PROGRESSIVE ARCHITECTURE

SMALL HOUSE

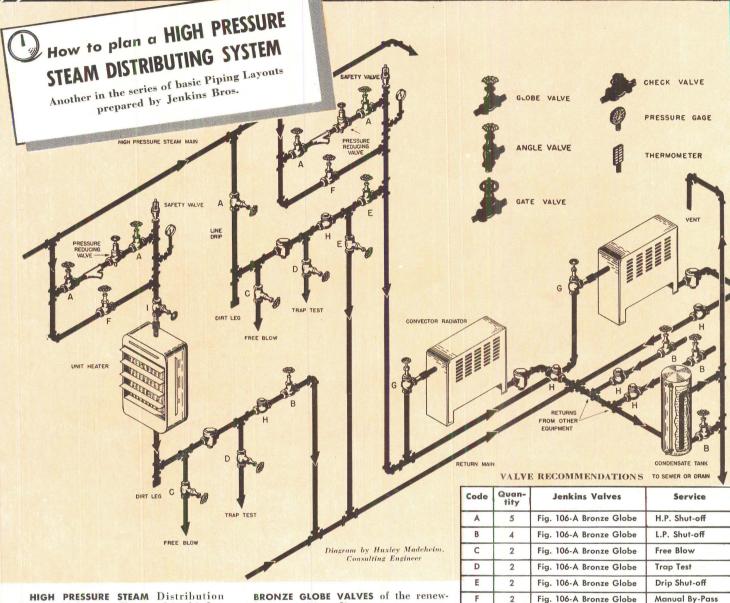
COMPETITION

APRIL 1946

COLLEGE DORMITORY COMPETITION

INTERLIGENCE IN

Senkins PRACTICAL PIPING LAYOUTS



HIGH PRESSURE STEAM Distribution Systems of the type illustrated in this layout are frequently installed for the efficient heating of the sprawling, monitor type industrial plants, covering a large area, which have been built in increasing numbers during the past few years. The hookup allows for reduced pipe sizes and takes care of excessive pressure drops due to the long distance between the heating plant and the radiation.

SUBSTANTIAL SAVINGS in installation and maintenance costs are effected through the elimination of return lines in many such installations, especially where the heating system takes a small percentage of the steam and treated water. Condensate is collected in vented tanks at the lowest points in the system, and drained off. Check valves prevent back flow from the tanks.

100000

BRONZE GLOBE VALVES of the renewable composition disc type are recommended for all shut-off and bypass lines to assure lasting drop-tight service. On steam returns, regrinding type Bronze Check Valves with 45° seats will remain tight even at extremely low pressures, to prevent opening and seepage from back flow.

SEVERAL TYPES AND PRESSURE RANGES of Jenkins Valves, other than those shown, can be used for this type of layout, according to the factors involved. Consultation with accredited piping engineers and contractors is recommended when adapting these suggestions to your own requirements, or when planning any major piping installation.

Copies of Layout No. 9, enlarged, with additional information, will be furnished on request . . . also copies of future Piping Layouts. Just fill out and mail the coupon.

A CHOICE OF OVER 600 JENKINS VALVES

Fig. 168 Angle w/Union

Fig. 167 Globe w/Union

Fig. 92 Swing Check

Radiator Shut-off

Radiator Shut-off

Steam Return

F

G

н

1

2

2

6

To save time, to simplify planning, to get the advantage of Jenkins specialized valve-engineering experience, - select all the valves you need from the Jenkins line, fully described in the latest Jenkins catalog, No. 76. It's your best assurance of the lowest cost in the long run.

Jenkins Bros., 80 White Street, New York 13; Bridge-port, Conn.; Atlanta, Boston, Philadelphia, Chicago, San Francisco. Jenkins Bros., Ltd., Montreal, London.

LOOK	FOR THIS			DIAMOND	MARK
			Jenkins Brog	1864	

Ĥ	JENKINS VALVES
	For every Industrial, Engineering, Marine, Plumbing- Heating Service in Bronze, Iron, Cast Steel, and Corrosion-resisting Alloys 125 to 600 lbs. pressure. Sold Through Reliable Industrial Distributors Everywhere

JENKINS BROS., 80 White St., New York 13, N. Y. Please send me a reprint of Piping Layout No. 9, and future Layouts as they become available.

Name	
Company	
Address	

PROGRESSIVE ARCHITECTURE

P

T

 \mathbf{O}



NCIL

E

EDITOR-IN-CHIEF: KENNETH REID

EXECUTIVE EDITOR : THOMAS H. CREIGHTON

EDITORS: FRANK G. LOPEZ, JR. CHARLES MAGRUDER GEORGE A. SANDERSON

ASSISTANT EDITORS: EDITH LAMAR EILEEN FEUS

> ART DIRECTOR: GENE HAWLEY

DRAFTING: ELMER A. BENNETT

PUBLISHING DIRECTOR: PHILIP H. HUBBARD

ASSOCIATE PUBLISHING DIRECTOR: JOHN G. BELCHER

CIRCULATION MANAGER: JOHN ZELLNER

Published monthly by REINHOLD PUB-LISHING CORPORATION, 330 West 42nd Street, New York 18, N.Y., U.S.A. Ralph W. Reinhold, Chairman of the Board; Philip H. Hubbard, President; H. Burton Lowe, Executive Vice President and Treasurer; Gilbert E. Cochran, Vice President and Secretary; Francis M. Turner, Vice President; William P. Winsor, Vice President, Executive and editorial offices: 330 West 42nd Street, New York 18, N. Y. Subscriptions payable in advance: 1 year, \$3.00; 2 years, \$5.00 in U. S. and Possessions, Canada, Cuba, Mexico, Central and South America; 1 year, \$5.00 in all other countries. Single copies, \$1.00. Remittances must be by International or American Express Money Order or draft on a U. S. Bank, payable in U. S. currency. Subscribers are requested to state profession or occupation. Changes of address must reach us by the 20th of month to assure receipt of next issue. Articles, drawings, photographs, etc., submitted will be carefully considered, but the publisher will not be responsible for loss or damage. Printed by Lotus Press Inc., 508 West 26th St., New York J. N. Y. Copyright 1946, Reinhold Publishing Corp. Trade Mark Reg. All rights reserved. Reentered as second class matter, October 22, 1945, at the Post Office at New York, N. Y., under the Act of March 3, 1879., Volume XXVII, No. 4, Apr., 1946. Indexed in Art Index.

APRIL 1946

VIEWS: Letters	8
JOBS AND MEN: Men Wanted; Jobs Wanted	12
THIS MONTH: Our Authors	18
TWO COMPETITIONS: Editorial by Kenneth Reid	51

SMITH COLLEGE DORMITORY COMPETITION

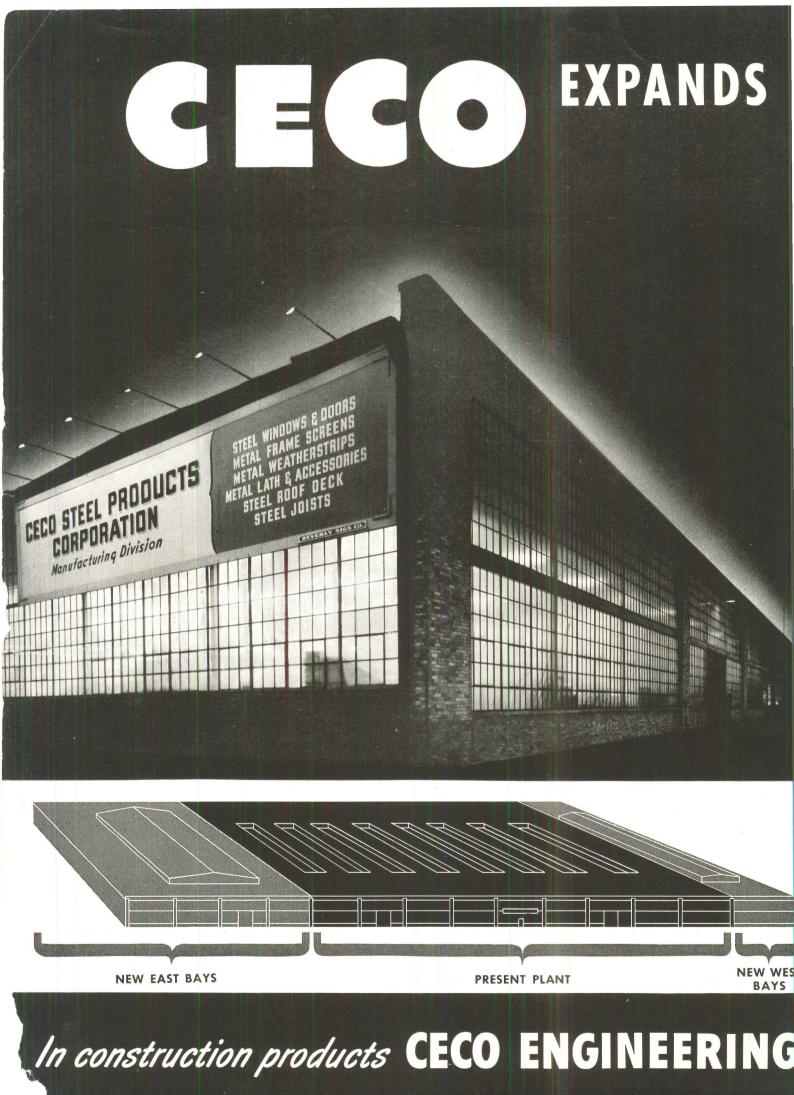
REPORT OF THE JURY: Philip L. Goodwin, Chairman	52
FIRST PRIZE: Norman C. Fletcher, Jean Bodman Fletcher, and Benjamin Thompson, Cambridge, Mass.	54
SECOND PRIZE: Sarah Harkness and John C. Harkness, Milton, Mass.	58
THIRD PRIZE: Roy S. Johnson, Julius Stein, and Frederick Ginsbern, New York, N. Y.	60

GEORGIA HOUSE COMPETITION

REPORT OF THE JURY: Roland A. Wank, Chairman	62
FIRST PRIZE: Hugh Stubbins, Jr., Cambridge, Mass	64
SECOND PRIZE: Watson Balharrie, Ottawa, Canada	66
THIRD PRIZE: Harold Calhoun, Houston, Tex.	68
FOURTH PRIZE: Walter Preston Hickey and Raymond Weber, Birmingham, Mich., and Huntington Woods, Mich.	70
MENTION AND SPECIAL GEORGIA PRIZE: William Ewart Willner, Atlanta, Ga.	72
MENTION: Robert L. Albert, Arlington, Va.; Bill Atkinson, Bloomfield Hills, Mich.; Dick Barry, Cambridge, Mass.; Arthur O. Davis, Jr.; Atlanta, Ga.; Jean W. Deyoe, Manhattan, Kans., and John F. Granstedt, Kansas City, Mo.; C. Wilmer Heery, Athens, Ga.; John Hironimus, Jackson Heights, N. Y.; Phyllis Hoffzimer, Brooklyn, N. Y.; Roland K. Kuechle, Oakland, Calif.; James W. Larson, Portsmouth, Va.; Lt. David M. Leaf, Fort Belvoir, Va.; Carter H. Manny, Jr., Michigam City, Ind.; George Matsumoto and Gyo Obata, Bloomfield Hills, Mich.; David G. Murray, Tulsa, Okla.; I. M. Pei, Cambridge, Mass.; Barbara and William Pfouts, Pittsburgh, Pa.; Joseph Elliott Phillips, Jr., Atlanta, Ga.; Richard R. Rhodes, Balboa Heights, Canal Zone; Joseph Salerno, New York, N. Y.; Hugh Stubbins, Jr., Cam- bridge, Mass.; Lyle Reynolds Wheeler, West Los Angeles, Calif.; Charles D. Wiley, Chicago, Ill.; J. Floyd Yewell, New York, N. Y.	74
A HOME FOR THE U.N.O.	98
SELECTED DETAILS:	05, 106

MATERIALS AND METHODS

FROM THE TECHNICAL PRESS: Technical reviews, and digests of articles in other magazines, by Jean Short and David	
Aldrich	1
MANUFACTURERS' LITERATURE: Current manufacturers' pub-	
lications	10
PRODUCTS: Monthly list of new products, plus comment on new developments	1
BUILDING PRODUCTS FACTS: High-Strength Glass (laminated	
and tempered)	1
REVIEWS: Books, bibliographies, periodicals	1:
NOTICES:	14
COVER: Composition by Gene Hawley.	



ITS MANUFACTURING PLANT TO BETTER SERVE YOU

In 1946 Plant Enlargement exceeding 50% starts a development Program encompassing 14 Plants and 23 Sales Offices Coast to Coast

Ceco's great expansion program is already underway. From coast to coast, Ceco plants, warehouses and offices will be enlarged by hundreds of thousands of square feet. Expansion of the great plant in Chicago is already far along and should be completed by summer. The enlarged plant will be one-fifth of a mile in length. Expansion

Now CECO Engineering Means More Than Ever Before

Ceco construction products of every class have always been famous for their perfection and precision engineering, for Ceco builds small with the same skill it builds big. Now, with our new expansion program, you can count on even greater availability of Ceco products, together with the skilled technical engineering service that is always at your command.

CECO STEEL PRODUCTS CORPORATION MANUFACTURING DIVISION 5647 WEST 26TH STREET, CHICAGO 50, ILLINOIS

Concrete Engineering Division, Merchant Trade Division, Highway Products Division Offices, Warehouses and Fabricating Plants in Principal Cities

makes the big difference

of other plants will follow as rapidly as conditions permit . . . This means just one thing to you—even greater service than in the past. As Ceco looks to the future, they have one supreme goal—to make available to you an adequate supply of precisionengineered construction products—where you want them—when you want them.

A Partial List of CECO Products

Metal Windows and Doors Metal Frame Screens Metal Weather Strips Steel Joists, Steel Roof Deck Metal Lath Reinforcing Steel Highway Products Double-Drain Roofing

Mail This Handy Coupon For FREE Ceco Catalogs

CECO STEEL PRODUCTS CORPORATION 5647 West 26th Street Chicago 50, Illinois	
Please send me catalogs checked below:	
Windows and Doors Steel Joists Screens Steelforms	
Name	
Address	
City	

RICH'S-ATLANTA

says

for the success of its "Georgia Builds" ARCHITECTURAL COMPETITION

Rich's, Inc. of Atlanta, is more than pleased with the results of its nation-wide \$10,000 Architectural Competition in collaboration with Progressive Architecture. The problem, as you recall, was for "a realistic house for a family in Georgia." The winners you will find in this issue.

Many thanks to the hundreds of entrants who submitted drawings. Many thanks to the jury— Thomas Harlan Ellett, F.A.I.A. of New York; Ernest A. Grunsfeld, Jr., F.A.I.A. of Chicago; Richard Koch, F.A.I.A. of New Orleans; Ernest J. Kump, A.I.A. of San Francisco; Roland A. Want, A.I.A. of Detroit; Roy F. Larson, F.A.I.A. of Philadelphia; Robert Law Weed, A.I.A. of Coral Gables. Man'y thanks, too, to Henry J. Toombs, A.I.A. of Atlanta and Kenneth Reid, A.I.A., Editor of Progressive Architecture who acted as professional advisors and to Philip H. Hubbard, publishing director of Progressive Architecture and the entire staff.

ME

And, of course, our heartiest congratulations to the winners. Models of the first, second, third, and Georgia Prize houses will be shown in Rich's GEORGIA BUILDS TO LIVE show, starting April 22.



It's what's <u>INSIDE</u> that Counts!

Yes..."ingredients" make the big difference in quality of performance whether the product is a fine watch or a fine building material.

Secret of the success of so many Celotex building products, for example, is the cane fibre at their core.

These long, tough cane fibres form an interlocking "bridge" with each other—endow Celotex board with high tensile strength and endurance, good insulating value, yet extreme lightness and workability. It's easy to handle, easy to apply, economical to use.

What's more-special Celotex processing renders the board wind, water, heat, cold and vermin-resistant ...makes it one of the most practical building materials on the market.

Look to The Celotex Corporation for these quality cane fibre building products. And remember: on literally *millions* of building jobs, they've *proved* beyond a shadow of a doubt that *they've got the inside quality that counts!*

Zuick Facts on Celo-Siding—a typical Celotex cane-fibre building material

Ideal for farm structures, garages, warehouses, most any lowcost building. Does 4 jobs in one application: 1. Sheathing; 2. Insulation; 3. Exterior Finish; 4. Structural Strength. Has high insulating value; requires no maintenance. Just nail to frame and caulk – and the job's done!

Tongue and Groove joint on long edges of 2' x 8' panels. Core of genuine Celotex Cane Fibre

Board furnishes structural strength and insulation. All edges and sides sealed against moisture by coating of asphalt.

Extra coating of asphalt on exterior side.

Exterior surface of firmly imbedded mineral granules, providing durable, colorful finish. **Colors:** Green or Bufftone.

Sizes: 5/8'' thickness $-4' \ge 8'$ with square edges. 7/8'' thickness $-2' \ge 8'$ with T & G joints on long edges.

7%" thickness-4' x 8' and 4' x 10' with square edges.





THE CELOTEX CORPORATION • CHICAGO 3, ILLINOIS



Hints for those who PLAN TO REMODEL

Look at these photographs. They show what can be done to improve a home, when one has a little imagination and some Insulux Glass Block.

• Note the large glass block panel in the living room. This attractive "light wall," which adjoins the summer terrace, provides an abundance of daylight all through the year. And in the winter—it brings considerable fuel savings because of the insulating value of the block.

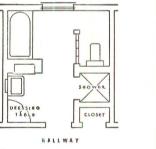
• Note the departmentalized bathroom. An Insulux partition, and space divided into four distinct sections: toilet, shower, tub, wash stand and dressing room. Think of the advantages!

• Note the glass block partition in the hallway. This is a money-saver, as it borrows needed light from the dining room adjoining.

Panels of Insulux Glass Block are being installed in hundreds of buildings throughout America. In homes, stores, schools, hospitals, offices and factories!



Insulux Glass Block Panels transmit and diffuse light yet provide privacy along with light.





Something new-a departmentalized bathroom! Four distinct sections-toilet, shower, tub, wash stand and dressing room-two of them divided by an Insulux partition.



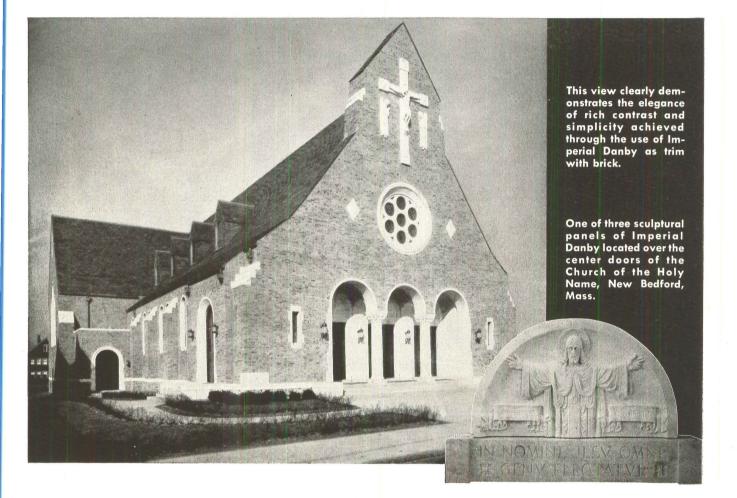
An Insulux panel can be used to carry natural light from room to room for brightening dark corners.

Insulux Glass Block is a functional building material – not merely a decoration. It is designed to do certain things that other building materials cannot do. Investigate!

For technical data, specifications, and installation details, see our section in Sweet's Architectural Catalog, or write: Insulux Products Division, Dept. C-28, Owens-Illinois Glass Company, Toledo 1, Ohio.

Limitless Versatility

VERMONT MARBLE



Whether chosen for attractive appearance or rugged durability, marble work of high quality and matchless beauty assures endless satisfaction to architect and owner alike. That is why so many architects choose Imperial Danby Marble.

They know that the limitless versatility of Imperial Danby makes it the perfect answer to the complete marble structure, a few pieces of decorative trim or simple, durable window sills.

An excellent example of the varied use of this fine stone as trim and decorative panels with brick is the Church of the Holy Name, New Bedford, Mass., designed by Maginnis & Walsh, Architects.

The Vermont Marble Company, producers, importers and finishers, maintain branch offices in principal cities to serve you.



Boston · Chicago · Cleveland · Dallas · Houston · Los Angeles · New York · Philadelphia · San Francisco · Ontario Marble Co., Peterborough, Ont.



COMPETITION MAIL

THANK-YOU NOTE

Dear Editor:

We in Canada really appreciate your making it possible for Canadian architects to enter these competitions. We realize that there must be considerable trouble involved in getting drawings back and forth across the border. Most of all, we appreciate the regularity with which these competitions are held and the fairness in which the entries are judged.

WATSON BALHARRIE Ottawa, Ontario

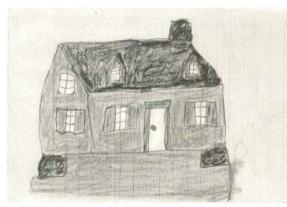
THE PROGRAM HELPED

Dear Editor:

The program was interesting to work out since the requirements or limitations on exposure, floor area, climatic conditions, ventilation, occupancy, cost, storage space (this necessary item has long been neglected), site conditions, and design were so carefully and clearly set forth or implied.

Such a program releases the designer's attention at once for study of the fundamental and difficult problems connected with minimum house design, such as room relationship and relative sizes, open planning and multiple use of space, privacy for occupants, waste corridor space, efficient performance of household duties, solar and seasonal orientation, cross ventilation, good natural lighting, facilities for entertainment, and, of course, the production of a timely design of simple dignity for which all prospective small house owners long and to which they are justly entitled.

Thoughtfully prepared competitions of this nature are steps in the right direction toward the solution of real and satisfying minimum housing, and your organization is to be congratulated on the manner in which the whole matter



was conducted. I am sure also that the selection of such a reputable jury inspired confidence in the minds of all competitors.

It is to be hoped that the collective results of this competition will have contributed much of real value to the nation-wide problem of the small house.

> R. L. ALBERT Arlington, Va.

THAT JANUARY REVIEW

SETTING THE PACE

Dear Editor:

Your January issue of PROGRESSIVE ARCHITECTURE is a fine editorial job. The concept of reviewing the achievements in architecture since the beginning of the war gives you an excellent foundation for an informative and ably presented review.

I particularly like the way you have handled the layout and text and the effective manner in which you have condensed the essential story. The section on Modular Coordination of course interested me most, and is probably the best condensation of this subject that has yet appeared.

Congratulations to you and your staff! I hope this sets the pace for many more fine issues under your direction.

TYLER S. ROGERS Owens-Corning Fiberglas Corporation Toledo, Ohio

WHAT'S COOKING NOW? Dear Editor:

In your article, "Pearl Harbor to Nagasaki," the subject matter of the first ten pages was academic-and seemed to be a dissertation in defense of the past four years of architectural magazines. Who cares? We who have been away for four years, completely detached, are interested only in what's cooking now! Those ten pages could have helped a lot besides the few plates included therein. The past four years for many of us have been a matter of getting right to the point-the very essence of contemporary architecture. Maybe the four service years can be applied to the drafting board even in such an indirect wav?

> The youngest entrant in the Progressive Architecture-Rich's, Inc. competition wrote to us of her drawing (left) as follows: "I am senden you this little house just to show you the kind of house I want to live in some day in Atlanta Ga. for I am a Georgia girl. I was borne in Atlanta Ga. I am a little girl 7 years old and I have never lived in but one real house and I just lived in it 3 monts so I hope they will make some little houses like this then we mite could get one." Sandra Brittain, Montgomery, Ala.

I must confess the title is very promising, and having hoped to really learn about the progress of the past four years in architecture, after a complete four-year detachment. I find after having read from pages 42-81 no such education. There was mention of the "cavity wall." Well how about a page or so on the cavity wall? Let us in on it and the other items just mentioned. Under "Construction Methods," a very juicy subject, it was polished off by saying, "a great deal of ingenuity was devoted to integrating the architectural conception with specific construction requirements." That calls for a Charlie McCarthy, "Is that so?"

Indeed you may say again the Profession has been misunderstood. The disstressing reception given architects in the military profession, especially the Navy, was due solely to the little weight and explanation the senior members of the architectural profession bothered to shoulder and pass on to the public prior to Pearl Harbor. Recruiting officers and the Bureau of Personnel had no idea what architects could do; thus we all ended up a million miles from the profession.

The plate *alone* of the Rugen School seems to almost make up for the 40 pages in expressing "progress in architecture." It is certainly not only pleasing but seems to possess all the four attributes your article set out to explore, even though you did not define your four elements.

LT. PAUL PIPPEN, USNR Portsmouth, Virginia

LEADERSHIP POSSIBLE

Dear Editor:

The opinions I shall express will be mine, but I am sure that these opinions are shared by many service men who now contemplate a career in architecture.

In reviewing 135 issues, Mr. Creighton has done a most commendable job of analyzing the advancement in architectural esthetics during the war years, and this service is of value to those who have necessarily been out of touch with that progress. He has ably and interestingly traced the undeniable evolution of the architectural magazines' editorial policies and the developing techniques in building.

RALPH DELOS PETERSON, JR. Ensign, USNR New York, N. Y.

MISSED THE BOAT

Dear Editor:

In your comparison of the old and the new in your issue of January 1946, I believe you have missed the boat there is nothing appealing or beautiful in the modern compared with the past! WILLIAM SCHOMBURG Architect

New York, N. Y.

PROGRESS

FOR ALMOST 50 YEARS

Nearly half a century ago, the Raymond Concrete Pile Company was founded. Today, over 11,000 world-wide contracts have been carried through to successful completion. Everywhere architects and engineers have come to rely upon Raymond for having the "knowhow," experience and equipment needed to solve every type of foundation job-simple and complex. Let us tell you more about Raymond methods and services.

SCOPE OF RAYMOND'S ACTIVITIES includes every recognized type of pile foundation – concrete, composite, precast, steel, pipe and wood. Also caissons, construction involving shore protection, ship building facilities, harbor & river improvements, borings for soil investigation.

A Modern Raymond Pile Driver

AYMOND CONCRET 140 CEDAR ST



STOP AND THINK

By Lewis Mumford

My chief criticism of Kenneth Reid's proposal on a home for the U.N.O. can only repeat the advice I would earnestly give the officials in charge of the U.N.O.'s building program: Stop and Think. Mr. Reid's plea for a competition rests on the assumption that a program for the architectural embodiment of the new organization has already been worked out. That is not the case. The fact is that the Committee on the Selection of Site was sent about its work with only the vaguest instructions as to the size, scope, and purpose of the buildings for which they were supposed to find a site. No committee in the U.N.O. had apparently thought it necessary to take time for a preliminary study of the wide range of possibilities that lies before it, or to define an adequate program.

The first matter to be decided is whether the United Nations will be served best by a small complex of buildings, such as those created at Geneva, or whether, in view of the scope and importance of this new organization, a whole urban community, resting like Washington within its own territory, must not be ultimately built. No site can be selected intelligently until this question is settled. If the answer is the second choice, the site that is now favored is plainly inadequate: a site three times the size of the present one in area should probably be the minimum demanded.

Now, I believe that any thorough canvass of the future of the United Nations Organization, which looks beyond its immediate needs, must visualize its architectural program on quite different terms from, say, Senator Vandenberg: it must look forward during the next century to the creation of a great world capital, indeed, to a series of such world capitals, in which international congresses and international services will be established. Not to provide for such a future growth would be to betray a lack of faith, a lack of political energy, that would handicap the development of the United Nations at the beginning. It would be better to overestimate the need for land and space for future expansion, than to face the possibility of repeating, in the new world center, the sordid confusion and congestion of every existing national capital.

The fundamental postulate for such a center, I submit, is that it is to serve not merely a world organization, but a world community. Hence, in the general conception of the project, in the technical method of its development, in the actual structures to be built, it must give play to the processes of world cooperation. The architectural framework, on this assumption, must express the character of the enterprise in no uncertain terms; so that he who enters these precincts will leave part of his nationality behind him, as the Moslem faithful leave their shoes behind at the entrance of the mosque From the first, the plan, and the scientific, technical, and architectural collaboration needed for working it out, should be on an international basis. The new building should be part of a new kind of urban community: and this community should be a forecast, in design, in relationship, in harmonization, of the political and social structures that must in time be constructed on a world-wide basis.

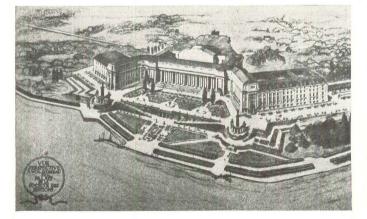
As soon as one introduces the notion of a community, one introduces the notion of time. Instead of freezing the whole project into a static form, so that it will look as if it were conceived and executed in the same year-the Renascence concept—the program must allow for change, alteration, progress, transformation-and for the emergence of a fuller unity. Here again the United Nations buildings must have a representative and symbolic character; for the unity to be sought is not an arbitrary, abstract, paper unity, to be imposed at the beginning by a single mind and never departed from, but an organic unity, imperfect as all living things are imperfect, yet serving as a principle of order. Such order and unity must be the goal of each individual effort, but it must never preclude the further working of time and mind.

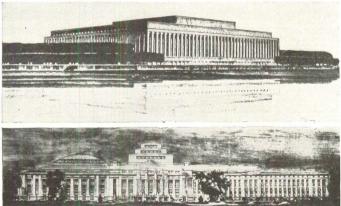
This element of time has one further bearing upon the building program: a method of selecting architects must be set up which will not merely further international cooperation among architects but allow for their continued selection and replacement over a long period of years. The worst way of establishing such continuity and cooperation would be by an international competition, or a series of such competitions: for in view of the work to be done, it is more important to select men, who will develop together and influence one another, than it is to select abstract designs. Here Dean William Wurster's suggestion seems to be excellent. He has pointed out that the most important function of a competition, the possibility of bringing forth the work of younger men of ability, can be furthered by establishing the rule that a certain percent of each international team should be composed of people under the age of forty.

In raising these issues I have only tried to suggest that the writing of a program for the United Nations center is not something to be attempted after a few hasty weeks of discussion, still less is it something to be done, unaided, by a Committee on Building.

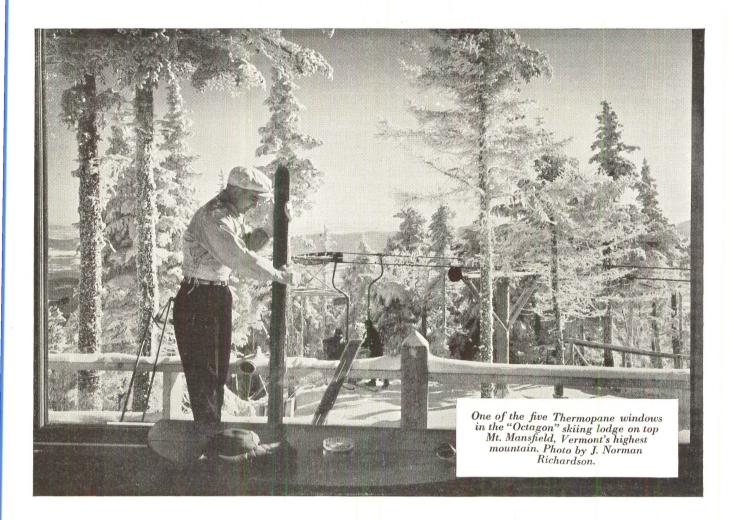
Instead of encouraging the United Nations Organization to make premature decisions and to set in motion secondbest or fifth-best procedures, I believe it would be advisable to plead for extending the period for temporary quarters, if need be, in order to provide the time necessary for the research, the reflection, and the discussion essential to prepare an adequate program, and to set up a rational process for choosing the teams of planners, architects, and technicians who will develop the project. In view of the long-term effects of hasty efforts and bad solutions, I say again, with all the urgency I can put into my words: make haste slowly. And first of all: Stop and Think!

We and you are indebted to Mumford for his prompt statement of opinion contrary to ours (see pages 98-100). Typical prize winners of the League of Nations competition (below) serve as additional warnings! These were the entries of Labro, of Paris (left); Putlitz, Klophaus & Schoch, of Hamburg; and Lefèvre, of Paris (below).





Illustrations by courtesy of the Museum of Modern Art



Picture of Thermopane in action

It's hard to believe there's glass between the camera and the outdoors in this picture.

But there is—two panes, in fact, with a sealedin air space between them. For this window is *Thermopane*—the transparent glass insulating unit.

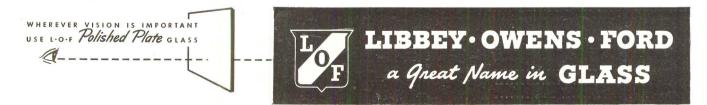
The outdoor temperature was 19 degrees below zero when this picture was taken. The temperature differential between outdoors and indoors sometimes reaches 100 degrees or more. The clarity of the glass demonstrates how effectively *Thermopane* reduces the possibility of condensation. It points up the fact that when you plan large areas of glass to achieve pleasant interiors by making the most of exciting views—Thermopane is the practical answer.

Will the buildings which you are planning today be up-to-date a few years from now? A lot depends on how you use glass—and whether the window areas are effectively insulated. Write for our illustrated *Thermopane* book, which gives sizes, thickness of glass, insulation values and other per-

tinent data, before you put your designs on paper. *Thermopane* is also available in Canada. Write to Libbey · Owens · Ford Glass Company, 2546 Nicholas Building, Toledo 3, Ohio.



Cutaway view of the Thermopane unit.



JOBS AND MEN

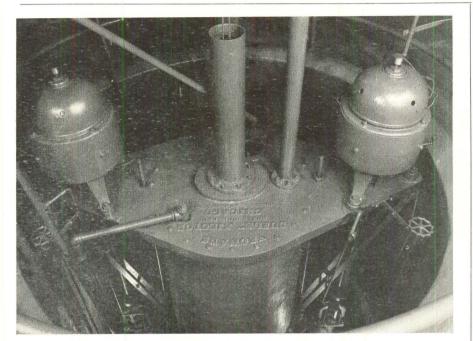
MEN WANTED

DRAFTSMAN for architectural and interior work. Knowledge of furniture and interior woodwork essential. Beginner with short experience acceptable. Young man preferred. Styne & Ballard, Inc., 716 Madison Ave., New York 21, phone REgent 4-0904.

SENIOR ARCHITECTURAL DRAFTSMAN. Permanent, for monumental and educational buildings. Able to handle working drawings from preliminaries to job completion. Childs & Smith, Architects, 430 N. Michigan Ave., Chicago 11, Ill.

ARCHITECTURAL DRAFTSMEN. Permanent positions. State age, experience, references, and salary. Schmidt, Garden & Erikson, Architects-Engineers, 104 S. Michigan Ave., Chicago 3, Ill.

ARCHITECTURAL DRAFTSMAN immediate-



STILL PUMPING EFFICIENTLY

 Installed in 1903 when Chicago's LaSalle Street Station was built, this Yeomans Duplex Sewage Ejector functions steadily, dependably. ----- after 43 years! Here's another distinguished Yeomans veteran-designed

and built in the Yeomans tradition, that a pump's job is to tend strictly to business, keep quiet about it, and stay out of trouble. At age 43, when many pumps show and act their age, this capable unit has a record (within the memory of men now on the job) of "one sleeve bearing replaced."

Now, there's nothing extraordinary here; just another proof that when pumps are properly designed, properly built to last, and properly engineered to the job—three Yeomans characteristics—you get a service that you soon come to take for granted.

This unit consists of a sewage receiver, a Yeomans centrifugal pump at each side at the pit-bottom, and a motor for each pump.

All needed performance and installation data on Yeomans Dry Pit Sewage Pumps are contained in Yeomans Bulletins 6201 and 2402. Also the Yeomans Architects and Engineers Book belongs in every Data File. Glad to send them —use the coupon.

There are cheaper pumps ... BUT NONE BETTER

YEOMANS BROTHERS COMPANY 1448 North Dayton Street, Chicago 22, Ill. Please send Bulletins 6201 and 2402, and the Architects and Engineers Book of Yeomans Pumps.
Name
Firm Address
City State



ly. Must be capable of producing complete working drawings. Small office, college town. Excellent opportunity for permanent position. Submit complete information, education, experience, salary, availability, and samples of work with first letter. Samples promptly returned insured. Housing accommodations available to satisfactory employee. Kemper Goodwin, Box 534, Tempe, Ariz.

ASSISTANT SPECIFICATION WRITER — Practical man with broad general experience in building construction work (not mechanical). State qualifications and salary expected. Specification Department, Albert Kahn Associated Architects and Engineers, Inc., 345 New Center Bldg., Detroit 2, Mich.

ARCHITECTURAL DRAFTSMEN AND DE-SIGNERS by established architectural firm with large amount of work in Southern Oregon and Northern Califorňia. Excellent opportunities for capable men. Howard R. Perrin, Architect, 1121 Main St., Klamath Falls, Ore.

ARCHITECTURAL DESIGNER AND ARCHI-TECTURAL DRAFTSMAN, thoroughly experienced in all phases of architectural drafting. Small office working on commercial, industrial, and public building projects. Excellent opportunity for permanent employment. Write education, experience, and salary to Bernard J. DeVries, A.I.A., 613 Hackley Union National Bank Bldg., Muskegon, Mich.

SEVERAL QUALIFIED ARCHITECTURAL DRAFTSMEN, experienced in church and school work. Long term connection, progressive organization. Working better than 50 hours per week with time and one-half for all time over forty hours. Vacation bonus. Giffels & Vallet, 1000 Marquette Bldg., Detroit 26, Mich.

EXPERIENCED FIRST-CLASS ARCHITEC-TURAL DRAFTSMEN, capable of preliminary work and following through to completion of project. Many hospitals, schools, and all types of public buildings. Employees have privilege of working either in Yakima or Seattle, Washington office. John W. Maloney, Architect, 1117 Larson Bldg., Yakima, Wash.

EXPERIENCED ARCHITECTURAL DRAFTS-MAN for architect's office located in Southwest. Must be capable of handling complete projects from sketch to finished working drawings. Write, giving experience, age, salary expected, and references. William M. Collier, Jr., Architect, Morris Bldg., Abilene, Tex.

EXPERIENCED ARCHITECTURAL DRAFTS-MAN OR WOMAN. Permanent association with full responsibility in small office specializing in store design and commercial work, with imited general practice. Write experience, background, salary expected to Leo L. Fischer, 17 Academy St., Newark 2, N. J.

SEVERAL ARCHITECTURAL DRAFTSMEN, thoroughly experienced, able to prepare preliminaries, working drawings, etc., familiar all phases architectural draft-

(Continued on page 16)

For flexibility in color treatment, no surfacing material can compare with Formica. Whether you want brilliancy and contrast, or restraint and dignity, Formica offers everything—and a tight modern plastic surface that enhances the effect of color.

THRILLING

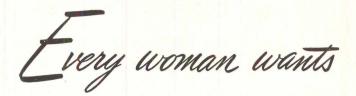
and LASTING

These colors are light-fast, perpetually bright and new. They do not stain because the material is non-porous and non-absorbent, and chemically inert. They are not spotted or charred by lighted cigarettes if the cigarette-proof grade is specified.

So the restaurant, lobby, terminal, ship or train in which surfaces are so protected can be depended on to maintain its original appearance without deterioration for years on end. Color charts and installation data on request.

THE FORMICA INSULATION CO., 4639 SPRING GROVE AVE., CINCINNATI 32, OHIO





TELEPHONE OUTLETS

in her new home

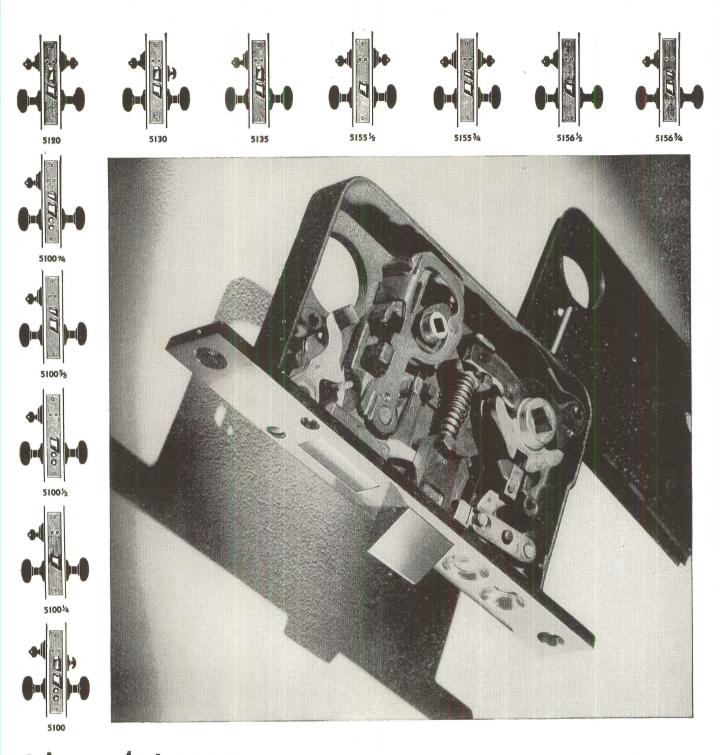
BUILT-IN telephone facilities are striking evidence of good planning and construction. Prospects will like the thought that built-in conduit is provided to carry telephone wires out of sight between the walls. Also, that outlets at convenient points are planned for, and ready for use as soon as telephones become plentiful.

Telephone outlets make sales easier. Your Bell Telephone Company will be glad to co-operate in planning them with you. Just call the nearest Telephone Business Office.



BELL TELEPHONE SYSTE





trim and strong • • • this Lockwood Cylinder Mortise Lock is one of a long line providing 26 different locking functions, standardized as to size, backset and spacing. Some of them are shown bordering the above picture. Every lock fits into the same mortise. Essential parts are of forged bronze for extra strength, smoother operation. Knob action is semi-poised for greater turning ease in either direction.

Architects are invited to take advantage of the range of choice in grade and functions, conforming to known requirements of modern construction as characterized in Lockwood Builders' Hardware. lockwood builders' hardware

LOCKWOOD HARDWARE MANUFACTURING COMPANY Division of Independent Lock Company • Fitchburg, Massachusetts

JOBS AND MEN

(Continued from Page 12)

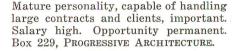
ing. Must think, draw, along modern trend. Work on postwar theaters and diversified projects. Excellent opportunity for permanent position. Write education, experience, salary, to M. J. DeAngelis, R.A., 1404-1405 Temple Bldg., Rochester 4, N. Y.

INTERIOR DESIGNER wanted by large New York firm of industrial designers. Must be top-notch, modern, with wide contacts and experience. Architectural background, knowledge of construction materials, textiles, and design essential.

SCHOOLS

OFFICE BUILDINGS

THEATRE



TOP-FLIGHT ARCHITECTURAL DESIGNER for fine residence and office building work. State experience and salary expected. Permanent job. Applicant must be requested to submit examples of personal work. Box 234, PROGRESSIVE ARCHITECTURE.

DRAFTSMAN capable of developing working drawings; sketching and rendering ability desirable. Opportunity for permanent share arrangement. Active South Florida community. State salary. Box 244, PROGRESSIVE ARCHITECTURE.

IN COMMERCIAL

AND PUBLIC

BUILDINGS

SEE VACUUM CLE

HOTEL

Back to Peace-Time Cleaning Efficiency

Before the war, the majority of the biggest, newest and best office buildings, schools, theatres and hotels were equipped with Spencer Central Vacuum Cleaning. The speed of perfect cleaning, low maintenance costs and all-round reliability of the system was endorsed by architects, engineers and owners everywhere.

Spencer is coming back — with rapid strides. If you are planning any building - make simple investigations and comparisons with other methods before you decide.

Spencer Data Sheets will help you. Please mention the types of buildings or industries you are interested in.



ARCHITECT OR ARCHITECTURAL DESIGN-ER. Chance for ambitious young man to get into the housing field, and work with a large Housing Authority in the Midwest where new and progressive ideas are welcomed. Box 246, PROGRESSIVE ARCHITECTURE.

ARCHITECTURAL DRAFTSMAN with experience in progressive architectural office. Western architect. Give complete qualifications, experience, age, present salary, and include small snapshot. Box 247, PROGRESSIVE ARCHITECTURE.

ARCHITECTURAL DESIGNER DRAFTSMAN. Experienced school, hospital, institutional, church, public buildings. Pleasant office established over 20 years in New York City. Exceptional opportunity for ambitious, energetic, hard worker, man of good personality to become associate partner as he develops and proves himself. State education, experience, age, and starting salary. Box 250, PROGRESSIVE ARCHITECTURE.

ARCHITECTURAL ENGINEER-for modern, large meat packing plant. Also, GRAD-UATE MECHANICAL ENGINEER to be assistant power plant engineer. Three years' minimum experience. Box 252, PROGRESSIVE ARCHITECTURE.

JOBS WANTED

DESIGNER, DELINEATOR, DRAFTSMAN. Perspective renderings in black and white, water color, airbrush. Age 25, married, three years' university train-ing in architecture. Year and a half experience designing fixture layouts, displays, store fronts, showcases, remodeling details for department stores, drugstores, etc. Desires permanent connection with future. Box 245, PROGRES-SIVE ARCHITECTURE.

N. Y. REGISTERED ARCHITECT occupying key position with nationally prominent firm in general practice-specializing hospitals and banks, seeks similar re-sponsible situation leading to early partnership in progressive, busy, established firm. Recognized ability all phases architectural practice, client relations, office management, architectural design, mechanical and structural engineering, special equipment, specifications, supervision. Box 248, PROGRESSIVE ARCHITECTURE.

REGISTERED ARCHITECT with twenty years' experience with practically all types of buildings, desires contact leading to partnership with established and progressive architect. Prefer Southern location. Good designer and all-around architectural man. Box 249, PROGRES-SIVE ARCHITECTURE.

CONSULTING ENGINEERING FIRM offering services to architects; design, detailing, specifications, construction super-vision. Reinforced concrete, structural steel, timber, heavy foundations; industrial plants, buildings, public works. Box 251, PROGRESSIVE ARCHITECTURE.

ARCHITECTURAL DESIGNER-Naval officer, industrial engineering duty, being released March 15. Twenty years' diversified experience. Box 253, PROGRES-SIVE ARCHITECTURE.

Roddiscraft doors in Michigan Maple A combination of Beauty and Toughness

HARD Michigan Maple faces over RODDISCRAFT cores and crossbanding welded into a solid, waterproof unit, under heat and pressure, by the RODDISCRAFT process, creates a door that will stand up under heavy traffic and harsh treatment.

In contrast to the delicate color and warmth of Michigan Maple, is its ingrained hardness-resistance to chipping and scuffing-which makes it an ideal wood for facing doors used in public buildings.

Roddis offers the pick of Michigan Maple from its 30,000acre northern Michigan tract - selected and cut by Roddis woodsmen-matched and finished by Roddis craftsmen. Specify RODDISCRAFT Doors in Michigan Maple to get long life and lasting beauty. Available in selected white, or unselected for painting. Consult your local millwork and fixture manufacturers - and lumber dealers.



Roddiscraft WAREHOUSES

CHICAGO 8, ILL., 1440 W. Cermak Rd. CINCINNATI 2, OHIO, 457 E. Sixth St. CINCINNALL 2, OHIO, 457 E. Sixt DALLAS, TEXAS, 2615 Latimer St. KANSAS CITY 8, MISSOURI, 2729 Southwest Blvd. LOUISVILLE 10, KENTUCKY, 1201-5 S. 15th St.

CAMBRIDGE 36, MASS., 229 Vassar St. CHICAGO 8, ILL., 1440 W. Cermak Rd. CINCINNATI 2, OHIO, 457 E, Sixth St. MARSHFIELD, WISCONSIN MILWAUKEE 8, WIS., 4601 W. State St. NEW YORK CITY 18, NEW YORK, 515 W. 36th St. SAN ANTONIO, TEXAS, 727 N. Cherry St. DEALERS IN ALL PRINCIPAL CITIES

Consult Your Local Millwork and Fixture Manufacturers — and Lumber Dealers

THIS MONTH



NORMAN C. FLETCHER

JEAN BODMAN FLETCHER

BENJAMIN THOMPSON



SARAH HARKNESS

JOHN C. HARKNESS



JULIUS STEIN

First and second prizes in the Smith College Dormitory Competition, con-ducted by the Museum of Modern Art and PROGRESSIVE ARCHITECTURE, went to five young members of the cooperative office, The Architects' Collaborative, in Cambridge, Massachusetts. Norman C. Fletcher, his wife Jean Bodman Fletcher, and Benjamin Thompson (first prize winners), John C. Harkness and his wife, Sarah Harkness (second prize winners), are associated with Dr. Walter Gropius in the recently formed office, and propose to conduct together a general architectural practice. The Fletchers, who also won first prize in the PENCIL POINTS-Pittsburgh architectural competition last summer, went to Cambridge in recent months from Birmingham, Michigan, where they were employed in the office of Saarinen & Swanson. Mrs. Fletcher is an alumna of Smith College and first studied architecture in the graduate school there. She received her B. A. degree from the Harvard Graduate School of Design. Her husband is a graduate of the Yale University School of Architecture, where he also won a fellowship to study regional and city planning. His first professional experience was with FSA in San Francisco under Vernon DeMars, and then with Skidmore, Owings, & Merrill, Architects, New York.

Thompson, who also graduated from the Yale University School of Architecture, worked with Donald Deskey, Foley Brothers, Walbridge Aldinger, and the U. S. Army Engineers before he was commissioned a lieutenant, USNR, and served as deck officer aboard the USS Courage, 1942-44. He later served OSS and the State Department, before returning to civilian life. His wife, Mary Okes Thompson, a graduate of Wheaton College, is now studying design, and intends to take her place with the collaborative group as soon as her training is completed. Harkness, cowinner of the second prize, received his M. A. from the Harvard Graduate School of Design and went overseas during the war with the American Field Service, attached to the British 8th Army in Africa and Italy. During that time Mrs. Harkness completed her studies at the Smith Graduate School of Architecture and worked as Boston agent for New York designers. She also was associated with the Museum of Modern Art for a year.

Julius Stein, Roy S. Johnson, and Fred M. Ginsbern, winners of the third prize, are in the same age group-25 to 32as the winners of first and second prizes. They are all graduates of the New York

(Continued on page 20)



Before *Tile-Tex* Asphalt Tile Gets This OK ...

... it has to meet Tile-Tex standard quality tests and the requirements of Federal Specification SS-T-306A covering asphalt tile purchased by the United States Government.

The uniform quality of Tile-Tex Asphalt Tile does not just happen—it is the result of continuous product control, starting with the raw materials that are used and finishing with a thorough check-up of the completed product.

Raw materials are checked to meet the precise requirements of Tile-Tex formulation before any manufacturing commences. During the manufacturing process, periodic tests are carried on to make sure that dimensional accuracy, indentation resistance, impact resistance, and flexure conform to Tile-Tex standards. Before the product is packed for shipment, it must withstand close scrutiny for surface texture, sharpness and trueness of edges, and uniformity of color.

Additional tests on samples taken from each manufacturing batch are made to assure maximum resistance to "*curling*" and "*shrinking*" in the presence of excessive moisture—to prevent deterioration of the product in service from attack by capillary alkalinity on grade installations—and to inhibit Tile-Tex Asphalt Tile against harmful action of strong soaps and cleaning materials.

Nothing is left to chance in maintaining and improving the uniform quality of Tile-Tex Asphalt Tile. This important principle of Tile-Tex manufacturing practice protects your clients and assures them of maximum performance when you specify Tile-Tex Asphalt Tile.



THE TILE-TEX COMPANY, Inc.Asphalt Tile Mfr.Subsidiary of The Flintkote CompanyChicago Heights, Illinois• 220 E. 42nd Street, New York City

LOOK TO

THE



THIS MONTH

(Continued from page 18)

University School of Architecture. Stein has gained experience in New York offices, working for Philip Birnbaum, Fellheimer & Wagner, York & Sawyer, and at present as a designer for S. J. Glaberson, Johnson, who is now a sergeant in the U. S. Army Signal Corps, worked for Edward D. Stone, Hornbostel & Bennett, Fellheimer & Wagner, and S. J. Glaberson. Ginsbern, until recently a lieutenant, U. S. Army Aviation Engineers, also worked for E. D. Stone, P. L. Wiener, and J. L. Sert, and is at present a designer for Horace Ginsbern & Associates. He and Johnson are members of the Building Industry Design Research Group.

Thus, all of these prize winning drawings result from collaborative efforts of younger architects—which suggests the success that can attend the office practice of The Architects' Collaborative, to which the winners of first and second places belong. They express the objective of their group as follows:

"The whole postwar reconstruction problem, so vast and so complex, hangs upon our ability to cooperate. The architect, as a coordinator by vocation, should lead the way—first in his own office—to develop a new 'technique of collaboration' in teams. The essence of such technique will be to emphasize individual freedom of initiative instead of



HUGH STUBBINS, JR.

authoritative direction by a boss. Synchronizing all individual efforts by a continuous give-and-take of its members, a team can raise its integrated work to higher potentials than the sum of the work of just so many individuals."

The winner of first prize in the PRO-GRESSIVE ARCHITECTURE — Rich's, Inc. Competition, Hugh Stubbins, Jr., is an old hand at competitions. Since his undergraduate days at Georgia School of Technology where he was top man in

NEXT MONTH

• In May special emphasis will be placed on design of educational facilities—centering around the school building programs for a large city, St. Louis, and for a small township, Nicol, Ontario. The city schools we have chosen to present are defined by the architect, Charles W. Lorenz, as typical of the several categories of schools included in this broad, progressive program under direction of Joseph P. Sullivan, school building commissioner. The Nicol Township school, by John Burnet Parkin, architect, represents progressive design for simplest needs.

• Observations on architectural trends in the Latin American republics have been written for us by Richard J. Neutra, the noted Los Angeles architect, who recently returned from an extended tour under auspices of the State Department.

• Returning to full allotment of space—Materials and Methods section was condensed this month to allow presentation of more of the featured competition drawings—the technical pages will feature three provocative articles. Carroll A. Towne, one of the experts sent to Europe just after V-E Day to obtain data for the government, will report for us on housing and prefabrication in England and Germany during the war years, relating progress there to the current American problem. A definitive discussion of "Preventing Moisture Condensation in Building Construction," by Paul D. Close, technical secretary of the Insulating Board Institute, will follow. Really a request that engineers adopt a human approach in the analysis of their problems, "Lighting Design and Human Environment," by E. R. Daggy, design engineer, relates artificial lighting to the occupants of lighted structures.



WATSON BALHARRIE

his class, he has received medals, fellowships, prizes, and other honors with reassuring regularity. Meantime he continued his architectural education at Harvard Graduate School of Design, where he instructed in 1940 and served as assistant to Walter Gropius, and is currently an assistant professor. His architectural practice during the same years has been vigorous, starting in New England and New York, then Birmingham, Alabama, and next in Boston. During the war he was active in designing housing projects-notably the widely-exhibited Windsor Locks, Connecticut, project - and also advised FPHA and USHA. He is secretary of the American Society of Planners and Architects. Last year, he judged some competition entries himself, as chairman of the PENCIL POINTS-Pittsburgh small house competition.

Without formal architectural education, Watson Balharrie, winner of the second prize, became an architect through 17 years' association with architects of Ottawa. During the war he worked as an architect for the Naval service of Canada and is now practicing under the firm name of Abra, Balharrie & Shore. He had previously received awards in Canadian competitions and entered several conducted by this magazine. He is secretary of A.R.G.O. (Architectural Research Group of Ottawa) and belongs to C.I.A.M. as well as R.A.I.C. and the Ottawa and Quebec associations and architects.

Completing service with the Navy, late last year, Harold Calhoun lost no time in getting back to his office and architectural activity. He entered the recent competition "to get rid of the cobwebs because I had hardly drawn a line for three years" and reports that winning third place was almost too much for him! Graduating from Rice Institute in 1932, he organized the firm of

(Continued on page 22)

• So clearly and unmistakably are draftsmen able to express their ideas on paper that their drawings have re-shaped the world. Through line, figure and symbol, draftsmen define the work to be done by the labor and machines of a nation. Assisting them to attain precision and clarity are drafting instruments that act almost as living extensions of their own hands...instruments that function figuratively as their partners in creating.

For 78 years Keuffel & Esser Co. drafting equipment and materials have been partners, in this sense, in shaping America, in making possible its swift-moving highway traffic, its speed in conducting business, its victorious might in war ...So universally is K & E equipment used, it is self-evident that every engineering project of any magnitude has materialized with the help of K & E. Could you wish any surer guidance than this in the selection of your own "drafting partners"?

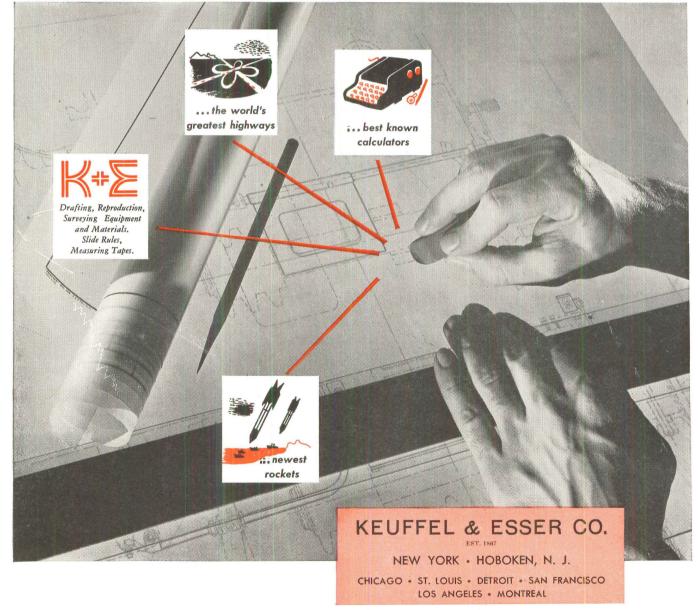
You will find special advantages, for example, in PHOENIX* Tracing Cloth, which K & E has made almost "ghost-proof." Here is a cloth from which you

partners in creating

can erase either pencil or ink lines without risking untidy "ghosts" on the prints, a cloth practically immune to stains from perspiration and water. You can even soak it in water for ten minutes at a time

without harm! For further details about PHOENIX* Tracing Cloth, write on your letterhead to Keuffel & Esser Co., Hoboken, N. J.





THIS MONTH

(Continued from page 20)

Wirtz & Calhoun (the present name). He also worked for Robert & Company, as designer, and later as manager of architectural work on the U. S. Navy Air Center at Corpus Christi. He joined the Navy in 1943, went to the Pacific theater, and ended his service as a member of the U. S. Strategic Bombing Survey in Japan.

The winners of the fourth prize, Walter Preston Hickey and Raymond Weber, are both employed in the General Motors Corporation styling section. Both



HAROLD CALHOUN

H₂ SO₄

HNO₃

H₃PO₄

CH₃ COOH

NH4 CL

DURIRON ACID PROOF DRAIN PIPE

CO2 HCO2 H . 2H20

HCL

Where THESE will go down the drain you need a PERMANENT PIPE

If the drains in your new building are going to handle metal-destroying liquids of any type, insure against costly replacements in the future by specifying Duriron drain lines.

Duriron corrosion-proof pipe will provide a permanent, non-leak passage for the acids mentioned above and for practically any other acid or base. In corrosive-service installations where ordinary pipe has had to be dug up and replaced after comparatively short service, Duriron's complete indifference to corrosive agents has made it the ultimate answer to this problem.

Installed as easily as ordinary cast iron pipe, Duriron can be hidden in the walls or floor and forgotten. It will serve as long as the building stands.

Write today for complete facts about this permanent, corrosion-proof material.

THE DURIRON COMPANY, INC. DAYTON 1, OHIO



WALTER P. HICKEY



RAYMOND WEBER

studied architecture at the University of Michigan and Hickey continued as a scholarship student at Cranbrook Academy of Art, where Weber was in charge of the Cranbrook Foundation Architectural Department, under direction of Eliel Saarinen, during the major phase of the Cranbrook development. Both have worked for various Detroit firms. Hickey was an officer with the Army Engineers during the war.

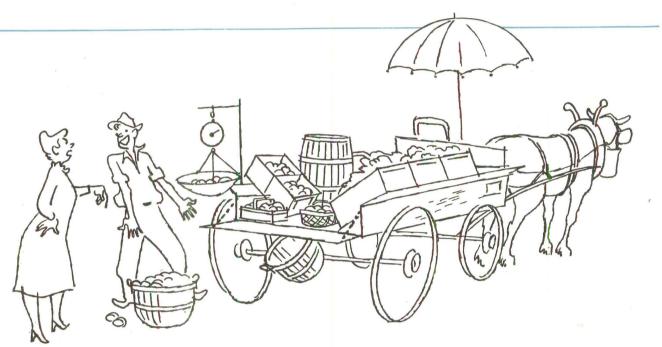
The winner of the special Georgia prize, whose drawing also won mention, describes himself as a Minnesota Swede who went to Atlanta for a rush job and liked the city and its people so much that he decided to stay. After studying at the universities of Minnesota and Pennsylvania where he received his B.S. and M.Arch. degrees, he worked for leading Philadelphia and New York architects, including the late Benjamin Wistar Morris. He became a registered architect in New York (later in Georgia, too) but found time to participate in small house competitions—"squander-

(Continued on page 24)



Why are some roofs

like the peaches on the top of the basket?



THERE IS A SAYING that the Huckster's reputation is on the top of the basket, and that somewhere near the bottom you come upon his character. A roof is like that.

To make certain that the roofing materials which can't be seen when the roof is completed match the fine, quality-look of the finished job, specify Koppers Coal Tar Pitch and Approved Tarred Felt. These products

KOPPERS

are as good "on the bottom of the basket" as they are on the top. Roofs built of coal tar materials have records of 20, 30, 40—and even more—years of satisfactory service. They require little or no maintenance.

Specify Koppers coal tar pitch roofing materials.—Koppers Company, Inc., Tar and Chemical Division, Pittsburgh 19, Pa.



coal tar built-up roofing KOPPERS

coal tar membrane waterproofing

WEISART FLUSH COMPARTMENTS



James C. Wise, Associate Architect, Atlanta, Ga. Weisart Compartments may also be suspended

from ceiling, without floor contact.

Modern Appearance with Triple Protection

Class A quality metal compartment design and construction, harmonizing with the latest trends in fine buildings. Weisart Compartments are thoroughly field tested and have won wide-spread acceptance. The cost is moderate.

Rigid, flush construction eliminates posts and head rail. Partitions and doors are of highest class flush steel construction. Bonderized galvanized steel is finished with synthetic gum enamel baked at high temperature, affording triple protection against corrosion. The durable and lustrous finish is available in a wide range of colors.

Send now for detailed description and specifications.

HENRY IS MFG. CO., INC. DEPT. 421, ELKHART, INDIANA



(Continued from page 22)



WILLIAM E. WILLNER

ing the proceeds traveling around Europe, all quite in the usual way." He has won recognition as a painter, and as an industrial designer. He is now opening an office in Atlanta with Isaac Moscowitz, known in the South for his hydroelectric plants, housing, and other large projects.

Development of plastics and possibilities for their future use in all kinds of industries will be shown in a National Plastics Exposition, scheduled April 22-27 at Grand Central Palace, New York. The exposition will be sponsored by the Society of the Plastics Industry.

To show "what's new in lighting" more than 60 manufacturers of lamps, lighting equipment, paint, and other products related to illumination have taken the exhibition hall of the Stevens Hotel, Chicago, for the period of the International Lighting Exposition, April 26-30, immediately after the spring conference of the National Electrical Wholesalers Association. Invitations to the show are available through exhibitors and N.E.W.A. members.

A National Modern Homes Exposition will be held May 4-11 at Grand Central Palace, New York, sponsored by the Metropolitan Association of Real Estate Boards. Exhibits will be restricted to those affecting home, city, suburban, and rural needs. One of the features will be a display of new products.

Architectural acoustics, including functional acoustic design and physical properties of acoustic materials, will be one of the subjects investigated under a five-year program announced by the new Acoustics Laboratory at M.I.T. Dr. Richard H. Bolt, physicist and acoustic expert, has been appointed director.

Grading the blackness of drawing pencils by the human hand and eye is not accurate enough for TURQUOISE ... see how Ernest Eagle took the guesswork out of grading.

FIRST, we replaced the human hand with a Shading that moves the pencil back and forth across a sheet of paper at Result: A square of paper uniformly shaded to the grey tone Then we replaced the human eye with the electric eye of a Reflectometer and measured

NOW, Ernest Eagle makes and checks a shading chart

Machine

54% = 2H thats real precision <

fixed speed, pressure and spacing. characteristic of the lead being tested.

the exact percentage of light reflected from the shading. NEXT, we developed 17 different degrees of TURQUOISE leads (6B to 9H)

evenly spaced by percentage of light reflection.

10¢ EACH ... less in quantities

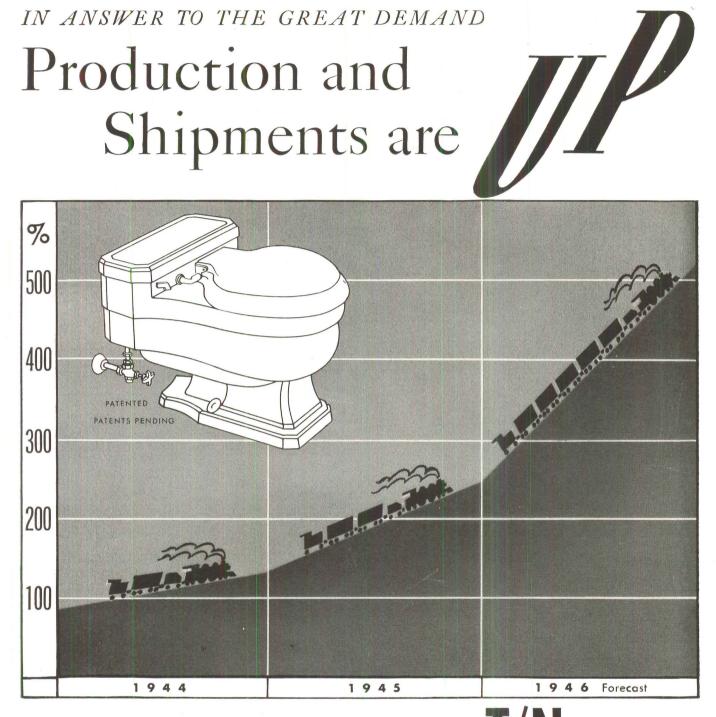
for every batch of every degree of TURQUOISE lead. When he places the electric eye on a 2H shading, the needle must point to 54, or the entire batch is rejected. No wonder TURQUOISE gives you the line you want from every pencil every time!

Prove it Yourself!

For a free sample TURQUOISE, just write to Ernest Eagle, naming this magazine, your dealer and the grade you wish.



IN ANSWER TO THE GREAT DEMAND Production and Shipments are



. of the one and only T/N

The graph tells only part of the story. Not only is T/N production increasing steadily but in quality, too, this most popular of water closets is better than ever.

In appearance and performance you are giving your customers the best when T/Ns are installed in

their homes...an improved vitreous china fixture of one-piece construction, non-overflow, quiet in action, and non-syphoning.

As you can see, we're making a most determined effort to keep pace with the public demand.

W. A. Case & Son Mfg. Co., Buffalo 3, N. Y.

Case lifetime plumbing fixtures

Pre-Sealed! Pre-Sealed! Pre-Fit!

D

.

Douglas Fir Doors Assure A Better - Fitting Better-Looking Installation !

Durable, attractive Douglas fir doors-made from sturdy, vertical-grain, old-growth heartwood-are now available pre-sealed and prefit. This means a reduction of on-the-job labor and assures a better-fitting, better-looking installation for your client. Write the Fir Door Institute for catalog showing complete line of Douglas Fir Interior Doors, Tru-Fit Entrance Doors, and new specialty items. See your lumber dealer for prices and delivery information.

Douglas Fir

DOORS FIR DOCR INSTITUTE Tacoma 2. Wash.

THE NATIONAL ASSOCIATION OF FIR DOOR MANUFACTURERS

PRE-SEALED

Douglas fir doors are available pre-sealed to save on-thejob finishing time. Eliminates the need for one prime coat, reduces moisture, improves dimensional stability.

PRE-FIT

Douglas fir doors are available pre-fit to exact net book sizes to save on-the-job sawing and fitting and to reduce the danger of marring or "butchering" due to dull or improper tools.

FACTRI-FIT

Douglas fir doors are also available FACTRI-FIT — not only pre-sealed and pre-fit, but completely machined as well: gained for hinges and bored or mortised for locks. The slight additional cost is more than offset by savings on the job. Remember! NATURE MAKES

Durable.



For a bathroom that's certain to please... specify KOHLER quality in fixtures and fittings

THE name Kohler is a mark of quality known to home-owners. They recognize the importance of such a safeguard—with its assurance of precisionmade working parts that are both durable and convenient; of styles that harmonize; and of lustrous, hard surfaces that won't yield to hard use. Kohler plumbing not only adds to living comfort, but makes a home easy to rent or sell.

The conveniently arranged bathroom illustrated above shows the Chesapeake vitreous china lavatory, with its handy ledge for toilet articles, roomy basin, and efficient Centra mixer-type fitting. The closet is the quiet, smooth-functioning Wellworth. The Cosmopolitan Bench Bath, made of enameled cast iron for strength

and reliability, is equipped with the easy-to-control Triton shower mixer.

Kohler quality is now a 73-year old tradition. Important in maintaining the high Kohler standards is the fact that Kohler production is concentrated in one great plant, where unity of supervision is constant. Write for any information you need on Kohler products now available. Kohler Co., Dept. 4-PA, Kohler, Wisconsin. Established 1873.

KOHLER OF KOHLER

PLUMBING FIXTURES AND FITTINGS • HEATING EQUIPMENT • ELECTRIC PLANTS

THESE ADVERTISERS WILL TELL HOUSE & GARDEN READ-ERS ABOUT THEIR BUILDING PRODUCTS IN EARLY 1946.

Acme White Lead & Color Works Amana Society American Brass American Flange & Mfg. Co. American Gas Association American Radiator-Standard Sanitary Corp. Anchor Post Fence Bruce Co., E. L. Burnham Boiler Corp. Cabot, Inc., Samuel Case, W. A. & Son Chamberlain Co. of America Chase Brass & Copper Chicopee Mfg. Corp. Crane Co. Curtis Companies Cutler-Hammer, Inc. Electromode Corp. Electric Steam Radiator Corp. Elier Co. Elkay Mfg. Co. General Bronze General Electric Co. Grand Rapids Varnish Co. Grenard Mfg. Co. Harrison Steel Cabinet Co. Haskelite Mfg. Corp. Heatilator Co. Homease Products (Div. Bogue Electric) Imperial Paper & Color Corp. Inclinator Co. of America Interchemical Corp. Johns-Manville Co. Kampak (Cinderella Dishwasher) Kennedy, David E. Kimberly-Clark Corp. Libbey-Owens-Ford Co. Lord & Burnham Logan Co. Martin-Senour Co. Mesker Bros. Meyercord Co. Minneapolis-Honeywell Modine Mfg. Co. National Clay Pipe Nurre Companies Inc. Owens-Corning Fiberglas Corp. Permutit Co. Pittsburgh Plate Glass Pittsburgh Paint Ponderosa Pine Woodwork Portland Cement Assoc. Reynolds Metals Co. Rocky Mount Mfg. Co. Rolscreen Co. Roper Corp., Geo. D. Russell Co., F. C. Rusticraft Fence Co. St. Charles Mfg. Co. Sedgwick Machine Works Shepard Elevator Co. Sherwin-Williams Co. Southern Galvanizing Co. Strahan Co., Thomas United States Plywood United Wall Paper Factories Wendel, Inc., Rudolph Weis Mfg. Co., Henry Western Pine Association Williams Oil-O-Matic Wood Conversion Co.

new lease on laundries..

Newest House & Garden blueprint is the UPSTAIRS LAUNDRY. Planned to bring washday efficiency to a higher level. Natural evolution of automatic washers, automatic dryers, new postwar equipment. The upstairs laundry is just one of the practical and progressive ideas in House & Garden's 1946 Building Program. Each month, House & Garden anticipates a blueprint problem . . . tells *your* customers how to plan, what to BUY when they build.

House & Garden



TO HABERDASHERY





WHY risk your reputation with lop-sided air? You'll be certain of a *perfectly balanced* system when you specify G-E Better Air Conditioning . . . installed to G-E engineering standards.

Here's what Better Air Conditioning means:

ample cooling* capacity

FROM HOTEL

- adequate machine capacity to dry* the air
- uniform circulation...even temperature throughout
- a big enough filter to remove dust
- introduction of plenty of outside air

Get *all five* . . . and put the G-E reputation to work for you by specifying G-E Better Air Conditioning.

For heating, too, specify G-E gas or oil units for homes or small commercial buildings. There's a G-E heating unit for every type of system. *General Electric Company, Air Conditioning Dept., Section 6504, Bloomfield, N. J.*

> * In winter G-E Air Conditioning includes controlled heating and humidification.



Complete Air Conditioning

A Necessity for your files

STEEL

and

DOORS

946

USCON

IDO

INDU

um

... this new preprint of Truscon's complete steel window and door catalog as it will appear in 1946 Sweet's Architectural File

Gives complete details on types, sizes, specifications and installation of entire range of Truscon Steel Windows for every building need. Also complete information on Truscon Steel Doors for all industrial requirements. You need this new catalog, containing latest Metal Window Industry standards, for quick, accurate building design and construction. Simplifies your job of planning and specifying . . . assures maximum economy of construction cost. Write for your free copy of the Truscon Steel Window and Industrial Door Catalog today.

TRUSCON STEEL COMPA

YOUNGSTOWN 1, OHIO . Subsidiary of Republic Steel Corporation

Manufacturers of a Complete Line of Steel Windows and Mechanical Operators . . . Steel Joists . . . Metal Lath . . . Steeldeck Roofs . . . Reinforcing Steel . . . Industrial and Hangar Steel Doors . . . Bank Vault Reinforcing . . Floodlight Towers...Bridge Floors.

Brightness

can be <u>built-in</u>... with <u>decorative</u> glass

Illinois Tool Company, Chicago. Design and construction by the Austin Company.

Blue Ridge Satinol *Louvrex* glass injects a note of dignified beauty to the stair well in the building illustrated above. These translucent glass wall panels also "borrow" diffused light from adjoining offices.

Architects and designers know that Decorative Glass is versatile—because it combines the advantages of intrinsic beauty and utility. When you specify Decorative Glass, building occupants will enjoy a delightfully refreshing environment. To provide ample choice of a distinctive glass for any specific application, the Blue Ridge Glass Corporation, Kingsport, Tennessee, manufactures a variety of patterns, which may be semi-transparent or obscure... Securitized (heat tempered), in flat form, for additional resistance to physical or thermal shock. These glasses are sold by Libbey[•] Owens[•]Ford through leading glass distributors. For further information, write Blue Ridge Sales Division, Libbey[•]Owens[•]Ford Glass Company, 9246 Nicholas Building, Toledo 3, Ohio.

"Design it with one of the 5 EX's" LOUVREX LINEX **FLUTEX STYLEX** DOUBLEX RIDGE Decorative GLASS BLUE FOR SOFT, DIFFUSED LIGHT . SMART DECORATION . COMPLETE PRIVACY

Reliability

CHARTING a course or transferring ideas into workable plans calls for reliable instruments which one can trust. Among these is the drawing pencil great in productive capacity when it measures up to precision standards.

VENUS Drawing Pencils are engineered to give you drafting perfection without failure: accurately graded to assure uniformity in all 17 degrees ... strong in performance. ... smooth and clean in action.

Put VENUS to the test on your drawing board. Send us a postcard or a note for two free samples. Specify degrees wanted.

Line and the second second

AMERICAN LEAD PENCIL COMPANY, HOBOKEN, NEW JERSEY



ENTRANCES

that invite

Will the new structures you design say "Welcome"? Will their main entrances be a permanent invitation to "come in," both for their tenants and their customers?

Whether your new buildings are "modern" or "traditional," smartly designed architectural metal work can do much to enhance their whole appearance.

There are many uses for architectural metals in every building. In addition to the entrance you can use them with great effectiveness in stairs, balustrades, grilles, windows, doors and all types of decorations, both interior and exterior.

Architectural metals offer you and your clients many outstanding features. Not only can they be fabricated to fit your own ideas of design but, in both ferrous and non-ferrous metals, they offer a wide range of materials, colors and other characteristics from which to choose.

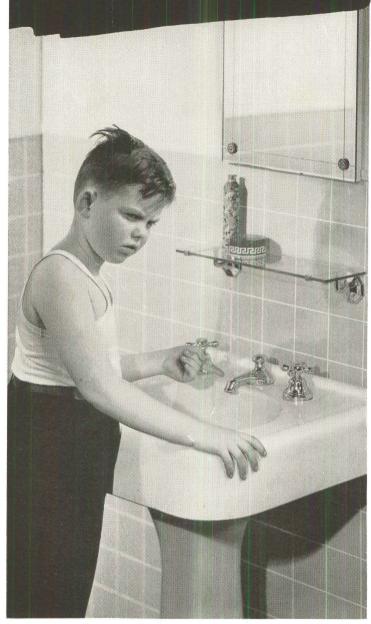
The manufacturers and fabricators of architectural metals are anxious to work with you, to offer helpful suggestions and to be of assistance in any way they can. Consult them whenever you plan new buildings.

Architects who are interested in obtaining a copy of the new Handbook on Stairs and Railings just published by the Association are invited to contact any of the members. For a Directory containing names and addresses of Leading Fabricators write to Dept. PA-4.

ORNAMENTAL METAL MANUFACTURERS

209 CEDAR AVE., TAKOMA PARK WASHINGTON 12, D. C.

Johnnie can't wash for School...



INSTALL STEEL PIPING ADEQUATE FOR TOMORROW'S NEEDS

Because Mom's doing the Laundry!



THIS little domestic dilemma is all too familiar to many an American home. The second floor faucets dribble because the basement laundry tubs are in use.

Maybe the water pipes did look big enough to the builder when the house was built years ago. But now there are too many outlets, too many fixtures, too many needs for water.

For new homes to be built or old homes to be modernized, you can contribute to better, more comfortable living by providing an adequate supply of water. That requires larger steel pipe - pipe the experts a few years ago might have called "oversize." Watch especially that run from the street main to the house, and the meter size to provide for future additional fixtures.

Always remember this: No more water can be delivered than pipes can carry under existing city pressures. The best way to insure an adequate water supply is to use steel pipe of an adequate size. The additional cost to install steel pipe of adequate size is very small.

MOUNGSTOWN

Pipe and Tubular Products-Sheets-Plates - Conduit - Coke Tin Plate

NOUNCETOW

THE YOUNGSTOWN SHEET AND TUBE COMPANY YOUNGSTOWN 1, OHIO Manufacturers of CARBON, ALLOY AND YOLOY STEELS

YOUNGSTOW

Electrolytic Tin Plate - Bars - Rods-Wire - Nails - Tie Plates and Spikes. Three practical Joint treatments with Weldwood

A piece of sandpaper around a block is a quick and easy way to shape the panel edges for v-joints. The illustration shows panels erected over furring strips, but, if the framing is straight and dry, these are unnecessary.

In the installation of Weldwood Plywood for interior walls and ceilings, joints offer no problem. While many novel joint treatments have been developed by ingenious builders and architects, the three simple effects shown on this page fulfill most requirements. They are easy and inexpensive to make and assure trouble-free permanent walls and ceilings which home owners want today.

A new Weldwood installation manual just off the press illustrates and discusses in detail these three joint treatments and contains other valuable installation data. Sections of the manual show how Weldwood Plywood may be installed over masonry walls . . . plaster walls . . . how to use it for ceilings . . . how to handle base and ceiling details and dozens of useful hints in remodeling and new construction.

Write for your copy today.

WELDWOOD Plywood

Weldwood Plywood and Mengel Flush Doors are products of UNITED STATES PLYWOOD CORPORATION THE MENGEL COMPANY Neu York 18, N.Y. Louisville 1. Ky.

Distributing units in Baltimore Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Detroit, High Point, Los Angeles Newark, New York, Oakland, Philadelphia, Pittsburgh, Rochester, San Francisco, Seattle. Also U. S. Mengel Plywoods, Inc. distributing units in Atlanta, Houston, Jacksonville, Louisville, New Orleans. In Canada: United States Plywood of Canada, Limited Toronto Send inquiries to nearest point.

Waterproof Weldwood for ex-terior use is bonded with phenol formaldebyde synthetic resin. Other types of water-resistant Weldwood for interior applica-tions are manufactured with extended urea resins and other approved bonding agents

tions over old plaster Walls.

The delicate shadow lines produced by the block Lee aeticate snaqow tines produced by the block treatment illustrated are most attractive and afford treatment utustrated are most attractive and anoid the opportunity of creating unusual architectural nannan run attractive and anoid ettects. The piywood strips on which the piywood blocks are mounted are applied directly to the

AND DESCRIPTION OF

This treatment utilizes edge-grooved Weldwood

Luis treatment utuizes ease-stooved weldwood panels, the grooving being done at the mill. Panels

Panels, the grooving being done at the mult. rances are 1/4" thick, and are furnished in 16" stock

are 74 UULK, alla are IUIIIIshea In 10 stock Widths, Feature of these panels is absence of face-

Withins, Frather or these panels is absence of facestrips which makes it an ideal method for installa.

blocks are mounted are applied directly to the

trast with the paneling.



PLANKWELD JOINT

Plastics and Wood Welded for Good

CELANESE* PLASTICS

ring the cash register

AL 1 1.63

CR.

A National Cash Register is built for hard wear. It is designed to stand up to the punishment of fast starts and quick stops, and may record as many as 30 million sales in the course of its lifetime! That is why the best engineering skills and the finest materials must go into the manufacture of these modern machines.

The Celanese plastic items shown on this page are working parts of National products, both cash registers and accounting machines. They are manufactured in several different ways,

and full advantage is taken of the qualities of the material and the benefits possible in plastics production. Some are injection molded in multiple cavity molds, others compression molded. Fabricating methods to produce the finished parts include lami-

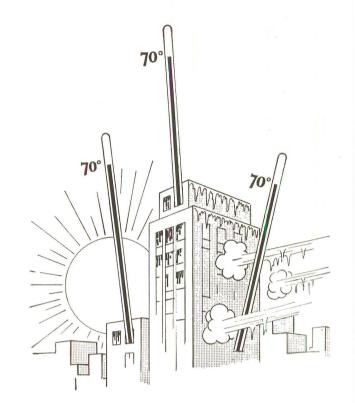
nating, machining, cementing and inking of recessed lettering.

In your product planning, the advice of our technical service staff may indicate how and where you can use plastics most effectively. The war experience of Celanese plastics can give you new insight into what these materials can do in improving products and reducing costs. Celanese Plastics Corporation, a division of Celanese Corporation of America, 180 Madison Avenue, New York 16, N.Y. *Reg. U.S. Pat. off.





LUMARITH* A Celanese* Plastic

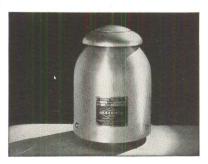


Measure for Heating Values

Even, comfortable temperature—in every room; on every side of the building—in zero weather and on mildest days—with lower fuel bills . . . The value of a Heating System is measured in Comfort balanced against Cost.

The Webster Moderator System of Steam Heating delivers to *each* radiator only the amount of steam required to maintain an even, comfortable temperature regardless of exposure or changes in outside weather conditions. It is an automatic system with automatic controls. It won't overheat. It won't underheat.

The Webster Outdoor Thermostat automatically changes heating rate when outdoor temperature changes.



"Control-by-the-Weather is provided by an Outdoor Thermostat which automatically balances the delivery of steam to agree with every change in outdoor temperature.

More Heat with Less Fuel

Seven out of ten large buildings in America (many less than ten years old) can get up to 33 per cent more heat out of the fuel consumed! ... A book "Performance Facts" gives case studies—*before* and *after* figures—on 268 Webster Steam Heating installations. Write for it today. Address Dept. PA-4

WARREN WEBSTER & COMPANY, Camden, N. J. Pioneers of the Vacuum System of Steam Heating :: Est. 1888 Representatives in principal U. S. Cities :: Darling Bros., Ltd., Montreal, Canada



3 reasons for recommending *PC FOAMGLAS* INSULATION to your clients

The ideal insulating material should be:

(1) efficient (2) economical (3) permanent

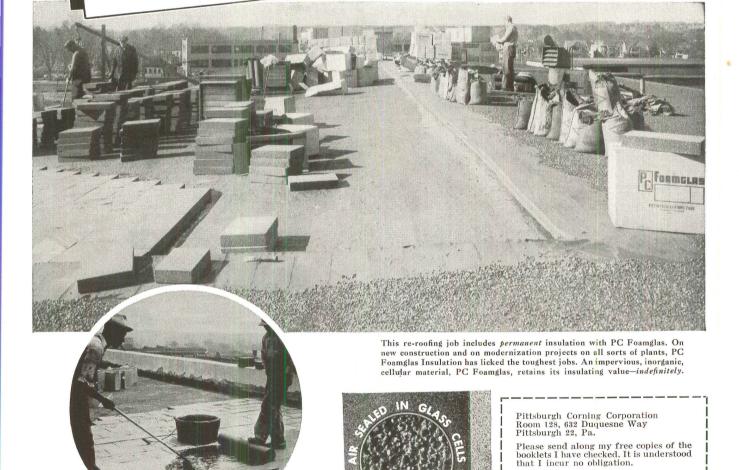
PC Foamglas—air sealed in glass cells—is widely known as the insulating material that meets all those requirements. PLANT owners all over the country have installed this cellular glass material on roofs, ceilings, tanks and processing equipment, in floors and core walls. They can tell you that PC Foamglas licks the toughest insulating jobs—for good. Composed of millions of tiny air-filled glass cells,

Composed of millions of tiny air-filled glass cells, PC Foamglas is *impervious* to moisture, vapor, vermin, the fumes of most acids, many elements that cause other materials to lose insulating efficiency. It helps to maintain temperature and humidity levels *permanently*.

PC Foamglas is light, rigid, strong. It stays in place, does not pack down, check, warp, rot, swell, shrink, or burn. Big pieces are easily handled, quickly installed. PC Foamglas needs no repairs, maintenance or replacement during ordinary use. And the sum total of those advantages is *economy*. For with PC Foamglas, first cost is last cost.

We have published complete detailed information on PC Foamglas in three illustrated booklets which are of especial interest to architects. Send for your free copies today. Just check and mail the convenient coupon. You incur no obligation. Pittsburgh Corning Corporation. Room 128, 632 Duquesne Way, Pittsburgh, 22, Pennsylvania.

· Also manufacturers of PC Glass Blocks ·



INSULATION

alenproof

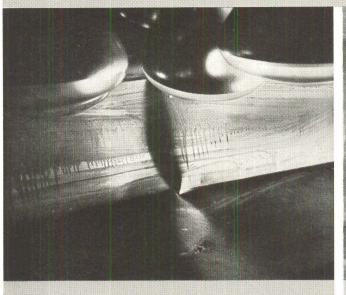
Fineproof

Roofs_____ Walls_____ Floors____

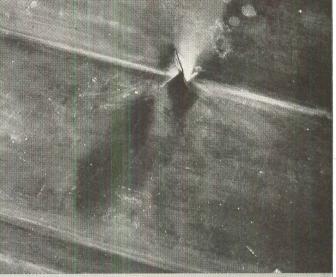
Name_____

City_____ State____

THIS IS THE PROBLEM ...



Effect of one application of heat on a 16 oz. soft copper gutter installation. Note the bulges on the side and bottom of the gutter, and the pinching effect at the point of stress where the copper sheet is bent.



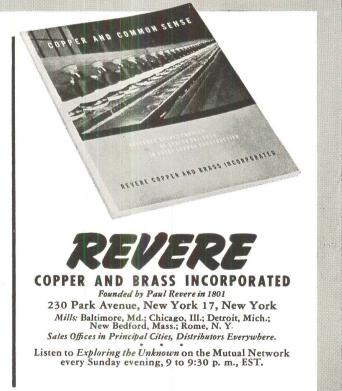
The same gutter after 12 cycles of heating and cooling. The pinch has now developed a visible crack in the copper. The temperature range for each cycle exceeded Nature's 150° change from maximum in summer to sub-zero in winter, and it is thus estimated that each cycle in the laboratory is equivalent to one year of actual service.

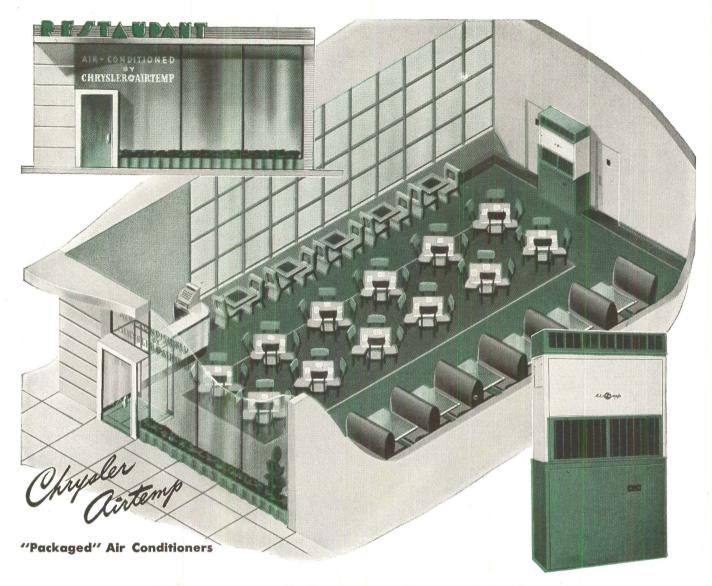
AND REVERE'S ANSWER TO IT

Above you see a close-up of a copper gutter that has failed . . . one that was forced to fail in the Revere laboratory under conditions similar to those in actual service. But here the process could be watched, photographed, analyzed . . . and the remedy scientifically developed by Revere research.

The result is that failures in sheet copper construction can now be avoided. In a new 96-page book, Revere covers the entire subject, from research and analysis of the problem to its solution through sound engineering design . . . plus 58 pages of details dealing with every type of sheet copper construction of importance to architects and contractors. All necessary data and figures are given in easy-to-use charts.

While the limited supply is available, a copy of this valuable book, "Copper and Common Sense", will be sent *free* to any architect or contractor requesting it. Write today on your letterhead to Revere.





How Architects Can Make Restaurants More Profitable

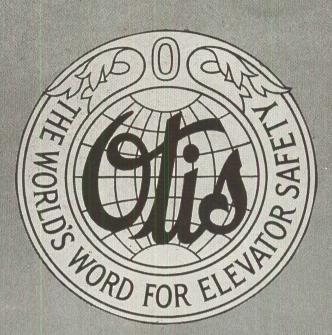
The place to start a profitable restaurant operation is right on the architect's drawing board. Make a good beginning by including in your new plans "Packaged" Air Conditioners, the simplified form of air conditioning pioneered by Chrysler Airtemp.

"Packaged" Air Conditioners quickly pay for themselves by the additional patronage they attract by reviving summer-jaded appetites. Then they go on increasing restaurant profits for years to come. Architects will find them so compact and flexible they fit readily into plans for any business establishment, whether installed singly or in multiple. Users like them because they are reasonable in price and operate with so little attention, so little service, and at such amazingly low cost.

They're thoroughly dependable — time-tested all over America. Behind them is Chrysler Corporation, with its great reputation for engineering and mass production skill. It will pay you to specify this modern, simplified form of air conditioning. Write Airtemp Division of Chrysler Corporation, Dayton 1, Ohio. In Canada: Therm-O-Rite Products, Ltd., Toronto, Ont.

"REMEMBER THURSDAY NIGHT! The music of Andre Kostelanetz and the musical world's most popular stars—Thursday, CBS, 9:00 P.M., E.S.T."





MAKING AN IDEAL A REALITY

The ideal of The Otis Elevator Company for many years has been to provide the best and safest elevator transportation possible. To insure uniformity and the best results, each piece is manufactured by us under strict supervision; and the complete elevator is then installed by trained Otis mechanics.

Only one thing more has been necessary to make this ideal a reality, and that is a service which undertakes to maintain the completed elevator in the same fine condition in which it was when installed.

It is possible for owners of Otis elevators to contract directly with us, as manufacturer, for complete maintenance, to keep Otis elevators in the best condition, and preserve the elevator investment intact.

OTIS ELEVATOR COMPANY Offices in all principal cities



G-E Projector lamps (150 and and Reflector lamps (150 and 300 watts) combine lamp, lens and reflector in one unit. Both Spot and Flood types are available. Reflector lamps are for incide use only.

> Combination of swivel mounted G-E Projector spots with G-E Stime inte and Fuorescent lamps in the same overhead fisture will high light displays.



LE Reflector spats or floods add upplementary light to featur lisplays in windows and show

G-E Projector Lamps G-E Reflector Lamps

Rugged G-E Projector Lamps can be exposed to rain or snow. Outdoors, they'll light up loading docks, signs, doorways, drives, terraces and walks. Inside, both G-E Projector and Reflector Lamps are great for flood and spotlighting . . . not only for merchants' show windows and floor displays, but for buildings and offices, too!

They'll fit into adjustable sockets on posts or walls, or can be swivel mounted in overhead fluorescent fixtures.

Wherever your client's plans require the use of more supplementary light for better lighting *control*, greater protection and more *concentration* over a spot or an entire area, these G-E lamps offer a practical and inexpensive solution. Be sure to make them a part of your lighting plans for—*emphasis lighting*.

Ask a consultant from one of our lamp offices about *all* of the newer G-E lamps . . . Projector, Reflector, Fluorescent, Slimline, Circline, Silvered Bowl and many others.

G-E LAMP OFFICES

ATLANTA 3, GA 187 Spring St., N.W., WAInut 976	7
BOSTON 10, MASS	0
BUFFALO 2, N. Y	0
CHICAGO 80, ILL	0
CLEVELAND 14, OHIO	0
DALLAS 2, TEXAS	1
DENVER 2, COLO	1
DETROIT 26, MICH 1400 Book Tower, CHerry 691	0
KANSAS CITY 8, MO	1
LOS ANGELES 13, CALIF	1
MINNEAPOLIS 13, MINN	6
NEW YORK 22, N. Y	D
OAKLAND 7, CALIF	D
PHILADELPHIA 2, PA1405 Locust St., KINgsley 333	6
PITTSBURGH 22, PA535 Smithfield St., GRant 327	2
PORTLAND 9, ORE	1
ST. LOUIS 1, MO	0
General Offices: NELA PARK, CLEVELAND 12, OHIO	

The constant aim of G-E lamp research is to make GENERAL CONPOSE Stay Brighter Longer! GENERAL E ELECTRIC From an architectural or engineering standpoint, STREAMLINE Copper Pipe and Solder Fittings provide one of the most practical and efficient plumbing or heating systems possible to obtain.

A plumbing or heating system of STREAMLINE Copper Pipe provides maximum resistance to rust, clogs and leaks. It is practically indestructible under normal conditions of soil and water, or wear and tear of every-day use. It is a trouble-free system designed to give efficient service year

FITTINGS

in and year out without costly and annoying interruptions or replacements.

MUELLER BRASS CO.-PORT HURON, MICHIGAN-STREAMLINE MUELLER BRASS CO.-PORT HURON, MICHIGAN-STREAMLINE

The efficiency of modern fixtures and heating appliances and, in fact, the very livability of the home itself, from the standpoint of comfort and health, depend upon a permanently reliable piping system for the plumbing and heating.

The first cost of STREAMLINE Copper Pipe and Fittings is but slightly, if any, higher than that of rustable materials, and over a period of years its cost is a great deal less.

In the plans which are on your board now, provide efficiency and long-life in the piping system by writing in STREAMLINE Copper Pipe.

STREAMLINE PIPE AND FITTINGS DIVISION MUELLER BRASS CO. PORT HURON, MICHIGAN

1330

COPPER

HURON, MICHIG.

CO.-PORT

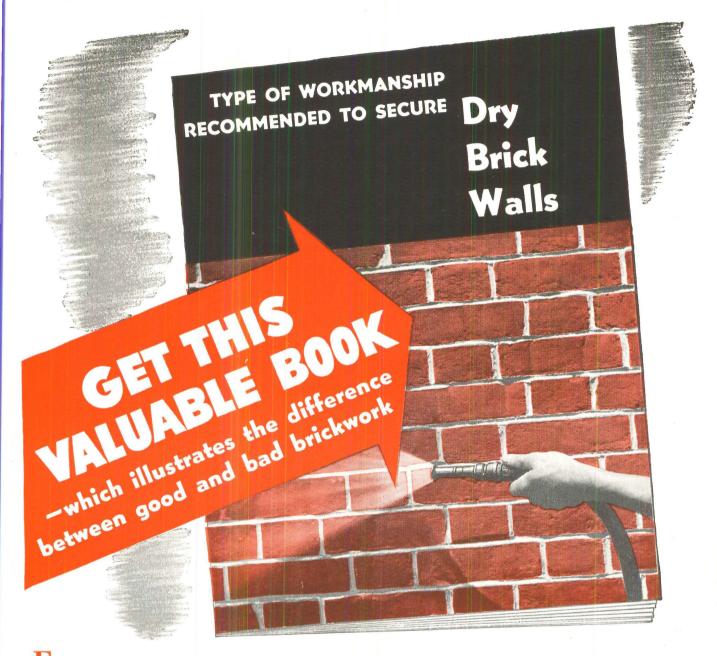
BRASS

MUELLER

RADE MARK

REG. U. S. PAT. OFFICE

PIPE AND



FOR many years intensive research on the cause and prevention of leaky brick walls has been conducted by various organizations and individuals, and much vital information has been gathered.

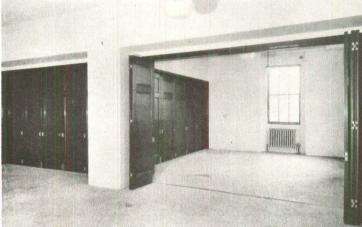
Most authorities agree that *workmanship* is the most important thing involved, but until now, no one has attempted to explain and *illustrate* the difference between good and bad workmanship.

"Type of Workmanship Recommended to Secure Dry Brick Walls" does just that. In it, a recognized authority on brickwork has compiled 16 pages of proven information — explanations and recommendations — 96 color illustrations. It is a major contribution to good building. It will be sent free to any architect, contractor or dealer who is interested in water-tight masonry.

Use the coupon to secure your copy. No obligation of any sort.

Louisville Cement Co., <i>Incorporated</i> 301 Guthrie Street, Louisville 2, Kentucky			
Gentlemen: Without obligation, please send me a copy of "Type of Workmanship Recommended to Secure Dry Brick Walls."			
Name			
Firm			
Street			
CityState			
t senses bearest brance bearest bearest bearest bearest bearest bearest bearest bearest for			

Jamestown Metal Corporation is comprised of specialists in the hollow metal field and solicits your consideration on plans which require Hollow Metal Doors, Elevator Enclosures, Interior Trim, Office Partitions, Cold Rolled Mouldings, and formed metal specialties in Bronze, Aluminum, Steel and Stainless Steel.



FOLDING DOOR UNITS by JAMESTOWN METAL CORP.



CINCINNATI BELL TELEPHONE BUILDING CINCINNATI, OHIO HAKE & KUCK, Architects

Complete hollow metal door and jamb installation for this building by JAMESTOWN METAL CORPORATION



"I LOOK FOR BEAUTY AND QUALITY IN PLUMBING.

CRANE EQUIPMENT GIVES ME BOTH."

"JUST THINK-REAL CRANE PLUMBING

AT A PRICE TO FIT OUR BUDGET."

Whether you are planning homes to meet today's immediate needs or are working on plans for future construction, the new Crane line offers you many advantages.

The whole line has been freshly styled with fixtures grouped and matched to assure greater harmony.
Newly developed engineering features mean greater convenience, better operation.

• The breadth of the line permits flexibility in your planning—fixtures designed to suit every taste. • Throughout, the line is high in quality—backed by Crane reputation for producing the finest in plumbing fixtures.

• And above all, Crane is in production on equipment specifically designed and priced to suit today's building needs.

Your Plumbing Contractor or Crane Branch will gladly work with you on your plans and do everything possible to help provide sanitary equipment when you need it.



CRANE CO., GENERAL OFFICES: 836 S. MICHIGAN AVE., CHICAGO 5 PLUMBING • HEATING • PUMPS VALVES • FITTINGS • PIPE

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

BUILD FOR ECONOMY, PERMANENCE AND FIRE-SAFETY

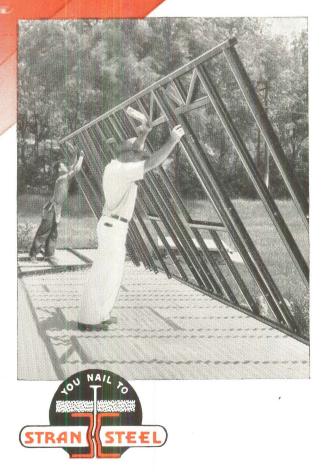
Because they feel that basic improvements begin with the frame, many architects and builders are planning their new buildings around Stran-Steel, the material that makes steel framing practical and economical for lightload structures.

Workmen using ordinary carpenter's tools find Stran-Steel fast and easy to erect. Framing members are assembled with self-threading screws. Studs and joists embody the exclusive Stran-Steel nailing groove, which permits collateral materials to be nailed directly to framing members. The completed frame is durable, fire-safe, sag-proof . . of uniform quality throughout . . . low in original cost, inexpensive to maintain.

In order to offer greater investment value in an apartment or housing project, single home or store—or in any similar structure—build with Stran-Steel! For further details, see Sweet's File, Architectural, Sweet's File for Builders, or the January issue of Building Supply News.

GREAT LAKES STEEL CORPORATION

STRAN-STEEL DIVISION · PENOBSCOT BUILDING, DETROIT 26, MICHIGAN



CONDENSATION PROBLEMS SOLVED in these Balsam Wool data sheets

Balsam Wool

APPLICATION

SEC

METHODS OF PREVENTING

EXCESSIVE CONDENSATION

PRINCIPLES OF CONDENSATION

These three Balsam-Wool Data Sheets-dealing with problems on condensation-show the type of special information which these sheets make available to you. The entire series of thirty-two sheets covers a wide variety of insulation application problems-provides authoritative information you'll want for your file. Send today for the complete series of Balsam-Wool Data Sheets-vours without obligation. Just mail the coupon!

Balsam-Wo

SEALED INSULATION

BALSAM-WOOL • Products of Weyerhaeuser • NU-WOOD

WOOD CONVERSION COMPANY

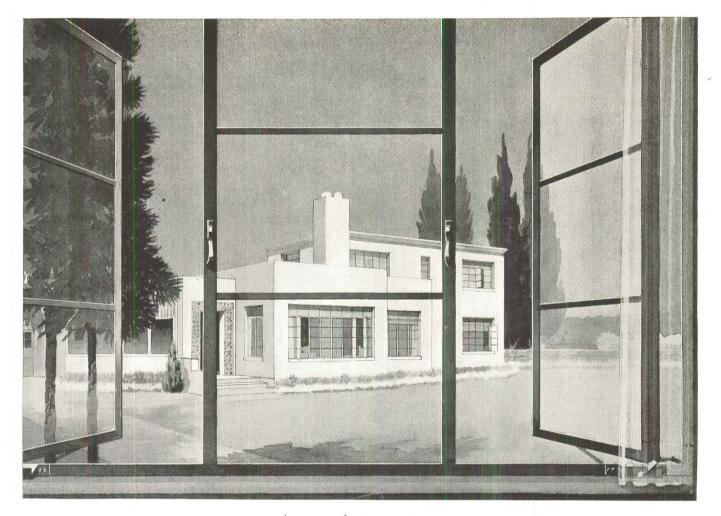
Dept. 117-4, First National Bank Building St. Paul 1, Minnesota

Please send me set of Application Data Sheets.

NAME	
ADDRESS	
CITY	. STATE

CALCULATION OF INSULATION TO AVOID CONDENSATION

FILE A. I. A. 37



Accent on design ... Here is an example of how Lupton Metal Windows complement architectural design in the distinctive modern residence. The metal casements are planned to accent trim horizontal lines. Rooms can be brighter, better ventilated. Screening is simple, effective and unobtrusive. Tightly fitting metal frame screens are designed in stock sizes to fit every Lupton Casement. Lupton Metal Windows are delivered as complete units, ready for quick installation. There's a Lupton Window for every type of building — residential, commercial, industrial, institutional. Write for catalog.

See our Catalog in Sweet's

MICHAEL FLYNN MANUFACTURING CO. E. Allegheny Avenue at Tulip Street, Philadelphia 34, Pa. Member of the Metal Window Institute



PROGRESSIVE ARCHITECTURE PENCIL POINTS

TWO COMPETITIONS

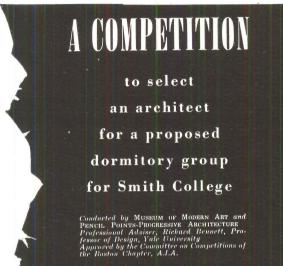
We have recently enjoyed the privilege of participating in the conduct of two more nation-wide competitions. As a result of the experience, we are more than ever convinced that the competition is a fair and efficacious method for finding praiseworthy solutions for any given architectural problem, and that it has the further virtue of discovering and encouraging fresh and vigorous architectural design talent. A competent jury, given adequate time, will always discover the flaws in even the most elaborately presented scheme, and conversely, will find and premiate the designs that most satisfactorily meet the program requirements. We have seen it happen again and again. The cream, provided it is there, inevitably rises.

In the competition for the selection of an architect for the proposed new dormitories at Smith College there were ninety-one entries, which turned out, when the envelopes were opened after the judgment, to have been submitted by a rather widely distributed and on the whole competent group of architects. Both well known and unknown firms and individuals were represented and the designs showed clearly that the problem had been well studied by a variety of men, both young and old. The admirably drawn A.I.A. Competitions Code which was followed, with its provisions for maintaining complete anonymity, insured that the judges must reach their verdicts solely on the basis of merit. This they did, according to their lights, and the results are shown on the following pages. Space limitations unfortunately do not permit inclusion of the Mention designs, whose authors were listed in the announcement of awards in February.

The Progressive Architecture-Rich's, Inc., competition for the design of a "Realistic House for Georgia" was a purely educational effort, intended to develop sound ideas and better understanding of the ever-present small house problem. Five hundred and sixty-eight drawings were submitted from every part of this country and even from outside our borders. We can vouch for the fact that the seven able judges worked seriously and thoroughly for three days and that they overlooked nothing in their search for designs deserving the prizes.

In both of these competitions the quality of the competitors was reasonably high, judging from the names afterward discovered on the list of entries. In both of them, however, there were a disappointingly large number of designs that missed the boat. In seeking the reason for this circumstance it occurred to us that there is perhaps too much of a tendency for designers under the competitive stimulus to attempt the "brilliant" solution and overlook the obvious virtues of a direct and unpretentious answer to the program. As a word of advice to future competitors we venture to suggest that any jury worth its salt is going to look these days for the simple solution rather than the complex. The days when épater les bourgeois was profitable are apparently over.

termethe Vein



Smith College, located in Berkshire Hills and the is invigorating, with a t college, with an enrollmen institutions in this county of American architectu Medieval Revivals to th ings, for the most p the site to serve as being institutional i Some degree of har and a continuance of in future growth. The site of the new g occupied by older build across Paradise Pond splendid trees, also's way for pedestrians maintained through House, to "B," Forth fare.

PROGRAM REQUIREMENTS

The proposed dormitory group will consist of three fireproof units to be operated independently and which may be built at different times. Each unit may differ in order to meet the varying conditions of the site but each must contain the following elements:

- A Entrance hall. (For administrative reasons, only one main entrance is desired to each unit.)
- **B** Small booth off entry for person on watch. This space will also serve as a receiving room for mail and packages and message center.
- C Students' coat room, 80 sq. ft.
- A waiting room for callers off the entry, about 120 sq. ft. Guests' laboratories.
- **E** A living room of 750 sq. ft. with fireplace, to accommodate all residents at one time.
- E 2 smaller living rooms of 400 sq. ft. to be used for social purposes or reading by smaller groups desiring privacy.

REPORT OF THE JURY

Ninety-one projects were submitted. Considering the many demands upon architects at this time, the jury felt that this was a gratifying response to the competition, and were pleased with the general quality of the entries as well as with their quantity. Many were very well thought out and beautifully presented. They were well hung and lighted in a series of rooms in Smith's Tryon Museum at Northampton.

The jury met on January 12th for nine hours. They resumed work on Sunday, the 13th, and completed the awards after a five-hour session.

The jury based their decisions upon the following desirabilities:

- 1. Preservation and exploitation of the pleasant parklike character of the steeply sloping site;
- 2. Exposure of students' rooms for sunlight and for view of the lake and the mountains beyond;
- 3. Well organized floor plans with conveniently grouped activities and easy circulation;
- 4. Informal, non-institutional appearance, harmonious in scale with the existing buildings and the adjacent residential street.

The prize-winning projects are evidence of the jury's

insistence upon this last point. All three divide each dormitory into two or three parts to achieve a friendly, domestic scale. Even though this type of plan tends to be more expensive than more concentrated, more rigid, less personal solutions, and tends to cover more ground area, the jury was unanimous in preferring it for this purpose. Resemblance to an urban apartment house or hotel was not held to be desirable, no matter how handsomely contrived.

The First Prize was won by Norman C. Fletcher Jean Bodman Fletcher Benjamin Thompson

Each of the buildings is in two parts: a rectangular dormitory block connected by a bridge with a more freely composed wing devoted to living, dining, and service. The buildings are well placed in the northeast, east, and southeast corners of the plot, preserving an open space where the ground drops sharply to Paradise Pond and retaining as many as possible of the fine existing trees. The building type is so flexible that it could easily be adapted for even better site use and exposure.

Students' rooms face east and west. They are grouped in short corridors and planned for economical construction. Major living rooms face the south and the view and are very pleasantly related to each other. The jury

- **G** Dining room to serve 72 at tables for 8.
- **H** An informal gathering or game room of at least 750 sq. ft. which may be placed below grade.
- A bicycle and ski room of about 650 sq. ft. should be connected to grade level by a ramp.
- J Service area consisting of kitchen (about 450 sq. ft.), cook's pantry (120 sq. ft.), and serving pantry of about 225 sq. ft. with one wall 16 ft. long for continuous dishwashing.
- K A cold storage room of about 100 sq. ft. should be convenient to kitchen and delivery entrance.
- L Maids' dining alcove (about 170 sq. ft.) near serving pantry.
- M Maids' living room.
- N Single bedrooms for 8 maids of which at least two should be near kitchen. Remainder may be located so as to be used as student rooms in an emergency. Maids' bath or baths.
- A storage room of about 650 sq. ft. for students' trunks should be near baggage lift. Shaft size about 6' x 6'.

- Food storage, canned goods and cleaning supplies (400 sq. ft.), and fruit and vegetables (100 sq. ft.). Should be connected to delivery entrance by ramp.
- Suite for resident faculty. Living room accommodating 25 people, with fireplace, bedroom, closets, bath. Must have sunny exposure.
- **R** Suite for head of house same as "Q" and in addition must be accessible to front door and kitchen.
- S Double guest room and bath.T Booms for 60 students of x

0

- Rooms for 60 students, of which 6 or 8 may be double, all others single. The latter are to have at least 160 sq. ft. and be provided with wash basin, built-in drawers, and closet $(5' \times 3')$. The college provides beds, dressers, desks, desk and lounge chairs, and mirror. Some of these may be built-in if desired. Student rooms should be above the ground floor level and arranged so as to be as quiet and private as possible.
- **U** Smoking rooms of about 220 sq. ft. for studying, not lounging, should be provided on each upper floor.

- Kitchenette (about 60 sq. ft.) and pressing units of about 200 sq. ft. to include laundry tub, ironing boards, and drying rooms should also be located on each bedroom floor level.
- W Bathrooms to serve each ten students shall have two sets of fixtures each.

 ${\bf U},\,{\bf V},\,{\rm and}\,\,{\bf W}$ should be located adjacent wherever possible in order to reduce corridor traffic to a minimum and protect student rooms against noise.

There shall be a linen closet for each 10 girls and maid section (15 sq. ft.) as well as cleaning closets and phone booth on each floor.

Balconies or roof decks, sheltered but roofless, may be desirable for sun-bathing.

Massachusetts law requires two exits on each floor leading directly to the outside.

Heating will come from a central station.

liked the clean but unforced character of plan and elevations, and felt that the designers had developed their forms out of the requirements instead of forcing their rooms into any arbitrarily imposed shape. There was some criticism of the dormitory ramps and the insufficient control of those entering the building through the dormitory wing, but it was felt that these flaws might easily be remedied. The cubage of the scheme is remarkably low.

The jury was particularly pleased with the imaginative, intimate quality of the north and south elevations, and approved the use of material, although they hoped that stucco was not to be used.

The Second Prize was won by Sarah Harkness John C. Harkness

This project was particularly admired for its easy-going domestic quality, and for its excellent feeling for the site. Each dormitory is divided into three separate groups of students' rooms, and so arranged that each of these individual rooms faces the south and the view.

The jury liked this division into small, well-oriented units and liked the varied, lively relationship between these units, but felt that it would be considerably more expensive than the arrangement which received first prize. Some members also questioned the feasibility of the relatively tight and sunless courtyard and the obstruction of the living room view by the projection of the front wing.

The Third Prize was won by

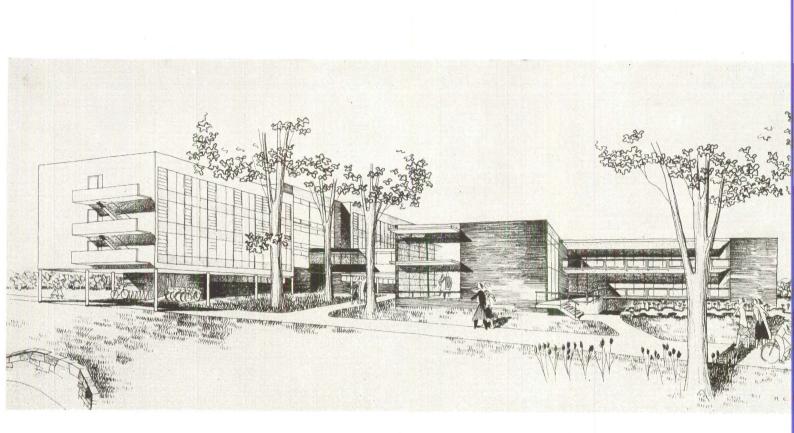
Roy S. Johnson Julius Stein Fred Ginsbern

All the living and service rooms are concentrated on one main floor and on a lower level built into the hill slope. Students' rooms are divided among the two parallel south-facing wings which rise above the main living floor.

The jury liked the excellent ground floor plan and the unpretentious charm of the scheme as a whole. They particularly admired the friendly scale of the elevations and the sensitive use of materials. They criticized the fact that one wing of students' rooms faces the back of another and that the diagonal view from these rooms overlooks the broad flat roof of the living and dining rooms. They thoroughly disapproved the site plan, but felt that this might be remedied without changing the basic scheme.

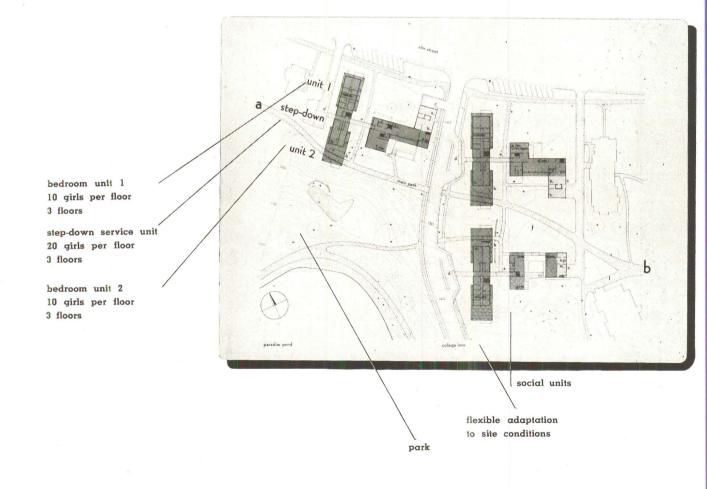
> JURY OF AWARD

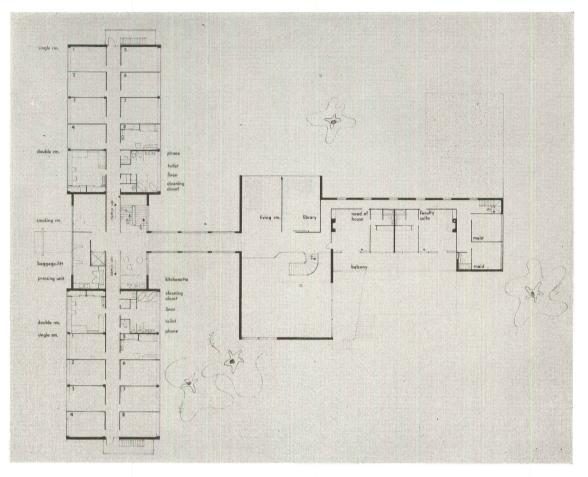
William Allan Neilson Mrs. Alan Valentine Kenneth Reid Morris Ketchum, Jr. Elizabeth B. Mock Philip L. Goodwin, Chairman



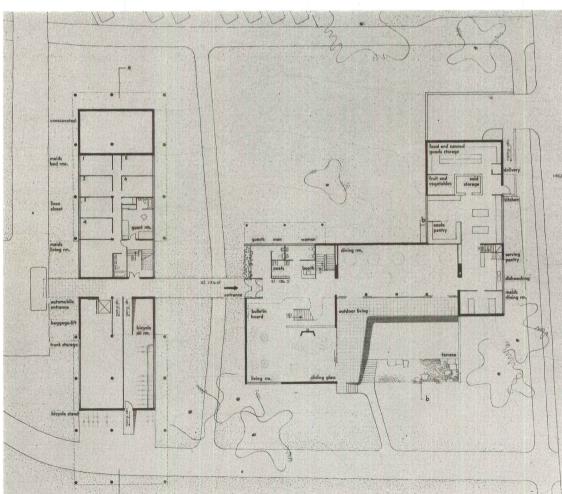
FIRST PRIZE

NORMAN C. FLETCHER, JEAN BODMAN FLETCHER, AND BENJAMIN THOMPSON CAMBRIDGE, MASSACHUSETTS

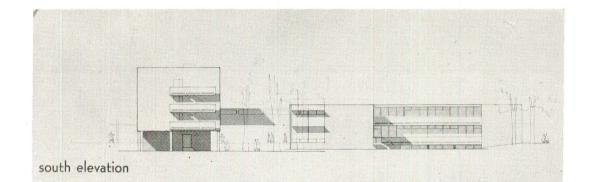


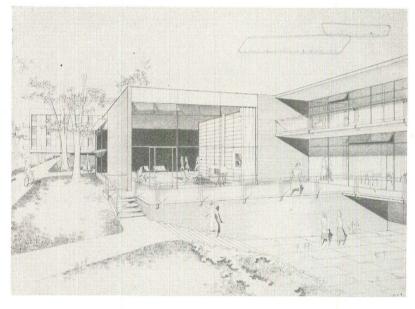


second floor



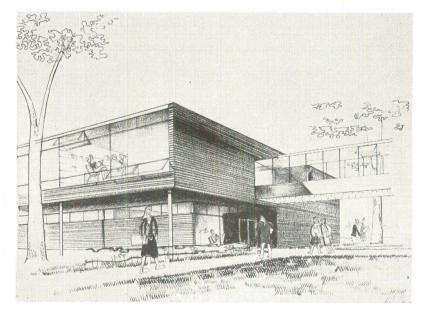
first floor



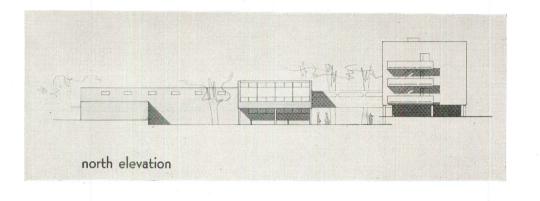


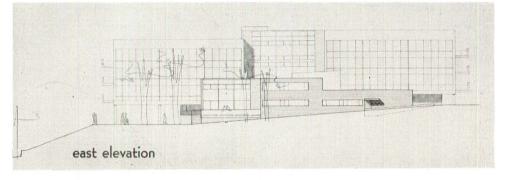
terraces for outdoor living

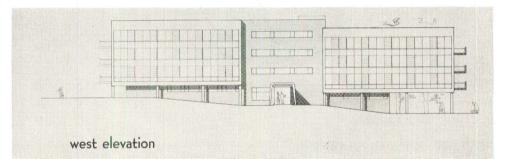
entrance is under bridge between buildings

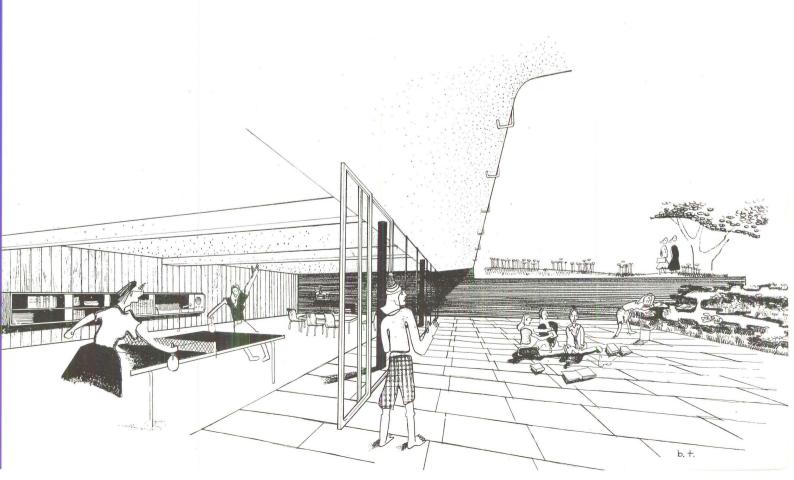


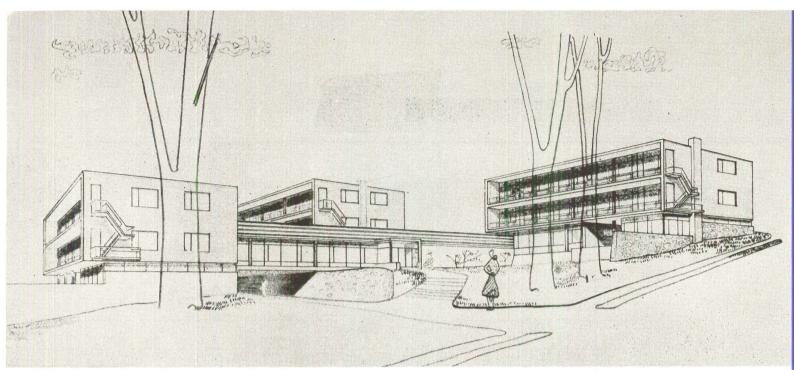
56 PROGRESSIVE ARCHITECTURE • Pencil Points

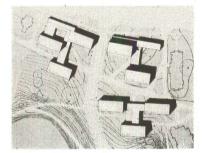






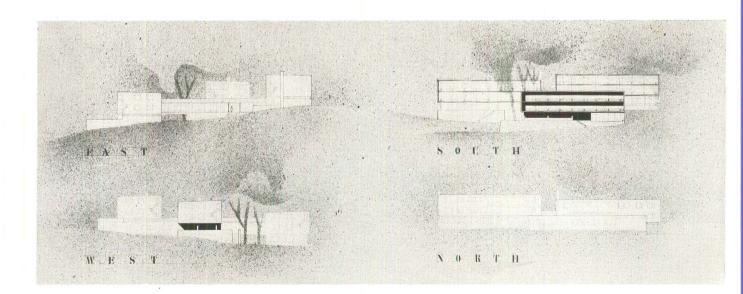


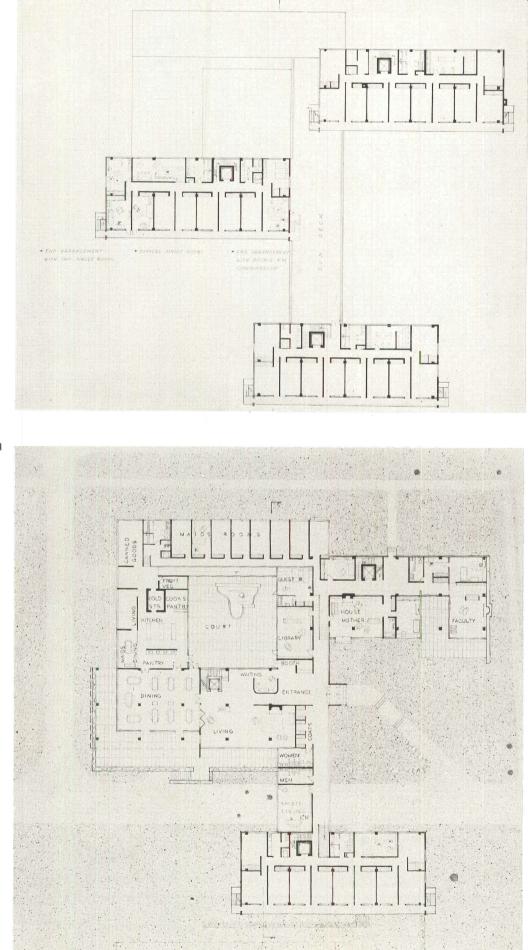




SECOND PRIZE

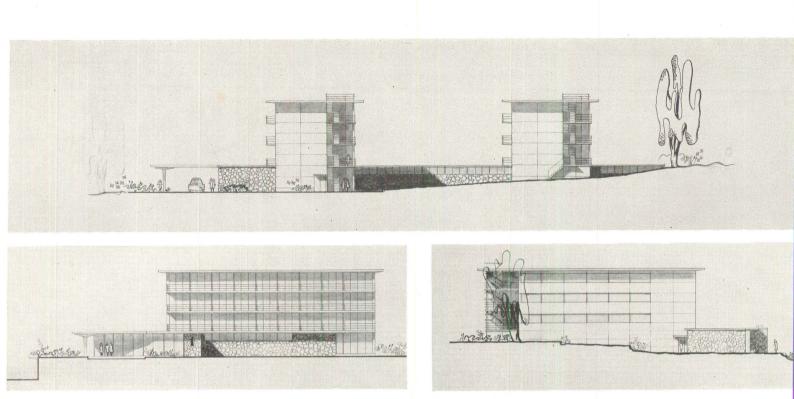
SARAH HARKNESS AND JOHN C. HARKNESS MILTON, MASSACHUSETTS

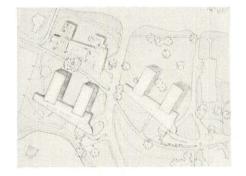




upper level

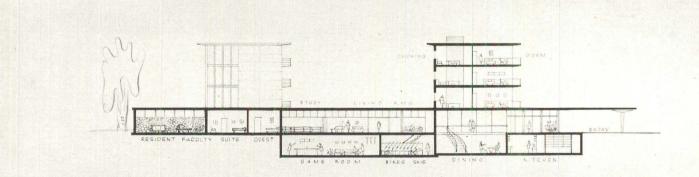
ground level

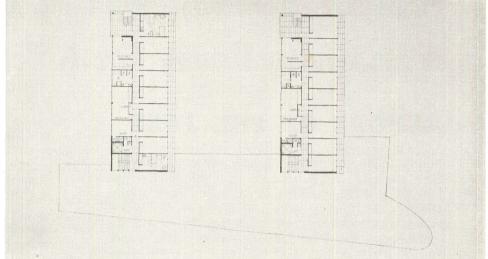




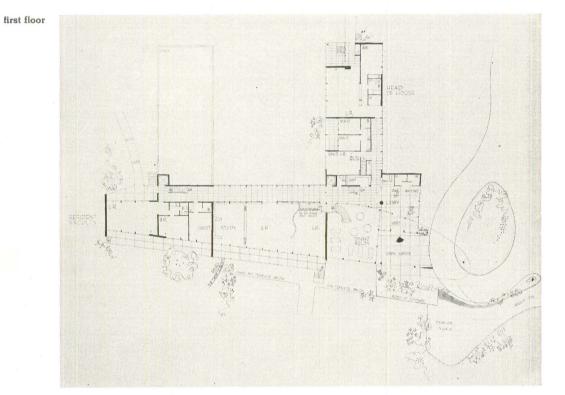
THIRD PRIZE

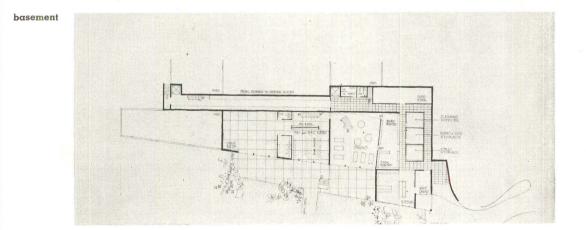
ROY S. JOHNSON, JULIUS STEIN, AND FREDERICK GINSBERN NEW YORK, NEW YORK





3 dormitory floors





Progressive Architecture — Rich's, Inc. Architectural Competition A Realistic House For A Family In Georgia

REPORT OF THE JURY

The jury was disappointed by the tendency of the entrants to disregard the stated intentions of the program . . . to secure realistic plans for houses that Georgia families of \$3000 annual income could afford and in which such families could pursue their normal mode of living, raising children without unnecessary frustration and extra chores. Practically all entries leaned toward complicated plans and extensions which would be wasteful of capital costs as well as undesirable from the point of view of family life, or at least not productive of results commensurate with the investment.

Nevertheless, winners had to be chosen from among the entries submitted. The jury took into account the recent decline of the dollar and agreed that the higher purchasing power which existed at the time the program was written would be adopted in order to grant some degree of feasibility for the entries.

Members of the jury held different points of view with regard to some elements of the program. For example, some jurors strongly regretted the scarcity of good twostory plans because they felt that with the restricted lot size it was desirable to leave as much of it open as possible. Others advocated the one-story house because of its greater convenience for the housewife. Some jurors felt more strongly than others that screened porches are necessary adjuncts to the house, even though contemporary design permits large open areas which give the rooms the same degree of livability that traditionally has been obtained through the use of screened porches.

Some members regretted that relatively few contestants worked out courtyards of satisfactory size, open to the prevailing breeze. It was felt that in the Southern climate and on a restricted lot, a good many family activities might take place in charmingly outlined courts. Most schemes with courtyards required plan and room arrangements too involved for occupants' needs or beyond their financial ability.

There was general agreement that garages should not be at the back of the house or to the rear of the lot because of the wastage of land area for driveways. There was an inclination to regard the garage, or other provisions for parking the car, as the most frequently used entrance to the house; in effect, its main entrance. For that reason, there was much doubt whether the open car shelter close to the street is really an acceptable solution, since the car shelter would normally attract a good deal of clutter, exposure of which is undesirable. This consideration was taken into account in rating entries which required one to pass through the car shelter or along its open side in order to enter the house. There was some criticism of garages (and particularly open carports) that stood detached in front of the house, fully exposed to the street. The jury felt that garages look bad enough in their usual rear location and that if it became general practice to place similar detached structures in the front, the appearance of the streets would be greatly damaged.

There was disappointment over the relatively small number of entries that made use of sloping roofs, since in Georgia the sloping roof is not only conventional and acceptable, but also of great utility for purposes of insulation.

Several entries, regarded highly during discussion, had to be discarded because of features which were proved impracticable upon close examination. It was noted, for example, that some entries staggered walls of first and second floors in relation to each other so that support, flashing, and establishment of proper differences of level between rooms and abutting balconies appeared far too expensive and not too practical. In other cases, excessive cantilevers were required, or furniture items were drawn to substandard sizes which could not be enlarged within the indicated room sizes.

The jury did not entirely reject plans where such minor shortcomings appeared readily curable, but considered them a cause for rejection where their correction would have required major alterations of the plan. Similarly, there were cases where the circulation between living and sleeping quarters depended on screened porches, or passages which of course could have been glazed but if so treated would have raised the total square-foot area of the house beyond the limit.

Among the entries which received Mention, a good deal of discussion was given to the truly "realistic" scheme shown on page 76. It was deeply regretted by the jury that more capable entrants did not select a condensed parti such as this. There was general agreement that the purpose of the program could be more satisfactorily met by such a natural and unsophisticated approach, not only as to costs but as to livability. It was felt that even designs considered more individually attractive might combine less effectively than this one into a satisfactory residential development composed of small houses in close proximity on small lots.

In spite of the above considerations, the jury did not think that it could place this entrant above the Mention level—not because of its very striking similarity to the one which won a Special Mention last year in the PENCIL POINTS-Pittsburgh Architectural Competition, but because of the inadequate further development of that parti. In particular, it was held that the kitchen layout was not studied to the point where workability could be assured. The coat closet was lacking in the hall, other storage space was inadequate. The grouping of furniture around the fireplace was inappropriate, bedroom closets came in impracticable conflicts with windows, and the carport was placed in a very casual manner, while the justification for the large masonry mass in the center of the house could not be discovered. Comments on the Prize designs follow and the captions for the Mention drawings contain the jury's principal points of criticism, pro and con.

FIRST PRIZE

This entry received favorable consideration because the "breezeway" arrangement is well liked in this region, and is a practical method of obtaining ventilation for the principal living quarters. The exterior appearance was considered as the most charming of those which by their other qualifications received attention for high place. The simplicity of the over-all scheming and the relatively small portion of the property occupied by the house were favorable aspects of the design.

Criticism of the scheme was limited to such particulars as the minimum dimensions of the car shelter, the none too adequate provision for storage which should have been more accessible from the outdoors, lack of privacy in the dining area, and the relation of closets and window sash in the bedrooms.

SECOND PRIZE

The jury, while not particularly attracted by the external appearance of this solution, commented favorably on many features and felt that its merits as compared to the first place design are not adequately expressed by the proportion of the two prizes. It was pointed out, however, that the separation into two wings was more expensive than the program seemed to warrant.

Favorable comment was made upon the subordinated yet practical placement of the garage, the separation of living and sleeping areas which would assure mutual privacy on account of the location of the entrance centrally between the two areas, provision of combined study and guest room and basement space available for shop use or for play on rainy days.

Questioned were: the location and nature of the fireplace; the arrangement of furniture in the children's bedrooms; the efficiency of the living room storage space without addition of another door at the narrow end; the effectiveness of the clerestory windows in the boy's bedroom, situated directly above the adjoining roof.

THIRD PRIZE

This entry was commended because of the simplicity of its roof line and general external appearance. Other favorable comments included: the allowance for through ventilation of the living areas; use of intimate court effect at the entrance; use of a sloping roof and attic for ventilation and storage (although some questioned the convenience of a disappearing stairway in the carport).

Some members of the jury questioned whether two bathrooms were warranted, especially since both were located so that the housewife working in the kitchen, or the maid, would not derive any benefit from the duplication. Also questioned were the cost and maintenance of the fence and car gates which seemed essential to the plan as a matter of appearance and privacy.

FOURTH PRIZE

The split level arrangement of living and sleeping areas was considered practical by the jury. The cohesive living and dining areas with unhampered outlook toward the rear received approval, as did the seclusion of the study and guest room in the semi-basement. Some jurors questioned whether the carport was well placed, being open to the main entry, and whether at least the passage from it to the house entrance should not have been weather protected. It was also regretted that the southwest bedroom did not receive cross ventilation.

The main criticism, however, revolved around the lack of adequate study given to the exterior and to the elimination of such conflicts as seem to arise between the roof over the living area and the gabled end of the bedroom wing.

SPECIAL GEORGIA PRIZE

This solution rated high during the discussion of the jury because it seems economical and realistic in terms of popular acceptance and practical for living purposes. It was one of the entries where the garage was integrated as part of the house, although the opportunity derived from that was not fully exploited. Lack of a direct door from garage to hall, and the combination of the garage and main entrance doors, were criticized as not too successful from the point of view of design. In general, the greatest handicap of the design was what the jurors considered as a lack of distinction in its external appearance.

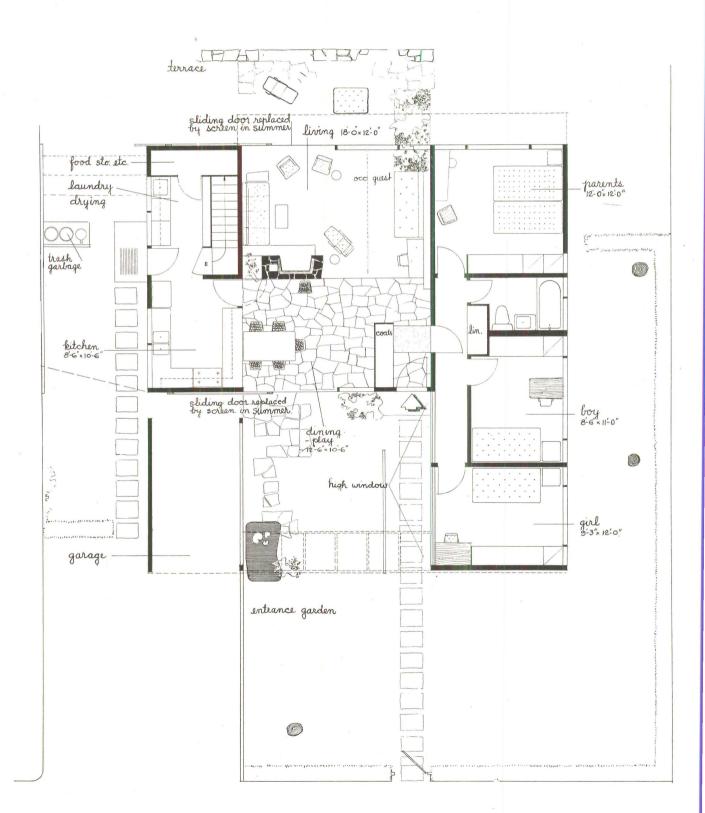
JURY OF AWARD Thomas Harlan Ellett Ernest A. Grunsfeld, Jr. Richard Koch Ernest J. Kump Roy F. Larson Robert Law Weed Roland A. Wank, Chairman

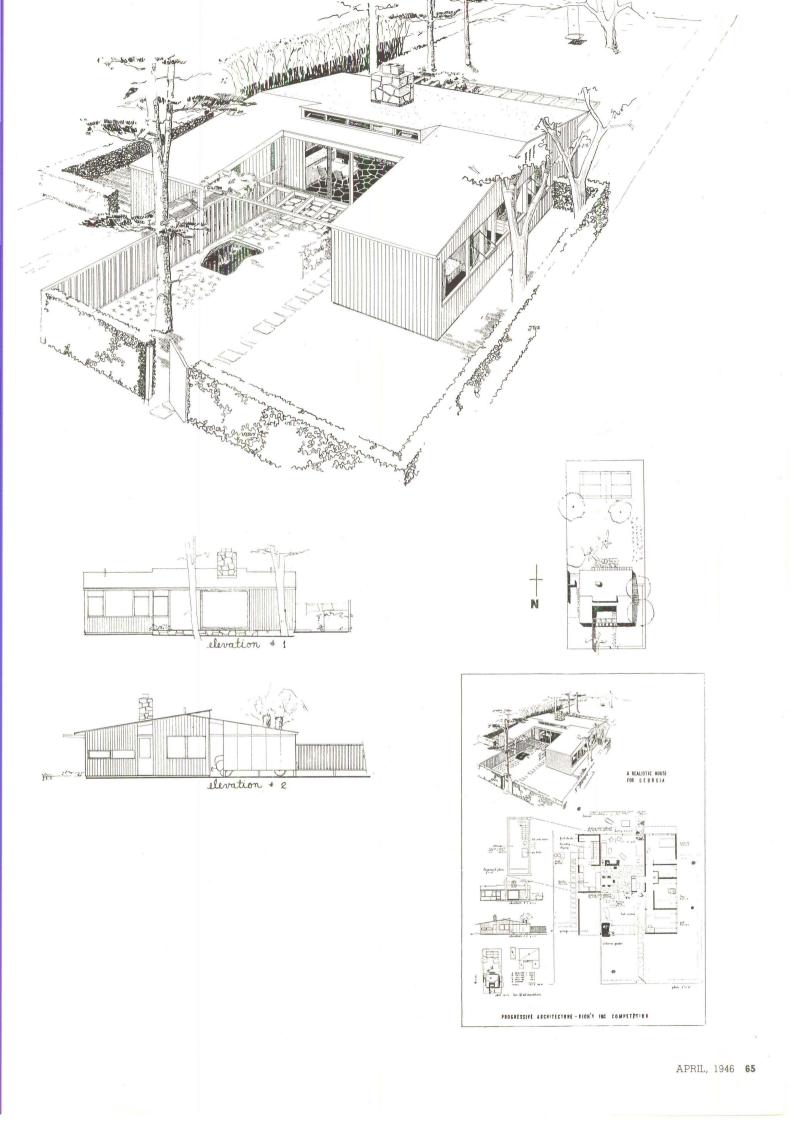
PROGRAM REQUIREMENTS

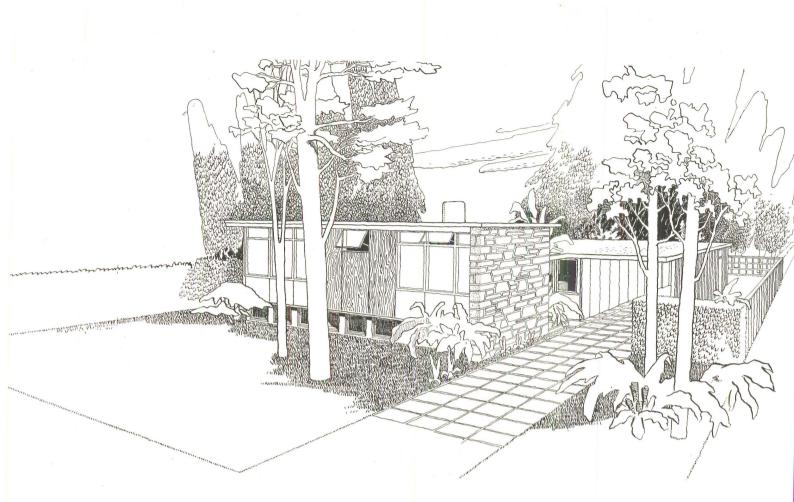
The program for this competition called for the design of a house for a Georgia family of four—father, mother, boy of five, and girl of two. Their income was given as \$3,000 a year and they could afford only an inside lot (orientation optional) 60 ft. wide and 150 ft. deep in an established residential section of a still growing city. Their budget limited the house to 1350 sq. ft. of usable floor area exclusive of garage and heater room. Lot restrictions required a set back of 20 ft. from the street and no building within 10 ft. of side and rear lot lines. 900 cu. ft. of easily accessible and well disposed storage space were called for over and above the usual closets and kitchen cabinets. The Georgia climate was described in detail. Emphasis was placed on "realism" in that the house must be economically buildable out of materials actually on the market or known to be in production.

FIRST PRIZE

HUGH STUBBINS, JR. CAMBRIDGE, MASSACHUSETTS



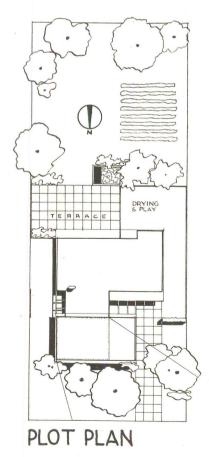


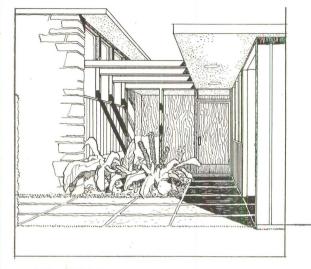


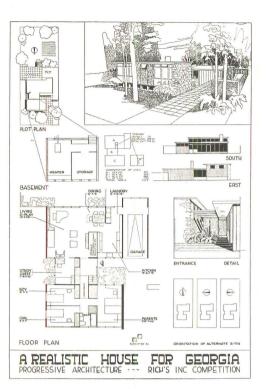
SECOND PRIZE

WATSON BALHARRIE OTTAWA, CANADA

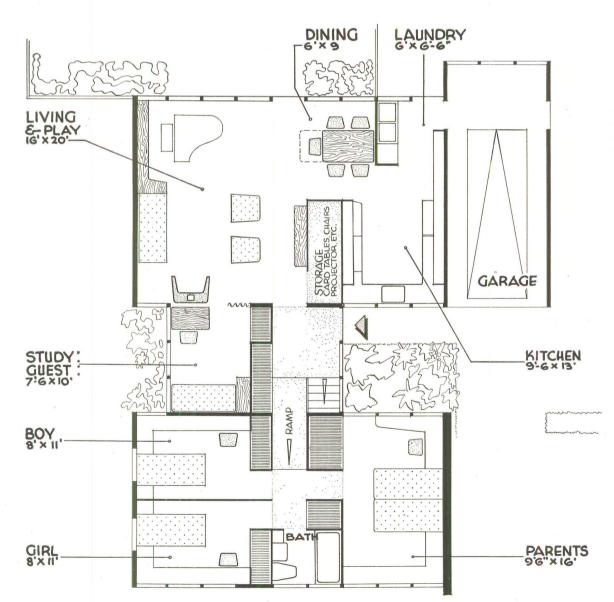


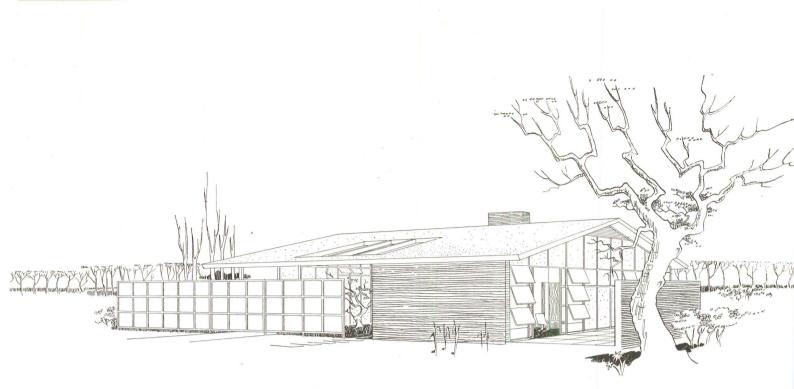










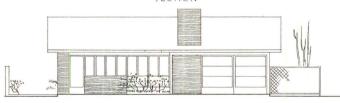


THIRD PRIZE

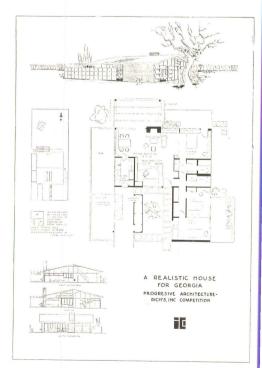
HAROLD CALHOUN HOUSTON, TEXAS

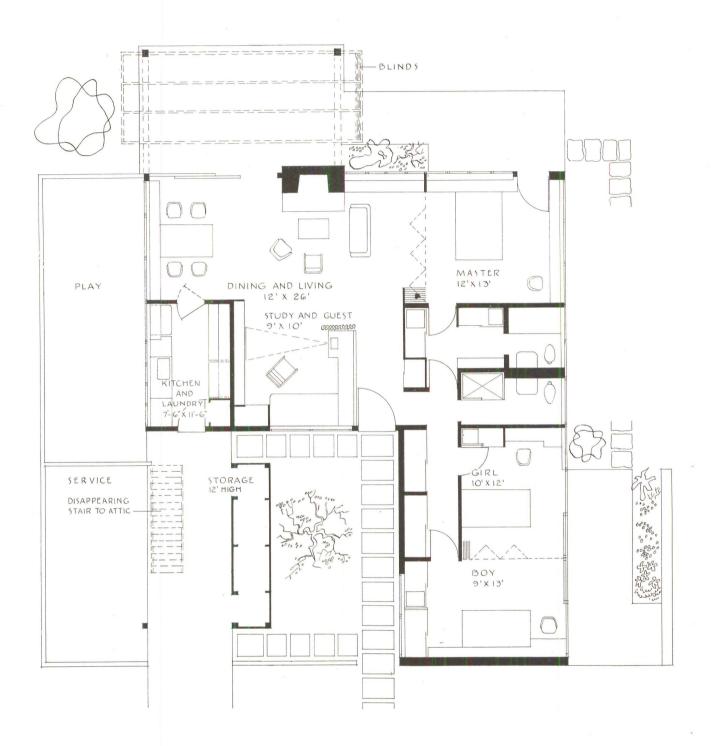


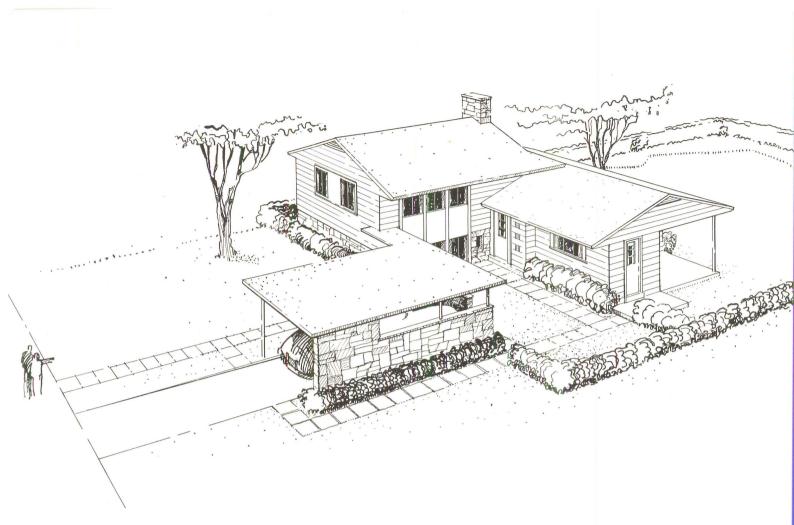




SOUTH ELEVATION

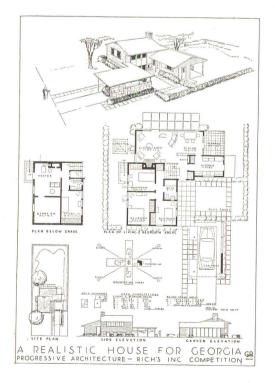


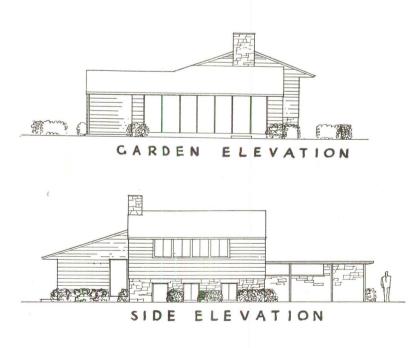


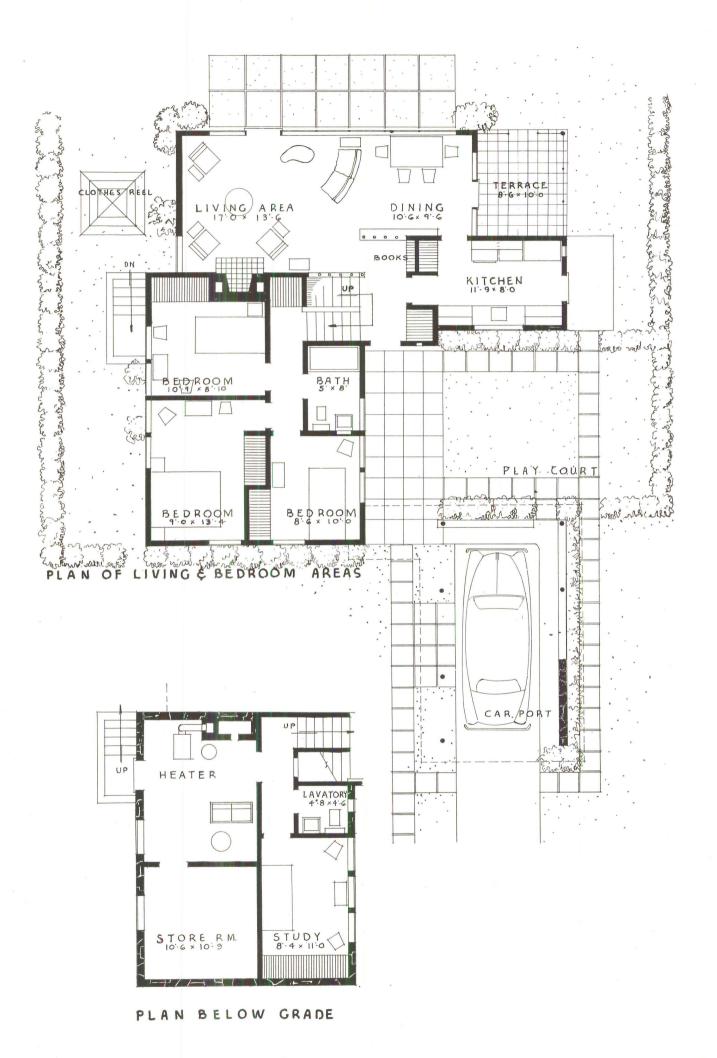


FOURTH PRIZE

WALTER PRESTON HICKEY AND RAYMOND WEBER BIRMINGHAM, MICHIGAN, AND HUNTINGTON WOODS, MICHIGAN









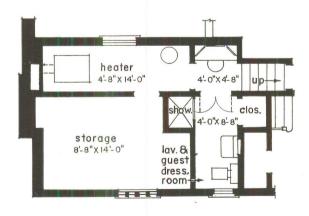
MENTION AND SPECIAL GEORGIA PRIZE

WILLIAM EWART WILLNER ATLANTA, GEORGIA

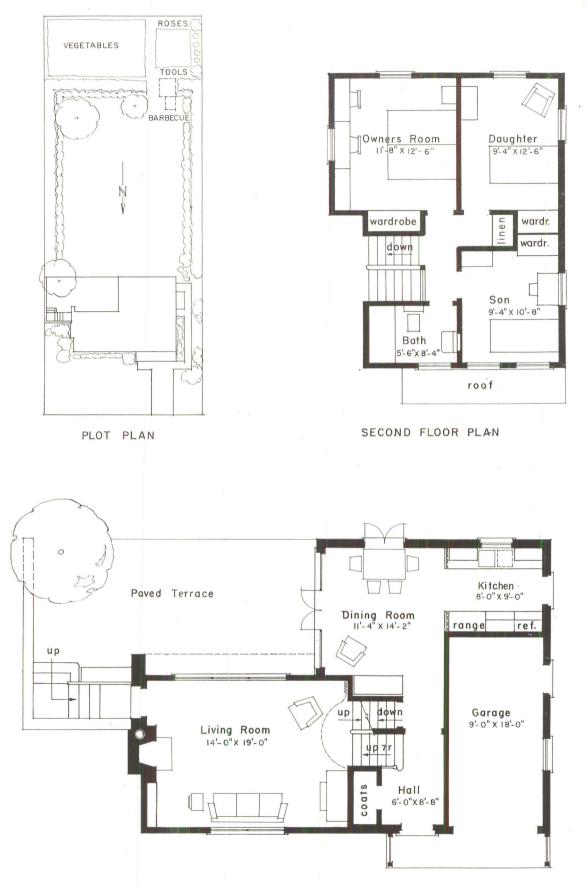




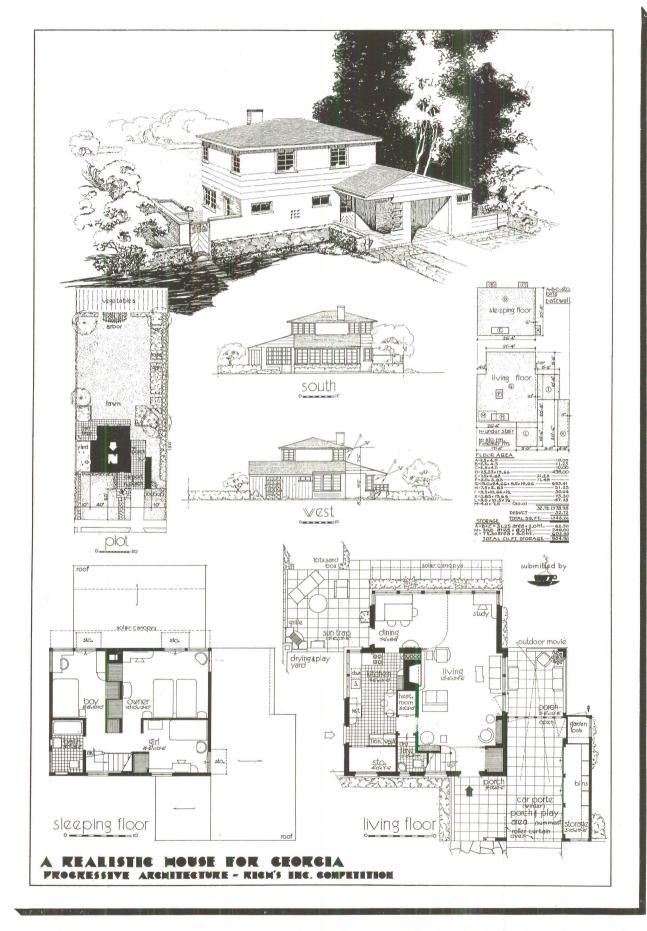




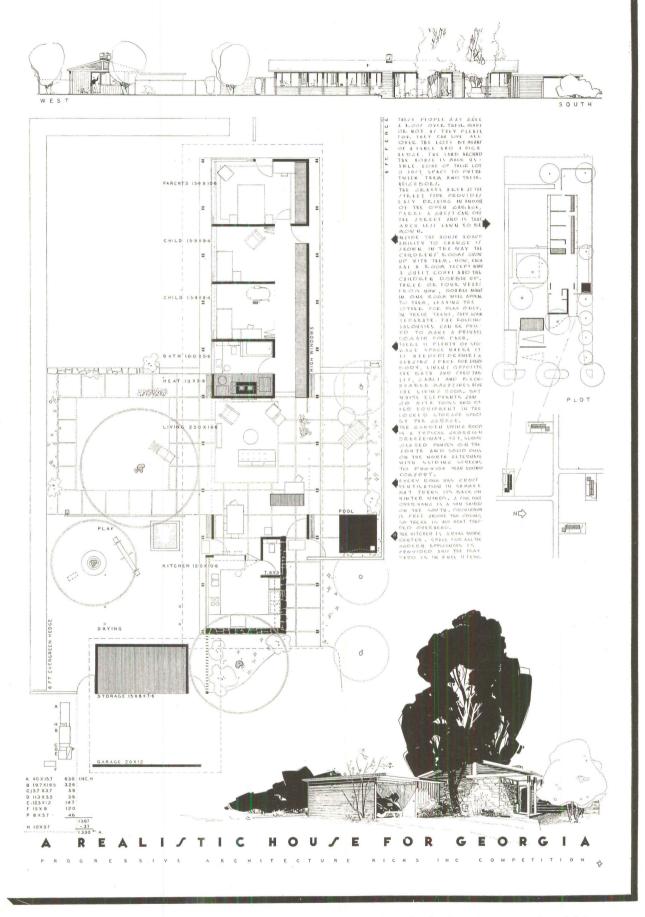
BASEMENT PLAN



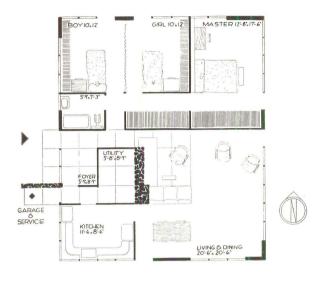
FIRST FLOOR PLAN, INCLUDING LIVING ROOM MEZZANINE



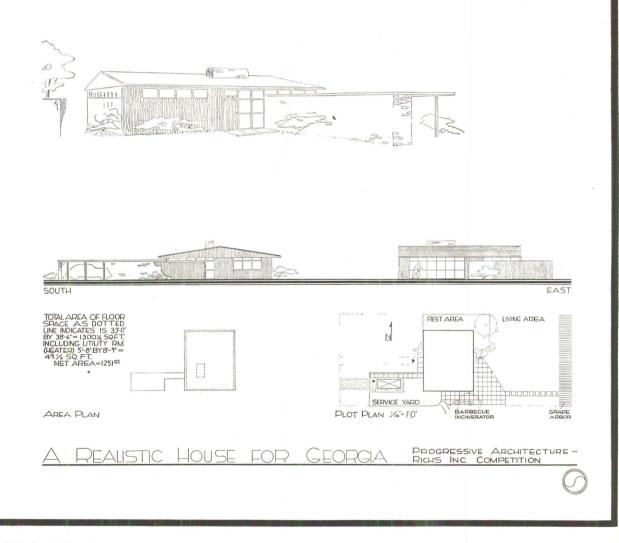
ROBERT L. ALBERT, Arlington, Va.—Good points: second floor layout with cross ventilation for all bedrooms; design of carport and entrance; handy disposition of storage; use of sloping roof and exterior design readily acceptable in locality; saving in ground area by two-story scheme.. Criticized for long and inward extension of living room; lean-to roof over garden end of living room seemed affected.



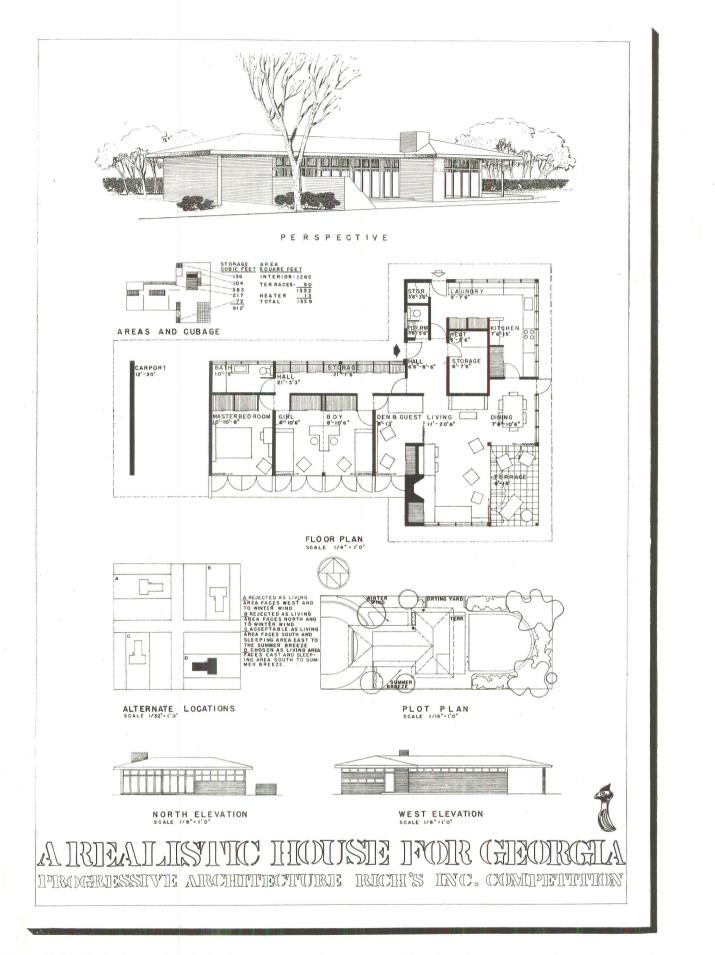
BILL ATKINSON, Bloomfield Hills, Mich.—Good points: simplicity of structure as shown by drawing; pleasant opening of living quarters onto well-developed adjoining courts. Criticized for length of house which absorbs most of property; location of children's closets in hall; entrance directly into dining space; amount of paving in front yard for car maneuvering; apparent necessity for two rows of porch columns to support roof.



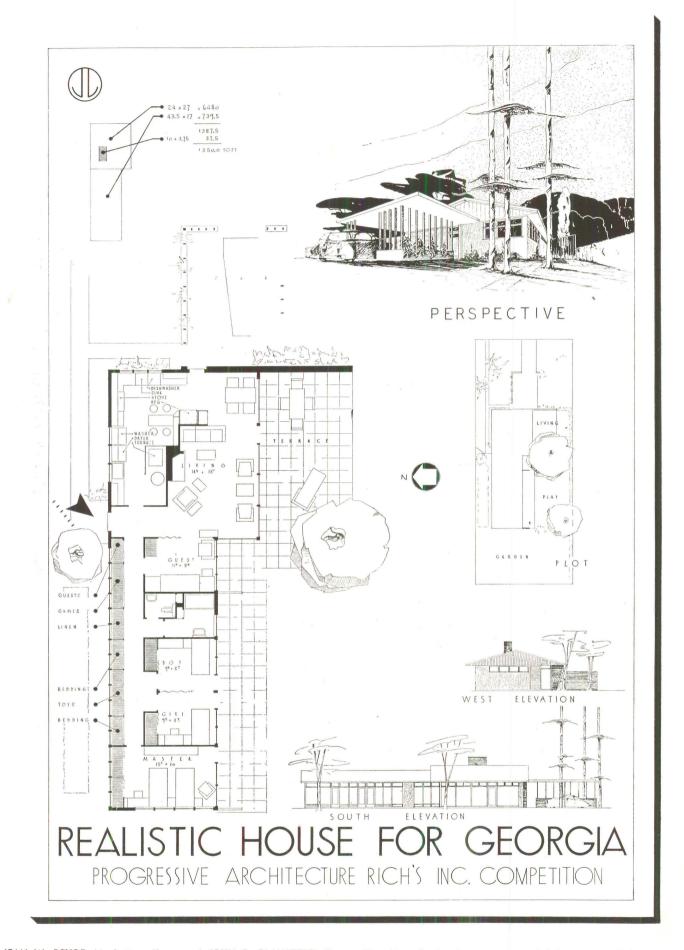
PLAN



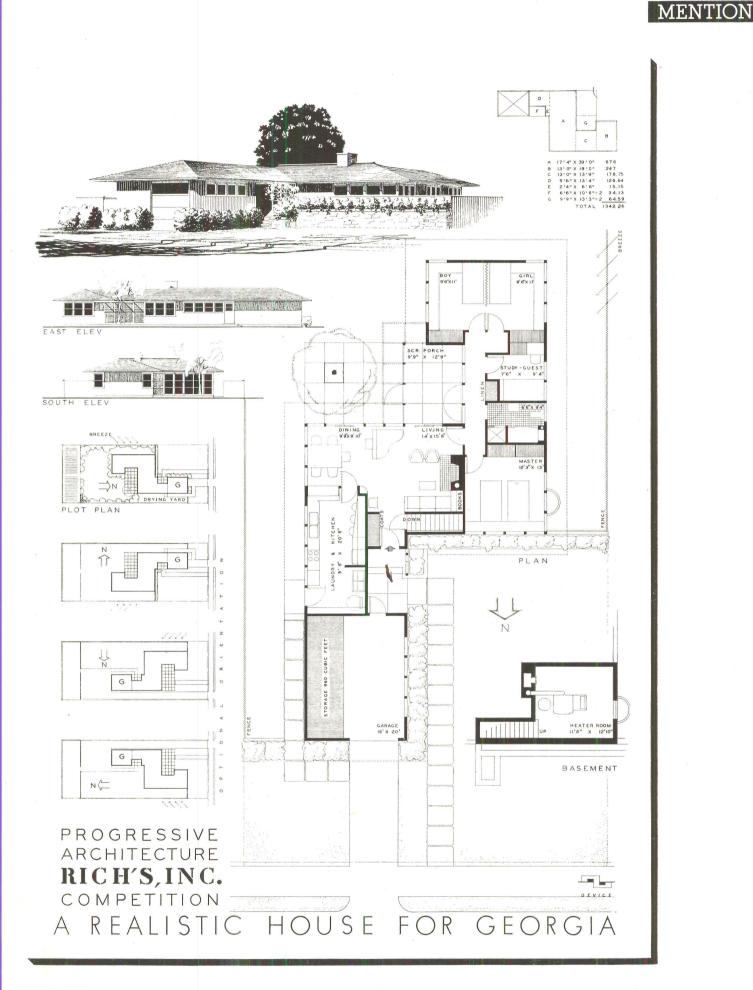
DICK BARRY, Cambridge, Mass.—Good points: borrowed an excellent parti which came perhaps closer than any of the entries to meeting the purpose of the program in calling for a realistic house for a \$3,000-a-year family. Criticized for inadequate development of idea; inadequate kitchen; lack of storage; unjustified masonry mass in center; inappropriate furniture grouping; conflicts between bedroom closets and windows.



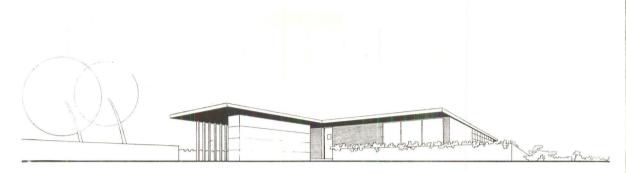
ARTHUR O. DAVIS, JR., Atlanta, Ga.—Good points: compactness of plan and simplicity of massing; easy access from entrance to all parts; heater room and storage located to take up dark space; adequate kitchen and good exposure of principal rooms to breeze. Criticized for lack of cross ventilation in bedrooms; distance from front of house to main entrance; necessity for passing open carport; cold exterior appearance.



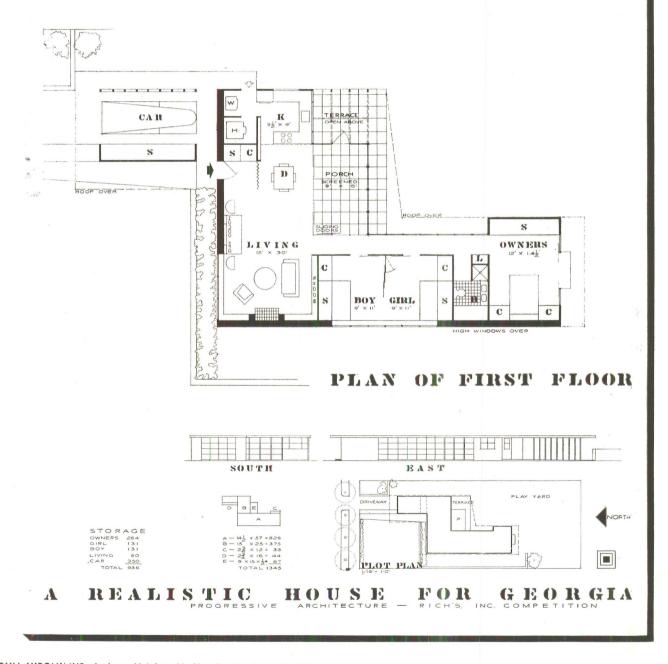
JEAN W. DEYOE, Manhattan, Kans., and JOHN F. GRANSTEDT, Kansas City, Mo.—Good points: openness of living space and long view of property from front end; adequate kitchen; fireplace and furniture grouping; main entrance has good access to all parts. Criticized for costly carport; entrance through carport; opening of service entrance into dining room; lack of separation between kitchen and living space.



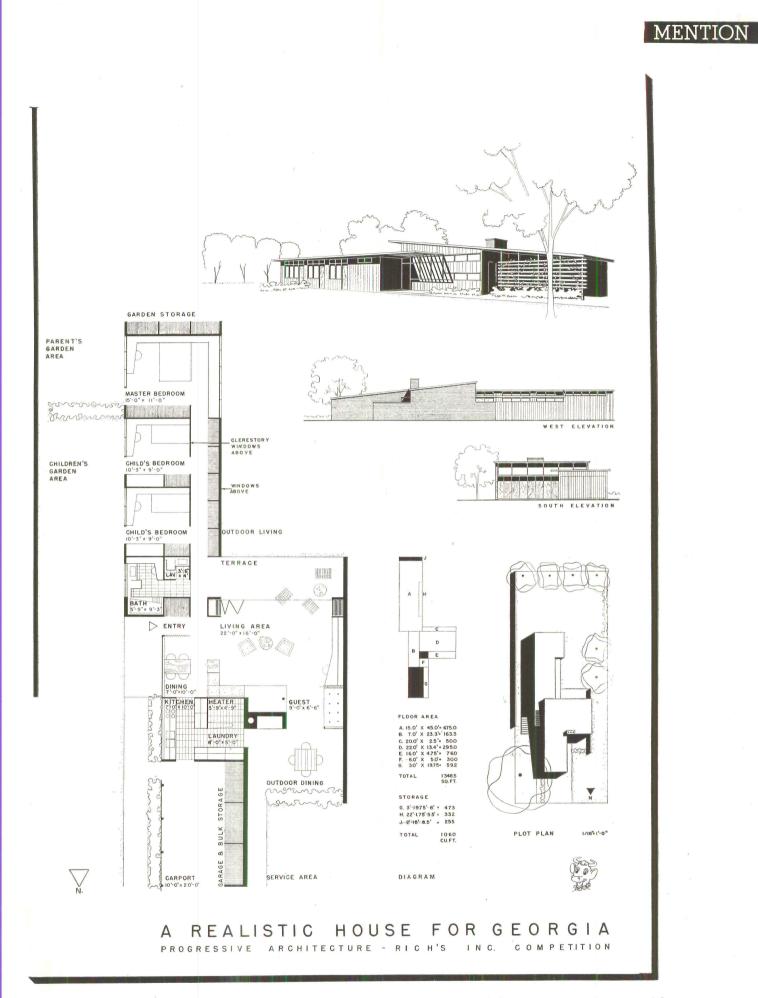
C. WILMER HEERY, Athens, Ga.—Good points: relatively short bedroom hall, with provision for cross ventilation of bedrooms; well combined parage and storage, with sheltered entrance to house; screened porch well placed for multiple use and dining room easily accessible from service prea; acceptable exterior appearance. Criticized for too many complications of plan with jutting corners.



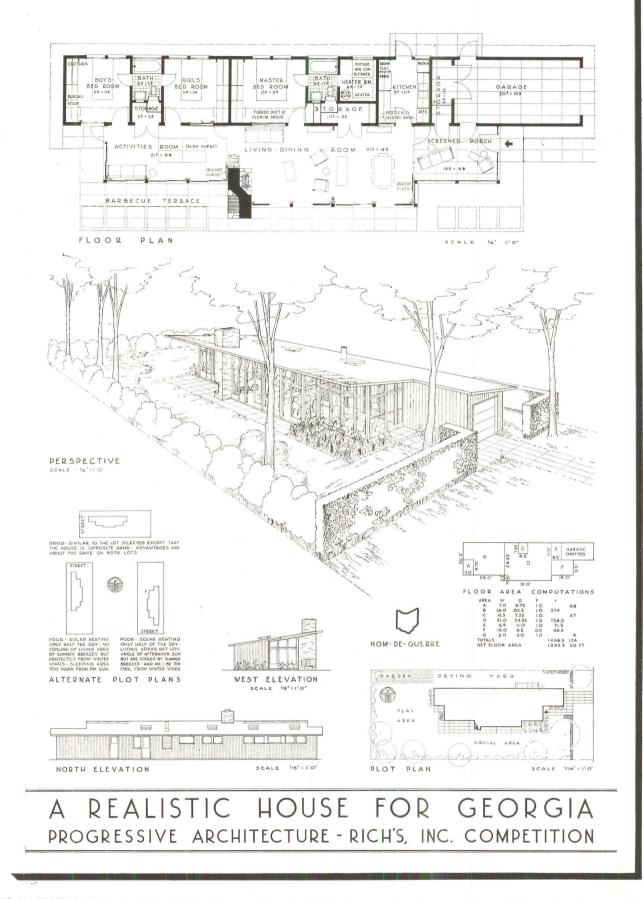
VIEW FROM THE STREET



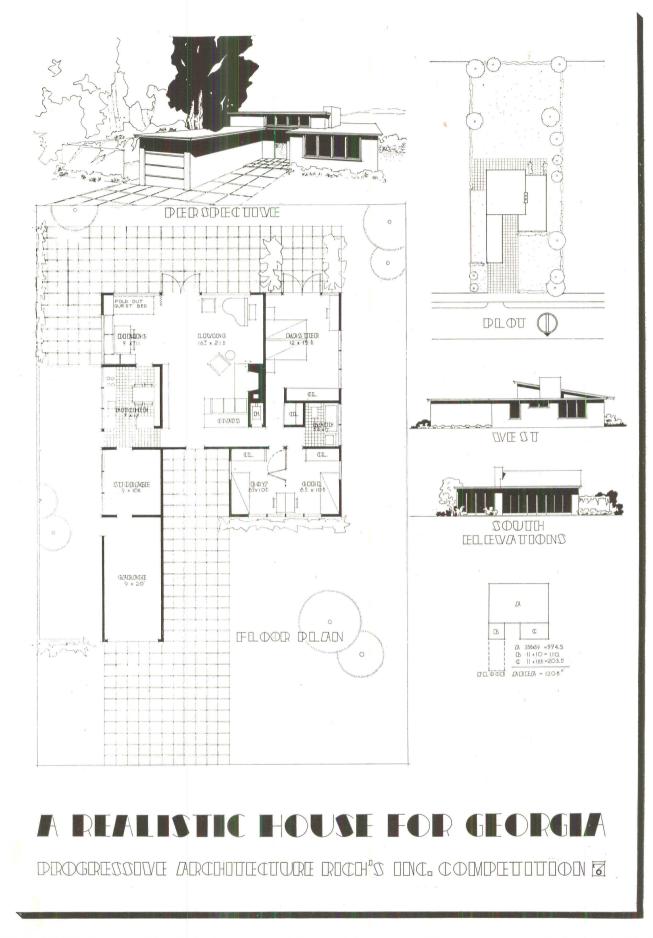
JOHN HIRONIMUS, Jackson Heights, N. Y.—Good points: simplicity of conception; length and openness of living quarters; good location o screened porch which would enlarge living area in summer; provision for rainy day play space in children's rooms. Criticized for lack of cros ventilation in all three bedrooms; a rather stiff elevation toward the street.



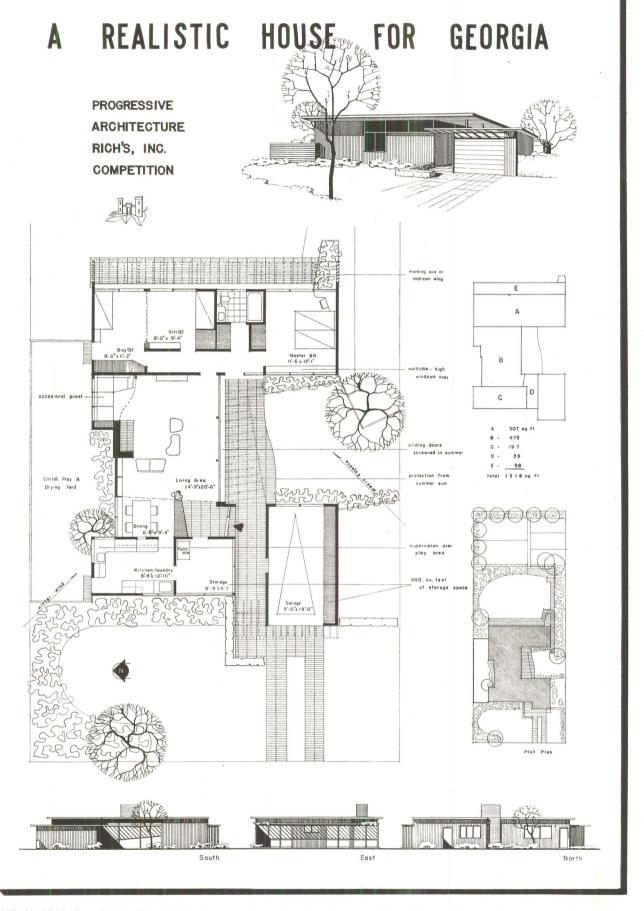
PHYLLIS HOFFZIMER, Brooklyn, N. Y.—Good points: cross ventilation of living area; direct approach from carport to service area and house; accessibility to play yard from children's rooms. Criticized for no service yard near kitchen-laundry; inadequacy of folding doors for winter use with none indicated for separating terrace from corridor; abrupt entrance into living area; lack of cross ventilation or breeze in children's rooms.



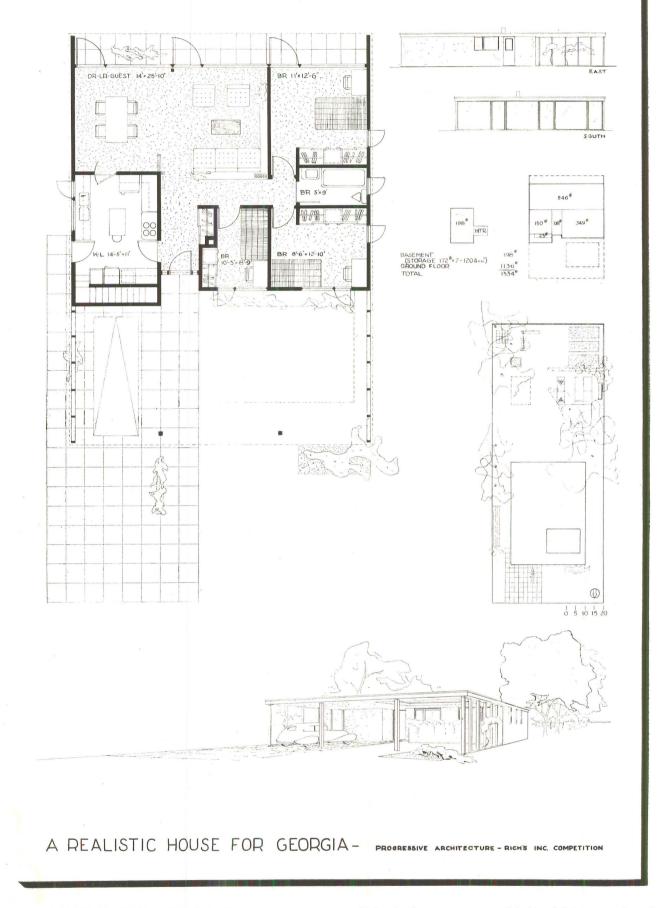
DAVID K. KUECHLE, Oakland, Calif.—Good points: extensiveness of living quarters when thrown together; usefulness of activities room for play or gay parties; enclosed garage with direct access to house; good massing and appearance. Criticized for attenuated shape of living area and its use for passageway; excessive length of house absorbs property; master bedroom opens directly on living room necessitating two bathrooms



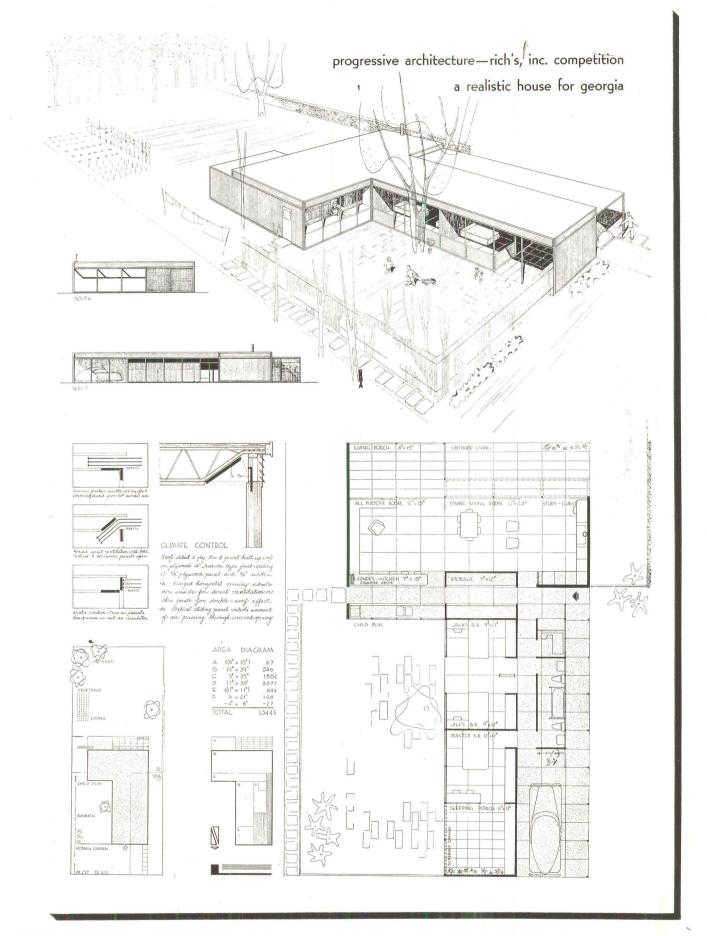
AMES W. LARSON, Portsmouth, Va.—Good points: cross ventilation of all bedrooms and living room; entrance well related to service, living, nd sleeping quarters; enclosed garage. Criticized for long corridor-like structure of garage and storage; abruptness of entrance into living room; epth of living room from court and view side.



LT. DAVID M. LEAF, Fort Belvoir, Va.—Good points: excellent plan; closed garage with good accessibility to living quarters; short bedroom ha with direct exit; extensive living area with cross ventilation at guest and dining corners; storage room at strategic point. Criticized for forbiddin street appearance; lack of full utilization of breeze; small bedrooms made to look larger by indicating under-sized beds.

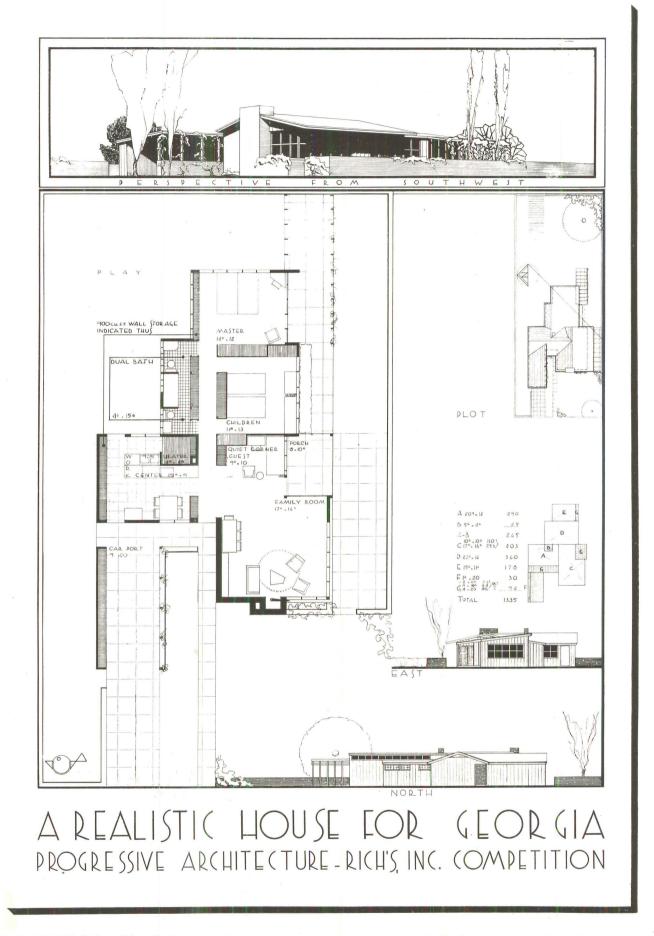


CARTER H. MANNY, JR., Michigan City, Ind.—Good points: compactness of plan for house proper; consolidation of living areas into sizable open space; shortness of bedroom hall. Criticized for open carport at entrance; excessive pergola a costly effort to improve appearance from front; location and narrowness of basement stairs; kitchen wider than necessary but too narrow to permit eating.



GEORGE MATSUMOTO and GYO OBATA, Bloomfield Hills, Mich.—Good points: simplicity of plan; possibility of roofing in different ways if desired; handling of garage; spacious living room suite; possibility of eaves ventilation detailed. Criticized for cold, mechanical appearance; bedrooms too near street noises, particularly sleeping porch; main entrance rather distant from front.

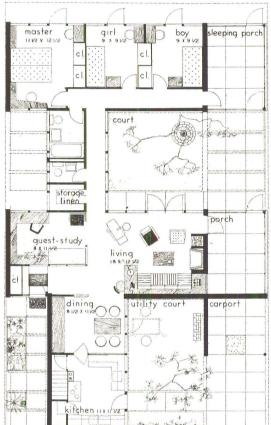


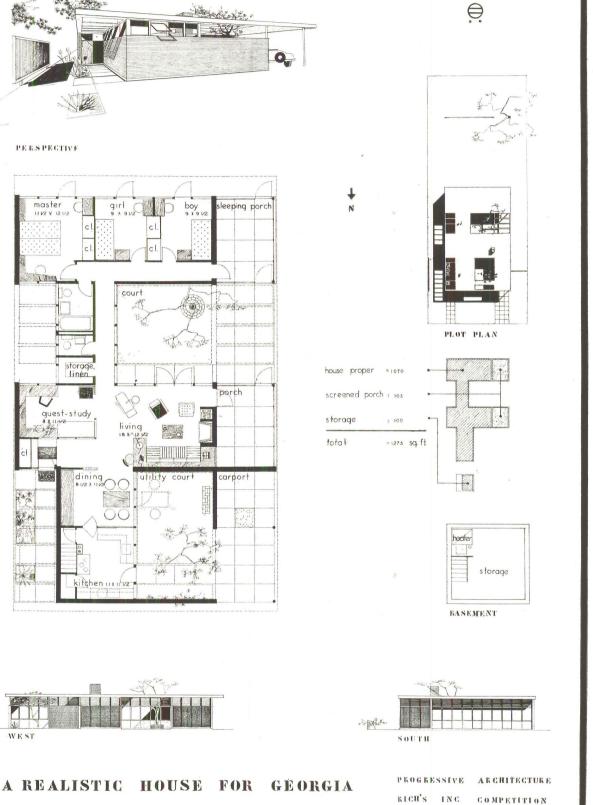


DAVID G. MURRAY, Tulsa, Okla.—Good points: pleasant exterior appearance; protected circulation from carport to main and service entrances; pleasant openness of living areas. Criticized because children's rooms lack cross ventilation; bulk storage inadequate; food service across hall on social occasions; hall would appear long to persons entering house.



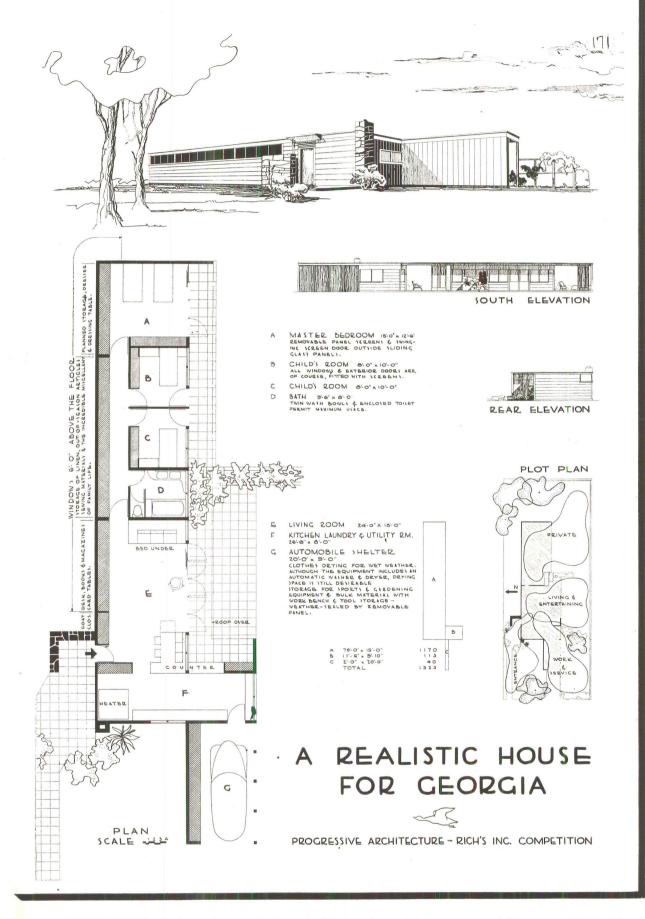
PERSPECTIVE



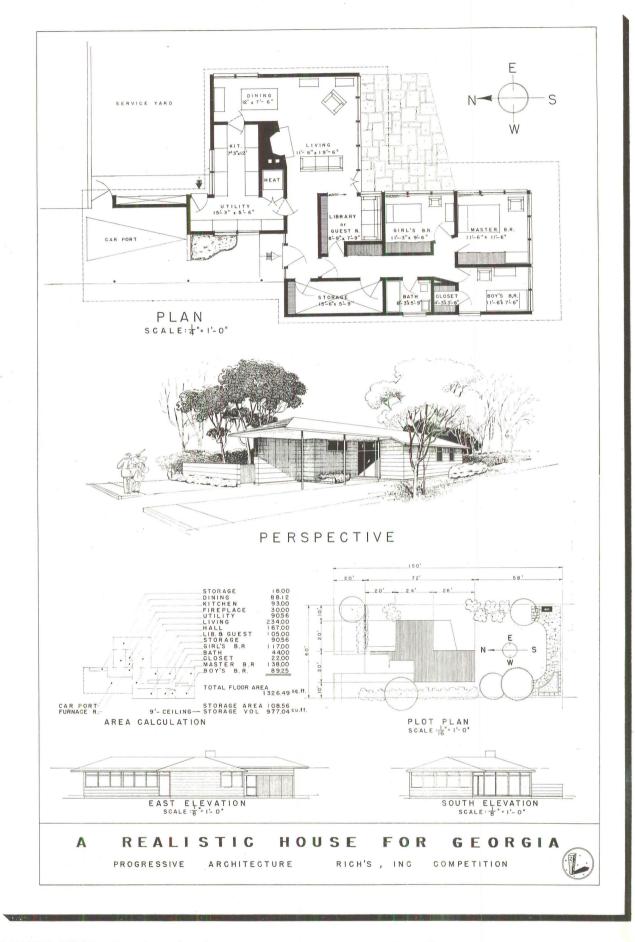


I. M. PEI, Cambridge, Mass.—Good points: very great charm of arrangement and appearance; use of interior courts would make for pleasant living; suppression of carport with sheltered connection to house. Criticized for smallness of courts necessitated by adoption of a relatively complicated scheme for this size of lot; excessive roof and lattice work; main living space pocketed; long halls in bedroom wing.

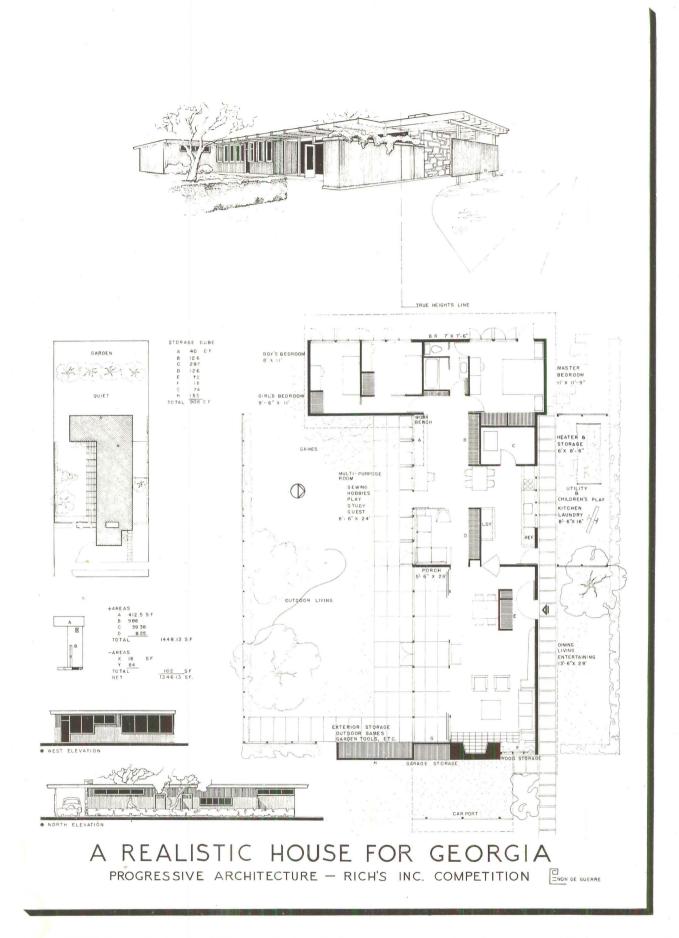
1 WEST



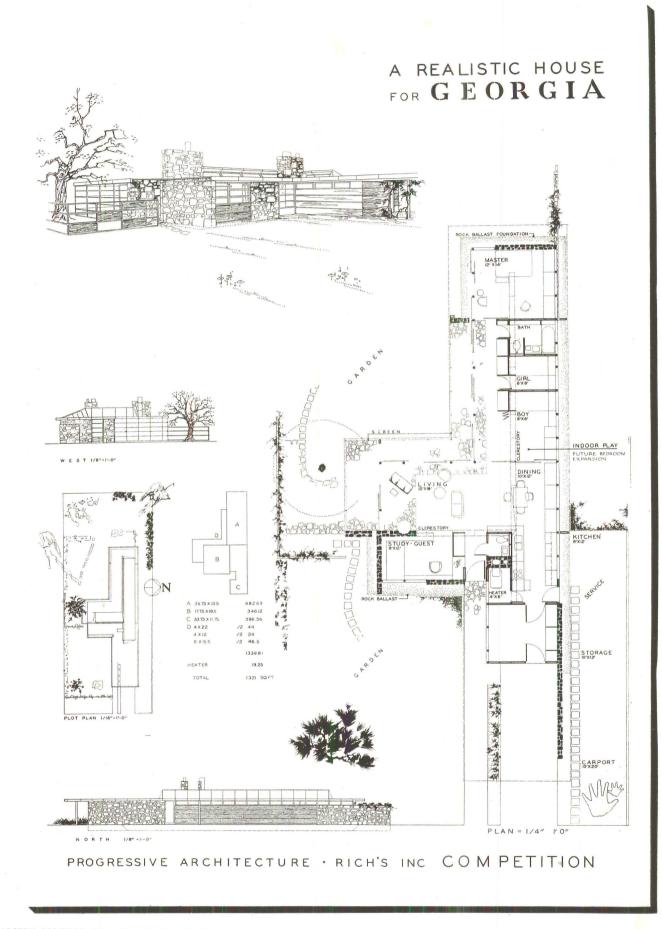
BARBARA and WILLIAM PFOUTS, Pittsburgh, Pa.—Good points: simplicity of plan and mass; openness of living area. Criticized for entrance directly into dining space; absence of fireplace; use of living room as passageway; use of one solid living room wall for storage cabinets; excessive distance from master bedroom to bathroom.



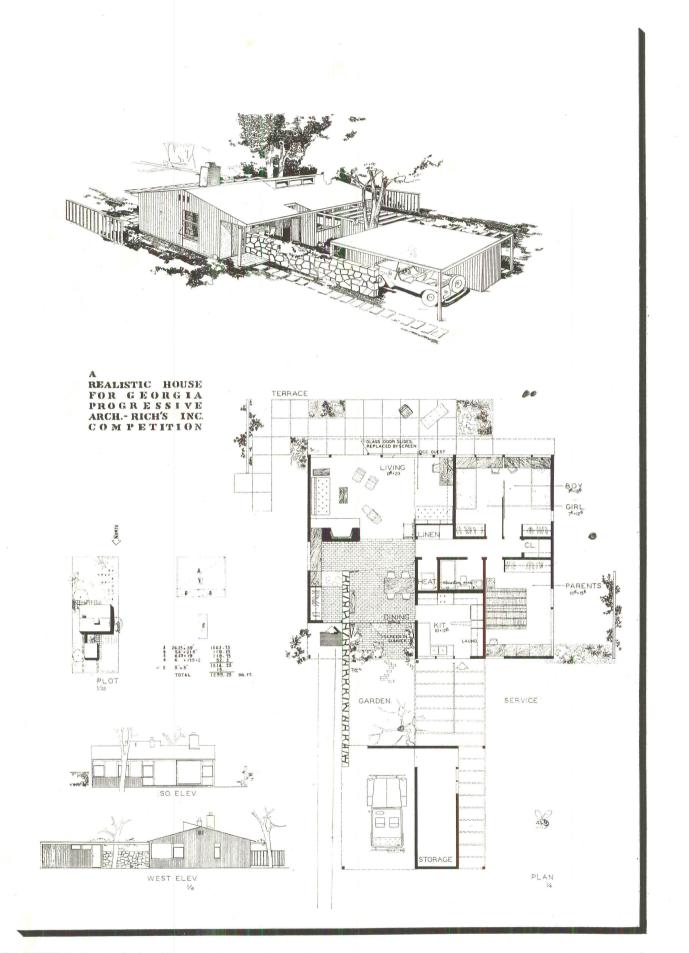
JOSEPH ELLIOTT PHILLIPS, JR., Atlanta, Ga.—Good points: compact plan; service portion well related to dining area and family entrance; easy access from entrance to all parts of home. Criticized for necessity of passing through car shelter to enter; inadequacy of dining space; skewed corridor near master's bedroom; failure to plan for exposure to southwest breeze.



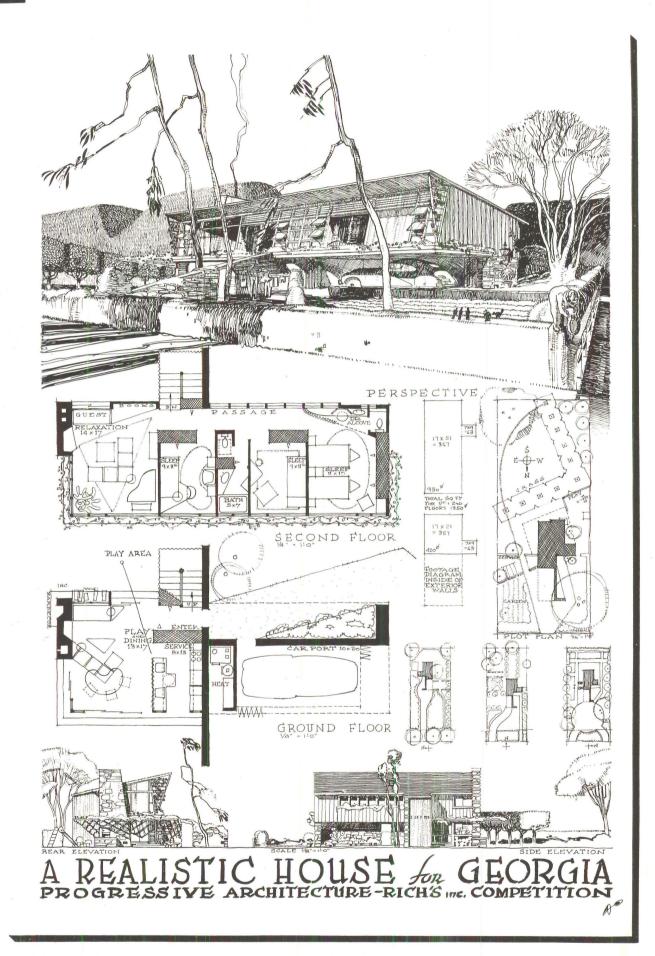
RICHARD R. RHODES, Balboa Heights, Canal Zone—Good points: simplicity of construction and massing; openness of living quarters and view; multiple-use area in place of bedroom hall. Criticized for lack of adequate cross ventilation; subdivision of bathroom; costly stone and lattice work; loss of space inside main entrance in conjunction with provision for coat closet.



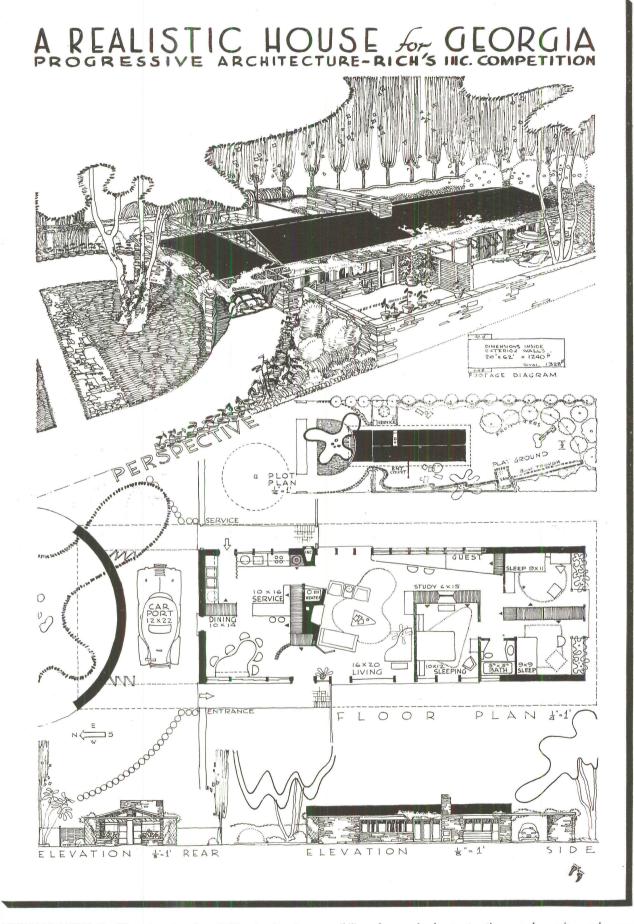
JOSEPH SALERNO, New York, N. Y.—Good points: openness to prevailing breeze; adequacy of kitchen and provision of front lavatory; study and guest corner well related to living space; entrances well placed. Criticized because kitchen too open towards living room; children's bedroom away from breeze; unnecessary large glass areas in hall; inadequate fenestration on north; lavish use of stone; girl's room small and lacks closet.



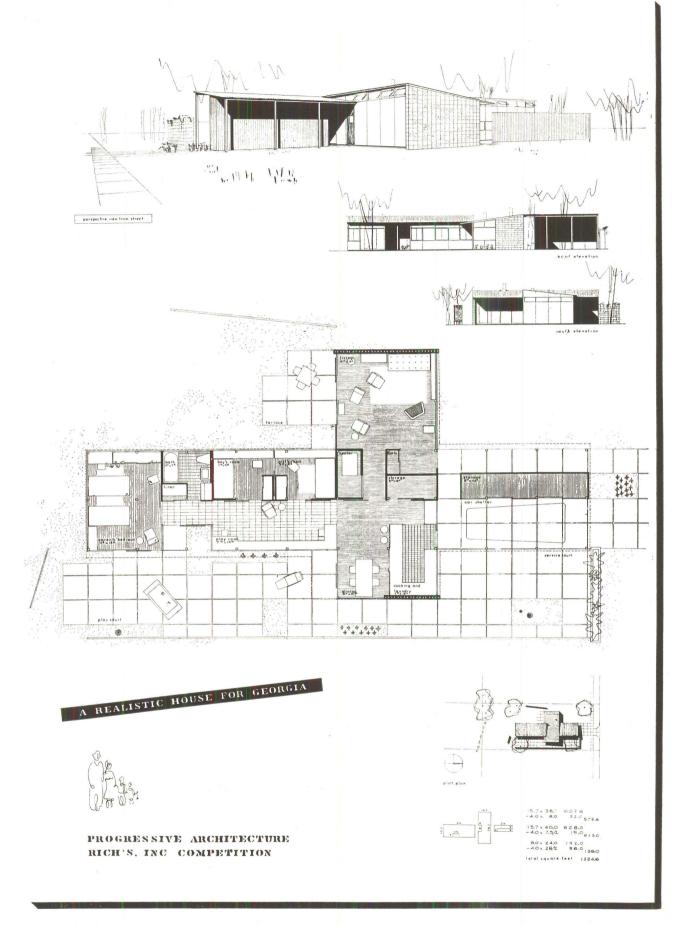
HUGH STUBBINS, JR., Cambridge, Mass.—Good points: pleasant living quality of house itself; sheltering of entrance; possibility of throwing guest-study corner into living space; good placement of fireplace; compactness of sleeping area. Criticized for semi-open garage near street; excessive use of plot for relatively small home; costly stone wall essential to design; interior bathroom questioned by some.



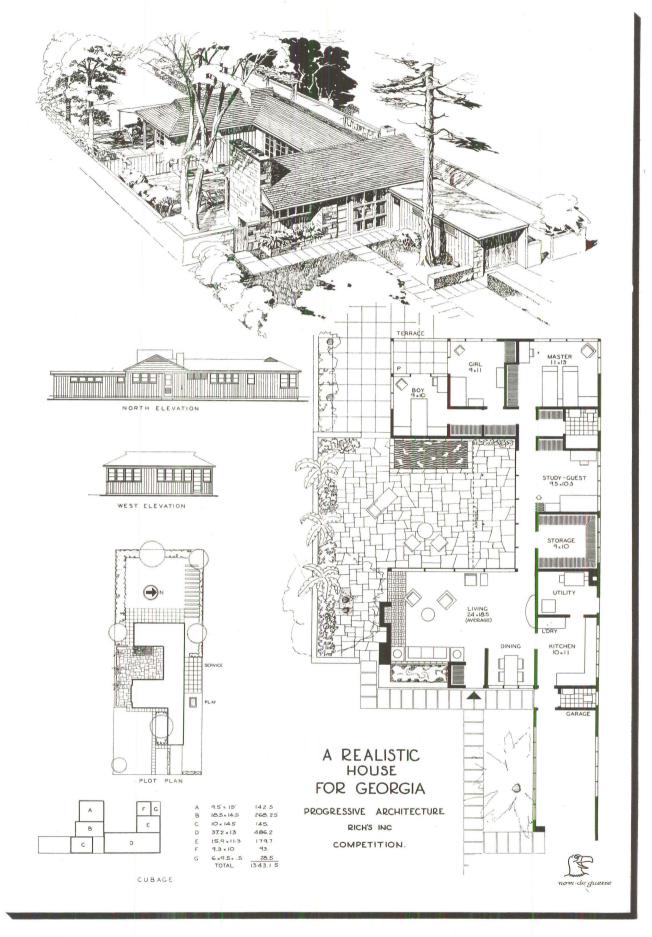
LYLE REYNOLDS WHEELER, West Los Angeles, Calif.—Good points: original and striking appearance; subordination of parked car; utility of living quarters on two floors separating noisy and quiet activities. Criticized for lavish use of stone and other expensive materials and construction, including skylight glass, lattice work, and wide cantilevers; sloping windows considered tour de force.



LYLE REYNOLDS WHEELER, West Los Angeles, Calif.—Good points: possibility of very simple construction; good massing and expression; thoughtful planning. Criticized for expensive manner of handling carport; extensive formal paving near street; inadequate storage space; cramped study and guest provisions; lack of cross ventilation for sleeping rooms; capricious furniture treatments.



CHARLES D. WILEY, Chicago, III.—Good points: admirably simple construction; use of bedroom corridor as part of play space; extent and flexibility of living space. Criticized for somewhat forbidding appearance with sequence of shed roofs; excessive height and openness of car shelter; lack of front lavatory; questionable type and location of fireplace; placement of master's bedroom in relation to play room.



J. FLOYD YEWELL, New York, N. Y.—Good points: agreeable domestic character; opening of entire house toward prevailing breeze; pleasant shape of living room and its cross ventilation; enclosed garage and front lavatory; study-guest room gains space from hall. Criticized for tendency toward costliness; excessive paving more or less required for court; location of storage room; abruptness of entrance into living room.

A HOME FOR THE U.N.O.

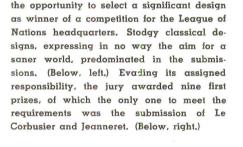
The people of the world are determined that the United Nations shall succeed in organizing the first successful cooperative movement on an international scale. The architects of the world must see to it that this organization is housed in the finest group of structures that the best designers in the world can produce.

Progressive Architecture continues actively to urge an international competition, properly conducted, as the only reasonable method of determining who shall design the U.N.O. headquarters, and to make sure that the best possible design is accepted.

Cables and letters have been sent to the leading architectural magazines and the professional societies in the member nations of the U.N.O., asking them to support, in what ways they are able, the concept of an international professional competition. Within the United States, we have urged a definite stand in favor of such a competition on the members of the A.I.A. advisory committee. We have pointed out to President Truman, Edward R. Stettinius, Chairman of the American Delegation, and the proper U.N.O. committee heads the importance of a competition. We are printing the replies so far received on page 100.

Simply accepting the word "competition" will not be enough. The architects of the United States, with their established methods of fair, professionally conducted competitions free from political or individual pressure, have a definite responsibility to make sure that the result will be the most fit, the most progressive, the most handsome structures that our age can produce. There was a "competition" for the buildings at Geneva, too. Let's not fall into the same trap.

The most important immediate consideration will be the development of the program. This statement of needs must not be narrow, rigid, or inflexible. It must call for a headquarters unit which can grow and develop as the move toward international amity grows and matures. It must not



In 1926 a jury of nine architects threw away

Contest Urged For Design of U. N. O. Home

Architects Institute Ready

to Offer Its Facilities

for Wide Competition

A suggestion that the design of the buildings and layout of the United Nations Organization's permanent home might be deter-mined in an international or na-

permanent nome might be deter-mined in an international or na-

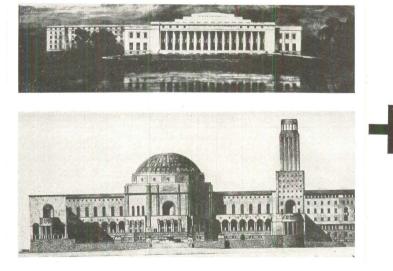
ninea in an international or na-tional contest among architects and designers was made yester-day by Twie Curley chairman of

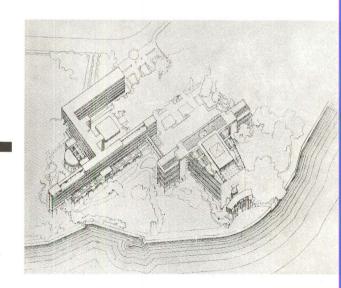
and designers was made yester-day by Eric Gugler, chairman of a committee of the American In-stitute of Architects named to assist the U. N. O. Mr. Gugler said the A. T. A. Is

Mr. Gugler said the A. I.

Mr. Gugler said the A. I. A. 1^{S} "not trying to push itself into the U. N. O. picture" but would offer its full facilities to the U. N. O. planning commission first represen-

planning commission, first repre-

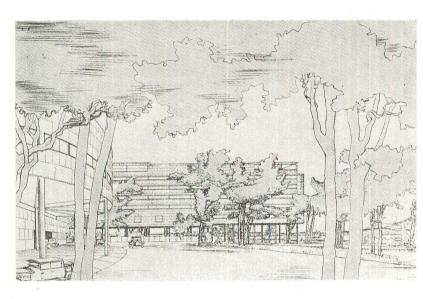




be a rigid description of a few buildings needed at the moment, but a description of those immediate requirements as part of an organic world capital capable of logical growth. With a program thus carefully studied, with a jury intelligently selected, with competitors chosen by the best possible means within each country, an international competition should succeed in producing a design which would rise above stylism and dated clichés. We cannot conceive of any other means of selection which would be free of design prejudices and political pressures.

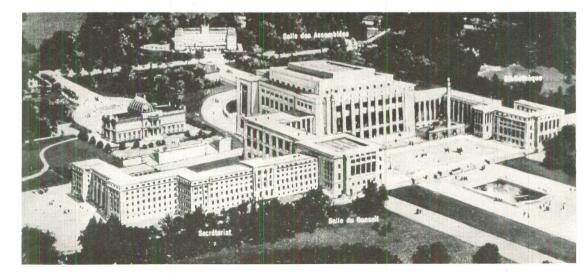
Progressive Architecture will continue to do everything within its power to promote the right kind of competition. Every architect who feels the importance of the matter should make his position clear.

Illustrations by courtesy of the Museum of Modern Art



The Le Corbusier design, only one of the nine which could be built for the stated cost, was copied in many respects in the final building.

A monument to architectural compromise, the final building was not significant. It typified α world organization which also hesitated, compromised, and died.



Architectural Review and **Architects' Journal** are both agreeable to the proposals for an international competition for U.N.O.

The Architectural Press London, England

Fully agree on competition for U.N.O. headquarters bloc.

Architecture D'Aujourd'Hui Paris, France

The magazine **Domus** is happy to join with you in backing the Museum of Modern Art's proposal for an international competition for U.N.O. headquarters, and is ready to support it and forward immediately this proposal in its March issue.

Ernesto N. Rogers

Architect, C.I.A.M.; Editor-in-Chief, **Domus** Milan, Italy

We support proposal of Museum of Modern Art concerning international competition for U.N.O. headquarters. Letter follows.

Review Werk Alfred Roth, Architect Zurich, Switzerland I am very much in accord with the idea of a competition for planning the U.N.O. headquarters. Kenneth Reid is quite right: the problem is, who are the jurors, who is the professional adviser?

I suggest that the jurors should each be paid for, and work out, a solution himself, to be checked by the professional adviser or advisers before judging the actual competition. Any juror who does not fulfill the conditions of the competition should be out and not paid.

This method would give us at least a jury which is thoroughly familiar with the problem (a desideratum which we nearly always miss, even with the "best" jurors).

Of course the projects of the jurors could not be entered in the competition or used later.

Marcel Breuer, A.I.A. Cambridge, Mass.

Thank you so much for sending me the editorial on the U.N.O. selection of an architect. I believe the case is correctly and splendidly stated. I think an international nominating committee for invited participants might be helpful, but nobody—invited or not—should be excluded from participation at his own cost and risk.

Richard J. Neutra, A.I.A.

Los Angeles, Calif.

Thank you for your letter of February 13. Curiously enough, my President, Sir Percy Thomas, wrote several weeks ago to Mr. Noel Baker, Minister of State, who was one of the British representatives at the United Nations Assembly, urging that the British Government should make representations for the holding of an international competition for the design of the headquarters, and we heard from Mr. Noel Baker saying that he would bring the proposal forward.

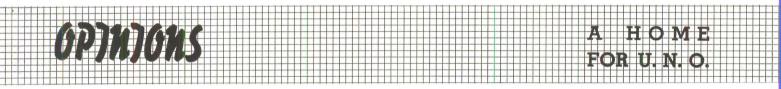
I will lay your letter before my Committee at their next meeting to see whether they think it is possible for us to take further action.

C. D. Spragg, Secretary

Royal Institute of British Architects London, England

I have read with interest Ken Reid's editorial concerning the national competition for U.N.O. headquarters, and I think that basically it is very sound if the mechanics can be worked out satisfactorily.

It appears to me, however, that if each nation designates a limited number of its top-flight architects for its entrants it might end up with a creditable group of competitors and with an inadequate jury. Possibly the most important part of the competition would be the determination of a jury of caliber and insight into architecture that



Revista de Arquitectura de la Sociedad Central de Arquitectos acepta en principio concurso internacional U.N.O.

Federico de Chaval

Director Buenos Aires, Argentina

The President has referred to Mr. Stettinius your telegram of February 14 referring to the recommendation of the architectural societies and magazines in various countries that an international competition be conducted for the design of the buildings for the United Nations headquarters. Mr. Stettinius is now en route to Washington from London where he has been attending the first meeting of the General Assembly of the United Nations and I am therefore replying in his absence.

I am very glad to have your views with regard to the buildings for the United Nations and I am making your telegram available to the appropriate officials of the United Nations.

Hathaway Watson

Assistant to Mr. Stettinius Washington, D. C.

We are entirely in accord with your conviction that the only possible way an architect can be selected for the U.N.O. buildings is through a well regulated, well paid, and well organized international competition.

John W. Root, A.I.A. Chicago, Ill. I am glad to hear that you favor a competition for the U.N.O. headquarters, and I am pleased to see PROGRESSIVE ARCHITEC-TURE taking the lead in the organization of such a competition.

Such a group of buildings should inspire a real religious movement in architecture. The religion would be democracy. It has never been expressed in architecture, but today I believe that there are a lot of us to whom such an opportunity is a real inspiration. I think that such an expression should be one of the requirements set forth in the program. As such, this program would be the means of teaching the functions and potentialities of democracy which, after all, I believe is one of the functions of the U.N.O.

Alden B. Dow, A.I.A. Midland, Mich.

May I add my own endorsement to your editorial suggestion that an international competition be held to select an architect for the permanent home of the United Nations Organization.

I believe that a preliminary selection of each national group of competitors could be held either by an open competition within each country or by government appointment. These chosen groups of competitors could then enter an international and final competition.

Morris Ketchum, Jr., A.I.A. New York, N. Y. would be most beneficial to the determination of the correct competitive results.

In this instance I might suggest for your pondering that a group of architects selected by each country be a pool from which **both** jurors and competitors be selected, the pool of architects, of course, to be the top-flight members of the profession in each nation, as suggested by Ken Reid.

In any event, I am wholeheartedly behind the basic premises outlined in the editorial for the forthcoming competition.

Ernest J. Kump, A.I.A. San Francisco, Calif.

There can be no doubt whatever that an international competition is the only possible way for selecting the architect for U.N.O. or should one say **architects**, about which more later. PROGRESSIVE ARCHITECTURE should be commended for having taken an uncompromising stand.

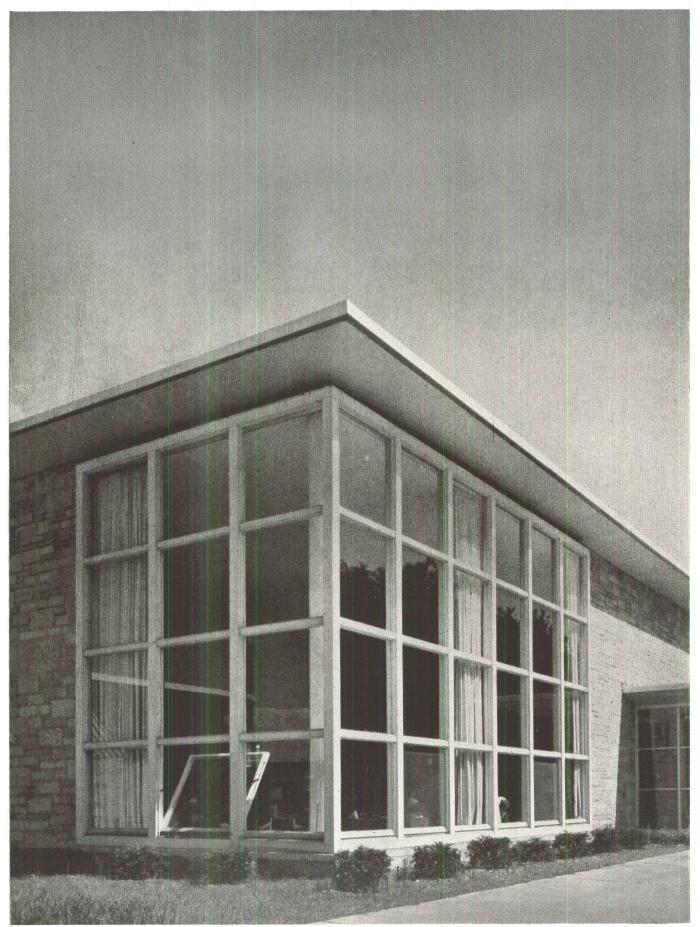
As to the details, a good deal more discussion will be necessary than can be even remotely indicated in a letter. But at any rate, it is time to start free-for-all discussion —and for land's sakes, let us not restrict it to professional journals. With all respect to PROGRESSIVE ARCHITECTURE and its fellow-publications, let us get it into the papers which are read in Congress and in the State Department.

Roland A. Wank, A.I.A. New York, N. Y.

CORNER WINDOW

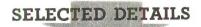
(DETAILS on next page)

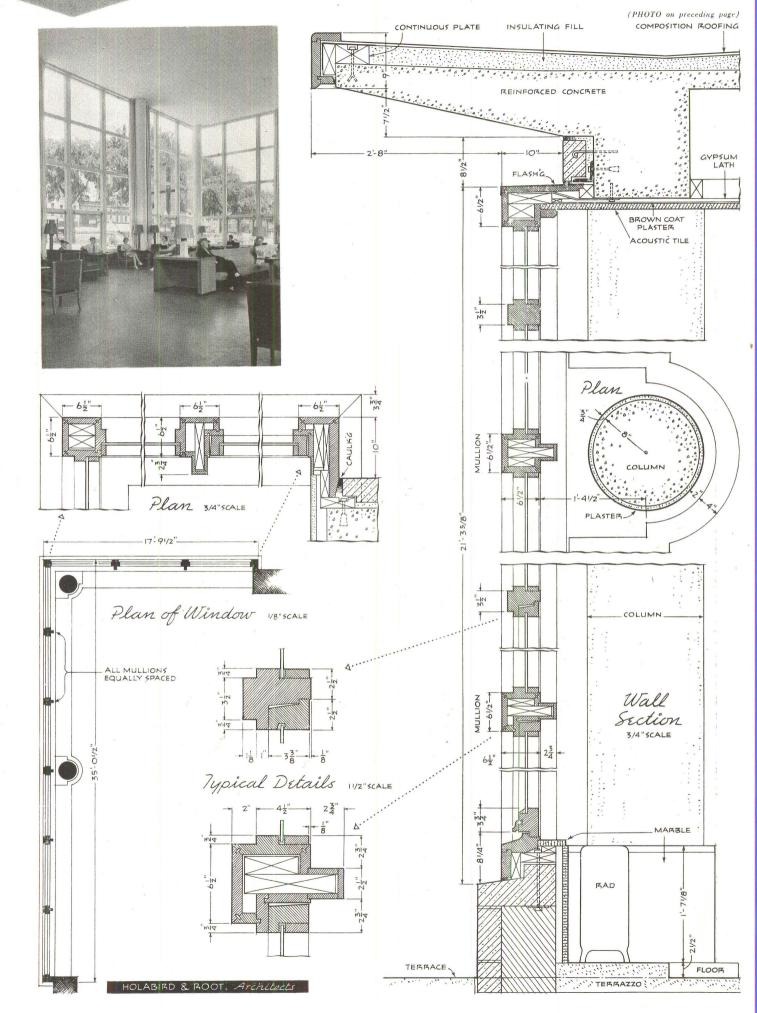
SELECTED DETAILS

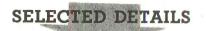


C. B. & Q. RAILROAD STATION, Burlington, Iowa

HOLABIRD & ROOT, Architects







DRAFTING TABLE and TELEPHONE BOOTH

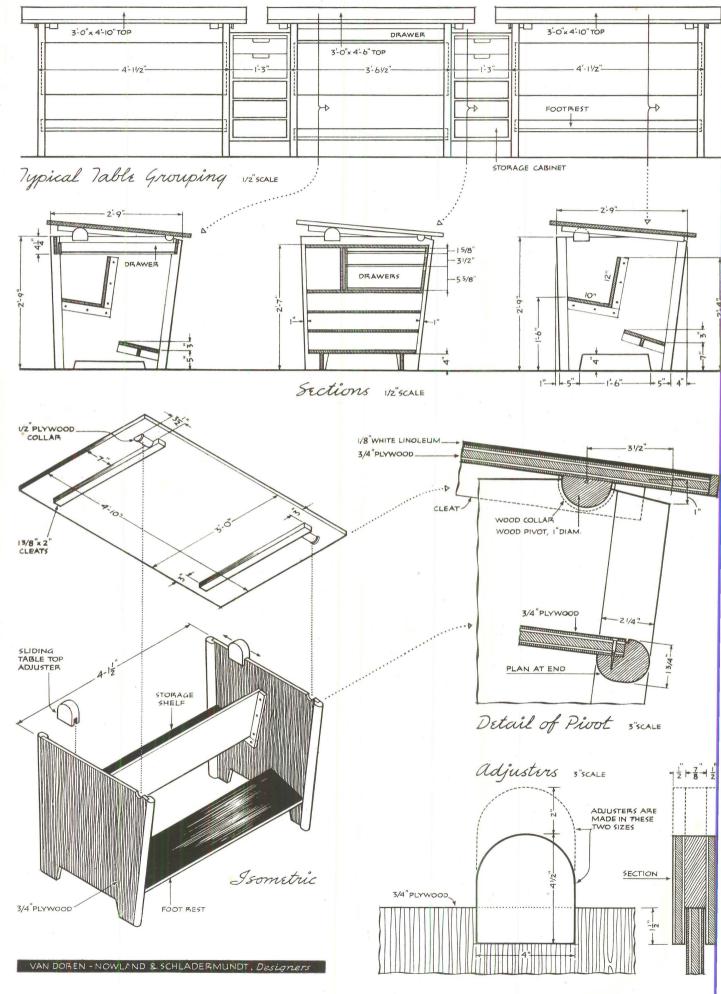
(DETAILS on next page)



VAN DOREN, NOWLAND & SCHLADERMUNDT, Designers



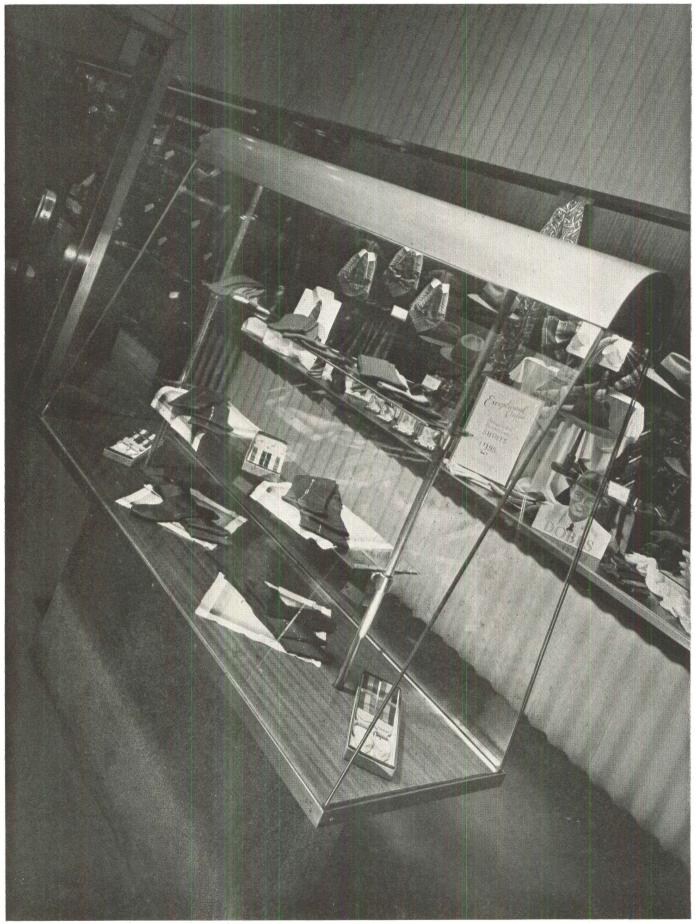
(PHOTO on preceding page



DISPLAY CASE

(DETAILS on next page)

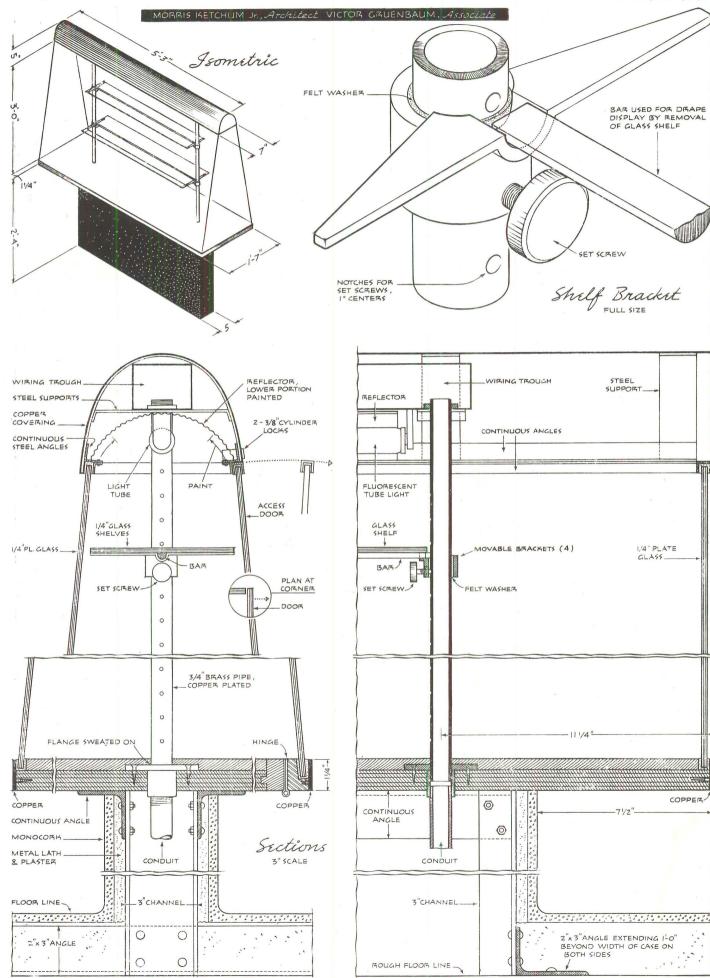
SELECTED DETAILS



STECKLER SHOP, New York City

MORRIS KETCHUM, JR., Architect VICTOR GRUENBAUM, Associate SELECTED DETAILS

(Photo on preceding page)



MATERIALS AND METHODS

FROM THE TECHNICAL PRESS

By JEAN SHORT and DAVID ALDRICH

PAMPHLETS, MANUALS

Pointers for Public Library Building Planners, Russel J. Schunk. American Library Association, Chicago Ill. 67 pp., reference data, bibliog., index, paper bound.

Mr. Schunk has written this pamphlet to serve as a guide to public library planning—an easy introduction rather than a detailed text. The responsibilities of the members of the planning "team" (library board, librarian, and architect) are outlined and discussed with an eye to obviating the difficulties and errors of inexperience. "Selling" the project, library remodeling, and moving share equal consideration with the problems of planning new units.

The first section of the pamphlet presents pointers for the general development of the building project: section two presents pointers for detailed planning—service spaces, finishes, hardware, equipment, etc.

The appendix contains a very useful section of reference data. Over-all costs, book collection capacities, book sizes, floor areas, reading room dimensions, shelving requirements, lighting, heating, and ventilating requirements are specified and dimensioned.

A selected bibliography refers the reader to more detailed working texts for library planning.

The Fluorescent Lamp, C. E. Weitz. Cleveland Engineering, September 6, 1945. Cleveland Technical Society Council, Sweetland Bldg., Cleveland, Ohio. Paper pamphlet, 6 pp., illus., graphs.

Mr. Weitz, illuminating engineer with G. E., here presents a semi-technical discussion of the development and design of fluorescent lamps. Graphs and tables illustrate fluorescent lamp utilization of energy, efficiency losses, phosphor coating characteristics, current utilizations, lamp size efficiencies, and temperature and light variations.

TECHNICAL ARTICLES

What Are the Facts on Water-Thinned Paints? Frank V. Faulhaber, Buildings and Building Management, November 1945. Stamats Publishing Company, Cedar Rapids, Iowa. 50 cents per copy.

Despite the belief of some building owners, managers, and painters that new "water-thinned' (resin-oil emulsion) paints are merely a wartime expedient, available information and test data show that there are many places in building decoration and maintenance where water-thinned paints can be used to excellent advantage.

This article reports that water-thinned paints have excellent tint retention qualities and may be satisfactorily applied to most surfaces without primers or sealers (metal surfaces should be oil paint primed). The new paints go on very quickly and easily and most brands are odorless and dry within the hour. These paints are sold in a variety of tints and finishes.

Mr. Faulhaber states that the waterthinned paints may be applied without fuss or muss over wallpaper, paint, or plaster, but in conclusion remarks that careful preliminary steps and surface preparation will assure a better job. No information is provided on the application of wallpaper or other finishes over surfaces painted with waterthinned paints.

Paper on Plastics read by L. G. Couzens before a meeting of the Design and Industries Association. London, England.

Mr. Couzens, research engineer and author of a recent book on plastics, has a most refreshing attitude toward the loudly heralded "Plastic Age." Claiming that most promises made, and some have been made by Mr. Couzens himself, were grossly exaggerated, he makes a strong plea for cooperation between the designer and the producer. Plastics, have, to date, been classed largely as substitutes; Mr. Couzens asks that they be classed as *plastics*, not ersatz, and used as such by designers. They are, essentially, non-structural, and should be employed as auxiliaries, in which field they have enormous value. Structurally, laminates have been tested and proven successful and the speaker makes a strong point of the difference between true plastics and those materials which have been laminated with plastic adhesives.

In speaking about design of plastic articles, Mr. Couzens brings up the wellworn complaint about plastics looking "cheap." He suggests that such articles be thicker; that if an appearance of solidity is put into plastics there will be a gain in marketability.

The Classification and Properties of Porcelain Enamels, Part II, The Enamelist, October 1945. Enamelist Publishing Company, 4150 East 56th Street, Cleveland, Ohio. 6 pp. 10 cents per copy.

This article briefly discusses and outlines testing procedures for the following properties of porcelain enamels: fusibility; thermal expansion; thermal shock resistance; adherence; hardness, and resistance to abrasion; opacity; acid resistance of vitreous porcelain enamels; alkali resistance of vitreous porcelain enamels; weather-resistance of architectural enamels.

Fire Grading of Buildings, R. C. Bevan, M.A., B. Sc., Journal of the Royal Institute of British Architects.

Mr. Bevan emphasizes the point that fire grading is concerned with the establishment of standards, and, while he does not suggest the method of attainment of such standards, he does maintain that no adequate fire prevention codes can be enforced without a broad standardization within the building industry. By first categorizing fire hazards (classification of occupancy, personal, and community hazards), Mr. Bevan is able to set up a rather clearcut set of necessary precautionary measures. Limitations set up for the various classes include height and size, and surroundings.

Editor's Note: The Materials and Methods section is abbreviated this month because the pages ordinarily devoted to technical articles had to be made available for presentations of competition results.

Incidentally, last month considerable space in these columns was given to a review of the first issue of a new French technical-architectural magazine, "L'Homme et L'Architecture." That was an excellent first issue!

MANUFACTURERS' LITERATURE

Acoustics

1-38. Burgess Acousti-Booth (Bulletin 459), 4-p. illus. folder on a doorless all-wood telephone booth equipped with sound-absorbing acoustic material; for industrial use. Burgess-Manning Co.

1-39. Zonolite Acoustical Plastic, 4-p. illus. folder on a sound-absorbing, fireproof plaster applicable with a trowel to old or new, flat or irregular surfaces. Universal Zonolite Insulation Co.

Airport Equipment

1-40. Announcing Bayley All Metal Prefabricated Tee Hangar, 4-p. illus. folder describing features of a prefab, low-cost, T-shape hangar of easy single or multiple erection. Suggested plan for small airport. William Bayley Co.

1-41. Low Cost Housing for Small Airplanes, AIA File 91-B, 8 pp., illus. Features wood hangars, suggested layouts for construction in single or multiple units, repair shops, large commercial hangars. Timber Engineering Co.

Air Conditioning

1-37. What Every Home Owner, Builder, and Architect Should Know About Year 'Round Air Conditioning, Chrysler Corp., Airtemp Div. Reviewed March.

Air Treatment

1-42. AAF in Industry (Form 502), 32 pp., illus. Discussion of general dust problems in industry and suggested applications of air filters and dust control equipment. American Air Filter Co., Inc.

1-44. Disinfectaire Ultraviolet Germicidal Equipment (Cat. 845), 20 pp. Brief discussion of germicidal ultraviolet electronically applied to air disinfection. Energy output distribution curves and tables of requirements. Data on and photos of types of units usable for upper and lower air disinfection, for air-duct installations, for industry and product application. Reference list. Art Metal Co.

Color Values in Vision

3-48. Optonic Colors for Schools, Arco Co. Reviewed March.

Concrete

3-61. Concrete Floors, 12-p. illus. booklet. General information on concrete floor construction; recommended specifications for heavy- and normal-duty floors; advantages of "Incor" 24-hour cement; test data. Lone Star Cement Corp.

Concrete Block

3-59. Planning Your Home, Besser Mfg. Co., Public Information Service. Reviewed March.

Connectors

3-62. Teco Connectors for Timber Construction in Railroad Service, AIA File 19-B, 20 pp. Discussion on application of connectors of various types to timber members used in railroad exterior structures and buildings. Installation photos; detail drawings. Timber Engineering Co.

Doors

4-36. Revolving Doors (1945 Catalog for Postwar Planning), International Steel Co., Revolving Door Div. Reviewed March.

4-39. St. Louis Doors, St. Louis Fire Door Co. Reviewed March.

Fireplace Equipment

6-61. Bennett Fireplace Supplies, 8-p. illus. booklet. Information on a fireplace-air-heater unit applicable to any outside fireplace design; heating data; dimensions. List of fireplace accessories—grilles, dampers, spark curtains. Bennett-Ireland, Fireplace Div.

6-57. The Modern Fire Screen, Bennett-Ireland, Fireplace Div. Reviewed March.

Floors, Coverings

6-59. Ideas for Better Business Floors (F-362-645), 22-p. illus. consumer booklet. Designs for use of linoleum floor covering. Armstrong Cork Co.

Floor Finishes

6-62. Roach Repellent Cement, 5-p. reprint of an article by F. O. Hazard on "Hubbellite" cupriferous magnesite cement; tests and results of repellency effect on various kinds of roaches. H. H. Robertson Co.

Furniture

6-60. The Arnot Sleeper, Arnot & Co. Reviewed March.

Garage Equipment

7-43. Your Own Private Doorman, 6-p. folder on an automatic, control-button, opening device for garage doors. Aviation Corp., Horton Mfg. Div.

Glass

7-44. Magnalite Diffusing Glass, AIA File 26A 526, 2-p. folder. Photos of installations of light-diffusing glass for windows, doors, walls, skylights, screens. J. Merrill Richards.

Gypsum Products

7-45. Beauty and Quiet (SC-43), 6-p. illus. folder on advantages of ceilings sound-insulated with "Acoustone" lightweight, incombustible tiles. U. S. Gypsum Co., Acoustical Tile Div.

7-42. Architectural Specifications, AIA-37-A (WW-16), U. S. Gypsum Co. Reviewed March.

Hardware

8-87. Solid Brass and Bronze Hardware, 16-p. illus. booklet (8x10¹/₄). General historical discussion of brass and bronze hardware; data on hardware designs by Sargent, Schlage, Stanley, Corbin. Copper & Brass Research Assn.

Heating Equipment

8-80. The New Principle of Heating, Panelray, Bryant Heater Co. Reviewed March.

8-81. Ratings and Installation Guide (Form 860), Burnham Boiler Corp. Reviewed March.

8-82. Coleman Gas Floor Furnace, Coleman Lamp and Stove Co. Reviewed March. 8-84. Firedaire, A Fireside Furnace, Edwards Mfg. Co. Reviewed March.

8-89. Tempered-Aire (H-550), 8-p. illus. consumer booklet describing 3 types of oil-fired home heating units; ratings; dimensions. Gar Wood Industries, Inc., Heating Div.

8-75. Assured Economy in Automatic Heat (Form 242), Hershey Machine & Foundry Co. Reviewed March.

8-76. Modine Convector Radiation (Bulletin 245), Modine Mfg. Co. Reviewed March.

8-77. Peabody CD Wide Range Oil Burning System (Bulletin 109), Peabody Engineering Corp. Reviewed March.

8-78. Preferred Unit Steam Generator (Bulletin 1000-B), Preferred Utilities Mfg. Corp. Reviewed March.

8-79. A Practical Plan, for Incorporating Central Heating and Air Conditioning in a Proposed Suburban Apartment and Housing Development, Ric-Wil Co. Reviewed March.

8-90. Hot Water Circulators, AIA File 29-D-2, 8 pp., illus. Data on a motorless pump (pressure operated) for hot water heating systems; an installation and specification manual. Vita Motivator Co.

Insulation

9-46. *B-H No. 1 Insulating Cement*, 4-p. illus. folder on a plastic insulating cement especially suitable for maintenance purposes. Baldwin-Hill Co.

9-45. Flintkote Insulation Products (SR-3), Flintkote Co., Pioneer Div. Reviewed March.

9-47. PC Foamglas Insulation for Tanks, Towers, Ducts, and Breeching (G5711) 24 pp., illus. Information on "Foamglas"—its properties, uses industrially, thermal conductivity; details and specifications. Pittsburgh Corning Corp.

Kitchen Equipment, Commercial

11-09. Case Histories of Successful Mass-Feeding Operations, 14 pp. of plans for large-scale kitchens (hospitals, industrial plants, schools, Army and Navy buildings); list of cooking equipment used. G. S. Blodgett Co., Inc.

Laboratory Equipment

12-61. Laboratory Equipment (Bulletin 498), 10 pp., illus. Data on corrosion-resistant chemical stoneware; laboratory sinks, stands, outlets; table troughs, tops; pipe (fittings, traps, floor drains); diluting sump tanks, cement-asbestos pipe, ventilating equipment, paint, floors, etc. Dimension tables. U. S. Stoneware Co.

Library Equipment

12-58. Snead Bookstacks, Snead & Co. Reviewed March.

Lighting Equipment

12-62. Lighting with Corning Flur-oguide, 4-p. illus. folder on 2 types of lighting—incandescent and fluorescent —"waffle" panels and Pyrex round and square "Lenslites." Sizes; specifications. Corning Glass Works, Lighting Div. From General Electric Co., Lamp Dept. Reviewed March:

12-56. Super Service With Light (Y-546) (service stations).

12-57. Wall-to-Wall Lighting for Tomorrow's Office (Y-547).

12-60. Engineered Lighting and Control Equipment, Condensed Cat. 945, Hub Electric Co. Reviewed March.

Marble

From Vermont Marble Co., reviewed March:

13-29. Genuine Marble.

13-30. Individualizing the Store Front, AIA File 8-B-1.

Metals

13-31. Wrought Iron for Sewage Treatment and Disposal Installations, 28 pp., illus. Installations of sewage disposal plants. Technical bulletin on: heating coils in sludge digester tanks; gas handling; sewer outfall lines; air lines; distributor arms; waste heat boilers; vent stacks; bar screens; creek crossings, etc. A. M. Byers Co.

13-32. Rigidized Metals, 14-p. illus. booklet on advantages of and uses for metal sheet roll-processed into terned surfaces. Rigid-Tex Corp.

13-33. Expanded Metals, 22-pp., illus., on advantages and industrial uses of variations of sheet steel mesh: reinforcing, catwalks, carwalks, safety guards, storage bins, etc. Technical data, standard accessories, partition details, design and load test data. U. S. Gypsum Co.

Office Equipment

15-1. *The Rock-A-File*, Rockwell-Barnes Co. Reviewed March.

Paint

16-80. The Proper Use of Color in Hospital Decoration, 8-p. illus. folder. Brief treatise on therapeutic use of color in hospitals; suggested color schemes. O'Brien Varnish Co.

Partitions

16-77. Partitions, AIA-19-E-61, and Wardrobes, AIA-28-B-33, International Steel Co., Fairhurst Div. Reviewed March.

Photomurals

16-82. From Blank Walls to Pictorial Epics with Kaufmann & Fabry Photomurals, 12-p. illus. brochure presenting installations of enlarged photos (available in color) for wall covering or décor. Kaufmann & Fabry Co.

Plastics

16-89. Chemaco Molding Materials, 20-p. illus. discussion of cellulose acetate, ethyl cellulose, polystyrene, and vinyl compounds. Data on molding methods, comparison tables (weights and measures, fractions, temperatures). Chemaco Corp.

16-90. Plastics, The Story of An Industry, 36 pp., illus. (6x9). Non-technical resumé of plastic progress: definitions, classifications, processing, manufacturing; information on the plastics industry, employment opportunities, list of educational facilities. Committee on Plastics Education, Society of the Plastics Industry, Inc.

MANUFACTURERS' LITERATURE

PROGRESSIVE ARCHITECTURE—Pencil Points, 330 West 42nd Street, New York 18, N.Y. I should like a copy of each piece of Manufacturers' Literature listed.

We request students to send their inquiries directly to the manufacturers.

No.	No.	No.	No.
No.	No.	No.	No.
No.	No.	No.	No.
No.	No.	No.	No.
NAME			
POSITION			
FIRM			
MAILING AD	DRESS		☐ HOME ☐ BUSINES
CITY			STATE
			4/46

Piping Equipment

PLEASE PRINT

16-84. Functional Spring Hangers and Vibration Eliminators (Cat. 2026), 32-p. illus. catalog on design of flexible power piping layouts. Information on standard and special spring hangers and vibration eliminators; detail drawings; engineering data. Blaw-Knox Co., Power Piping Div.

16-85. Duriron Acid-Proof Equipment, AIA File 29b81 (Bulletin 702-p), 12-p. illus. booklet on pipe and drainage equipment made of acid-proof, silicon iron alloy, especially manufactured to handle corrosive liquids and fumes. Duriron Co., Inc.

16-86. Better Drainage Made Easy, illus. folder (3¼x6) on perforated fiber pipe for septic tank filter beds, drainage, irrigation, foundation drains. Fibre Conduit Co.

Pump Equipment

16-79. Deming Pumps Everywhere, Deming Co. Reviewed March.

Refrigeration, Industrial

From Worthington Pump and Machinery Corp., reviewed March:

18-20. Evaporative Coolers, Bulletin C1100-B27.

18-21. Bulletin C-1100B-11A.

- 18-22. Bulletin C-1100B-18A.
- 18-23. Bulletin C-1100B-19A.
- 18-24. Bulletin C-1100B-20.
- 18-25. Bulletin C-1100B-21.
- 18-26. Bulletin C-1100B-22.
- 18-27. Bulletin C-1100B-23.
- 10-21. Duttetth C-1100D xt

18-28. Bulletin C-1100B-26.

Steel

19-51. Eastern Stainless Steel Sheets, A Condensed Handbook for the Engineer and Layman; first ed., 1945, 96 pp., bound, illus. Complete information, general and technical, on stainless steel sheets: processing, fabrication, properties, uses, grades, finishes, gages, sizes, tolerances. Eastern Stainless Steel Corp.

19-47. Better Construction with Steel Joists (LSJ-2-41), Laclede Steel Co. Reviewed March.

19-48. Stainless and Heat-Resisting Steels (Adv. 430), Republic Steel Corp. Reviewed March.

19-49. The Saxe Welded Erection System (Bulletin 4), J. H. Williams & Co. Reviewed March.

Trims, Metal

20-22. Chromedge, 26-p. booklet (3¹/₄x 6). Catalog and price list of nosings, edgings, bindings, cap trims, wallboard trims, color-insert trims, etc., of extruded aluminum alloy. Details; information on accessories. B. & T. Metals Co.

Welding

23-59. Airco Arc Welding Accessories (Cat. 130), 12 pp., illus. List of accessories for all types of arc welding machines and operations (electrode holders, graphite electrodes, welding cable, cable connectors, cable lugs, etc.). Air Reduction Sales Co.

23-60. The Welding, Flame Cutting, and Flame Descaling of Wrought Iron, 24-p. illus. information bulletin. Data on plastic and fusion welding of wrought iron, fittings, physical properties of welds, etc.; tables, tests. A. M. Byers Co.

23-61. Arc Welding Electrodes (ADW-75), 32-p. illus. catalog on electrodes. Recommended uses, chemical analyses, specifications, engineering data; hardness conversion table. Wilson Welder and Metals Co., Inc.

Windows, Wood and Metal

23-58. Style and Enduring Beauty Begin With Mesker Steel Windows, Mesker Brothers. Reviewed March.

23-54. Pella Windows, AIA-35-P-1, Rolscreen Co. Reviewed March.

... THERE MUST BE A REASON!

Charting the progress of development of contemporary building materials and equipment is a most baffling occupation. One so bold as to essay it must be willing to winnow a huge mass of ridiculous chaff in hope of finding a few sublime grains; to hold in the back of a confused mind the current grim struggle for world power, speculating as to its effect on an American economy of which building construction is so important a part; to wonder at the tenacity with which we Americans cling to outmoded building codes and other practices when we have just seenduring a war emergency, of coursehow much better a job we can do when freed from such restrictions; and eventually to arrive at a reasonable evaluation of the accumulation of developments in building products and their use. To compress all this into a few inches of type is a Herculean job in reverse, but we're stuck with it.

GRAINS OF REASON

With that off our chest, we report that certain logical trends are in the process of developing into action. Unnoticed in the whirl of news were a meeting on Sept. 27, 1945, of an A.S.T.M. Administrative Committee on Simulated Service Testing, and another of building industry representatives held at the National Bureau of Standards. Result: A proposal for formation of a new A.S.T.M. Committee on Methods of Testing Building *Constructions* (italics ours), for which L. J. Markwardt of the Forest Products Laboratory would be temporary chairman, J. H. Courtney of American Standards Association, temporary secretary.

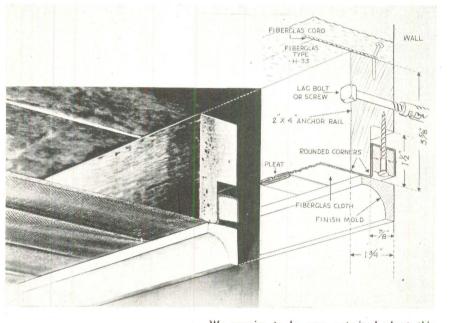
A setup to test complete constructions, including as the proposal does the three primary elements of materials, engineering design, and fabrication details, should be heartily welcomed by code officials, building designers, and all others concerned in building. Both new and old developments could be assessed on the score of safety, and approved or disapproved, if such a procedure were in operation. Perhaps some day we will evolve a similar method of pre-evaluating a building's success in providing a healthful, amenable, happy, productive environment for the simple routines of living and working. Then, indeed, the millenium will have arrived.

We can't resist this: At the same time, A.S.T.M. received a recommendation from its Administrative Committee that the Society's present *Committee on Fatigue of Metals* be reconstituted as a *Committee on Fatigue*.

Gordon Lorimer's slide film on Modular Coordination is being shown at professional and commercial meetings and schools of architecture all over the country. (We presented an inadequate preview of it last January.) A staggering number of publications, associations, manufacturers, and individuals are enthusiastically backing the modular program. The need now is for a concise, simple explanation for use on drafting boards-nothing verbose or intricate because one of the virtues of Modular Construction is its simplicity. We come across increasing evidence of its acceptance abroad; just the other day a friend newly in from Sweden told us how many million kroner the Swedes expect to save on door construction alone if they can put across their 10centimeter module; and the British technical press is following developments here closely. There's more than a hint that Modular Coordination may become an international standard.

SPIRALING COSTS

Coordinated or not, we hear a lot about the short supply of building materials. They are short—and, despite attempts at controls, expensive. According to *American Builder*, a St. Louis firm of real estate analysts found materials to be more costly last October than at any time since 1913, with the single exception of 1920, judging by costs of building a typical 25,300 cu ft suburban house. At the same time, labor costs involved were substantially higher than in any recorded year. Since October, if anything, both costs have probably



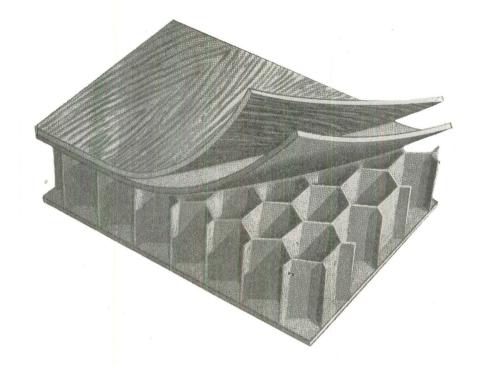
We promise to be very restrained about this adaptation of Fiberglas batts and cloth to acoustic purposes in the ceiling of a business executive's office. The manufacturer's release which accompanied the photos gave explicit directions for pulling the pleated glass-cloth ceiling tight. Apparently the installing mechanics experienced some difficulty in getting a flat ceiling. However, the material is undoubtedly acoustically excellent. The Glenn L. Martin Co. must be preparing to market many of the developments which it found satisfactory in producing war-planes. Recently it announced the impending release of a liquid photographic emulsion which can be brushed on any surface—an outgrowth of the war practice of photo-printing drawings directly on materials to be fabricated, called "photo-lofting." Metal, wood, cloth, leather, plastic —any material—can be used as a base; Junior can enlarge his girl friend's picture directly on the wall, or Pop can decorate the living room with homemade photomurals; bill posters may have to learn a new trade. Martin calls it the tintype up-to-date. risen. In addition to the generally recognized factors behind the situation are two to which less attention has been paid: building codes and labor supply.

AS TO BUILDING CODES . . .

On codes, George N. Thompson, Chief, Division of Codes and Specifications, National Bureau of Standards, has stated that a need for cooperative action is generally recognized throughout the building industry, and that some kind of a national base, to which local codes can be compared, appears indicated. Rather than a "national" code (which could hardly encompass such diverse local needs as earthquake-resistance in California. cvclone-resistance in Kansas, and snow-loads in Maine) he suggests establishment of a reference base, which might take the form of national building standards. Illustrations are the excellent, recently issued Bureau of Standards publications, American Standard Building Code Requirements for Minimum Design Loads, and American Standard Building Requirements for Masonry. Others have been issued or are in preparation.

. . . . AND LABOR . . .

On labor, the U. S. Chamber of Commerce is anticipating a shortage even (Continued on page 112)



Honeycomb construction material, recently announced jointly by U. S. Plywood Corp. and The Glenn L. Martin Co., plane manufacturers, has great strength, little weight. Honeycomb may be made of plastic-impregnated paper, cotton, or linen, faced with sheet aluminum, stainless steel, wood veneer, or other materials. Example has double surfacing of metal and wood veneer; single surfacing is called suitable for most uses. Core may be as thin as V_8 ", as light as 4 lb per cu ft. Sheets as large as 7 x 30 ft have been made. Martin is using it in a new plane; projected uses include doors, furniture, luggage, kitchen cabinets, railroad cars, truck bodies, etc. With such a favorable weight-strength ratio, it should eventually find a place in building construction.

THIS MONTH'S PRODUCTS_

AIR TREATMENT

Precipitron. Electrostatic air cleaner for homes; refrigerator-sized unit installable with duct work of an air conditioning or central warm-air heating system; said to remove up to 90% of dust particles. Westinghouse Electric Corp., 40 Wall St., New York, N. Y.

Evapatrol Unit. Odor control and air freshening in enclosed spaces by mechanical or natural volatilization of "Airkem"—complex group of aromatic substances from plants and activated chlorophyll. (Not an air conditioner.) W. H. Wheeler, Inc., 7 East 47th St., New York 17, N. Y.

COMMUNICATIONS SYSTEMS

Home Inter-Com. 2-way inter-com appliance for home use, operates on 110 volts, A.C. or D.C. Executone, Inc., 415 Lexington Ave., New York 17, N.Y.

DRAFTING ROOM EQUIPMENT

S & J Quadrangle. Adjustable plastic triangle (4" x 11") with 8 drawing edges, pitch scales to 24/12, angles to 90°, sine or cosine functions. Stewart-Jackson Instrument Co., A. G. Bartlett Bldg., Los Angeles 14, Calif.

Layout Protractor. Ruled lines, on underside of quarter-inch beveled glass, in actual contact with layout, for fine readings, accurate marking. Universal Engraving & Colorplate Co., Inc., Engineers Specialties Div., 980 Ellicott St., Buffalo 8, N. Y.

ELECTRICAL EQUIPMENT

Aireon Circuit Breaker. 15-35 amp circuit breaker designed to keep electrical contacts approximately 1" apart when overload occurs; operable any position; front or back connection. Aireon Mfg. Corp., Kansas City, Kansas.

FLOOR COVERINGS

Accoflor. Linoleum flooring with mastic composition bonded to asphalt-saturated felt backing, for commercial and light industrial use. Armstrong Cork Co., Lancaster, Pa.

Floor Mat. Synthetic rubber mat for heavy duty use; available in color, corrugated or pyramid surface, with or without perforations. United States Rubber Co., Rockefeller Center, New York, N. Y.

FURNITURE

Arnot Sleeper, Model 12. Hotel sleeping unit, used as living-room divan, convertible by push button to full-size single bed; selfcounter-balance principle. Arnot and Co., 200 W. Saratoga St., Baltimore 1, Md.

GAGES

Pressure Gage. New bellows type, low-range, bronze gage to indicate draft pressure or any

low pressures of gases or liquids not corrosive to bronze. Type 1188 P ranges from 10" of water to 10 lbs pressure; Type 1188 V from 10" of water to 20" mercury vacuum. Manning, Maxwell & Moore, Inc., Bridgeport 2, Conn.

HARDWARE

Authotone "Suburban" Chime. Brass doorknocker with automatic, ivory chime box mounted on inside of door; no wiring, battery, etc. Auth Electrical Specialty Co., 422 East 53rd St., New York 22, N. Y.

Aluminum Finished Locks. Locks coated with aluminum oxide; stain-, tarnish-, and weatherresistant. Schlage Lock Co., 2201 Bayshore Drive, San Francisco 19, Calif.

Doormaster. Aluminum, spring-loaded doorstop, with bullet catch and rubber foot, for "rugged" use. Swallow Airplane Co., Inc., Wichita 1, Kansas.

HEATING EQUIPMENT

Heat-O-Meter. Celluloid calculator to measure radiation for steam and hot water heating systems. Heat-O-Meter, 424 West 42nd St., New York 18, N. Y.

KITCHEN EQUIPMENT

Rolling Door Cabinet. Enameled steel kitchen cabinet (18" and 24" widths) with roll-up (Continued on page 112)

PRODUCTS

worse than the existing squeeze. In cooperation with the Society of Civil Engineers and other associations, the Chamber has prepared a pamphlet, Opportunity Unlimited, for distribution through local chambers to veterans and others interested in being trained in skills needed in construction. Miles Colean, in a series of articles in Banking magazine early in the war years, predicted a postwar labor shortage; now the U. S. Chamber says ". . . it has long been evident . . . that, once building activity is under way in substantial volume, the next shortage will be one of skilled men, both professional and construction and building workers." A bit late, that statement; the labor shortage has been with us for some time. Ask any architect who's tried to hire a draftsman since V-E Day.

.... AND SUBSIDIES?

In view of these high costs, we cannot help but side with Wilson Wyatt in his fight for subsidies for building materials production. We need inexpensive houses. Materials and labor cost too much to make such houses possible. Cutting labor costs is impossible. Ergo, stimulate the flow of building materials until they become available, at low cost, to consumers. The forces which, professing sympathy for house-less veterans and others, nevertheless cannot see the validity of such direct reasoning, have successfully blocked Wyatt's straightforward appeal for materials subsidies. But Wyatt is a resourceful man. There are probably indirect ways of attaining the same end; in spite of Congressional defeat, in spite of recantation by the Na-

door, 2 shelves, fits under regular wall cabinet; does not interfere with counter below. Mullins Mfg. Co., Warren, Ohio.

Presteline Electric Range. Has 3 arrangements of heating elements. Pressed Steel Car Co., Inc., Domestic Appliance Div., 666 N. Lake Shore Drive, Chicago 11, Ill.

Electric Ranges. New line with 5 heat-control positions; also combination fuel-electric model for room heating as well as cooking. Westinghouse Electric Appliance Div., 306 Fourth Ave., P.O. Box 1017, Pittsburgh 30, Pa.

Home Freezer. Upright home freezer with front and inner sectional doors; to be available in 6, 16, and 25 cu ft models. Westinghouse Electric Appliance Div.

Home Refrigerator, B-7. Increased frozen foods storage capacity, adjustable shelves to hold new square milk bottles; other efficiency innovations. Westinghouse Electric Appliance Div.

Dishwasher. New automatic design, capacity increased 1/3 over prewar models. Westinghouse Electric Appliance Div.

LAUNDRY EQUIPMENT

Laundromat, Model 3-B. Portable automatic washing machine, self-filling and draining, adjustable for 60° to 160° F water temperatures; washing time control. Westinghouse Electric Corp.

LIGHTING EQUIPMENT

Fluorescent Fixtures REC-240, 340, 440. 2, 3, and 4 light recessed, hinged fixtures featuring "telescopic" frame fitting flush to any uneven ceiling. All-Bright Electrical Products Co., 3917-25 N. Kedzie Ave., Chicago 18, Ill.

Fluor-O-Shield. Aluminum fluorescent lamp shield designed to reduce stroboscopic effect; casts no shadow, eliminates glare. Fastens on standard 40-watt (48") and 20-watt (24") bare fluorescent lamps. Camfield Manufacturing Co., Grand Haven, Mich.

Guth PFC-100. 4' white plastic diffuser reduces brightness 30% but is more efficient (82% T.F.) than glass diffusing panels; can be snapped on 40-watt (T-12) fluorescent lamps. Edwin F. Guth Co., 2615 Washington Blvd., St. Louis 3, Mo.

Luminaires 3003, 3004. Commercial, for 2-40 and 4-40 watt lamps, surface or suspension mounted; 48" x 5%" x 12"; Tulamp ballast, 110-125 V., 60 cycles A.C. and higher. Mitchell Ave., Chicago 14, Ill.

LOAD TRANSPORTATION

Small Power Truck. For lifting and transporting loads to 3,000 lbs in limited areas; equipped with horizontal non-swivel boom. Elwell-Parker Electric Co., 4205 St. Clair Ave., Cleveland 14, Ohio.

Fork Attachment for Power Trucks. New fork and ladle attachment for industrial trucks, for quick and safe transport of hot or cold materials. Elwell-Parker Electric Co., 4205 St. Clair Ave., Cleveland 14, Ohio.

Handy-Hoister. Light, steel production tool to fit any manufacturing process requiring lifting and transporting of tools and material; mounted on roller-bearing wheels. Lewis-Shepard Products, Inc., 245 Walnut St., Watertown, Mass.

PLASTICS

Marvinol. Elastic polyvinyl resin which, when compounded, has chemical resistance, wearability, is waterproof; will vary from rigid to rubbery state; has complete color range. Now marketed in white powder form for fabricators and convertors. Glenn L. Martin Co., Baltimore 3, Md.

PLUMBING EQUIPMENT

Sinks. Re-styled flat rim sinks, single-double compartments, ledge-type fittings, 30" x 21" single sump unit. Briggs Mfg. Co., Plumbing Ware Div., 3011 Leuschner Ave., Detroit Mich.

Pipetite-Stik. Compound in stick form for lubricating and sealing pipe joints. Withstands gasoline, cil, butane, Freon, air, water, acid, brine, etc.; vibration, temperature changes, pressure, etc.; prevents rust. Lake Chemical Co., 607 N. Western Ave., Chicago 12, Ill.

REFRIGERATION EQUIPMENT

Farm and Home Freezer. Capacity 12½ cu ft; dimensions 28½" x 36" x 63". Ben-Hur tional Association of Home Builders of its endorsement of the subsidy idea, he will find a way.

FOR A CLEANER WORLD

Westinghouse, through Automatic Laundry Distributors, Inc., is pushing a new, coin-in-slot, automatic, Laundromat-equipped planned laundry for apartment houses. A.L.D., Inc., has had some years of experience; now, with Westinghouse backing, it has offices in a few key cities and plans to license operators in many others. Under the usual agreement the landlord provides space, rent-free, in consideration for the additional service provided for tenants; A.L.D. pays installation, maintenance, and current costs. Another, older outfit, Telecoin, Inc., offers a similar service.

Mfg. Co., Milwaukee 12, Wis.

Blowers for Low Temperature Cooling. New line of steel-housed cooling blowers equipped for different air speed velocities, for use with all refrigerants. Rempe Co., 340 N. Sacramento Blvd., Chicago 12, Ill.

SEALANTS

Firzite. Wood sealer and soft-wood hardener; resin-and-oil product for preventing face checking, for laying "wild" grain, for providing even foundation to keep grain from showing through finishes. United States Plywood Corp., 55 West 44th St., New York 18, N. Y.

VALVES

Hancock Weldvalve. New lightweight, highpressure steel valve in gate, globe, angle designs, 600-2500-lb standards. Manning, Maxwell & Moore, Inc., Bridgeport 2, Conn.

WALLPAPER

Wallpaper With DDT. Ready-to-paste cedar closet wallpaper with top coating containing 5% active DDT insecticide. Trimz Co., Inc., Merchandise Mart, Chicago, Ill.

WATER RESISTANCE

Bondex Hydraulic Waterproofing. Powder mix for treating major cracks and breaks in basement walls. Reardon Co., 2208 N. Second St., St. Louis, Mo.

WELDING

Airco 312 Electrode. All-position mild steel electrode for preventing underbead cracking in welding hardenable steel. Air Reduction Sales Co., 60 East 42nd St., New York 17, N. Y.

WINDOWS

American Home Metal Window. Residential casement sash, "packaged" unit, glazed or unglazed, prefitted with wood surround and exterior trim, installable in 5 min. Automatic operators; 100% venting. Snap-on metal storm sash, inside screens, space for Venetian blinds; can be cleaned from inside. Mesker Brothers Iron Co., 424 S. 7th St., St. Louis 2, Mo.

Ordinary glass can be subjected to two types of treatment to increase its strength and offset its brittleness. One process is lamination with sheets of transparent plastic, which produces safety and bullet-resistant glass; the other is heat-treating, which produces tempered glass. Tempered glass can be incorporated in safety glass, but safety glass cannot be tempered. Both products have been widely tested in civilian use, and bulletresisting glass has been further developed for military purposes during World War II,

SAFETY (LAMINATED) GLASS

DESCRIPTION. All types of safety glass (including bulletresistant, for which see below) consist of multiple layers of glass bonded with controlled heat and pressure to interlayers of transparent plastic. Safety glass, in common trade practice, ordinarily has two layers of glass, one of plastic; bullet-resisting glass has more than two glass layers. The glass layers may fracture, but the splinters or granules will ordinarily adhere to the plastic membrane instead of flying off. With the comparatively recent introduction of improved plastics and new methods of combining the materials, most types of safety glass now available will "dent" rather than puncture under impact at reasonable velocities.

Physical characteristics and properties are tabulated elsewhere on this sheet. In most respects, the properties of safety alass are the same as those of homogeneous alass of the kind used in the glass laminations, except that, due to the plastic layer, safety glass will not withstand prolonged exposure to high temperature (max. one hour at approx. 175F, or longer at approx. 130F). Except in special types of safety glass, the plastic layer is held to the minimum thickness that will fulfill its function-a few hundredths of an inch. The plastic used is a tough, transparent derivative of the vinyl group; vinyl acetate, polyvinyl acetal, and vinyl butyral are used; all are thermoplastic (soften at high temperature). Maximum sizes available in the various thicknesses vary according to the manufacturer (see table) and are governed primarily by the maximum flat dimensions of the sheet plastic interlayer. However, larger sizes can be obtained by butt-joining the plastic.

Glass used in safety glass may be picture-framing quality, single or double strength glazing quality, or various thicknesses of plate glass. Combinations of single and double strength are also available as a standard product. On special order, safety glass may be obtained with one or more glass laminations tempered (see below). Bent safety glass may be obtained, but is comparatively expensive because each layer must be bent individually (or in pairs) before lamination. Greater tolerances than normal are required. Bends are limited to dimensions and types available in the particular kind of glass from which the safety product is made. Bent safety glass is obtainable in sizes whose projected area or dimensions do not exceed those of the flat safety glass.

USE. Depending on the quality selected, safety glass is useful for glazing automobiles, airplanes, railroad cars, buses, etc.; for air-raid precautionary glazing in buildings; for all purposes subject to impact hazards, such as glazing for toll booths, protecting shields or glazing in laboratories, pressure chambers; for gage glasses not subject to excessive temperatures; for animal cages in zoos or aquariums; and for glass-top tables, other furniture, screens, doors, windows, etc.; particularly when there is likelihood that glass breakage might cause physical injury.

Safety glass may be worked in shop or field (cut, drilled, ground, etc.) with little difficulty if manufacturer's directions are followed. However, safety glass containing tempered glass cannot be worked after manufacture (see "Tempered Glass"). Ordinary glazing putty or mastic cannot be used with safety glass because it will affect the plastic adversely. Special compounds and mountings are used. For unusual conditions consult manufacturers.

"FLEXSEAL" is a special laminated safety glass produced only by one manufacturer. It consists of two panes of glass with, between them, a much thicker, tougher layer of plastic than ordinary safety glass contains. The plastic layer is purposely larger in extent than the glass, so that a plastic rim surrounds the product. This plastic rim may be any desired thickness and may be machined to any desired contour; the rim may be clamped into the channel or other frame, and, being

BUILDING PRODUCT FACTS

SAFETY GLASS—Kinds, Sizes, Weights				
Kind of Glass	Total Thick- ness	Thickness Toler- ance	Max. Area Per Light*	Net Wt Lb per Sq Ft
Thin (photo)	5/32''	-1/32"	{ 7 sq ft {32'' x 42''	1.62 to 1.75
Single Strength (S.S.) Combingtion	7/32''	±1/32''	{15 sq ft {45'' x 84''	2.63 to 2.84
(S.S. & D.S.) Double	15/64"	$\pm 1/32''$	{15 sq ft }48'' x 84''†	3.00 to 3.08
Strength (D.S.)	1/4''	±1/32"	{15 sq ft {45'' x 84''	3.05 to 3.34
Plate	1/4"	±1/32"	{60'' x 74'' }48'' x 84''†	3.05 to 3.25
Heavy Plate	11/32'' 3/8''	$\pm 1/16''$ $\pm 1/16''$	60" x 74" 60" x 74"	Î
<i>11 11</i>	13/32" 1/2"	$\pm 1/16''$ $\pm 1/16''$	60'' x 74'' 60'' x 74''	—13.0 to 4.47
	5/8"	$\pm 1/16''$	60'' x 74''	0 to
	3/4'' 7/8''	$\pm 1/16''$ $\pm 1/16''$	60'' x 74'' 60'' x 74''	-13.
	1"	$\pm 1/10''$ $\pm 1/16''$	60'' x 74''	\downarrow
Flexseal	varies	varies	40" x 80"*	varies

Note: All kinds consist of two laminations of glass, one of plastic.
* Where two areas are given, upper figure is standard for Libbey-Owens-Ford Glass Co., lower for Pittsburgh Plate Glass Co.
† Under special conditions, up to 50" x 100".
• 20" x 40" if in multiple thicknesses.

tough, flexible, and somewhat compressible, permits a tight mounting which prevents air leakage. When maintenance of pressure is important, even though the glass layers may crack. the plastic film serves as an airtight diaphragm.

Flexseal is available made of plate glass (suggested for uses not subject to internal or external pressure) or tempered glass (for uses that are subject to internal or external pressure). Its properties are similar to those of the glass employed, but vary with structural composition. Bent Flexseal may be obtained, subject to commercial bending limits of the glass itself. Multiglazed Flexseal, for reducing heat transfer as much as possible, consists of two or more Flexseal units with one or more air spaces between. Uses include glazing for all openings subject to pressure or vacuum, subject to unusual vibration, twisting, etc., for certain types of double or triple glazing, or wherever safety glass of unusual resistance to penetration is required. However, Flexseal is not comparable to bullet-resisting glass; it will not resist the impact of a bullet as well.

BULLET-RESISTING (LAMINATED) GLASS

DESCRIPTION. Bullet-resisting glass is built up of more laminations than safety glass, and the glass employed is plate; otherwise its characteristics are those of safety glass. Research by the Libbey-Owens-Ford Glass Co. (Aircraft Technical Bulletin 85-62, L-O-F) indicates that "unbalanced" laminations, in which a thicker layer of glass is used for one interior lamination, will provide maximum protection for a given over-all thickness provided the thicker layer is near the outside of the unit. For instance, a typical unbalanced unit has individual lights 1/8", 3/4",

Thickness (nominal—in.)	Tolerance (in.)	No. of Glass Plies	Max. Area	Weight (lb/sq ft)
1/2 3/4 7/8	Î	3		(ft)
1	1	4	x 73'' Ford)– Glαss)	o/cu
1 - 1/8 1 - 3/16	1/16"	5	or 33" wens- x 84" Plate	156 1
1 - 1/2 1 - 9/16 2	+1	5	43" x 63" o -(Libbey-Ov 45" x Pittsburgh F	.75 to 39.0 (156 lb/cu ft
2 - 3/32	\downarrow	5	43 (L	-9.75
2 - 1/2 3	$\pm 3/32$ $\pm 3/32$	7 9	$\downarrow \downarrow$	\downarrow

Variations from standard products listed may be obtainable on special order.

BUILDING PRODUCTS FACTS

N

1/4", 1/4", 1/8" thick, reading from outside (source of danger) to inside; the resulting glass would be nominally 1 - 1/2'' thick. The same report states that, for any given over-all thickness, the resistance to penetration decreases as plastic is substituted for glass; in other words, for resistance to the impact of a bullet, the plastic films must be as thin as possible. Thin glass is used for outside layers; this reduces the amount of glass spalling or dislodgment off the inner surface due to bullet impact.

Transparency, or visible light transmission, varies from 70 to 84%, depending on amount and type of glass and plastic contained in the assembly. Bullet-resisting glass should satisfactorily withstand temperatures as low as minus 40C, hot, humid air, and ultra-violet radiation without cracking, separation of plies, or formation of bubbles in, or discoloration of, the plastic interlayers. Bent bullet-resisting glass is obtainable in cylindrical sections with a minimum radius of 15" and girth between 60 and 90 degrees of arc, depending on radius and thickness. Spherical or two-way bends are not yet obtainable. Thickness of individual glass layers should not exceed 1/4" if glass is to be bent.

Use of tempered or semi-tempered glass does not improve bullet-resistant glass; stresses in a bullet impact are too high and too concentrated.

TEMPERED (HEAT-TREATED) GLASS

DESCRIPTION. Almost any type of glass (excepting such products as laminated safety glass and wire glass) may be tempered. The process consists of reheating the manufactured product almost to the softening point and then chilling it suddenly. The sudden cooling induces high compression of the outer surfaces and tension in the inner portions, a sort of "stressed-skin" effect which makes the product more resistant to shock and temperature change than ordinary glass. The skin must be penetrated before tempered glass will fracture; when it does, the glass disintegrates into many small crystals rather than sharp splinters.

Tempered glass is from three to five times stronger than comparable plate glass in sustaining loads or resisting stress, up to seven times as strong in resisting impact, and more than three times stronger in resisting heat shock. It will withstand limited bending stress; depending on such factors as size, shape, etc., it can be twisted up to an angle of 20 degrees without breaking. Safe working temperature is 650F.

The tempering process may cause a small amount of distortion, or "bow" (variable from 1/8" to 13/32" depending on dimensions of the piece treated) but in other respects (excepting transmission of polarized light) tempered glass retains the char-acteristics of the original material. "Tong marks," or tiny inden-

TEMPERED	GLASS—Properties: C	ompared with P	late Glass
		Plate Glass	Tempered Glass
Tensile Strength	(Mod. of Rupture)	6,500 lb/sq in.	29,500 to 30,000
Hardness	(Moh's Scale)	5.5 - 6.5	7
Heat Resistance	(Average temp. diff. °F re- quired to cause failure)	100 - 147F	400 - 466F
Impact Resistance	(Critical height for dropping: 2 lb steel ball -11-lb shot bag	8'' 60''	37'' 160''
Max. Load*		21,000 lb	94,500 lb

* Regardless of superficial area, the greatest uniformly distributed load which any square light of glass one inch thick, supported on all 4 sides, will support. Strength of glass varies as the square of the thickness. Strength of a square pane may be obtained from the formula:

$$P = \frac{3.3 \ M \ t}{A \ S}$$

in which P = pressure in lb/sq in. M = Modulus of Rupture, lb/sq in.

$$t = moautus of Kupture, to/sq$$

 $t = glass thickness, in.$

The sums interview of the second secon

tations, appear on one edge of each piece unless the piece is smaller than 12" square.

USES of tempered glass include frameless entrance doors, partitions subject to reasonable impact or thermal shock, portholes, gage covers, shelving, furniture tops, showcases, enclosures in zoos and aquariums, balustrades, stair rails, kick plates, institutions such as hospitals, jails, or asylums; and for applications where high or suddenly changing temperatures are encountered, such as fire screens, lamp covers, sterilizers, cooking ovens, etc.

SPECIAL CONSIDERATIONS. Because any kind of working subsequent to tempering would rupture the stressed skin, special shapes, drilling, cutting, decoration, etc., must be submitted to the manufacturer for approval and execution in advance of tempering. Tempered glass is obtainable in circles, squares, rectangles, curves, special shapes pre-cut to pattern. It can be sandblasted providing the design is simple and the depth of cut is limited to 3/64" maximum; complicated designs must be approved by the manufacturer. Sandblasting weakens the product somewhat and tends to increase bow, particularly if on one side only.

Holes (circular) must have a diameter at least equal to glass thickness up to 1/2" thick, or 1/16" greater than glass thickness over 1/2" thick. Minimum width of lights containing holes is 8 times glass thickness. Distance from edge to rim of hole must be at least 3 times glass thickness up to 1/2" thick, 4 times if over 1/2" thick. Holes near corners must have nearest edge at least 6-1/2 times glass thickness from tip to corner. Non-circular holes must have rounded corners, radius at least equal to glass thickness. Requirements for large or numerous holes, and for unusual notches, cutouts, etc., should be submitted to the manufacturer

Edges on 1/4'' tempered glass can be clean cut and seamed. Glass over 3/8" thick must have ground and seamed edges. Polished edges are available. Bevels can be up to 7/16" on the face, not deeper than half the glass thickness. Miters cannot be greater than 30 degrees, lower edge slightly rounded.

SEMI-TEMPERING may be employed when a product is desired with only part of the characteristics of fully tempered glass. Strength imparted by this process is more than double that of annealed plate glass; its fracture characteristics are between those of tempered and untempered glass.

SOURCES OF SUPPLY

Abbreviations in the list below refer to the following: American Window Glass Co., Pittsburgh, Pa.; Libbey-Owens-Ford Glass Co., Toledo, Ohio; Pittsburgh Plate Glass Co., Pittsburgh, Pa.; Blue Ridge Glass Corp., Division of Libbey-Owens-Ford.

Trade Name*	Manufacturer
SAFETY GLASS	
5/32" —Hi-Test Thin Safety —Aerolite 7/32" —Hi-Test S.S. Safety —Duolite S.S. 15/64"—Hi-Test Combination Safety —Duolite Combination 1/4" —Hi-Test D.S. Safety —Duolite D.S. 1/4" —Hi-Test Safety Plate —Duplate 11/32" to 1"—Hi-Test Heavy Safety Plate	Libbey-Owens-Ford Pittsburgh Pl. Gl. Libbey-Owens-Ford Pittsburgh Pl. Gl. Libbey-Owens-Ford Pittsburgh Pl. Gl. Libbey-Owens-Ford Pittsburgh Pl. Gl. Libbey-Owens-Ford Pittsburgh Pl. Gl.
Flexseal Plexite Supratest	Pittsburgh Pl. Gl. American Window Gl American Window Gl
BULLET-RESISTING GLASS	
Armor-Lite	American Window Gl

3/4" to 3"—Bullet-Resisting Glass 1/2" to 1 - 1/8"—Super Multiplate 1 - 1/2"—Hi-Resist Multiplate -Hi-Power Multiplate

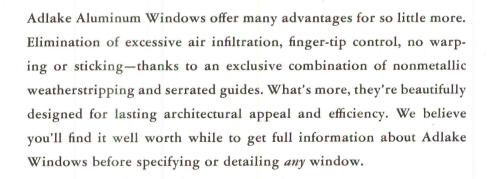
TEMPERED GLASS

Herculite Semi-Tempered Securit Tuf-Flex

* Dimensions indicate nominal thickness,

GL Libbey-Owens-Ford Pittsburgh Pl. Gl. Pittsburgh Pl. Gl. Pittsburgh Pl. Gl.

Pittsburgh Pl. Gl. Pittsburgh Pl. Gl. Blue Ridge Libbey-Owens-Ford



Everything looks better through an ADLAKE WINDOW!

THE ADAMS & WESTLAKE COMPANY

ALSO WINDOW MAKERS TO THE TRANSPORTATION INDUSTRY ESTABLISHED 1857 ELKHART, INDIANA NEW YORK • CHICAGO



Future changes in laboratory layout easily possible with these Johns-Manville Walls · Ceilings · Floors

ACOUSTICAL CEILINGS—With high coefficients of sound absorption and light reflection, Iohns-Manville Acoustical Ceilings are proved aids tc concentration and working efficiency. Demounttable units give ready access to wiring, etc., in the furred space, and allow quick relocation of the ceiling if desired. An exclusive Johns-Manville patented construction system permits interchangeability of flush-type fluorescent lighting and acoustical units.



MOVABLE WALLS—The keystone of flexibility in Unit Construction is the J-M Transite Wall. Can be disassembled and relocated as needs require. Made of fireproof asbestos and cement, practically indestructible materials, the movable panels form rigid, double-faced partitions, 4" thick. Can also be used as interior finish of the outside walls. Removable Transite panels permit ready access to concealed pipes and wires. Special brackets and supports, easily attached to the steel studs, provide unlimited flexibility in arranging shelves, piping services, etc.

COLORFUL, RESILIENT FLOORS—J-M Asphalt Tile Flooring completes the Unit Construction System. Made of asbestos and asphalt, the units withstand hard wear, yet are comfortable and quiet underfoot. Individual units permit easy alterations or extension of patterns. Made in a wide variety of plain and marbleized colors.



or Kesearch Taboratories

in the expanding new world of Industrial Science

Johns-Manville Unit Construction provides flexibility to meet ever-changing needs ...

Since industrial progress depends more and more on scientific research, architects today are faced with the problem of developing techniques of laboratory design.

Johns-Manville Unit Construction offers a system of *flexible* construction—walls, ceilings, floors—especially designed to accommodate laboratory needs and facilities.

The system makes possible endless revisions of space-use! Laboratories can be economically rearranged, enlarged, reduced, or even relocated according to the inevitable shifts and changes of future needs.

Three Johns-Manville materials are combined in Unit Construction:

1. Movable Walls . . . 100% salvageable. Made of fireproof asbestos-cement Transite panels, easily erected or dismantled, yet endowed with all the qualities of permanent construction. Laboratory service piping may either be concealed in the Transite Walls or carried externally on demountable brackets which

1944

are supported by the steel stude of the wall construction. Shelves can be located where needed by use of a unique type of bracket.

- 2. Acoustical Ceilings . . . reduce noise. Demountable units can be easily taken down and relocated.
- **3.** Colorful, Resilient Floors . . . quiet, longwearing, comfortable underfoot. Small units permit easy extension or repairs.

These component parts are integrated into a single inclusive system, *Unit Construction*. You write *one* specification . . . place undivided responsibility on *one* manufacturer.

Yes, the finest achievements of Johns-Manville research can now benefit Research Laboratories themselves!

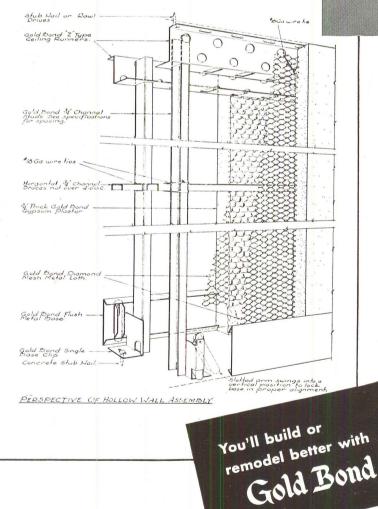
Send for the complete details of this important advance in laboratory design and construction. (Separate brochures also available for each of the three materials in Unit Construction.) Write Johns-Manville, Dept. PA-4, 22 E. 40th St., New York 16, N.Y.

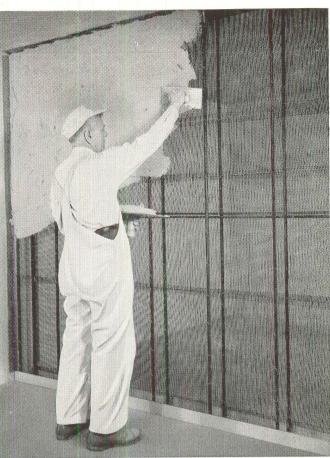
ical example of J-M Unit Construction—a Research oratory with complete structural flexibility, projectionwalls that are easy to clean, special bracket supports shelves and piping, many other ideal features.

> Internet Johns-Manville District Johns-Manville Auto Constantion Walls - Ceilings - Floors

> > combining permanence with flexibility







THIS new Gold Bond Hollow Wall System is highly recommended for fire resistant partitions where service piping and air ducts are to be concealed and where special consideration must be given to sound insulation.

The patented and exclusive Gold Bond Ceiling Runner and Metal Base Clips compensate for irregularities in floor and ceiling construction. This system being completely hollow has no cross ties or obstructions to interfere with installation of service piping. The Gold Bond Hollow Wall offers an underwriter's fire rating of one hour and sound insulation rating of 49.5 decibels.

Another advantage—and this is of vital importance to architects—all materials needed in the construction of this system are Gold Bond Products. Metal lath, channels, runners, metal base, plaster and lime—everything are furnished by one manufacturer, National Gypsum. The resulting wall is 100% Gold Bond which eliminates that old bugaboo, *divided responsibility*. Available through any Gold Bond Dealer. For full-size details, please write National Gypsum Company, Buffalo 2, New York.

LATH . PLASTER . METAL PRODUCTS . WALL PAINT . LIME . INSULATION . SOUND CONTROL . WALLBOARD

THERE IS A NEW TREND IN STORE DESIGN

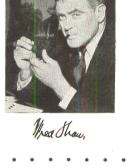
Alfred Shaw's conception of a Café Bar ...

"The sidewalk cafe and the indoor bar are unified by the triangular shaped Plate Glass partition, through which the decoration carries from the outside to the inside areas. The exterior material is gray Carrara Glass.

Ale telle

"The interior is divided into two spans, and the center partition of mirrors encloses structural columns.

"The unique feature and unusually interesting use of glass in this suggestion is the repeated conservatory design, with large growing plants prominently displayed. The tops of these units, as well as the sides, are of glass, so that light is admitted through triangular openings, giving a brilliant illuminating effect."



You can safely recommend "Pittsburgh" Products to owners of retail properties. An infinite variety of design is made possible by versatile, adaptable Pittsburgh Glass and Pittco Store Front Metal.

In 21 leading retail magazines, Pittsburgh Plate Glass Company advertising is encouraging merchants to build new sales-pull into store fronts and interiors, and recommends that they consult their architects now about modernizing plans.

A nation-wide system of "Pittsburgh" branches and dealers assures you of prompt and helpful service.

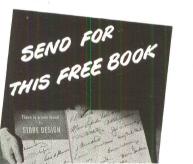
"PITTSBURGH" **STORE FRONTS and INTERIORS**

G H P

L A

TS

B



Name__

City

"PITTSBURGH" stands for Quality Glass and Paint

GLAS

Address____

S

It contains 41 designs, sub-mitted by leading architects, for stores, restaurants, service stations, theatres, etc. Every architect, designer and student will want to own this up-to-date reference book of ideas for building or modernizing retail stores. Send the coupon for your free copy of "There is a New Trend in Store Design." It will be sent without obligation.

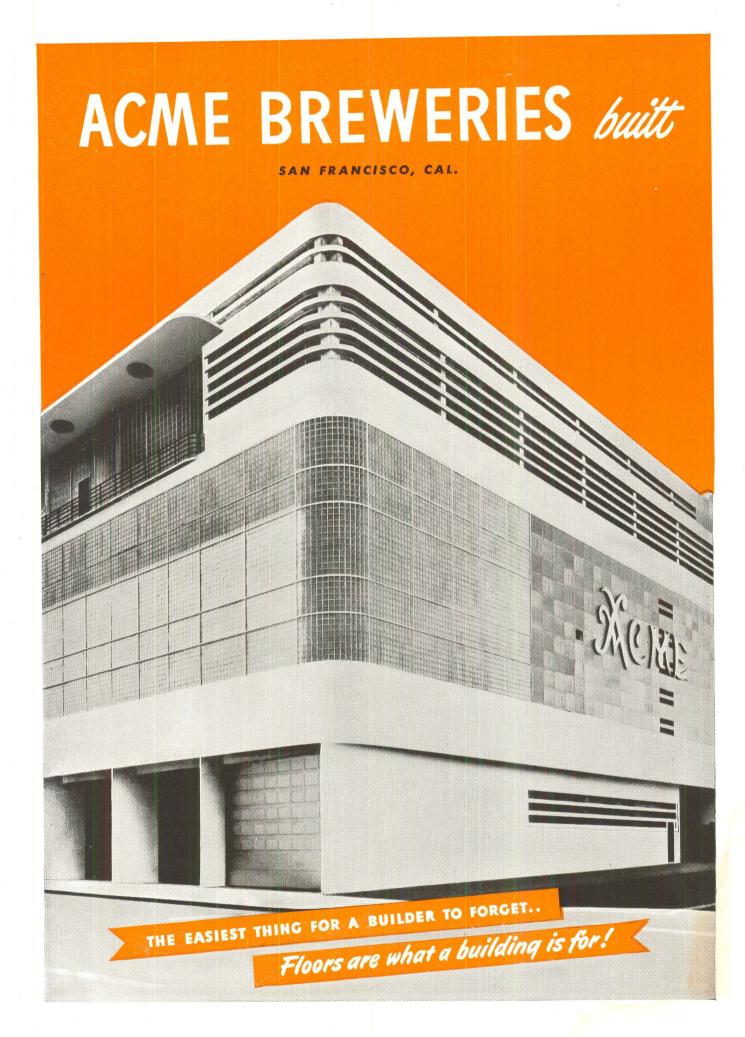
Pittsburgh Plate Glass Company 2087-6 Grant Building, Pittsburgh 19, Pa. Please send me, without obligation, a free copy of the book, "There is a New Trend in Store Design."

COM

State____

PA

APRIL, 1946 119



· FLOORS because ..

THEY PROVIDED ENGINEER, JAMES M. SMITH,

unlimited electric availability

The owners wanted to anticipate that this building might have a change of occupant. Change is always a threat to any building. Q-Floor, however, takes all the bugaboos out of changing electrical layouts.

with

The steel cells of Q-Floor are crossed over by raceways. This construction makes it possible to set up an electrical outlet on any six inch area of floor. And it takes

an electrician literally only a few minutes. No trenches. No mess.

The floor under the Acme machinery could sprout a hundred office-type outlets overnight. The arrow points to handhole to main raceway. Any six inch area of the floor can be tapped for an outlet. You avoid all the grief of anticipating partitions and outlets when you specify Robertson Q-Floor.

AND THEY MADE POSSIBLE FOR R. J. H. FORBES, contractor

20 to 30% reduced building time

Construction features of Q-Floor appeal to every client, also. Two men can lay 32 sq. ft. in half a minute and the Q-Floor immediately becomes a clean, dry, noncombustible platform for all other trades. From thousands of installations, O-Floors have been shown to reduce building time 20 to 30%. Time saved is easily interpreted to your client as money saved or earlier revenue.

The noncombustible nature. the light weight, the lack of forms and shoring to cause accidents and fire are qualities which provide you fast construction with a variety of financial advantages that can be best summed up as greater client satisfaction. And don't have any illusions about cost. Q-Floors are made to sell and they sell well. Cost is right in line. For details, call a Robertson representative. For Q-Fittings see a General Electrical construction materials distributor.

H. H. ROBERTSON COMPANY

2405 Farmers Bank Building Pittsburgh 22, Pennsylvania

• FLOORS







REVIEWS

BOOKS

ACCEPTABLE REALISM

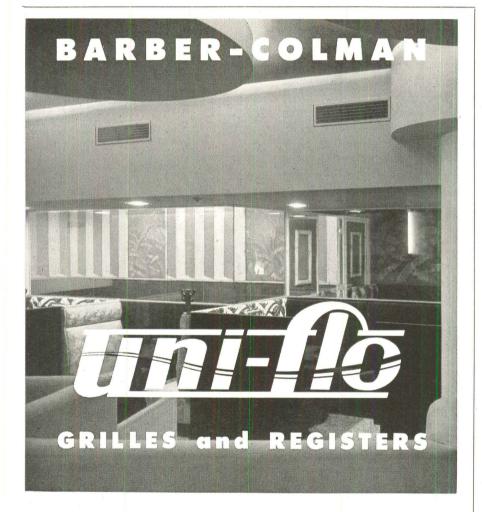
New Cities for Old. Louis Justement. McGraw-Hill, 330 West 42nd Street, New York, 1946. 232 pp., illustrated, \$4.50

This singularly same book presents a definite, reasoned program of action for city planning. It is comprehensive and logical.

Louis Justement sees the picture whole. He knows that no city plan can go beyond the economic limitations that beset its acceptance, and he also knows that any plan which wholly accepts those limitations is not worth anyone's consideration. He discusses in detail the working out of the following essential elements, the adoption of which in some form is a precedent to action:

"1. Continued adoption of urban redevelopment laws by the various states and amendment of existing laws to contain the following provisions:

"2. Redevelopment shall not be undertaken in a haphazard, piecemeal fashion but shall be done on the basis of a master plan for the entire city.



GUARANTEED AIR DISTRIBUTION

Data based on complete tests enable us to recommend exactly the right outlet for any condition and GUARANTEE results. You are assured of uniform, properly diffused air of the desired temperature at specified level, with required air movement and elimination of hot, cold, or drafty areas. For further details, see your Barber - Colman representative.

BARBER-COLMAN COMPANY 1230 ROCK STREET • ROCKFORD, ILLINOIS "3. In order to facilitate the execution of such a plan, the municipal authorities will determine the areas to be redeveloped and the order in which they shall be reconstructed.

"4. The assemblage of land for redevelopment will be undertaken by the city or a municipal realty corporation acting on behalf of the various municipal corporate units within a metropolitan urban region.

"5. The land thus acquired by the municipality will be leased to private developers. It may be sold only in the case of projects consisting entirely of individual houses for sale.

"6. When such land is leased, the term of the lease shall not exceed fifty years.

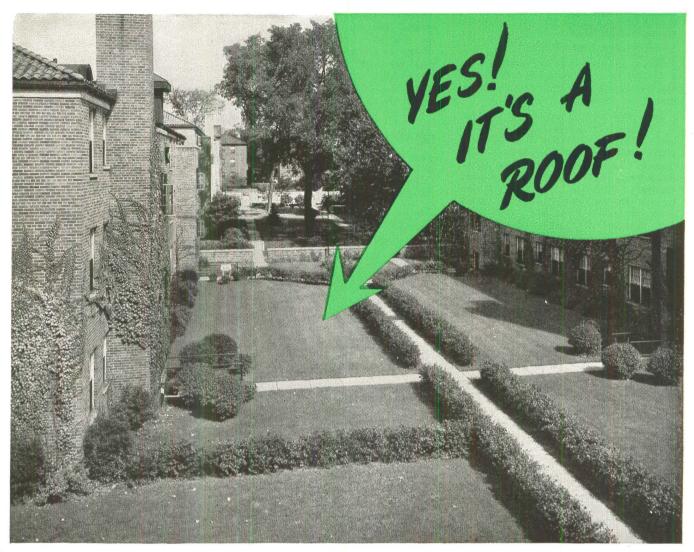
"7. In order to permit adequate city planning without unnecessary disturbance of existing property relationships, the condemnation laws shall be modified as follows: The price paid by the city for land and existing improvements shall be based on the fair market value of such land and improvements as of the date the legislation implementing a general urban reconstruction program is approved.

"8. In view of the time that may elapse between condemnation of individual properties and the start of reconstruction, valuations may be made in advance of actual acquisition by the municipalities; in any event, due allowance shall be made for fluctuations in the purchasing value of the dollar as well as for depreciation of improvements."

Thus condensed there is nothing that is particularly new: The virtue of the book lies in the extremely well-reasoned analysis which supports the need for these steps, the reasons for the need, and the results of getting them. The chapter on "A Retirement Plan for Buildings" is the best "time zoning" proposal I have yet seen; the series of suggestions for legislation and administration are forward looking and provocative. There are many things to disagree with, as there should be; but disagreement can be based on principle and logic, and not on emotion.

Nor do I want to overlook the fact that this book is written by an architect of wide experience with business and government, and that it therefore comprehends the physical world in relation to those basic facts of our economy which underly all city-planning efforts: the multiple ownership of land and the need for control, the complications of the tax structure, the impact of sub-sidy, costs, and the "business cycle." Justement's point is that these are the things, as they affect city planning, we must resolve, and his program is aimed at their resolution in relation to city planning. Planning can then become a reality instead of merely a statistical collection of difficulties without solution. His "case study" of Washington

(Continued on page 124)

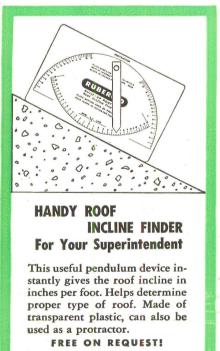


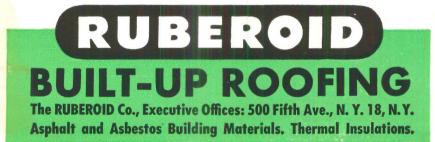
• Hard to believe, but this beautiful lawn is actually the roof of an apartment garage! It's a modern roof, covered with luxurious grass and shrubbery. Putting valuable roof space to work is typical of the new architectural trend—not only as garden areas but for practical utility as well. Sunny, safe areas for schools; storage and heavy traffic roofs for factories—yes, even roof parking lots are a practical possibility today, not just something to be hoped for tomorrow!

Proved-in-performance specifications-worked out by Ruberoid en-

gineers-are available now for all these recent roof developments. Ruberoid Approved Roofing Contractors, located in principal cities and towns, are ready to give you assistance in planning and executing them. No matter what type roof you may have in mind-Asbestos Felt and Asphalt, Coal Tar Pitch and Tarred Felt, or Asphalt Felt and Asphalt-call a Ruberoid Approved Roofer. His assistance, based on long experience and backed by a complete line of materials-all from the same source-assures you of the right roof for any job!









(Continued from page 122)

presents a physical interpretation. We could not have his replanned Washington today, but we could have it tomorrow if we wished.

I hope this book is as widely read as it should be, by professionals and laymen. We are not going to rebuild our cities either into Road Town or The City of Light, nor are we going to rebuild them by street-widening and mere analysis. Justement indicates an approach to the compromise we must some day reach, a socially—and therefore economically and politically—acceptable framework for urban planning within which a creative imagination can find play. He makes it seem not altogether impossible. It is unfortunate that his plan studies of Washington, excellent as originals and so important to the second part of the book, are so incredibly badly reproduced.

HENRY S. CHURCHILL

FATHERLY PEP TALK

Architecture Arising. Howard Robertson, F.R.I.B.A. Faber and Faber, 24 Russell Square, London, W.C.I., 1945. 125 pp. \$2.50

The first impulse for a modern architect after reading this book would be to



rename it from an anagram of the title and call it "Architectural Arsenic."

The opening paragraph gives the reader a clue to the author's conception of contemporary architecture. He states, "Even the most advanced and enlightened contemporary critics of architecture still, in the main, assess the merits of buildings on the basis of their external effect." That statement and further expansion of it in later chapters of the book place the author in that group of architects who consider contemporary architecture "just another style." Even the most casually informed student in any of our progressive schools would take exception to the above quotation and to many others that follow.

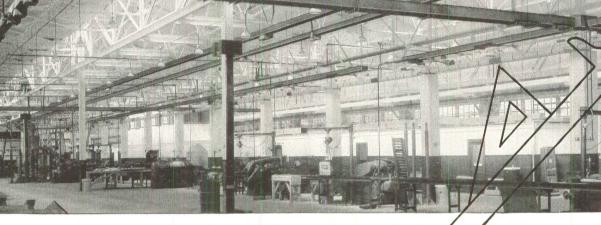
Howard Robertson, the author of this book, is an architect and educator of some note in Great Britain. One of his previous books, *The Principles of Architectural Composition*, may be recalled as having some following in this country several decades ago. In that book he attempts to set down rules and formulae—the modern Vignola. It is therefore not surprising to read his new book and to find it mainly a fatherly pep talk to the young men engrossed in the modern movement in architecture.

The author is conscious of the turmoil going on in architecture and tries to analyze it without understanding it basically. He regrets that the client must often make the difficult choice between a traditionalist and a modernist. He dubs the architect as a man suffering from schizophrenia. He makes the architect a trafficker in styles-a panderer. He believes it is as "absurd for an architect to nail his flag to the mast as it is for a politician to make up his mind early in life about basic questions." Robertson shows a lack of professional integrity in his method of making the client happy and his plea leads to a prostitution of the profession. Rather than make the architect a man of principles he would make him a fence straddler, one who goes with the wind. He does not realize that all great and good things have been done through the leadership of men who did believe in basic questions and fundamentals. What has made America great, if it has not been the fact that its leaders have believed in the fundamentals of democracy and liberty? What will make the good architecture if it is not that same devotion to fundamentals?

The book is dangerous because it is filled with double talk and contradictions. A superficial reading of the stated platitudes could mislead the reader into the belief that the author is pleading for a progressive and dynamic architecture.

Such statements as "An artist who works down to a low level of public taste is not going to produce the best

(Continued on page 126)



THAT'S THE TIME TO INSTALL

PLUG-IN BUSDUCT

FEEDER BUSDUCT

When you plan changes in the plant layout are you handicapped by an inadequate power distribution system? Does moving machines involve tearing up and restringing long, expensive wiring? Is heavy equipment forced to locate near the power source?

The answer to all these questions is "NO"— once @ BUSDUCT is installed. It provides *Plug-in* power source every foot of its length . . . enables machines to be running in *minutes* after locating . . . eliminates "cobweb" wiring systems, gives the plant layout unlimited flexibility for efficient work flow.

And @ Busduct *never* loses its value. Standard 10-foot sections assemble and dismantle speedily, permit extensions and stepdown capacity tap-offs, and furnishes maximum efficiency in power distribution.

Our 20-page Bulletin No. 65 was made to help you with your planning. It gives specifications, prices and many helpful suggestions. Write for it today.

WIRE AND CABLE DUCT Frank Adam

Makers of Busduct Panelboards · Switchboards BOX 357, ST. LOUIS, MISSOURI



(Continued from page 124)

that is in him," and "The attraction of Le Corbusier is his new aesthetic, the plea for a contemporary expression based on the conditions and needs of the age" are, of course, sound advice. The illustrations for the text are often good and indicate that the author himself knows a good contemporary facade when he sees it, but his criticism and analysis of it show a lack of comprehension. His book states the terminology of the professional field but not the fundamental facts. The good statements are negated by such tripe as "There is nothing against eccentricity, but if eclecticism is once admitted, it should be frankly recognized in principle as contributing to the richness of the architectural vocabulary."

And, as he goes on to say, "But it is undeniable that there exists a school of contemporary designers whose reputations would scarcely survive the production by their drafting rooms of a building with arcaded fenestration." On the contrary, there is no first-rate school of designers who deny any of the basic structural systems if they are used with honesty of expression and structural integrity, but to use the arch



as a sentimental tour de force is contrary to the fundamental honesty of any good contemporary designer. Robertson overlooks that fact.

This book is not a wholesome book nor is it honest. It is, however, interesting in that it shrills the cacophonous death rattle of the eclectic school of architecture. He botches his discussion of the basic problems of the architect. The evidence he uses to support his argument is suspect. The indictments are not valid.

PROF. HENRY L. KAMPHOEFNER, A.I.A. University of Oklahoma

DELAYED-ACTION BOMB

The Art of Building Cities. Camillo Sitte. Reinhold Publishing Corporation, 330 West 42nd St., New York, 1945. 128 pp., illustrated. \$5.50

The publication of an English language version of Camillo Sitte's book on City Building According To Its Artistic Fundamentals was long overdue. Eliel Saarinen (who contributes a note on the author to the present volume) had analyzed Sitte's contribution to town planning rather thoroughly and perspicaciously in his book, The City, and other critics and students have, according to their views, belittled or extolled the value of Sitte's influence a half century ago. For the most part, however, architects and city planners of this century, if they even knew that the work existed, have been hazy about its argument.

In 1889 Sitte, a Viennese architect, disgusted with the stilted formality and the lack of either taste or imagination in the city plan typified in Huysmann's work, wrote his book which, as the translator says, "burst like a demolition bomb on the city planning practices of Europe." His thesis was that the studied application of formal design rules to the planning and building of cities had forced a neglect of fundamental principles—those very principles, he claimed, which resulted in pleasant, naturally organized, socially useful cities in the classic period and in the middle ages.

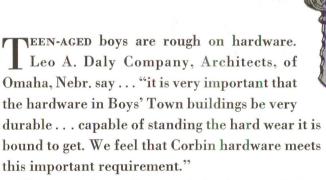
Those principles for which Sitte was seeking, and in the defense of which he wrote his book, were, first, informality (as opposed to symmetry), second, the treatment of squares and open areas in the city plan as specific enclosed space (as opposed to considering them merely termini of formal avenues), and finally, a pleasant, as well as usable, arrangement of buildings which, he contended, would result from an "artistic" correlation of buildings aided by broken street fronts and bent axes (as opposed to the forced regularity of buildings planned on a rectangular street pattern).

It is easy to contend that Sitte's observations were made at a time when neither skyscrapers nor automobiles had been conceived. It is also easy to point to signs of limited vision in his

(Continued on page 128)

Corbin Unit Locks chosen for

Boys' Town building program



The ease of installation of the famous Corbin Unit Lock (Pat. No. 41,961) was another factor in the Architect's decision to specify Corbin hardware for the Trade School Building, The Administration Welfare Building, the High School, and the twenty-five residence units in the \$3,000,000 building expansion program at Father Flanagan's nationally famed Boys' Town.

Since 1899, when Corbin Unit Locks were introduced, they have been specified by Architects for outstanding commercial, civic and other types of monumental buildings from coast-to-coast. Corbin Cast Bronze Unit Lock, America design, specified for Boys' Town. This lock was used on all office entrance doors throughout Rockefeller Cen-

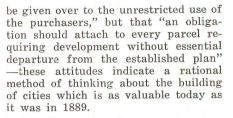
ter, except on the R. K. O. Bldg. Sets are shipped assembled, as shown, eliminating the danger of missing parts. Adjustable to different thicknesses of doors. Frame is one solid piece, holding all the parts; no possibility of displacement.



REVIEWS

(Continued from page 126)

theories of design (in his insistence on the use of arcades to "embellish" ornamental buildings, for example). Nevertheless, his conception of a city as a place in which to live happily, his recognition that details, if not principles, of city planning will change as social requirements change ("the principal architectural elements of cities have greatly changed since antiquity"), and his clear recognition that over-all planning is needed and that "under no circumstances should the building parcels



Ralph Walker contributes an introduction to the present volume in which he commends Sitte's emphasis on "human comprehension and scale," and Arthur Holden appends a supplementary chapter devoted to an analysis of presentday usefulness of Sitte's principles, illustrated by possible improvements, had these principles been observed, in



A new kind of fully automatic electric dumb waiter that never overtravels

The endless chain drive of the new Sedgwick Roto-Waiter makes it the perfect dumb waiter for stores, hospitals, hotels, restaurants, libraries, clubs, schools, banks, factories, resi-

dences, etc.—especially for two-stop installations. The single direction motor helps cut costs by eliminating the need for special control equipment normally required when reversing motors are used—and, by reducing starting torque, it cuts current consumption.

And Sedgwick Roto-Waiters. ...

- 1. Never overtravel
- 2. Are completely factory-assembled-and-tested
- 3. Require only minimum clearances
- 4. Have an overload safety device for safe operation
- 5. Require no heavy load-bearing supports except at the bottom
- 6. Are easy to install

The table of dimensions shown below lists three standard *counterweighted* Roto-Waiters. In addition, Sedgwick makes an uncounterweighted Roto-Waiter—capacity 150 lbs., car size $24'' \ge 24'' \ge 36''$ —which is ideal when a dumb waiter is to be installed in limited space as for undercounter use.

STANDARD ROTO-WAITER DIMENSIONS

Size No	2C	3C	5C
Capacity, Ibs	200	300	500
Car width, in	24"	30"	36"
Car depth, in	24"	30"	36"
Hoistway width, in	33"	39"	45"
Hoistway depth, clear in	27"	33"	39"
Hoistway depth, including			
doors, in	29"	35"	41"

So if you are stymied by perplexing lifting and lowering problems involving the vertical movement of material and merchandise — *tell us about them.* And write for complete details and specifications of the new electric dumb waiter that *cannot overtravel*—the Sedgwick Roto-Waiter.

SEDGWICK MACHINE WORKS, 142 W. 15th St., New York 11, N.Y. ELECTRIC AND HAND POWER ELEVATORS AND DUMB WAITERS one specific instance in New York City, and one in Washington.

-THOMAS H. CREIGHTON

PARADOX REFLECTED

Doelmatig Bouwen En Wonen. Paul Bromberg. Querido Inc., 381 Fourth Ave., New York. 200 pp. \$3.50

The war, which is now almost finished, has been a paradox from its very beginning to its end. It was foreseen and planned-it came treacherously and unexpectedly. It brought suffering and it brought alleviation (from unemployment). It was fought for and by democracy and the issue finally at stake for termination of hostilities was-the monarch. It killed and taught how to fight and defeat death. It destroyed and it caused planning. It broke off ties by force-reinforcing to greater strength the imperceptible and, thus far, unrealized ones. Its death, suffering, and destruction were at the same time growth, strength, and new beauty.

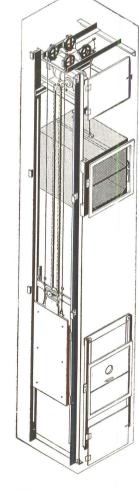
That, in very brief, is the background against which we see Mr. Bromberg's book Doelmatig Bouwen En Wonen ("Appropriate Building and Living"). This book, too, is paradoxical and, as such, typical of World War II. Written by a Dutchman in the Dutch language-unknown to most of us-it is published by a New York firm, printed, bound, and illustrated in the United States. Written during the war, it deals with what was then postwar housing in the Netherlands. Prefabrication sets the tone. The "pre" it speaks of in time of destruction, becomes the light and the solution for the "post," then not fully known as to conditions and needs.

The appearance of this book, however, is far from being pre-post-erous. It is of greater significance than the contents alone. The author and the publisher agreed that it would be nearly impossible to publish any new books in Holland during the first year of liberation. Total lack of paper and paper manufacturing facilities, as well as the absence of printing presses and heavy rationing of electric power, have postponed the distribution of much needed information for a considerable period in Holland and other countries. By the time it is resumed at normal capacity, many factors will have changed, particularly in the field of housing.

We may consider it a very hopeful indication of future trends that under such difficult circumstances a publisher can be found in an entirely different part of the world. Obviously, it points very strongly towards another factor in the abolishment of frontiers and international differences. In the future, the little notation "Printed in the U. S. A." may well become a weapon more powerful than atomic energy.

As to the contents of the book, it is not

(Continued on page 130)



The current of the second seco

EE

BELL

QUIET, TOO! Kentile "cushions" sounds — is soothing to nerves usually irritated by hard, clicking heels. Moreover, super-durable Kentile shrugs off heel jabs, scuffs and scars. And because colors run through to the back, Kentile colors can't "wear off" and come clean with simple soap-and-water mopping. Thus, when day is done, your Kentile floor looks good as new and is ready for more!

KEEP IT FOR YEARS! Foot for foot, Kentile is the lowest cost floor covering you can use. Furthermore, it lasts for years! (Some fresh-as-new Kentile floors are in their 15th year of service.) And when alterations or replacements are necessary, all you do is replace the squares affected—you don't rip up the whole floor. And because Kentile is speedily laid, and never buckles, even the initial cost represents a savings.

Altogether, Kentile offers 15 different advantages. They're all told in the new, richly illustrated full-color catalogue that shows all the Kentile colors and some of the countless patterns possible—plus full-color pictures of Kentile in actual use. Send for your copy today—no obligation.

DAVID E. KENNEDY, Inc.
57 Second Avenue, Brooklyn 15, N. Y.
208 Bona Allen Bldg., Atlanta 3, Ga.
2000 Ulloa Street, San Francisco 16, California
30 No. Michigan Ave., Chicago 2, Illinois
614 Olympia Road, Pittsburgh 11, Pa.
1211 National Broadcasting Co. Bldg., Cleveland 14, Ohio.



GREASEPROOF

KENTILE costs only slightly more than regular Kentile – and can be used

only where needed. It's made in 16 regular Kentile colors.





mantham

D

D

A—The Kinnear Motor Operator saves effort, time, and manpower. It goes into action instantly at the touch of a control button—opening, closing, or stopping the door with smooth speed and efficiency. It's a sturdy, integral unit featuring a specially designed torque-output motor, machine-cut gears, and bronze bushings that assure lasting, trouble-free operation.

B-The same bull-dog ruggedness and high operating efficiency are featured in the sturdy, all-steel, interlocking-slat construction of Kinnear Rolling Doors. Coiling into small space

above the lintel, Kinnear Doors permit full use of *all* floor and ceiling space around doorways, remaining out of the way and safe from damage when open. These and other basic advantages have made Kinnear a first choice for nearly half a century! C—Remote Control adds still further convenience and economy by permitting more strategic placing of control buttons, or centralized control stations for any number of doors. It helps eliminate doorway "bottlenecks," and cuts heating and air-conditioning costs by encouraging prompt door closure at all times. Remote control assures maximum advantages from the smooth, easy, time-saving action of Kinnear Motor Operated Rolling Doors.

Write today for complete information on the ABC'S of dependable door satisfaction at its best.



REVIEWS

(Continued from page 128)

only words, words, words. There are many illustrations. Upon this, one may reflect how much more internationally minded the eye is than the isolationist ear.

Both text and pictures deal with the various types of prefabrication and touch upon details of building construction which are superior to those commonly used in Holland. The prefabrication methods are closely tied in with the immediate needs of housing in the Netherlands after the liberation. At the time of writing, those needs came, I am sure, to the attention of the author in an indirect way, via underground channels. As such, it is of course written without complete knowledge of what was, and would be, on the drafting boards of the architects in Holland. Moreover, a correct analysis of the needs and demands must have been difficult under the circumstances.

The author assumes optimistically that the Dutch people will be open-minded toward new things coming across the Atlantic. Whether they will accept new ways for immediate housing relief (comfort), or whether they will prefer to bear somewhat longer the discomforts of the past five years in order to have things back in the "good established ways," remains to be seen.

As a whole, the technical part—the "doelmatig bouwen," "appropriate building"—is a good exposé of the best in prefabrication methods and could well serve as an elementary textbook on the subject, comparing newer and older methods in America and some other countries. The contemplated English translation will be valuable and usable on that basis. In its present Dutch edition, the compilation of photographs and sketches could well serve for a quick survey of the most important phases of the process.

In the second part of the book, Mr. Bromberg deals with the "living inside." The contents are typical of his own way of working and of Dutch residential architecture. In a way, it contradicts the first part of the book where new ways of thinking in form as well as in methods and equipment were assumed to exist. There, prewar values are taken as a basic departure.

For many years immediately prior to the war, Mr. Bromberg was the leading designer of interiors in Holland. Much of his work was done for and with the wealthier owners of mansions and castles all over this minute but polished country. Eventually, his designs became the religion of the interior elite. Occasionally, of course, he directed some of his abundance toward the less prosperous homes in the form of publications meant to educate the middle classes in the field of comfortable living.

(Continued on page 134)





 Broad expanses of subdued wall color harmonize strong accent colors on ceiling and furniture of cocktail lounge.

• Buff walls of this private office contrast with cool colors of ceiling, drapes and rugs. Drop ceiling lowers its height.

Color Dynamics

Pittsburgh's exclusive painting method assures color combinations that promote health, comfort and safety—stimulate energy—increase efficiency—at the same time that they please the eye!

• Eye-rest focal walls of Blue-Green contrast effectively with warm side walls and wainscot of this lecture hall.

Here's How You Can Put the ENERGY IN COLOR to Work ... with Scientific Accuracy!

Paint RIGHT with COLOR DYNAMICS Paint BEST with PITTSBURGH PAINTS!

• The benefits of COLOR DYNAMICS are made more enduring when you use Pittsburgh's long-lasting quality paints. There's a PITTSBURGH PAINT for every need!

WALLHIDE—in three types. PBX—extra durable finish which can be washed repeatedly without streaking or spotting. SEMI-GLOSS—for higher sheen. FLAT—velvet-like finish for offices, libraries and dining rooms. These paints are enriched with "Vitolized Oils" for live-paint protection.

WATERSPAR ENAMEL – for woodwork, furniture, metal trim-gives a china-like gloss which resists marring and abrasion.

FLORHIDE – for floor surfaces. Quick-drying. tough finish which can be scrubbed frequently with soap solutions. EXPERIENCE has proved that people who work or live in surroundings painted according to Pittsburgh's science of COLOR DYNAMICS benefit in many ways.

Color is a source of power. It can stimulate or relax. It can help people to feel cheerful—or set their nerves "on edge" and cause them to be uncomfortable and depressed.

Properly applied, COLOR DYNAMICS can make your institution inspire trust and confidence by its appearance. It can lessen eye fatigue. It can increase efficiency, improve morale, promote cheerfulness and wellbeing. With COLOR DYNAMICS you can also make rooms seem more inviting and spacious, make them appear longer or wider, higher or lower.

You can now apply these principles of color energy with scientific accuracy. What you can do with COLOR DYNAMICS-and why-is told in our

revised, profusely illustrated book, "Color Dynamics for Office Buildings, Hotels and Restaurants." Write for your FREE copy. Pittsburgh Plate Glass Co., Paint Div., PA-4, Pittsburgh 22, Pennsylvania.



Recommend Blue Ribbon Design STANLEY CABINET HARDWARE

Every girl is fussy . . . about her own kitchen.

low to mak

That's why we took so very, *very* much care to make the new Stanley Cabinet Hardware line just exactly right. That's why, too, between the girls and Stanley, it's a case of love at first sight.

Actually, years of practical research went into this new line before a pencil was ever touched to paper. Then the most competent designers of the country were called in and given free rein.

That's why the new Stanley Cabinet Hardware is practical ... doors latch when they're supposed to, open when they're supposed to ... knobs stay trim and tight ... latch handles, pulls and knobs have finger room to spare!

That's why the new Stanley Cabinet Hardware is beautiful . . . sparkling trim for any modern kitchen!

That's why the new Stanley Cabinet Hardware makes up a woman's mind fast . . . they love it!

And that's why you can recommend the new Stanley Cabinet Hardware with full confidence! Write for folder showing complete line. The Stanley Works, Cabinet Hardware Division, New Britain, Connecticut.





up a woman's mind...to

Latch thumb-pieces molded of sparkling, durable piastics - red or black - give modern beauty to this hardware.

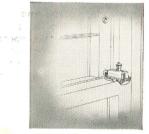


. . an entirely NEW kind of window **CURTIS SELF-FITTING SILENTITE!**



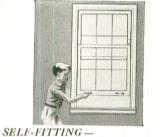
SELF-FITTING -

For Greater Weather-Tightness The new Silentite has "floating" weather-stripping. Illustration shows wood sliding bars which are seated on full-length bronze weather-strips and press tightly against moving parts of window. 20% less air infiltration than old Silentite.



SELF-FITTING-

For Locking Safety The new Silentite locks in a closed or partly open position—new safety from intruders. New-style sash lock furnished with each unit—and you can get a new combination storm sash and screen, too!



For Easier Operation For Easter Operation The "floating" weather-stripping forms a wood-to-wood contact with the sash. The new Silentite is easy to open and close at the outset, and continues to oper-ate smoothly with use. And remember, Silentite has no weights, pulleys, or cords to get out of order.



SELF-FITTING-

For Simple Installation The sash is installed with minimum effort—greatly lowering Silentite instal-lation cost. Top and bottom sash may be removed from the inside by removal of one inside stop only.

Remember, Silentite continues to give you "streamlined" beauty-operation without weights or pulleys – freedom from repairs – and many other features. Get all the facts about the new Silentite Self-fitting Window - and the new line of Curtis Stock Architectural Woodwork!

B^{ETTER} windows-more weather-tight-easier to operate-easier to install! That's what home-building America wants today. And today, Curtis answers that need with a startling new window development -the self-fitting Silentite! Here's a window that represents as great an advance in window design as the original Silentite! Read about some of the new Silentite features shown on this page-then you'll know why Curtis again brings America more window value for its money!

In Canada: W. C. Edwards & Co., Ltd. Ottawa, Canada

> CURTIS COMPANIES SERVICE BUREAU Dept. PA-4S-Curtis Building Clinton, Iowa Gentlemen: Please send me full information on the new Silentite Window Line.

Name..... Address..... City.....State.....

Air Express Goes Everywhere Faster!



the smallest town, the speed of Air Express is at your service — between thousands of U. S. communities and scores of foreign countries.

Yes, when "getting something fast" means better serving a customer or clinching a deal, keeping a factory open and men at work — Air Express more than pays its way. It's a money-maker.

Specify Air Express-Better Business Buy Than Ever

AIR	2 lbs.	5 lbs.	25 lbs.	40 lbs.	Over 40 lbs. Cents per lb.
149	\$1.00	\$1.00	\$1.00	\$1.23	3.07 c
349	1.02	1.18	2.30	3.68	9.21c
549	1.07	1.42	3 84	614	15.35c
1049	1.17	1.98	7.68	12.28	30.70c
2349	1.45	3.53	17.65	28.24	70.61c
Over 2350	1.47	3.68	18.42	29.47	73.68c

In the face of rising prices, Air Express rates have been slashed 22% since 1943, saving business millions of dollars. And rates include special pickup and delivery in all principal U. S. towns and cities — with fast, co-ordinated air-rail service between 23,000 off-airline points. Service direct by air to and from scores of foreign countries in the world's best planes, giving the world's best service — at lowered cost.



on Air Express. It contains illuminating facts to help you solve many a shipping problem. Air Express Division, Railway Express Agency, 230 Park Avenue, New York 17, N.Y. Or ask for it at any Airline or Railway Express office. Phone AIR EXPRESS DIVISION, RAILWAY EXPRESS AGENCY Representing the AIRLINES of the United States

REVIEWS

(Continued from page 130)

To make a long story short, when Mr. Bromberg came to the United States in 1939, he must have been thoroughly astonished by the number of comfortable realities in our medium priced homes. So he decided to do a little more educating of the unfortunates in Holland who have no knowledge of deep closets with light in them, or of two-way swinging doors between kitchen and dining room, or kitchens with planned work areas, or of the efficient use of a large room with built-in furniture.

Presenting these facts, many of which are merely correctly designed conveniences, brings out the need of realizing what can be done with a house in certain cases to make it more livable. If the people for whom this book is written plan to go back to prewar standards, it is a valuable and highly desirable, much needed exposé of what may be called "minimum standards for simple living."

If, in the past five war years, new ways of thinking have finally found acceptance—imposed at first by force, later by necessity—it will be helpful in crystallizing that thinking and applying it to the building of homes. The future English translation will obviously have to be altered in some places but will prove as helpful to home planners in the less streamlined parts of our own country.

JOHAN C. KROMHOUT

"FORERUNNER" OF WHAT?

Your Future Home Guide. Gilbert D. Spindel and Bernard W. Close. Future Homes Co., Jacksonville, Florida. \$1.25

Cheaply printed booklets on home building are being rushed one after another in quick succession to newsstands, drugstore racks, chain-store counters, everywhere. Such publications will probably be profitable for their publishers and more than probably will influence many small home planners.

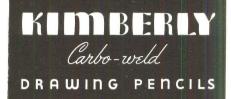
The authors of Your Future Home Guide offer 50 house plans and colored elevations as a guide for the prospective home owner, real estate operator, and builder in making their needs more easily known to the local architect "for final preparation of working construction drawings." The plans are given, for reasons not developed, such names as Honeymooner, Foremost, Package Cottage, Smart Set, Visionary, Bountiful, Meteor, Forerunner, Lady Forbes.

The whole is a discouraging collection of inferior draftsmanship and poor writing. It can hardly be expected to improve the present generally poor esthetic standards of the low-priced home.

LAWRENCE E. MAWN

(Continued on page 136)

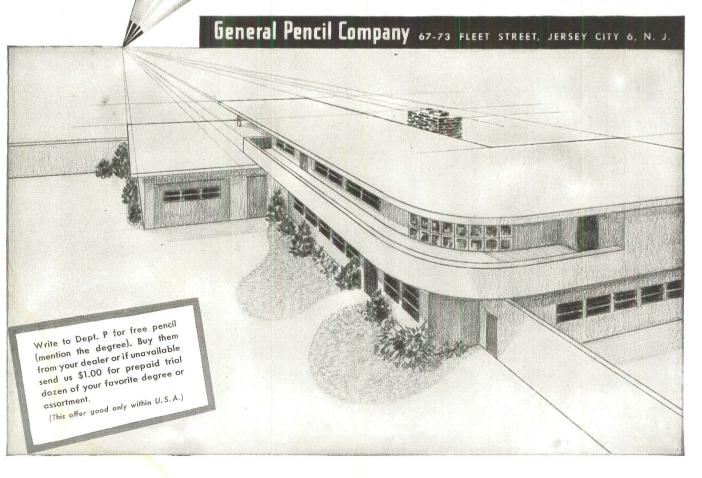
The Point is -

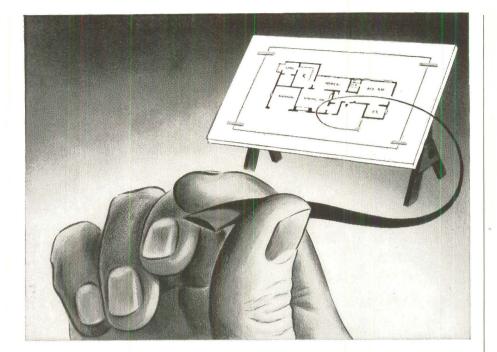


ARE AS MODERN AS TOMORROW'S ARCHITECTURE

KIMBERLY'S styling with the dark green enamel dress, rounded end and white collar is second only to the "Built-in-Quality" in this modern pencil. Lead that is ground for hundreds of hours—the Carbo-Weld processing and accurate uniform grading all contribute to make KIMBERLY the strongest, smoothest, most modern drawing pencil.

Let KIMBERLY help you to turn out a fine job. There are 22 degrees to choose from, 17 are drawing, with an Extra B intense black for layout artists and Tracing 1-2-3-4 to make clean, crisp, dense lines for good blueprint reproduction.





LET'S LOOK AT LINES that build Tracing Cloth Preference

If you could pick up a line freshly inked on Arkwright Tracing Cloth, you'd *see* your preference. Your line retains its edge and doesn't go flat or "mushy". It prints like a taut wire, even re-inked over heavy or repeated erasures.

This evenness and crispness of line, coupled with the unusual transparency of Arkwright Cloths, assures contrasty, easy-to-read prints ... and the transparency is permanent. It is obtained by special mechanical processing. Arkwright Cloths do not cloud up nor become brittle with age, because no surface oils at all are used.

Want a treat? Send for working sample. Rule lines. Notice how they flow on evenly. Erase. Hold up to light and see if you can see the markings of a ghost. You'll then have a real preference. Arkwright Finishing Co., Providence, R. I.



REVIEWS

(Continued from page 134)

STRENUOUS HOBBY

Make Your Home Your Hobby. Walter J. Coppock, Antioch Press, Yellow Springs, Ohio, 1945. 92 pp. \$1.50

The author intends that the ideas of this book and a few good tools be combined by a person of average mechanical aptitude to finish his own home in spare time. Necessary aptitude can be determined by tests; reference is made to the Revised Minnesota Paper Form Board. It is assumed that skilled workmen will have built the principal parts of the house.

The author, a registered engineer, has had practical experience as building contractor and as workman on several of his own homes. He writes with evident sincerity and his ideas are generally sound. They relate to such features as stair design, roofs, floors, foundation walls, windows, air conditioning, wall paper, sheet plaster, heaters, laundry drying rack, trash chute. The home can be a strenuous hobby!

Three of the author's house plans are described in a room-to-room tour: "Leaving the kitchen we cross the hall and go up the stairs landing near a large window. To the left is a peachcolored tiled bathroom with shower on the left, next a small blue-green papered bedroom with built-in dressing table with glass top and large mirror and with three large drawers on each side..." Specific instructions for building special features such as the dressing table are not given.

The photographs of the author's present home suggest that it is well constructed, but certain architectural gaucheries mar the design.

This book, in common with too many books on architecture and building, suffers from an evident lack of editing. The material needs reorganization, elimination of irrelevant and repetitious detail, addition of detail elsewhere. Some of the grammatical constructions will disturb the sensitive reader as much as construction inaccuracies or one-eighth inch flooring cracks rightly disturb the author.

LAWRENCE E. MAWN

PLANNING PAMPHLETS

Reviewed by

Davidson-Smull

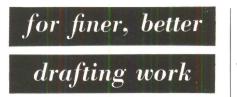
Comparative Analysis of the Principal Provisions of State Urban Redevelopment Legislation. The National Housing Agency, Office of the General Counsel, 1600 Eye St., N.W., Washington 25, D. C., 1945. 74 pp., mimeo. (Also

(Continued on page 138)

Fon Duprin IL²

NOW YOU CAN MAKE HIM SAFE! Now you can give the occupants of your buildings the utmost in sure, safe exit . . . for genuine drop-forged Von Duprins are back in production. These superb exit devices are abundantly strong for the heaviest duty, yet their precise workmanship and their finely balanced Parts provide . . . even for the tiniest school child . . .

startling ease and speed of operation. VONNEGUT HARDWARE CO., INDIANAPOLIS VON DUPRIN DIVISION







Precision is the word for these Esterbrook Drafting Pens—they're accurate to 1/1,000th of an inch. Try one at our expense on your own drafting board—see how much smoother and faster your work goes.

ATTACH THIS TO

Send the make and number of the drafting pen you now use most — the corresponding pen in the Esterbrook Drafting series will be sent to you for trial without charge. Write today !

Make.....

Pen No.

THE ESTERBROOK PEN CO. 38 Cooper Street, Camden, N. J. or The Brown Brothers, Ltd., Toronto, Canada

Esterbrook

Drafting Pens



(Continued from page 136)

in Hearing on General Housing Act of 1945, U. S. Senate Committee on Banking and Currency, Part 1, revised. Pp. 485-524)

Urban Redevelopment Legislation in the United States. A Comparative Analysis. Prepared by the American Society of Planning Officials, 1313 East 60 St., Chicago 37, Ill., 1945. 7 pp. \$2.00

Planning Legislation-1945. Prepared by the American Society of Planning Officials, 1945. 22 pp. \$1.00

These comparative compilations on urban redevelopment by the ASPO and the NHA are supplementary surveys, best used together. They will facilitate reference to existing state urban redevelopment legislation. The ASPO arranged more than 75 provisions of redevelopment legislation and related them state by state in an easy-to-use seven-page table. On the other hand, the NHA's study, which is more extended, classifies these statutes in three main groupings: (1) legislation intended to encourage private enterprise to assemble, clear, and redevelop an area; (2) legislation which places responsibility for assembly and clearance upon municipal bodies; and (3) legislation which places responsibility for land assembly and clearance upon the local housing authorities.

The ASPO also has prepared a summary of planning legislation adopted in 1944 and 1945 which brings up-todate the society's earlier report, *Planning Legislation-1943*. This compendium includes statutes on city, state, county, and regional planning, as well as urban redevelopment, zoning, airports, subdivision, housing, public works, roads, and parking.

PERIODICALS

Reviewed by

L

I.

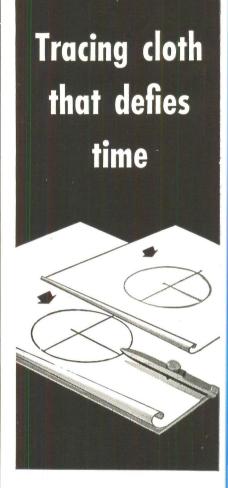
MAUDE KEMPER RILEY JOURNAL OF THE R.I.B.A.

66 Portland Place, London W. C. 1, England DECEMBER 1945

What part architects played in the preservation activities of the British-American fighting forces as regarded its Monuments, Fine Arts, and Archives division, is told by Lieut. Colonel Sir Leonard Woolley, architect, in a paper delivered before an informal meeting of the R.I.B.A. in London.

Why protective measures were issued from High Command; why it was that damage to listed buildings was made a military misdemeanor; why armies were not always effective in protecting them; where architect-aid was of most value (principally after a town had been taken and emergency repair was in

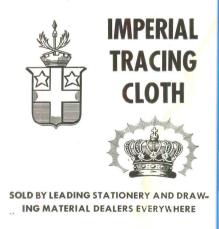
(Continued on page 140)



• The renown of Imperial as the finest in Tracing Cloth goes back well over half a century. Draftsmen all over the world prefer it for the uniformity of its high transparency and ink-taking surface and the superb quality of its cloth foundation.

Imperial takes erasures readily, without damage. It gives sharp contrasting prints of even the finest lines. Drawings made on Imperial over fifty years ago are still as good as ever, neither brittle nor opaque.

If you like a duller surface, for clear, hard pencil lines, try Imperial Pencil Tracing Cloth. It is good for ink as well.



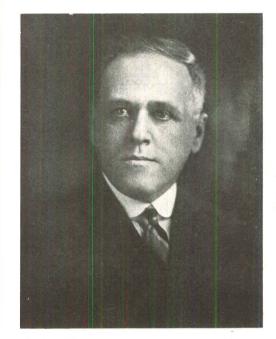
PETRO SYSTEMS ARE "first-rate in every way"

... the reason why another architect will continue to specify Petro in new building plans.

EXPRESSING the opinion of an ever-growing number of architects and engineers, Mr. Fred A. Webster frankly acknowledges the significant economy, efficiency and simplicity of oil burning systems in industrial and commercial structures. He is equally frank in endorsing Petro Systems in particular . . . not only because of the excellence of Petro equipment but also because of the cooperation Petro engineers provide in carefully selecting such equipment and then coordinating it into a precisely engineered oil heating installation.

It is this service and painstaking attention to detail that is the architect's and engineer's best assurance of *consistently* reliable performance and economy for which Petro Systems are known and

widely recognized.



FRED A. WEBSTER, well known architect of Waterbury. Connecticut, has designed many outstanding structures in that city. In the past he has used Petro Burners in a number of industrial and commercial buildings. He expresses these ideas on Oil Burning Systems. . .

"Now that architects are planning the building of the future it seems to me that economy, efficiency and simplicity will be musts for the type of heating that will be used, and oil heating encompasses all of these requirements . . . I will continue to specify Petro Systems for they are first rate in every way, and Petro engineers are always ready to cooperate in the selection and installation of the right equipment in its proper place."

INDUSTRIAL MODELS: #5 or #6 fuel oil; automatic, semi-automatic or manual operation; 8 sizes to 450 bhp. "Thermal Viscosity" preheating.

DOMESTIC MODELS: #3 or lighter oils; "conversion" and combination-unit types; 7 sizes. "Tubular Atomization" (Patented).

FULL DATA on Petro Industrial Burners are in Sweet's and Domestic Engineering catalog files. Details on Petro domestic burners available in separate catalog. Copy of either sent gladly on request.

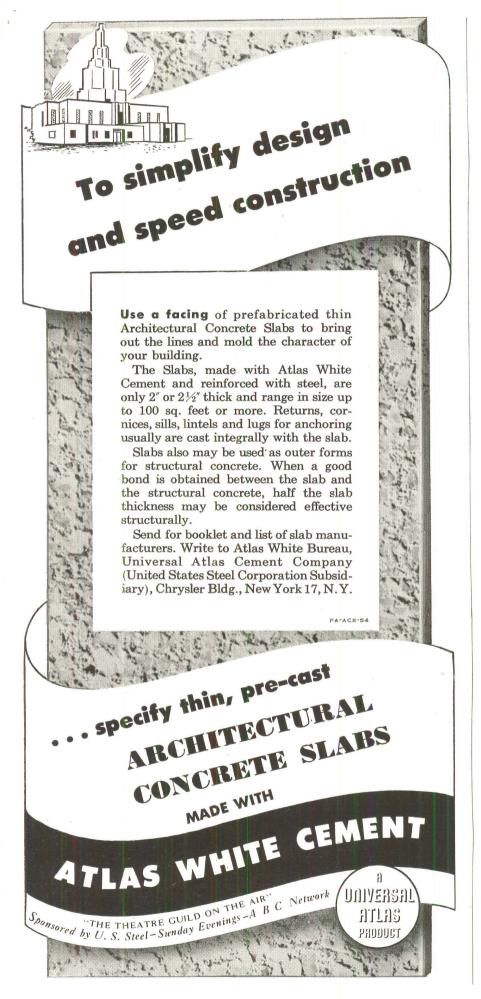




STAMFORD, CONNECTICUT

Makers of Good Oil Burning Equipment Since 1903

CUTS STEAM COSTS



REVIEWS

(Continued from page 138)

order). The division was active in directing local builders at the expense of the country where damage was done; in preventing troop occupation of palaces and museums wherein valuable objects were housed.

"The total of buildings destroyed in Europe and North Africa beyond hope of repair is relatively small," Woolley reported; although, he said, a reading of the buildings hit contains name after familiar name of historic monuments and places.

The Building Research Station erected at Queens Park, on a platform which lies between a steam line and an electric line, a section of a railroad station. It was a research problem undertaken by the architects of the London & Midland & Scottish Railway-a neat little station house, shed and platform, during the building of which man-hours were charted for each operation to determine adjustments of design where time-saving would result. Robust materials and finishes were sought; steel timber and concrete were used; ceramic glazes were studied in view of the filth and smoke which usually ruins the appearance of a station-house; enameled steel was considered for lower section exteriors to withstand abrasion. The findings are published in a seven-page study of the problem.

JOURNAL OF THE R.A.I.C. 57 Queen Street West, Toronto, Canada JANUARY 1946

Winners in the General Motors design competition for automobile dealer establishments are shown. The needs of four stock types of dealerships are illustrated. Publication of the buildings, and accompanying comment upon their winning properties, illustrate the wisdom of the four solutions.

DESIGN AND CONSTRUCTION 26 Bloomsbury Way, London W. C. 1. England

JANUARY 1946

The Atom City at Oak Ridge, Tennessee, which in a space of four years grew from nothing but a ridge to a city of 75,000 population, presents a modern solution for multiple (emergency) housing, as well as town planning for a complete community. To build a city one by six miles, skilled planning was wedded to high-speed, specialized-crew construction. As the town grew faster than had been initially planned for, buildings became of less permanent nature as construction continued. Trailers and even tents were allowed for overflow of workers. Still under construction in marginal areas, Atom City totals 10,000 family units, 3,000 dormitory units, more than 5,000 trailers, 16,000 hutments and barracks. One of the best high schools in the U.S.A. was de-

(Continued on page 142)

THERE'S PROOF APLENTY...

MAINTENANCE

Durable Aluminum Windows

LOOK BETTER

NORK SMOOTHER

A look at the past gives you a look into the future for aluminum windows. Their superiority is constantly being demonstrated in buildings of all types.

For example, take the building illustrated here. After 14 years, its 3100 Alcoa Aluminum windows operate just as smooth as the day they were installed . . . and they've never been painted.

Check some aluminum windows yourself. Ask about their maintenance cost. We believe you will convince yourself that windows of Alcoa Aluminum belong at the top of your list for the buildings you are now planning.

ALUMINUM COMPANY OF AMERICA, 2198 Gulf Building, Pittsburgh 19, Pennsylvania.

With Alcoa Aluminum Windows You Can Count On . . .

Low maintenance No rust No warping No staining

hance No painting required Easy operation Low installation cost Maximum glass area Better appearance

LCOA ALUMINUM

The Philadelphia Saving Fund Society Building, constructed in 1932. Howe and Lescaze, Architects, Philadelphia, Penna.

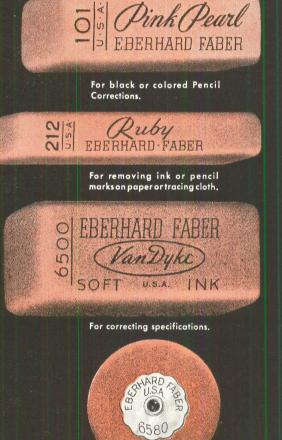
t la c

FHILLS ELFRING

ALCOA

APRIL, 1946 141

EBERHARD FABER ERASERS for



lean corrections

Soft texture for delicate surface cleaning.

TO KEEP sketches...drawings...tracings free from telltale signs of correction-say EBERHARD FABER, when you buy Erasers. First choice for First Quality...Available at Supply Stores everywhere.

REVIEWS

(Continued from page 140)

manded by highly-paid resident profes sionals. Hospitals, community centers theaters, restaurants, shopping centers are convenient to the residential sec tions and far from the three hug manufacturing plants, guarded an fortressed, the raison d'etre of the city

HOSPITAL REVIEW

18 East Division Street, Chicago 10, Ill. 1945

Situations facing hospitals as a uni are presented in the second section o the 1945 bulletin of the American Hos pital Association: "Our avowed purpos is caring for the people—not some o the people but all of them."

NOTICES

THEO BALLOU WHITE announces the re opening of his office for the practice o architecture at 315 S. 15th St., Phila delphia, Pa., after service in the Corp of Engineers, U. S. Army.

BARNET GLICKLER AND SAMUEL K SCHNEIDMAN, Architects, announce th opening of their new office for the practice of architecture at Room 407-b, 160 Walnut St., Philadelphia, Pa.

J. ROY CARROLL, JR., announces tha JOHN T. GRISDALE is now associated with him for the practice of architec ture under the name of Carroll and Grisdale, Architects, 1700 Walnut St. Philadelphia 3, Pa.

OLINDO GROSSI has opened an office a 542 Fifth Ave., New York 19, N. Y., fo the practice of architecture.

GEILE & WILLSON have opened an offic for the practice of architecture and en gineering at Suite 3, Gibson Bldg., 12: S. Green St., Huntsville, Ala.

FREDERICK R. LOUIS AND A. REA HENRY, having returned from militar, service, wish to announce the partner ship of LOUIS & HENRY, Architects 1271 Starks Bldg., Louisville 2, Ky.

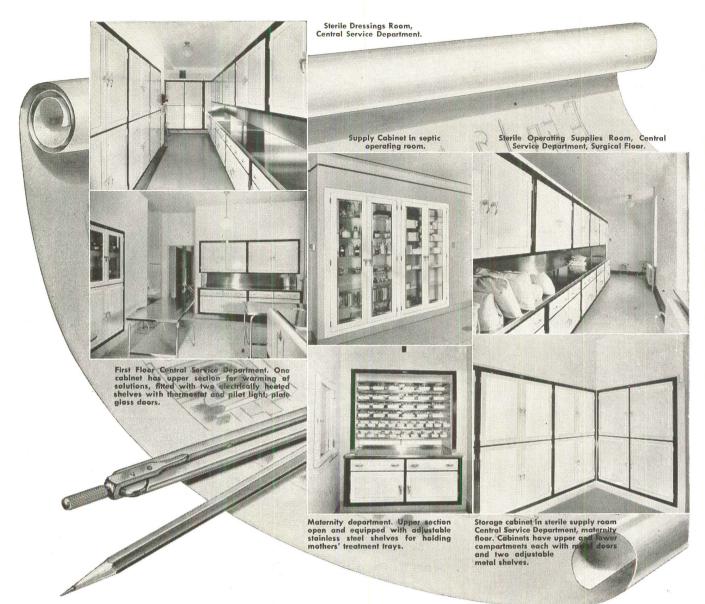
LOUIS E. MCALLISTER AND DOUGLAS G BRAIK announce an association for the practice of architecture, with offices in the Bulletin Bldg., Philadelphia 7, Pa

MACKIE AND KAMRATH, Architects, have reopened their offices at the temporary address of 2500 River Oaks Blvd. Houston, Texas, having returned from service with the Army Engineers.

MANOUG EXERJIAN, Architect, announce the opening of his new office at 140 S Middle Neck Rd., Great Neck, N. Y.

E. ELLSWORTH GILES, Architect, an nounces the opening of his office at 113 Morristown Rd., Bernardsville, N. J.

(Continued on page 144)



RECESSED CABINETS

Important factors in planning the modern hospital — Specify Scanlan-Morris

Typical of the trend in the planning of modern hospitals are these photographs of Scanlan-Morris recessed cabinets built into St. Nicholas Hospital, Sheboygan, and St. Alphonsus Hospital, Port Washington, Wis. In addition to the cabinets shown, other Scanlan-Morris cabinets in these hospitals are:

- Recessed combination cabinet for storage and for warming of solutions and blankets — in main corridor of maternity department near Central Service Room and delivery rooms.
- Recessed supply cabinets in unsterile work room, Central Service Department, surgical floor.
- 3. Recessed supply cabinet in surgical corridor.
- 4. Recessed caloinets in splint room, surgical floor—three equipped with swinging type harness hooks for splints and fracture equipment; others with metal shelves and plaster barrel compartments.
- Recessed cabinets, counter type, in unsterile work room of Central Service Department—stainless steel counter tops.

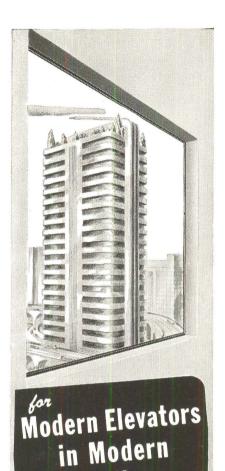
6. Counter type cabinets for soiled utensils, equipped with double sink—in maternity department.

Scanlan-Morris recessed cabinets, each cabinet custom built from plans and specifications covering the individual requirements of the hospital, are installed in many leading hospitals.

The cabinet bodies are made of 20 gauge furniture steel. All corners are made with double lapped and sweated seams, insuring dust-proof construction. Frames are flat teel, electrically welded to insure maximum strength and rigidity. The cab'nets may be finished in any color to harmonize with the color of walls and other equipment. Fittings are finished in nickel plate or chromium plate, as specified.

Years of designing and manufacturing experience and contact with surgeons, hospital superintendents, engineers and architects, qualify our Technical Sales Service Department to give valuable assistance and authentic guidance in hospital planning. Suggested layouts supplied without obligation.





Buildings Consult Montgomery

A building-two or more stories in height—is only as modern as its ele-vator system. This applies to office, industrial and commercial buildings alike.

With the adoption of new materials and building construction techniques developed during the past few years, new elevator problems have arisen. In planning for any type of new building or modernization of an existing building, you can depend upon Montgomery for assistance in designing and engineering the efficient, modern vertical transportation sys-tem to best meet its requirements.

A Montgomery designed elevator system will usually be lower in ini-tial cost, always dependable in service and most economical in operation and maintenance. Montgomery Elevators have proved their worth in thousands of installations.

Montgomery manufactures a com-plete line of passenger and freight elevators, electric dumbwaiters and special equipment for vertical transportation.



HOME OFFICE . Moline, Illinois Branch Offices and Agents in Principal Cities

NOTICES

(Continued from page 142)

PHELPS BARNUM, for three and onehalf years an architect for Pan American World Airways, has returned to private practice, having formed a partnership with W. STUART THOMPSON, with offices at 125 E. 46th St., New York, N. Y.

CHARLES W. ELIOT, 415 South Hill Ave., Pasadena 4, Calif., is prepared to provide consulting services on community development and city and regional planning to public and private agencies and individuals.

HENRY J. TOOMBS announces a partnership with WILLIAM J. CREIGHTON, for the practice of architecture under the name of TOOMBS & CREIGHTON, Architects, 7 Peachtree St., Atlanta, Ga.

FAION E. LOTT, Architect, announces the opening of his office at 12 E. Pleasant St., Baltimore 7, Md.

WALTER SANDERS and ARTHUR MALSIN, Architects, have moved their office to 425 Fifth Ave., New York 16, N. Y.

WILBUR A. MEANOR, Architect, announces that a partnership has been formed with ROBERT PRESTON GREIFE and ROBERT HOUSE DALEY, which is now doing business under the name of MEANOR, GREIFE & DALEY, 306 Payne Bldg., 811 Lee St., Charleston 1, W. Va.

GEORGE NEMENY, Architect, has moved his office to 14 E. 39th St., New York 19, N. Y.

JOHN W. CROSS and his son, H. PAGE CROSS, announce the opening of a firm for the general practice of architecture at 730 Fifth Ave., New York 19, N. Y., under the name of CROSS & SON.

MORRIS LAPIDUS, Architect, is remodeling a brownstone house at 256 E. 49th St., New York, and expects to move his offices to this location shortly.

F. HERBERT RADEY and CLARENCE L. MACNELLY, Architect and Engineer, 101 N. Seventh St., Camden, N. J., have combined organizations in order to render more complete professional service to their clients.

JOHN POE TYLER, JACKSON P. KETCHAM, and ROBERT E. MYERS have announced the formation of a partnership for the practice of architecture, temporarily located at 10 E. Lexington St., Baltimore 2, Md.

AARON COLISH and CHARLES G. ETTER announce the formation of a partnership with offices at Architects Bldg., Philadelphia 3, Pa.

Returned from the Armed Services, JOHN VINCENT ANDERSON announces the reopening of his offices for the practice of architecture in the Builder's Bldg. at 228 N. LaSalle St., Chicago, I11.

AWNING WINDOWS OF WOOD



For the Hotel or Apartment



the Public Building



and the Home

Gate City Awning Windows are setting a new standard for distinctiveness, flexibility in design, and service to the owner. Sash may be used singly, in tiers, or in combination with fixed lights. Ventilation is controlled by simple worm and gear mechanism that operates without straining, twisting or warping the sash. Complete window unit, including frame and sash, with hardware installed, is furnished by the local millwork manufacturer, assuring factory - controlled fabrication and low delivered cost on the job.

Our catalog is in Sweet's. Further information will be gladly supplied on request. Address Gate City Sash & Door Co., Dep't P., Fort Lauderdale, Florida.

See our demonstration unit at Architects' Samples Corp., 101 Park Avenue, New York City.



and Type "C" Awning Window Hardware



For brand new lighting ideas

-transparent

light in Radiant Walls

Light, visible at sides of mir-ror, is also "piped" through clear PLEXIGLAS shield, es-caping only at design-en-graved surfaces.

Fluorescent Light Source

Design Painted and Engraved on Back Surface of Clear Plexiglas

Opaque Wall Surface

PLEXIGLAS Here's how Plexiglas ''pipes''

Mirror

white Translucent

Plexiglas Shield

Radiant walls point a trend in illumination . . . A new technique in lighting is a feature of the PLEXI-GLAS "Dream Suite," a three-room "apartment-of-tomorrow" currently touring leading department stores and architectural centers. In warm-colored walls, artistic patterns "etched

in light" glow softly with realistic three-dimensional effect. These radiant walls of edge-lighted PLEXIGLAS have a richness and visual

appeal never before approached. With the overall, glare-free illumination they provide, the "low-brightness contrast" so long sought by lighting en

gineers finally is achieved.

Would you like to know more about the possibilities of the plastic that "pipes" light? Just write our nearest office: Philadelphia, Los Angeles, Detroit, Chicago, Cleveland, New York. Canadian Distributor: Hobbs

Glass Ltd., Montreal.

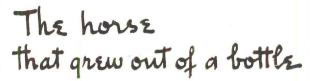
now available without restriction

Only Rohm & Haas makes PLEXIGLAS . PLEXICLAS is the trade-mark, Reg. U.S. Pat. Off.

ROHM AAS COMPANY WASHINGTON SQUARE, PHILADELPHIA 5, PA.



Manufacturers of Chemicals including Plastics... Synthetic Insecticides... Fungicides... Enzymes... Chemicals for the Leather, Textile, Enamelware, Rubber and other industries



A bottle of Higgins American India Ink, of course - for when Paul Brown, distinguished depictor of the sporting scene, does his vivid illustrations, he relies on Higgins Inks as his medium.

Why? For the excellent reason that Mr. Brown, like other top-ranking artists and designers, knows that, for control and accuracy of line, for precision performance and facility of use, Higgins American Drawing Inks are unsurpassed. Ask for this item by brand name for your protection.



PAUL BROWN ILLUSTRATION FOR "GREAT HORSE STORIES", SELECTED BY PAGE COOPER, SOON TO BE PUB-LISHED BY DOUBLEDAY.

271 NINTH STREET, BROOKLYN 15, N.Y.



Three miles from the Orrington Hotel in Evanston, Illinois, lies the picturesque Wilmette Harbor ... but not for the guests of the Orrington's modern dining room ... for their enjoyment this local scenic spot was brought indoors in full natural color through the magic of Kaufmann & **Fabry Photomurals!**

K & F Photomurals, today's decorative motif, are approved by leading architects everywhere ... and are readily available without priority restrictions ... let them serve you!

FREE Handsome Brochure illustrates many interesting applications of Photomurals. Write for your copy today. KAUFMANN & FABRY CO. 425 SOUTH WABASH AVE. CHICAGO 5, ILL.

NOW...Rustless Piping for even the *Smallest Home!*

TODAY, there is no reason why any new home, no matter how modest, should be equipped with water lines that rust. For Anaconda Copper Tubes assembled with Solder Type Fittings can be installed at a price competitive with rustable pipe.

Such a system provides a clean supply of rustless hot and cold water, and guards against trouble and premature piping replacement.

Anaconda Copper Tubes are made from specially deoxidized 99.9+% pure copper. They are furnished soft in sizes up to and including $1\frac{1}{4}$ " in 30, 45 and 60-foot coils; also hard and soft in 20-foot straight lengths. Larger sizes are supplied hard or soft in 20-foot straight lengths only.

In addition to their use as water lines, Anaconda Copper Tubes provide long, economical service for heating lines, garden and lawn sprinkler systems and as tank-to-oil-burner, bottled gas and other connections.

For detailed information, write for Publications B-1 and C-2.



COAST TO COAST

KEY DISTRIBUTION POINTS OF POST DRAFTING, ENGINEERING & SENSITIZED PRODUCTS

Georgia Blue Print Co. Atlanta, Georgia James A. Head & Co. Birmingham 3, Ala. Boston Blue Print Co. Boston 16, Mass. Buffalo Blue Print Co. Buffalo 2. New York H. T. Hall Co. Charleston, W. Va. The Frederick Post Co. Chicago 18, III. **Cincinnati** Drafting Supply Co. Cincinnati 2, Ohio City Blue Printing Co. Cleveland 15, Ohio Franklin Blue Print & Supply Co. Columbus, Ohio Gem City Blue Print & Supply Co. Dayton 1, Ohio

Rocky Mt. Blue Print Co. Denver 2, Colorado The Frederick Post Co. Detroit 26, Mich. Fort Wayne Blue Print Co. Fort Wayne, Ind. Majestic Reproduction Co. Fort Worth 1, Texas The Frederick Post Co. Houston 2, Texas Indianapolis Blue Print & Litho Co. Indianapolis 4, Ind. A. R. Cogswell Jacksonville, Fla. Western Blue Print Co. Kansas City 6, Mo. Sehorn & Kennedy Knoxville, Tenn. The Frederick Post Co. Los Angeles 15, Calif. Geo. G. Fetter Louisville, Ky.

Wray Williams Blue Print Memphis, Tenn. The Fred H. Geiger Co. Minneapolis, Minn. The Frederick Post Co. Milwaukee, Wis. Southern Blue Print Co. New Orleans 12, La. John R. Cassell Co., Inc. New York 18, N.Y. A. & E. Equipment Co. Oklahoma City, Okla. Standard Blue Print Co. Omaha 2, Nebr. Philadelphia Blue Print Co. Philadelphia, Pa. American Blue Printing Co. Pittsburgh 22, Pa. J. K. Gill Co. Portland 3, Ore. Service Blue Print & Photo Copy Co. St. Louis 1, Mo.

Salt Lake Blue Print & Supply Co. Salt Lake City, Utah E. L. Haub Co. San Francisco, Calif. Kuker-Ranken, Inc. Seattle 4. Wash. Renaud-Wicks Svracuse 2. N.Y. Office Equipment Co. Tampa, Florida Toledo Blue Print & Paper Co. Toledo 4, Ohio Allstate Blue Print Co. Trenton 10, N. J. Triangle Blue Print & Supply Co. Tulsa 3, Oklahoma R. E. MacMichael Washington, D. C. City Blue Print Co. Wichita 2, Kansas

LOS ANGELES

The Frederick Post Company 3650 AVONDALE AVENUS . CHICAGO 18, ILLINOIS CHICAGO

.

BACK AGAIN! Pure Copper Home Protection at 1/5 the Normal Cost COPPER ARMORED

HOUSTON

SAVE TIME ... SAVE MONEY Here's the Modern low cost way to put lasting pure copper protection into even inexpensive homes.

DETROIT

MEET THE UNSEEN GUARDIAN Symbol of Sisalkraft Products — guardian of your comfort — protector of your home investment.

SISALKRAFT

YES, it's here again-the same fine Copper Armored Sisalkraft you specified before the war-now ready for new home building! Ideal for all concealed flashing and foundation damp coursing, easy-to-use as paper-will not kink, break or tear, gives all homes enduring copper protection impermeable to the elements. Write for folder and your free sample!

The SISALKRAFT Co. 205 W. WACKER DRIVE



Chromalite's remarkable resistance to moisture, heat, cold, saltspray, abrasion and long, hard service was thoroughly proved on army and navy equipment during the war.

*CHROMEDGE extruded aluminum alloy and stainless steel trims are made solely by the B & T Metals Company.

The T D



MILWAUKEE

of floor and wall materials. And the soft, rich tones of the exquisite Chromalite Finish give them permanently new-looking beauty! (Standard bright finish available). Write!

Metals Co., Columbus 16, Ohio



A the home of PENICILLIN



DRAINS again met every requirement

Penicillin—the wonder drug of the year—can well stir the imagination ... for from the lowly mold of ordinary earth comes a life sustaining substance so potent that through its healing power, ravaging diseases become powerless and almost incurable persons are made whole once more. But the production of Penicillin is still another story, for the problems of culture and control on a large scale basis were far different than obtaining a drop or two from a mold.

To the men who designed and created this great modern laboratory-type building—home of Penicillin at Lederle Laboratories, Inc., Pearl River, New York, goes the lasting appreciation of a grateful people who have already seen the wonders this drug has performed since it has been available in quantities. Here is a building unique in construction, in which every material, equipment and product used had to measure up to a standard that tolerated no compromise with the perfection of control so necessary to the specialized production of Penicillin. Proud that Josam drains and other products were used throughout, Josam has still greater pride in the part that it contributed to the means by which new hope is given to so much of humanity.

LEDERLE LABORATORIES, INC. Pearl River, N. Y.

A DESIGN for PRODUCTION

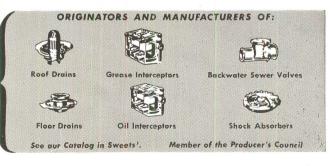
Construction: Steel and brick, daylight lighting provided through multi-window installations. Total space 120,000 feet. Temperature control: Third and fourth floors almost entirely filled with incubators with temperature maintained at 37° F; fluctuation allowance— 1° Peak employment— 500.

First building of its particular type, devoted to the production of Penicillin on a commercial scale by the flask method. Penicillin, as a result is now available

for general use as the need for it arises

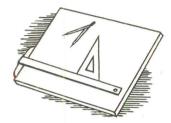
ONE ACHIEVEMENT DESERVES ANOTHER . . . TO BE SURE, PUT JOSAM ON THE JOB!





FLOORING

FIELD RESEARCH PRODUCES DATA ON TRENDS IN RETAIL STORE DESIGN



For more than three years the Armstrong Cork Company has been presenting a series of color pages in The Saturday Evening Post, Time, and

Newsweek on "Ideas for Store Modernization." From a variety of sources—trade associations, staffs of leading business magazines, manufacturers, and successful merchants in every section of the country —we have uncovered a good deal of information that we believe is of special interest to architects.

By stimulating interest in the whole subject of store modernization, we have sought to render a service to architects and the building industry in general—and thus, in the end, to increase the market for Armstrong Floors. The accumulation of basic information on merchandising trends has been an interesting by-product of the effort. A brief summary of our findings follows.

Druggists Stress Prescription Sales—Today's druggist is putting greater effort behind the development of his prescription business than ever before. There is a strong movement afoot to give the prescription department more space . . . to put it in a more prominent spot. In some instances, it is being moved to the very front of the store.

Grocers Swing to Self-Service—Wartime conditions have strengthened the position of the independent grocer in many communities, but the thinking of most of these merchants is dominated by the self-service merchandising methods of the chains. Consequently, the trend in all types of retail food outlets is toward less over-the-counter selling, more self-service.

Restaurants Seek to Cut Labor Costs—High labor costs are strongly influencing the restaurant owner's thinking about design. Step-and-laborsaving devices, ideas for more efficient arrangement of tables and counters—any and all design features that help cut the cost of preparing and serving meals—are greatly needed.

Florists Go in for Drama—The trend in florist shops is toward more dramatic display of merchandise. Fully aware that most flowers are bought as gifts, florists are striving to give their shops less of the "greenhouse" look, more of the atmosphere of a smart specialty shop. Full-view glass fronts are replacing the customary bloom-packed window.





This appliance shop incorporates new thinking in merchandising based upon extensive research conducted in the field by Armstrong Cork Company.

Departmentalization in Shoe Stores—In shoe retailing, as in many related fields, the trend is toward departmentalization within the store. Women's and men's shoes are being sold in different sections, by different personnel. Store design to emphasize departmentalization is wanted.

Trends in Meat Merchandising—Many meat dealers today are putting in packaged frozen food departments as a profitable adjunct to the shop's regular line of edibles. There is some trend toward self-service, particularly in sales of pre-packaged meats, but the dealer continues to put major emphasis on cut-to-order business.

New Approach to Jewelry Display—There are some significant changes going on in the retail jewelry field. Trend in most stores is away from mass displays of merchandise. Small show windows are replacing the traditional large store-front window. Interior display cases are smaller. Objective is to show jewelry individually or in small ensembles rather than in the mass.

Men's and Women's Apparel Shops—The trend in men's and women's apparel shops is toward more ''visual'' selling and ''pre-selection'' of merchandise. Conventional in-line rows of counters are being supplanted by display units that dramatize the merchandise, help the customer make his own selection.

Atmosphere Important in Bakeries—In a number of retail fields—the baked goods industry in particular research indicates a strong demand for the ''atmospheric'' type of interior. Many bake shop owners expressed the feeling that what they regard as the ''modern'' store interior has become too stereotyped, lacks the distinctive character that they want in their own stores.

Group Demonstrations Sell Appliances—Most appliances have to be shown in actual use before they can be sold. In addition to individual demonstrations, dealers have found group demonstrations—to bridge clubs, service clubs, and other women's organizations—an important factor in building sales. Many dealers plan to set aside a specific area for these demonstrations.

Resilient Floors Hold Favor—As the makers of a complete line of resilient floors, we were naturally gratified to discover that the preference for floors of this type is stronger than ever. Linoleum is found on more shop floors today than any other material. The use of asphalt tile and its favorable reception have increased greatly in the past few years. In many quarters, particularly high-end merchandising, there is a demand for the ''luxury'' floors, Linotile (Oil-Bonded) and rubber tile, which again are being produced in Armstrong's factories.

Low Cleaning Costs a Factor—Our surveys revealed that economy of maintenance is a most important factor in the widespread preference for resilient floors. Store owners, confronted by rising labor costs, are anxious to reduce overhead wherever possible. Merchants have found that resilient floors, in addition to their beauty and durability, offer a worthwhile saving in maintenance.

If you would like additional information concerning our surveys in these retail fields, write Armstrong Cork Co., 8904 State St., Lancaster, Pa.



FIRESIDE FURNACE

More Efficient Heating for Cottage or Mansion



L iredaire is a practical and economical heater adequate to the requirements of houses from 3 to 7 rooms on one or 2 floors; compactly housed in a handsome, all-steel cabinet style mantel or wood mantel built to architect's specifications. Connects to any 8-inch flue

without damage to brickwork or interior walls. Burns any fuel; holds fire over night. No exposed smoke pipes. Cool air enters at grills in base of mantel, passes completely around heating unit and is delivered at desired temperature through registers or ducts.



MODEL 100 WITH DOORS IN PLACE FOR USE AS FURNACE

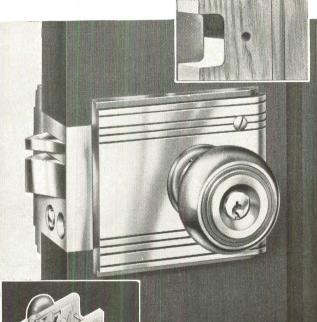
Firedaire is available in a complete range of sizes and models, all moderate in price, ready for easy installation by any handy man. Ideal for low-cost housing...for vacation cottages...recreation rooms and for living quarters not adequately served from central heating system.

> For details see Sweet's Architectural Catalog Write for A. I. A. File No. 5-H-4.





No Mortising ... No Deep Cuts Only a Shallow 1³/₄ inch Notch is Needed





Phantom View Illustrating Construction and Parts of the Russwin Unit Lock Set.

for RUSSWIN UNIT LOCKS

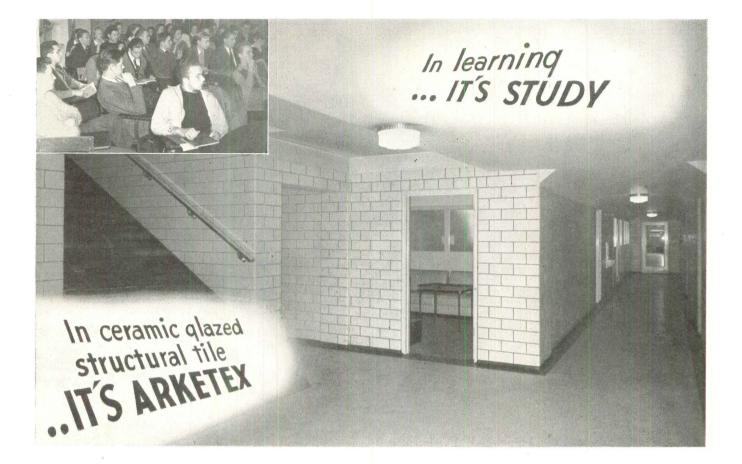
These sturdy locks – perfected by Russwin years ago – have, as usual, the *extras* for which Russwin Hardware is noted. For example . . .

Instead of laborious mortising or deep door-weakening saw cuts in the stiles, only an inch-and-three-quarter notch and a single small hole for the knob is necessary. The entire unit is slipped into place - a quick and permanent job!

Another *extra* is the safety devices – auxiliary latch to guard against outside manipulation and deadlocking plunger to guard the latch and prevent operation of the stops when the door is closed.

Wherever the need for a smooth-performing, longservice lock – for home, apartment, office, school and public building, communicating and toilet doors – choose from Russwin's broad line of Unit Locks. Russell & Erwin Mfg. Co., New Britain, Connecticut.





ARKETEX FOR Budget Beauty

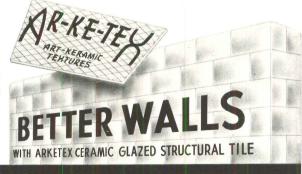
Even the budget committee will like this fine tile for the first cost is the only cost! No periodic painting or refinishing of walls is necessary with Arketex. It is not affected by steam, water, ink, or the action of acids and alkalies which would ruin the appearance of ordinary walls. The everlasting colors are protected by a finish which won't mar, scar, crack, or craze, and which requires only soap

and water washing to keep its luster. Arketex is a permanent wall and finish all in one, available in enough sizes, colors, and textures to allow the architect innumerable opportunities for variety. Be sure that buildings will maintain their orderly appearance years after construction. When planning schools, hospitals, offices or factories, specify Arketex first with the finest in ceramic glazed structural tile.

A PEACETIME PROMISE



Arketex' continuous achievement in the ceramic glazed structural tile field assures you the finest in workmanship. Arketex . . . the standard of textured tile.



ARKETEX CERAMIC CORPORATION • BRAZIL, INDIANA



American Universal Better-Sight Desk No. 333

School Furniture that meets every specification for Serviceability and Design

AMERICAN Seating Company's school equipment is built to the very highest standards of service and durability -with advanced designs for correct posture, hygienic comfort and sight conservation.

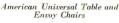
Over 50 years of laboratory research and testing by the world's best seating engineers are your assurance of quality and value when you specify American seats and desks for classrooms; auditorium chairs; tablet-arm chairs; portable assembly and steel folding chairs; or tables and chairs for



libraries, study halls or cafeterias. We suggest that you get in touch with us in order that our Specialized Seating Engineers may help you in the practical development of your plans for classroom, auditorium, school library, or other seating requirements. Write today for full information.

American Universal Desk No. 334











found a cure for SMHDGE In 1756, dissatisfied with the usual sootencrusted globular lamps, he devised a new type "composed of four flat panes with a long funnel above to draw up the smoke." The glass stayed clean; the light stayed bright; and Philadelphia streets were better lit with less fuel.

Ben Franklin,

"PRE-TESTED"

is a cure for SMUDGE

In this "PRE-TESTED" drawing

pencil, the graphite is so highly re-

fined and firmly compacted that it

draws opaque, black lines, free from

excess "dust". Your hands stay clean;

the paper stays white; and your de-

signs are better drawn with less lead.

smoothness, for wear ... "PRE-TEST-

ED" Ben. Franklin outshines them

all. Write for your free sample, nam-

ing this magazine and the degree de-

sired, and prove it in your own hand.

MADE IN 17 DEGREES - 6B TO 9H

OPAQUE

DURABLE

ESTABLISHED 1893

PHILADELPHIA 44, PA.

For clean lines, for strength, for

PH T

U.S.A.

MADE

DRAWING

"PRE-TESTED"

BEN. FRANKLIN

Blaisdell

550

*Reg. U. S. Pat. Off.

STRONG

UNIFORM

Blaisdell "PRE-TESTED"

Ben Frankl

DRAWING PENCIL

PENCIL

*Blaisdell COMPANY .

Ben Franklin





• Whether your design is ultra-modern, modern or traditional, there are two types of floors that you can

count on for complete floor satisfaction. Both types are made with Medusa White Portland Cement.

For beautiful white cement floors having high light-reflecting value-floors that are

MEDUSA the original white PORTLAND CEMENT smooth and clean . . . ideal for hospitals, schools, food and other manufacturing plants—specify Medusa White. These floors can be laid over the top of old concrete.

The same Medusa White is unsurpassed in making terrazzo floors. Used as a matrix, this White Cement brings out the beauty of the marble chips. And only White Cement can give the exact color in pastel tints or brilliant, strong tones when pigments are used. Terrazzo floors are lifetime floors with no upkeep. Write today for a copy of the booklet, "The Beauty of Terrazzo" and information on White Cement floors.

MEDUSA PORTLAND CEMENT CO. 1015 MIDLAND BLDG. • DEPT. A • CLEVELAND 15, OHIO

H&H CORBIN LOCK SWITCHES



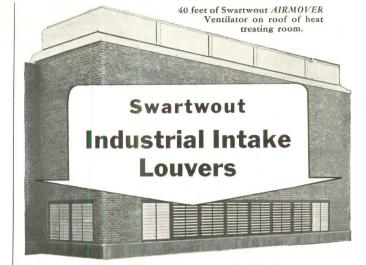
Keep control of the lighting in proper hands! Guard against unauthorized tampering with lights in schools, hospitals, theatres, auditoriums, hotels or any other building used by the general public.

The Lock Switches pictured here are no ordinary switches with locking device. They're time-tested H & H Rotary Snap Switches, operated only by turning the key in a Corbin Pin Tumbler Lock.

No. 1281 is standard type, single pole, available also in double pole, 3-way and 4-way. No. 1281-WP is weatherproof, with cadmium-finish screw cap plate fitting on a weathertight rubber mat. No. 1291 is a *master* lock switch, reciprocating type. After inserting key in lock, switch may be turned to right or left — ON or OFF, but key cannot be removed from switch in ON or OFF position. Write for specification data on this *complete* line.

HART & HEGEMAN DIVISION





let abundant fresh air into your buildings at ground level—make your natural ventilation system *really work . . .*

• When contaminated air rises to roof ventilators to be expelled it must be displaced by cool fresh air. Swartwout Intake Louvers provide the ideal modern method for providing fresh air in commercial and industrial type buildings—avoid the drawbacks of opening window sash. Sturdy welded construction, adjustable up to 90% clear opening. Range of sizes to suit any need.

Ideal Combination with Swartwout **AIRMOVER** Roof Ventilators...

Swartwout's low height, big-capacity ventilator, the AIRMOVER virtually opens your roof to the sky. Highly efficient economical equipment that harmonizes with any building style. Write for complete information on AIRMOVER and Intake Louvers.

THE SWARTWOUT CO., 18649 Euclid, Cleveland 12, 0.



View of Firestone Research Laboratory reveals 3-story inner-building with perimeter of daylighted offices. Hunkin Conkey Constr. Co., Cleveland, were builders.

BEREFERE

Attractive entranceway lobby of the Laboratory. Note air conditioning grilles above clock and near window.

A BUILDING

WITHIN A BUILDING

... air conditioned with "FREON" for Safety

One of the outstanding features of the new, fully air conditioned Research Laboratory of the Firestone Tire & Rubber Company, Akron, O., is that it is actually a building *within* a building.

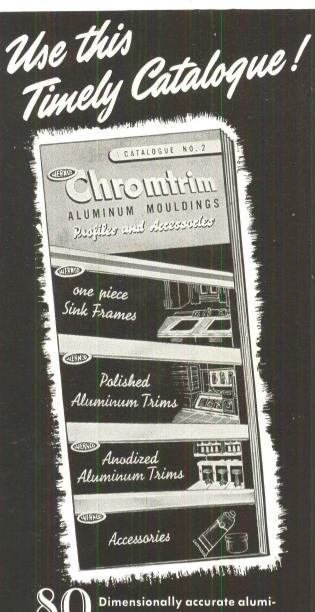
In designing the structure, Voorhees, Walker, Foley & Smith, New York architects and engineers, took another pioneering step. They were guided by the scientific need for positive control of temperature and humidity. The two-in-one theme was accomplished by arranging the Research Laboratory rooms in a prefabricated framework. This formed an inner building. Daylighted executive offices, stairs and library were built on the perimeter or outer shell of the structure.

"Freon" safe refrigerants are used exclusively for air conditioning in the 100,000-sq.-ft. structure through a unique system of design which completely exhausts all air. None of the air is re-circulated after it begins its one-way route from outside the building to the conditioning plant. From offices, the air passes through louvers in corridor doors . . . travels along hallways into and through laboratory rooms to center pipe drafts, where it is expelled.

Refrigerating equipment consists of a 200-ton Worthington centrifugal compressor located in the basement of the building. Firestone engineers specified the refrigerant must be SAFE . . . recommended use of "Freon" in all systems installed within the entire plant. The Avery Engineering Co., Cleveland, did the installation work.

"Freon" refrigerants are ideal for industrial, commercial and residential air conditioning systems. They are non-toxic . . . non-flammable . . . non-explosive and odorless. The low moisture content and other characteristics of 'Freon'' eliminate risk of corroding the equipment . . . assure long life and satisfactory performance. Write for technical data for your files. Kinetic Chemicals, Inc., Tenth and Market Streets, Wilmington 98, Delaware.





Num moulding shapes, expertly designed in matching groups to fit any installation, illustrated in the new full-color CHROMTRIM Catalogue No. 2. Also features many unique installation possibilities.

Follow the new trend – give home-making women the gleaming beauty – the modern neatness—the easy maintenance they want in the homes you plan to build (or modernize). Specify CHROMTRIM for kitchens, bathrooms, attics, etc.

IMMEDIATE DELIVERY

Nationally distributed. See insert in Sweet's File (Architectural Edition).

R. D. WERNER CO., Inc. Manufacturers of Metal and Plastic Products 295 FIFTH AVENUE • NEW YORK 16, N. Y. Factories: New York City – Greenville, Pa.



THEODORE KAUTZKY'S

"PENCIL BROADSIDES"

Twenty-four brilliantly drawn plates by the author, magnificently reproduced by gravure on one side only of heavy antique stock. Twelve clear, concise, and detailed lessons in text explaining the broad stroke pencil technique and its application to the expression of architectural and landscape forms and textures commonly encountered. A mighty meaty package for the aspiring pencil delineator or even for the artist of advanced proficiency.

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.

24 Plates, 9x12 inches, handsomely bound \$2.00

Reinhold Publishing Corp., 330 W. 42nd St., New York 18

Dynamic Floor Design

ADDS VISUAL VALUE TO UNDERFOOT ServiceAbility

You'll enjoy working with Thos. Moulding Moultile. Pictured below is an original Moultile pattern that guides the eye into an automobile salesroom. Similarly, the variety of rich, pleasing Moultile colors can be combined into designs that create an atmosphere of impressive elegance . . . or restful quiet . . . or cheerful friendliness.

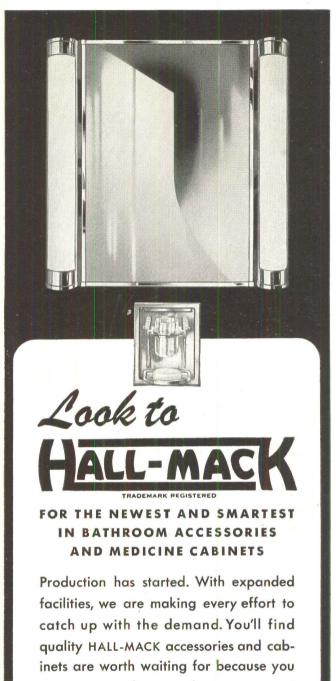
Moultile combines visual beauty with downright utility and economy. It stands up to hard usage over many years without signs of wear . . . and never needs refinishing. There's a comfortable, foot-easy resiliency to Moultile. It is quiet underfoot and non-slippery. Surprisingly, Moultile actually costs less than most resilient type floors. Write for free samples and catalog to: THOS. MOULDING FLOOR MFG. CO., 165 W. Wacker Drive, Dept. PA-4, Chicago 1, Illinois.

THOS. MOULDING



Thos. Moulding Moultile, laid in individual squares, lends itself to all sorts of original designs. Special monogram effects can be included.





can count on them to please your most discriminating customers. Distributed through plumbing, tile and hardware dealers everywhere.

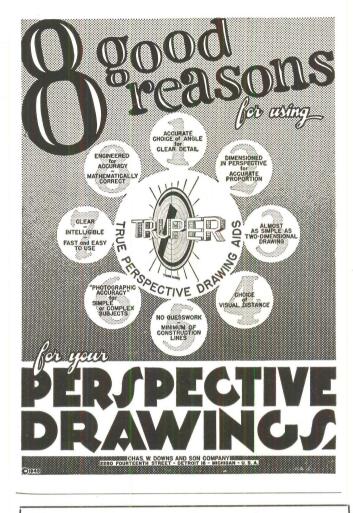
ILLUSTRATED ABOVE:

Medicine Cabinet FL-P1826 has a seamless porcelain on steel interior, a half pillar of fluorescent light at each side. Mirror door and light fixtures are trimmed with brass beautifully chromium plated.

Concealed Lavatory Unit No. 338 holds soap, tumbler and toothbrushes on a revolving panel which conceals these utilities when not in use. Made of brass, chromium plated.

HALL-MACK COMPANY

1344 WEST WASHINGTON BLVD., LOS ANGELES 7, CALIF.



How much space, time and moneyto bring our cities up-to-date? LOUIS JU

Now . . . a step by step program for city planning that meets modern needs for beauty, utility and growth

How much space, time and money is necessary for building more orderly cities, more convenient cities, for eradicating slum sections and making offices, factories and homes better to work and live in? This book surveys all the problems along the way—economics, politics, adminis-tration, finance, and design—and outlines a practical, step by step program for solving them, in an amazingly sound plan. plan.

Just Published!

NEW CITIES FOR OLD

City Building will be taken care of in Terms of Space, Time and Money

By Louis Justement, Architect, Washington, D. C. 232 pages, 7 x 10, 69 illustrations, \$4.50

Will city planning work? This author says yes, points the way for integrating responsibilities of econ-omists, public officials, realtors, architects, builders, bankers, lawyers, labor leaders and politicians.

city planning is aimed at; read and see described with maps and photographs how a particular American city could be improved, with a more convenient traffic system, with public buildings, housing and shopping facilities designed for better living.

Can a planning program b carried out without graft and corruption? How will business react—will home-owners give the program the go signal? Find the answers to these and many other practical considerations in this amazingly realistic book.

-we can realize all ad-vantages of genuine city planning while provid-ing full scope for private enterprise and individual creative ability

Tells how

---we can crèate a con-sistent demand for new housing, maintaining a high level of production.

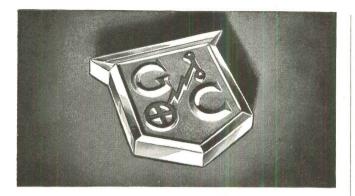
Find out just what type of Send for a copy 10 days on approval -----

McGRAW-HILL BOOK Co. 330 W. 42nd St., N. Y. C. 18

Send me Justement's NEW CITIES FOR OLD for 10 days' examination on approval. In 10 days I will send \$4.50, plus few cents postage, or return book postpaid. (Postage paid on cash orders.)

Aud	ress		• •	• •	•	•	• •	•	•	• •	•	•	ł.	•	•	•	•	•	•	•		•
City	and	Sta	te								ł											
Con	pany																					
Pos	tion Cana										nb)	Pe	eı	1	4	1-





AUTOMATIC CONTROLS

... bearing this trademark belong to a large and widely-used line of Automatic Temperature, Pressure, and Flow Controls. Many years of successful operation in serving domestic, commercial, and industrial users have given General Controls a thorough knowledge of field problems and the engineering skill to solve them. This experience is available to you in helping you analyze your particular problem and recommending the Automatic Controls to fit your specific needs.

> For complete specifications on GENERAL CONTROLS' broad line of Automatic Pressure, Temperature and Flow Controls, write for Catalog 52.



in remodeling, architects and school authorities face the factors of health, comfort and convenience as well. If you select Halsey Taylor Fountains, health-safety is definitely taken care of, and you can rely on their exclusive features to provide a welcome freedom from servicing troubles after they're installed. Get our latest catalog.

THE HALSEY W. TAYLOR CO. WARREN, O.





fillotts Tens

A POINT FOR EVERY PURPOSE



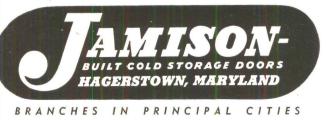
"For Sale" signs on good houses are mighty rare things in these times . . . and equally rare, alas, are the famous Gillott Pens. Most of the thousands of would-be purchasers of both houses and pens must wait.

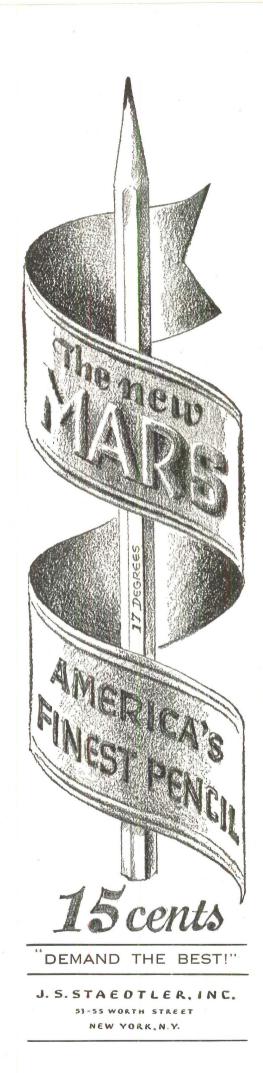
Gradually the Gillott factories will be able to acquire the still-scarce materials and skilled workmen needed to produce pens of the superlative Gillott quality—then you can buy them . . . anywhere.

ALFRED FIELD & CO., INC., 93 Chambers St., New York 8, N. Y



JAMISON VESTIBULE DOOR Reduces refrigeration losses at busy doorways.



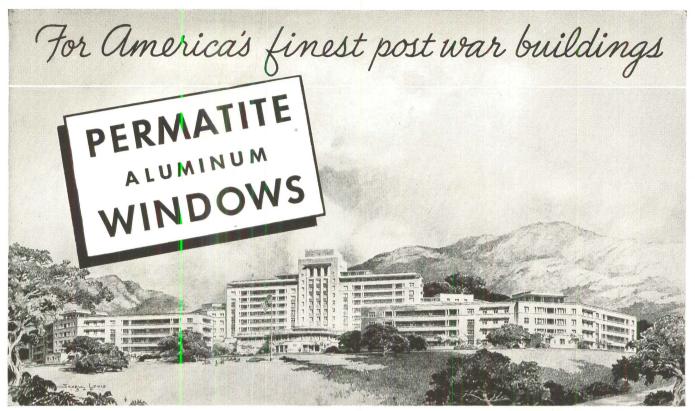


INDEX TO ADVERTISERS

Adam, Frank, Electric Co.	125	Kinnear Manufacturing Co 1	30
Adams & Westlake Co.		Kohler Co.	28
		Koppers Co., Inc.	23
Airtemp Division of Chrysler Corp	41	Koppers Co., mc.	100.00
Air Transport Association for Railway			22
Express Agency		Libbey-Owens-Ford Glass Co 11,	15
Aluminum Co. of America	141	Lockwood Hardware Mfg. Co	15
American Lead Pencil Co.	33	Louisville Cement Co., Inc	45
American Seating Co	154		
American Telephone and Telegraph		Majestic Co	62
Co.	14	McGraw-Hill Book Co., Inc.	
		McKenna, Jay G., Inc.	162
Anaconda Copper Mining Co		McKenna, Jay G., Inc.	155
Arketex Ceramics Co.		Medusa Portland Cement Co	24
Arkwright Finishing Co.	136	Mengel Co.	30
Armstrong Cork Co 150,	151	Montgomery Elevator Co.	144
Arrow-Hart & Hegeman Electric Co.		Moulding, Thos., Floor Mfg. Co	159
inter a riegentan meetrie eo.		Mueller Brass Co.	44
B & T Metals Co.	140		
		National Association of Ornamental	
Barber-Colman Co.			34
Blaisdell Pencil Co	154	Metal Manufacturers	
Blue Ridge Sales Division,		National Gypsum Co.	118
Libbey-Owens-Ford Glass Co	32		
		Ohio Chemical & Manufacturing Co.	143
Calat Samuel La	1/2	Otis Elevator Co.	42
Cabot, Samuel, Inc.		Owens-Illinois Glass Co.,	
Cambridge Tile Mfg. Co 3rd C	over	Owens-minois Gluss Co.,	R
Case, W. A., & Son Mfg. Co	26	Insulux Products Div.	0
Ceco Steel Products Corp.	2,3		
Celanese Corp. of America		Pecora Paint Co	124
		Petroleum Heat & Power Co	139
Celotex Corp.		Pittsburgh Corning Corp.	39
Cheney Industries	160	Pittsburgh Plate Glass Co 119,	
Corbin, P. & F., Division, American		Pittsburgh Flate Glass Co 117,	140
Hardware Corp	127	Post, Frederick, Co.	140
Crane Co.	47		
Curtis Cos., Inc.		Raymond Concrete Pile Co	9
ourto 000, net	100	Reinhold Publishing Corp 158,	162
Dame Char W/ 8 Car Ca	1(0	Revere Copper and Brass Inc	40
Downs, Chas. W., & Son Co.		Rich's Inc.	4
du Pont, E. I. De Nemours & Co., Inc.		NICHS IIIC	121
Duriron Co., Inc.	22	Robertson, H. H., Co 120,	121
		Roddis Lumber & Veneer Co	
Eagle Pencil Co.	25	Rohm & Haas Co.	
Eberhard Faber Pencil Co.		Rolscreen Co.	126
		Rosenthal Co.	158
Edwards Manufacturing Co.		Ruberoid Co.	
Esterbrook Pen Co.	138	Russell & Erwin Mfg. Co.	152
		Russell & Erwin Mig. Co.	JL
Field, Alfred & Co., Inc.	161		100
Fir-Door Institute	27	Sedgwick Machine Works	128
Flynn, Michael, Manufacturing Co	50	Sisalkraft Co	148
Formica Insulation Co., The	13	Spencer Turbine Co	16
ronned manaron co., the	15	Staedtler, J. S., Inc.	164
	7.4.4	Standard Pressed Steel Co.	160
Gate City Sash & Door Co		Stanley Works, The	132
General Bronze Corp		Stanley works, The	162
General Controls Co.	161	Stewart-Jackson Instrument Co	103
General Electric Co., Heating and		Stran-Steel Division of Great Lakes	
Air Conditioning Equipment Div	30	Steel Corp	48
General Electric Co., Lamp Div	43	Streamline Pipe and Fittings Division	44
		Swartwout Co	156
General Electric Co., Wiring Div			
General Pencil Co	122	Taylor, Halsey W., Co., The	161
Hall-Mack Co.	159	Thos. Moulding Floor Mfg. Co	
Hart & Hegeman Div., Arrow-Hart &		Tile-Tex Co., The	19
Hegeman Electric Co.	156	Trinity Portland Cement Co Back C	over
Higgins Ink Co., Inc.	146	Truscon Steel Co.	31
House & Garden	27	U. S. Plywood Corp.	36
	120	Universal Atlas Cement Co.	
Imperial Tracing Cloth	138	Universal Atlas Cement Co.	140
Insulux Products Division,			
Owens-Illinois Glass Co.	6	Vermont Marble Co	7
		Vonnegut Hardware Co	137
Jamestown Metal Corp	46		
Jamison Cold Storage Door Co		Wade Manufacturing Co	163
		Warren Webster & Co.	38
Jenkins Brothers 2nd C		Weis Honry Mar Co Inc	
Johns-Manville Corp 116,		Weis, Henry, Mfg. Co., Inc.	100
Josam Manufacturing Co	149	Werner, R. D., Co., Inc.	100
		Wilson Engineering Corp	162
Kaufmann & Fabry Co	146	Wood Conversion Co.	49
Kennedy, David E., Inc.	129		
Keuffel & Esser Co.	21	Yeomans Brothers Co.	12
Kinetic Chemical Div.	157	Youngstown Sheet & Tube Co.	35
Killenc Cilemicul Div.	157	roungstown sheet & rube eo.	

Kinnear Manufacturing Co. Kohler Co Koppers Co., Inc	130 28 23
Libbey-Owens-Ford Glass Co 11 Lockwood Hardware Mfg. Co Louisville Cement Co., Inc	, 32 15 45
Majestic Co. McGraw-Hill Book Co., Inc. McKenna, Jay G., Inc. Medusa Portland Cement Co. Mengel Co. Montgomery Elevator Co. Moulding, Thos., Floor Mfg. Co. Mueller Brass Co.	162 160 162 155 36 144 159 44
National Association of Ornamental Metal Manufacturers National Gypsum Co.	34 118
Ohio Chemical & Manufacturing Co. Otis Elevator Co. Owens-Illinois Glass Co., Insulux Products Div.	143 42 6
Pecora Paint Co. Petroleum Heat & Power Co. Pittsburgh Corning Corp. Pittsburgh Plate Glass Co	124 139 39 131 148
Raymond Concrete Pile Co. Reinhold Publishing Corp. 158, Revere Copper and Brass Inc. 120, Robertson, H. H., Co. 120, Roddis Lumber & Veneer Co. 120, Rohm & Haas Co. Rolscreen Co. Rosenthal Co. Ruberoid Co. Ruberoid Co. Ruberoid Co. Russell & Erwin Mfg. Co. 120,	158 123
Sedgwick Machine Works Sisalkraft Co. Spencer Turbine Co. Staedtler, J. S., Inc. Standard Pressed Steel Co. Stanley Works, The Stewart-Jackson Instrument Co. Stran-Steel Division of Great Lakes Steel Corp. Streamline Pipe and Fittings Division Swartwout Co.	148 164 160 132 163 48 44
Taylor, Halsey W., Co., The Thos. Moulding Floor Mfg. Co Tile-Tex Co., The Trinity Portland Cement Co Back (Truscon Steel Co.	159 19 Cover
U. S. Plywood Corp. Universal Atlas Cement Co.	36 140
Vermont Marble Co Vonnegut Hardware Co	
Wade Manufacturing Co. Warren Webster & Co. Weis, Henry, Mfg. Co., Inc. Werner, R. D., Co., Inc. Wilson Engineering Corp. Wood Conversion Co.	38 24 158 162

Advertising and Executive Offices, 330 West 42nd St., New York 18, N. Y. PHILIP H. HUBBARD, President and Publishing Director. JOHN G. BELCHER, Associate Publishing Director and Business Manager. DOUGLASS G. PILKINGTON, District Mgr., 22 West Monroe St., Chicago 3, III. RUSSELL H. ALVIS, District Manager, 1133 Leader Building, Cleveland 14, Ohio. EDWARD D. BOYER, JR., District Manager, 330 West 42nd St., New York 18, N. Y. WILLIAM H. BALDWIN, District Manager, 330 West 42nd St., New York 18, N. Y. BUNCAN A. SCOTT & CO., Mills Building, San Francisco, Calif. 448 South Hill St., Los Angeles 13, Calif.



U.S. Army-Corps of Engineers

YORK & SAWYER, Architects

Selected for the new TRIPLER GENERAL HOSPITAL

PERMATITE-the window preferred by leading architects before the war-is again the outstanding choice for post war jobs.

More than 4500 PERMATITE aluminum windows are being used in the U. S. Army's new Tripler General Hospital now under construction on the island of Oahu in Hawaii. This is the largest single aluminum window contract ever placed and includes windows of every style-double hung, triple hung, casement and projected.

In its PERMATITE line, General Bronze offers specially designed windows, in either aluminum or bronze, for hospitals, schools, apartments, public and commercial buildings.

These fine windows have many unique, patented features—both in design and construction. They help assure years of dependable service and client satisfaction.

For complete information, full size details, etc., on PERMATITE windows and other General Bronze products consult Sweet's or write for catalogs.



GENERAL BRONZE CORPORATION 34-13 TENTH STREET LONG ISLAND CITY 1, N.Y.

Architectural Metal Work · Windows · Revolving Doors

COPPER CONDUCTOR THERMO-PLASTIC INSULATION SPIRAL-WRAPPED IMPREGNATED CRUSHED-PAPER ARMOR WATERPROOF JUTE FILLERS LONGITUDINAL PAPER WRAP MOISTURE-RESISTING FLAME-RETARDING **OVER-ALL BRAID** THE HOME OF TOMORROW

A. Wilson Barstow, merchandising manager of the New England Power System says, "The home of tomorrow can be only as modern as its electric wiring system. Plenty of circuits and outlets should be installed so that fullest use can be made of new electric facilities."



A NEW NON-METALLIC SHEATHED CABLE

with Thermo-plastic Insulated Conductors

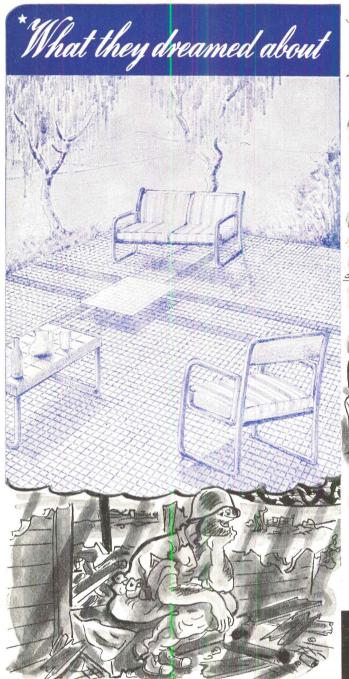
REGISTERED TRADE MARK

G-E Wiring Materials Distributors in all parts of the country are offering PVX, a new G-E nonmetallic sheathed cable that is easy and quick to install. This cable is light in weight, has small diameter, is free stripping and is non-marking and nontacking. It is available with two or three conductors in sizes 14 to 4 without ground wire.

PVX cable has Type T conductors insulated with thermo-plastic compound. This insulation has long life, is high in dielectric and mechanical strength and is resistant to oils, acids and alkalies. These conductors are protected with an improved crushed-paper armor and covered with a tough over-all braid. Both the insulation and the over-all braid are flame and moisture resistant.

This high quality cable is recommended for open and concealed work in all buildings where it is permitted by local codes and the National Electrical Code. It is approved by the Underwriters' for 60 degree C operation. General Electric Co., Appliance and Merchandise Department, Bridgeport, Conn.

GENERAL 🛞 ELECTRIC





"How'd you like to be parked on my Suntile porch with a tall, cool one in each hand?"

WHAT THEY SAW ...

For centuries real clay tile has been inseparably associated with gracious living. In years past it was looked upon as a luxury reserved only for the rich. But today the nominal cost of beautiful Suntile brings tile's lifetime advantages within everyone's reach.

Suntile is weatherproof and colorfast. It can be used indoors and out in any climate with equal ease. Suntile's quality and durability thoroughly satisfy the practical mind of the home buyer. Its easy-to-clean color-balanced beauty is a joy forever. Yesterday's luxury is truly today's economy with Suntile. In many different ways Suntile can enhance the desirability of the homes you design. Get acquainted with Sun-

tile today.



A Quality Product At A Nominal Price

MFG. CO. CAMBRIDGE TILE MEMBER OF THE PRODUCERS' COUNCIL CINCINNATI 15, OHIO

THIS SERIES IS BASED ON AN IDEA SUGGESTED IN LETTERS WRITTEN BY CPL, LOUIS A, PERKOVIC OF THE ARMY EINGINEERS IN THE SOUTH PACIFIC. A REGULAR SERIES OF LETTERS FROM HOME REALLY BOOSTS THE MORALE OF MEN OVERSEAS. SMALL TALK TO YOU IS BIG NEWS TO THEM SO WRITE OFTEN.



Extra whiteness is

TRINITY WHITE

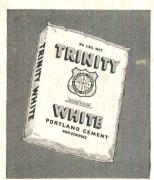
As white I as snow

something a woman readily appreciates

Extra whiteness – gleaming, sparkling whiteness – is something a woman readily understands and appreciates – whether it is the whiteness of family linens or the exterior whiteness of a home. In either case she'll tell you, "The whiter, the better."

Trinity White is the whitest white cement. It is the best white portland cement for stucco or cement paint. Use it in terrazzo, cast stone, and architectural concrete units. You will find its light reflective qualities useful on many types of floors; in dark courtways; for making roofing slabs and parapets reflect light through saw-tocth windows; and in many other places.

Trinity White is a true portland cement with all portland cement's strength, permanence, and easy workability. For complete information, write, wire, or phone Trinity Portland Cement Co., Republic Bank Bldg., Dallas, Texas, or 111 West Monroe Street, Chicago.



PORTLAND CEMENT