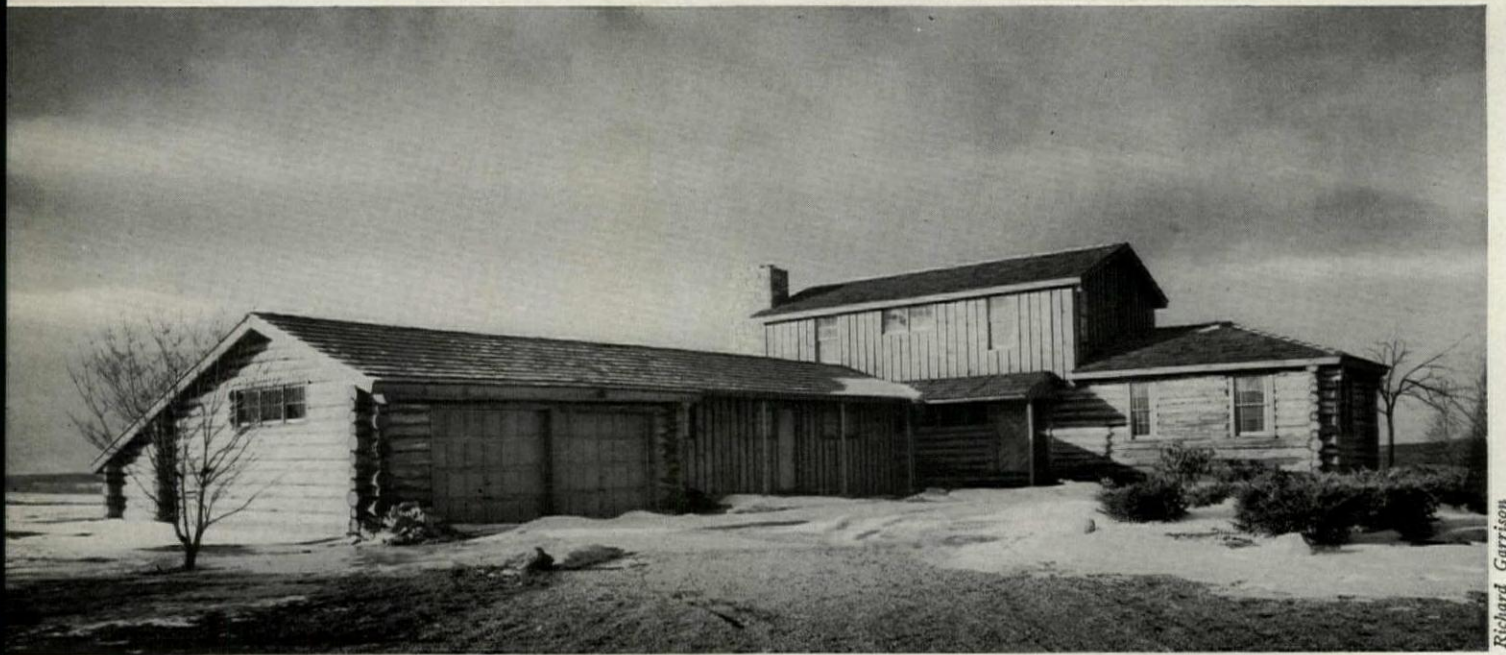
The owner's desire for informality and a camp-like atmosphere suggested the log construction of the Charles E. Murphy home, Quaker Lake, New York, designed by George Kosmak and Ernst Payer, Associate Architects. Although the house was originally intended for summer use only, changes were made during the course of construction to insure comfort for skiing week-ends, Christmas, and other winter holidays. Even for summer use the exposed location atop a treeless windswept hill dictated a carefully-designed shelter equipped with a heating plant.

Facilities for entertaining were required in the design of this country home. In addition to the family of five, including two sons and a daughter, it accommodates servants and guests of each member of the family. A large parking court is provided on the entrance side and an entrance hall of adequate size welcomes the guests. The stair is of the most open design (see page 234) to avoid the appearance of crowding the hall, which seems to merge with the spacious living area at the far end. Rooms for the daughter and the sons open from this hall and it was intended that the baths on the first floor would be convenient for guests. The service wing at the left of the entrance shields an outdoor dining area that is just a few steps from the large, well-ventilated kitchen. In addition to all the modern kitchen equipment required for a residence of this size, an air conditioning unit, enameled white, also is located in this room. At the end of the service wing the garage roof was carried down on the south side to shelter a water storage tank and well

pump. The second floor of the house is for the parents and their guests. It also enjoys the view to the west and the bedrooms are frequently used as sitting rooms.

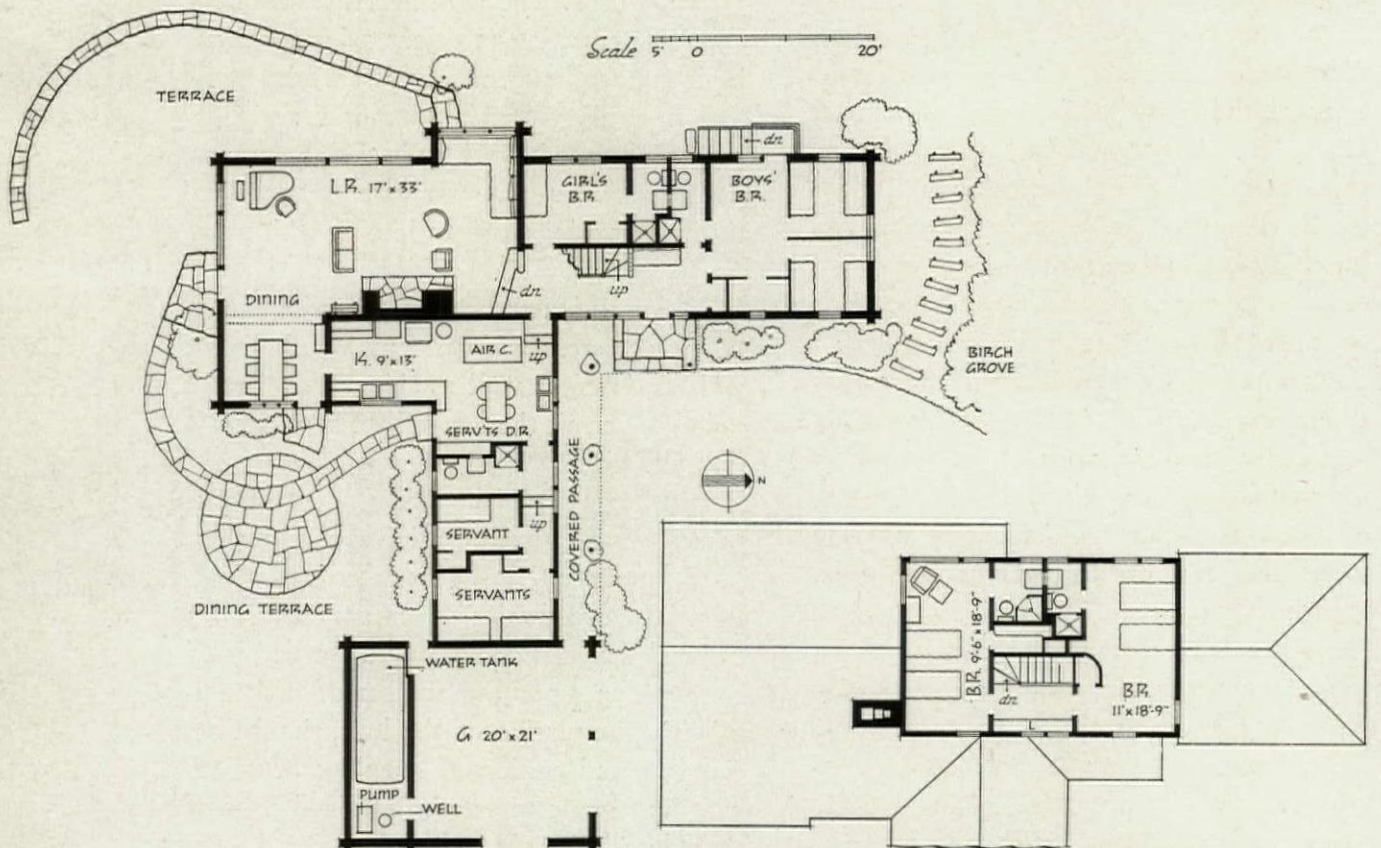
The cost of the log wall construction compares favorably with a good quality of stud construction, according to the architects. Each course was laid around the entire building before the next course was undertaken. The log was chosen for its suitability to each bed, rolled back half way, grooved with an axe to fit the log below, coped at each end over the logs at right angles to it, and then set in place over a heavy filling of shredded redwood bark. The plan necessitated maintaining intersecting partitions to brace against horizontal collapse, and, in places where this did not prove practical, iron pins were driven through logs to hold them in their respective positions. This pin was dropped loosely through two logs, driven into the third and countersunk at the top. This permits the continual expansion and contraction which must take place cross grain of any wood. Doors and windows, as well as chimney, were detailed to permit the log wall to slide up and down at will.

Depending upon the quality of the workmanship, such a wall can have an insulating quality greater than an insulated stud partition. The speed with which such work can proceed depends, like many other forms of construction, upon the number of tricks applied in the placing of the logs, the fitting, choosing and cutting of openings after the wall has been completed. A trained crew of three log workers can often do two and three times as much work as eight or ten able car-



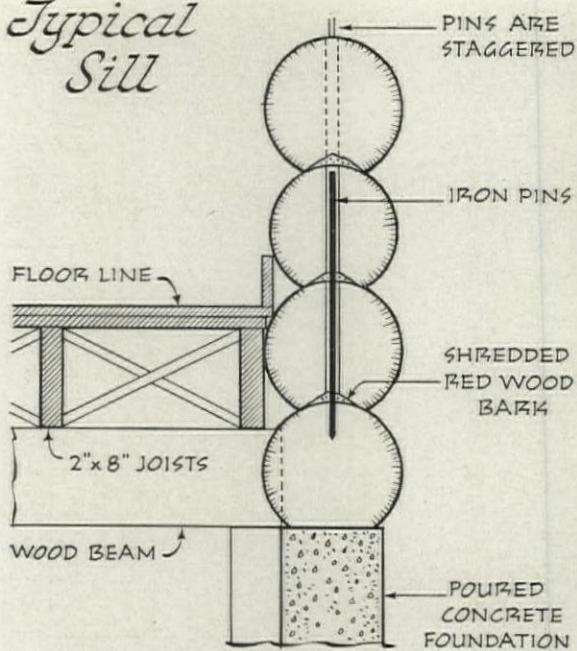
Richard Garrison

LOCATION OF THE CHARLES E. MURPHY HOUSE WAS DETERMINED LARGELY BY THE MAGNIFICENT VIEW TO THE WEST AND EACH OF THE IMPORTANT ROOMS ENJOYS A FINE VISTA. THE ARCHITECTS KEPT THE MASSES OF THE HOUSE AS HORIZONTAL AS POSSIBLE, IN SYMPATHY WITH THE CONTOURS OF THE SITE, AND DIRECT ACCESS FROM THE OUTDOORS WAS PROVIDED FOR ALL THE VARIOUS UNITS OF THE PLAN. PRINCIPALLY TO AVOID MONOTONY, THE SECOND STORY WAS FACED WITH PINE BOARDS AND CEDAR BATTENS



HOME OF MR. AND MRS. CHARLES E. MURPHY, QUAKER LAKE, N. Y.

Typical Sill



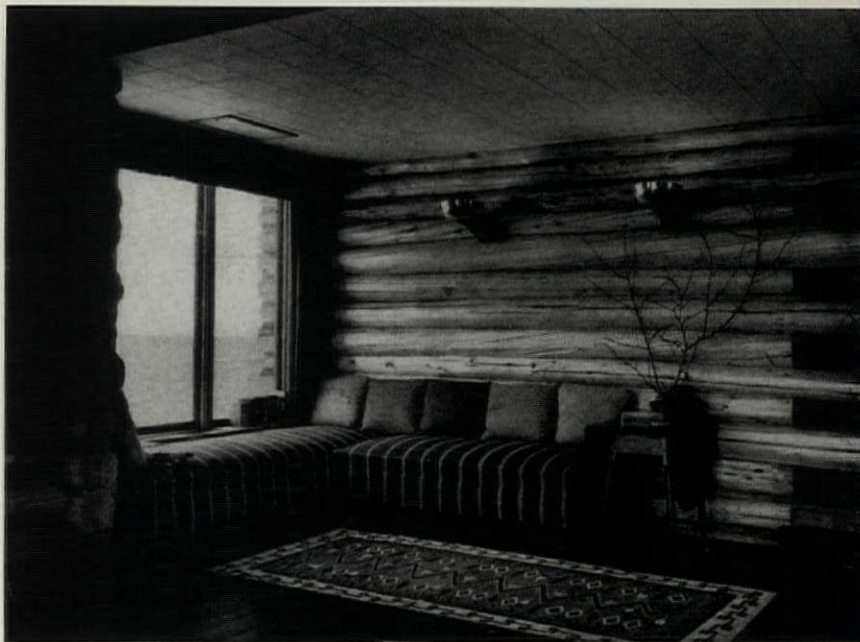
THE LIVING ROOM SUGGESTS THREE CONVERSATION GROUPS—AROUND THE FIREPLACE, AT THE SOUTH END OF THE ROOM WHERE TALL WINDOWS ADMIT FLOODS OF SUNSHINE, AND AT THE BAY WINDOW WHICH IS GIVEN A SPECIAL UNITY BY CONTINUATION OF THE HALL CEILING THROUGH THE LOG SCREEN AT THE LIVING ROOM DOOR

penters to whom these tricks have not been taught.

In the detailing of work of this type certain factors must be kept in mind. All joints must be cut so the moisture can drain out of them easily. They must be made free to move with the cross-grain contractions of the wood, they must be sealed with wind and water stops. Courses must be kept level and uniform by selecting each log to compensate for accumulated errors, taking advantage of the natural variation in diameter and taper of the log. Bark can be slipped from most logs easily when the sap is up, but is difficult to remove when the sap is down. The type of tree will dictate the amount of warping to be taken care of, also whether the wood is green or seasoned. The ideal log for this use is one with minimum shrinkage, taper, weight and knots. Although there are many different methods of using logs in residential construction, this method was chosen to satisfy the owner's prejudice against visibly calked joints, on either exterior or interior.

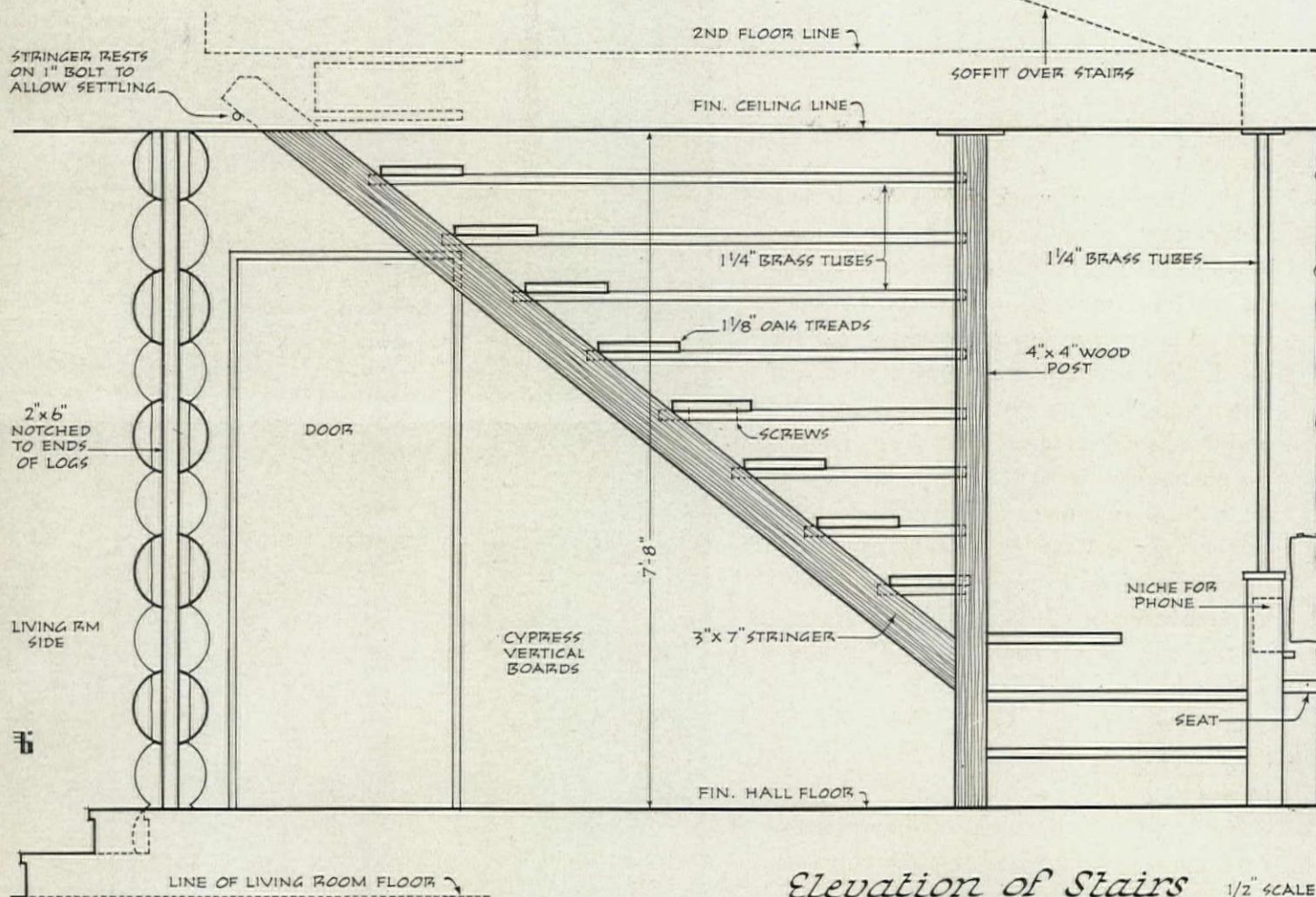
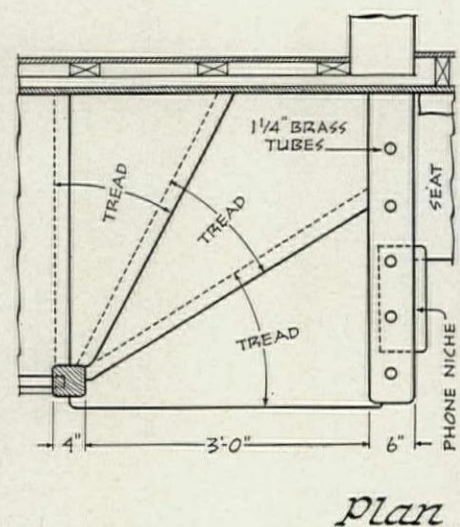
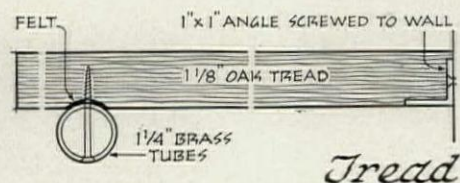
BY GEORGE KOSMAK AND ERNST PAYER, ASSOCIATE ARCHITECTS

Richard Garrison Photos

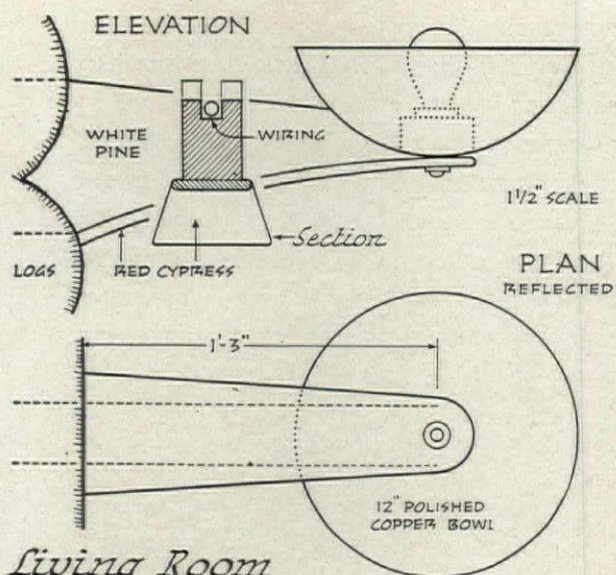




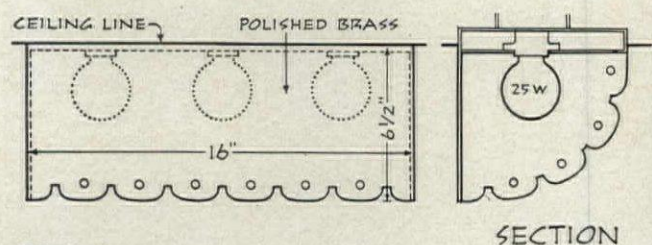
Richard Garrison



HOME OF MR. AND MRS. CHARLES E. MURPHY, QUAKER LAKE, N. Y.



Living Room

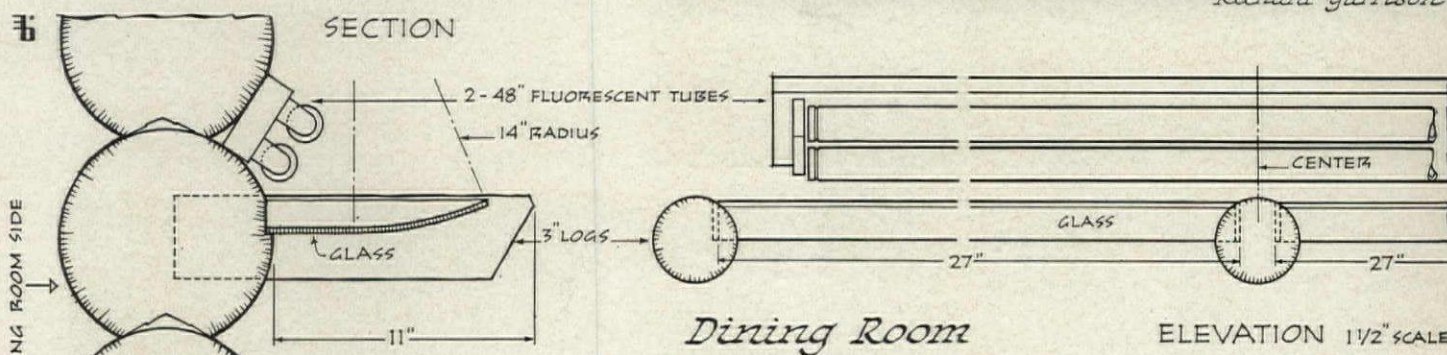


Hall

SECOND FLOOR, OVER STAIRS

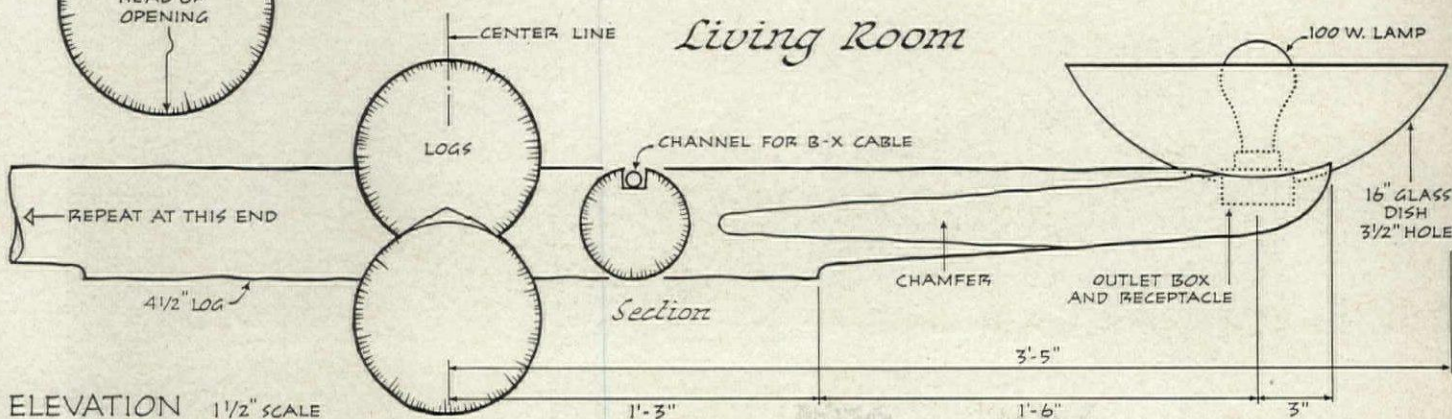


Richard Garrison



Dining Room

ELEVATION 1 1/2" SCALE



Living Room

ELEVATION 1 1/2" SCALE

BY GEORGE KOSMAK AND ERNST PAYER, ASSOCIATE ARCHITECTS

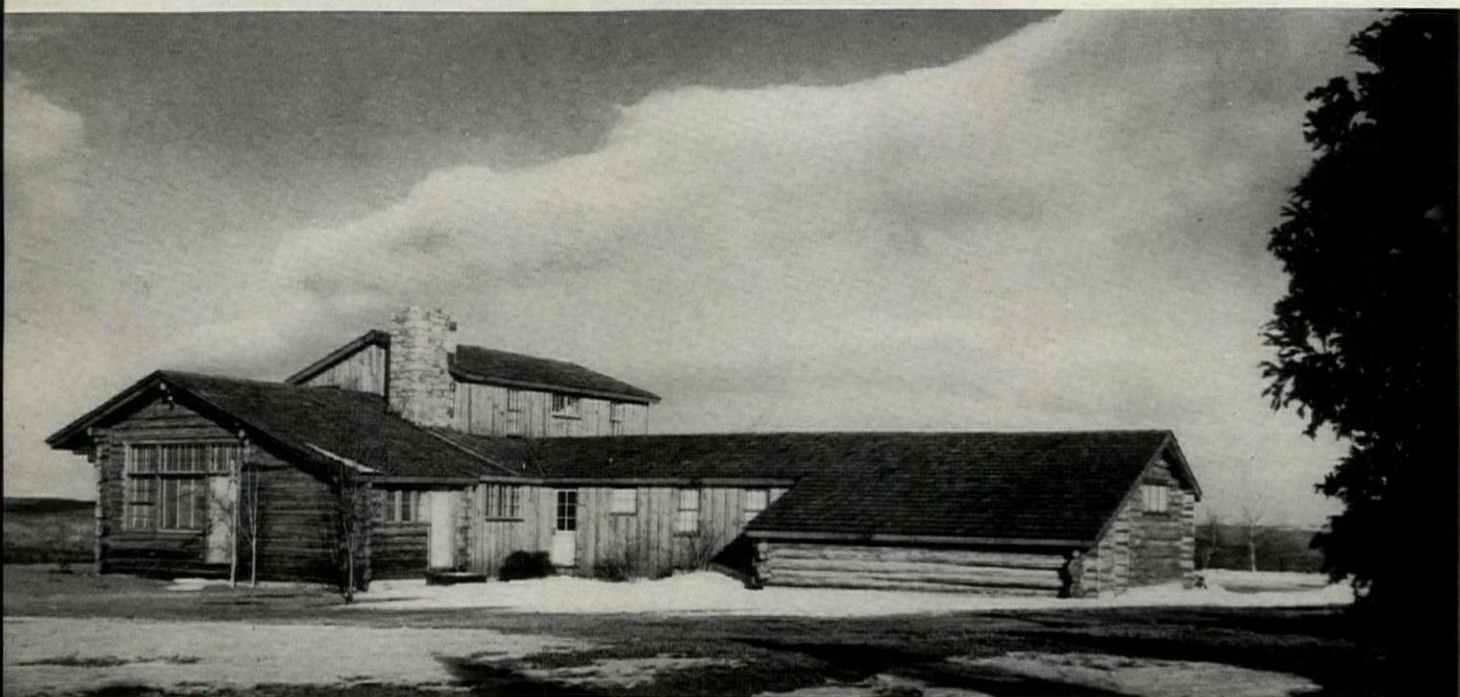
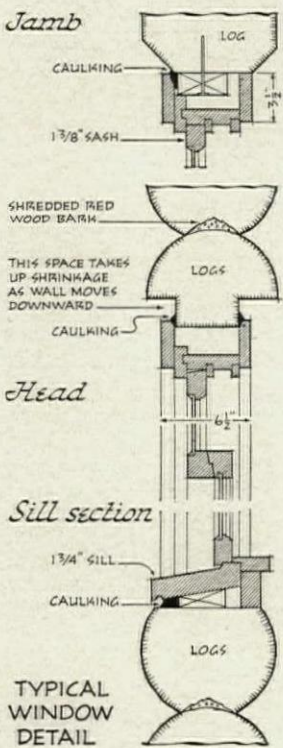
APRIL 1941



THE METHOD OF LOG CONSTRUCTION USED IN THE MURPHY HOUSE HAS BEEN A STANDARD FOR ALL TYPES OF BUILDINGS IN FINLAND AND IN PARTS OF ESTONIA FOR CENTURIES, AND A CREW OF FINNS ACQUAINTED WITH THE BUILDING METHOD WORKED ON THE HOUSE. NOTE THAT THE SECOND STORY IS LOCATED SO AS TO ENGAGE WITH THE CHIMNEY, THUS USING ITS STRENGTH AND UNIFYING THE SILHOUETTE



Richard Garrison Photos

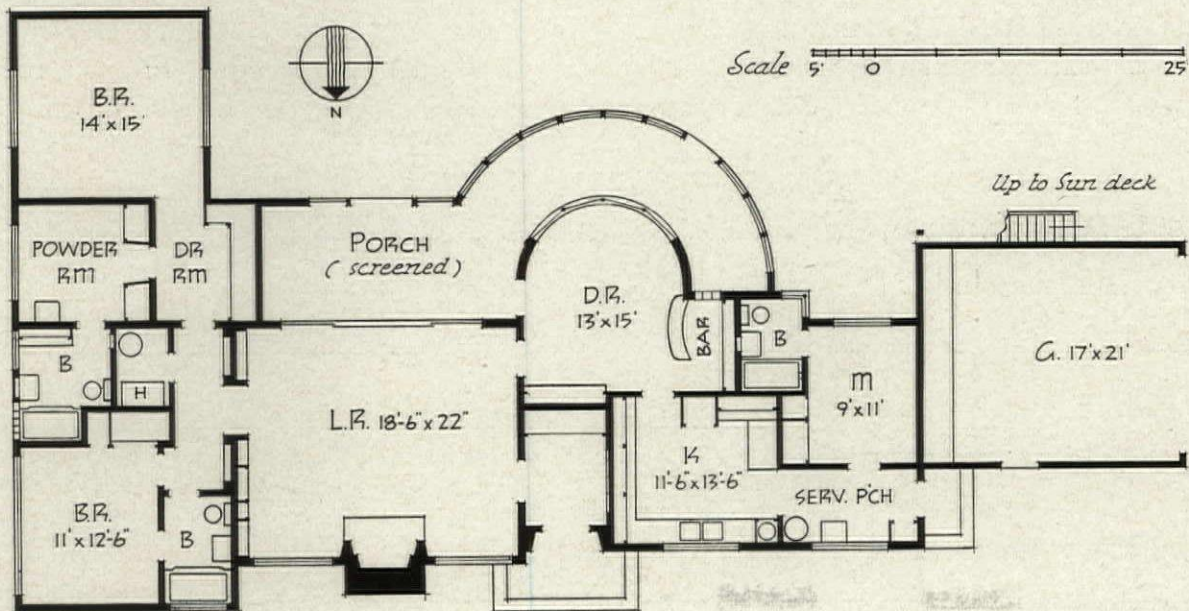


LOG HOUSE — BY GEORGE KOSMAK AND ERNST PAYER, ARCHITECTS



Julius Shulman

WALLED GARDEN

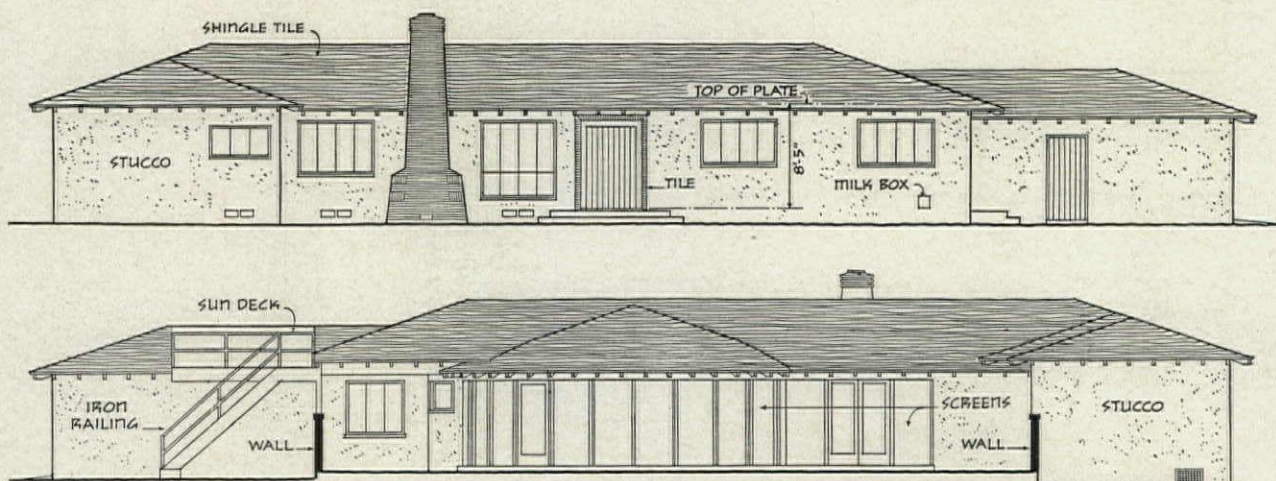


HOUSE AT PALM SPRINGS — BY PAUL LASZLO, BEVERLY HILLS

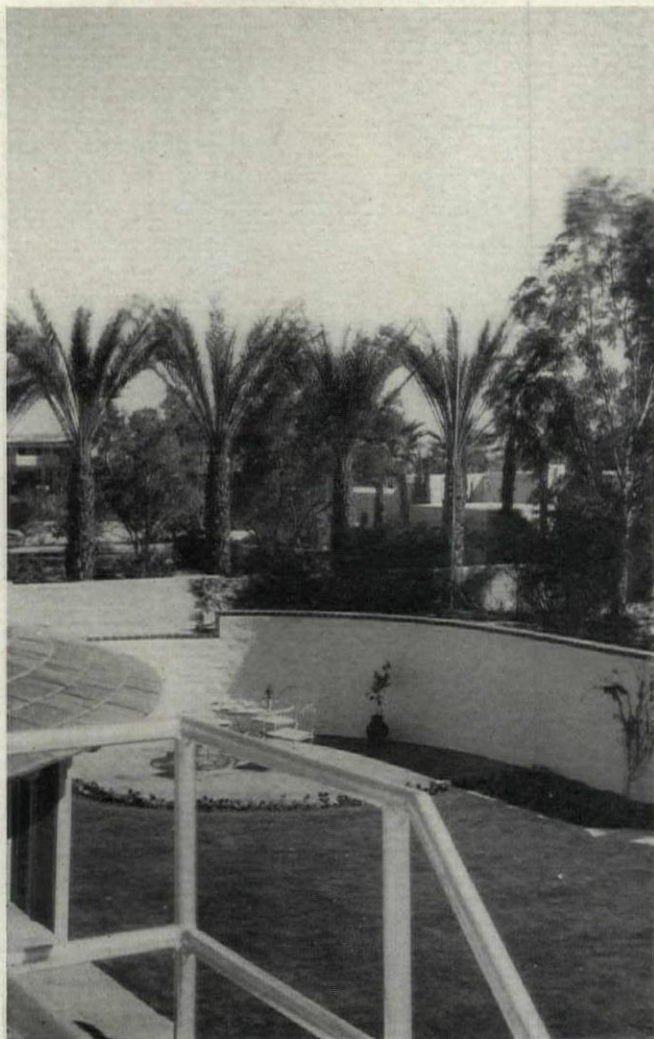


Julius Shulman

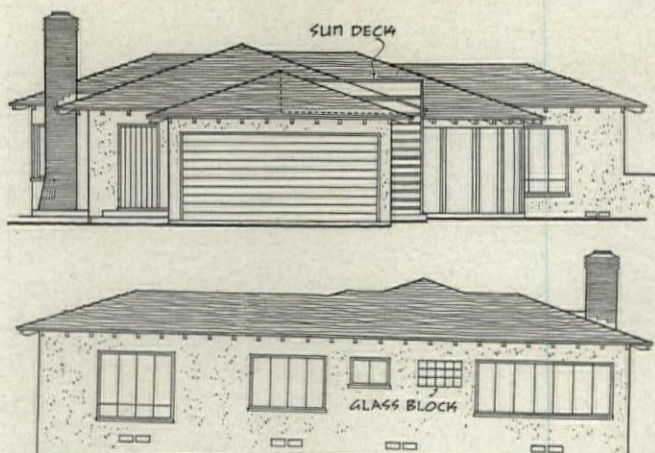
WIDE WINDOWS AND THE SPACIOUS SCREENED PORCH OF THE VACATION HOME OF MR. AND MRS. A. ROSENFELD, AT PALM SPRINGS, CALIFORNIA, DESIGNED BY PAUL LASZLO, OF BEVERLY HILLS, CAPTURE FINE VISTAS OF THE SURROUNDING HILLS. AS THE HOUSE WAS BUILT FOR ENTERTAINING, THE LIVING ROOM, PORCH, AND DINING ROOM ARE OPENED TOGETHER. SERVICE QUARTERS ARE AT THE FRONT OF THE HOUSE, ADJACENT TO THE GARAGE, AND THE BEDROOMS ARE AT THE REAR, SOMEWHAT REMOVED FOR PRIVACY. THE STUCCO WALLS ARE GRAY-WHITE AND THE TRIM AND STEEL CASEMENT WINDOWS ARE DARK GRAY. THE ROOF OF BLUE SHINGLE TILE AND THE RED CEMENT TERRACES MAKE AN EFFECTIVE COLOR CONTRAST. THE PHOTOGRAPH ABOVE SHOWS THE APPROACH TO THE HOUSE THROUGH THE WALLED YARD BESIDE THE GARAGE. THE RECESSED ENTRANCE DOOR IS OF ASH, LEFT THE NATURAL COLOR



VACATION HOUSE OF MR. AND MRS. A. ROSENFELD, PALM SPRINGS

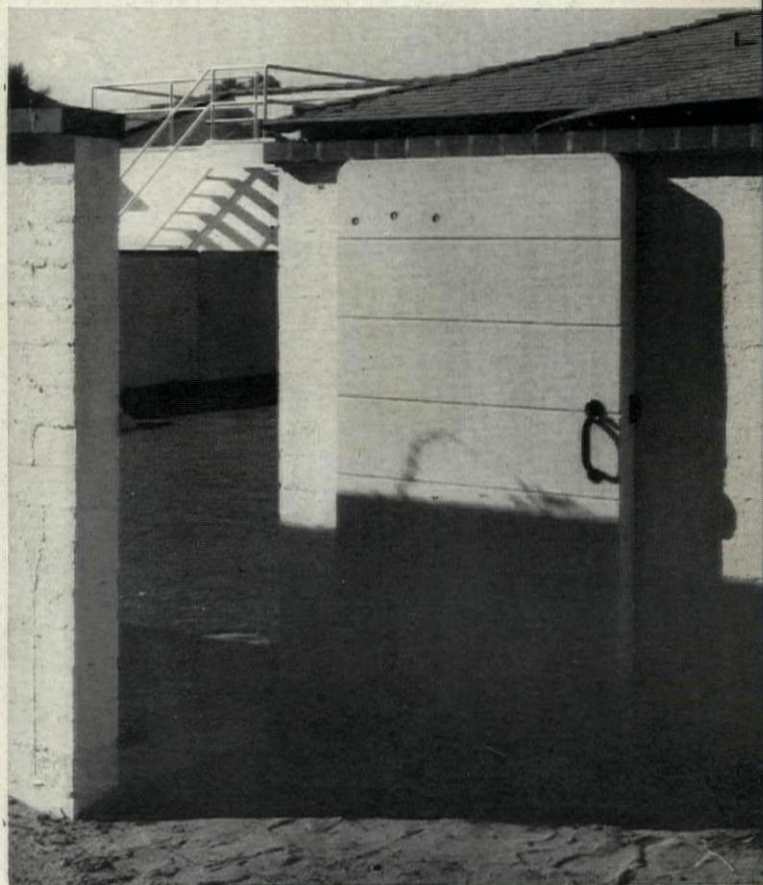


A DISTINCTIVE FEATURE OF THE ROSENFELD HOUSE IS THE ENCLOSED SUN DECK ABOVE THE GARAGE, WHICH CAN BE LEFT OPEN AS AN OBSERVATION DECK OR CLOSED WITH CANVAS CURTAINS (SEE PHOTOS ABOVE). THE VIEW AT THE RIGHT, LOOKING ACROSS THE WALLED GARDEN, WAS MADE FROM A SIDE GATE OPPOSITE THE PORCH BY DR. H. G. KAHN, OF LOS ANGELES. THE CAREFUL ATTENTION TO DETAIL, BOTH IN DESIGN AND IN EXECUTION, IS CHARACTERISTIC OF LASZLO'S DISTINGUISHED DOMESTIC WORK



DESIGNED BY PAUL LASZLO

APRIL 1941





THE LIVING AREA OF THE HOUSE IS GRACEFULLY DISPOSED. THE DINING ROOM, ABOVE, IS HUNG WITH BEIGE GRASSCLOTH. THE LIVING ROOM, BELOW, IS PAINTED A LIGHT GRAY AND OPENS TO THE PORCH



Julius Shulman

HOUSE AT PALM SPRINGS — BY PAUL LASZLO, BEVERLY HILLS

ARMSTRONG CORK COMPANY SHOWROOMS

BY DON HATCH, ARCHITECT

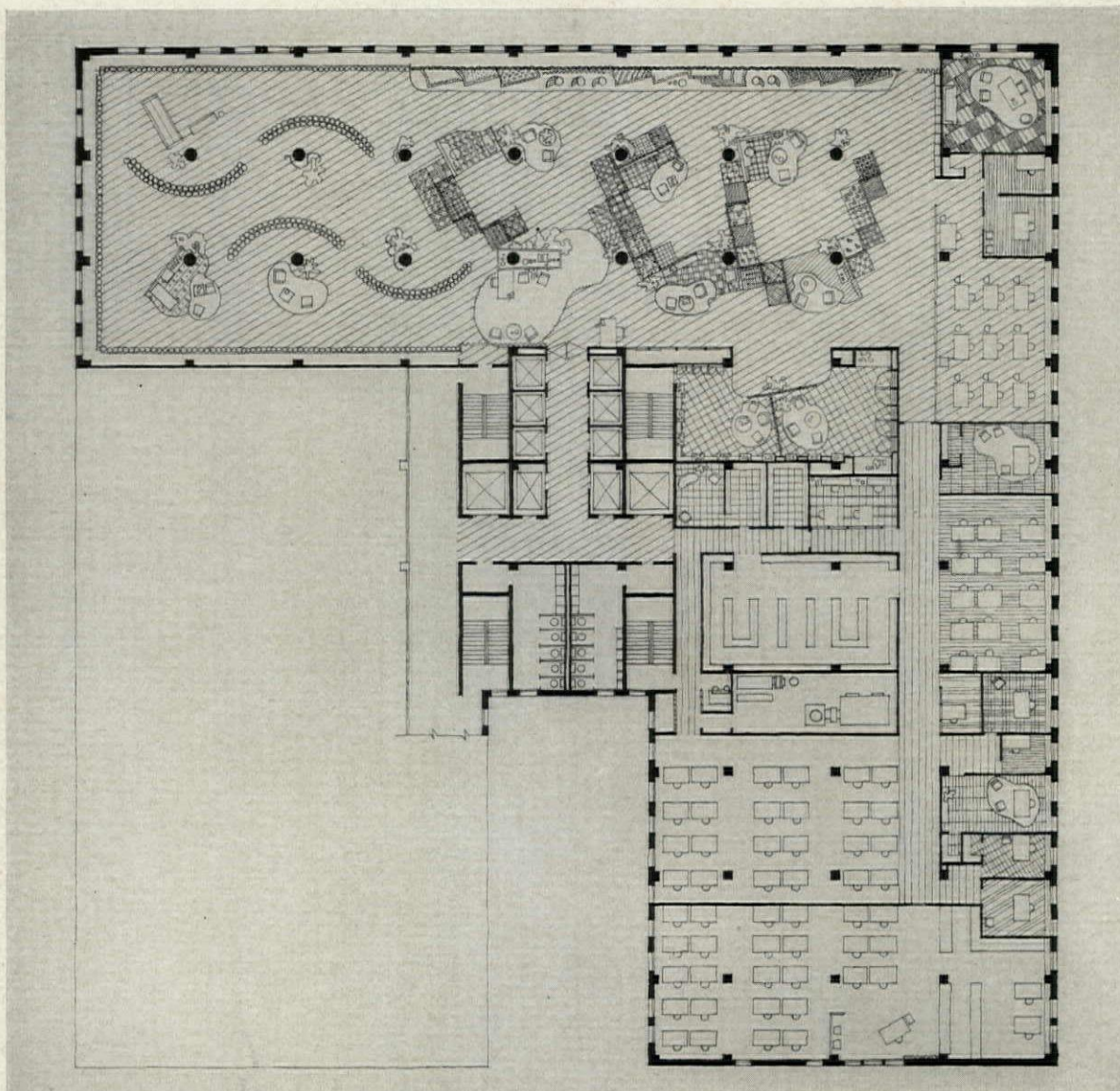
The essence of the design of the New York showrooms and offices of the Armstrong Cork Company at 295 Fifth Avenue was to continue and to increase the sale of the various Armstrong products. To do this, it was felt that the design must complement the products with an effective display background—and that the offices must function with smooth efficiency.

The governing premises in execution were flexibility, progressiveness, and economy. Flexibility is desirable to permit a number of arrangements of new products and periodic changes in the displays to retain an impression of freshness. Progressiveness is a factor of tangible value in presentation of display ideas to dealers. Economy in general construction and mechanical equipment, without sacrificing quality, is always desirable.

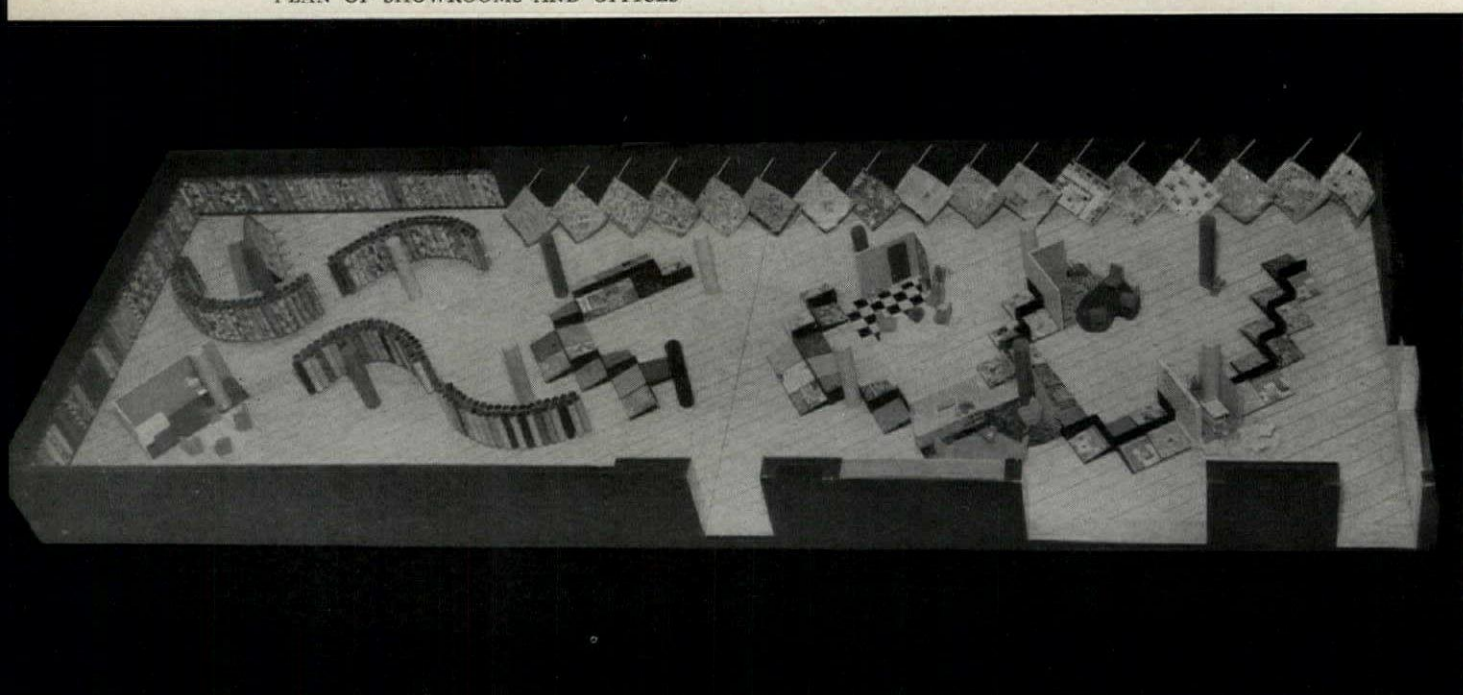
The floor division showroom dominates the solution by its space requirements. The existing line of Armstrong floor coverings is displayed in rolls around the walls and in free-standing serpentine racks—all at the left of the entrance and reception area. The rolls are held in place by specially-designed wood strips, topped by a plaster valance along the wall and by plastic collars in the serpentine racks. The other half of the 60' x 170' room is thus left free for the display of new patterns—four-foot square samples laid on movable inclined platforms that can readily be arranged in any desired layout to attract buyers and to direct their circulation through the display area. At various points throughout the new pattern section are furniture groups where visitors may rest, talk, and write orders—or even telephone.

Along the corrugated glass wall opposite the entrance a raised display platform gives an opportunity to dramatize special products. A soft drapery can be drawn to cover the wall or any part of the area, depending on the amount of sunlight desired in the showroom. The saw-tooth fluorescent ceiling lighting scheme gives partly semi-direct light from the white ceiling and the balance in directional light through continuous prismatic glass. The source of light is concealed from the eyes of one entering the showroom—giving an appearance of daylight over the entire area. Incandescent spot lights in the ceiling are used at intervals to accent the new patterns and to supply the yellow light needed for color correction of the fluorescent blue. For lighting the roll displays along the wall, a combination of fluorescent tubes and incandescent lamps mounted in a highly polished continuous reflector, concealed behind the plaster valance, give excellent distribution of light for the full height of the rolls. For the free-standing serpentine roll displays, daylight incandescent lamps, behind flush glass ceiling lenses light the rolls with good color correction.

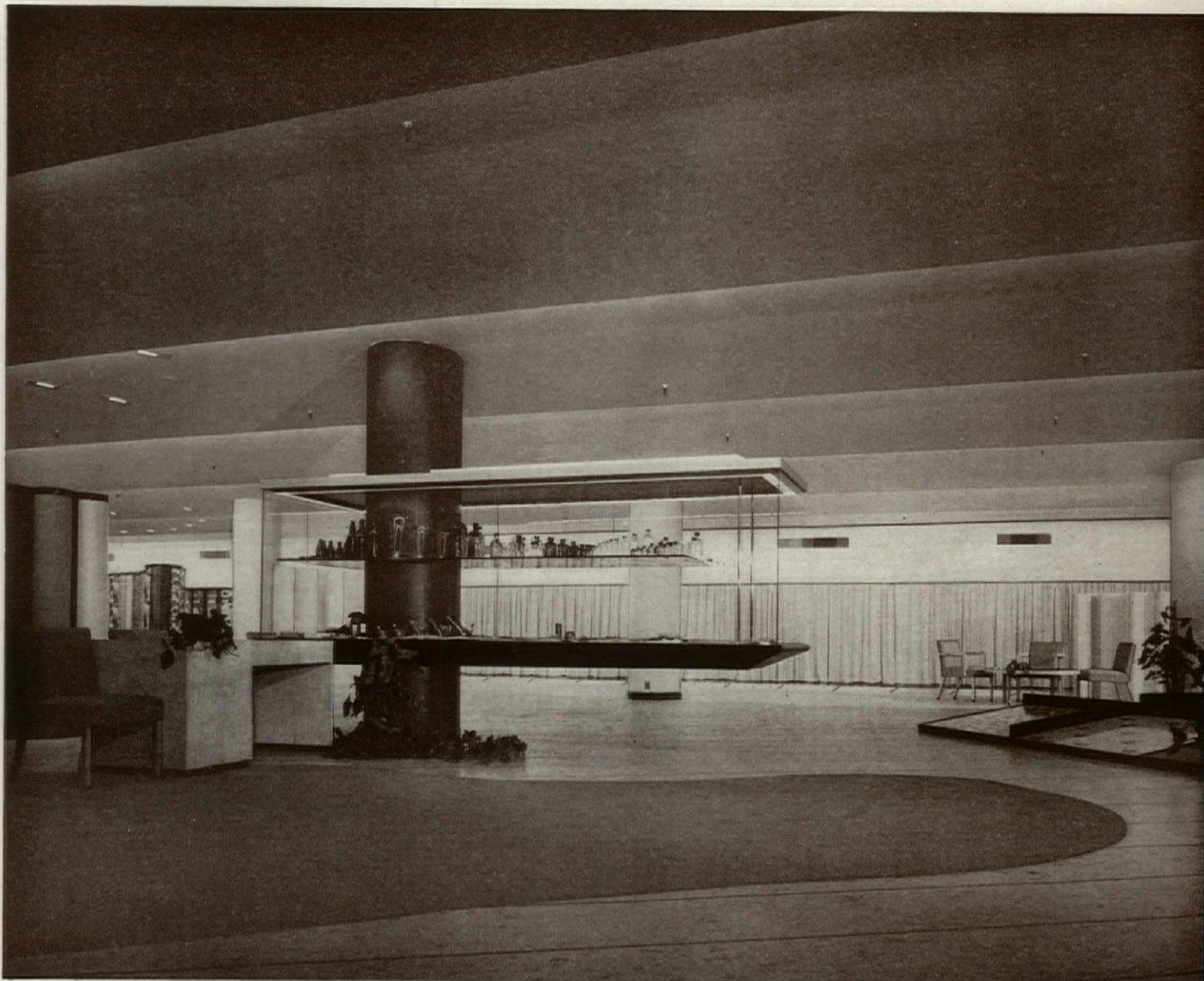
The accent color has been taken from the newly introduced copper shade. This color appears in the linoleum pin-stripe in a white field on the floor, in the rubber base at the columns and walls, and in the linoleum tops of the tables and desks. The columns are alternately covered with yellow and grey Linowall, wisely used here to withstand extra hard wear. Eggplant rugs, maple furniture upholstered in ivy and eggplant, and citron-tinted wall add to the color scheme.



PLAN OF SHOWROOMS AND OFFICES



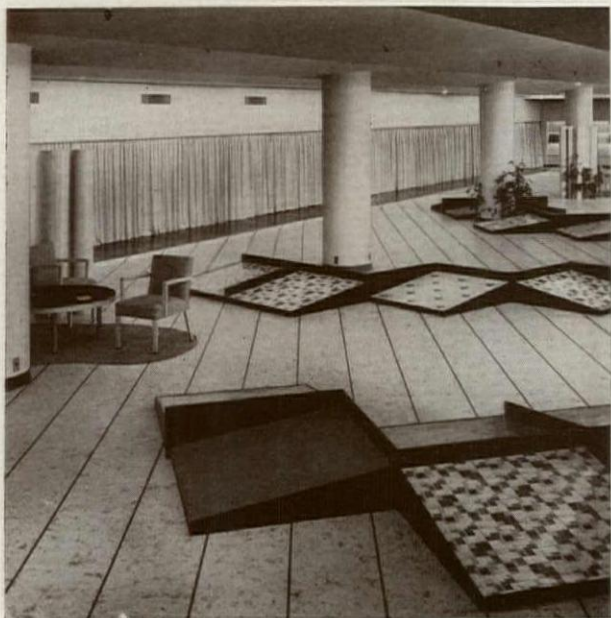
MODEL OF THE MAIN SHOWROOM BY
THEODORE CONRAD. PHOTO BY CHECKMAN



AT THE ENTRANCE TO THE SHOWROOMS IS A RECEPTION AREA. THE EFFECTIVE CANTILEVERED SHOWCASE CONTAINS VARIOUS ARMSTRONG COMPANY PRODUCTS OTHER THAN THOSE MADE BY THE FLOOR DIVISION



Photos by Richard Garrison

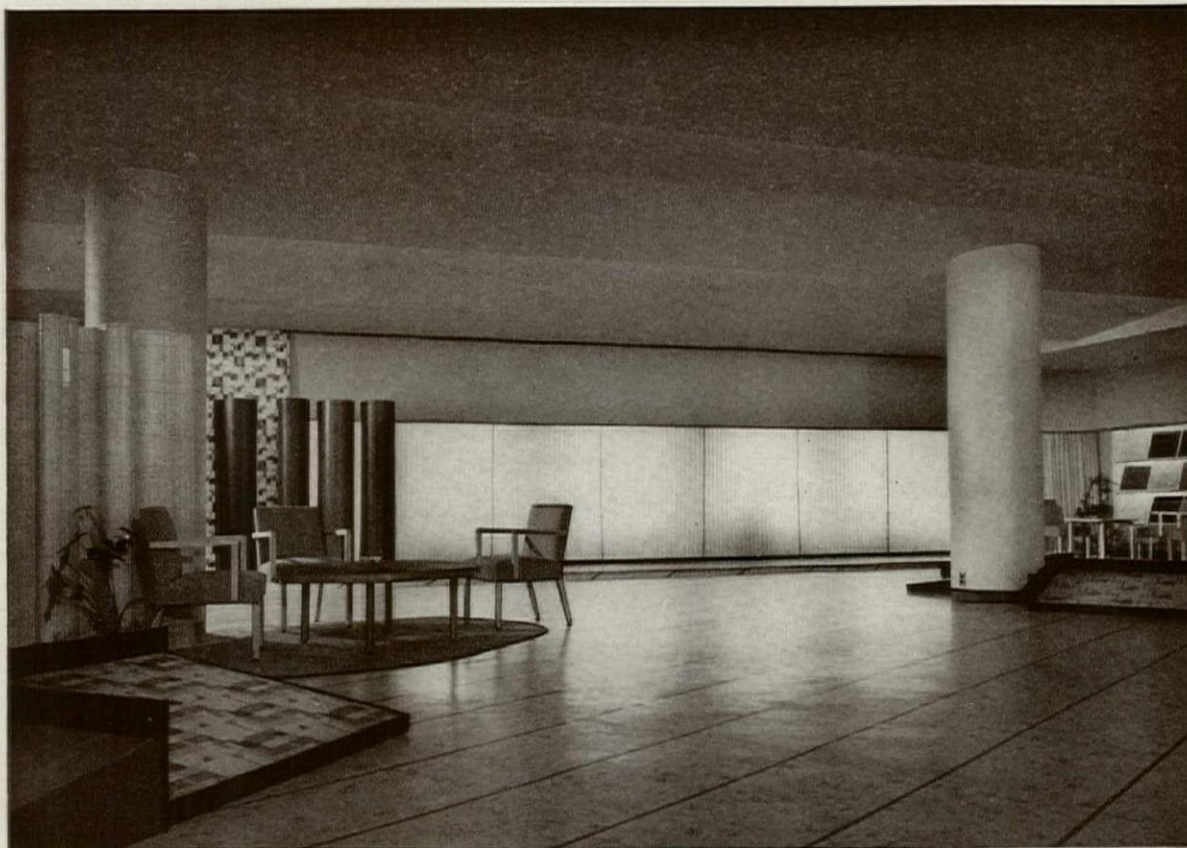


THE GENERAL VIEW OF THE FLOOR DIVISION SHOWROOM INDICATES THE SUCCESS OF THIS BACKGROUND FOR MERCHANDISING, AND THE INGENUOUS SOLUTION OF THE SPACE PROBLEM OF SHOWING BOTH THE COMPREHENSIVE EXISTING LINE OF FLOOR COVERINGS AND A CHANGING DISPLAY OF THE NEW PATTERNS

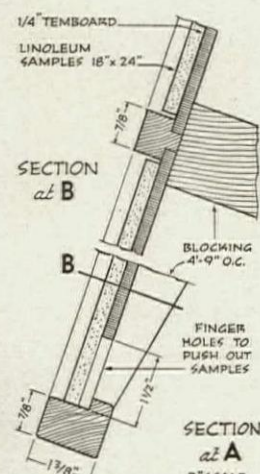
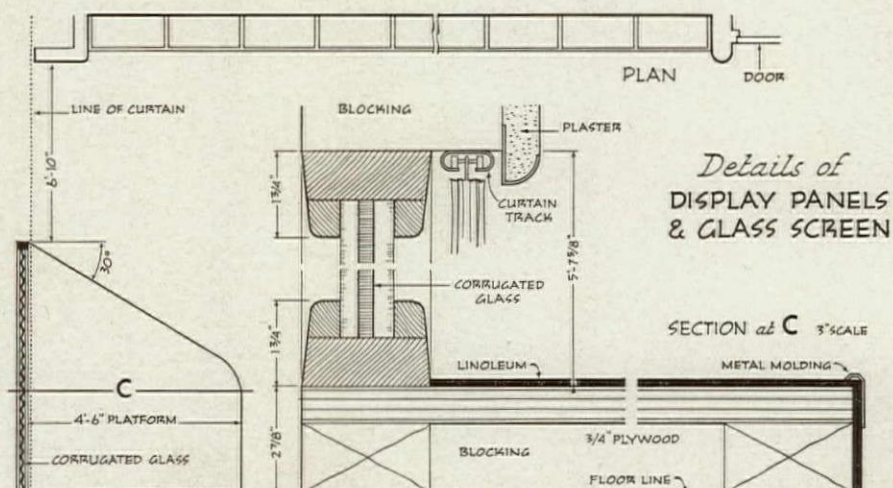
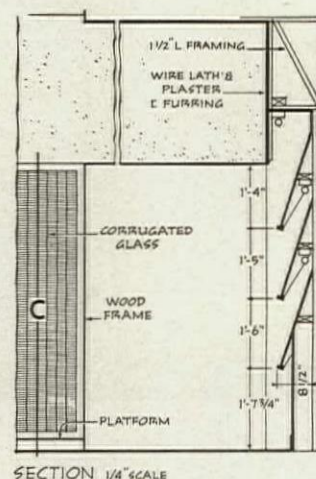
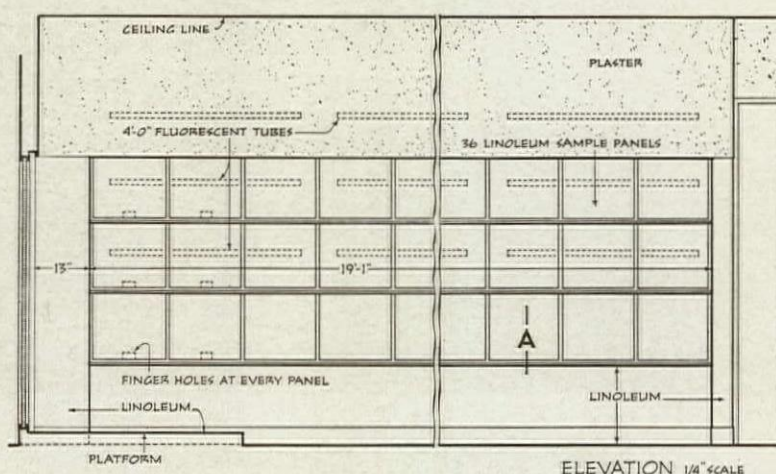


THE NEW PATTERNS, FOUR-FOOT SAMPLES ON MOVABLE INCLINED PLATFORMS, ARE IN THE FOREGROUND AND THE EXISTING LINE IS IN ROLLS ARRANGED AROUND THE WALLS AT THE FAR END OF THE SHOWROOM AND IN THE SERPENTINE FREE-STANDING RACKS. (DETAIL PHOTO AT RIGHT SHOWS SERPENTINE RACKS)

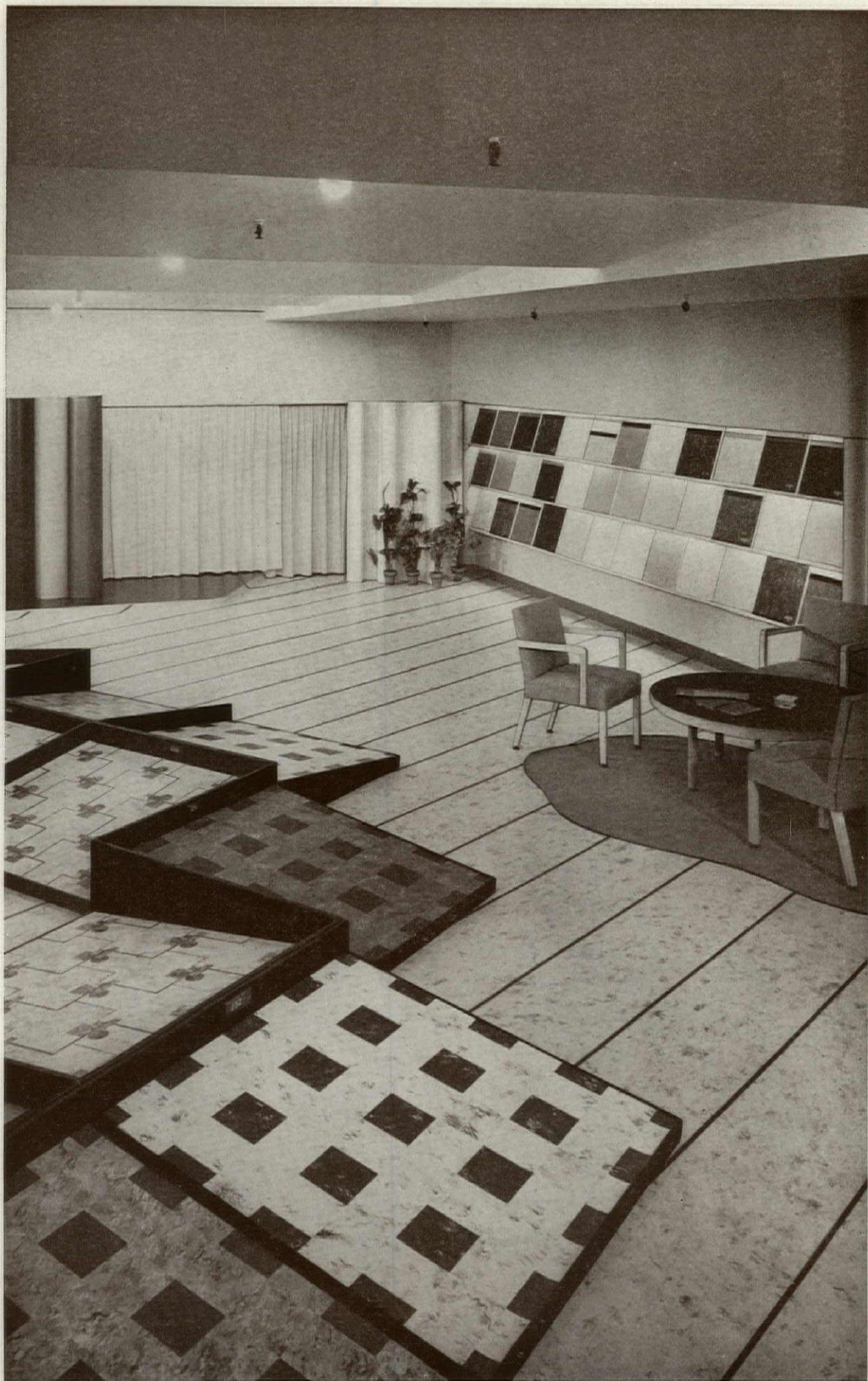




Richard Garrison



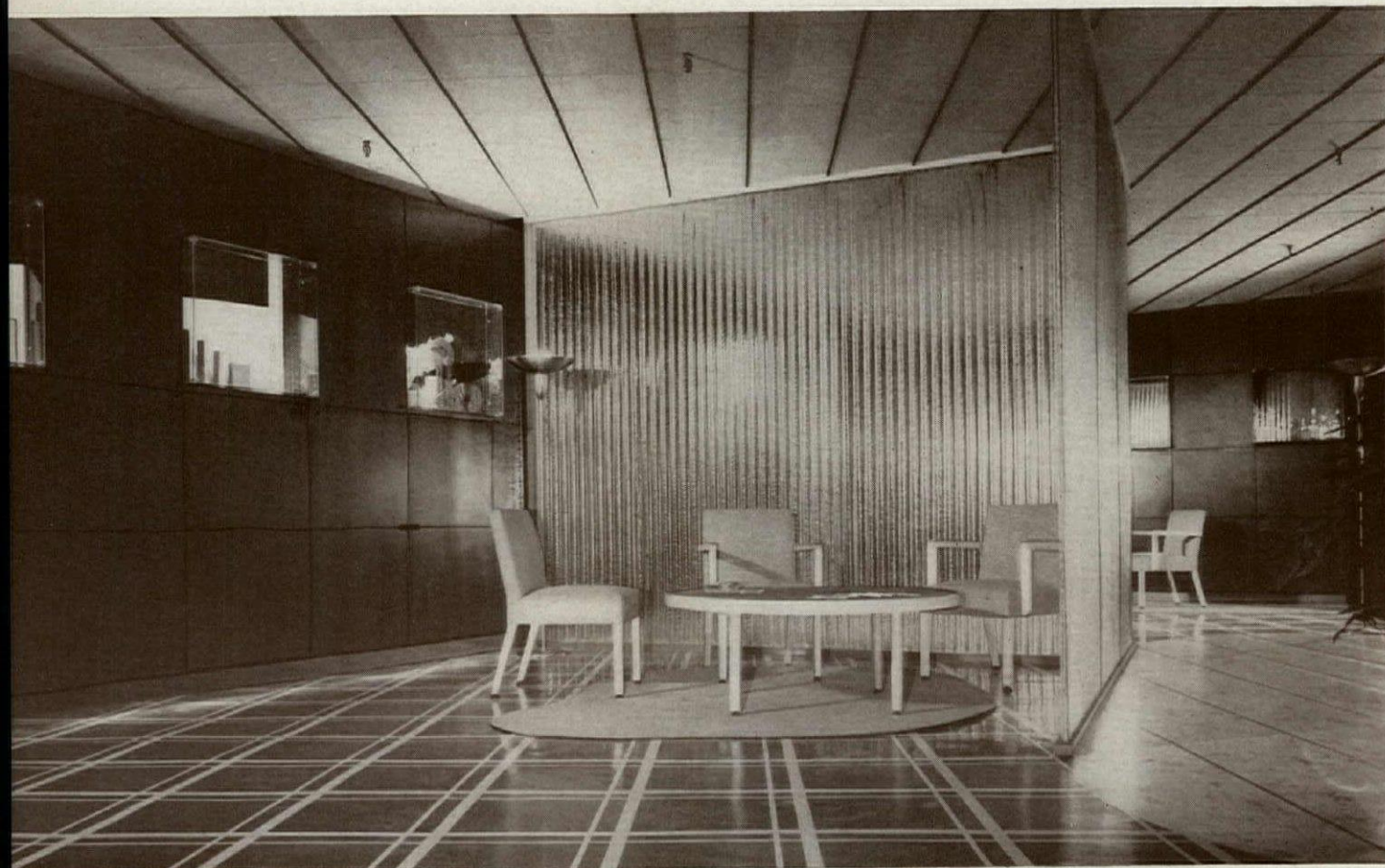
ARMSTRONG CORK COMPANY SHOWROOMS AND NEW YORK OFFICES



Richard Garrison

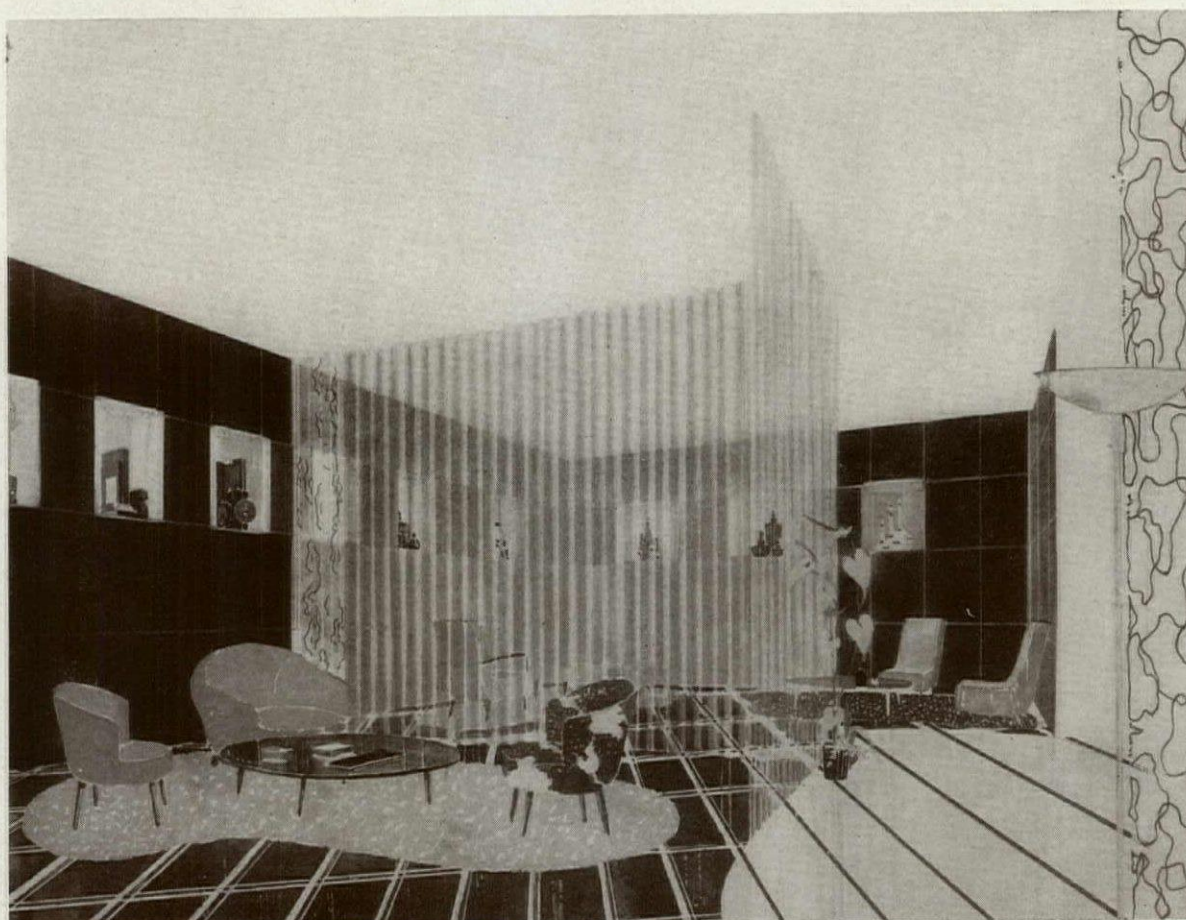
DESIGNED BY DON HATCH, ARCHITECT, OF NEW YORK CITY

APRIL 1941



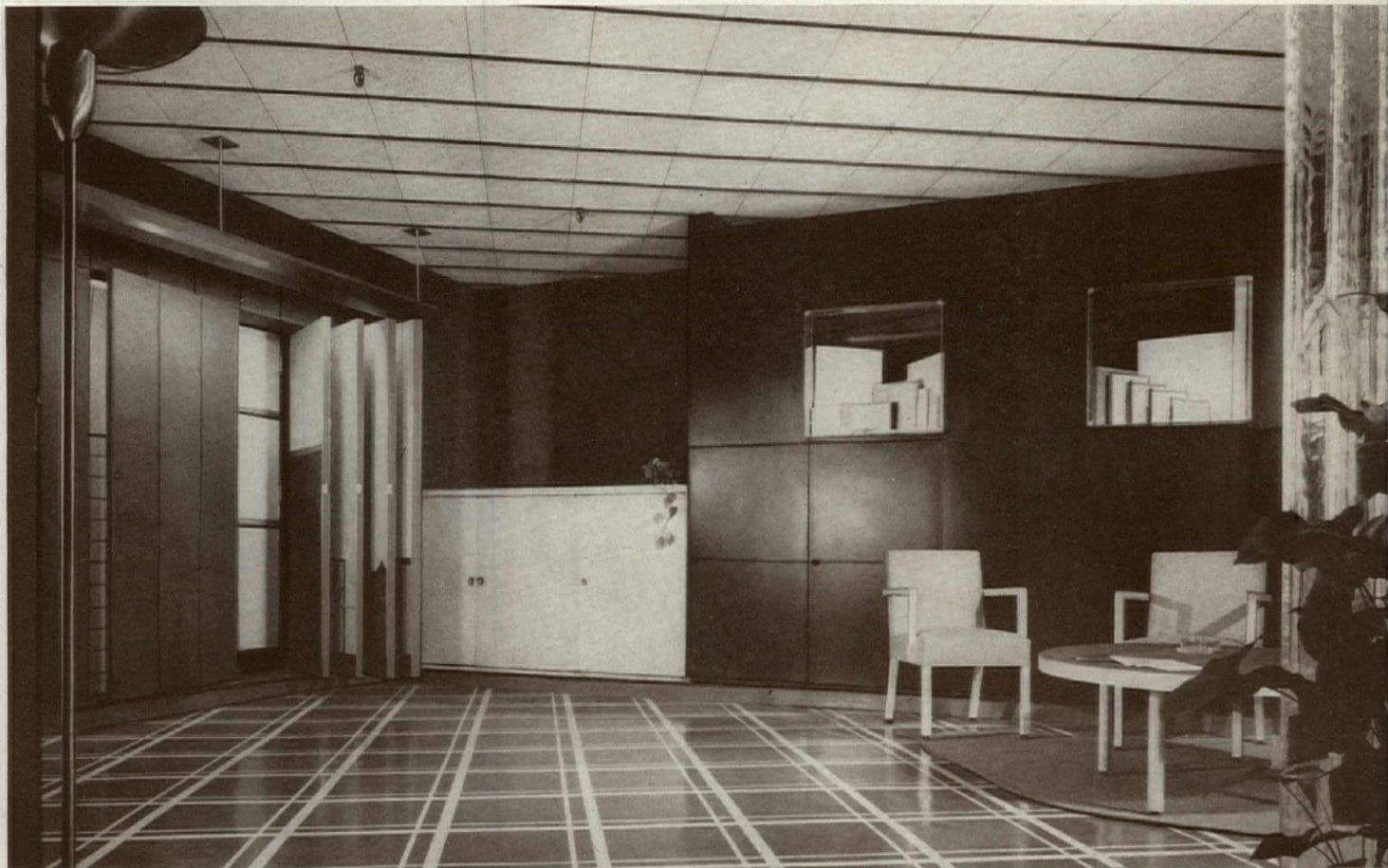
Richard Garrison

SHOWROOMS FOR BUILDING MATERIALS AND GLASS AND CLOSURE DIVISIONS, SEPARATED BY A CORRUGATED GLASS SCREEN, ARE ADJACENT TO THE MAIN SHOWROOM. NOTE THE ARCHITECT'S SKETCHES BELOW

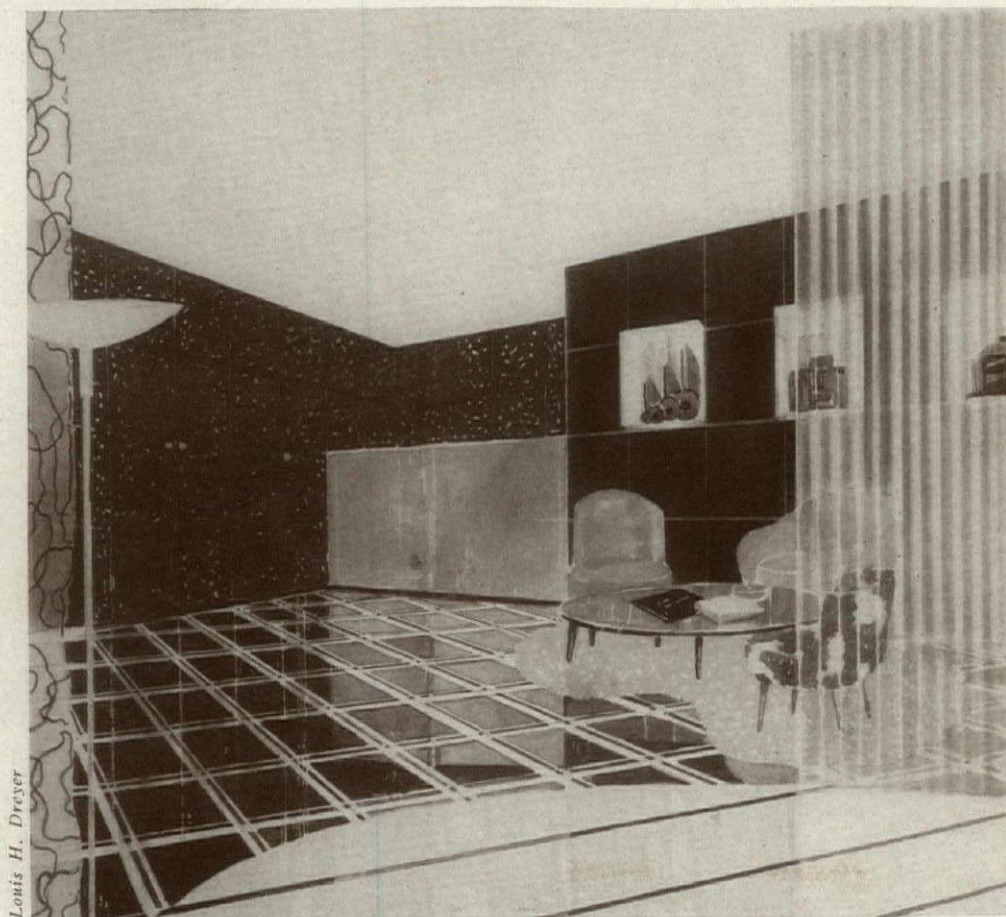


Louis H. Dreyer

ARMSTRONG CORK COMPANY SHOWROOMS AND NEW YORK OFFICES



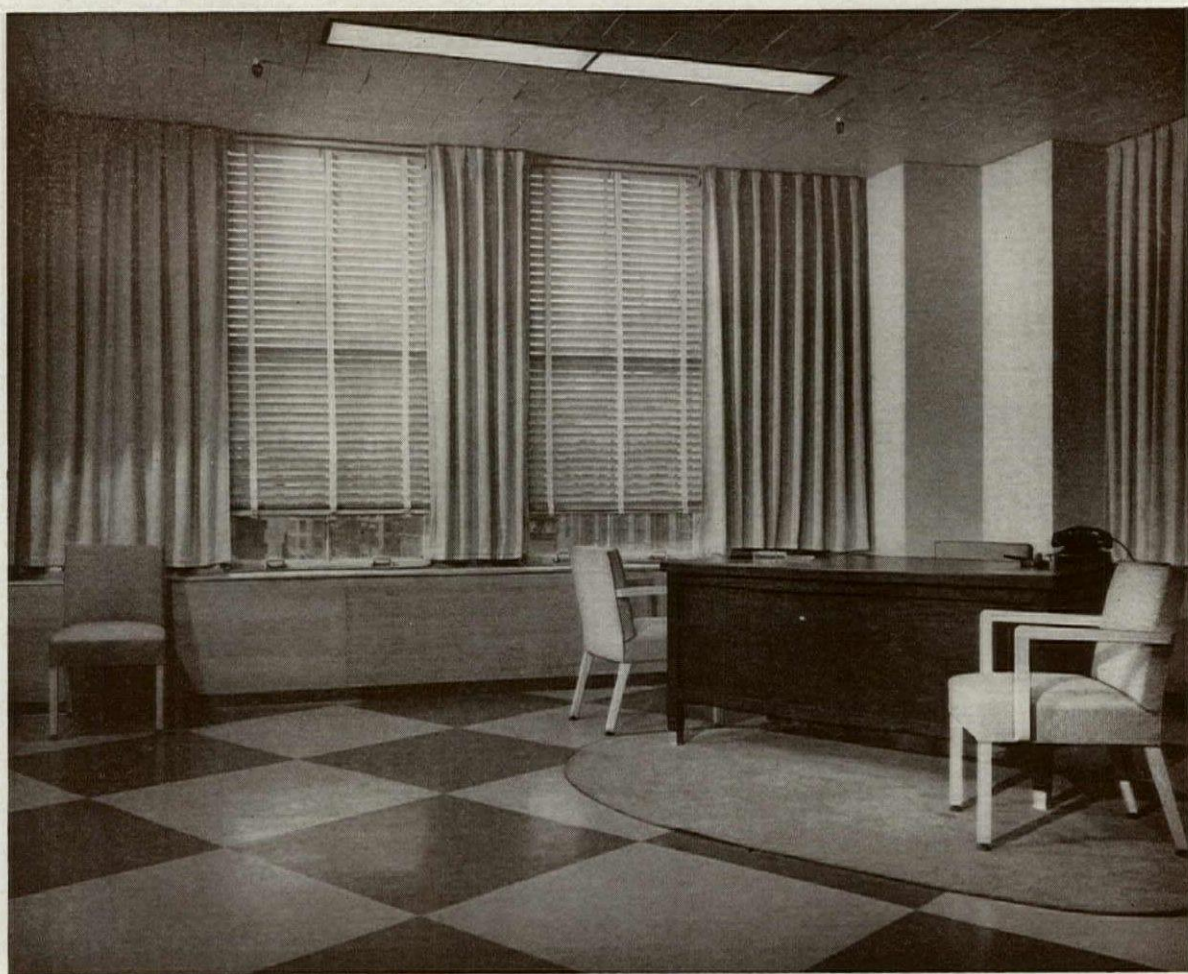
WALL FINISHES ARE ARRANGED IN NESTS OF CONCEALED DOORS, PROVIDING MAXIMUM DISPLAY AREA. GLASS WALL CASES DRAMATIZE A VARIETY OF BUILDING PRODUCTS



BY DON HATCH, ARCHITECT, OF NEW YORK CITY

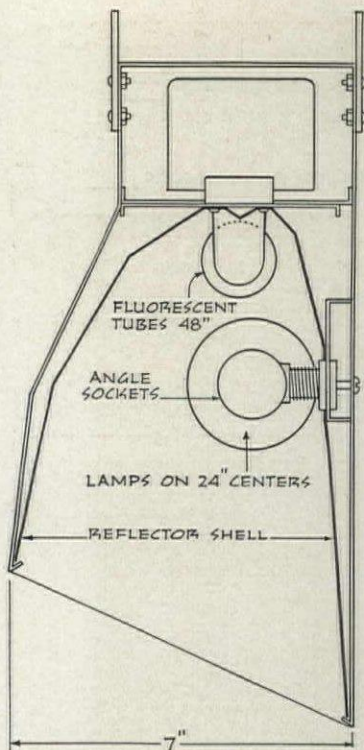


THE SALESMEN OF THE FLOOR DIVISION ARE SEPARATED FROM THE SHOWROOM ONLY BY A PLATE GLASS WALL. PIN-STRIPE FLOOR PATTERN IS CARRIED THROUGH THE TWO AREAS TO EMPHASIZE THE RELATION. OFFICE OF THE DIVISION MANAGER ILLUSTRATES A DIGNIFIED USE OF THE ARMSTRONG PRODUCTS



Photos by Richard Garrison

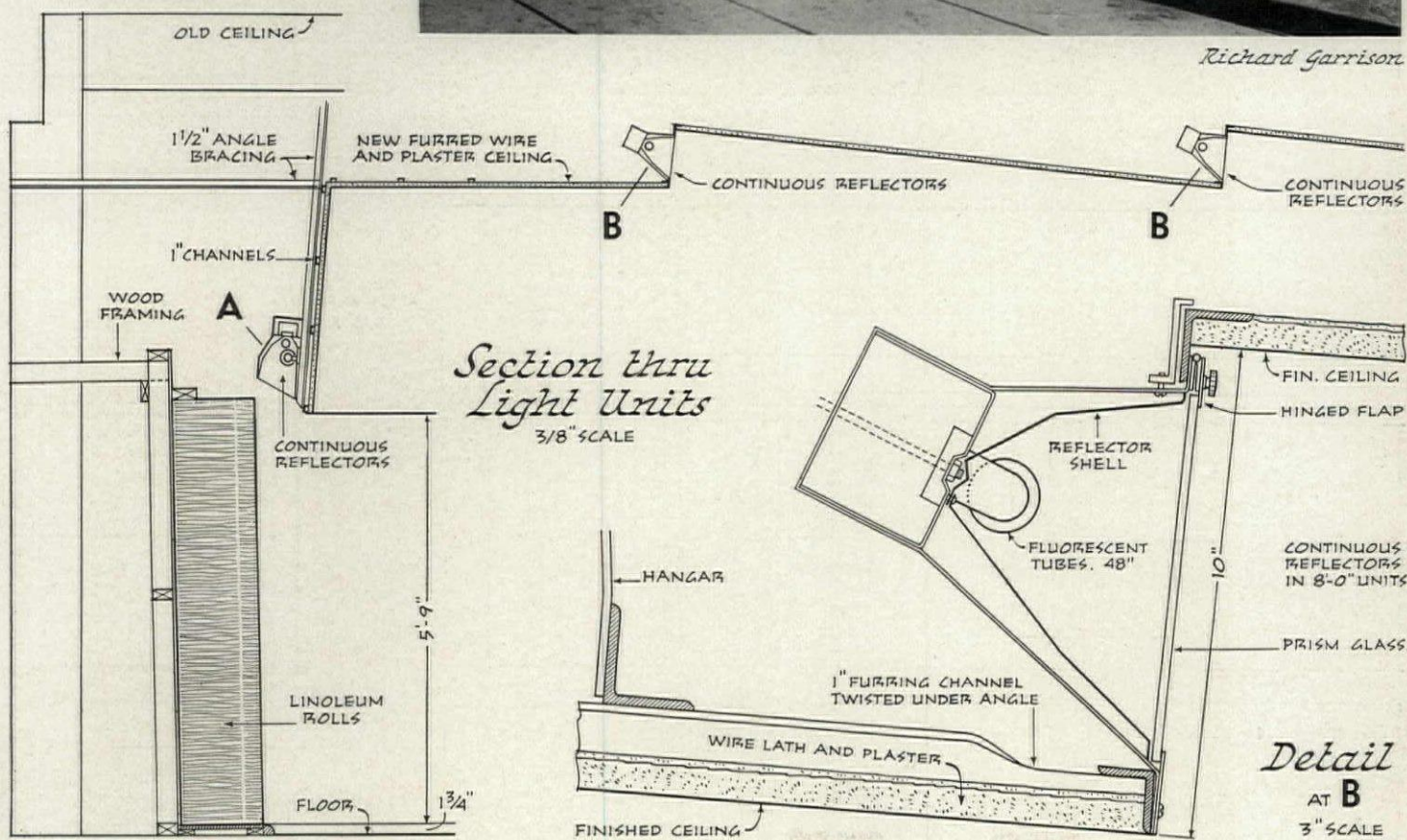
ARMSTRONG CORK COMPANY SHOWROOMS AND NEW YORK OFFICES



Detail AT **A**
3" SCALE



Richard Garrison



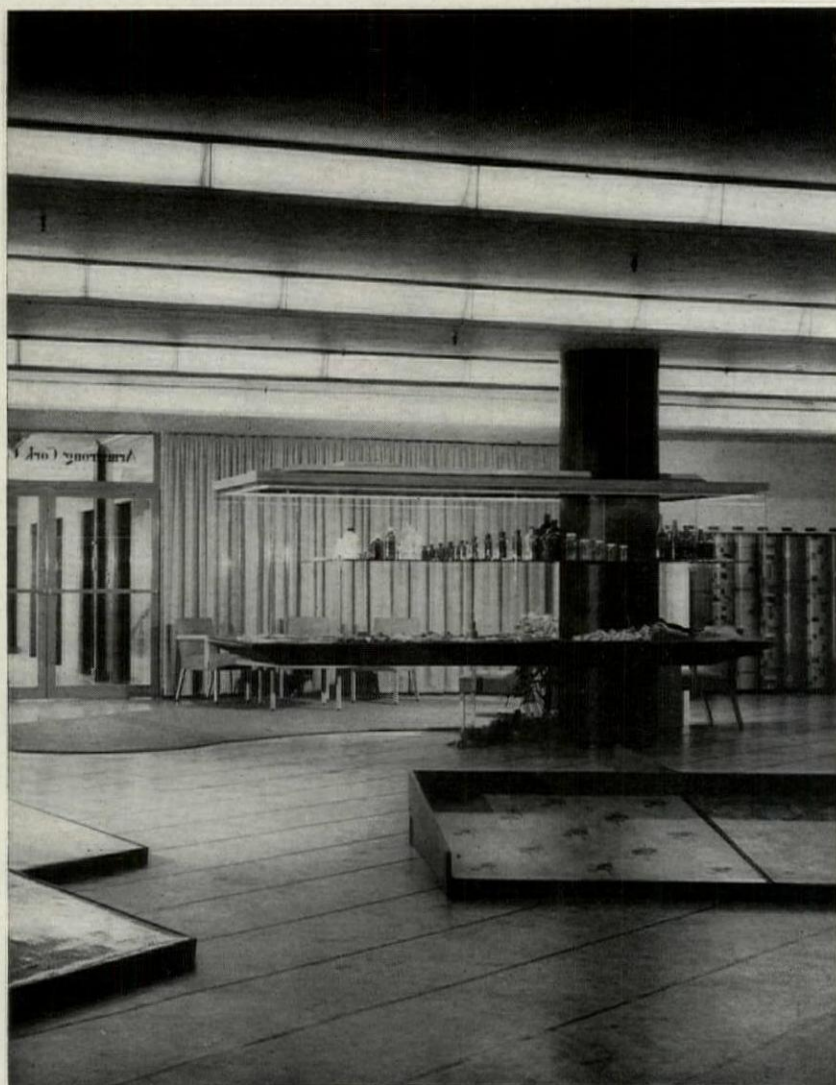
*Section thru
Light Units*
3/8" SCALE

Detail
AT **B**
3" SCALE

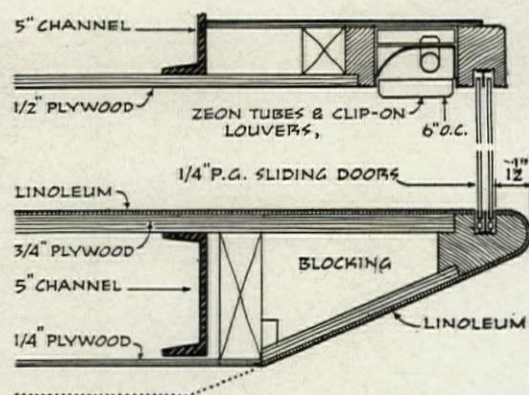
DESIGNED BY DON HATCH, ARCHITECT, OF NEW YORK CITY

APRIL 1941

251



Richard Garrison



Section

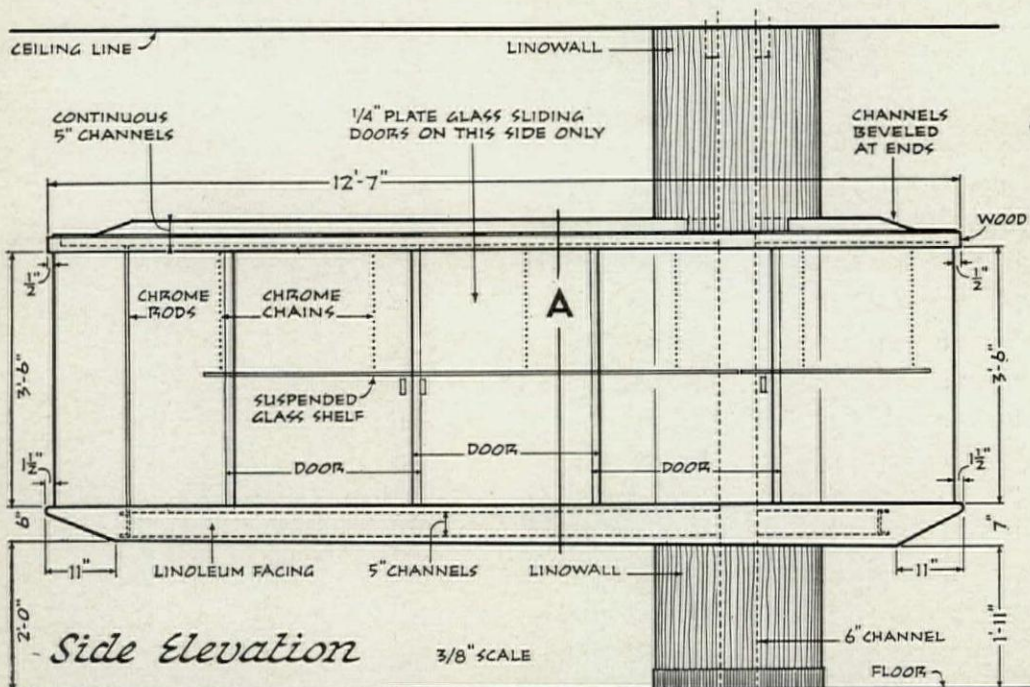
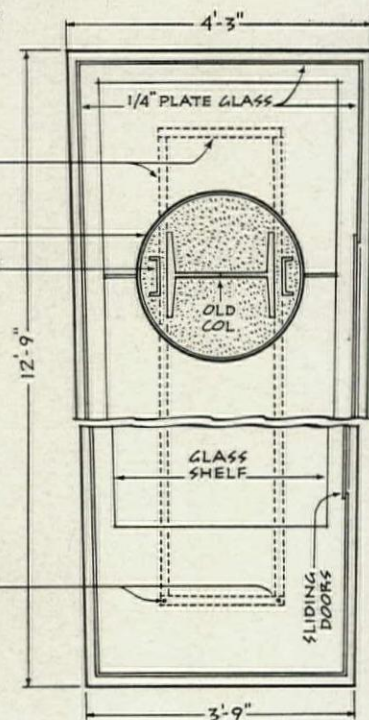
AT A
1 1/2" SCALE

6" CHANNEL
FRAMING
LINOLEUM
COVERING
NEW CHANNELS

5/8" Ø CHROME
RODS

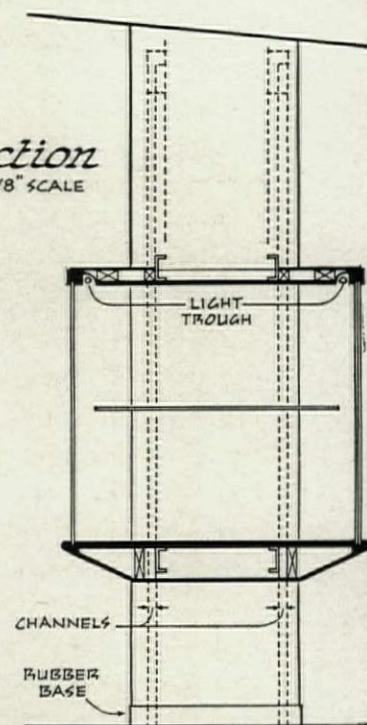
Plan

3/8" SCALE



Section

3/8" SCALE



ARMSTRONG CORK COMPANY SHOWROOMS—BY DON HATCH

CONTRA-VERSUS

TWO ARCHITECTURAL LEAGUE EXHIBITIONS

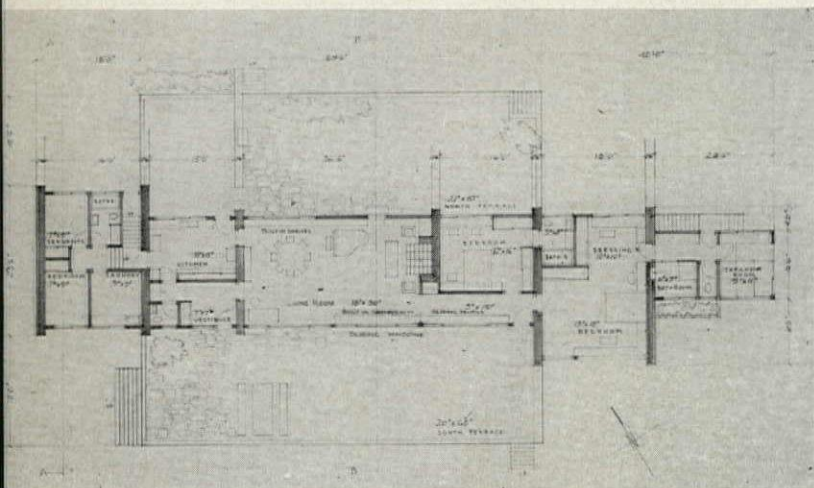
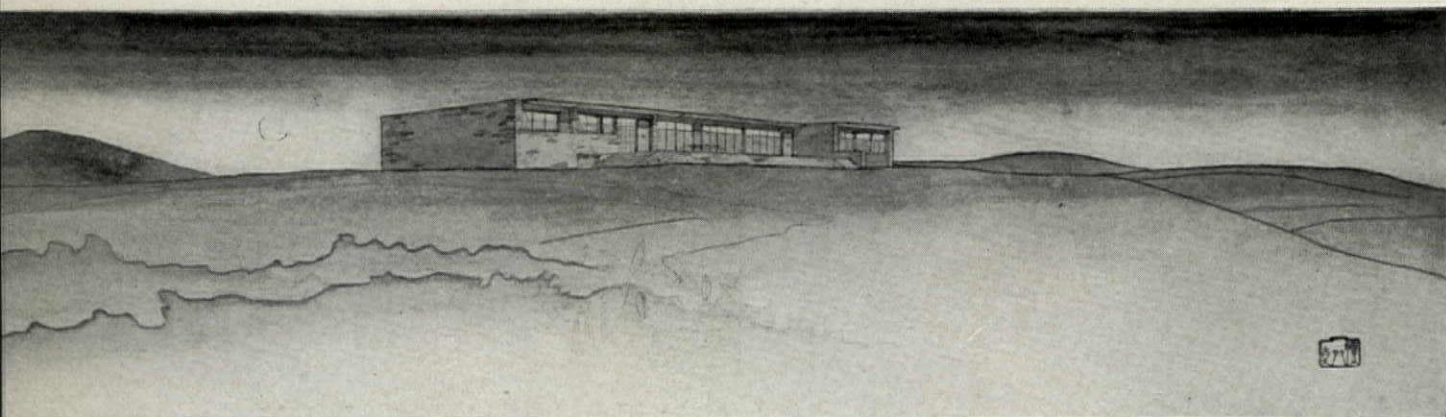
BY TALBOT F. HAMLIN

Again the Architectural League has come to the rescue of the profession with two coincidental architectural exhibitions: the first, in the downstairs rooms, a so-called "Panel Show," put together by a few League members; the other, upstairs, an exhibition of the work of a selected group of the younger architects called "40 Under 40," arranged in cooperation with the *Architectural Forum*. Thus, again, it has in the combined shows produced another version of the "Versus" show, with the emphasis for the separation on age rather than style.

This differentiation on the basis of age seems even more artificial and less important than the differentiation on style. Creative ability in architecture is no prerogative of any age group. It is, of course, important and worthwhile to see what the younger designers are creating. As a mere news item, "40 Under 40" is interesting, but as a show possessed of some special and, as it were, esoteric significance such as is suggested by the captions lettered at the entrance it is a disappointment. After all, Frank Lloyd Wright is over seventy and, alas, there are hundreds of *young* architects throughout the country doing as unthinkingly conservative and opportunistic work as any which their elders produce. If we find today much of the most significant American architecture done in the fields of hospital, school, and industrial work—one thinks, for instance, of the new Queens Tuberculosis Hospital or the new building of the Massachusetts General, of any number of western schools, of Hunter College, of the magnificent dams and pow-

erhouses of the TVA—one almost necessarily finds little of it in the "40 Under 40" group, which is seemingly directed toward the individual private house field, with but few exceptions. Moreover, the issue is still further confused by the problem of partnerships. Several of the exhibits in the "40 Under 40" show are really the work of partnerships in which one member happens to be within the required age limitations. Who can say to what part of the partnership the particular design shown is due? When the designing groups become very large, as in the case of some of the housing shown, the question is even more obscure.

This almost inevitable confusion of aims is apparent in the exhibitions themselves. There is, as might be expected, in the "Panel" show more work of a purely conventional type than in the work upstairs. Nevertheless, there are in it also such outstanding pieces of modern design as Aymar Embury's superb Bronx-Whitestone Bridge, which in its marrying of constructive daring and æsthetic elegance is one of the truly notable modern buildings of America. Electus Litchfield shows photographs of the Yorkship housing of twenty-two years ago. Despite the Colonialesque quality of the detail, it reveals a grasp of basic composition, a power of design in its relation of streets and buildings and village square, and a feeling for what makes up pleasant and harmonious community living that few of our modern housing developments have achieved. Certainly, if we accept its style as the natural expression of its time, it makes



PERSPECTIVE AND PLAN OF "CLOVER TOP FARM" DESIGNED BY ANTONIN RAYMOND MADE ONE OF THE MOST INTERESTING EXHIBITS IN MARCH'S "PANEL SHOW" AT THE ARCHITECTURAL LEAGUE. PHOTOS OF THE EXHIBITS BY LOUIS H. DREYER

the crowded and confused plan of Vladeck Houses shown in the exhibit upstairs seem backward and discouraging!

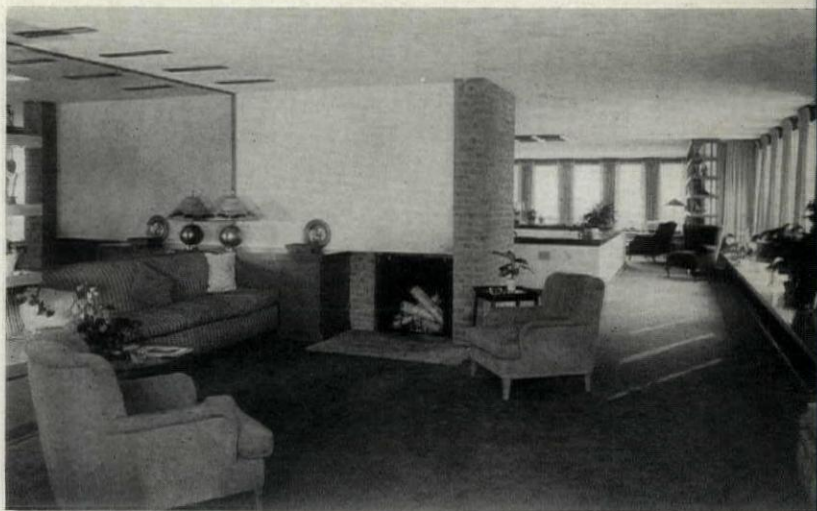
Similarly, the "Panel" show contains Morris and O'Connor's charming Westchester County Home, a good example of the simplest kind of brick suburban institutional design, remarkably fresh and modern and delicate in its detail; also their clear, clean interior of the Berkshire Art Museum in Massachusetts. And there is in the "Panel" show one of the most simple and yet distinguished of the house designs: Antonin Raymond's Clover Hill Farm, with its clear transverse web walls and masonry—the exterior walls between largely of glass—and especially its imaginative and brilliant handling of the bedroom elements.

There are qualities, however, which do come out in the work of the younger men, seen as a whole, which, taken together, form an architectural picture of great interest and rich promise. There is noticeable, first of all, an almost total absence of stylisms of any kind. This is an important fact. Any such show given five years ago, and even the "Versus" show of last year, disclosed again and again a strong European influence, a definite use of what might roughly be called "International Style" elements. Behind them loomed a real danger of the premature crystallization of a style based primarily on LeCorbusier and the Bauhaus—a danger similar to that which Lurçat pointed out as facing the development of French architecture a few years ago. In the present exhibition there is not a trace of this. One can pick up here and there, to be sure, the influences of certain recent architects—of Wright in the work of Alden Dow, of Van der Rohe in the projects of Rodgers and Priestley and of Howard Dearstyne—but, generally speaking, the impression which the exhibition produces is one of the freest type of creative activity searching for forms directly expressive and not borrowed. If there is occasionally a certain confusion, it is the confusion of honest inquiry and not the confusion resulting from ill-applied borrowed forms.

The second characteristic which is obvious is the growing sensitiveness and skill of the architects in the handling of American materials, and especially of wood. Partly, of course, this may arise from the number of small houses which, as has been pointed out, such an exhibit necessarily contains. Yet,

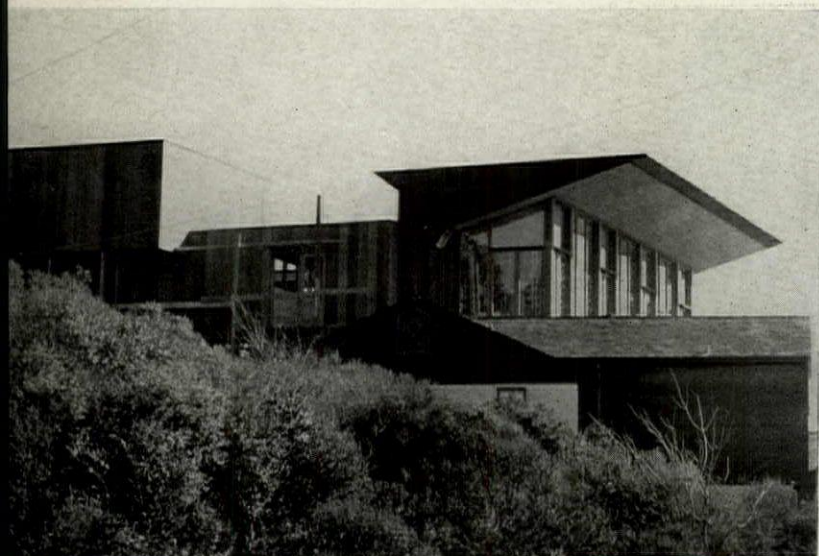
even if this is so, it is encouraging to find these architects developing from this most common of country house materials forms so expressive, textures and surfaces so pleasant, compositions so obviously natural. In this development the influence of the work of the past few years on the Pacific Coast is apparent. The West Coast designers in this field are recognized as the leaders; their published work has excited among architects almost universal admiration, and it is not strange to find young men in the rest of the country deeply impressed. But the interesting thing about this exhibition is the fact that there has been little direct copying. Regional peculiarities, fortunately, are still strong. Climate and tradition (in the true sense of the word) make eastern houses different from those of the Middle West, and these in turn different from the buildings on the Pacific Coast, even though in all of them the desire for the best possible treatment of wooden construction and finish is evident.

Van der Gracht and Kilham's Hinton House at Putney, Vermont, of which a model is shown, is typical. It somehow seems to me definitely New England; its handling of sloped roofs, of walls and windows, though fresh, modern, and creative, one feels as definitely within an eastern and not a western tradition. Again, Beatty and Strang's simple wooden house belongs in the Middle

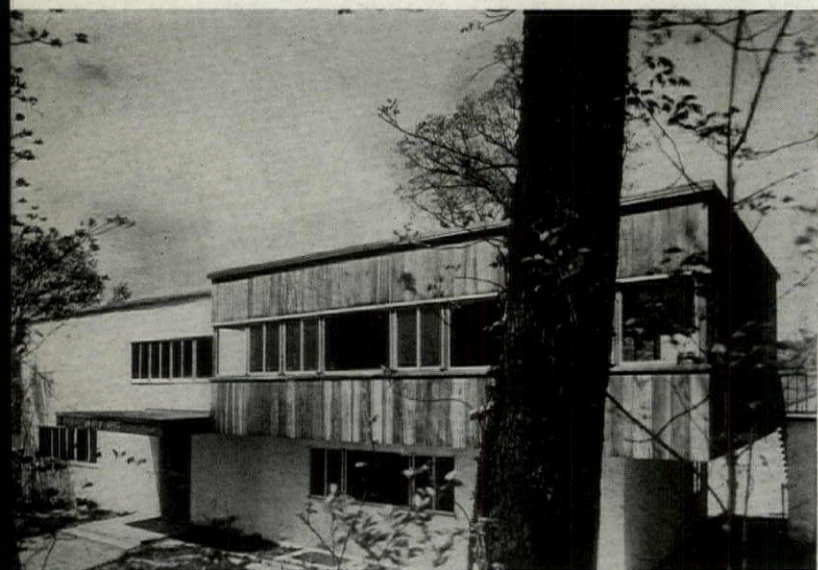


FRANK LLOYD WRIGHT'S INFLUENCE IS SEEN IN THE C. A. CAMPBELL HOUSE BY ALDEN DOW (ABOVE). MORRIS & O'CONNOR WERE THE ARCHITECTS OF THE BERKSHIRE MUSEUM (LEFT, BELOW) AND WESTCHESTER COUNTY HOME (RIGHT, BELOW)





HARWELL HARRIS'S LATEST HOUSE, ON A HILLSIDE IN BERKELEY, IS ALREADY A LANDMARK



COMMUNITY PLAY SCHOOL, OSCAR G. STONOROV



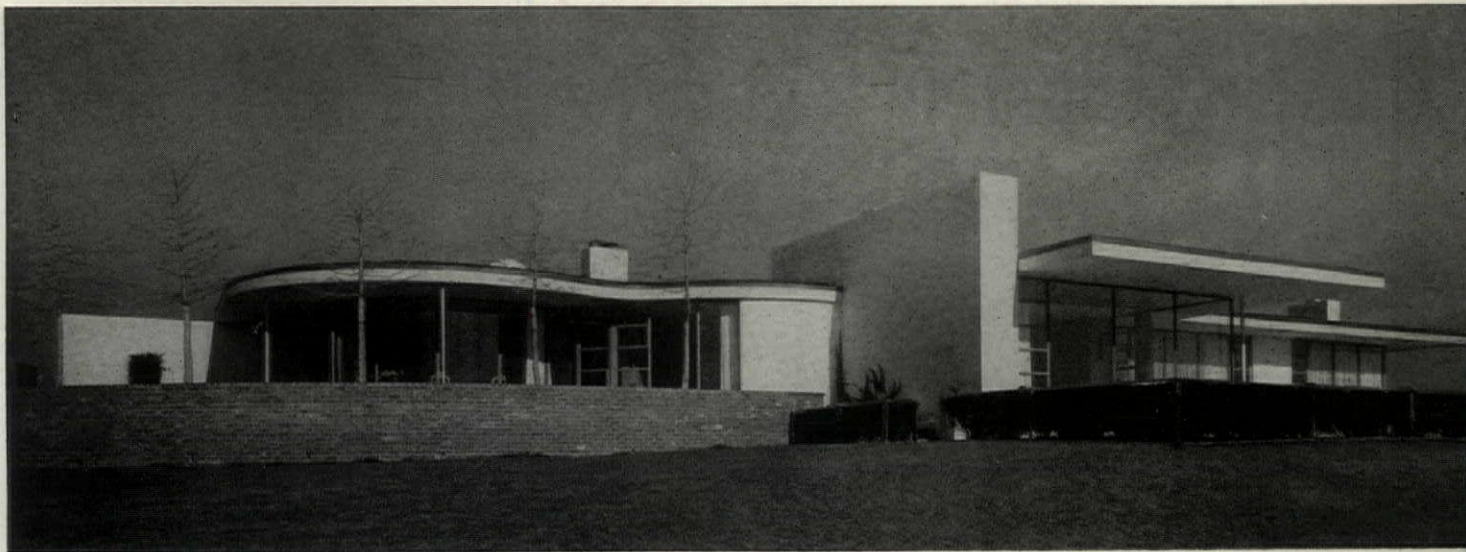
WALTER PHILLIPS HOUSE, STONOROV & BACON

West, just as the houses of Hervey Clark, Harwell Harris, and John Funk seem indigenous to the steep slopes and the climate of the western shores. The almost erratic yet interesting shapes of Stonorov's Community Play School and his Phillips House at Torredale are also at home in their location.

There is thus evident, it seems to me, a definite trend toward regional types of design in America today; and this must, I believe, be the case in a country as large as ours, where living ways and climates, sites and building methods are so various. If it is part of the basis of contemporary architecture to work closely for site harmony, to develop functionally from ways of life, to express frankly construction techniques, regionalism must unavoidably develop, and the evidence of it in these designs is a manifestation to me of architectural health.

Certain extreme theorists of the International Style used to claim that any consideration of site was per se "romantic" (whatever that might mean) and as such to be condemned, as though some kind of transcendental geometry could supersede the relationships of a building and the land on which it stands! Apparently young America will have none of this extremism.

The third quality which I see represented in the best of the "40 Under 40" show is a growing ability to conceive a building realistically as a construction in three dimensions, envisaged not as plan, elevation, and section, but as a series of changing views and interestingly related spaces of various types—a disappearance, in other words, of the entire concept of paper architecture. Over and over again, plans and elevations of these buildings would be of themselves almost meaningless unless one were possessed of that particular ability to visualize what these diagrams meant in actual built form. Even on such a constricted problem as that of the city house this is evident. Hamby and Nelson's Fairchild House on East 65th Street, for example, with its building divided into two portions by an interior court and ramps connecting the two sides, almost demands a model to be rendered understandable. Sim-



ilarly, Edward Stone's Goodyear House and the fantastic creations of Alden Dow are three-dimensional compositions of exterior and interior elements all related—but with relations many of which are hard to read in the mere diagrams.

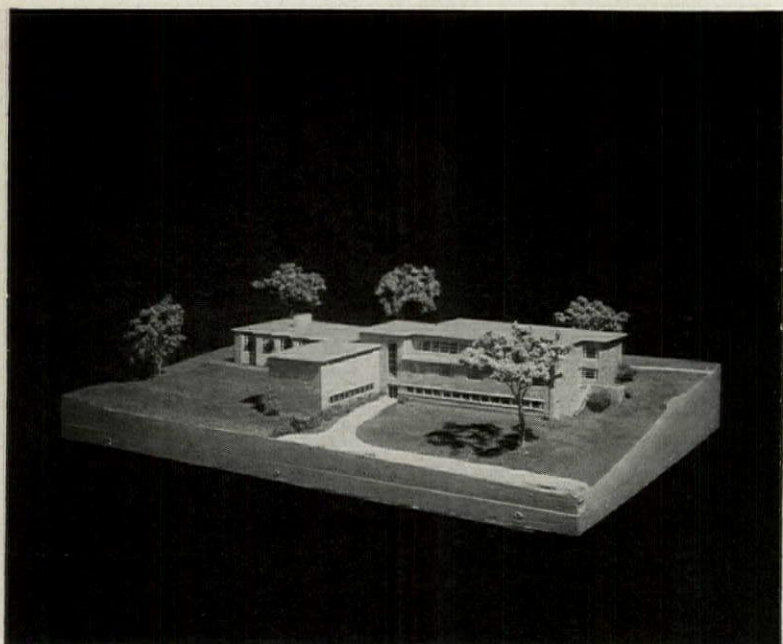
The fourth quality, and perhaps the most important of all, is a vivid, almost impatient ease in free geometrical composition—a kind of composition quite different from the fixed geometry of cubism, yet with obvious relationships to that. Simple or complex, these buildings are seen aesthetically as studied combinations of interesting geometric shapes. To this conception, it seems to me, almost everything else is secondary. It shows equally in the overelaborate eccentricities of Alden Dow's jagged office roof, in the projections of Stonorov's Play House, in the clear and simple elegance of Stone's Goodyear House.

Some of the exhibits need a more detailed consideration, because in them one can see so strongly some of the merits as well as some of the dangers of present trends. The gymnasium and science building of the Farmington High School, Michigan, by Lyndon and Smith, owes its peculiar attractiveness to the perfection of its detail and its basic clarity, its use of large unbroken stretches of glass—for the laboratory windows, for instance—and the simplicity with which the whole is treated. One thinks of "elegance" in connection with such a combination of qualities. Something of the same elegance for a build-

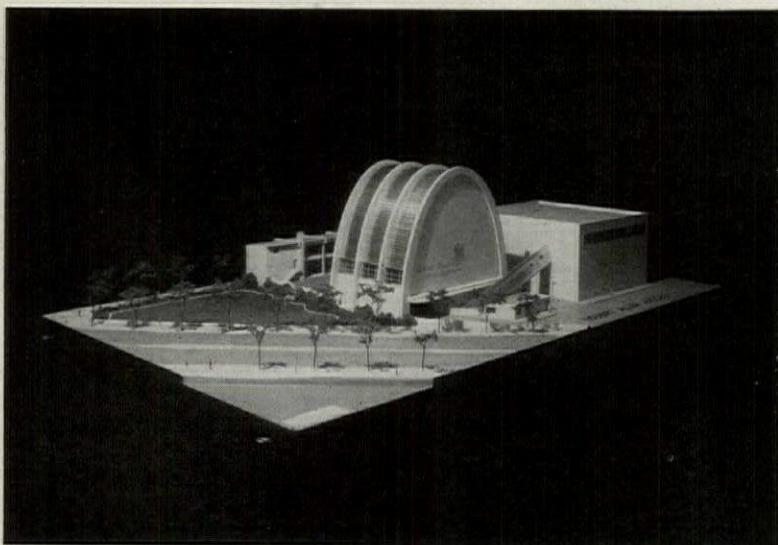
THE GOODYEAR RESIDENCE AT OLD WESTBURY, LONG ISLAND, DESIGNED BY EDWARD D. STONE



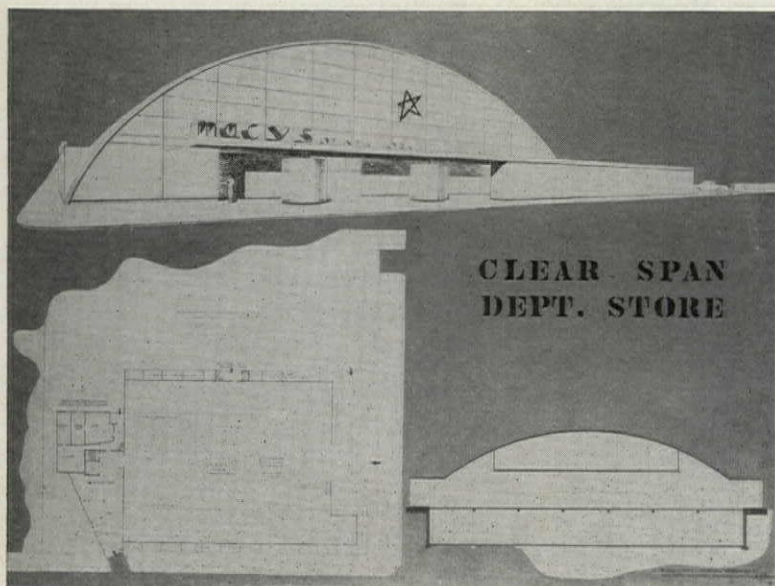
ing of an entirely different character is conspicuous in Stone's Goodyear House. Here the result seems to come from the most careful concentration of solids and voids as well as from the beautiful proportions of the whole and the careful study of such details as the edges of the roof eaves, the masonry copings, and the handling of the connections between differing materials. Here again, it seems to me, we are dealing with a fundamental living American tradition, which has always stood for excellence of detail; and it is encouraging to see this same quality appearing in work so fresh and new as this. One wonders whether the plan as a whole



COLLEGE LIBRARY, VAN DER GRACHT & KILHAM



MUNICIPAL ASPHALT PLANT BY KAHN & JACOBS



CLEAR SPAN STORE BY PERCIVAL GOODMAN

is as satisfactory; the search for simple geometric forms combined in new ways has led sometimes to manifest difficulties, and the shape of the library, for example, between the circular walls of the dining room and certain rectangular elements elsewhere seems hardly convincing.

Occasionally a somewhat analogous problem occurs in connection with efforts toward new uses of old materials—as, for instance, in the Log House of Alfred Clauss. He has built his walls of logs placed horizontally in the usual way, but he has notched them together very slightly at the corners so that the spaces between, apparently filled with cement, are wider than in traditional log construction. The result is a kind of horizontal striping, both outside and in, to me not altogether pleasant; and between the semirusticity of this effect and the materials and the basically sophisticated geometry of the conception there seems to be conflict.

This conflict between old and new comes out in several of the exhibits. In Smith, Emley, and Wood's Wappingers Central High School at Wappingers Falls, New York, there is evident a manifest hesitation between the safe delights of the conventional Georgian and the more difficult and rewarding search for expressive shapes. It is neither the one nor the other. It attempts some of the geometry of the new and some of the surface and detail characteristics of the old, and the two won't mix. This criticism is made with a perfect realization that it is very likely not the result of the architects' free choice, but quite probably a result forced upon them by the conservatism of the typical eastern school board. Whatever the cause, the want of success is obvious, as it is in the "Panel" show downstairs—in the interiors of the Bronx County Courthouse by Joseph Freedlander, for example, where the strife between eclectic detail and the clarity of modern forms is even more in evidence.

Perhaps it was the same problem — client trouble—coupled with the reactionary tendencies of our local FHA which has confused the otherwise charming rental housing group at Kew Gardens, designed by Snow and Titus. This low and extended group has

real beauty in general composition, and its simple brick treatment is unforced and attractive; the long curved wall with continuous windows is excellent in its effect; but elsewhere in the group there are all sorts of forced compositional elements, purely applied, setting apart different units as though they had different functions. One notices especially the use of combined windows above each other in vertical strips in one of the projecting pavilions, and everywhere the real, clear openness of the whole composition is destroyed by the blinds.

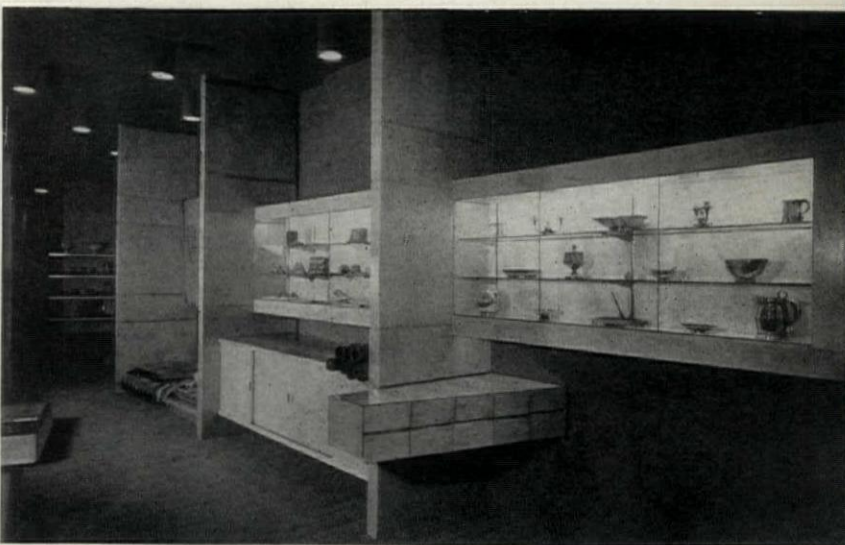
Looking at much of our recent suburban work, one sometimes wishes that the outside blind had never been invented. Why cannot our local FHA realize the enormous power in its hands for either improving or destroying architectural standards in so much residential work? In their advertisements the FHA assures owners and builders of adequate architectural service; it then goes to work and in many cases destroys the possibility of adequate architectural service by denying to the profession the opportunity of displaying its real creative genius and by forcing upon it in many cases the actual addition of silly and meaningless passementerie. Such an attitude is not necessary; in certain other parts of the country FHA offices have had different methods and ideals — they have occasionally even welcomed new solutions and new ideas. In the New York area, however, it would seem to me incumbent upon them either to change their attitude completely or else remove from their advertisements the phrase about architectural service, which their actions render meaningless.

It is a pleasure to turn from such compromises to the delightful geometrical inventions of Morris Ketchum, Jr., in the two interiors which he shows — one with wavy shelves and a wavy wall above, which synchopates the measures of the shelves below; the other with an alternation of transverse screens of veined wood, which support and decorate so beautifully the horizontal shelves which run through them.

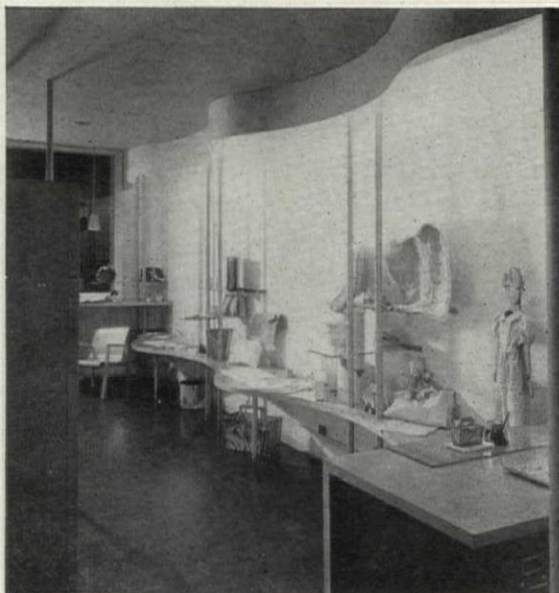
In buildings, it is interesting to see the straightforward, well-composed, and inter-



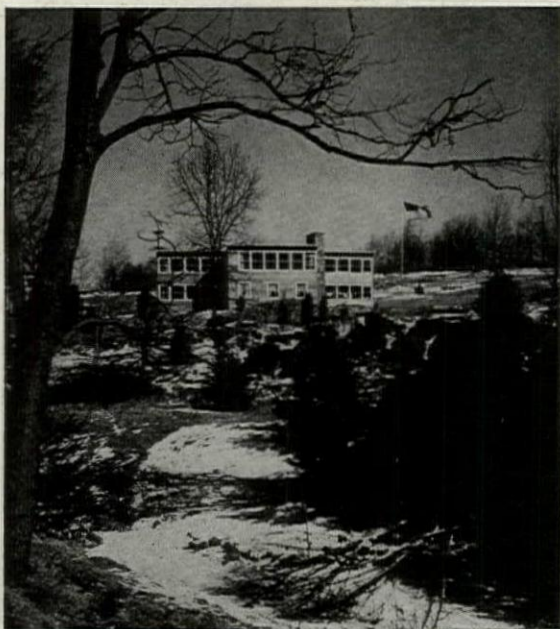
TWO VIEWS OF THE "AMERICA HOUSE" SHOP



BY MORRIS KETCHUM, JR., AND DOROTHY DRAPER



TRADE WINDS, INC., BY MORRIS KETCHUM, JR.



CAMP BY RICHARD BENNETT AND ASSOCIATES

esting simplicity of the Winter Camp at New Milford, Connecticut, by Bennett, Bischoff, and Deskey; the nice shapes and materials of the house by Caleb Hornbostel; the unassuming rectangularity of the Koch houses near Boston; and the constructive and æsthetic brilliance of the houses of Harwell Harris. In these last, wishing for tall windows and wide cantilevered eaves, Harris has simply turned a triangular truss upside down, ceiled the under side of it, and so produced rooms of the most interesting shapes and eaves with pleasant slanting soffits and an elegant thinness at the edge. Here is construction and æsthetic effect organically and creatively related with quite simple directness. John Funk's Turner House in Berkeley is a fascinating example of site use, with its entrance court, its original plan (a development of a type becoming more and more frequent on the hillside lots of California), and general air of livable beauty.

It is regrettable that more low-cost housing is not shown, and that what is shown should be well known or not particularly distinguished. The Queensbridge general plan is here—so far the best of the larger New York developments in its concentration of space and open courts, its variety of view, and its interesting community center with auditorium and kindergarten facing each other—but it is not shown in such a way as

to bring out its real qualities. The bird's-eye view, like the unfortunate view of it from the Queensborough Bridge, emphasizes the amount of brick wall and prevents any conception of the real, ample size of the play and sitting courts, and any real appreciation of the actual views one has walking through the project. Vladeck Houses also are exhibited—why, it is hard to imagine. Its combination of diagonal and rectilinear shapes seems singularly inept and meaningless. It is hard to conceive the reason for it in plan; it is even harder on the site itself. Its coverage is manifestly too high, and its apparent coverage—due to the type of plan and the breaking up of all open space into absurd little unrelated areas — is even greater. Let us hope that it will not be site planning of this type which controls the work of younger architects!

The installation of the show is generally effective and simple, with little of the trickery which hurt the effect of the "Versus" show last year. One may question perhaps those somewhat grandiose blurbs lettered on the boards at the entrance; but after all one doesn't have to read them, for they have but little bearing on the actual architecture shown within. The exhibition is entered over five hurdles lettered Neighbors, Bankers (FHA), Builders, Materials, and Architects. The first, I believe, should be a higher hurdle than the others, for the problem of neighbors is a problem deeper than that of style and of modern vs. ancient; it is a matter of establishing a new sense of community harmony in architects as well as in the neighbors themselves. The education of bankers and the FHA seems a much more serious problem. As for the other three hurdles, the work within proves that the architects have gone a long way to climb them satisfactorily. In job after job the builders and materials seem quite adequate to the production of the new shapes.

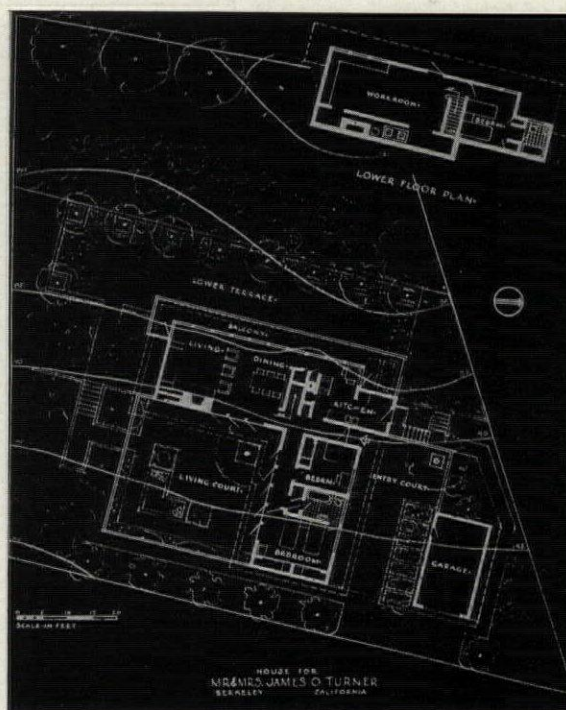
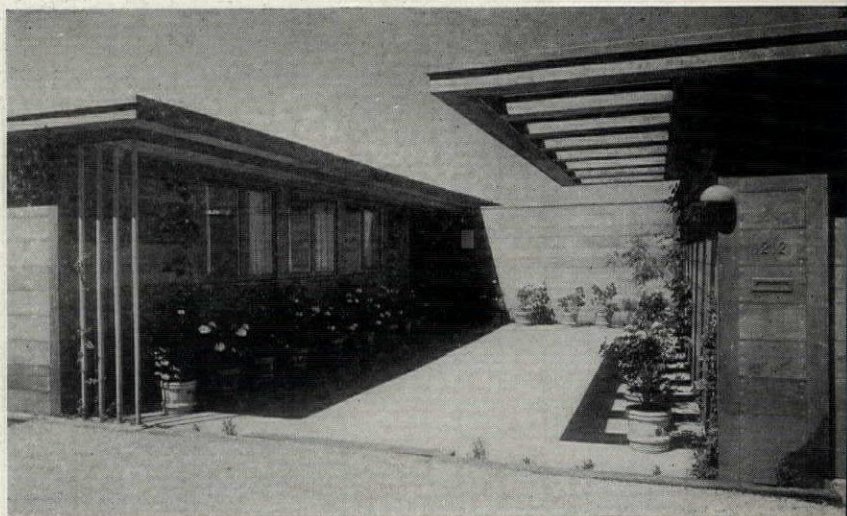
Looking at the exhibition as a whole, I am again forced to consider the danger of a new kind of paper architecture—the architecture of photographs. Sometimes it seems to me as though the development of modern photography, and especially the discovery and in-

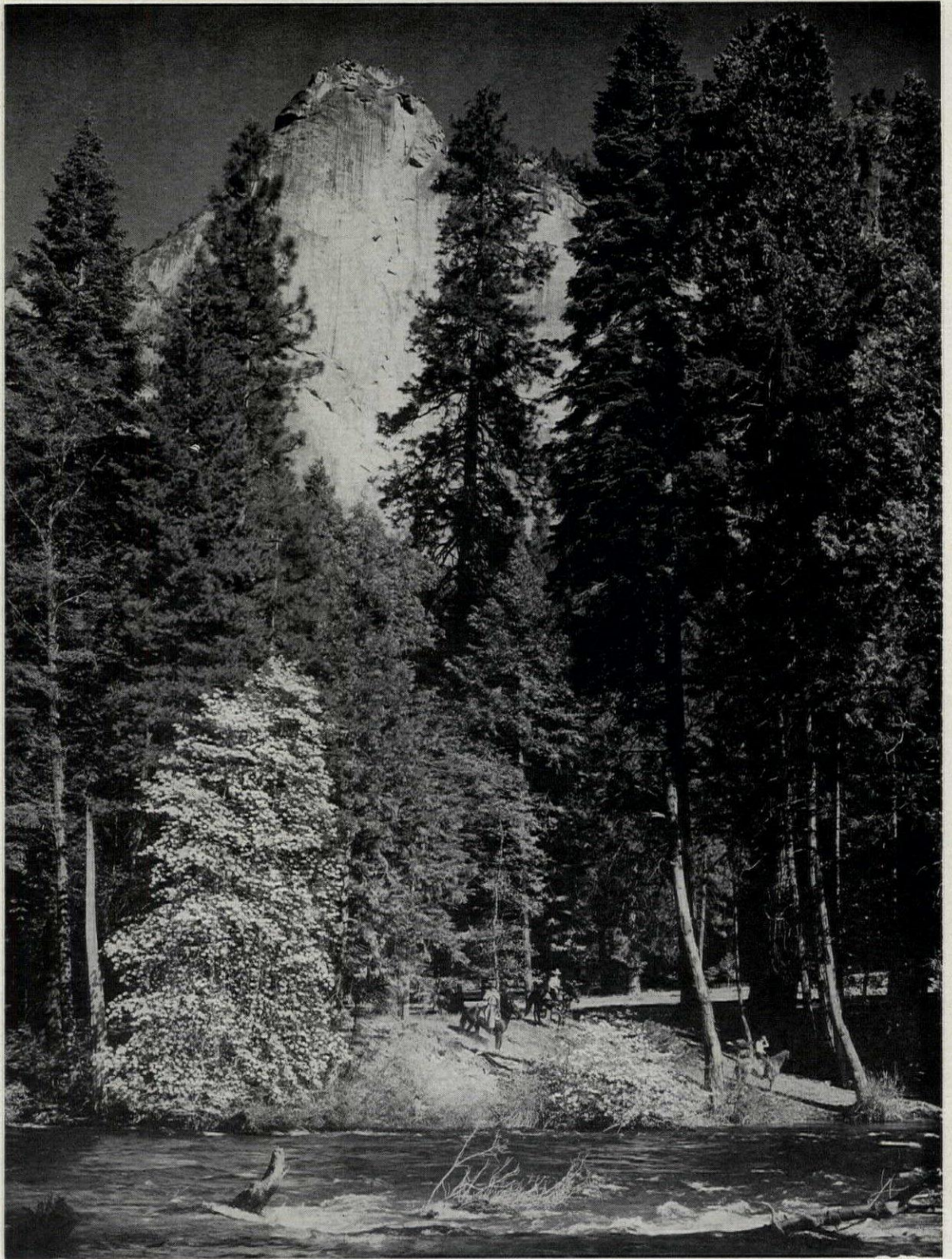
vention of the color screen, have been disastrous things for modern architecture. These dark skies, these brilliant flashing walls, come from a world that never was on land or sea. Again and again there is in the photographs a purely specious æsthetic appeal, which not only has nothing to do with architecture itself but frequently also confuses it by bringing in all kinds of false emphases of value and concealing the real effect of materials. A mechanical projector throws on a screen, near the end of the show, colored photographs of much of the work shown; a comparison of these with the brilliant blacks and whites of the monochrome photographs reveals the extraordinary difference from the actual appearance of the buildings as approximated in the colored slides. Occasionally it seems as though architects had begun to think almost unconsciously in terms of these brilliant and dramatic photos, and to design elements to produce them. I should like to see an exhibition for architects based solely on drawings of the simplest type, and an exhibition for laymen based on the same drawings plus moving pictures taken without benefit of trick photography or strange points of view or overdark color screens, showing the experience of one who approaches the building, walks around it, and goes through it, with continual flashbacks to the drawings so that they would begin to have a meaning for the layman.

We should, of course, have more architectural exhibitions of all kinds. We need repeatedly to put before ourselves as architects an opportunity to know and to study what American architects are actually producing, and to put before the layman a graphic story of the architect's contribution to modern life. They should be of all kinds: some merely news shows to give an impression of the actual quantitative amount of work and an opportunity to evaluate its total impact; those taken from all points of view to bring out specialized attitudes; and some with the highest possible standards æsthetically—to be shown in which would be considered a great honor. The how and why and where is obviously the difficulty. Is it insoluble?



THE JAMES O. TURNER HOUSE BY JOHN FUNK





Ansel Adams

THE DOGWOOD WILL BE IN BLOOM WHEN MEMBERS OF THE A.I.A. ASSEMBLE IN YOSEMITE VALLEY, CALIFORNIA, NEXT MONTH FOR THE 73RD ANNUAL CONVENTION OF THE INSTITUTE. ALL MEMBERS OF THE PROFESSION AND THEIR FAMILIES, TEACHERS AND STUDENTS OF ARCHITECTURE, PRODUCERS' COUNCIL MEMBERS AND OTHER FRIENDS OF THE PROFESSION WILL BE WELCOMED. PLANS FOR THE CONVENTION ARE BEING COMPLETED BY THE CONVENTION COMMITTEE, HEADED BY DAVID J. WITMER, OF LOS ANGELES, IN COOPERATION WITH THE NORTHERN AND SOUTHERN DIVISIONS OF BOTH THE INSTITUTE AND THE CALIFORNIA STATE ASSOCIATION. THE CONVENTION WILL BE HELD MAY 17-19 IN YOSEMITE, AND IN LOS ANGELES MAY 21. THE VISITING ARCHITECTS WILL BE ENTERTAINED MAY 26 IN SAN FRANCISCO

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 this time-saving information on manufactured products is to send a post card or your letter-head to the individual manufacturers and say, "Please send *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. Set of 4 *Data Sheets* now being revised and brought up to date, describing gas service for homes beyond the city mains. Available about April 15th.

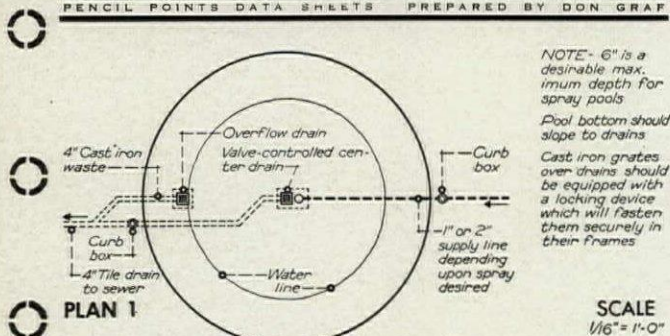
Carnegie-Illinois Steel Co., Carnegie Building, Pittsburgh, Pa. A set of 16 *Data Sheets* on the properties and installation of porcelain enameled iron. The most complete treatise on this subject ever published.

PLAYGROUND POOLS

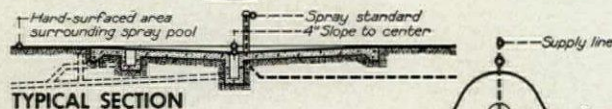
Index No.

D 2 v
PLANNING

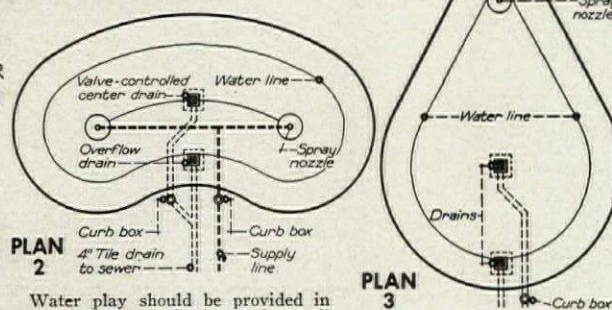
PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF



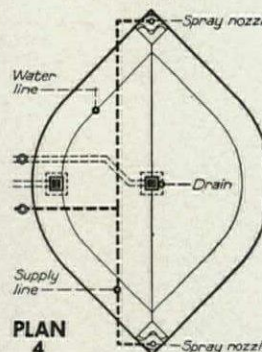
SCALE
1/16" = 1'-0"



SET
19
APR
1941



PLAN 3



Water play should be provided in every playground. Pools may be small and need not be deep, 6" being a desirable maximum. Every pool should be equipped with some form of spray shower, with drains so arranged that for economy of operation approximately 3" of water can be retained in the basin after the shower is turned off.

The plans shown are important as design elements, for the shape of each pool is determined by the contour of the falling water.

The pool may be constructed of concrete or the bituminous material used in surrounding areas. A hard-surfaced area surrounding the pool defines it distinctly and makes proper maintenance easier.

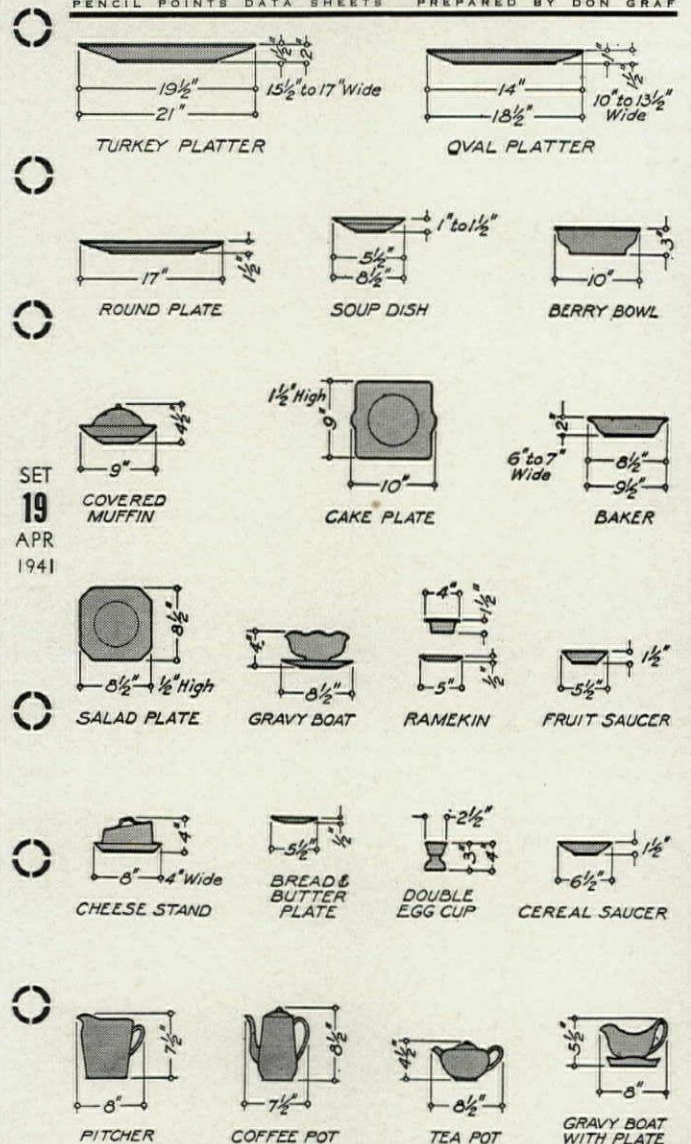
From: "Planning for Recreation in Housing," by USHA.

SIZES OF CHINAWARE

Index No.

D 3 m
PLANNING

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF



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 custom-built 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, photo-electric cell or other device.

Hoffman Specialty Company, Inc., 500 Fifth Avenue, 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, Ill. A recently revised set of 4 *Data Sheets* fully describing the installation and operation of the "Floatless" Automatic Electric Sump Pump and Cellar Drainer.

Independent Protection Company, Inc., 1507 S. Main Street, Goshen, 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, Milwaukee, Wisc. 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.

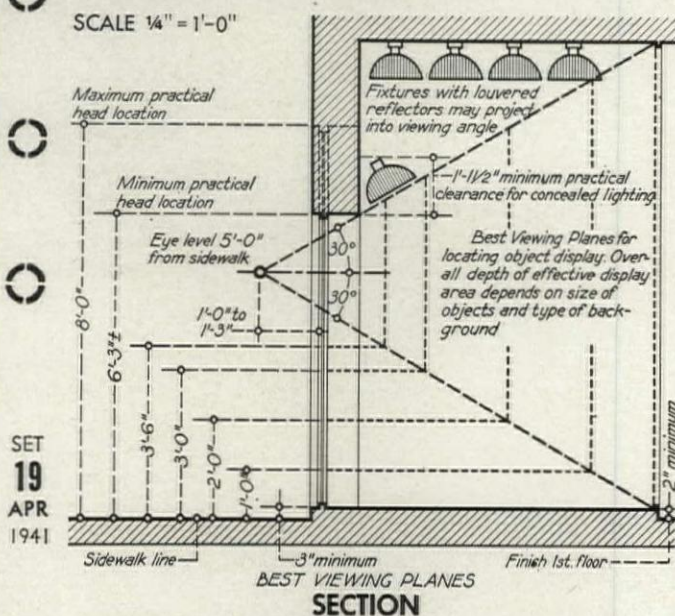
(Continued on page 266)

SHOW WINDOW DESIGN PRINCIPLES

Index No.
D120
PLANNING

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

SCALE 1/4" = 1'-0"



BEST VIEWING PLANES. On *Data Sheets* D12j, D12k and D12l are given average dimensions for store fronts of various types. The height of the bulkhead and the depth of the show window are given in these dimensions. In general, the smaller the objects are which must be displayed, the higher the bulkhead becomes and the shallower the display space becomes — to bring the objects closer to the observer's eye. Large objects such as automobiles and house furnishings will have a very low bulkhead and a relatively deep display area. In the diagram above is shown a method of locating the most favorable viewing plane for locating the objects on display. Obviously, the show-window back should be located sufficiently in the rear of this plane to furnish a proper background.

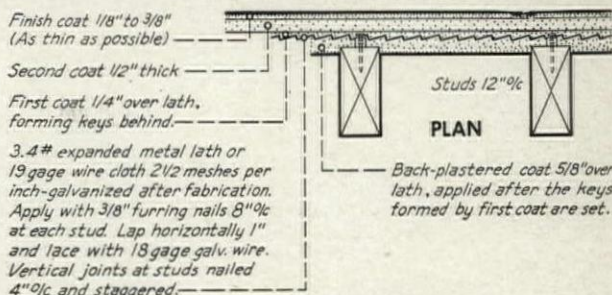
SIGHT LINES. The normal cone of human vision is approximately 60° — 30° in all directions from the optical center. Eye levels have been incorrectly suggested in various printed articles as 5'-3". Consumer Research says that women influence the majority of retail purchases so a 5'-3" sight line is incorrect as an average for prospective buyers. An eye level of 5'-0" or even 4'-10" more closely approximates true conditions. For bulkheads of various heights, the optimum viewing plane will be found at the intersection of the floor and the sight lines.

Courtesy Libbey-Owens-Ford

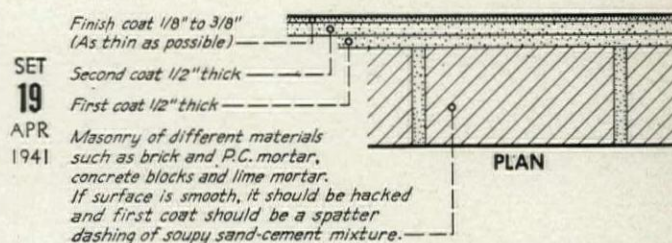
CORRECT STUCCO CONSTRUCTION

Index No.
F11g
CONSTRUCTION

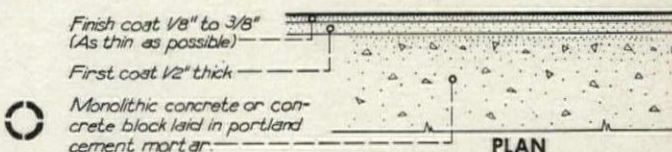
PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF



BACK-PLASTERED CONSTRUCTION



OVER HETEROGENEOUS MASONRY



Three coat work should always be used except on masonry walls of homogeneous materials, which present a true, even, clean, sound surface, where the second or leveling coat may be omitted.

Where the wall surface is too smooth to provide proper bond it should be hacked and dashed with a coat of soupy sand-cement mixture.

Due to its rough texture and the similarity of its composition to that of stucco, concrete masonry is well adapted as a stucco base.

OVER HOMOGENEOUS MASONRY

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.

Norton Lasier Company, 466 West Superior Street, Chicago, Ill. The operation and installation of concealed door closers are clearly and succinctly described in a set of 8 *Data Sheets* which are now in preparation. Watch for the announcement advertisement in **PENCIL POINTS**.

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.

Scott Paper Company, Chester, Pa. Facts on washroom planning never before in print. You should have these 8 *Data Sheets* to complement the data printed in **PENCIL POINTS** on fixtures and design of washrooms.

The Sisalkraft Company, 205 W. Wacker Drive, Chicago, Ill. 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.

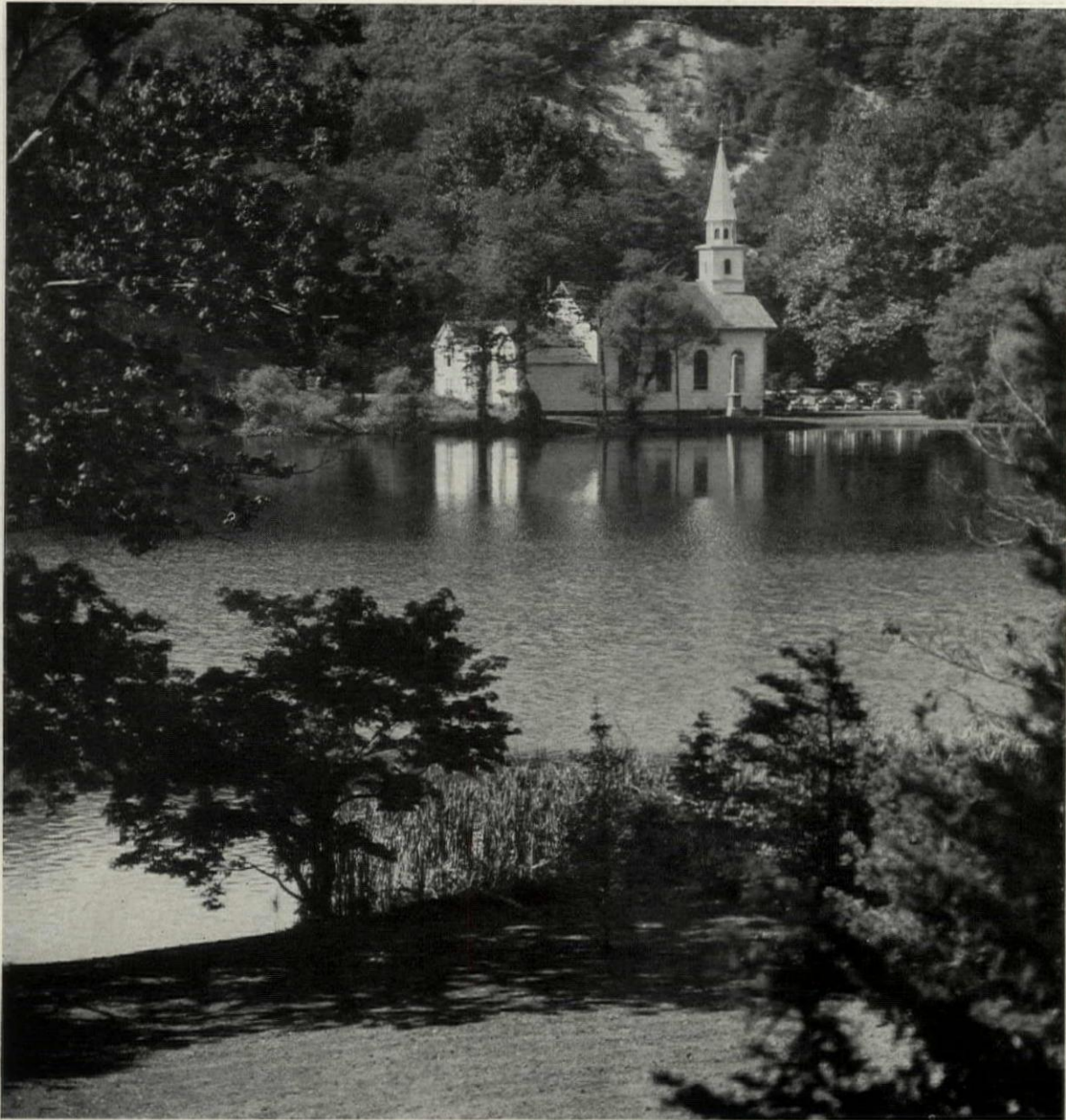
The Stanley Works, New Britain, Conn. Second set of 4 *Data Sheets* on school wardrobes, accordion doors and the location of butts for ordinary doors.

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.

Timber Engineering Company, 1337 Connecticut Avenue, N. W., Washington, D. C. Now in preparation and available soon, a set of 6 *Data Sheets* describing a standard termite shield with a patented solderless connector.

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. These *Data Sheets* are temporarily out of print during a revision. Write now to reserve a set of these 4 *Data Sheets* when ready. They describe the Phantom Doorman and the necessary provisions for economical installation.



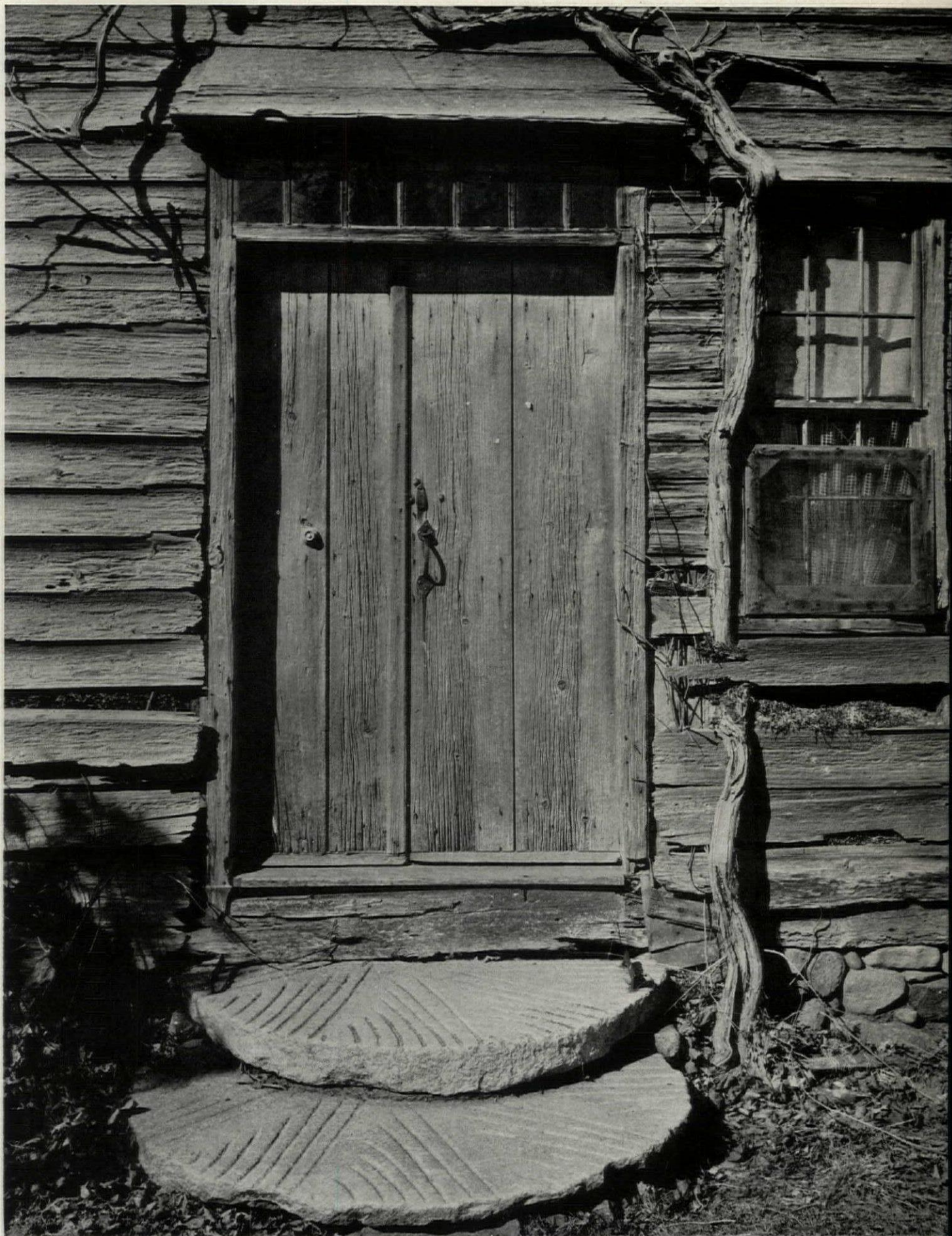
LONG ISLAND STUDIES

BY TET BORSIG

EARLY SETTLERS OF THE EASTERN END OF LONG ISLAND WERE STRONGLY INFLUENCED BY THE SCENES OF THEIR NATIVE ENGLAND, IF WE ARE TO JUDGE BY THE HISTORIC BUILDINGS OF THAT SECTION PICTURED HERE BY TET BORSIG, OF NEW YORK. THE BEAUTY OF THE REMOTE PORTIONS OF LONG ISLAND WAS SO APPEALING TO THIS DISTINGUISHED EUROPEAN PHOTOGRAPHER THAT HE SPENT AN ENTIRE SUMMER RECORDING THE EXAMPLES ON THESE PAGES, AND MANY OTHER FINE OLD BUILDINGS, AND RURAL LANDSCAPES. IT IS INTERESTING TO NOTE THAT ST. JOHN'S EPISCOPAL CHURCH, COLD SPRING HARBOR (PICTURED ABOVE), WAS BUILT IN 1836 AND IS THE OLDEST CHURCH IN THAT TOWN. THE MULFORD, THE MILLER, THE THOMPSON, AND THE DOMINY HOUSES WERE THE HOMES OF EARLY SETTLERS, AND THE CAROLINE CHURCH IS ONE OF THE HISTORIC TREASURES OF WHICH LONG ISLAND IS PROUD



THE MULFORD HOUSE — BUILT ABOUT 1670 — EAST HAMPTON, L. I.



DOUBLE DOORWAY, THE DOMINY HOUSE—c.1710—EAST HAMPTON, L. I.



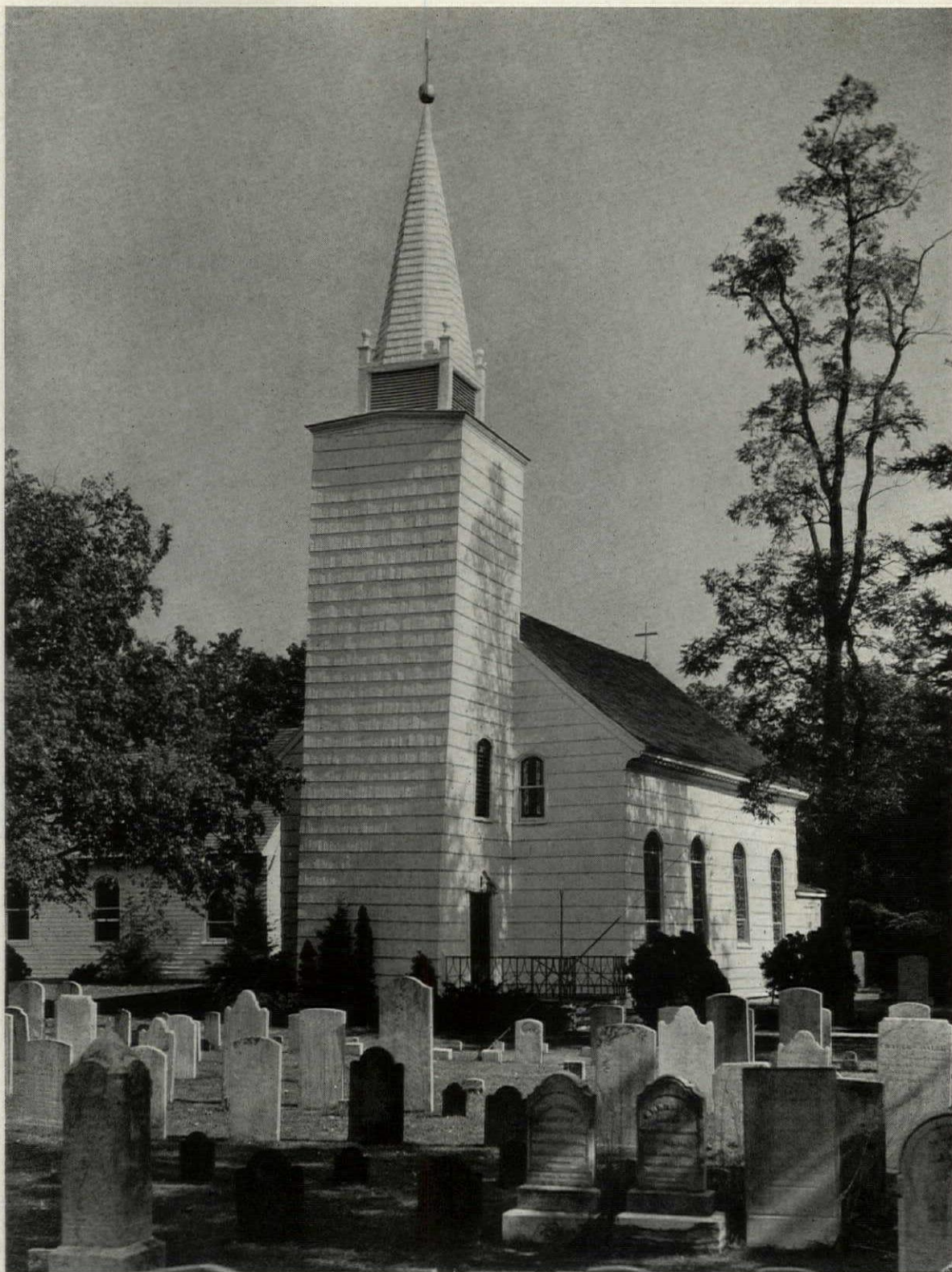
THE MILLER HOUSE—EARLIEST PORTION 1700—MILLER'S PLACE, L. I.



BIRTHPLACE OF BENJAMIN F. THOMPSON — c.1700 — SETAUKET, L. I.

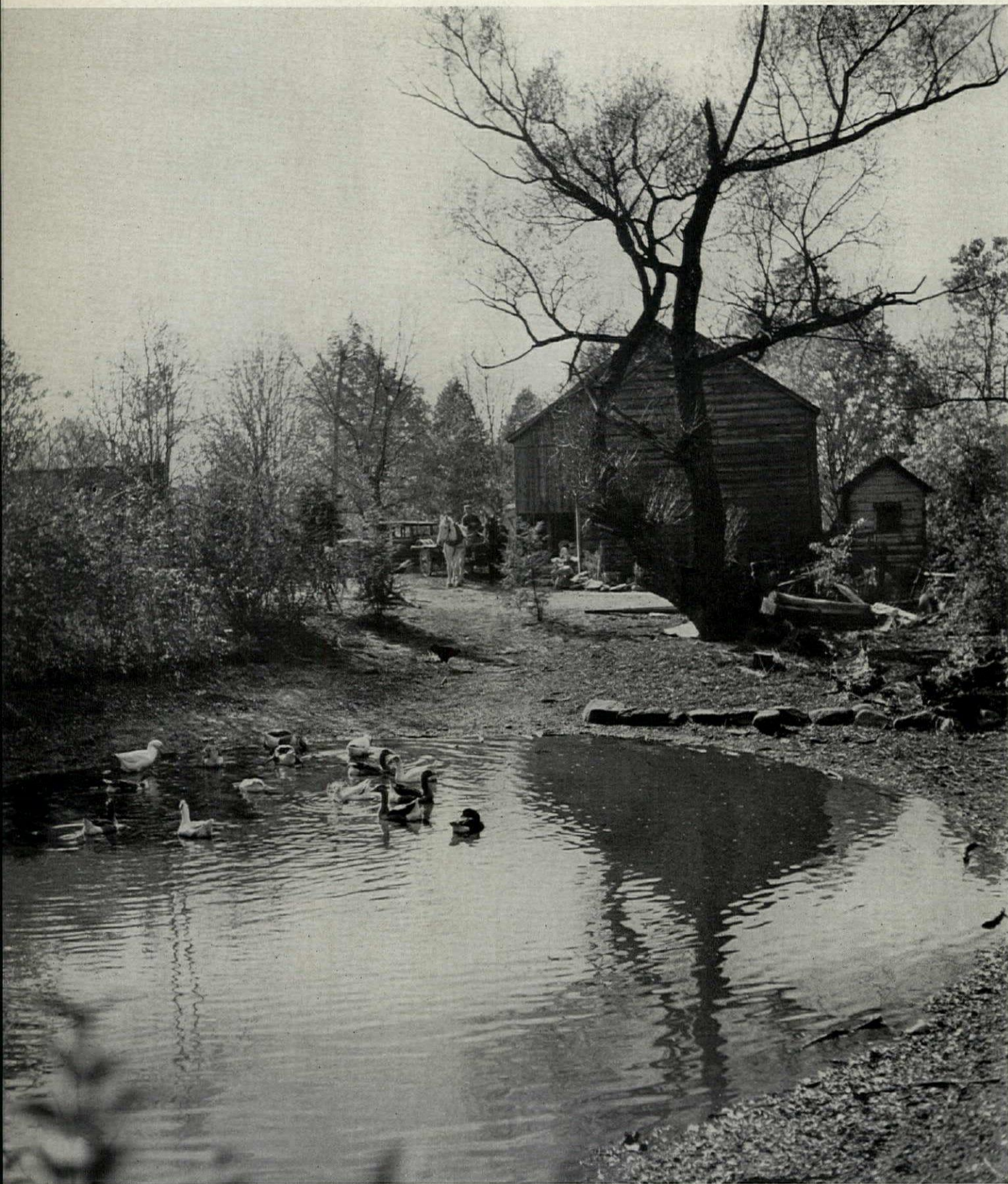


MT. SINAI CONGREGATIONAL CHURCH—1805—NEAR SETAUKET, L. I.



CAROLINE CHURCH OF BROOKHAVEN—1729—IN SETAUKET, L. I.

APRIL 1941



COUNTRY VIEW SHOWING OLD HOUSE—OFF JERICHO TURNPIKE, L. I.

BASEMENTS AND SAVINGS

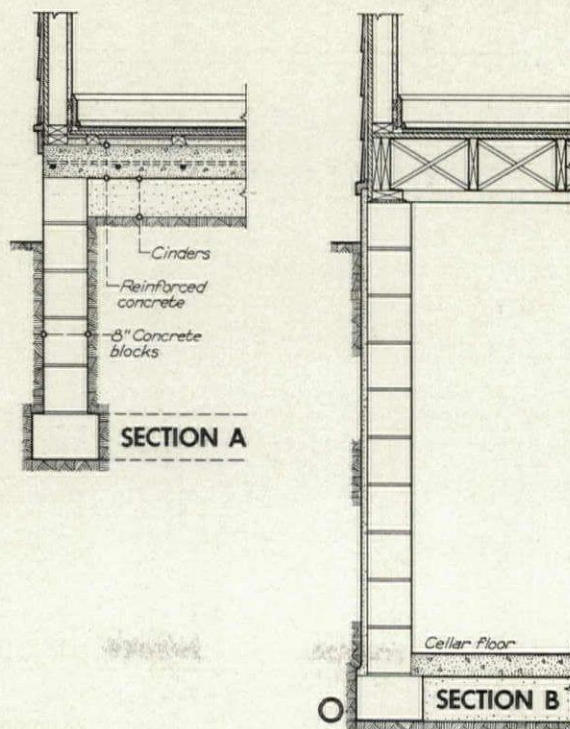
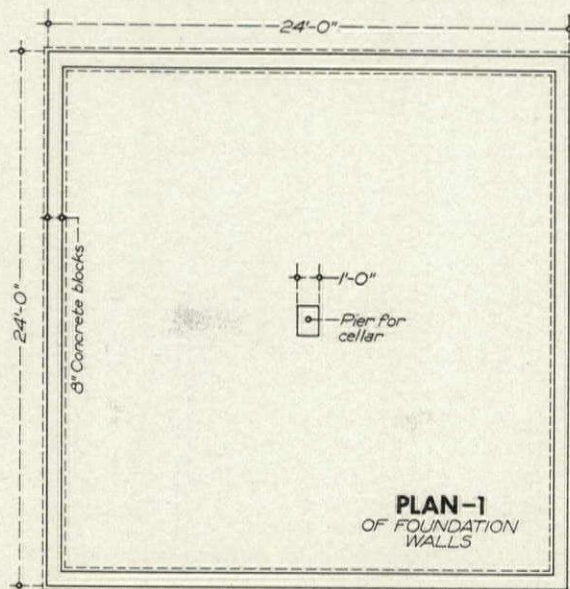
BY LLEWELLYN PRICE

With the widespread adoption of oil fired heating plants, there has been much natural speculation on the necessity of a cellar under the modern home, particularly in the case of the very small house. If we could level the building site and thereon, simply, lay a heavily reinforced concrete slab and upon this slab build the house, allowing for the very slight tilt from frost which might occur, the savings would be appreciable. But architectural engineers of our acquaintance have not yet been willing to commit themselves to such a marked departure under northern conditions. So, in addition to a reinforced slab, we must provide a foundation wall. Immediately our costs start to mount. It might be well to analyze them.

Let us assume that we have a house of outside dimensions 24'-0" x 24'-0" without a basement. We must extend our foundation to a fair average of 3'-0" below the finished grade around the four sides of the house, as shown by *Section A*. Within this square we fill with earth and cinders, thoroughly tamped. On the foundation walls and on the tamped cinders we pour a reinforced concrete slab, waterproofed with a bitumen and felt. On this platform is erected the frame of the house.

Now, for a house of the same outside dimensions but with a full basement below the first floor, we scoop or dig with a power shovel to about 6'-0" below the finished grade, illustrated by *Section B*. Foundations extend from footings to the bottom of the floor joists and on this square of masonry, with intermediate support near or at the center

of the cellar, we frame our first floor joists and cover them with subflooring. On this



wood, rather than concrete, platform we erect our frame house.

With these two foundations before us, let us investigate unit costs multiplied by quantities as demonstrated in the drawings, to arrive at comparative total expenses. The prices quoted below, while local, will not vary greatly in proportion for different localities. We can dig foundation trenches for the house without a basement at a cost of 25c for three cubic feet or, in this case, for each linear foot of plan perimeter. We can excavate for full cellars, on the other hand, for 40c per cubic yard. An eight-inch concrete block costs 21c laid; a twelve-inch footing block 24c. Here they have been averaged at 22c. Cellar sash at \$2.50 is a fair price. All lumber is figured at 5c per board foot.

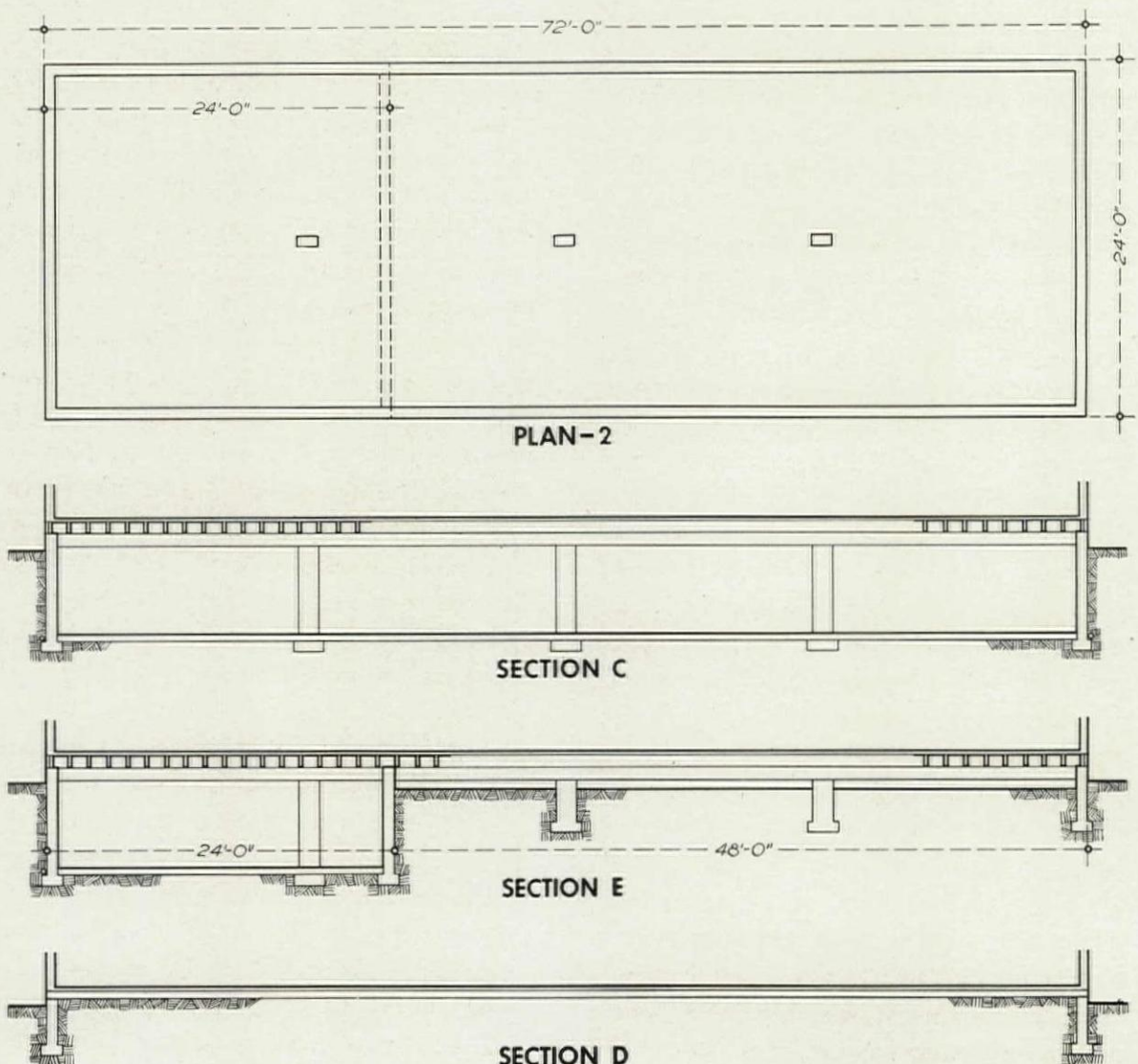
We need not compute the cost of the concrete slab as, except for reinforcing, it will

be the same whether at the top of the foundations or at the cellar floor. The labor required for the floor joists over the cellar area is about the same as for the 2" x 4" sleepers over the slab. Other items in the table below have been closely approximated.

Items	House with Cellar (Sec. B)	House with Slab Foundation (Sec. A)	Savings
Excavations	\$ 51.00	\$ 24.00	+\$ 27.00
Foundation Block ..	172.00*	92.00	+ 80.00
4 Cellar Sash	10.00		+ 10.00
Manhole and Cover ..		15.00	- 15.00
Slab Reinforcement ..		5.00	- 5.00
Drain Tile	20.00		+ 20.00
Waterproofing	75.00†	40.00‡	+ 35.00
Joists or Sleepers ...	38.00	20.00	+ 18.00
Cellar Stairs	10.00		+ 10.00
Totals	\$376.00	\$196.00	\$180.00

* With Piers
† Walls
‡ Slab

These costs and those shown elsewhere have been altered to the nearest dollar. The item for manhole and cover at \$15.00 provides



necessary frost protection for a shutoff cock and meter at the water supply and for the gauge of the fuel oil storage tank. This, of course, is required for a house on a slab foundation only.

We have a net cubic content for the basement of 3,400 feet. At a cost of \$180.00 for the basement, each cubic foot in it will cost a trifle over 5c. Compare this with the cost per cubic foot for the entire house, let us say, 30c. Under an FHA approved mortgage plan the home owner would require not more than \$18.00 additional.

While we must provide first floor area for the stairs to the basement, this would probably not be as great as that required for the heater and hot water.

Certainly with the maturity of both brain and body, any man will choose walking from one part of the house to another in preference to trudging up and limping down stairs. Despite the obviously greater building costs, one wonders why there are not a vastly greater proportion of one-story houses than there are. Naturally, one of the items added to the costs of the one-story house (as against that of two stories) is excavation carried under the entire structure.

To illustrate this condition, let us assume that we have a plan 24'-0" x 72'-0" (Plan 2), equaling three of the units used in our first example. Obviously this shape will not yield a good small home plan but the area or the perimeter will. Comparative costs will be approximately as follows:

Items	House with Cellar (Sec. C)	House with Slab Foundation (Sec. D)	Savings
Excavations	\$ 153.00	\$ 98.00	+\$ 55.00
Foundation Block	544.00	184.00	+ 360.00
Cellar Sash (6)	15.00		— 15.00
Manhole and Cover		15.00	— 15.00
Slab Reinforcement		15.00	+ 15.00
Drain Tile	40.00		+ 40.00
Waterproofing	150.00*	120.00†	+ 30.00
Joists or Sleepers	114.00	60.00	+ 54.00
Cellar Stairs	10.00		+ 10.00
Totals	\$1,026.00	\$492.00	\$534.00

* Walls
† Slab

There seems little reason why \$500.00 and over should be put into a hole in the ground as, except for mechanical equipment, there is little other use for this great space. The

idea of building out in the country and then spending part of the time there in secondary entertainment rooms below grade, is obviously ridiculous. Apparently then, there is good reason to abandon the basement in other than the minimal house.

But wait—we have not investigated the possibilities of a combination of full and partial excavations. Let us look into costs where there is a full cellar under a floor area of 24'-0" x 24'-0" and under the 24'-0" x 48'-0" only an air space with foundations extending down exactly the same depth as for the slab construction, as shown by *Section E*. For convenience, let us use the original figure for full basement excavation in the 24-foot square house, making suitable additions to it.

Added for Partial Basement	Fully excavated 24 x 24	\$376.00
	Concrete block	105.00
	Joists	76.00
	Excavations	51.00
Total		\$608.00

Waterproofing and drainage for the partially excavated area should not be necessary. Thus this combination of full and partial excavation will cost \$116.00 more (\$608 less \$492) than the reinforced slab foundation. Perhaps this saving is worth while, though apparently the larger the home the less saving there will be.

But—and this time it is our "but"—take the heating equipment from the basement with furnace and ducts or with boiler and piping, and immediately the heating problem is complicated. If in doubt, discuss it with any heating contractor. Further, eliminate the basement, and the plumbing and drainage becomes involved—ask any plumbing contractor. The partial excavation allows for comfortable installation and adjustment of all mechanical equipment—heating, plumbing and electricity. While savings in all cases favor slab construction, it is doubtful if the economy would be nearly so much considering the mechanical complications of this type of construction.

In the very small house, the designer must economize in every detail, for otherwise he would rarely be designing a small house. The economies must be wisely arrived at.

A CLASSIFICATION FOR DRAFTSMEN

AND OTHER WORKERS IN ARCHITECTURAL OFFICES

BY D. KNICKERBACKER BOYD

1. While acting as Consultant to the Labor Relations Division of the U. S. Housing Authority, it became my unique duty to assist Mr. Walter V. Price, the Director of the Division, through the preparation of work-analyses and job descriptions of the professional and technical employees in architects' offices — also in engineers' offices — when either of such offices were engaged upon projects for the U. S. Housing Authority.

2. The determination of suitable Classifications of all such employees, whether engaged by architects, engineers, contractors, sub-contractors or others in office or field work on a government sponsored project, was essential to the U. S. Housing Authority in attempting to establish the "prevailing wage rate" in each locality for each position, as required by the "U. S. Housing Act of 1937 as amended 1938," which provides:

Sec. 16 (2) "Any contract for loans, annual contributions, capital grants, sale, or lease pursuant to this Act shall contain a provision requiring that the wages or fees prevailing in the locality, as determined or adopted (subsequent to a determination under applicable State or local law) by the Authority, shall be paid to all architects, technical engineers, draftsmen, technicians, laborers, and mechanics employed in the development or administration of the low-rent housing or slum-clearance project involved; and the Authority may require certification as to compliance with the provisions of this paragraph prior to making any payment under such contract."

3. The act also provides, by reference, that the time for all workers shall be limited to 40 hours per week with payment of not less than time and a half for all beyond 40 hours.

4. Thus for the first time in connection with Federal Projects it became

necessary to ascertain the prevailing rates of pay for professional and technical workers and to set up such payments as minima in localities where any of these workers would be engaged upon Housing Projects financed under the act.

5. While the classifications for "Building Trades workers" seemed to have been fairly well established in all parts of the U. S., an outstanding difficulty became apparent with respect to professional and technical workers. This was due to the lack of titles and gradings existing among the employees in the offices of architects and engineers. While for the most part those employers in these fields, whose opinions were sought and rates of pay discussed, were willing to "open their books," there appeared to exist nowhere in private employment any job descriptions, or a definite peg upon which to hang any particular rate of compensation.

6. In general, the chiefly known factors seemed to be that one employee was recognized as the Chief or Head and one or more might be placed at the bottom. In each case these recognitions were based on the greatest ability or experience and the least, or on the largest and smallest pay received, or on the most authority granted—and the least. In between, when several persons were employed, the positions and pay were "assorted" usually without any attempt at giving titles or ratings according to any known classifications. The basis of understanding seemed to be arrived at as a compromise of the circumstances at the time of employment.

7. In some other cases, notably Governmental offices where large numbers of draftsmen and other professional and technical workers were employed, the classifications by titles, qualifications and duties were so complicated and numerous as to be both

confusing and unwieldy—needlessly.

8. Confronted with this situation, we contacted all known sources of possible Classifications in the indicated fields of service, including all professional and technical organizations. The fullest cooperation of each was secured, including that of officials of the Architectural and Engineering Guild Local 66 of New York of the A. F. of L. and the Federation of Architects, Engineers, Chemists, and Technicians, New York, of the C.I.O. The resulting data were compiled, studied, and charted as nearly as possible by related titles, comparative qualifications and duties—ignoring for the time being comparisons of salaries, but few of which were given.

9. The variety in the outcome was astonishing. The fact was disclosed that practically no definite or agreed upon classifications were provided in the lower brackets for those entering the professions or engaged in the early stages of employment in architects' or engineers' offices. In what might be called the middle group, there appeared to be a range of almost a dozen titles or names with an assortment of qualifications and duties that would make it almost impossible for anyone to attach a definite figure of compensation locally for any particular line of performance.

10. With this preliminary data in hand, on behalf of the Labor Relations Division of the USHA I sought the further and more detailed assistance of the principal National organizations, including, of course, particularly the American Institute of Architects, though I had previously ascertained that the subject never had been taken up by or with the Institute. I had found, however, that the American Society of Civil Engineers had been giving serious attention to the subject of Classification and Compensation of Engineers and Surveyors

for several years through a Committee which has issued a number of reports and recommendations. These Engineering Classifications did not, however, cover the lower bracket employees, or sub-professional grades, in Engineers' offices, so I had taken up those classes with the Civil Engineers' Committee and received fine cooperation from its Chairman, resulting in the preparation of a Classification for Employees in Engineers' and Surveyors' Offices, which is not here included.

11. I was afforded the opportunity to appear before the Board of Directors of the Institute at a meeting when Mr. Walter R. MacCornack, then Chairman of the Institute's Committee on Housing, was in attendance. I presented all the facts and data then at hand, including hastily prepared classifications by the labor organizations based chiefly on years of education and/or experience. After considerable discussion, authority was placed in Mr. MacCornack's hands to cooperate with me in presenting tentative classifications for the workers in architects' offices engaged on housing projects to Mr. Price and Mr. Nathan Straus, and to give his decision on behalf of the Institute.

12. This resulted in further conferences and the submission of a preliminary outline of positions in their progressive order with a job description of each. These were more fully developed and after further approvals by Mr. MacCornack and Mr. Price were issued by the U. S. Housing Authority in mimeographed form as a "Description of Professional and Technical Positions in Architectural Offices—Arranged by Various Titles Commonly Used, in Accordance with Duties and Responsibilities Assumed."

13. It is to be understood that this Description is a tentative one prepared only for the use of the USHA and its collaborators in submitting to Local Authorities and cooperating groups and individuals for their assistance in establishing, in localities where housing projects may be undertaken, what may most nearly be regarded as "prevailing wages" for the respective workers in professional offices.

14. Nevertheless, in all essentials it could be made applicable for general use and prove a most desirable document for many purposes. During the development of the Descriptions, the author attempted to synchronize them with hypothetical years of progress

and accomplishment and prepared preliminary graphs scheduling the descriptions according to time presumed to be required and giving each position a Grade designation that might take precedence over an assortment of titles.

15. As such a system of Grades is open to still further and more discussion than the Descriptions themselves, Mr. Price quite naturally did not include such a Schedule in his published document. Because of its possible usefulness not only to Architects, Draftsmen, Collegiate Schools of Architecture, the American Institute of Architects and its Committee on Education, and others, I am offering it here for the purpose of inviting criticism and comment. Perhaps, too, the Committee of the New York Chapter which is doing such fine work in standardizing the relationships between Architects and Draftsmen may wish to assist in standardizing Gradings and Descriptions for positions.

16. Within the framework of this Schedule the texts of the Descriptions and of the Responsibilities are identical with the wording of the USHA Document No. 59301-H, and the Titles also include all of those listed in that Document with but few additions. Two of these preliminary schedules were drafted and lettered in my office; one for employees in architects' offices and the other for employees in structural engineers' and surveyors' offices or for those engineering employees in architects' offices. The latter schedule is believed to be general enough to cover mechanical engineers and electrical engineers, for all preliminary purposes.

17. Each schedule, as in the architectural one here illustrated, begins with the entrance of a young person into any of these professions. In the first column is presented Grade designations from 1 to 10. In the Architectural Schedule these numerical gradings are preceded by a capital A to differentiate them from the numerical gradings in the Engineering Schedule which are preceded by a capital E. Grades 1 to 4 inclusive are assigned one year each. Grades 5 to 8 inclusive, two years each. At Grade 9 the individual is within one year of being a full-fledged architect, Grade 10 (14 years). The next two narrow columns give by years of time what would seem to characterize the logical progress of an individual in acquiring these Grades. The first main column, marked "Academic," repre-

sents advancement through educational institutions, or legally required steps. The second main column lists the experience assumed to be acquired through appropriate duties if well performed during the corresponding years in office or outside work and which may be generally considered to constitute the equivalent of the corresponding years of education. These two main columns are inter-related and intended to be interchangeable equivalents to the extent that at any period of progress, the individual following the educational course might leave the same and perform approximately the duties briefly outlined in the second main column—or the individual indicated in the column of office and field duties might take up educational courses on a whole time basis, or on a part time basis, if combined with work in office or field. The next narrow column, marked "Responsibility," is self-explanatory, as the various Grades are passed through, and the last column lists titles variously given by the American Institute of Architects, the U. S. Civil Service Commission, the Works Progress Administration, the A. F. of L., the F.A.E.C.T., and others. These have been selected as nearly as possible on a comparable basis, as equivalent titles.

18. In either case it was assumed in preparing these preliminary schedules that the individual shall have been previously educated in a grade and high school at least to the extent of completing the tenth grade, or attendance legally required, if not following through to graduation from a high school. Also that during such preliminary scholastic education the individual shall have had courses in architecture, engineering, mechanical or building construction drawing, and related technical matters. Moreover, it was believed desirable, but not a prerequisite, that any individual entering into any of these technical professions should express the desire to follow through along the lines of the profession selected. Upon a continuance of their interest and upon their capable performance at each stage of progress would rest their advancement in standing.

19. It was also assumed that individuals pursuing the educational courses would take advantage of every opportunity to perfect themselves along the practical lines indicated in the second main column and that those who are acquiring their practical ex-

perience as indicated in this column would, at the same time, take advantage of every opportunity for self-improvement along educational lines through attendance at night school, lectures, etc., or taking correspondence school courses, or attending ateliers, or participating in equivalent educational procedures. Combined knowledge and skill in the subject matters and techniques involved by each year of progress are to be considered requisites for the classification within the grade indicated.

20. In the preparation of these tentative schedules one of the aims was to avoid giving definite titles for identification and it was intended that compensation should be listed according to the grades rather than by titles. For the purpose, however, of assisting those furnishing the USHA with their interpretation of the wages or salaries which should be applied to each of the grades locally, the last column was provided in which is listed some of the names commonly understood to apply to the classifications as just previously explained.

21. The earlier grades were provided, not with the thought of making it possible for employers to secure "low-cost" help, but with the intention of providing openings for the entrance into the professions of the supply of young blood needed to renew and vitalize any calling. There should always be a place for a certain number in these Grades of the Classifications, to whom the employer should give assistance and encouragement through providing opportunities for them to gradually acquire the necessary educational or practical experience. This would provide also for summer students or part-time workers from architectural schools.

22. In addition to these younger men, or "beginners," all encouragement should be given the workers in all other Grades to advance. If especial ability in any particular line seems to be evident, nothing in the Schedules should be construed to prevent a trial advance from one grade to another—subject, however, to adjustment on time-sheet and payroll if the worker remains in the advanced grade for a longer period than, say, one month.

23. As in all callings there will be those who are now employed or eligible for employment who have previously entered the professions through the doorway of experience and hard knocks without the oppor-

tunity for guidance or organized training. To provide for these individuals who, because of their initiative and perseverance, deserve just consideration, the practical equivalents of the appropriate Grades would be determined between the individual and the employer—subject to review by the Local Housing Authority of the individual's previous record on written application forms, and subject to later demonstration of the character of work, successfully performed, as disclosed by time sheets. The latter, on typical forms, should be carefully prepared in any office engaged upon a housing project and be available to any proper representative of the Housing Authority.

24. In the Schedules the years of continued progress are hypothetical only, except as might be legally required for employment, registration, etc., or required by educational institutions for attendance. The word "Grade" was used advisedly and after consideration of all other terms. It corresponds with the nomenclature finally adopted (January, 1939) by the American Society of Civil Engineers at its Annual Convention in New York City.

25. The earlier grades naturally cover 4 to 5 years each, as this period of time is the required course in Architecture and Engineering at most accredited Colleges and Technical Institutions. The years which would follow in the subsequent grades, constitute the period required after graduation before which an Architectural or Engineering aspirant may become Registered, according to the Laws for the Registration of Architects and Professional Engineers and Land Surveyors, though three years suffice in most states for Architectural Registration. In either case, however, P. G. courses may run simultaneously.

26. Regarding all the grades outlined, it would be understood that while they are intended to represent normal expectancy in the development toward ultimate all around proficiency, there will always be some individuals who will be stepping up more rapidly than most of the others. These should, of course, be given special consideration. There will also be found individuals who will consistently remain proficient in their grade without inclination to advancement. By their works they shall be known, and each should be treated accordingly.

GRADINGS	YEARS		INTERCHANGEABLE EQUIVALENTS IN EDUCATION AND EXPERIENCE		SCHEDULE TO ACCOMPANY ARTICLE IN PENCIL POINTS			
PROGRESSIVELY ARRANGED	TOTAL	ELAPSED	ACADEMIC	IN OFFICE AND OUTSIDE	RESPONSIBILITY	TITLES VARIOUSLY USED		
PRELIMINARY PERIOD	Age 16 (or over)		Preliminary scholastic training including courses in architectural drawing, building construction, and related subjects—plus self-improvement and the desire to continue in the profession through increasing efficiency.	ARCHITECTURE		PROFESSIONAL AND TECHNICAL CLASSIFICATIONS		
START OF CAREER	Age 17½	½	Ditto. (Plus) Graduation from High School.	Acting as “office boy” and capably performing any appropriate duties assigned in becoming of general usefulness. Additional self-improvement through study of architectural subjects, as indicated in academic column.	Under immediate direction and following specific instructions as to methods of procedure, policy and standards.	OFFICE BOY MESSENGER STUDENT STUDENT STUDENT DRAFTSMAN BEGINNER HELPER APPRENTICE APPRENTICE DRAFTSMAN DRAFTSMAN—TRACING AND COPYING TRACER ARCHITECTURAL ASSISTANT JUNIOR DRAFTSMAN—GRADE A-3 SUB-JUNIOR DRAFTSMAN SUB-JUNIOR DETAILER SIMPLE DETAILER IMPROVER		
GRADE A-1	1	1	Graduate of High School. Continued study in Atelier, Correspondence School, Evening School. Year in College.	Making corrections to maps, surveys, and filing of tracings, blue prints, specifications, etc. Care of samples and supplies. Ordering and trimming prints, sending or taking out packages. Examining and studying drawings by others. Making experimental drawings and tracings, doing minor lettering, bordering, etc., and capably performing any appropriate duties assigned.		Under direct supervision of the Job Captain or a designated Senior Draftsman and with limited latitude for unreviewed action or decision affecting procedure.	JUNIOR DRAFTSMAN—GRADE A-4 JUNIOR DETAILER JUNIOR ARCHITECTURAL DRAFTSMAN SCALE DETAILER JUNIOR DRAFTSMAN—GRADE A-5 SUB-SENIOR DRAFTSMAN ASSISTANT SENIOR DRAFTSMAN ARCHITECTURAL DRAFTSMAN DRAFTSMAN—SUPERVISING OR QUALIFIED CHECKER (PRELIMINARY) JUNIOR ARCHITECT	
GRADE A-2	2	2	Ditto	Looking up catalogue references, filing catalogues, cleaning and trimming tracings, mounting drawings, photographs, etc. Tracing drawings made by others, of minor buildings. Doing simple layouts of properties, plans of buildings, lettering and titling. Capably being of general usefulness in office routine and outside work. Aiding in taking measurements for architectural surveys of existing buildings.			Ditto	APPLICANT- NOVITIATE
GRADE A-3	3	3	Ditto	Developing preliminary layouts of working drawings of plans, elevations, and sections of minor buildings and preparing simple details from sketches and data by others. Neatly tracing or finishing and lettering same. Doing incidental drafting of simple type.				
GRADE A-4	4	4	Ditto	Making corrections and alterations to working drawings, as directed. Familiarity with routine work in office and being of general assistance to others in translating ideas obtained into architectural descriptions. Making visits to buildings under construction preliminary to submitting reports to inspectors or superintendents. Independently taking measurements for architectural surveys of existing buildings.	Under higher administrative and technical direction but with considerable latitude for independent judgment under approved policies and standards.	Ditto		
GRADE A-5	5	5	Ditto	The same as those of the positions previously mentioned under Junior Draftsman, but of a more advanced nature due to acquired experience in those fields sufficient to warrant the making of sketches and the preparation of preliminary studies for plans, elevations and sections of buildings of multiple occupancy or others of major importance. Preparing actual working drawings of houses or housing units from superior's sketches or layouts and accurately tracing same, making sketches for and preparing and inking in scale details and making usual full size details. Also ability to check in a preliminary way, as assigned, dimensions, working drawings, scale details, contractors' shop drawings, etc.		Ditto		
		1	Continued self-improvement in office or field or both—or elsewhere when unemployed.					
	6	2	Ditto			Ditto		
GRADE A-6	7	1	Ditto	These positions involve a thorough general knowledge of routine work in office and field, connected with the practice of architecture, and require the full spirit of cooperation with all associates and a certain amount of directional ability. Specifically the preparation of sketches and the rendering of drawings in various mediums. Planning, designing and detailing of buildings and familiarity with appropriate materials. Cooperation with office technicians, engineering and other professions, and knowledge of the crafts. Designing and full size detailing of ornamental, sculptural and other features of buildings. Outside of office visiting as required, with superiors or alone, the sites of proposed housing or other projects, observing topography, local conditions, natural and architectural surroundings, passing preliminary judgment on appropriate requirements, proposed materials, etc., and inspecting cartoons, models, etc.	In full cooperation with one another and with designated Senior Draftsman, under immediate direction of the Squad Boss, Job Captain or Head Draftsman with considerable latitude for independent judgment and action under approved policies and standards.	SENIOR DRAFTSMAN SENIOR ARCHITECTURAL DRAFTSMAN DRAFTSMAN—GRADUATE OR CERTIFIED DESIGNING DRAFTSMAN ARCHITECTURAL DESIGNER DESIGNER SENIOR DETAILER		
	8	2	Ditto			Ditto		
GRADE A-7	9	1	Ditto Eligible for State Board Examination for Architects.	These positions involve technical ability in addition to all or parts of the training and experience acquired in the positions previously outlined. (a) The Technician or Technical Draftsman, etc., is a Senior Draftsman who has specialized in acquiring the requisite additional knowledge to enable him to be familiar with accessory features of structural engineering, mechanical engineering or electrical engineering to the extent that in planning and designing buildings he can regulate their elements to properly accommodate themselves to the necessary requirements as to spacing, size, arrangement, installation, application and satisfactory disposal of all component parts. He must be sufficiently capable in this capacity to act as coordinator of these and the respective architectural requirements and act as point of contact with any employed or consulting engineers and on behalf of the architect to represent him as an inspector or supervisor of installations and equipment at the site. (b) The Specification Writer is the equivalent of a technician who has not only the same general knowledge and experience but possesses the ability to put into appropriate language the provisions which will insure complete, sound, workable and economic housing structures and surroundings. (c) The Examiner and Checker (Final) is the equivalent of a technician who has the keen foresight and ability to discover whether or not all of the component features of every building are properly shown and provided for—and to see that all drawings are complete before issuance for final estimates. (d) The Quantity Surveyor and Cost Estimator is the equivalent of a technician who has kept himself thoroughly abreast of all Costs applicable locally for materials, methods and labor and can make proper computations including comparisons as to maintenance. (e) The Superintendent or Inspector is a technician who has the ability and agility to cover all construction work as it progresses and to capably see that the drawings, specifications and all proper requirements are complied with.	To maintain cooperation, order and discipline with partial responsibility to the Chief Draftsman or Architect superior for independent judgment and action.	TECHNICIAN TECHNICAL DRAFTSMAN ARCHITECTURAL ENGINEER COORDINATOR SPECIFICATION WRITER EXAMINER AND CHECKER (FINAL) QUANTITY SURVEYOR AND COST ESTIMATOR SUPERINTENDENT INSPECTOR		
	10	2	Ditto Registered Architect.					
GRADE A-8	11	1	Ditto	This position carries with it the various qualifications and general knowledge required of the senior draftsman plus a general familiarity with the work of those in the technical occupations, plus a demonstrated administrative capacity. The position will usually be found only in large offices, as with a small organization the Chief Draftsman or the Architect or the Chief Architect of a group will function in this capacity. Heading up and supervising a small force in office or field, carrying on the design, drafting and detail work in office and assisting in directing the technical staff in the matter of preparing cost estimates, specifications, etc., and in supervision of outside work.	Directly to the architect or designated head of a group of Architects, who independently, subject only to final approval of the proper Local Housing Authority officials, shall have complete responsibility.	SQUAD CAPTAIN SQUAD BOSS JOB CAPTAIN		
	12	2	Ditto					
GRADE A-9	13	1	Ditto	Carrying forward housing projects or architectural work of any type, including the investigating, planning, designing and estimating with the assistance of staff members, of first cost and maintenance cost of buildings. Taking charge of the drafting and technical personnel and maintaining contacts with all staff members doing outside work. Directing the preparation of preliminary sketches, supervising the drafting room work and having general oversight of the preparation of drawings, details, specifications. Making occasional field visits and rendering final decisions with respect to the supervision of actual construction at the site.	ARCHITECT CHIEF ARCHITECT			
GRADE A-10	14		Ditto	Independently or under lay direction, with complete responsibility for the standards and methods applied and for the technical soundness of the methods or work and the accuracy and reliability of the results.				

MONTHLY WASHINGTON REPORT

COMPILED BY A. D. TAYLOR OF CLEVELAND

EDITOR'S NOTE: This report is prepared each month, based upon observations and information in connection with the different Government agencies, concerning the National Defense activities, considered to be of interest to members of the technical planning professions and to the building industry. Comments and suggestions from readers will be welcomed by the editors, as to the kind and extent of information which may be of maximum interest to the readers of PENCIL POINTS.

AS TO GENERAL PROGRESS

Since the publication of the last report, a very limited number of major defense projects (ordnance projects and general hospitals) have been announced. Construction work on the projects included within the original appropriation is rapidly nearing completion.

Large sums of money have been appropriated with which to continue the preparations for maximum defense and productive capacity. Information now available to the public indicates that with the expansion of the army enlisted personnel there will be a corresponding increase in the housing and production facilities, so essential in the defense program.

No specific new program has been announced. It is expected daily that such announcement may be forthcoming, at which time the representatives of the technical planning professions will be fully informed as to the demand for their services in the anticipated program of planning.

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MONEY FOR PLANNING

The magnitude of this program of planning, requiring services from the technical planning professions, is evidenced by the appropriations recommended by the "Appropriations Committee of the House of Representatives," and included in the Bill H. R. 3617, under the "Fourth supplemental national defense appropriation bill for 1941" and reported in the "Hearings before the sub-committee of the Committee on Appropriations, United States Senate." This appropriation of \$15,000,000 is in reality to be expended for advance planning as

set forth in the tabulation contained in the "Hearings before the sub-committee of the Committee on Appropriations in the House of Representatives," and reading as follows:

Site selection and planning (including investigation of sites and site planning in each site)	\$ 1,500,000
Aerial photography	50,000
Field surveys and preparation of field maps (including the field survey necessary for engineering investigations and acquisitions of real estate, basis for engineering studies, etc., of 40 camps involving a total area of approximately 1,500,000 acres)	4,000,000
Travel	450,000
Supplies (including office equipment, blueprints, photostats, survey instruments, stationery, etc.)	500,000
Field offices (including construction of small field offices, rentals, etc.)	100,000
Water-supply investigations (engineering investigations for water supply including borings)	1,000,000
Sewers and sewage-disposal investigations	400,000
Electric light and power investigations	300,000
Transportation-facilities investigations (including investigations and engineering studies on roads, railroads, etc.)	500,000
Foundation investigations	200,000
Preparation of working plans and specifications (engineers' and architects' fees, hire of personnel)	6,000,000
Total	\$15,000,000

The extent of the planning program is indicated by this detailed report.

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DEFENSE HOMES CORP.

To this agency within the RFC the President has allotted \$10,000,000 of his general defense funds, to be used as equity money in constructing "Defense homes" which can be developed profitably by private builders who for one reason or another are

not able to proceed with sufficient speed in financing such projects, to meet the requirements of the present emergency. Twenty percent of the housing cost is provided by the Defense Homes Corporation and eighty percent may be borrowed from the RFC on a mortgage guaranteed in the usual way by FHA. The Defense Homes Corporation will select and purchase the site (ranging from 50 to 250 units in each project), employ the site planners, architects and engineers, and contractor. These projects will be developed only after the need for that kind of defense housing has been certified by the defense housing coordinator. Information concerning this Government activity is referred to in the release dated April 3 (D.H. 34) from the Office of Emergency Management and covering an address made by Mr. Charles Palmer on the evening of April 3.

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PBA AND USHA HOUSING

In all probability a considerable number of defense housing projects to be developed by USHA and by the Public Buildings Administration (to the extent that such projects are allocated to each of these Federal Housing agencies) will be announced before this report appears in print. Most of the critical problems of housing for rapidly expanding industry such as that occurring in Newport News and at San Diego have been solved. There will, however, be a continued expanding program in those centers of industrial activity where housing shortages are becoming evident.

Both of these agencies (the USHA employing offices in private practice

and the PBA preparing plans through its salaried personnel) are making rapid progress. Practically all of the defense projects allotted to date to the USHA are now nearing the stage of final plans and specifications, or are under construction. The Public Buildings Administration reports that its extensive program of planning for all defense housing allotted to it under the Lanham Act and under previous legislation is now ninety percent complete and the schedule calls for the completion of plans and specifications for all of its defense housing by the end of April.

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LEGISLATION PROGRESS

The new Lanham Bill approved by the Committees in the House of Representatives and in the Senate will be passed, without doubt, before this report is printed. The Senate has amended this Bill to provide for additional cost of housing units, approximating \$3,000 in the original Bill and now totaling approximately \$3,500 in the amended Bill.

"Title 6" making additional monies available for defense housing, through the FHA, has passed the House of Representatives and the Senate.

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SELECTION OF SITES

A "panel of consultants" is under consideration to be appointed by the Public Buildings Administration for consulting work to the extent necessary in the selection of sites and the development of preliminary studies for housing projects to be planned by the Public Buildings Administration. These consultants have been selected largely from the professions of landscape architecture, and of "planning." They will be available upon call, to visit prospective sites and to advise upon the selection of sites; and to inspect and study sites which have been selected, and to return to Washington for the purpose of rendering assistance in the development of the fundamental studies for such housing projects. These men will be paid upon a *per diem* consulting basis for their services.

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THE WAR DEPARTMENT

The functions of the technical planning group employed in the Construc-

tion Division of the Quartermaster General's Office are set forth in an "office bulletin, No. 69 — 1941," dated March 4, a limited number of copies of which may be available through the "Public Relations Section" of the Construction Division in the Railroad Retirement Building in Washington.

In general these functions are as follows:

1. Prepare and issue typed plans and specifications.
2. Prepare and issue special plans and specifications when necessary.
3. Prepare instructions for the architect-engineers.
4. Prepare instructions for the zone construction quartermasters and the construction quartermasters on technical planning matters.
5. Exercise technical supervision over the work of the architect-engineers, as to kind and extent of plans produced and as to the quality of the plans.
6. Check and approve or disapprove architect-engineers' plans when submitted to the Washington office.
7. Receive and answer questions from engineering consultants and from other consultants on planning problems.

These are some of the more important functions of the technical planning groups referred to in the February issue of PENCIL POINTS Magazine.

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N. R. PLANNING BOARD

The National Resources Planning Board is proceeding under instructions from the President to develop a report on "development of resources, and stabilization of employment in the United States" over a six-year program. This is referred to as a "shelf" of Public Works which has been prepared by the Board in accordance with the "Federal employment stabilization act." This "shelf" or reservoir will provide a list of long-range projects from which Congress and the Administration can select activities in the amounts and kinds appropriate to the times whenever needed. It is quite likely that a "revolving fund," to be administered by the President, will be set up for the immediate inauguration of surveys, investigations, and preliminary engineering plans with revised plans and specifications for specific projects. This report from the National Resources Planning Board is available from the Office of the Superintendent of Documents at \$1.25 a copy.

MAJOR DEFENSE PROJECTS

In all probability the greater percentage of work to be done by the technical planning professions will be in connection with those projects administered by the War Department and by the Navy Department. In the War Department, as has been heretofore indicated, the United States has been divided into nine Corps areas with a zone construction quartermaster in charge of each zone. There will be an increase in tendency to decentralize the Washington authority, possibly to the extent that the zone construction quartermaster will have considerable latitude in selecting and negotiating contracts with members of the technical planning professions.

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PLANNING BULLETINS

In any new program of work requiring the services of members of the technical planning professions, it is quite probable that a number of bulletins will be published for the information of the site planners, the architects, and the engineers engaged in planning and supervising the construction on these projects.

Information may be readily procured from the offices of the zone construction quartermasters as to the extent of responsibility for preparation of plans, supervision of construction work, and negotiation of minor contracts. In each of these zone offices there is a chief zone engineer and a chief zone architect. Because of the extent and the nature of the problems of landscape architecture involved in the site planning and specific detailed developments on the property, it is hoped that there may be appointed to each zone a zone landscape architect or site planner, to function in a collaborative procedure with the architect and the engineer in much the same way as the representatives of these professions now collaborate in solving their respective problems in the Washington office of the Construction Division.

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JOINT ACTIVITIES

The inequities and the inconsistencies in the established rates of remuneration in the form of *per diem* consulting fees adopted by different agencies creates a problem which in all probability will require the combined activities of the members of the profes-

sions heretofore working in a collaborative way upon other problems concerning the relationship between the Federal Government agencies and these professions.

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RECREATION FOR CAMPS

It is quite likely that an extensive program of providing major and necessary recreation areas (regulation baseball fields, football fields, softball areas, volleyball areas, and other minor areas) will be instituted within a very short time, and these areas will be planned and developed on those cantonments where the need now exists.

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COMMUNITY FACILITIES

Of very definite interest to those engaged in the technical planning professions is the appropriation approximating \$150,000,000, under the "Community Facilities Bill," to provide monies for the use of those communities where expenditures are made necessary for the improvement of roads, development of schools, and the installation of utilities, for which

the communities are not in a financial position to pay. This Bill has been passed, giving recognition to the fact that such additional and abnormal facilities can be made available with Federal Government monies. These funds should provide much opportunity for the employment of men in private practice, in the technical planning professions.

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WPA FOR CANTONMENTS

After the architect-engineer has completed, through the contractor, the construction program, the further improvement of the sites (finished grading, most of the recreation areas, surface drainage, and planting) will be done with the aid of the Works Progress Administration. The plans for this work will undoubtedly be prepared by men in private practice.

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SELECTION OF PROJECTS

The War Department will probably publish in the near future a set of mimeographed "criteria" which are useful as a guide to those charged with the responsibility of selecting any sites for cantonment or ordnance

projects. This set of criteria may be available through the Public Relations Section of the Construction Division.

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FEEES FOR HOUSING

No schedule of fees acceptable to the technical planning professions has been established to date by the United States Housing Authority. In fact, the USHA has officially indicated its desire to discuss with the representatives of these professions only the problems of fees and of contract forms on low-rent housing projects. On the other hand, the USHA is proceeding to employ professional services from these technical planning professions on defense housing projects although officially this agency has refused to discuss with the representatives of these professions, in an official way, any questions concerning a proper schedule of fees for each of them on such projects. This is a somewhat unusual procedure and creates a rather embarrassing situation between this Government agency and the representatives officially appointed by their respective professions to discuss these matters concerning fees and forms of contract.

April 2, 1941

CONNECTICUT ARCHITECTS' DEFENSE ACTIVITY

A release sent out by the A.I.A. late in March reads as follows:

The isolation of all new Connecticut defense plants and the immediate surveying of the principal industrial areas in the State to determine the best methods of civilian protection are urged by *George H. Gray* of New Haven, chairman of the committee on civil defense of the Connecticut Chapter of the American Institute of Architects.

Although studies of protective measures are being made by the Army staff in Washington and will be available in due time to official state and municipal defense bodies, certain phases of civilian defense call for immediate action.

"Under the heading of deserving prompt attention would come such items as the maximum possible spread of risk in the expansion of defense industries and among defense workers," he points out. "This applies to the separation of buildings in individual plants and to the separation of plants.

It applies to open planning in housing developments as well as to locating new housing reasonably remote from the plants."

Surveys of existing conditions preparatory to an emergency are essential, and it should be realized that surveys take time and must be done in advance of the emergency, Mr. Gray points out. "Surveys will be needed for the protection of cities against conflagrations, for the protection of the population during raids, and for various types of aid to civilians after raids.

"The inflammable construction of large areas of our cities makes it necessary to plan for demolition strips separating various parts of the city, and, for those de housed, other shelter must be foreseen. The architects would seem to be the group best prepared to carry out the following program of action:

"First, to make a survey and report on both the demolition areas and on the new habitations.

"Second, to select in conjunction with engineers existing structures or parts of them for air-raid shelters and for the first-aid and other emergency depots.

"Third, to plan for the protection of those assembled in public places, especially pupils and teachers in schools — protection through disciplinary measures and through selection of existing space for air-raid shelter or planning special construction.

"Fourth, to draw up plans for separating the population from the proximity of military objectives."

Several of these surveys are already being made by members of the architects' civil defense committee, Mr. Gray reports. A study of how best to separate the population from military objectives has been made in the New Haven area by graduate students at the Yale School of Architecture under the direction of Professor *Andrew Euston* of the defense committee. The protection of public assemblies is being investigated by *John Nichols* of

Hartford, architect to the State Board of Education, and *Ernest Sibley*, nationally known school architect residing in Litchfield.

"The construction of air-raid shelters is one of the technical problems which should wait for the reports of the army staff," according to Mr. Gray. "The expansion of hospitalization must originate with the hospital authorities, and camouflage, which is in its nature secretive, should from start to finish be under strict military control.

"Military methods are not static and it often happens that by the time a report is written or a plan is made new conditions require reconsideration. It would seem to follow from this that the best procedure for the architects at present is to survey the structure and use of existing buildings, of essential utilities, and of arteries of traffic, and defer until a later period the more intensive study of means of their defense. Our cities are different in structure and plan than most European cities and we will have our own solutions to find.

"An essential characteristic of the Army, as of the Department of State, is that in so far as is humanly possible specific plans must be kept secret. A part of the process of maintaining secrecy and at the same time of keeping all informed who should be informed is the system of routing suggestions and decisions through 'military channels,' which inevitably causes delays.

"These two conditions are the source of much of the criticism of the Army which is always current as soon as any emergency arises. Both the Army and the State Department have their official observers in all foreign countries, particularly those at war, and it cannot be doubted that the Army is collecting data bearing on the problems of our committee.

"In due course information will be forthcoming from the War Depart-

ment to the officials of the defense committees of the several States. If there is to be any responsibility for action, this is as it should be. Delays on this score should not discourage us. We have the surveys to make—of existing conditions. We have to familiarize ourselves with certain basic ideas before we can advance into newer methods."

Mr. Gray served for two years as a staff officer during the First World War, acting as an advisor on military and civilian defense both in this country and as a member of the American Expeditionary Forces. The defense committee which he heads was organized in October, 1940, and functions in close cooperation with the Connecticut Joint Executive Defense Committee.

Other members of the Committee are: *William F. Brooks*, New Britain; *Raymond Ellis*, West Hartford; *Harold Davis*, New Haven; *Leonard Ashein*, Bridgeport; *Charles Wellington Walker*, Stratford; *Frank H. Bissell*, Norwalk; *William J. Provoost*, Stamford; *W. W. Sunderland*, Danbury; *Charles Palmer*, Torrington; *Miles H. Mann*, Norwich; *Lorenzo Hamilton*, Meriden.

The architects' committee is divided into sub-committees for each of the nine industrial areas in the State, which include twenty-one cities and towns engaged in the manufacture of munitions and airplane parts.

The work of a special committee on research and public information, of which *Lawrence Moore* of Wilton is chairman, is subdivided as follows: *Phillip Sunderland* of Danbury, and *Douglas Orr* of New Haven, location of housing and industry; *Herbert Gibson* of Hartford, conflagration hazards and urban rehabilitation; *Mr. Moore*, location and structure of bomb shelters; *Stanley McCandless* of New Haven, camouflage of utilities, supplies, transportation, communication, and general; *Mr. Sibley*,

physical protection of public places and *Mr. Nichols*, disciplinary protection of public places; *Mr. Gray*, public information.

A liaison committee is composed of *Professor Euston*, *Mr. Gray* and *Mr. Bissell*.

"The ultimate aim of the defense committee is to work through the regional and national organization of the American Institute of Architects and make all the talents of the architects of the country available for the total economic and social defense of our nation," Mr. Gray explains. "Whatever may be accomplished elsewhere, we in Connecticut, as guardians of the chief ammunitions center of the nation, have a tremendous job ahead of us and we must make good.

"Already civil defense in Connecticut, through the work of the State Joint Executive Defense Committee has made a considerable advance. This is notably true in the field of public utilities. The engineers of the water companies, for example, have planned precautionary measures against sabotage of all sorts, from the source through the mains to the consumers. Each watershed will have increased patrols and surveillance, and mains from the various sources in between different sections of the city will be so cross-connected that no section of the community can be cut off from a continuous supply—a matter affecting production of every kind as well as the civilian population.

"In a similar manner, light, power, and gas systems are being protected. Wherever feasible each system is being cross-connected from community to community. Similar protective organization is under way in the railway, bus, trolley, and trucking services. The telephone company is organizing a special department for the immediate intercommunication of information. Municipalities are organizing the expansion of hospitals, clinics, and other activities."

DEFENSE WORK IN THE YALE DEPARTMENT OF ARCHITECTURE

AS REPORTED BY C. L. V. MEEKS

Promptly in September when school opened, a program of Defense activities began. This had three aspects:

1. It was recognized that there was a desperate lack of scientific bibliographical work on Defense; thus the necessary foundation for all later work had to be built up almost from scratch.

2. It was important to bring together as much up-to-the-minute information as possible. This has been done through a course (*Architecture 47*) of bi-weekly lectures from distinguished experts, from other schools at Yale and from all over this country and Europe.

3. Direction of research and design to specific aspects of Defense. These have dealt, so far, with Decentralization, Evacuation, Succor, and the Defense of Industrial Plants.

The students volunteered to compile a bibliography. It was found that: existing library files and classifications were inadequate, both here and in New York and Washington; that there was no master list of periodicals on the subject nor were the contents of departmental libraries, such as Chemistry, Physics, and Engineering, at all integrated. Valuable material in medical journals had to be made accessible. A great deal of important material is unavailable due to censorship. The result of this effort to date has been the stimulation in the University of the reclassification of Defense material and the active cooperation of various libraries in acquiring this material. It is now clear, after several months of work, that the financial and physical problems of collating the material is beyond the scope of volunteer student assistance and efforts are being made to gain support for this project on an expanded basis.

In Class A Design, three specific problems have been undertaken. The

first was the study of decentralization of modest income groups. Investigation of country areas, means of self-support, collective facilities, marketing, etc., were studied. The second problem was designing an industrial plant. Committees studied various subjects such as construction, bomb-proof shelters, camouflage. This information was pooled and several solutions were proposed. An airplane trip over the site had been made to study the camouflage problem and due consideration was given to the fact that the plant must be useful in peacetime as well as in wartime. Consequently, only the most vital part of the plant was made bombproof.

The third problem was a Naval Hospital. In this case, it was decided that camouflage was not vital, and that it was more feasible to plan a group of several buildings in shapes which would make poor targets. It was designed to function smoothly under stress of abnormal activities. Again, the most important equipment was placed below ground, the premise being that men are cheaper than machinery.

In Class B Design, a study of the evacuation of workers dwelling near a munitions plant in New Haven was analyzed. It was found that 20,000 people lived within a half mile of it. Groups of small trailer camps was the solution offered: these to be scattered along existing roads within five or six miles of the plant. Trailers had to be redesigned for workers' families to eliminate luxuries and to include necessities. Laundry and bathing facilities would be provided in prefabricated units which could be used again for other purposes in peacetime.

Lectures in *Architecture 47* have been given by Homer St. Gaudens on *Camouflage*, by Hugo van Kuyck on *Designing Cities*. It was pointed out that good planning for war would

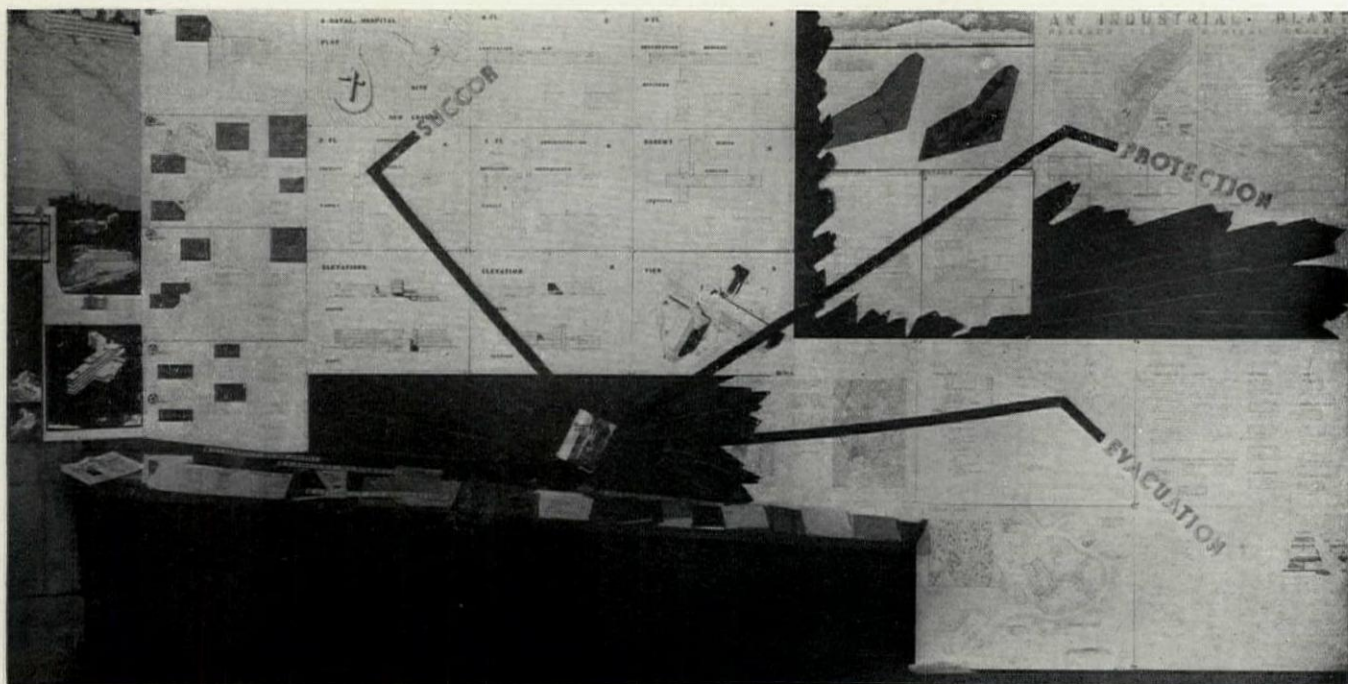
also improve peacetime living conditions. Max Abramovitz passed on some of the data gained from his experience in Panama in building a naval base. We have also had lectures by Dr. Winslow on *Planning for Health*, by Professor Doob on *Meeting the Psychological and Social Needs of Workers*, by Maurice Rotival on *The Organization of Regional Plans*, by Carl Taeusch on *Effectual Land-Use Planning*, by Dr. Neergaard on the *Planning of Hospitals*, by C. W. Eliot, 2nd, on the *Facilities of the National Planning Board*, and many others.

The subject of planning for Defense has also been under consideration in the regular courses on Architectural Theory, the History of Architecture and Group Planning.

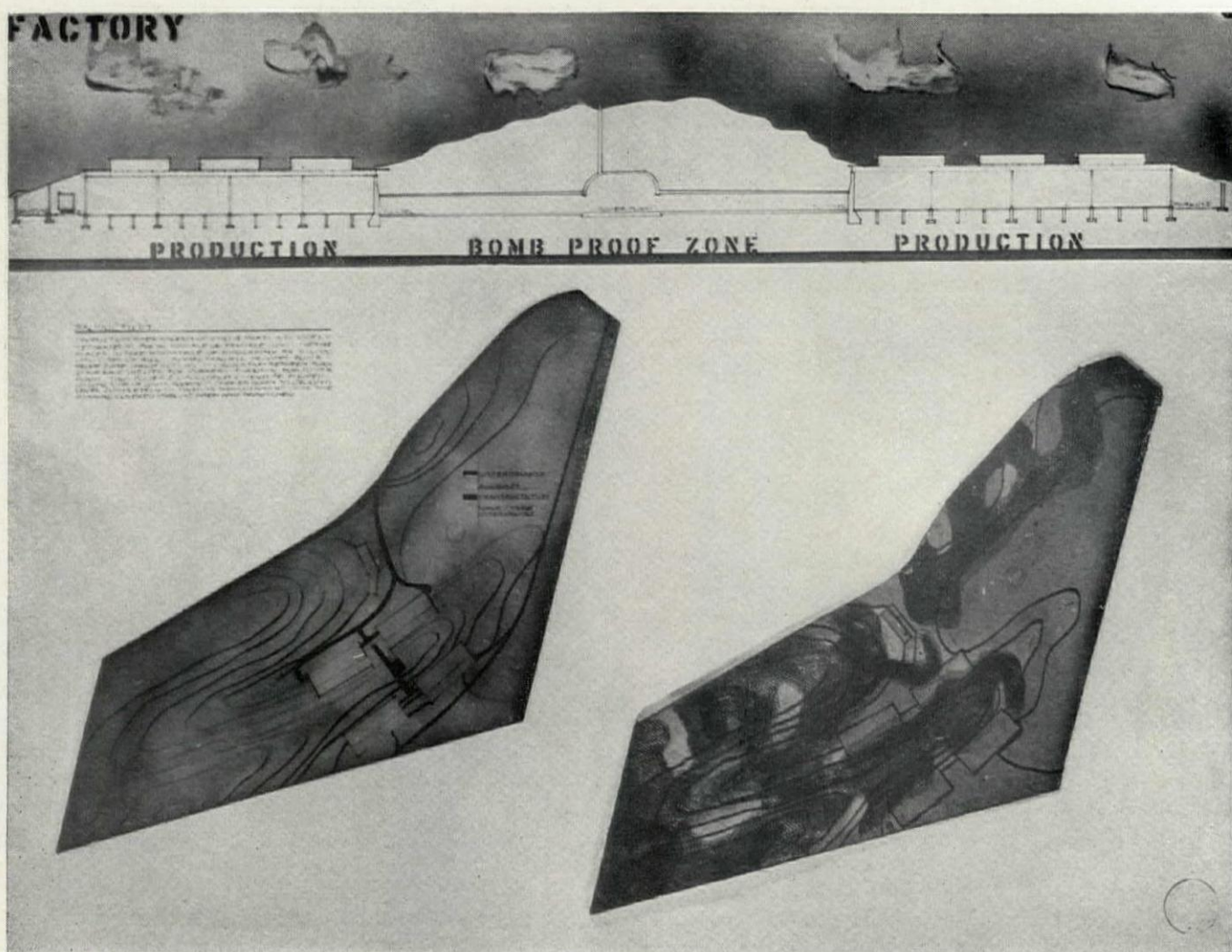
On February 22nd, the Alumni and students of the Department of Architecture held a joint meeting in which they exchanged their experiences in Defense work and research. In connection with this, a dramatic exhibition of Defense problems was arranged together with an exhibition of bibliographical items. A photograph of this exhibition is appended, as well as a copy of a bibliography prepared the students for Alumni distribution.

From all this, it would seem that the students and Faculty at Yale, without special grants or assistance, have been exceedingly active and constructive in meeting the present emergency. With the possibility of additional financial aid, this work can immediately be made of wider usefulness.

Next year we are adding new courses in Theory and modifying the design program to lay even greater stress on preparation for Defense work. The Graduate Group in particular will have unusual facilities for defense research, particularly as it affects town and regional planning.



AT A JOINT MEETING OF ALUMNI AND STUDENTS OF THE DEPARTMENT OF ARCHITECTURE AT YALE, THE DEFENSE ACTIVITIES OF THE SCHOOL WERE DRAMATIZED IN THE EXHIBIT SHOWN ABOVE. PROJECTS FOR A NAVAL HOSPITAL, TRAILER COMMUNITIES, INDUSTRIAL BUILDINGS, AND OTHER PREPAREDNESS ITEMS WERE SHOWN. ONE OF THESE, A PARTLY BOMBPROOF FACTORY DESIGNED BY K. A. GIBBON IS REPRODUCED IN PART BELOW



A SELECTED BIBLIOGRAPHY

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Compiled by the Department of Architecture—School of the Fine Arts

Yale University—February, 1941

For the Yale Alumni in Architecture

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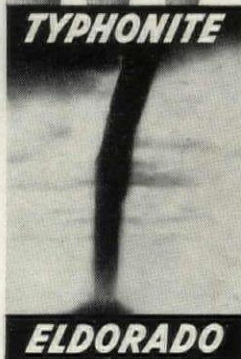
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APRIL 1941

SIGNIFICANT SHOWS

Two exhibitions of unusual significance are currently being shown at The Architectural League of New York. *Hugh Ferriss*, Chairman of the Clubhouse Exhibitions Committee, whose untiring efforts this season have gone far to revitalize interest of League members in contemporary architectural developments, announces that the April "Panel Show" concludes for the season this distinctive series of exhibitions. The coincident show, "*Architecture Around San Francisco Bay, 1941*," is of special value at this time, when the attention of architects is being turned to California, preparatory to the A.I.A. Convention, May 17-21, at Yosemite Valley and Los Angeles.

The eighth "Panel Show" includes presentations of representative work by *Lorimer Rich*, *Edward D. Stone*, *Edgar I. Williams*, *Frederick G. Frost, Sr. and Jr.*, and *Gerald A. Holmes*, Architects; *John Taylor Arms*, Etcher; *Mrs. Archibald Manning Brown* (*McMillen, Inc.*), Decorator; and *Hugh Ferriss*, Declineator. The Chairman reports that the Panel Shows have so increased in popularity that advance reservations for space are now sufficient to fill a schedule of eight exhibitions a year until 1945! These have admirably served the League, which has received a number of new members this year, and have been an attraction to the public as well as to League members.

The invited exhibition from the Pacific Coast which was selected and assembled at Mr. Ferriss' request by *Ernest Born* and *Hervey Parke Clark*, Architects, of San Francisco, includes the work of seventeen architectural offices of that city. The architects are aged 31-57 years and in practice from two to twenty-eight years. A few of these were trained in New York, but most of them in California. The exhibitors are: *Norman K. Blanchard* and *Edward J. Maher*; *Hervey Parke Clark*; *Frederick L. Confer*; *Gardner A. Dailey*; *John E. Dinwiddie*, Architect, *Albert Henry Hill* and *Phillip E. Joseph*, Associates; *John C. Funk*; *Charles H. Franklin* and *Ernest J. Kump*; *Michael Goodman*, *Timothy L. Pflueger*; *Francis E. Lloyd*; *Clarence W. W. Mayhew*; *Francis Joseph McCarthy*; *James H. Mitchell*; *Warren Charles Perry*; *Eldridge T. Spencer*; *Winfield Scott Wellington*; and *William Wilson Wurster*.

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If you have not studied these advertisements, it will be worth your while to turn now to the yellow pages in this issue and see for yourself if these advertisements do not present exactly the information you, as an architectural man, will need. If you have any criticisms or suggestions, PENCIL POINTS will be pleased to have you write us a letter. Address the Technical Editor of PENCIL POINTS, 330 West 42nd Street, New York. Reprints of these advertisements may be obtained from the U. S. Gypsum Co., 300 West Adams St., Chicago.

OUR CONTRIBUTORS

Drawing on a rich fund of experience in connection with architectural services on housing projects in the Philadelphia area and in the Virgin Islands, *W. Pope Barney*, Architect of Philadelphia, gives our readers some valuable tips in the lead article of this issue. The Editors hope that this may be "only the beginning" of a fund of information obtainable from the active members of the profession.

As an active member of the A.I.A. for 25 years, a prominent architect of Philadelphia, and as the winner in his student days of a number of coveted prizes and scholarships, Mr. Barney is well known to the profession. A native of Georgia and a graduate of Georgia Tech. and the University of Pennsylvania, he enjoyed exceptional opportunities as a pupil of Paul Philippe Cret, being associated in the design of the Indianapolis Library. He later was associated with such famed firms as Zantzinger, Borie & Medary, Day & Klauder, and now practices independently.

The log house of Mr. and Mrs. C. E. Murphy was designed by *George Kosmak* and *Ernst Payer* as Associated Architects. Mr. Kosmak is a native New Yorker and his practice is largely residential work in the modern manner, in the neighborhood of New York and in Charleston, South Carolina. He also does the usual work of a general architectural practice.

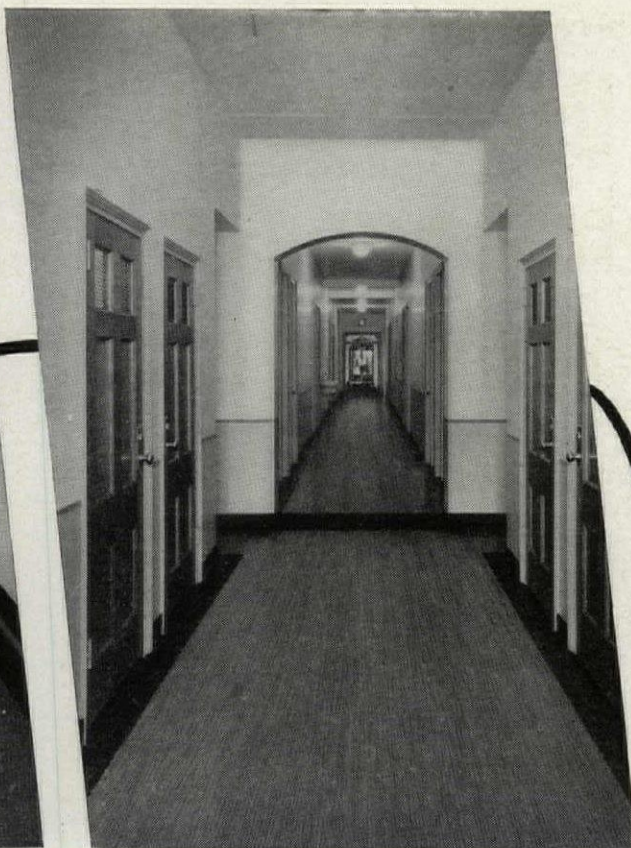
The beginning of Mr. Kosmak's log construction was a commission to design a group of summer homes for easterners in the Rocky Mountains in Montana. He has since made this construction a hobby and has traveled through the Scandinavian countries and our own West to study various methods of log construction. Mr. Kosmak attended Columbia College and the School of Architecture of Columbia University, meantime obtaining practical experience as a draftsman and construction supervisor in the office of Rich & Mathesius.

Mr. Payer is a native of Vienna where he received his architectural training and practiced for a period of years designing furniture and residential interiors as well as buildings. He came to this country several years ago and, after studying architecture at Harvard, was associated with Mr. Kosmak on several projects.

(Continued on page 66)



Note interesting cove-base treatment in this corridor of the Hackensack Hospital, Hackensack, N. J. It makes cleaning easier, assures complete sanitation. This particular installation is 17 years old, and still going strong . . . proof of the permanency of Nairn Linoleum Floors.



This corridor in the State Mental Hospital, Howard, R. I., is "quietized" for the life of the building itself. For Nairn Linoleum gives long years of satisfactory service. Border at junction of floor and wall increases the attractiveness of this installation.

How to write "Quiet Corridors" into your specifications

Corridors of hospitals, libraries, churches, and schools *all* demand quiet floors. The simplest way to get them is to specify Nairn Linoleum for these traffic areas. For no other floor material offers such footease and quietizing qualities. It reduces noise to a minimum, hushes the sound of footsteps.

More than that, Nairn Linoleum is easy to work with, flexible to any structural design. Long-lived, attractive, low in first cost and easy to maintain, it provides every attribute of successful, modern floors not only for corridors, but for every other area as well. When installed by Authorized Contractors, Nairn Linoleum is fully guaranteed.

CONGOLEUM-NAIRN INC., KEARNY, N. J.

NAIRN
Reg. U. S. Pat. Off.
LINOLEUM
FLOORS AND WALLS

INDEPENDENT SURVEY SHOWS:

Users Prefer Iron Fireman Over Other Automatic Heating

When you design homes for low operating cost—by installing Iron Fireman automatic coal heat—you win the endorsements of clients. Here are the results of an independent survey made in nine states by one of America's largest research organizations (name on request):

91% of the Iron Fireman users who formerly burned expensive automatic fuels say money-saving Iron Fireman gives them better heating.

An average fuel saving of 43%, in comparison with the automatic fuels previously used, was reported.

Let Iron Fireman operating savings help pay the cost of hundreds of dollars worth of additional modern conveniences.



Don't let High Fuel Bills become a "2nd Mortgage" on the Houses you are building

If Iron Fireman saves one of your clients \$5 a month, in comparison with other automatic fuels, then this \$5 can be added to the FHA payment . . . paying for another \$850 of modern conveniences. These advantages are clearly outlined in an informative bulletin, "How to Build or Buy a House for Low Operating Cost." Use this bulletin in talking with clients. Mail coupon for free copies.

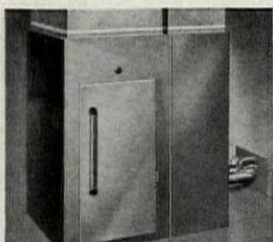
IRON FIREMAN
Automatic Coal Stokers

FREE . . . Copies of Folder for Your Clients.

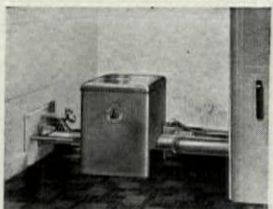
IRON FIREMAN MANUFACTURING CO. Portland, Ore.; Cleveland; Toronto.
Mail to: 3129 W. 106th Street, Cleveland.

- ☐ Send me _____ copies of "How to Build or Buy a Home for Low Operating Costs."—No obligation.
☐ Send data on Iron Fireman stokers for new homes.

Name _____
Address _____
City _____



Complete AUTOMATIC Winter Airconditioner . . . \$389.50*
Feeds coal from bin! Contains built-in Iron Fireman stoker; steel furnace; filters; humidifier; forced circulator.



Coal Flow \$226* up
No coal handling. "Pipes" coal from enclosed bin.



Standard \$179.50*
Adds only \$1.25 to \$1.50 a mo. on average FHA terms!

*All prices include complete automatic controls; plus freight and installation. Slightly higher in Canada.

(Continued from page 50, Advertising Section)

Anibal Simón, Hospital 168 (2do. Piso), Habana, Cuba, would like to obtain the following magazines: PENCIL POINTS—August, 1927; January, February, March, April, June, July, September, October, November, 1938. Also all of the *Record* for 1938, except December.

Wm. O. Muller, 65 Seaman Avenue, New York, N. Y., has for sale complete set of instruction books of the I.C.S. course in architecture. Price \$15.00, and he will pay the postage to anywhere in U.S.A.

A. B. Griffith, 840 So. 59th Street, Omaha, Nebraska, has the following for sale: *Architectural Record*—January, 1913, to June, 1926, bound; July through November, 1926, unbound; 1927 complete, and January, February, March, May, 1928, unbound. *Architecture*—January, 1914, to December, 1922, bound; complete for 1923, 1924, 1925, 1926, 1927, and January through June, 1928, all unbound. *American Architect*—January, 1914, to December, 1925, mostly bound. *Architectural Forum*—January, 1917, to June, 1926, bound; July through December, 1926, complete for 1927, 1928, 1929, and January through March, 1930, all unbound.

John Cushing, 237 South Gary, Tulsa, Oklahoma, would like to purchase copies of the *Year Book* of the Annual Architectural Exhibition of the Philadelphia Chapter of the A.I.A. Please state year and price per copy.

Adele Dieterlen, 175 East 70th Street, New York, New York, has the following copies of PENCIL POINTS for sale: 1927 complete; July and November, 1934; July and April, 1935.

Glenn H. Lyon, 903 Riverside Drive, Charles City, Iowa, has the following magazines for sale: PENCIL POINTS—6 volumes, 1924 through 1929, bound in blue buckram; *Architectural Record*—1 bound volume, 1928.

Fay Cuzner, Librarian, Hibbing School Library, Hibbing, Minn., has for sale copies of *Architecture* for the years 1919 through 1923. Please make offer.

PERSONALS

SCOTT QUINTIN and EDWIN WESTBERG, *Architects*, have become associated in the practice of architecture under the firm name of Quintin & Westberg, with offices at 317 West Main Street, Alhambra, Calif.

F. EARL LEGGETT, *Architect*, and GERTRUDE GATES LEGGETT, *Interior Designer*, have opened a joint office at 110 Cherry Street, Plant City, Fla.

W. DOROSH has opened an architectural drafting office at Suite 1, Ritz Hotel, Edmonton, Alberta, Canada.

FELIX AUGENFELD, *Architect*, has moved his office to 250 East 43rd Street, New York, N. Y.

CHARLES DuBOISE, *Architect*, has moved his office from 607 Fifth Avenue to 10 Rockefeller Plaza, New York, N. Y.

MONROE WHEELER, staff member and Director of Publications of the Museum of Modern Art for the past three years, has been appointed to a newly created position in the Museum administration: that of *Director of Exhibitions and Publications*. Mr. Wheeler will be in charge of the Museum's program of exhibitions, as well as its publications.

NOW KITCHENS CAN HAVE
Distinctive, Permanent Walls
... AT ABOUT HALF THE USUAL COST

WHENEVER your specifications call for a permanent wall finish, you can save money by using Linowall—the linoleum-like wall covering that never needs troublesome, expensive refinishing.

Linowall costs only about half as much as other permanent materials, yet it gives you *all* the qualities you demand—long life, washability, extremely low upkeep cost, and beauty of coloring and texture.

In Linowall, the rich colors run through the full

thickness of the resilient, waterproof composition, which resists denting and cracking. There are thirty-one handsome marble effects, burl grainings, and solid colors, giving you a wide choice in specifying.

Examine This Booklet

For more facts, see *Sweet's Catalog* or write for file-sized *Decorative Walls of Enduring Beauty*. Armstrong Cork Company, Floor Division, 1232 State Street, Lancaster, Pa.



ARMSTRONG'S LINOWALL

Made by the makers of Armstrong's Linoleum

YOUR CLIENTS will like Linowall because it can be streamlined over inside and outside corners, making cleaning easier. You will like Linowall because it provides a permanent wall covering at less cost. Here, No. 772 Daisy Yellow Linowall is inset with heavy gauge linoleum Linostrips, which are repeated in the floor of No. 0456 Linoleum. Send now for a copy of the color-illustrated booklet offered above, containing many practical ideas that you can use in the houses you plan or build.

THERE'S A NEW NATIONAL FREIGHT ELEVATOR TREND

... IT'S TO ROTARY OILDRAULIC ELEVATORS!

Expensive Overhead Structures Eliminated

Overhead structures built to carry loads of 2 to 125 tons or more in single or multiple industrial elevator installations have always taken a big "slice" of the available budget in industrial construction.

Many leading industrial architects are eliminating this unnecessary expense by specifying Rotary Oildraulics. This increasing preference is based on Rotary engineering refinements: the Rota-Radial Pump, a special electric lowering valve, electrical and mechanical controls, etc., etc.

Loads Pushed Up NOT PULLED

Utilizing the hydraulic principle of lifting, the Oildraulic jack *pushes* the load up instead of pulling it. Thus, the overhead penthouse, load-bearing columns, cables and overhead machine are all eliminated.

But—this represents only part of the savings possible with an Oildraulic! Operating costs are low because power is required only when the elevator rises. Upkeep is negligible as there are no cables to replace or complicated mechanisms to get out of order.

Streamlined— Simple Operation

A touch of the control button operates the elevator. The car rises when oil is electrically pumped under pressure into the jack... descent is by gravity... hold down push button control and momentary push button control with automatic floor levelling are most popular—other types of control are available.

Conforming to national safety standards, Rotary Oildraulics provide the maximum in safety, capacity, performance and economy for all industrial installations with up to 30 foot travel!

Sold through leading independent elevator distributors in all principal cities.



**LANSBURGH INSTALLATION
SHOWS WHY TREND IS GROWING!**

8,000 LBS. CAPACITY

DEPENDABILITY!

That's one of the important reasons why Lansburgh & Bros., Washington, D. C., installed a Rotary Oildraulic. With only one elevator in the building "we would have to shut down sales of furniture" in event of a failure. **THEY SELECTED AN OILDRAULIC!**



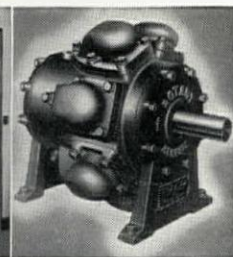
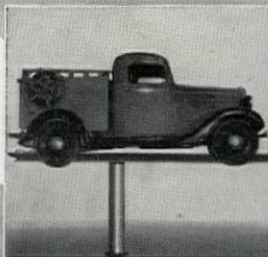
Every Installation Is Individually Engineered

MORE PROOF!

**NEW AIRLINES TERMINAL
SELECTS OILDRAULICS!**

Write Now for complete details on how Rotary solved the problem that almost stopped the project!

The requirements of almost every installation are different. Different in size and type of platform, controls, travel height and other specifications. To give you the best installation at the lowest initial and "after" cost, elevators for each of your clients are "tailored" to his particular needs by Rotary engineers. They have solved every possible problem within our range and are at your service from start to finish of your elevator problem! For complete data sheets address the Rotary Lift Company, 1072 Kansas Street, Memphis, Tennessee.



Back of Rotary Elevators are more than 16 years of successful experience in building hydraulic lifts for automobile, industrial and commercial applications. More than 36,000 Automotive lifts alone are in service in all parts of the world.

The ROTA-RADIAL PUMP — especially designed, manufactured and patented by Rotary for elevator service. Its remarkable hydraulic efficiency insures uniform speed regardless of load variations... extremely long lived... all parts operate in oil.

Rotary ELEVATORS

**ROTARY LIFT COMPANY
MEMPHIS, TENNESSEE**


NO JOB IS TOO TOUGH FOR ROTARY

Armstrong Tire & Rubber Co.'s Natchez (Miss.) plant includes a 160 x 760-ft. factory, office building and power plant. Architectural Concrete exterior walls; reinforced concrete Z-D barrel shell roof with 40 x 50-ft. clear bays. Roberts & Schaefer Co., Chicago, engineers. J. T. Canizaro, Jackson, Miss., architect.



A large industrial building with a long, low profile, featuring a series of windows and a prominent water tower on the right side. The name 'THE ARMSTRONG TIRE & RUBBER CO.' is visible on the facade.

Industry endorses **CONCRETE** for economy, firesafety, appearance



A photograph of a modern warehouse building with a series of large, arched openings and a flat roof.

Architectural concrete offers a unique combination of advantages for industrial and defense buildings:

- **SPEEDY** construction; contractors are setting constantly faster time schedules in completing concrete buildings. Concrete jobs proceed all winter.

- **ECONOMY** in first cost and maintenance.

- **ADAPTABILITY** to any requirements of occupancy; for example long, clear interior spans are easily provided.

- **FIRESAFETY**—concrete can't burn; supports heavy loads even at high temperatures.

- **WEAR RESISTANCE** for heavy-duty floors and ramps.

- **RIGIDITY** to dampen vibration and resist shocks.

- **GOOD APPEARANCE**—Architectural concrete has won national recognition as a means of giving outstanding architectural distinction to factories and buildings of all kinds. Walls are cast integrally with frame, floors and roof in one time and money saving material.

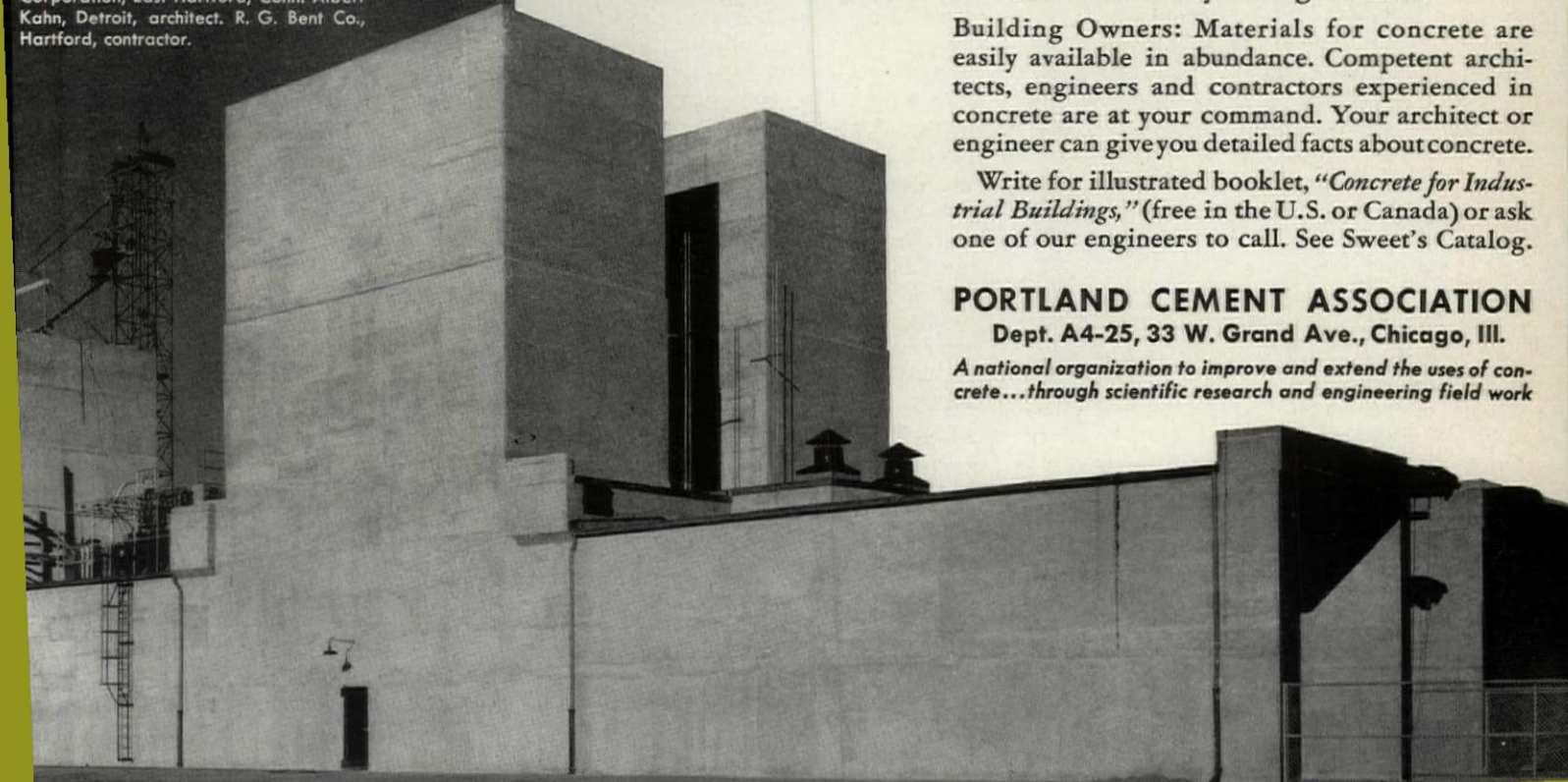
Building Owners: Materials for concrete are easily available in abundance. Competent architects, engineers and contractors experienced in concrete are at your command. Your architect or engineer can give you detailed facts about concrete.

Write for illustrated booklet, "*Concrete for Industrial Buildings*," (free in the U.S. or Canada) or ask one of our engineers to call. See Sweet's Catalog.

PORTLAND CEMENT ASSOCIATION

Dept. A4-25, 33 W. Grand Ave., Chicago, Ill.

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



A large, modern industrial building with a flat roof and a series of windows. A tall crane is visible in the background.

Warehouse for Woodbury & Company, dealers in industrial supplies and heavy hardware, Portland, Oregon. Richard Sundeleaf, architect. Wegman & Sons, contractors.

(Below) Engine test house, Pratt & Whitney Aircraft Division of United Aircraft Corporation, East Hartford, Conn. Albert Kahn, Detroit, architect. R. G. Bent Co., Hartford, contractor.

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.

AUER GRILLES.—Catalog G. New looseleaf book designed as a guide for the selection of grilles for all purposes. Numerous designs of grilles are presented together with tables of sizes, metals, gauges, finishes and frames. Included are installation suggestions. 36 pp. 8½ x 11. The Auer Register Co., 3608 Payne Ave., Cleveland, O.

ZURN BUILDING DRAINAGE PRODUCTS.—A.I.A. File No. 29-C. Useful looseleaf reference manual for architects containing 216 blueprint detail plates with descriptive data, dimension charts and list prices covering a complete line of drains, fittings, interceptors and specialized building drainage products, also carriers for all makes of wall hung fixtures. Indexed. 8½ x 11. J. A. Zurn Mfg. Co., Erie, Pa.

REVERE ROOFLOY LEAD ROOFING.—New data book announcing and giving detailed description of a new sheet lead roofing, which can also be used for flashings, gutters, leaders, cornices, spandrels, store fronts, dormers, domes, skylights and marquises. Included are roofing details also standard specifications, covering in detail roofings, flashings, roof-drainage, etc. 20 pp. 8½ x 11. Revere Copper & Brass Incorporated, 230 Park Ave., New York, N. Y.

CAST IRON VERANDAS AND RAILINGS.—A.I.A. File No. 15-C. Catalog E, just issued, presents some helpful ideas on the decorative possibilities of cast iron for verandas, railings, entrances and balconies. Included are a wide range of designs, details, dimensions, etc. 32 pp. 8½ x 11. Smyser-Royer Co., York, Pa.

PERMAFLECTOR LIGHTING.—Catalog 40, January, 1941. New looseleaf data book for architects and lighting engineers covering a complete line of Pittsburgh Permaflectors and accessories for show window and display lighting, theatre lighting, indirect and cove lighting, recessed and built-in direct lighting, also floodlights and fluorescent equipment. Dimension drawings, installation photographs, tabular matter, etc. Indexed. 112 pp. 8½ x 11. Pittsburgh Reflector Co., Oliver Bldg., Pittsburgh, Pa.

THE NEW STAR OF WHITE CEMENTS.—Folder announcing and briefly describing Trinity White, a new white portland cement especially developed to meet modern requirements. 4 pp. 8½ x 11. Trinity Portland Cement Co., Republic Bank Bldg., Dallas, Texas.

GENERAL ELECTRIC KITCHENS.—A.I.A. File No. 35-c-1. New catalog illustrating and describing the entire line of G-E cabinets. Includes information and data on the G-E electric sink and on complete packaged kitchens for small homes and apartments. Specifications, dimensions, etc. 16 pp. 8½ x 11. General Electric Co., Appliance and Merchandise Dept., Bridgeport, Conn.

BRUCE STREAMLINE FLOORING.—Bulletin discussing the advantages of the Bruce Streamline floor, a factory-finished, patterned type hardwood floor for homes. Included is data on sizes, woods, grades and finishes. 6 pp. 8½ x 11. E. L. Bruce Co., Memphis, Tenn.

ANDERSEN WOOD WINDOW UNITS.—Brochure describing the Andersen line of wood window units, including complete casement window units, horizontal gliding windows, complete Narroline double hung units and complete basement window units. Included are specification data, sectional details, stock layouts and sizes. 20 pp. 8½ x 11. Andersen Corporation, Bayport, Minn.

CARRIER AIR CONDITIONING, REFRIGERATION, SPACE HEATING.—Catalog, just issued, illustrates and describes more than 55 types of air conditioning, refrigeration and space heating equipment. It is divided into three sections, residential, commercial and industrial to facilitate finding types and sizes of various equipment at a glance. 16 pp. 8½ x 11. Carrier Corporation, South Geddes St., Syracuse, N. Y.

ARKWRIGHT TRACING CLOTH.—New catalog, dealing with the subject of Arkwright and Prudence tracing cloths, contains all the information necessary to pick out the proper type of tracing cloth. Samples of five Arkwright products are included. 6½ x 3¼. Arkwright Finishing Co., Turks Head Bldg., Providence, R. I.

RESILIENT FLOORS OF NAIRN LINOLEUM.—A.I.A. File No. 23-j. Valuable new reference and pattern book for architects covering the complete line of patterns and qualities of Nairn floor and wall linoleum. More than 100 patterns are reproduced in full colors, many of which are accompanied by color correlation suggestions. Included are installation specifications and details together with photographs showing typical Nairn linoleum installations in homes, public and commercial buildings, churches, schools, hospitals, libraries, etc. 208 pp. 8½ x 11. Congoleum-Nairn, Inc., Kearny, N. J.

CORNELL SLIDING GRILLES.—New catalog with descriptive and specification data covering a line of sliding grilles. A wide range of applications is illustrated, 8 pp. 8½ x 11. Cornell Iron Works, Inc., 36th Ave. & 13th St., Long Island City, N. Y.

WATER CONSERVATION EQUIPMENT.—New catalog describing and illustrating a line of mechanical draft cooling towers, atmospheric cooling towers, spray nozzle cooling systems and roof cooling systems. Specifications. 8 pp. 8¾ x 11. Water Cooling Corp., 71 Nassau St., New York, N. Y.

WEATHER MAGIC.—February issue of this monthly publication describes and illustrates the installation of Trane heating, cooling and air conditioning equipment in a number of airplane plants and hangars, defense housing and barracks. 8 pp. 8½ x 11. The Trane Co., La Crosse, Wis.

ARMCO STAINLESS STEEL FOR GUTTER—CONDUCTOR PIPE—ACCESSORIES.—Brochure describing the advantages of stainless steel for roof drainage systems. Included are specifications, installation suggestions and suggested details for canopy, vent, dormer and chimney flashing. 8 pp. 8½ x 11. The American Rolling Mill Co., Middletown, Ohio.

CARDOX FIRE EXTINGUISHING SYSTEMS.—Reference file for architects containing explanatory data, case studies and test reports covering the Cardox fire extinguishing system, which uses CO₂ as an extinguishing medium released at many tons per minute, and provides storage of liquid CO₂ at one centralized location for release through a simple piping system to any number of hazards. Included is detailed description of Cardox equipment for both manual and automatic systems for such applications as libraries, museums, airplane hangars and plants, industrial buildings, manufacturing plants, electric generating and distributing properties, etc. 8½ x 11. Cardox Corp., Bell Bldg., Chicago, Ill.

(Continued on page 58)



THE success of your business demands the best of equipment -- but the skill of the men who operate the equipment determines the quality of the product. Youngstown realizes the importance of the men who make pipe for you. The dependable service Youngstown pipe delivers is due to the skill, long experience and pride of craftsmanship of Youngstown men. They are ever mindful that they are working for you.

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Ask your distributor for Youngstown
Pipe and Tubular Products - Sheets -
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**THE YOUNGSTOWN
SHEET AND TUBE COMPANY**
Manufacturers of Carbon, Alloy and Yaloy Steels
General Offices - YOUNGSTOWN, OHIO

APRIL 1941

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 56)

ARMSTRONG'S MONOWALL. — Brochure giving detailed description of Monowall, a factory-finished, hardened wood-fibre board, designed to serve as a modern wall finish for homes and commercial interiors. Thirty of the patterns and colors in which Monowall is made are shown in full colors. Installation and cleaning instructions are included. 8 pp. 8½ x 11. Armstrong Cork Co., Building Materials Div., Lancaster, Pa.

Published by the same firm, "Armstrong's Temlok Insulation." Catalog illustrated in full colors discusses the advantages of Temlok in its various forms for use as an interior finish, insulating plaster base and for sheathing. 12 pp. 8½ x 11.

MILCOR STEEL ROOF DECKS. — A.I.A. File No. 13-h. Catalog describing the outstanding features of the Milcor steel roof deck. Included are specifications, estimating instructions, load table, details, etc. 12 pp. 8½ x 11. Milcor Steel Co., Milwaukee, Wis.

TRANSITE MOVABLE ASBESTOS WALLS BY JOHNS-MANVILLE. — Brochure giving detailed information covering two types of movable walls for sub-dividing offices, factories and stores. Photographs illustrate many panel designs and a wide range of decorative treatments which are possible with these walls. Construction details, specifications and list of typical installations are included. 20 pp. 8½ x 11. Johns-Manville, 22 E. 40th St., New York, N. Y.

CERTIFIED FLEUR-O-LIERS. — Booklet explaining the purpose of certifying fluorescent lighting fixtures that are to be used with Mazda F lamps. The application of fluorescent Mazda lighting with Certified Fleur-O-Liers in various types of stores is also discussed in detail. Fleur-O-Lier Manufacturers, Keith Bldg., Cleveland, Ohio.

ANACONDA THROUGH-WALL FLASHING.—A.I.A. File No. 12-h-1. Publication C-28, explaining the advantages of Anaconda through-wall standard and special flashings, and standard one-piece corner flashings. Included are coping, parapet and cornice details together with suggested specifications. 12 pp. 8½ x 11. The American Brass Co., 25 Broadway, New York, N. Y.

TERRAZZO. — Brochure, devoted to the subject of Atlas White Portland cement, presents descriptive information and specifications, together with a group of color illustrations of terrazzo floors, also a series of 24 samples of terrazzo in full colors made with Atlas White in combination with various marbles. 10 pp. 8½ x 11. Universal Atlas Cement Co., 208 South La Salle St., Chicago, Ill.

THE USE OF PC GLASS BLOCKS IN COMMERCIAL AND PUBLIC BUILDINGS. — New catalog illustrating numerous installations of PC glass blocks in offices, schools, stores, public buildings, restaurants, bars, hospitals and theatres, including several installations of interior panels in which Revere metal members were used as a framework for the blocks. Included are detail descriptions of a wide selection of PC glass blocks and their advantages. 16 pp. 8½ x 11. Pittsburgh Corning Corp., Grant Bldg., Pittsburgh, Pa.

Published by the same firm, "Carrara Structural Glass." — Brochure with helpful data for architects covering Carrara structural glass suitable for a wide range of applications. Detail drawings, tables of types and thicknesses, physical characteristics, etc. 12 pp. 8½ x 11.

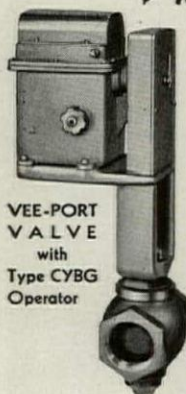
(Continued on page 61)

WITH **BARBER COLMAN** B-C ELECTRIC CONTROLS P-R-O-P-E-R E-N-G-I-N-E-E-R-I-N-G

SPELLS ▶ DEPENDABLE PERFORMANCE

▶ LONG LIFE

▶ MINIMUM MAINTENANCE



VEE-PORT VALVE
with
Type CYBG
Operator

● An outstanding feature of Barber-Colman ELECTRIC Temperature and Humidity Control Systems is **ENGINEERING SERVICE**. The installation is carefully planned in every detail and is then backed with a positive *guarantee of satisfactory operation*. Quality materials, high manufacturing standards, and attention to accuracy both in construction and performance, assure that Barber-Colman ELECTRIC Controls will provide long and dependable service, with maintenance costs held to a minimum.

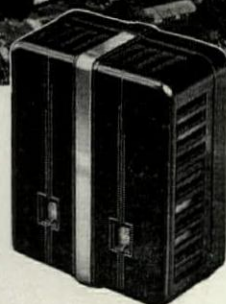
Write for Descriptive Bulletins

BARBER-COLMAN COMPANY PLANT AT ROCKFORD, ILLINOIS



Established 1902

The basic aim of Barber-Colman Company for over 38 years has been sound engineering, and the manufacture of dependable products, designed primarily for accurate performance and long life.



MICROTHERM

An outstandingly sensitive and responsive control instrument, originated and developed by Barber-Colman Company.

1230 ROCK ST.

BARBER-COLMAN COMPANY

ROCKFORD, ILL.

Public Surveys show 3-1 preference for Scott Tissues

YOU can now base your specifications for tissue and towel service for your clients' buildings on these new survey results. Covering typical office buildings in three key American cities, the following questions were asked—and your clients will be interested in the answers:*

1. What is your favorite brand of toilet tissue?
3 out of 4 tenants having a preference answered: "ScotTissue."

2. What is your favorite brand of tissue towel?
4 out of 5 tenants having a preference answered: "ScotTissue Towels."

Men and women alike prefer ScotTissue for its balance of superior softness and strength. Included in your washroom specifications, it shows clients you overlook no detail of comfort and protection. And your clients get an economical service, for ScotTissue is packaged to be long lasting.

The towel service you specify can now match the tissue service. Many architects are now specifying the new "Soft-Tuff" ScotTissue Towels and Cabinets. Recently made *three times more resistant to tearing, with "rub strength" increased ten times*, "Soft-Tuff" ScotTissue Towels are decidedly more satisfactory to users . . . help clients build up employee and customer good will.

To plan more efficient washrooms, call on the Scott Washroom Advisory Service. This helpful service gives you the benefits of Scott's comprehensive studies of washroom fixtures and arrangements. You can use this information to specify washrooms that help make any client's public-relations program more successful. For details, just write Scott Paper Company, Chester, Pa.

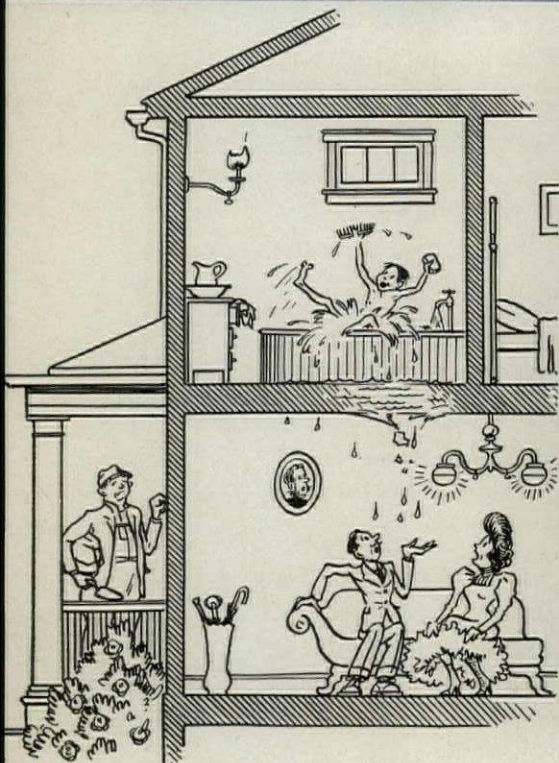
*Condensed to save your time. Complete survey giving facts on soap, towels, tissue, etc., available on request. Also new Pencil Points Data Sheets.



Scot Tissue

Trade Mark "ScotTissue" Reg. U. S. Pat. Off. Trade Marks "Soft-Tuff," "Washroom Advisory Service" Reg. App. F. r. Copr., 1941, Scott Paper Co.

BATHROOMS



then . . . and now

In those dim dark days of the gaslight era, Joe, the town plasterer, was practically one of the family. He came so often to work on the living room ceiling (under the bathroom) it got so no one even noticed him.

Today's SUNTILE bathroom has come between this beautiful, but costly, friendship.

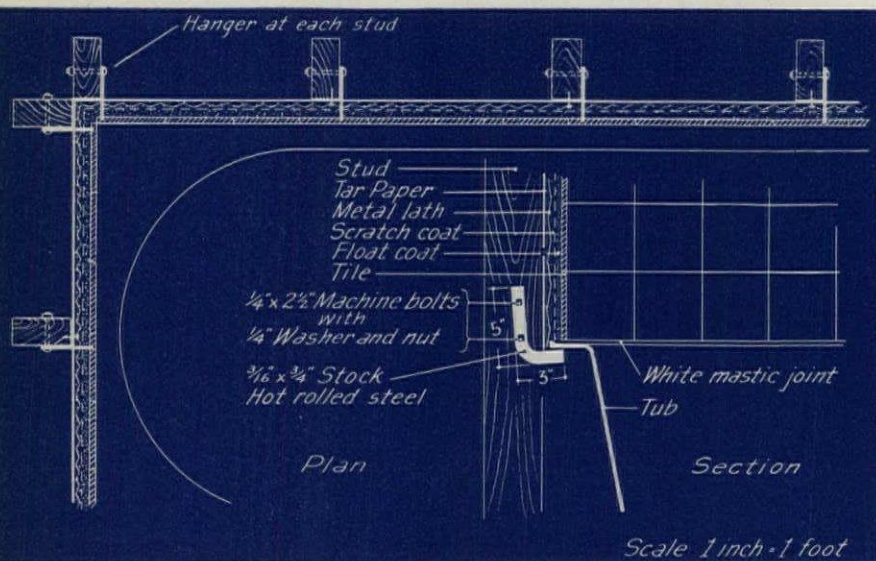
Color balanced SUNTILE, the real clay tile, has made architect and consumer alike conscious of the advantages of dripless, bugless, waxless, carefree bathrooms. NEW THINGS HAVE HAPPENED TO SUNTILE.

See Section 11, Catalog 2
in 1941 edition of Sweet's.

Today, there are hundreds of new color combinations and designs, unusual effects to reflect the judgment and good taste of the architect who uses them. For complete details on Sunstyled rooms, see your latest edition of Sweet's, Section 11, Catalog 2.

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PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 58)

NU-WOOD STALITE TILE CASE STUDIES. — A.I.A. File No. 23-e. Series of three data sheets, dealing with the installation of Nu-Wood Stalite tile in a salesroom, bowling alley and office, explains the location of study, purpose, problem and solution of each case. 8½ x 11. Wood Conversion Co., St. Paul, Minn.

PRACTICAL CONTROL FOR ALL-GLASS DOORS. — Bulletin with descriptive data and installation details covering LCN concealed overhead and floor type closers for all-glass doors. 6 pp. 8½ x 11. Norton-Lasier Co., 466 W. Superior St., Chicago, Ill.

SLOAN FLUSH VALVES. — A.I.A. File No. 29-h-21. Catalog No. 40 fully illustrates and describes a complete line of hand and seat-operated, floor and pedal flush valves. Included are roughing-in dimensions, installation directions and piping data. 36 pp. 8½ x 11. Sloan Valve Co., 4300 W. Lake St., Chicago, Ill.

METAL LATH NEWS.—A.I.A. File No. 20-b-1. The February edition of this monthly publication, devoted to defense, outlines the National Defense Construction Program and discusses the interior and exterior uses for metal lath in the construction of government buildings, housing projects and commercial buildings. 16 pp. 8½ x 11. Metal Lath Mfrs. Assn., 208 S. La Salle St., Chicago, Ill.

MANUFACTURERS' DATA WANTED

F. EARL LEGGETT, Architect, 110 Cherry Street, Plant City, Fla. (Data for complete A.I.A. file, and samples of materials.)

MORTON T. IRONMONGER, Architect, 1704 N. E. 1st Street, Fort Lauderdale, Fla. (Also samples.)

H. F. STEVENSON, Area Engineer, National Youth Administration, Brookhaven, Miss. (Data for complete A.I.A. file.)

W. DOROSH, Drafting Office, Suite 1, Ritz Hotel, Edmonton, Alberta, Canada.

DEVELOPMENT DEPARTMENT, The George Junior Republic Association, Inc., Freeville, N. Y.

M. D. HEATH, Draftsman, 2709 Camp St., New Orleans, La. (Data for complete A.I.A. file.)

GERTRUDE GATES LEGGETT, Interior Designer, 110 Cherry Street, Plant City, Florida.

THEODORE E. STEPAN, Mechanical Engineer, P. O. Box 60, Vicksburg, Miss. (Data on mechanical and electrical equipment of buildings, heating and air conditioning apparatus and control systems, structural materials, metal doors and windows, airport and cantonment equipment, etc.)

C. PALMER, Student, 371 N. Kenilworth Avenue, Elmhurst, Ill. (Data for complete A.I.A. file, also data on homes, their decoration, plans and modern equipment for houses.)

HERBERT KLINE, Student, 48 Whiting Street, Lynn, Mass. (Data for complete A.I.A. file, also other data.)

RICHARD P. ALER, Student, 321 Birkwood Place, Baltimore, Md.

HAROLD H. RICHMAN, Student, 52 McDaniel Avenue, Jamestown, N. Y.

MARVIN S. LEVIN, Student, 3556 McClintock, Los Angeles, Calif. (All data and for A.I.A. file.)

MARGARET SAMUELS, Student, Box 1123, College Station, Pullman, Washington. (A.I.A. file data, and all technical information on paint, brick, and stucco, for research papers.)

ROBERT L. BIEN, Student, 201 Thurston Avenue, Ithaca, N. Y. (Data for complete A.I.A. file.)



Left: Section of American Can Co. Washroom.



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POSITION WANTED: Graduate of the I. C. S. architectural course and graduate of Mechanics Institute in architectural drawing, design, and structural steel, desires position with progressive firm as architectural draftsman or junior structural steel draftsman. One and a half years' experience in consulting engineer's office. Age 37. Box No. 406.

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installation specifications and details showing linoleum used for stair treads and other applications.

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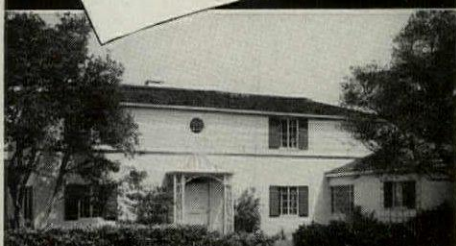
If you have questions about linoleum that are not answered in *Sweet's*, copies of the complete specification (in A. I. A. file size) will be supplied upon request. Write to Armstrong Cork Co., Floor Division, 1213 State Street, Lancaster, Pa.



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COMPETITION ANNOUNCEMENTS

The College of Architecture, University of Michigan, announces that the *George G. Booth Traveling Fellowship in Architecture* will be offered again this year, and the competition in design will be conducted during the two weeks beginning April 11. This competition is open to all graduates of the school who have not reached their thirtieth birthday on that date. Prospective candidates should write to the office of the College of Architecture, University of Michigan.

APARTMENT MEDAL

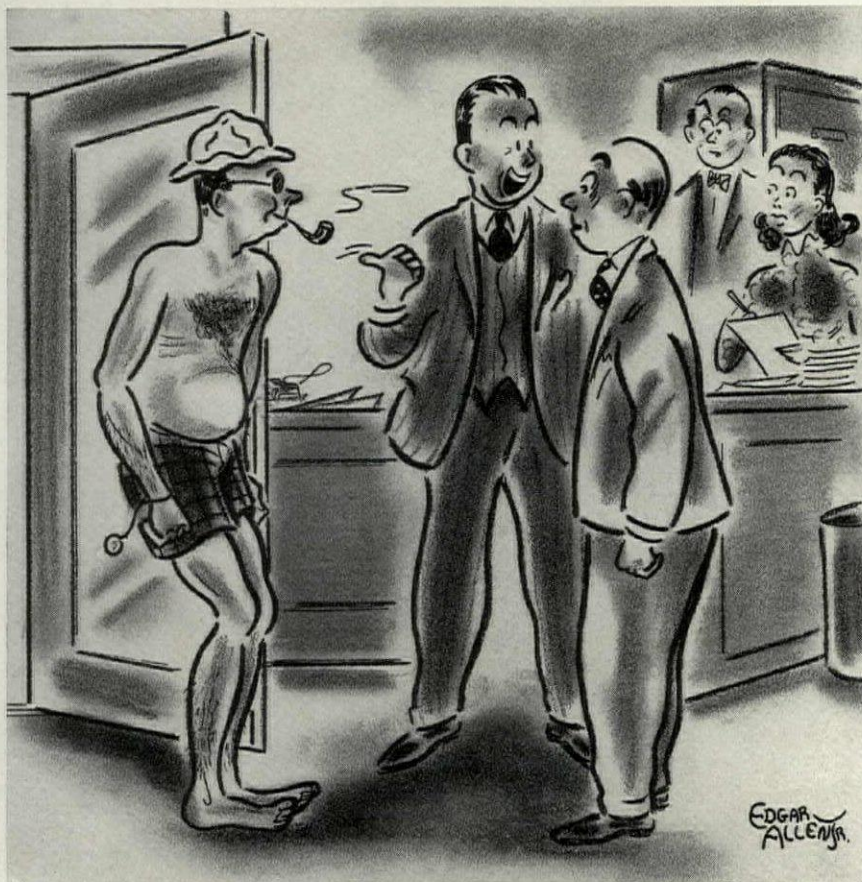
The 1941 competition for the Apartment House Medal of the New York Chapter of the American Institute of Architects is announced by *Frederick G. Frost*, president of the Chapter. Buildings erected within the five boroughs of New York City between October 1, 1938, and October 1, 1939, are eligible, irrespective of cost, income group to be housed, or method of financing.

After submission of plans and photographs by the competitors, the

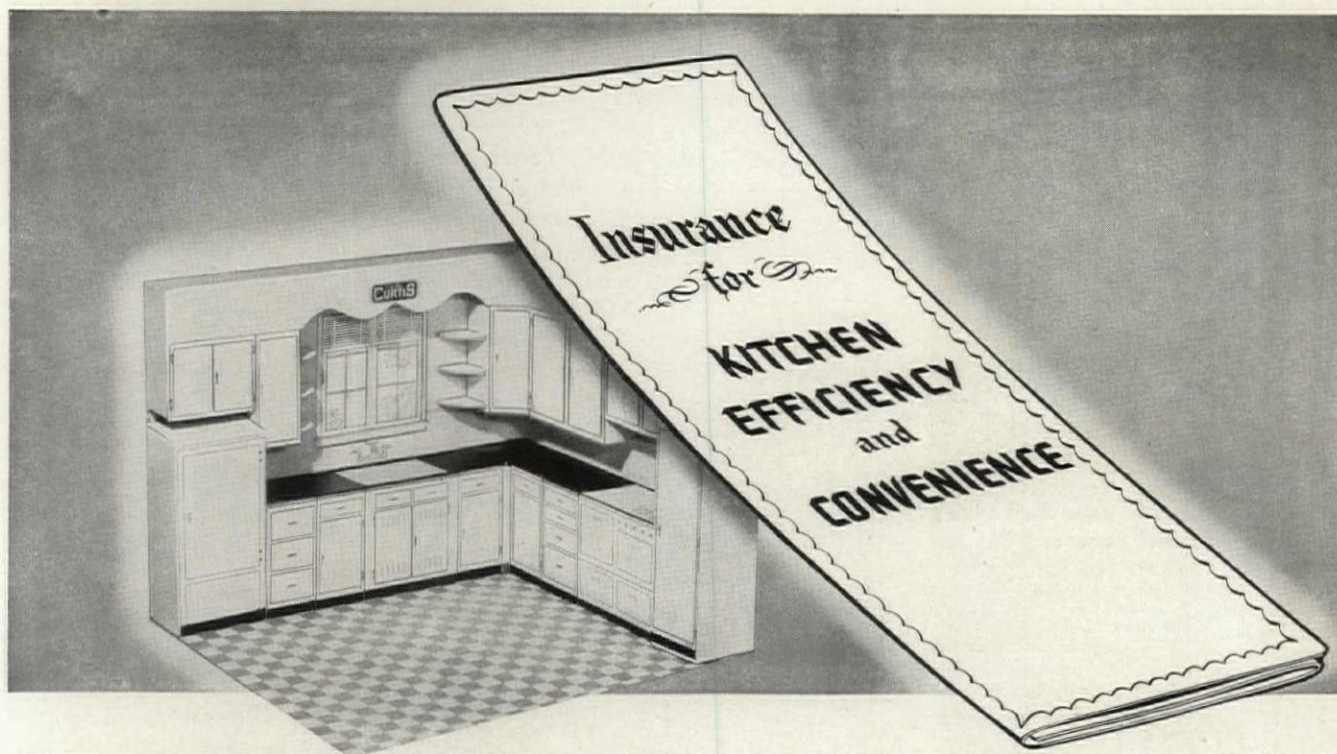
buildings will be classified by a jury of award according to given types. One medal will be awarded in each classification, providing the building is found to have sufficient merit. The medals will be presented at the June meeting of the Chapter and photographs of the winning designs will be made a feature of the special apartment house exhibit at the Architectural League.

Membership in the Chapter is not a requirement for entering the competition, Mr. Frost points out. Contestants must submit photographs approximately eight by ten inches in size, and photostatic copies of floor plans, approximately ten by eighteen inches, of their buildings before April 15 to the secretary of the New York Chapter, 115 East 40th Street.

Dean Leopold Arnaud of the Columbia University School of Architecture is chairman of the jury of award. Other members are: *Frederick J. Woodbridge*, *Anthony J. Daidone*, *Carl Feiss*, *Leon N. Gillette*, *Julius Gregory*, *Arthur Holden*, *Harry Prince*, *Prentice Sanger*, and *Mr. Frost*.



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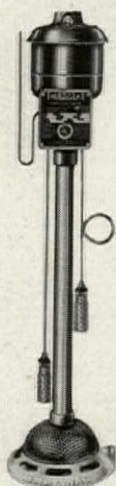
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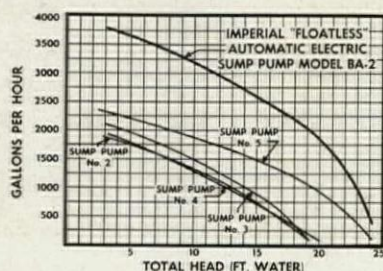
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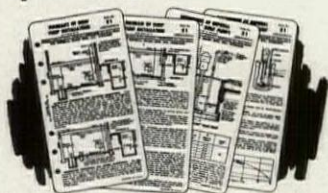
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(Continued from page 44)

Don Hatch, the architect of the Armstrong Cork Company showrooms in this issue, wasted no time choosing his profession. He wasn't exactly licensed to practice but he began in architecture at 13 in mid-western offices of Iowa, worked in Colorado, and at 18 was superintending construction out of the offices of Temple H. Buell and later of Glen H. Thomas in Kansas. Small nose to be "bird-dogging" on the lot of a public school project.

In 1930 he graduated from the School of Architecture of the University of Kansas and immediately set his feet on the track of Raymond Hood. Following the covered wagon tendency in the opposite direction from his Welsh and Scotch forefathers, he turned east, took a lead from his heritage, and jostled to New York via bus. At first he worked in the offices of Tilton and Githens on museums, libraries, and various public administrative projects. He met Hood at the New School of Social Research and Low Rental Housing and that study proved to be the opening groove. From then he worked in the architectural firm of Hood and Foulhoux, and after Hood's death in 1934 remained on for a year with André Foulhoux.

In 1935, bolstered by various Bermuda commissions for estate work, he established his own practice with Carl Landefeld and started building a reputation, the significance of which has been achieved principally through the contemporary design and construction of his work, and through commendable public reaction and functional success. In 1939 the partnership was dissolved and since then he has continued the practice under his own name.

Some of the most widely known of his work has been the American Bungalow and the Pittsburgh Plate Glass Company House exhibited in the Town of Tomorrow, New York World's Fair. He has been particularly successful in designing merchandising display rooms, and residential work in Bermuda, California, and Connecticut. His time has been further divided between Subdivision and Housing Study, various N. Y. display room commissions, and exhibits for the National Cash Register Company and Crane Company at the New York World's Fair.

For closing biographical comment, it should be noted in reference to the

recent 40 Under 40 Exhibit in which his work was shown, that here is one architect who will be eligible to show for six more years, since he was born in Tacoma, Washington, in 1907.

Tet Borsig, whose remarkable photographic studies of little-known scenes of eastern Long Island are reproduced as a portfolio in this issue (Pages 267-274), long enjoyed photography as an avocation in Europe and since coming to this country has pursued the art more seriously. During the past Summer he made a comprehensive investigation of the architecture, landscapes, natural forms, and indigenous trades of the far end of Long Island—a picturesque area virtually untouched though but a few hours' drive from the metropolitan center.

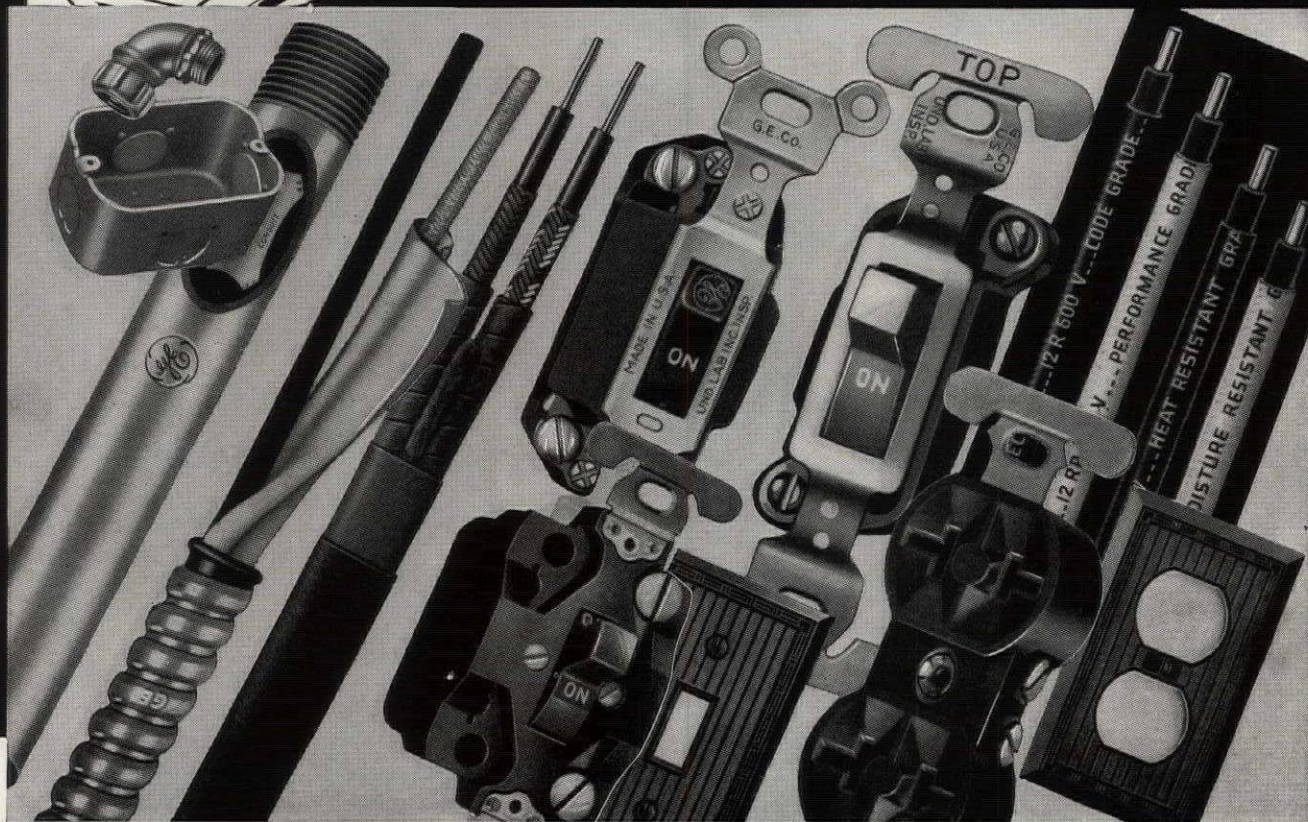
The few photographs shown here recall Mr. Borsig's beautiful and complete book on Tuscany, published in Vienna in 1938; the fruit of more than two years' work in Northern Italy. He is a native of Berlin and was educated in Germany, studying mechanical engineering and receiving a degree in Industrial Organization before he went to England in 1926 to learn English. Mr. Borsig then spent two years in this country, studying social conditions among industrial workers and working in mid-Western plants, later returning to engage in business in Berlin. He came to New York again in June, 1939, and is now living here.

Llewellyn Price, the author of the technical article in this issue, is a Philadelphia Architect whose foremost interest is small house design. He has made a specialty of designing small homes for the popular magazines, contributing these with the firm conviction that these magazines "fill a vital need of the average prospective home owners" and serve to stimulate general interest in house design.

He started his architectural career immediately after leaving preparatory school as an apprentice on the Swedeborgian Cathedral at Bryn Athyn, Pennsylvania, leaving that job to enlist for active service in France with the 103rd Engineers. Returning in 1919 he entered the Architectural School of the University of Pennsylvania and received the Degree of Master of Architecture in 1922. Since he became a registered architect in 1928 he has practiced independently in Philadelphia.



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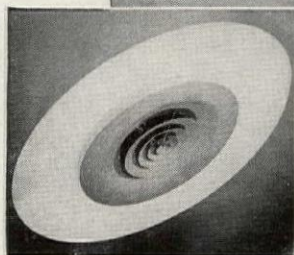
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SAN FRANCISCO, *A Guide to the Bay and Its Cities*, compiled and written by the Workers of the Writers' Program of the Works Projects Administration in Northern California (\$2.50 a copy, 531 pages with appendices, illustrated—Hastings House, New York).

Architects planning to attend the A.I.A. convention in California next month will find these volumes of the American Guide Series not only interesting reading but invaluable aids to understanding and knowing the most glamorous State on our Pacific coast. The Federal Writers' project has done an admirable job in the planning and execution of these authoritative guides.

CALIFORNIA is divided into three parts. Part I, "California: From Past to Present," is a well-written presentation of this State's generous amount of history, and an evaluation of its present. In this section there is a chapter on architecture which is quite different from the usual effusions found in the Chamber of Commerce booklets. It is an honest, if somewhat general, history of California's architecture and its contribution to modern architecture.

The second section is devoted to the cities of California, and their points of interest, while the third, "Up and Down the State," is a series of tours, complete to the last turn of a country lane. There are fifteen black-and-white maps and a large four-color road map.

SAN FRANCISCO is a detailed and complete guide to the city and its surrounding areas, but it is also a picture of the people and life; the blustery, breezy life that was its past, and the cultured, cosmopolitan life that is its present.

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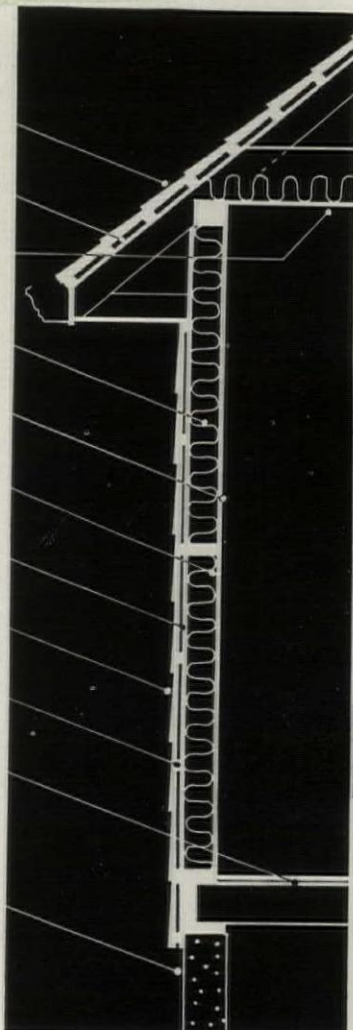
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This smart new Seattle, Wn., restaurant is Douglas Fir Plywood inside and out. The exterior is the waterproof outdoor grade of plywood, EXT-DFPA, covered with plastic paint. George W. Groves was the architect.

The interior of this restaurant shows how walls and ceilings can be beautiful yet crack and puncture-proof. Plywood handled so that the joints are hidden by a plastic finish is highly practical for both commercial and residential work.

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PLYPANEL D.F.P.A.

EXT.-D.F.P.A.



one that is famous for her bridges rather than her vice, for her cable cars on California Street rather than for the mire in Portsmouth Square, for her fine and varied restaurants and hotels rather than her brothels. The sleek Clippers sail into the sky where once abandoned sailing vessels languished, and there are flower stands where drunkards used to sprawl. Where dim lanterns hung from iron balconies on Chinatown's Grant Avenue, neon tubes call attention to Oriental shops and restaurants. But Izzy Gomez' Cafe, that William Saroyan used as a background for his play, "The Time of Your Life," goes on forever.

For the traveler, the San Francisco Guide is indispensable, for it contains many points of interest that may easily be missed. And for the resident, it is a reminder of all the good things his city has to offer. For the arm-chair adventurer, it is a very readable account of an exciting city's exciting life.

Keeping up the good work, Hastings House is publishing this month LOS ANGELES, another of the valuable American Guide Series.

JACK S. ARNOLD

PLANNING CLASSES

The School of Architecture of the Massachusetts Institute of Technology and the American Planning and Civic Association are again sponsoring a short summer course in City and Regional Planning. The course is arranged to meet the requirements of students and teachers of planning or related professions, technicians in practice and members of planning boards or housing authorities. The following are details of courses:

The Program will be divided into four sections as follows: *City and Regional Planning*, given each morning from July 7 to July 18; *Planning Legislation*, given each afternoon from July 7 to July 11; *Planning Administration*, given each afternoon from July 14 to July 18; and *Techniques of Planning*, given each morning from July 21 to July 25. Each section will consist of a series of lectures and discussions, arranged in such a way that those wishing to participate may register in one or more without duplication of subject matter or loss of continuity. The seminars will cover such subjects as, zoning, subdivision control, traffic problems,

master plans for communities and regions, housing, recreation, roadside improvement, the powers and duties of planning and zoning agencies. Recognition will be given to the new demands made on the planning profession by the requirements of the Defense Program. Opportunities will be provided for the study of design or research problems under supervision.

The fee for the entire program is \$55; for the section on City and Regional Planning, if taken separately, \$25, and for the other three sections \$10 each, in addition to a registration fee of \$5. Applications for participation in the Program should be sent to Professor Frederick J. Adams, M.I.T. School of Architecture, Cambridge, Mass., not later than July 1, 1941.

A CORRECTION

In the advertisement of the *American Flange & Manufacturing Co., Inc.*, 30 Rockefeller Plaza, New York, manufacturers of Ferro-Therm Steel Insulation, on the back cover of our March issue, an error was made in the name of the owner of the residence illustrated. The correct name is *Hazel Irene Green* instead of *Dreen*.

Miracle? No—just "Mural-tone Masonry"!

● These before-and-after views illustrate the transformations possible with Mural-tone Masonry Paint. Can be applied to any masonry surface, old or new, painted or unpainted, damp or dry. Architects throughout America recognize in Mural-tone Masonry a decorative medium that puts the finishing touch of color on brick, stucco or concrete. Can be used on new masonry as soon as 72 hours after construction—a life-saver in these days of SPEED! Made in 8 standard colors and white. For color cards and complete information, write to—

THE MURALO COMPANY, INC.

572 Richmond Terrace, Staten Island, N. Y.

Atlanta • Boston • Chicago • Los Angeles • San Francisco



MURAL-TONE Masonry Paint



The Clow Building, Chicago, Ill. Painting Contractor: Frank B. Payne, Oak Park, Ill. Mural-tone Masonry Colors used: 609 Red and 605 Gray darkened slightly with Black.



In addition to being decorative, Mural-tone Masonry Paint is a highly efficient protective coating—weather resisting and non-fading. Dries rapidly—will not chalk, rub off or discolor. Quickly and easily applied. One coat is generally sufficient. No expensive treatments to prepare the surface are necessary.

For Cathedrals or Firehouses

TODAY IT'S *Terrazzo!*



FINE TERRAZZO achieved this distinctive floor for the entrance to Miami Beach Fire Headquarters. Marble aggregates used were as follows: Field is of Botticino; outside border is of Yellow Verona with yellow pigment; bands and squares are made of equal parts fused enamel in cerulean blue and vermillion red with red and blue pigments — all with Atlas White cement. Architects, Weed & Reeder; Terrazzo Contractor, Venetian Art Marble & Terrazzo Co. — both of Miami, Fla.



HERE'S something new in firehouse floors. And what a beautiful show *FINE TERRAZZO* makes at Miami Beach Central Fire Station. It's proof of Terrazzo's versatility in use — as well as further proof of the opportunities it offers your creative instincts.

There's really no limit to the color and design possibilities of *FINE TERRAZZO* made with Atlas White portland cement. It reproduces *any* pattern, functional or decorative. It keeps colors fresh and vivid for a lifetime. And makes your clients happy over low upkeep costs.

So plan on Terrazzo for your next floor. It goes in practically any type of modern structure — whether you are remodeling or building new. Be sure to specify Atlas White cement, plain or waterproofed. Turn to Sweet's Catalog for more details and 24 true-color illustrations of *FINE TERRAZZO*, or write us for free book. Universal Atlas Cement Co., (United States Steel Corp. Subsidiary), Chrysler Bldg., N. Y. C.

OFFICES: New York, Chicago, Philadelphia, Boston, Albany, Pittsburgh, Cleveland, Minneapolis, Duluth, St. Louis, Kansas City, Des Moines, Birmingham, Waco.

FOR *FINE TERRAZZO* SPECIFY



ATLAS WHITE PORTLAND CEMENT

"We suggest that you call in a design expert. Interiors are his business. Let him show you the possibilities. If you need help in getting in touch with a qualified designer or architect, we will gladly assist you."

A TALE 17,000,000 TIMES TOLD!

THIS message will make more than 17,000,000 separate impressions on your prospective clients during 1941. The Pittsburgh Plate Glass Company is sponsoring a comprehensive advertising campaign on the need for well-designed commercial interiors . . . and every advertisement which appears this year in leading business and trade magazines will contain the recommendation quoted above.

The campaign is intended to do three things. First, to point out to store, theatre, restaurant, hotel, commercial and public building owners the importance of well-designed interiors in

building profitable business. Second, to stress the advantages of Pittsburgh Glass as a medium for making interiors smart and attractive. And third, to impress your prospective clients with the advisability of retaining the services of a design expert to assure successful interiors.

We are confident that this campaign, with its emphasis upon the importance of interior designers, will produce profitable design work for you in 1941. And we hope that when prospective clients avail themselves of your professional services, you will give friendly consideration to the use of the many Pittsburgh Glass Products in carrying out your plans.

PITTSBURGH PLATE GLASS COMPANY

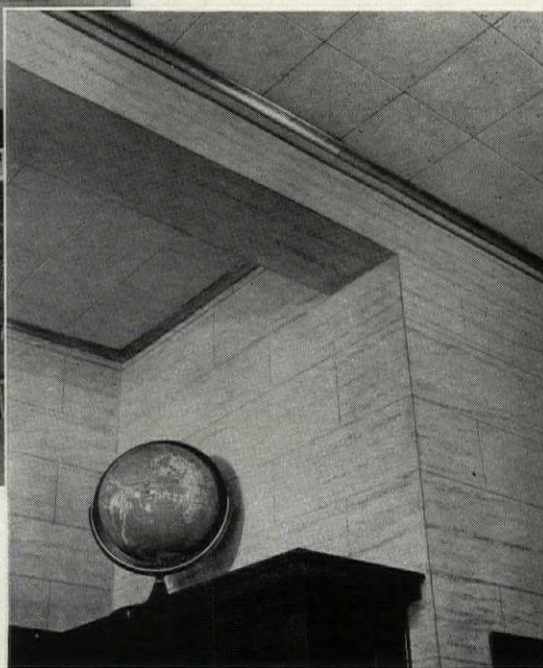
Grant Building, Pittsburgh, Pa.

*"PITTSBURGH"
stands for Quality Glass
and Paint*



LIBRARY, E. J. Harrington School, Lynn, Mass. Permacoustic was selected to provide quiet here, as well as in corridors. Also used to assure correct acoustics in gymnasium-auditorium. Architect: George A. Cornet, Lynn, Mass.

Detail of installation in E. J. Harrington School. Note Permacoustic's interesting texture and how well it harmonizes architecturally.



**For correct acoustics
on limited budgets—**

SPECIFY J-M PERMACOUSTIC

NO longer is cost an obstacle to designing interiors that combine beauty with correct acoustics. By specifying J-M Permacoustic, you provide an effective, attractive sound-control treatment . . . at a price that fits almost any budget.

A recent product of the J-M Laboratories, Permacoustic has an interesting stone-like texture that is unusual in an acoustical material. It harmonizes perfectly with decora-

tive schemes. And it is *permanent*. Being all-mineral, Permacoustic can't burn or rot . . . seldom needs maintenance. Treatments stay attractive as long as the building stands.

Permacoustic is just one of the J-M Materials that are helping architects plan attractive, acoustically treated interiors. For details, see Sweet's Catalog or write for brochure AC-26A. Johns-Manville, 22 East 40th Street, New York, N. Y.

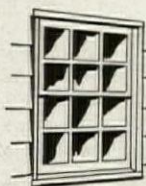


JOHNS-MANVILLE

**A COMPLETE LINE OF
ACOUSTICAL MATERIALS**

Permacoustic . . . Sanacoustic . . . Transite Acoustical Units . . . Fibracoustic . . . Airacoustic Sheets

-protection in the public interest



to give greater utility to **wood windows**

—to enhance and improve the lasting qualities of the wood of which they are made, research scientists have developed minimum standards of *toxic preservation*—a treatment to increase resistance against deterioration under severe service conditions imposed by modern construction.

NATIONAL DOOR MANUFACTURERS' ASSOCIATION
McCORMICK BUILDING CHICAGO, ILLINOIS

Seal of Approval—The Identification of a Product Meeting N. D. M. A. Preservative Minimum Standards



LICENSE NO. **000** **TOXIC-PRESERVATION
APPROVED**
NATL. DOOR MFRS. ASSN.

FOR FURTHER INFORMATION SEE OUR CATALOG IN SWEET'S

"What's all this about **WINNER-Techno-TONE?**"



The boys in the drafting room are all excited about a new drawing pencil. Hmm . . . if it's an A. W. FABER product, I'm interested."

**"I used A. W. FABER
Drawing Pencils
before you were born!"**

Began my career at a drafting table when Cleveland was president . . . WINNER Techno-TONE is just what I expected of an A. W. FABER pencil. Smooth as silk. Uniform in all 17 degrees. Since the war has curtailed "CASTELL" (world's best) I'm mighty glad to get WINNER Techno-TONE, America's best drawing pencil!"

2 for 25¢

Polished bright green. Packed in metal boxes. Send for sample of degree you most frequently use.



WINNER Techno-TONE
17 Degrees—6B to 9H
"It has the A. W. FABER name on it."

A. W. FABER Inc. NEWARK, N. J.

MF (PD) + IQ (100) = MRE

A cold storage door formula devised to help you solve your refrigeration problems.

MF = Mechanical Features

PD = Perfected Design

IQ = Insulating Qualities

MRE = Maximum Refrigeration Efficiency

JAMISON-BUILT cold storage doors are the PRACTICAL demonstration of this formula. For details consult nearest branch or address JAMISON COLD STORAGE DOOR CO., Hagerstown, Md.

Jamison, Stevenson and Victor Doors

Jamison Standard Door, Described in Bulletin 122.



JAMISON-
BUILT COLD STORAGE DOORS

(See our catalog in Sweet's Catalog File)

Micro-Weave
**Micro-Weave
All American
TRACING CLOTH**

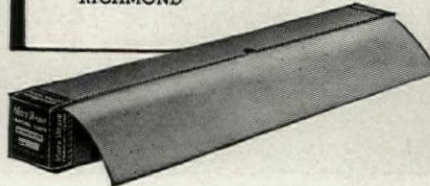
We don't know what the "artist" who did the above drawing * had in mind — perhaps a bit of landscaping, or an airport — but he ended up in some words that do mean something—Micro-Weave All American Tracing Cloth. By every basis of test and comparison, this tracing cloth "measures up". If you haven't tried Micro-Weave — order it from your supply house — in the convenient container box.

* another in the series of "Doodle" drawings found on the margins of test sheets returned to us by draughtsmen.

THE HOLLISTON MILLS, Inc., Norwood, Mass.

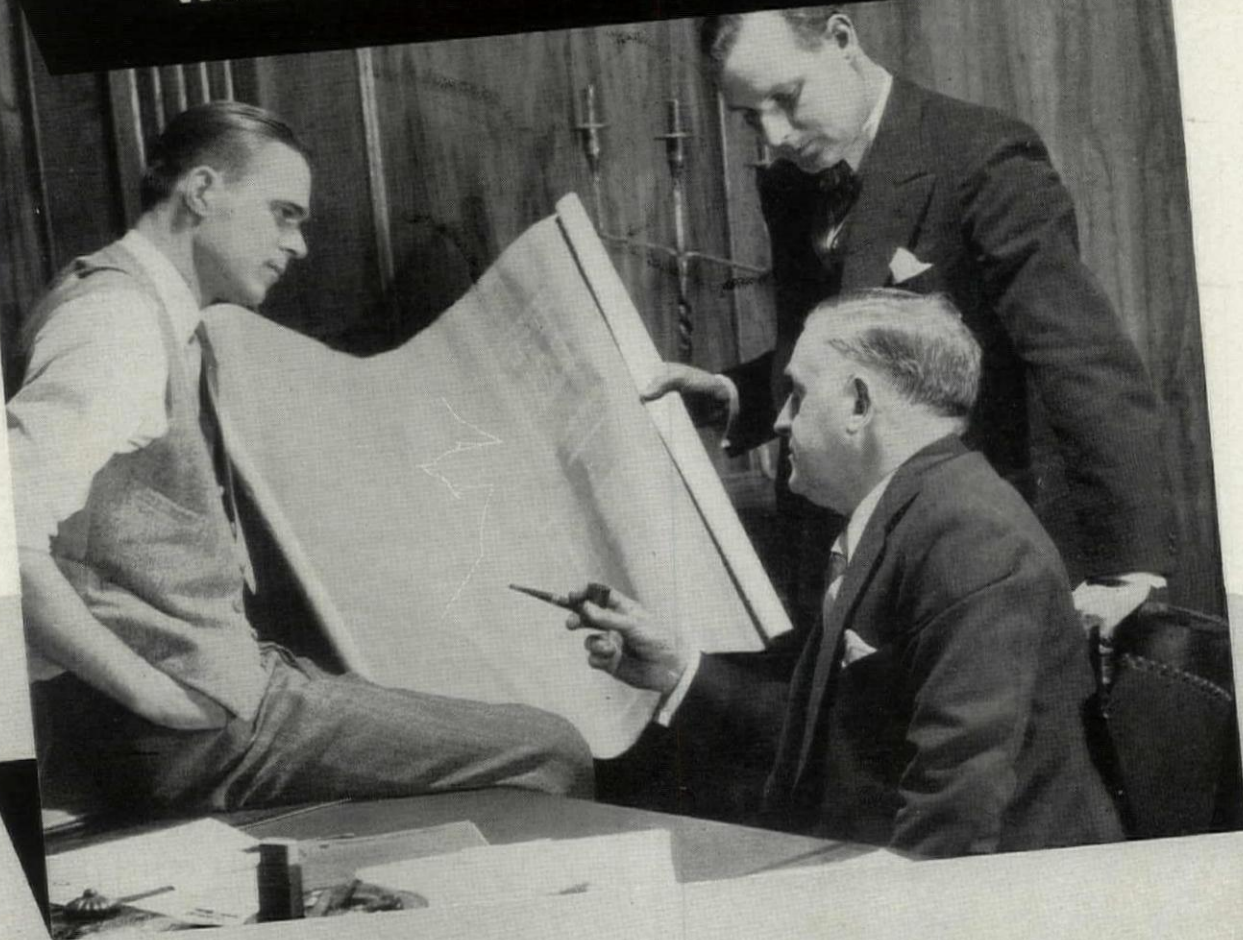
Companion Product: Holliston Photo Cloth

BOSTON • NEW YORK • CHICAGO
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MORE THAN
180
FLAWLESS
THREADS
PER SQ. INCH

Working PARTNERS with leading Architects everywhere



PROVISIONS for seating must of necessity fit into the very first draft of plans for such buildings as churches, theatres, school and auditoriums. This calls for a specialized knowledge beyond the experience of most architects.

That is why a friendly partnership has developed between architects and the American Seating Company. It's a partnership that has been invaluable to thousands of leading architects. For it puts at their command the results of many years of research, testing and engineering devoted exclusively to public seating problems.

Our part of this partnership makes no demands. Neither does it entail the slightest obligation on your part. Our services begin immediately upon your request.



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GRAND RAPIDS MICHIGAN

World's leader in public seating • Manufacturers of Theatre, School,
Auditorium, Stadium and Transportation Seating
Branch Offices and Distributors in Principal Cities

KOH-I-NOOR

Drawing Pencils

10c
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Manufactured in U. S. A.



KOH-I-NOOR PENCIL COMPANY, INC.
373 FOURTH AVENUE
NEW YORK, N. Y.

A SERIES ON THE USE OF "ARTGUM"—THE ARTIST'S TOOL



1. FOR PEN-AND-INK WORK

The pen artist knows that there are at least three reasons why "ARTGUM" is his friend . . . First, unlike many erasers which damage or make marks on smooth surfaces, he knows he can use "ARTGUM" freely, even on a glazed bristol board, with absolute safety . . . Secondly, he knows it will do nothing to interfere with perfect inking, for "ARTGUM" leaves no grease or other deposit . . . Third, he knows "ARTGUM" is ideal to use, when his pen work is finished, for the removal of the pencil layout. Many erasers, so used, take off so much ink that the lines look lifeless and gray, and may even fail to reproduce properly.

Sold by Dealers Everywhere

THE ROSENTHAL COMPANY

"ARTGUM" brand Erasers and Cleaners
Rubber Erasers and Soap Erasers

45 East 17th Street, New York, N. Y.



ARTGUM
BRAND
ERASER & CLEANER

Announcement

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Competition for Scholarship

A SCHOLARSHIP of six hundred dollars is offered in the academic year 1941-42 for a *special student* in the fourth or the fifth year of the course in Architecture at the Massachusetts Institute of Technology. This will be awarded as the result of a competition in design under the direction of the Committee on Design of the School of Architecture.

The competition is open to citizens of the United States of good character, who are between twenty-one and twenty-eight years of age, and who have had at least three years of office experience.

The competition will be held from May 3 to May 12.

Competitors are allowed to prepare their drawings wherever conditions conform to the requirements of the Committee, but these drawings must be sent to Cambridge for judgment.

Applications should be received on or before April 7, addressed to Dean Walter R. MacCormack, 77 Massachusetts Avenue, Cambridge, Massachusetts.

ARCHITECTURAL ENGINEERING

A Practical Course (HOME STUDY) by Mail Only

Prepares Architects and Draftsmen
for structural portion of

STATE BOARD EXAMINATIONS

For many this is the most difficult section of the examinations. Qualifies for designing structures in wood, concrete or steel. Successfully conducted for the past eight years. Our complete Structural Engineering course well known for twenty-nine years.

Literature without obligation—write TODAY

WILSON ENGINEERING CORPORATION

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SOILLESS GROWTH OF PLANTS

By ELLIS AND SWANEY

It takes the bunk and mystery out of the subject and, instead, tells you, plainly, the principles, possibilities and simple working plans for starting this fascinating hobby. Shows how to grow plants in water, sand or cinders—how to build the simple equipment you need—complete directions for tending the plants—how to make your own nutrient solutions with a few cents worth of chemicals.

155 Pages, 60 Illustrations, \$2.75

Reinhold Publishing Corp., 330 W. 42nd Street, New York



Elsie N. SAYS:
"YES!"

**"You CAN do something
 about this matter of door
 closer appearance!"**

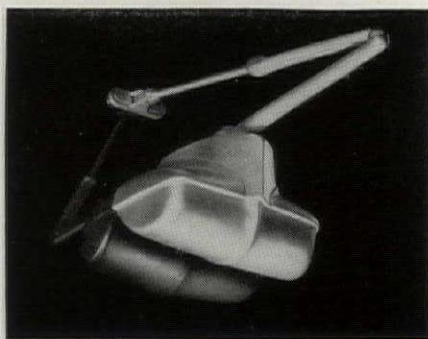
• Until recently door closers were merely necessary machinery—they never helped the appearance of a door, a room or an entrance. Now a closer can actually supply an up-to-date note in decoration, if used in plated finishes, or can easily be "blended in" to the background—if it is

The LCN "Miracle"

TRADE MARK

STREAMLINED DOOR CLOSER

A standard C or D size LCN door closer with an improved arm and covered with a "Miracle" housing of smooth metal, easy and inexpensive to give practically any finish. It's the modern, efficient door control where concealed closers can't be used. For details address LCN, 466 W. Superior St., Chicago.



LCN Representatives in 27 Cities

**A FINE-HOME FEATURE--
 AT SMALL HOME COST**

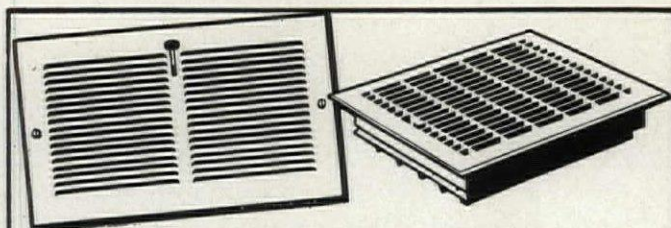


Enduring copper flashing and damp-coursing can be put in any home at low cost, by using Copper-Armored Sisalkraft. It is a thin electro-deposit copper sheet, reenforced for fast, undamaged installation. It's pliable, tough, won't kink or tear. Any workman can apply it. Write for AIA data file, samples and suggested uses.

The SISALKRAFT Co.

205 W. Wacker Drive
 New York

Chicago, Illinois
 San Francisco



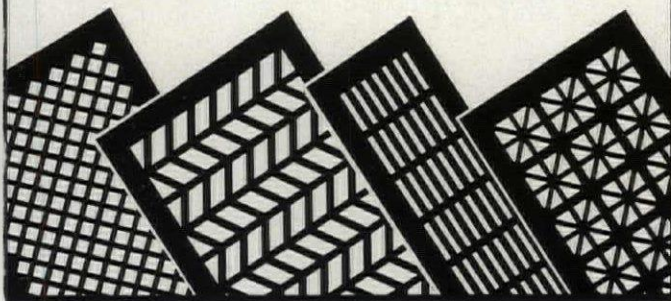
AUER REGISTERS and GRILLES

AUER offers a valuable service to architects in their specifying and detailing of metal grilles for air conditioning, ventilating, radiator enclosure, and concealment. Many attractive designs besides those shown here. Auer Grille Catalog "G", with full size details and range of dimensions, supplied on request. Auer also manufactures a complete line of the most modern registers and cold air intakes for your warm air heating or air conditioning requirements—fully described in Catalog 41, sent on request. Specify Auer Registers and Grilles by brand name and number.

THE AUER REGISTER COMPANY

3608 Payne Ave.

Cleveland, Ohio



Why You Need
**THESE NEW DON GRAF
 DATA SHEETS ON
 TECO
 TERMITE SHIELDS**

These newly-prepared Don Graf Data Sheets are a complete Specification Guide on TECO Termite Shields, recommended for handling subterranean termite problems.

These 6 sheets show, by illustration and technical explanation, how these scientifically designed termite barriers are constructed, how quickly and snugly they are fitted, how inexpensive they are to install, how effectively they block termite entrance into new buildings. Teco Shields conform to the recommendations of the U. S. Bureau of Entomology.

In areas where termites are a problem, you will want to specify TECO Termite Shields . . . Mail the coupon today for your FREE COPY of these Don Graf Data Sheets.

**TIMBER ENGINEERING
 COMPANY, INC.**

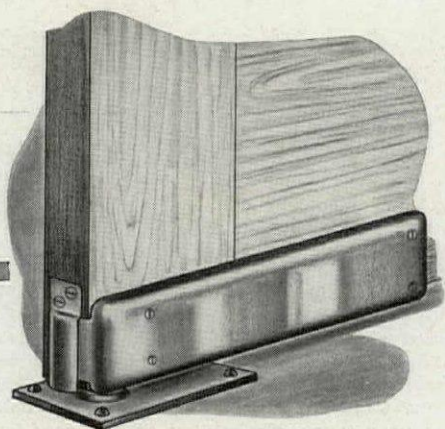
Dept. AB-4, 1337 Connecticut Avenue
 Washington, D. C.

Timber Engineering Company, Inc., Dept. AB-4
 1337 Connecticut Avenue, Washington, D. C.

Please send me without obligation the new Don Graf Data Sheets on TECO TERMITE SHIELDS.

Individual _____
 Firm _____
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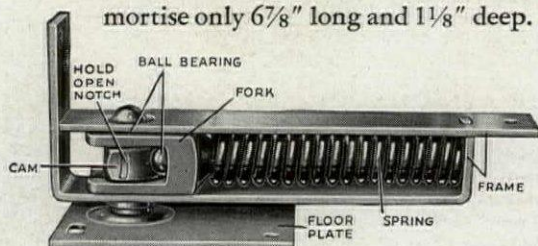
Stanley Floor Hinge



Double Acting Ball Bearing

Specify this hinge - No. 155 - for double-acting doors of residences. For doors $1\frac{1}{8}$ " to $1\frac{3}{4}$ " thick, it will hold the door open at an angle of 90° . Equipped with hardened steel bearings which carry the thrust of the spring as well as the weight of the door. The reversible side plates are of reduced size and gracefully proportioned - a welcome departure from the "gingerbread" type of hardware.

Very little cutting out is required for its installation, as it takes a mortise only $\frac{6}{8}$ " long and $1\frac{1}{8}$ " deep.



YOUR GUIDE TO GOOD HARDWARE



Stanley Catalog No. 61, giving full details on the complete Stanley Hardware line, will prove handy in preparing your specifications. Write for your free copy. The Stanley Works, New Britain, Connecticut.

STANLEY

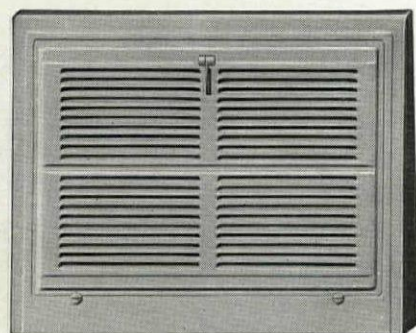
HARDWARE FOR CAREFREE DOORS

NEW PRODUCTS

NEW GRAVITY REGISTER

The Auer Register Co., 3608 Payne Ave., Cleveland, O., is presenting an unusually attractive new gravity register called the Heat-Rite. This model is offered as the authentic creation of an expert industrial designer, and is said to strike a new note in streamline design in the gravity register field.

It is being made in a full range of sizes in both registers for baseboard or wall, and intakes for baseboard. This register is of the fin type, made in one- and two-piece models, with slightly downward directional fins.



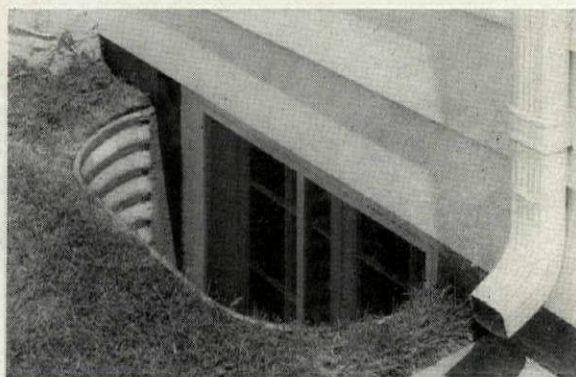
The open area is carefully calculated and abundant. The Heat-Rite is suggested as an ideal register where an existing gravity job is being remodeled, as well as for new installations.

Another improvement in the Auer line is their new DuraTone finish, a metallic luster finish now offered at standard prices on the new Heat-Rite line.

RETAINING WALL FOR BASEMENT WINDOW WELLS

The Saint Paul Corrugating Co., St. Paul, Minn., is offering architects and builders the Lux-Right Steel Areawall, a retaining wall for basement window wells. According to the manufacturer it will not crack, break or crumble.

An important advantage of the Lux-Right areawall is the light-reflecting value imparted to each unit by the special heavy galvanizing process. Each unit is made in one piece of heavy (16-14) gauge, rust-resisting, copper-alloy, corrugated steel, heavy hot-dip galvanized after formation. This hot-dip process gives the areawall an unusual brilliance, and the high reflection value means much more daylight reflected into the basement.



The Lux-Right areawall is easy to install. No extra angles or attachments are necessary. The areawall anchors tight to the foundation with masonry nails driven into the most convenient masonry joints. Nail holes are pre-punched at each corrugation and masonry nails are supplied with each unit. The attachment flange on either side is specially flattened so that the unit fits flush with

(Continued on page 80)

Steeltex

Reinforces PLASTER !

Important Memo!
Specifications which fail to include Reinforced Plaster are inadequate to meet to-day's needs

1. The plaster is reinforced just like concrete by embedding a network of welded steel wires in the plaster. These copper-bearing wires are further protected against corrosion by a heavy coat of zinc.

2. Steeltex has board-like rigidity due to the trusses formed by the steel wires. This truss design prevents unsightly stud marks, strengthens the plaster slab and introduces elements of marked economy.

3. The heavy fibrous backing bonds instantly with the plaster and saves time and money by reducing waste in plastering materials.

1

2

3

FINISHING COAT

BROWN COAT

SCRATCH COAT



PITTSBURGH STEEL COMPANY
1664 GRANT BUILDING • PITTSBURGH, PA.

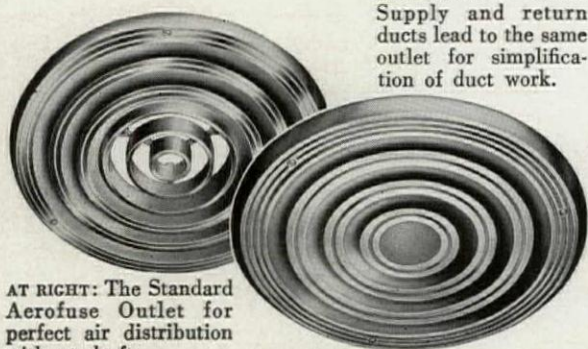
Pittsburgh Steeltex FOR PLASTER



WE'RE BROADCASTING THE FACTS!

The American Broadcasting Company, New York, has selected the flush Aerofuse Supply and Return Unit in their fine air conditioned studios. They appreciate the unobtrusive beauty of this outlet but their real reason for selecting it is its quiet operation and functional superiority. It furnishes ideal air distribution and quick temperature equalization and at the same time is capable of handling air return volume up to as much as 60% of supply air.

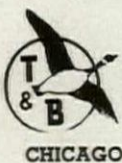
AEROFUSE OUTLET



AT LEFT: The Supply and Return Unit. Supply and return ducts lead to the same outlet for simplification of duct work.

AT RIGHT: The Standard Aerofuse Outlet for perfect air distribution without drafts.

TUTTLE &
NEW BRITAIN
NEW YORK



BAILEY, Inc.
CONNECTICUT
CHICAGO PHILADELPHIA

(Continued from page 78)

the foundation, which keeps sand and gravel from sifting into the well.

The areawall is made in two types that cover almost every building need. Where space is limited, the straight type areawall with round corners and straight front is recommended. Where projection into yard is not a factor, the semi-circular type is often used. In both the straight and round types, the top edge is rolled. The bottom edge also is rolled in heights over 30 inches.

For windows in inside corners, fireplace chimneys, or other projections, right and left inside corner areawalls are available which fit the projecting wall at right angles. Also, a special areawall is supplied for use in coal chute windows. This style has rounded corners of much shorter radius, giving the coal door adequate clearance.

NEW OUTDOOR FIREPLACE UNIT

The Majestic Co., Huntington, Ind., manufacturers of a wide range of outdoor fireplace equipment, for either residence or park use, announces the addition of a new fireplace unit that offers a stove-type top, provided with two holes with lids to fit. It may be built into a fireplace of any exterior design.

The new fireplace unit is constructed of angle iron with doors and frames of cast semi-steel. All joints are electrically welded. The two doors are 10" wide by 8" high. The top is 12" wide and 24" long.



The bottom grate is made up in two sections, measuring 12" square. The frame is arranged with lugs, so that the bottom grate may be placed at different levels for burning either wood or charcoal. The overall dimension is approximately 20" x 26" x 15".

NEW STAIN-RESISTANT BATHROOM WALL PANEL

The Ingram-Richardson Mfg. Co., Beaver Falls, Pa., announces a porcelain enameled wall panel in six rich colors for bathroom walls: green, yellow, blue, cream, black and white.

Its advantages are said to be all those claimed for porcelain enamel itself—true, fade-proof colors, glass-like, easily cleaned surface, imperviousness to ordinary stains and permanence in all respects, including lack of necessity for refinishing at any time. Added to these advantages are features of quick, easy installation by a whole sheet-at-a-time method that is easily accomplished by any competent workman without any cutting, fitting, butting, special joinery or other specialized craftsmanship.

Adequate precautions have been observed to compensate for inaccurate studding, etc., by means of a special lap-seam expansion joint which permits ample adjustment. All seams between sheets or adjoining surfaces seal water-tight and exclude all dirt or sediment accumulations. Any type of wall fixture can be readily installed, including the recessed type, and the panels are designed for the use of any chrome, stainless, plastic or other decorative cap and cove moulding.

(Continued on page 82)

Important Announcement to Architects

Johns-Manville AMERICAN COLONIAL Asbestos Shingles

**Now the lowest price in history for
a J-M Asbestos Shingle roof . . .**

This new roof combines beauty, texture, color,
with true American Method appearance!

HERE is what we sincerely believe is the most out-
standing value in all J-M's 80 years' experience in
the manufacture of roofing materials . . . the Johns-
Manville *American Colonial* Asbestos Shingle.

This new shingle combines all the permanence of stone
with beauty such as you have never thought possible in
a fabricated shingle! Consider these features—

J-M *American Colonial* Shingles provide the texture
and graining of fine weathered wood . . . the clean-cut
shadow lines that add interest and charm.

And *color*! Handsome blends . . . a soft green, a warm
red, a rich black. Also a natural gray and a white.

As for cost, the American Colonial is priced so low, is
so economical to apply, that roofs of this fireproof mate-
rial cost *little more than roofs of far inferior materials*.

Like all J-M Asbestos Shingles, the new American
Colonial can't burn or rot, is practically weatherproof.
No periodic upkeep is needed . . . no preservative
treatment.

Clients will appreciate J-M *American Colonial* Asbestos
Shingles because of their beauty, permanence, fireproof
qualities, revolutionary low cost. And clients will be
grateful to you as years pass and they learn the economy
of a roof that will last as long as the house itself!



BEAUTIFUL . . . You'll really find it hard to believe that
the new J-M *American Colonial* Asbestos Shingle is a
fabricated material. Its texture and graining are those
of fine weathered wood. Its dignity of line and sim-
plicity provide true American Method appearance.



NEW DESIGN CUTS APPLICATION COSTS! In actual
tests, the new American Colonial Shingle required
less time to apply than any other asbestos roof shingle
. . . approximately the same as the fastest laying asphalt
strip! These savings, plus its low price, enable you to
give clients an asbestos roof of American Method
appearance at the lowest cost in J-M history.



JOHNS-MANVILLE Building Materials

Asbestos and Asphalt Shingles . . . Super-Felt Rock Wool
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**SEND FOR BEAUTIFULLY ILLUSTRATED FULL-
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NIAL SHINGLES. JUST MAIL COUPON.**



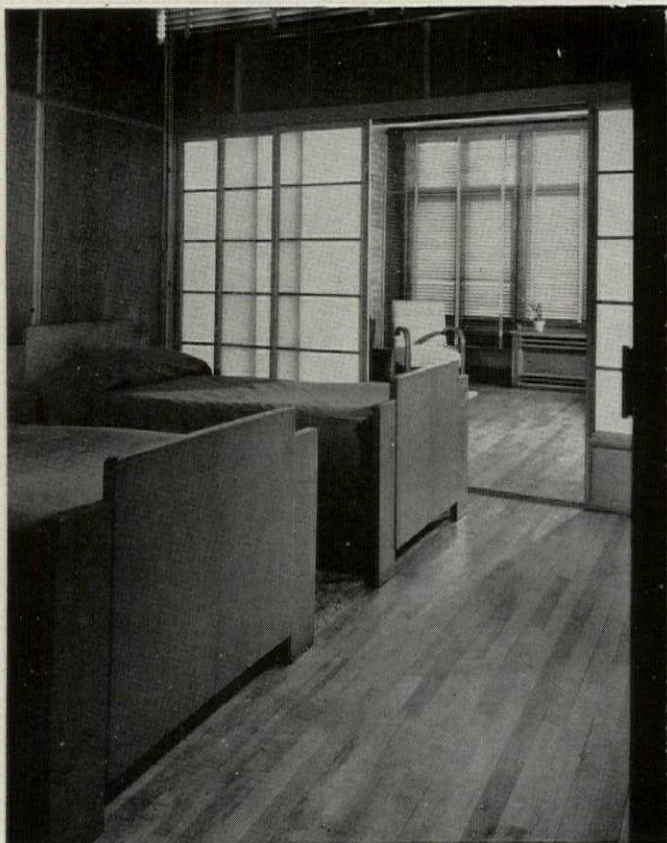
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New York, N. Y.

Without obligating me, please send me your new
full-color brochure on J-M American Colonial Asbes-
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Name

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The New Idea in flooring Homes

GET YOUR COPY
OF OUR HELPFUL NEW FOLDER

Harmonize floor with furniture . . . that's the modern idea for homes! . . . In the bedroom above, note how the absence of heavy graining in the floor makes for pleasing harmony with the smooth and simple modern furniture. Modern furniture is fine-grained . . . so is Maple . . . and the two live peacefully with each other. Not only Blonde Maple, but other modern furniture looks at home on smooth floors of Maple.

Home-owners—the whole family—will thank you for recommending Hard Maple. It's the longest-wearing comfortable floor and the most ideally suited for modern homes.

WRITE FOR free copy of our new Home Builder folder—includes illustrations in color of maple floor sections in various patterns. Specify **MFMA** Maple—in strips or blocks.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
1785 McCormick Building, Chicago, Illinois

See our catalog data in Sweet's, Sec. 11/88.
Write for folder on floor finishes suitable for homes.

Floor with
MFMA Maple
REG. U. S. PAT. OFF.
(NORTHERN HARD)

(Continued from page 80)

Greatest acceptance of this new porcelain wall panel is expected in apartment and group housing projects where multiple, standardized bathroom sizes can be utilized to reduce fabrication and erection costs to a minimum.

CORRUGATED ENAMEL SHEATHING

Combining the many advantages of formed roofing and siding with the corrosion resistance, clean smooth surface and color of porcelain enamel, Por-Ce-Lok sheets, produced on U.S.S. Vitrenamel steel by Porcelain Enamel Steels, Inc., Cleveland, are said to offer architects and builders a broader horizon, particularly in industrial structures.

The new type of lock joint developed for this sheathing assures weather tightness without danger of chipped enamel. After forming the corrugations, the sheet is machine-punched along a longitudinal edge for fastening to the structure, cut as designated by the architectural layout, and then enameled. Recent developments in special porcelain enamels and firing practice

make it possible for two coats of porcelain enamel to provide the desired tough, flexible, weather resistant glassy finish on all surfaces of the sheets, including edges and bolt holes.



These new sheets eliminate the need for either interior or exterior painting, as sheets are available finished in white porcelain enamel on one side to provide the desired high light reflection for interiors, and in royal blue, maroon, forest green, or fall brown on the exterior face. Other colors are available on special order.

Stock sheets of Por-Ce-Lok cover 24 in. in width after interlocking and are available in standard lengths ranging from 5 to 10 ft. They may be applied on steel or wood framing, solid roof decks or side wall surfaces. Design is such that all attachments are concealed and all edges and holes are protected by a porcelain enamel coating, thus preventing possibility of corrosive attack on unprotected surfaces. Special enameled fittings are available for corners and sills as well as for cornices and gravel stops on flat roofs.

ROOFLOY LEAD ROOFING

Revere Copper and Brass Incorporated, New York, announces the introduction of Roofloy, an improved type of roofing sheet lead for which the advantages of lighter weight, greater tensile strength, lower installation cost and reduced tendency to creep are claimed.

Roofloy sheet lead roofing is made of the purest pig lead strengthened by the addition of calcium, magnesium and tin. These elements, when added in the proper amounts, so greatly improve the mechanical properties of lead that it can be rolled into thinner sheets than heretofore has been possible for roofing and other building applications.

The new Roofloy sheets can be used for roofing with practically every type of building regardless of architectural style. Its blue-grey color blends well with all

(Continued on page 84)



**It's easy--
WHEN YOU
KNOW HOW!**

THERE's no "trick" to building a good roof. It's the know-how that's important. And that's exactly what Barber and Barber roofers have got.

In the first place, Barber is sole distributor of Trinidad Native Lake Asphalt in the United States. For years, Barber has been studying and experimenting with this remarkable weather-proofer . . . finding new ways to make it into finer and still finer roofings.

Today, two outstanding results of these years of research are offered to those who specify and those who buy built-up roofings.

FIRST—Because of the many superior virtues of Trinidad Native Lake Asphalt, Barber has developed a new *smooth-top* built-up roofing that Barber will bond for 15 years *anywhere in the United States*.

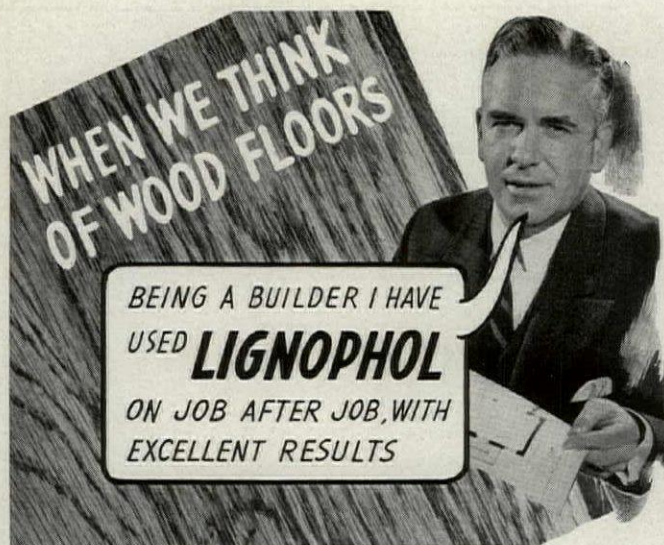
SECOND—Barber has recently issued entirely new, simplified built-up roofing specifications for all Barber Genasco Bonded Built-Up Roofs. Easier to specify . . . easier to follow . . . more economical to use.

If you have not received your copy of the new, streamlined Barber Built-Up Roofing specifications and details of the new smooth-top Barber Genasco Bonded Built-Up Roof, we suggest you write immediately to Barber Asphalt Corporation, Barber, New Jersey.



Barber Products include Shingles, Sidings, Roll Roofings, Bonded and other types of Built-Up Roofings, Waterproofing Asphalts and Fabrics, Resurfacer, Asphalt Protective Products (Plastics and Liquids), Spandrel Beam Waterproofings (Spandrel Cloth and Cement).

BARBER
MEANS A GOOD ROOF!



In the building field, only successful results can explain the steady use of a product.

You can be sure that any floor finished with LIGNOPHOL will stand up to hard usage — will last longer — will look more attractive.

LIGNOPHOL fills the cells of the wood with toughening resins, with penetrating oils and with special preservatives which bar the entrance of fungi, molds and other wood destroyers.

LIGNOPHOL protects floors against cracking, dry rot, pitting, scuffing and burn marks from rubber shoes. It costs little to apply and is extremely effective in bringing out the natural beauty of the wood. Available in natural, light, medium and dark brown, LIGNOPHOL offers you a splendid, economical opportunity to make the floors (and trim) you finish more serviceable — more beautiful.

See reproduction of various woods in natural colors in Sweet's Catalog, page 17/40.

LIGNOPHOL
The **ONE** Application
Wood Finish

LIGNOPHOL
Preserves and Brings
Out the Natural Beauty
of the Wood

LIGNOPHOL
Leaves Nothing
to Wear Off

Dept. P.E.4

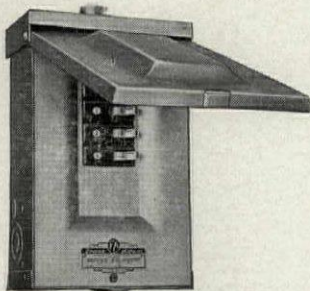
L. SONNEBORN SONS, Inc.
88 LEXINGTON AVE. NEW YORK CITY

(Continued from page 82)

building materials. Furthermore it will not stain adjacent materials even under severe conditions. Its favorable working qualities recommend it for difficult constructions requiring careful fitting. In addition to its use for roofing, Roofloy can also be used for flashings, gutters, leaders, cornices, spandrels, store fronts, dormers, domes, skylights, marquises, etc.

WEATHERPROOF ENCLOSURE FOR SERVICE EQUIPMENT

The Frank Adam Electric Co., St. Louis, Mo., announces the introduction of the F-A Raintite Enclosure for outdoor load centers and service equipment in connection with yard lighting, signs, flood lighting and general use.



The new enclosure is impervious to rain, snow and sleet. The box is of galvanized steel with a Bonderized cover to prevent corrosion — all with gray enamel finish. The hinged cover may be padlocked to prevent tampering. The enclosure is intended for load centers and service equipment of 2 to 16 circuits, 120 volts. Large assemblies in panelboard construction are also available in these weatherproof enclosures.

ARTFIBER

The Light Conditioning Company of America, 6 E. 45th St., New York, announces the introduction of Artfiber, an all-glass product made with a glass fiber texture between two sheets of plate glass. It diffuses and reflects light and insulates against sound and heat.

The glass fibers are of a wide range of colors and can be arranged according to any design, varying from a simple geometric pattern to the most complicated composition of figures. The colors play only a part in the decorative effect. The principal quality of Artfiber is the fiber. The glass fibers are drawn in different directions and in varying thicknesses causing a polarized effect, almost like a damask, so that the design, also when made with glass fibers all of the same color, stands out in opposite tones depending upon the spectator's angle of vision. This combination of color and texture and the opportunity of obtaining large designs in a single pane give unlimited possibilities to the designers' imagination.



The following glass units in Artfiber are available: Artfiber picture glass for interior decoration, ecclesiastical work, etc.; Artfiber insulating panels for glass partitions, transom windows, shop fronts, etc.; Artfiber light units for natural and fluorescent lighting; Artfiber mirrors; Fiberlight mirrors designed especially for fluorescent lighting.

The following glass units in Artfiber are available: Artfiber picture glass for interior decoration, ecclesiastical work, etc.; Artfiber insulating panels for glass partitions, transom windows, shop fronts, etc.; Artfiber light units for natural and fluorescent lighting; Artfiber mirrors; Fiberlight mirrors designed especially for fluorescent lighting.

Small Homes, too, Deserve the Protection of
TONCAN IRON
 it contains twice as much Copper



IN THIS EMERGENCY

Paraphrasing an old operatic lyric—"A steelman's lot is not a happy one." When business is at low ebb, the struggle is to get enough tonnage to produce steel economically. When the tide of business swings to the other extreme, the big job we all have is to satisfy the customer who is unable to get all the steel he needs.

Believe me when I say that this is one time when the wheel that squeaks the loudest is not getting the grease. We are doing everything humanly possible to be helpful in this emergency and to be fair in the apportioning of our output—and to assist you further we are constantly setting new records in all our plants in our production of steel—first line of national defense.

R. J. Meyer
 PRESIDENT



Gutters and downspouts of this attractive home on the Eastern Seaboard are long-lasting Toncan Iron.

Only a few dollars extra—an insignificant part of the total building cost—provide this home with the protection that Toncan* Iron sheet metal gives—protection against rust and corrosion. Every small home you design needs the protection of Toncan Iron—the exclusive Republic alloy *iron* that contains twice as much copper as the best copper-bearing steel available today. Long a time-tested favorite for both interior and exterior sheet metal work, it costs less per year of service and minimizes repairs and replacements.

Specify Toncan Iron for all sheet metal work. There is no better way to safeguard the building owner's investment. Our new Toncan Iron Booklet will give you all the reasons why. Copy on request, or see Sweet's Catalog.

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Adam, Frank, Electric Company	7
Aluminum Company of America	2, 3
American Brass Company	Second Cover
American Pencil Company	15
American Rolling Mill Company, The	21
American Seating Company	75
Anemostat Corporation of America	68
Armstrong Cork Company	30, 53, 63
Auer Register Company	77
Barber Asphalt Corporation	83
Barber-Colman Company	58
Bradley Washfountain Company	61
Bruce, E. L., Company	87
Brunswick-Balke-Collender Company	50
Cabot, Samuel, Inc.	64
Cambridge Tile Manufacturing Company	60
Congoleum-Nairn, Inc.	51
Consolidated Expanded Metal Companies, The	13
Curtis Companies Service Bureau	65
Dixon, Joseph, Crucible Company	43
Douglas Fir Plywood Association	69
Eberhard Faber Pencil Company	28
Faber, A. W., Inc.	74
Formica Insulation Company, The	17, 18
General Electric Company, Appliance & Merchandise Dept.	67
Grinnell Company, Inc.	36
Higgins, Chas. M., & Company, Inc.	62
Hoffman Specialty Company	25
Holliston Mills, Inc.	74
Hygrade Sylvania Corporation	Third Cover

Imperial Brass Manufacturing Company	66
Ingersoll Steel & Disc Division, Borg-Warner Corporation	37
Ingram-Richardson Manufacturing Company	20
Iron Fireman Manufacturing Company	52
Jamison Cold Storage Door Company	74
Johns-Manville Corporation	4, 35, 73, 81
Knapp Brothers Manufacturing Company	26
Koh-I-Noor Pencil Company	76
Louisville Cement Company	29
Maple Flooring Manufacturers Association	82
Massachusetts Institute of Technology	76
Medusa Portland Cement Company	11
Mosker Bros. Iron Works	5
Milcor Steel Company	88
Minneapolis-Honeywell Regulator Company	Back Cover
Muralo Company	70
National Door Manufacturers' Association	74
Norton Lasier Company	77
Petroleum Heat & Power Company	23
Pittsburgh Plate Glass Company	27, 72
Pittsburgh Steel Company	79
Portland Cement Association	55
Raymond Concrete Pile Company	8
Reinhold Publishing Corporation	76, 86
Republic Steel Corporation	85
Rolscreen Company	6
Rosenthal Company, The	76
Rotary Lift Company	54
Scott Paper Company	59
Sisalkraft Company, The	77
Smith, H. B., Company	22
Sonneborn, L., Sons, Inc.	84
Standard Pressed Steel Company	87
Stanley Works	78
Timber Engineering Company	77
Truscon Steel Company	38
Tuttle & Bailey, Inc.	80
Universal Atlas Cement Company	71
U. S. Gypsum Company	45, 46, 47, 48
U. S. Steel Corporation Subsidiaries	71
Vonnegut Hardware Company	19
Warren Webster & Company	1
Weis, Henry, Manufacturing Company	24
Weyerhaeuser Sales Company	49
Wilson Engineering Corporation	76
Youngstown Sheet & Tube Company	57

THEODORE KAUTZKY'S "PENCIL BROADSIDES" in Book Form

Since April 1940 there has appeared in PENCIL POINTS a valuable series of lessons in pencil drawing, which are now published in book form.

The student of the pencil will find this book with its well arranged lessons a great aid to his progress. These lessons cover fundamental strokes; the indication of rough and smooth stonework; brickwork at large and small scale; various wood textures; structure and foliage of pine trees, oak trees, birch trees, and elm trees; the indication of roof textures; evergreen shrubbery, and flowers at large and small scale. A single lesson

offers pointers on composition. Each lesson consists of brief yet adequate text, together with one or more illustrations. The latter are not only expertly done in Kautzky's inimitable manner, but they are reproduced by a gravure process on a paper of much the quality of that employed for the original drawings, with the result that the reproductions are practically indistinguishable from the originals. Lovers of pencil work will want this book for these reproductions.

Contains 24 plates 9" x 12" on 100 lb. antique paper, plus 12 text lessons. Price \$2.00 a copy.

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STEEL STOOL

A spring Posture Back that gives to the slightest movement, yet backs you up with solid support. Full freedom of movement; swivel seat. This stool is designed by men who personally have spent many years on the board and know that afternoon let-down. Good health, good work and good sense are built into its every feature.

Construction: full welded steel for permanent rigidity—not found in ordinary riveted stools. Wood seat and back.

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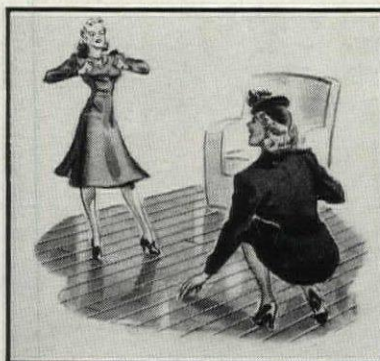
Fig. 1266
Pat. App. For

Specify BRUCE STREAMLINE FLOORING

Gives Clients Many Advantages

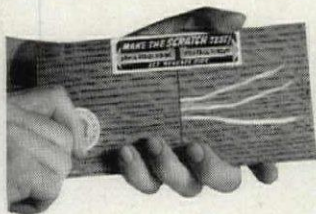
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Bruce Streamline Flooring comes finished and waxed—ready for use the instant it's laid. So it saves time, labor. And, so important in the case of remodeling jobs, there's no mess, no smell, no waiting for the finish to dry.



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The Superior Expansion CORNER BEAD

There's no "or equal" for Super-Ex. It's the only major improvement in corner beads in 15 years—combining the rigidity of a solid wing with the added plaster reinforcement of expanded metal. And it's exclusive with Milcor! • Goes on fast to reduce erection costs. Stands up to protect plaster corners against cracking, chipping . . . to assure straight, true-edge beauty. • Part of Milcor's complete line of corner beads used successfully everywhere. • Write today for free Milcor Super-Ex Corner Bead Bulletin.

F-162

Strong, straight nose, reinforced and held true by two solid flange sections.

Corrugations in solid sections add rigidity. Bead requires practically no plumbing.

Perforations in solid sections

are alternately spaced on either side . . . provide twice as many plaster keys.

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PROTECT YOUR INVESTMENT IN FLUORESCENT

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NO other makers of fluorescent lighting fixtures possesses Hygrade's patents . . . so no other fixtures can possibly match these advantages of Hygrade MIRALUMES!

Add 'em up yourself!

Finer light, produced by Hygrade's patented lamp coating . . . *sure, trouble-free starting*, assured by Hygrade's patented Mirastat starters . . . *lower maintenance*, thanks to Hygrade's easily demountable reflectors and sturdy lamp holders . . . plus the added assurance of a *complete guarantee!*

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No costly delays—fewer repairs—*more satisfaction* when you install MIRALUMES! Complete fixtures, sold wired, ready to install, complete with superior Hygrade Lamps . . . better designed and engineered . . . Underwriters Laboratory

FOR FACTORIES AND MILLS — HF-100: 100-watt unit; 2 40-watt lamps; no nuts or bolts to mar porcelain enameled reflector.

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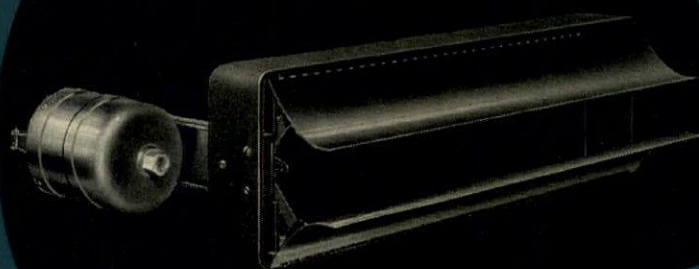


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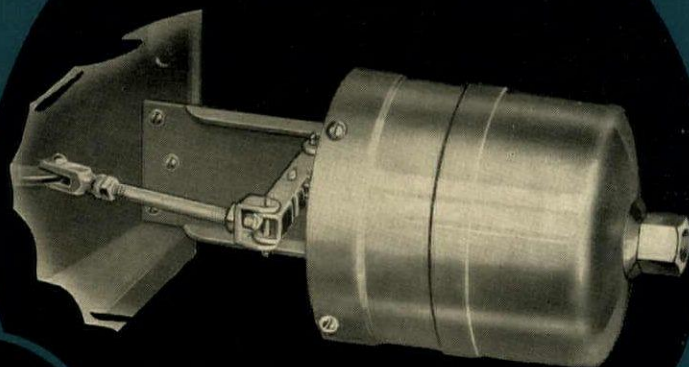
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AN ENTIRELY NEW MEANS
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VOLUME OF
Air!



the Vol-U-Trol

AND THE NEW
DAMPER MOTOR



the Grad-U-Motor

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efficiency. The Grad-U-Motor also provides more accurate graduation of the damper because of its lower reversal loss. It is equipped with adjustable stops which limit the maximum and minimum travel of the motor. The Grad-U-Motor can, of course, be used with any type of damper, while the Vol-U-Trol damper can be operated by other pneumatic or electric motors.

For complete and detailed information on the Vol-U-Trol damper and Grad-U-Motor write Minneapolis-Honeywell Regulator Company, 2739 Fourth Avenue South, Minneapolis, Minn. Canadian Plant: Toronto, Ontario. European Plant: London, England. Company owned branches in forty-nine other cities.

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