Newsletter 1

Critique: Industrial Buildings

Assembly Plant, Van Nuys, Calif.: PARKINSON, POWELSON, BRINEY, BERNARD & WOODFORD-ALBERT KAHN

Factory, West Bath, Me.: ALONZO J. HARRIMAN, Inc.

Throwing Mill, Winston-Salem, N. C.: LACY, ATHERTON, WILSON & DAVIS

Warehouse and Branch Office, Cicero, Ill.: SKIDMORE, OWINGS & MERRILL

Office Practice: Licensing Requirements: BERNARD TOMSON

Apartment House, Los Angeles, Calif.: CARL L. MASTON

House, Dedham, Mass.: JOHNSON and WHITCOMB

Research Report: Classroom Lighting: CARL J. ALLEN

Store: Display Cases

Selected Details

School: Treillage

House: Barbecue

Views: 8  Progress Report: 14  Products: 86
Manufacturers' Literature: 88  Reviews: 106
Jobs and Men: 126  P.S.: 144
Lightness, Strength, Savings with POZZOLITH CONCRETE

WALTER WURDEMAN - AIA - WELTON BECKET
ARCHITECTS
2950 WILSHIRE BOULEVARD
LOS ANGELES 5, CALIFORNIA

June 14, 1948

The Master Builders Company
7016 Euclid Avenue
Cleveland, Ohio.

Gentlemen:

In designing and planning the new height limit concrete office building for the Prudential Insurance Company of America, which is to be their Eastern States headquarters, it was our desire to obtain the necessary structural strength with a minimum of weight. To obtain this result, we used pumice aggregate in the light weight concrete, in which your own dispersing and air entraining agent, Possolith, was used as the admixture.

Possolith played an important part in obtaining the desired results. Extensive laboratory tests were made which showed that Possolith reduced the water cement ratio materially, increased the compressive strength, decreased the absorption and the bleeding of the concrete, increased the bond strength of the concrete to the steel and improved the workability of the concrete.

We are entirely satisfied with the performance of Possolith for this job and feel it is a desirable complement to lightweight aggregate.

Very truly yours,

WALTER WURDEMAN
WELTON BECKET
A.I.A.

As the result of "obtaining the necessary structural strength with minimum weight", savings in materials and labor are approximately 12% of the cost of the building. (Percentage figure from Buildings Magazine).

possolith Concrete assures long term as well as immediate savings because of its great durability.

Wire or write and a field representative will be glad to call to discuss the savings and other advantages that can be obtained on your jobs with Possolith Concrete.
Architects and engineers will do well to study the forthcoming report of the AIA's Committee on Fees. It will advocate more general adoption of the fee based on architect's costs in some manner. Advantages were outlined in a recent P/A article by Lawyer Bernard Tomson and in the July "A.I.A. Journal".

Figures show astounding increase in volume of houses for personal occupancy—a greater ratio of increase than in categories of houses for sale or rent, in the face of costs that make $10.00 a sq. ft. construction cost a design triumph.

Interesting development in several parts of the country is the cooperative group of houses. Technique varies: design, and even selection of architects in some cases, is not restricted; in others some standardization is adopted to save in purchasing material. Groups range from half a dozen houses to several hundred; controls vary from true cooperative principle to outright sale of plots with some common holdings for community use. In all cases aims are the same—economy in building and planned community living.

Steel has been in the news in various ways recently. With unprecedented demand—for ERP, for the armed services (as P/A pointed out last month, the draft law establishes Presidential control over steel allocation), for many phases of the economy (railroads need 12,000 new freight cars a month) as well as for building construction—indications are that prices will go up further, and that supply will be tight for some time for architectural specification.

The new method of steel pricing adopted by U. S. Steel, which apparently is forced by a Supreme Court decision (priced at the mill or at point of delivery with delivered price reflecting full transportation charges) has already resulted in a boost in prices at many points.

As steel's troubles increase, architects are certain to look again toward other materials. Structural aluminum is a possibility which has never been fully explored (see next month's P/A article). Aluminum used nonstructurally is gaining in many ways; FHA's Underwriting Division has issued standards accepting aluminum tubing or standard IPS aluminum pipe for vent pipes in plumbing systems. (FHA Bulletin UM-1)

Materials coordinated for modular construction increase in number and availability. Structural clay products—early to convert—are now available in modular sizes from 125 manufacturers producing 40 percent of the brick and tile in the U. S.

U. S. Public Health Service announces 304 applications received under the hospital construction program, for a value of over $40,000,000. As of July 2, only 48 had been O.K.'d, but experience generally indicates that the procedure is working smoothly when applications are in order. A move by some architects to get the profession to condemn the Surgeon General's standards as too rigid has died aborning.

Speaking of hospitals, the 1948 VA program is still being designed by the VA technical staff, despite intelligent and continuous effort on the part of private architects to show that the work done in 1947 by outside firms showed marked advance over the typical VA-designed job.
HOW DO YOU RATE THIS FLOORING?

*Where does it fit in the flooring picture?

Rubber tile is often called the "aristocrat of floors," not only because it is the most expensive of the resilient tile flooring materials but also because it has exceptional beauty, rich sheen, and a luxurious "feel" underfoot. For those reasons it is frequently selected for buildings where an air of elegance is desired, in exclusive shops, executive offices, and fine homes.

On the practical side, rubber tile has unusual durability that offsets its relatively higher initial cost. It is also quiet and comfortable underfoot. Its ability to cushion footsteps and reduce other noises that originate from impacts with the floor makes rubber tile especially suited for hospitals, schools, libraries, and other places where quiet is important.

*What about color and design?

Rubber tile is distinguished for the clear brilliance of its colorings and the character of its graining. Design possibilities are exceptionally wide because of the variety of marbleized colors and the wide range of sizes in which rubber tile is produced. It is particularly adaptable to the creation of elaborate insets, since the material can be cut readily and works easily.
**What about sizes and gauges?**

Armstrong's Rubber Tile is available in many sizes: *Squares—3", 4", 6", 9", 12".* (Also half tile cut diagonally from squares.) *Oblongs—3" x 6", 6" x 12", 9" x 18", 9" x 36", 12" x 36", 18" x 36".* *Feature Strips—supplied in widths from \( \frac{1}{4} " \) to 3". Maximum length is 36". Gauges—\( \frac{1}{8} " \) and \( \frac{3}{16} " \).

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**What special characteristics does it have?**

Armstrong's Rubber Tile has exceptionally high resistance to indentation. It will not indent under furniture loads up to 200 lbs. per square inch. This is equal to the indentation resistance of Armstrong's Linotile®. Other types of resilient floors have the following limits of indentation resistance per square inch: asphalt tile, 25 lbs.; cork tile, 40 lbs.; Heavy Gauge (battleship) linoleum, 75 lbs. Armstrong's Rubber Tile also is extremely durable and highly resistant to cracking and crazing. Its high tensile strength prevents excessive contraction and expansion, thus eliminating any tendency for the floor to buckle. As a result of careful control and special formulation the marbleizing in Armstrong's Rubber Tile is unusually clear and distinct. The exceptional smoothness and satiny sheen that is characteristic of rubber tile results from the vulcanizing process used in its manufacture.

---

**Is it made from natural rubber?**

The answer is no. Today, Armstrong's Rubber Tile is made of high-grade synthetic rubber which has proved superior to natural rubber for flooring. Natural rubber varies in quality, but synthetic rubber can be controlled to exacting specifications. Because of this, it is now possible to produce rubber tile of uniform quality.

---

**What are its limitations?**

Because it deteriorates under alkaline moisture conditions, rubber tile should not be installed on concrete subfloors that are in direct contact with the ground—on grade or below grade. It is not recommended for use where excessive oil or grease comes in contact with the floor. Its relatively high cost in comparison to some of the other resilient tiles is sometimes a limitation on low-budget jobs.

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**What about maintenance?**

Rubber tile requires more care than other resilient floorings. In addition to routine sweeping and an occasional washing and waxing, periodic buffing with No. 1 steel wool is recommended. Buffing not only removes dirt and stains which ordinary washing won't affect but also renews the life and resilience of this floor.

For samples and literature on Armstrong's Rubber Tile or other types of Armstrong's Resilient Floors, write to any Armstrong district office or directly to Armstrong Cork Co., Floor Div., 8908 State St., Lancaster, Pa.
The New Kawneer

Aluminum Roll-Type Awning

Striking in Appearance
Sturdy and Durable
Easy to Operate

Here is the cleanly-styled, smooth-operating aluminum awning you've been waiting for

This outstanding Awning can be obtained as a completely assembled package unit, ready for quick installation. It is available with two different lids—with the simple convex type shown above (with part of lid removed to show inner mechanism) or with a graceful fluted lid.

The Kawneer Aluminum Roll-Type Awning is also furnished as an assembled unit with the hood shown above. In many cases it can be fitted into existing boxes and under existing hoods. The Kawneer Awning, therefore, is ideal for replacement work or new installations.
The Aluminum Roll-Type Awning that solves your awning problem

The clean-lined, modern appearance of the Kawneer Awning will add rich and striking individuality to any facade or entrance—because it's designed to meet the highest architectural standards.

Smooth, trouble-free operation is assured year after year—because the entire unit has been exhaustively factory-tested and job-tested. It has conclusively proved its durability, dependability and permanence.

Whether operated by hand or motor, the Kawneer Awning rolls and unrolls easily. It winds up into a compact roll. Constructed of Aluminum, it has been designed and engineered to combine light weight with the structural strength to withstand hard usage. Maintenance and replacement costs are reduced to a minimum.

Kawneer Aluminum Roll-Type Awnings are furnished as completely-assembled package units, ready for quick installation. They can be ordered either with concealed awning boxes or with a hood for surface application.

Awning lengths up to 20 feet and widths up to 8 feet are furnished as individual units. When lengths of more than 20 feet are required, multiple units can be obtained.

Lateral hinged arms are made of strong pipe with heavy cast iron elbows. The awning itself is made of Alclad 24 ST aluminum for maximum strength and greatest resistance to the elements.

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METAL FRAME SCREENS • ALUMINUM STORM PANELS • METAL LATH AND ACCESSORIES • HIGHWAY PRODUCTS
CORRUGATED ROOFING • LOUVRE VENTILATORS

AUGUST, 1948
In the March issue of Progressive Architecture I came across the letter by a group of architects to the State Department concerning the refusal of that office to grant me a visa so that I might deliver a series of lectures at Yale University, at that institution's invitation. I returned from the United States for the second time last August, and related to my friends here in Rio my impressions of your country and especially of its people. The letter you published recently confirms my opinions concerning the moral independence and the earnest interest in the professions that I encountered in the United States. My case with the State Department is not important in itself, but only unfortunate, as it has established a precedent which contradicts the democratic and traditional interchange that has always existed between our two countries.

Like most of my compatriots, I am interested in the problems of my country and its people. That is why I am interested in politics too, as it is only through political direction that some solution may be found to these problems. Bearing this in mind, I disapprove of the position of utter indifference taken by many people, and prefer to consider my professional work subordinate to other issues that are more important and fundamental. My political activity (if it can be called that at all) has consisted in personal encouragement to those here and in every country of the world who fight against misery and oppression—the very same fight that defeated fascism at such a sacrifice and loss of life for all nations concerned—and to remind people of these things that have been forgotten by many.

I wish to take this opportunity to thank my American colleagues for their generous letter, published in your magazine. And would that you please convey to them my hope and confidence for better days, when it will be possible to establish sincere human relationship without fear and misunderstanding, without the need of a ridiculous iron curtain; when voices speaking of means of destruction won't be heard, but only those proclaiming the higher forms of solidarity and confidence.

OSCAR DE NIEMEYER SOARES FILHO
Rio de Janeiro, Brasil

DISAPPROVES INDIFFERENCE
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OSCAR DE NIEMEYER SOARES FILHO
Rio de Janeiro, Brasil

ARCHITECTS AND CRITICS
In preparation of our continuing series of Critiques of various building types, the Editors have been conscientious in checking with the architects of the buildings discussed each of the questions raised by the critics. This has seemed a useful device for more intimate exploration of the architectural problems encountered. It is reassuring that many of the architects whose work have been thus evaluated accept critical comment—and like it! We thought you would like to know how the firms represented in this issue feel about the questions raised:

"We are glad to try to answer the questions brought up . . . we were glad to have these questions raised, as it is very seldom that we receive criticism from a disinterested party." Parkinson, Powelson, Brierly, Bernard & Woodford.

"I am delighted with your criticism, and, of course, you know we never arrive at a perfect job, but we are always hoping we will. However, I don't think we will reach it on this planet." Alonzo J. Harriman, Inc.

"Needless to say, we have all been very interested in going over your comments on the Duplan Plant at Winston Salem, and I will endeavor to answer these questions." Lucy, Atherton, Wilson, & Davis.

"We were impressed with your careful examination of the project, your comments, and your general reaction." Skidmore, Owings & Merrill.

FALL FESTIVAL
Dear Editor: Your piece about birds and architecture (June 1948 P/A) recalls an altercation I made a few years back when the walls of a vestry house were shored and the ground floor extended across the base of the adjoining court and synagogue. The new room was intended to be used as a trustees' room, and the entire ceiling for the area of the court above was power operated, permitting the use of the room open to the sky for that holy day which celebrated the gathering of the harvest. Obviously, it was in the Fall and the job was successfully rushed to completion to meet the deadline. Shortly thereafter, the eminent rabbi phoned me in panic to report that the wire screen which covered the base of the court (required by the building code) was literally covered with pigeons, obviously enjoying the warmth from the room below. The inevitable droppings were distressing to the congregation, he said, but when an egg cracked on a trustee's pate, that was a bit too much—what, he asked, could be done immediately to erase the nuisance.

Was I indiscreet in suggesting that the problem was one for him, rather than me, since it clearly was an act of God?

LOUIS ALLEN ABRAMSON
New York, N. Y.

SUMMER SUGGESTION
Dear Editor: In your June open letter to Mr. Samuel Ogren of Delray Beach, Florida, you discuss the possibility of a college holding critical seminars for architects during the summer in a location where vacation facilities would be available at a college. I would like to suggest that Chautauqua Institution holds great possibilities in this direction for the following reasons: (a) It is now an adult education center. (b) It is neutral ground for experts from all institutions and connections. (c) It has no architectural connections or predisposition, and the program could be cut from whole cloth by whoever can be organized behind it to work with the Institution.

(d) The music, drama, literature, and painting sides of the cultural sphere are in full swing at the Institution, and in the course of a season the best in most lines passes by. The Institution makes an attempt to bring in the current features.

(e) Housing and eating facilities for guests are well organized and cost is not unreasonable.

(f) The location of the Institution is

(Continued on page 10)
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diaphragmatic action . . .

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about 70 miles southwest of Buffalo, 120 miles east of Cleveland, and is on Chautauqua Lake, which is 20 miles long and lies about 12 miles back in the hills from Lake Erie. The lake is a busy summer resort, with sail- and powerboat interest. At the opposite end in the city of Jamestown, New York, which affords excellent shopping. The region around is rich in fruit production, and the food stuff there in summer is the best. There are good swimming opportunities in the lake and an excellent golf course on the hill overlooking the lake. In and around Jamestown are two more golf courses.

(g) The climate runs to coolish and mild, with not over two weeks of hot weather in a summer.

(h) There are organized programs for young people of all ages, and a full sports program. (i) There are ample outlets for interests of architects' wives and husbands who might be bored at a college. (j) The whole Institution is bone dry, and those who need a bar will have to leave the grounds, or keep it under the bed.

(k) The Chautauqua Institution opens the Sunday nearest July 1st and runs for eight weeks.

I doubt seriously if any school holds the answer to your suggested seminar. I believe the combination of practitioners and school men gathered from many sources and meeting on neutral ground could solve best the problem of adult education and discussion. I also doubt if year after year a college campus can draw adults with vacation intentions. Chautauqua has been doing this for generations now, and might be willing to entertain a bunch of architects.

FRANCIS R. WALTON
Daytona Beach, Fla.

KINDS OF PROFESSIONALS

Dear Editor: Let me get in on this fight —architects vs. planners . . . The architect says: We are not mere esthetes and physical planners, we take time out (a little) for research; we consider statistics and economics; we are broad humanitarians, technologists, sociologists, and we put it all together adding something no one else has—eye appeal (esthetic satisfaction).

Says the planner: You are trained primarily to design, to produce eye appeal; you are not trained as analyst, statistician, economist, political scientist, and points west. The minute you begin to deal seriously with these other considerations, you are no longer an architect, you are a planner. If you can do both, you are either the unusual person or, more likely, you had training beyond the usual margins of architecture.

There is even a quarrel between planners. They begin to distinguish between physical planners, who can give their work physical form and esthetic content, and just PLANNERS who say that physical planners, capable as they may be in their own field, are generally inadequate as socio-economic-political-administrative analysts.

A good dean in the West tells me (in so many words) that he grows two kinds of ARCHITECTS: (1) Just damn good builders rather than artists. These boys are meant to cover the land with sound, honest, good-to-look-at buildings, but which will never make the annual P/A Award. (2) Arty architects who will win competitions for monuments and the rest of the time will design night clubs, store fronts, and superlatives.

And two kinds of PLANNERS: (1) Just planners who will dig up and determine fundamentals. (2) Physical planners

(Continued on page 12)
YOU'LL FIND ALL THE REQUIREMENTS for safety and dependability in the improved © Shutlbrak Switch. It's a high quality, heavy duty industrial switch that is ideal for motor control, service entrance or for any job requiring an operating switch that is safe and sound.

This safety type © Shutlbrak Enclosed Switch has the popular safety feature of interlocking fuse doors. The fuse compartment doors automatically lock when the current is "on"... fuses being accessible only when the switch is "off." (An intermediate position of the operating handle permits access by an authorized person.)

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who will give form and substance to the findings of the planners. I think all four kinds are needed and teamwork between them is a must. If we are ever going to catch up with man's need in a complex society, we will have to specialize and get more people to help. The architect has too much unfinished business before him to want to do it all—even assuming he could . . . could he?

ISADORE ROSENFIELD
New York, N. Y.

CUMULATIVE ROTTING
Dear Editor: Your P.S. in the July issue (page 136) was quite to the point. I enclose an elaboration of my plan for further clarity. The danger you mention, as I see it, lies more in letting the old housing rot and the people with it, than in its interim reclamation, with soap and water, and paint and plaster, de-congestion, and community supervision.

What you say has always been the "housers'" angle and I just don't get it. It is a species of sustained inhumanity toward these people in the guise of "doing good" that accentuates the old saying, "Deliver me from my friends, my enemies I can take care of."

Ever since public housing started, 90 percent of these people have received no attention whatever, behind the cloak of new housing for the few. The results are cumulative. Witness the present delinquency situation and picture it 10 years hence; also the health and other factors.

CHARLES C. PLATT
New York, N. Y.

NOTICES
NEW PRACTICES. PARTNERSHIPS
RAYMOND L. BLACKWELL, HANS G. R. SCHICKELE, ARCHITECTS, 2007 Hopkins St., Berkeley 7, Calif.
DON HATCH, new staff member of IBEC TECHNICAL SERVICES CORP., 30 Rockefeller Plaza, New York 20, N. Y., will serve as representative in Venezuela. ZAY SMITH, RICHARD BARRY, NORMAN STRENHOF, TAYLOR ROBINSON (ZAY SMITH ASSOCIATES), 451 N. Clark St., Chicago, Ill.
ROY B. Blass, M. H. BECKMAN, partnership dissolved. Mr. Blass continues practice at 30 N. LaSalle St., Chicago 2, Ill.
Milton P. ROBELOT, RONALD GREENE (GREENE & ROBELOT), 217 E. Sullivan St., Kingsport, Tenn.
J. ROWLAND SNYDER, 1636 Connecticut Ave., Washington 9, D. C.
FRIEDMAN, ALSCHULER & SINCERE, ARCHITECTS AND ENGINEERS, AND ERNEST A. GRUNSFELD, JR., ARCHITECT, 223 W. Jackson Blvd., Chicago 6, Ill.
Friedman, Alsburger & Sincere, Architects and Engineers, and Ernest A. Grunsfeld, Jr., Architect, 223 W. Jackson Blvd., Chicago 6, Ill.

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For the extreme cold—
Factory weatherstripped aluminum double-hung with auxiliary storm sash units, interchangeable with screens.

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THORN window
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HOT OR COLD

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A.I.A. GROWING UP

The American Institute of Architects held its annual convention late in June this year, at Salt Lake City, and succeeded in making it one of the most stimulating gatherings of architects and planners (in many senses, the most productive) held in a year marked by an unusual number of academic and professional meetings. The Institute has grown in many ways in the last few years. In numbers it is larger than at any time in the past; in the proportion of practicing architectural profession that it represents it is now or can be shortly a true spokesman for the entire profession. In its attitude on social questions which concern architecture it is more mature and independent than many believed possible a few years ago. In its concern with matters of technical development and the underlying principles of design—the business of making sure that the clients are served better by the profession as a whole—the Institute is growing up rapidly.

The big "news" of the Convention was the adoption, with almost no opposition, of a resolution which referred to the Board of Directors a proposal that next year's Gold Medal of the Institute be awarded to Frank Lloyd Wright, with an amendment which made it the sense of the Convention that this recommendation be carried out. The arguments for the proposal included no blind deference to the master, but rather a feeling that his work and his influence have been so great that it has become almost a scandal that his name has been passed over each year. The introduction of the resolution is in itself an interesting story. Faced by the fact that the vote of the Board must be unanimous and that several Board members have in the past let it be known that they never would agree to the periodic moves to grant Wright the medal, a group of delegates from many Chapters drafted the resolution, and circulated copies of it for signatures. In about a day's time some 150 signatures were appended to the document which went to the Resolutions Committee. Several of the elder statesmen who were apprised of what was going on—men who sincerely wished to see Wright get the medal—advised against submitting the resolution on the grounds that it would be defeated, rather than good. However, the resolution was submitted, and although it was reported out of committee to the convention with the recommendation that it be referred to the Board with no action by the Convention, several moving appeals for a vote resulted in the amendment that it be "the sense of the meeting." President Orr accepted the amendment, and the vote was overwhelmingly in its favor. It is hard to see how the Board can override this expression from the delegates.

That was the "news." The real stimulus of the Convention went beyond this, however, and was evident in two principal ways: the delegations and guests included a very large number of the finest architects in the country—men of all ages, from all parts of the nation—men who are the important figures in shaping our contemporary environment. This was not the usual convention gathering (not peculiar to architects, by any means) of the clubhouse boys. It was, rather, a serious professional meeting. One got the strong impression that architects in the United States have finally decided to raise the quality of their own work and to make sure that it contributes to society—the larger client—and, finally, to move through the Institute to accomplish this.

Three seminar discussions ran through the Convention sessions. Spaced so that everyone could attend all meetings, the result was a constantly crowded room which must have been gratifying to the speakers. One resulted in a lack of intimate questioning due to the papers having been read. The technique of such meetings is a difficult one to essay, and the only conclusion that can be reached by an observer at this time is that Walter A. Taylor, Director of Education and Research of the Institute, did an extremely thoughtful job of moderating discussions after the papers had been read. The technique of such meetings is a difficult one to essay, and the only conclusion that can be reached by an observer at this time is that Walter A. Taylor, Director of Education and Research of the Institute, did an extremely thoughtful job of moderating discussions after the papers had been read.

The three seminar topics were Urban Planning, Dwelling, and Retail Business Buildings. In addition to several sessions devoted exclusively to each of these topics, a number of papers were of a general nature, applicable to all three of the topics. Morgan L. Yost acted as moderator of the discussions on the design of dwellings; Louis Justement, of the urban planning sessions; and Kenneth C. Welch, of the meetings devoted to retail business buildings. The fact that the approaches in the three discussions groups were quite different and added interest to the whole series: Welch's program was rather specific, and the speakers under his aegis dealt in facts and figures; the papers on planning were more general in their terms and more broad in their scope; the discussion of the design of dwellings was marked by a most interesting group of papers (Yost, Kamphoefner, Stubbins, Sargent, Bolluschi) on regional influences and regional qualities in residential design, all illustrated by slides.

Better Citizens

Definite gain in living standards of families who have escaped from crowded antiquated slums and moved into the government-subsidized housing built in New York over the past decade is reported with evident satisfaction by the Housing Committee of the Women's City Club of New York after interviewing housewives in four representative public projects. The lively com-
AS ADVERTISED IN TIME MAGAZINE

How to Answer TIME-Readers’ Questions About “Sky-Glo”

“Sky-Glo” is such a great forward step in lighting that you’d better be primed with answers to the questions you’ll be asked. Here are a few. The rest are in the new free 28-page “Sky-Glo” Bulletin. Use the coupon for your copy.

“Sky-Glo” is the only nationally advertised luminous louvered lighting system. Benjamin developed and introduced “Sky-Glo” and there will be no other “exactly like ‘Sky-Glo’.” This distinctive and continuous “ceiling of light” has been thoroughly tested by the Benjamin Testing and Development Laboratory.

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“Sky-Glo” fits directly into the national trend toward interior modernization. No other single improvement can do as much for a store, office, schoolroom, bank, lobby or public building. Yet “Sky-Glo” actually costs less than many commonplace false ceilings.

Luminous Louvers

Unlike wood or metal slat louvers, “Sky-Glo” is translucent; has light transmission factor of 71 per cent. It is made of non-flammable thermoplastic Vinylite, product of Bakelite Corp.

Durable

“Sky-Glo” luminous louver panels will not discolor or become brittle with age. They will not warp or distort under prevailing room temperatures.

Stays Beautiful

The mat finish of “Sky-Glo” does not easily collect dirt, is kept sightly by occasional maintenance.

... The rest of the story about the first luminous louvered ceiling is in the new free “Sky-Glo” “SG” Bulletin, yours for the asking.

Be Informed!

MAIL COUPON NOW!

BENJAMIN ELECTRIC MFG. CO.,
Dept. PA, Des Plaines, Illinois

Gentlemen: Without cost or obligation please send me Bulletin “SG” with complete data on Benjamin “Sky-Glo.”

Name...

Firm...

Address...

City ... Zone ... State...

OFFICE Workers respond to “Sky-Glo’s” eye-ease. Error and fatigue decrease, visitors are favorably impressed.

STORE “Sky-Glo” modernizes any interior, yet calls attention to the merchandise rather than to itself.

SCHOOL Better health, better energy application, better learning, easier teaching, come with “Sky-Glo”.

From the translucent “Sky-Glo” ceiling comes 75 to 125 footcandles of even, restful, shadow-free light, like the open sky—with no feeling of harsh brilliance! It’s a new kind of light from a new kind of ceiling—a glorious all-over glow which quickly and economically modernizes any interior. This ceiling of light hides sprinklers, ducts and overhead unsightliness. It eliminates need for a “forest of fixtures” usually required to attain high lighting levels. Yet “Sky-Glo” costs less than many conventional false ceiling installations.

Mail Coupon for “Sky-Glo” Bulletin

Standard louvered “Sky-Glo” sections compose into handsome geometric patterns. They are hung readily, fit any room shape and adapt on the job to pilasters and vertical piping. Rigid “Sky-Glo” is fire-safe, will not distort or discolor under normal room conditions. Send coupon for informative folder.

Unlike wood or metal slat louvers, “Sky-Glo” both transmits and reflects light. Made of Vinylite, product of Bakelite Corp.

BENJAMIN

LUMINOUS LOUVERED LIGHTING SYSTEM


Gentlemen: Without cost or obligation please send “Sky-Glo” Bulletin to:
(Write name, firm and address in margin below)
Progress toward better housing for everyone must be evaluated in the field, from time to time, it is pointed out in a published report.*

Progress Report

(Continued from page 14)

ments and opinions are analyzed in a published report.*

Preceded by the report is a prefatory note by Florence M. Kelley, president of the club. The report is directed at architects, planners, and housing proponents because the club seeks to be a force for progress in making New York a better living environment. In speaking out for "a section of our population whose opinions are little known" the club is experienced. This report is particularly interesting as a record of advance from the living patterns and prejudices reflected in a similar survey made by the club in 1936, a year when no new housing had been built for the lowest income group. Housewives living in New York slums were asked then to give their definitions of housing essentials and the results were compiled in a report titled Housing for the Family, which was issued for consideration of those then engaged in planning the first government-subsidized projects.

Good Apartment Planning as defined by the 1936 survey would provide: direct cross-ventilation for every apartment; adequate ventilation and daylight for every room; privacy for each room including the living room; kitchen near the entrance and in convenient relation to living room; a closet in every room, a coat closet, a linen closet, a broom closet (not necessarily in the kitchen); full bathrooms convenient to the bedrooms; adequate room sizes for living (175 sq ft), sleeping (150 sq ft) and no single beds "wasteful of space"; kitchens large enough to contain standard equipment and dining space for all occupants of the apartment; incinerator opening on each floor in the public hall; janitor's closets on alternate floors.

In the order of their importance to the housewives interviewed, who hoped to move from the slums to the projects then being promised, were listed: all rooms to have outside windows, a toilet for each family, hot water, a bath for each family, central heating, and adequate closets. The committee conducting the survey urged that dead storage lockers or bins be provided for tenants, that places be provided to accommodate baby carriages, scooters, toy wagons, etc., that power laundry facilities be made available to the housewives in each project, that clothes drying be considered by the planners, that adequate recreation space and leisure time space be provided for tenants. Community services were also hoped for as a factor to broaden living outlook and family life.

Comparative comfort of the housing projects now is enjoyed by many of the women interviewed in 1936—including many of the amenities they wanted so earnestly—but thousands are still crowded together in tenements that are dark, unheated, airless, and grimy. The Women's City Club ventures the suggestion that architects and planners might learn from experience of the trial-and-error phase of public housing—and hence the current report.

The survey shows that the 1948 Housewife has become "a more valuable member of society." Refuting cynical criticisms of public expenditures to replace old structures, "she has not kept her coal in the bathtub nor has she expressed any longing for Hollywood gadgets. She has changed, however, and that change is apparent not only when she discusses eating and sleeping arrangements, bathroom facilities, housekeep-

---

*Better Housing for the Family. Beatrice S. Friedman for the Housing Committee of the Woman's City Club of New York, Inc., Hotel New Wroxton, 50th St. and Madison Ave., New York 22, N. Y. 1948. 64 pp. with pictograms. $1.00

---

ELECTRIC TRACTION DUMB WAITERS by Sedgwick

FOR MORE THAN 55 YEARS Sedgwick Machine Works has specialized in the design and manufacture of elevators and dumb waiters. The improved Sedgwick Electric Traction Dumb Waiters are the result of specialized knowledge and experience, and are used for installations where three or more landings are to be served. Widespread use of this equipment contributes to convenience, efficiency and economy in hospitals, hotels, restaurants, clubs, libraries, schools and other commercial institutional and industrial buildings.

The machine consists of single speed elevator-type high torque, low starting current motor, with worm gear reduction built as one unit and an electric brake. The worm is special alloy steel, machine finished. Worm shaft is provided with ball or roller bearings designed to take both radial and thrust loads. Worm gear is special analysis cast bronze, teeth accurately hobbed and smoothly finished. Gear is mounted on alloy steel sheave shaft provided with roller bearings. Worm gearing operates in a sealed case, filled with special lubricant, providing automatic lubrication to all parts. The electro-magnetic brake is adjustable to provide accurate floor stops with all loads and to compensate for wear of brake lining. The control is fully automatic, having a bank of buttons at each opening, permitting the car to be called and dispatched from any landing. Combination door locks and switches are provided for the hoistway doors to prevent operation of any door except when car is at the door.

STANDARD DIMENSIONS

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<thead>
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<th>Capacity in lbs</th>
<th>200</th>
<th>300</th>
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<th>500</th>
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</tbody>
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For additional information and prices for data and recommendations on Sedgwick Dumb Waiter Doors; or other types of Sedgwick Dumb Waiters and Elevators—address

SEDGWICK MACHINE WORKS, 164 West 15th Street, New York 11, N. Y.

ELECTRIC AND HAND POWER ELEVATORS AND DUMB WAITERS

(Continued on page 18)
EVERYONE CONCERNED with the seriousness of America's housing problem will want a copy of this book, just off the press.

Here is a straightforward statement of all the issues and factors involved in the housing problem and an equally frank presentation of a definite plan for solving it. It is comprehensive and completely to the point, we believe, and should be of positive value to every individual who has an interest in this subject.

The book includes a summary of all the principal housing proposals advanced by prominent civic leaders. It reviews the steps being taken by various cities for planned community development, and points the way to more widespread planning of this type on a broader scale. Emphasis is placed upon the necessity for adequate utility service planning in such developments and a clear cut case is made for the inclusion of centralized community heating as one of the essential utility services. Attention is also directed to the factors of fuel availability and fuel costs as being among the most important influences in community development planning.

A study of a community development of 15,900 individual homes is another important feature of the book. This section includes a detailed engineering analysis, by a nationally prominent consulting engineer, of the recommended central heating system, comparing its construction and operating costs with the corresponding costs of individual heating plants for each separate dwelling unit.

An informative appendix comprises a resume of some twelve major housing developments sponsored by major life insurance companies and saving banks, with particular attention given to the heating systems of each project.

This book is not a piece of advertising, but a practical reference on the status of mass housing to date, for the use of anyone actively interested in housing developments. If you have bona fide use for it, please write us on your business stationery and we shall be glad to forward you a copy without charge or obligation.

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THE RIC-WIL COMPANY • CLEVELAND, OHIO
REPRESENTATIVES IN PRINCIPAL CITIES
housing for the lowest income group has been tremendously influential in raising standards of living all along the line. ... Sincere appreciation for the vast improvement in their living conditions, made possible only through government assistance, was expressed by a large number of families, who hoped that their experience would be of value in the planning of other projects."

Valuable analyses of planning preferences and opinions of the improved facilities already enjoyed are prefaced by a frank statement that “opinions of the housewife are limited by her own experience. And while she does not consider all the factors which concern the planner, such as limitations of cost, technological improvements, etc., her needs are essentially the most basic of all planning considerations.”

Having secured most of the facilities and advantages desired by the 1936 Housewife, the women interviewed this year have new requirements which reflect higher standards of family living. These are: adequate drying facilities for laundry (preferably outdoors), independent access to all rooms for greater privacy and cleanliness, doors on closets, and adequate food storage.

Having realized a broader need for community living, the 1948 Housewife also lists essentials for the community. These are: leisure time facilities including child care centers, playgrounds for children of varying age groups, adequate equipment and supervision, activities for teenage and adult groups; cheap shopping facilities conveniently located; adequate public transportation; schools (!); clinics and medical facilities. Thus the developing environment for family life can lead naturally to broader outlook for the tenants: broader comprehension for the planners and architects as well.

NOTICES

NEW ADDRESSES

WILLIAM CHARNEY VLADEC, 600 Madison Ave., New York 21, N. Y.

HOWARD H. MACKEY, 1530 You St., N. W., Washington 9, D. C.

M. F. STERN, 505/506 Diamond House, 29 Parliament St., Cape Town, Union of South Africa.

KENNERLY CONSTRUCTION CO., INC., 130 E. 56th St., New York 22, N. Y.

WARNER - MAC NEISH ARCHITECTURAL AND ENGINEERING SERVICE, Chamber of Commerce Bldg., 134 Chestnut St., Springfield, Mass.

JOSEPH A. McGINNESS, ARCHITECTURAL SPECIFICATIONS, 101 Park Ave., New York 17, N. Y.

GORDON DRAKE, Box 767, Monterey, Calif. (temporary address)

HENRY DREYFUSS, 4 W. 58th St., New York 27, N. Y.; California office: 969 San Pasqual St., Pasadena 5, Calif.

SCHREIER, PATTERSON & WORLAND, Suite 400, 1420 K St., N. W., Washington 5, D. C.

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The result: a line of cabinet hardware that is smoother working, longer lasting and easier to install ... and by all odds the most beautiful.

Stanley Cabinet Hardware is a little extra touch that can add a great deal to the homes you build. Specify it. A descriptive folder showing the complete line gives full details. The Stanley Works, Cabinet Hardware Department, New Britain, Conn.

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PRINCESS 4421 PULL

NO. 4222 PRISCILLA
PRISCILLA 4422 PULL

NO. 4220 REGENCY
REGENCY 4420 PULL

NO. 4223 CENTURY
CENTURY 4423 PULL

STANLEY
HARDWARE - HAND TOOLS - ELECTRIC TOOLS
The instant your finger contacts an Otis electronic 'touch button' a directional arrow lights up. The light shows that your call has been registered. As the elevator approaches your floor the overhead lantern also lights up. Both lights stay on until your call is answered. It's all controlled electronically.

As always, Otis leads the way... This time with
The world's first Electronic Signal Control Elevators are now in operation in New York's first postwar skyscraper, the Universal Pictures Building at 445 Park Avenue.

Otis engineers, who were working on electronics before World War II have applied the magic of modern electronics to improve Signal Control operation. As a result, you can now summon an elevator by simply touching a plastic arrow in the landing fixture.

Otis Electronic 'touch buttons' and overhead lanterns are attractively modern. They blend admirably with modern interiors, as pictured at the right. And their electronic 'touch' operation dramatizes the advanced design of the installation.

Otis Electronic Signal Control is applicable to all elevators. But for the immediate present, it will be confined to elevators that travel at speeds of 500 feet per minute or more.

Otis Elevator Company. Offices in all principal cities.
AFTER 14 YEARS OF EXCELLENT SERVICE,

my tenants thank me, and I thank Servel for the Gas Refrigerator's low-cost operation and year-after-year dependability.

BASH GAVIN, Treasurer
Boston Management Corp.
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★ No moving parts in freezing system
★ Continued low operating cost
★ Lowest service cost

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Bathing and toilet facilities are separated in this new Crane bathroom. Twin lavatories make each section complete...all fixtures from the Crane Oxford Group.

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Home owners like Crane quality, Crane styling. They like the completeness of line that gives them a style for their taste and a price for their budget.

Popularity...Quality...Completeness. All three are characteristic of the Crane line of bathroom, kitchen, and laundry fixtures. You can have Crane quality in heating, too—everything required for any system, any fuel.

In making selections, refer to your copy of "Crane Service for Architects," or ask your Crane branch for one. Not all fixtures are immediately available everywhere—check your wants with your Crane branch or wholesaler.

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24 PROGRESSIVE ARCHITECTURE
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Words can mean much—or little. But the term "weathertight"—as applied to the new Curtis Silentite window—means exactly what it implies. Here is a window engineered for greater weathertightness, with features representing a distinct departure from the conventional. Laboratory tests of wind velocities up to 40 miles per hour show that the new Silentite allows 20% less air infiltration even than the famous original Silentite. And because Silentite is a wood window, it has all the natural insulating qualities which wood provides.

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If there are no bubbles, it means the immersed Aerofin unit has withstood the terrific strains of steam and hydrostatic pressure tests and is ready to give you long, efficient service.

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AUGUST, 1948
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   The only wood-faced fire door which bears the Underwriters' label. All Weldwood Fire Doors are approved for class B openings.

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   Because of their beautiful wood faces Weldwood Fire Doors harmonize perfectly with any decorative scheme.

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   At last ... a really fireproof door that is not heavy or unwieldy. A standard 3 x 7 door weighs approximately 80 lbs.

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   The mineral composition core used in Weldwood Fire Doors is permanently resistant to fungus, decay, and termites.

7. **High Insulating Qualities**

   Another noteworthy characteristic of the core is its high insulating value over a wide range of temperatures. It is efficient against temperatures from freezing up to that of superheated steam.

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   Investigate these doors for use on your next job. You will be pleasantly surprised at the low initial cost, and the minimum of maintenance required.

Here's the newest Weldwood combination of beauty plus utility: a fire-safe door that carries the Underwriters' label ... faced with fine cabinet hardwood for decorative beauty.

Now your entire building can be beautifully finished. It's no longer necessary to break up a decorative motif to gain fire-safe construction.

And we do mean fire-safe! In the regular one-hour fire test by the Underwriters' Laboratories, the Weldwood Fire Door withstood an ultimate temperature of 1700°. Yet the unexposed surface remained cool to the touch!

Cost? So moderate it will surprise you. Maintenance expense? Negligible. Combine those two facts with the great dimensional stability that spells long service life, and you soon see what a beautiful bargain the Weldwood Fire Door really is.

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When absolute fire protection isn't a necessity ... yet when you want a really first-class opening ... choose the new Standard Weldwood Flush Door.

It is made with the same incombustible mineral core but without the fireproofed edge banding and, therefore, does not carry the Underwriters' label. Otherwise it offers the same advantages

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Sanymetal® Century Type Ceiling Hung Toilet Compartments are particularly appropriate for schools. They impart dignity, refinement, and cheerfulness to the toilet room environment.

Sanymetal® Porcena Academy Type Toilet Compartments are particularly appropriate for schools. They impart dignity, refinement, and cheerfulness to the toilet room environment.

Sanymetal® Porcena Academy Type Toilet Compartments satisfy architects who desire a conservative but modern toilet room environmental treatment.

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Sanymetal® Porcena Normandie Type Toilet Compartments are available in a wide range of beautiful, never-fade colors imbedded deep into a glass-smooth, flint-hard, non-porous surface that is moisture and rust-proof, does not absorb odors, and is impervious to ordinary acids, oils and grease. The glistening porcelain finish discourages defacement; is easily cleaned, and the brilliance of the surface renewed by wiping with a damp cloth.

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Ask the Sanymetal Representative in your vicinity (see "Partitions" in phone book) for helpful suggestions on planning modern toilet room environments. Refer to Sanymetal Catalog 19-B6 in Sweet's Architectural File for 1948 or write for file copy of Catalog 85.

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Sanymetal® Porcena Academy Type Shower Stall and Dressing Room Compartments provide the utmost in sanitation for gymnasiums and dormitories.

Sanymetal Catalog 85 illustrates several typical toilet room environments as well as shower stall and dressing room suggestions.

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because the water pipes are big enough

Thanks to a farsighted contractor who installed “oversize” steel pipe

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August, 1948 45
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In a time when manufacturing and selling are such a sizable and highly organized part of our culture, the industrial building assumes vast importance, both spatially and architecturally. In the latter sense, it might even lay claim to representing the most truly organic architecture of the period. The function may be stated with almost mathematical exactness. Since efficiency is the watchword, the plan may be developed as logically as the designer's ability permits. Because of the need for good working conditions, the architect may call on the latest technical developments to produce the ideal environment for the work at hand. Since gluey architectural sentiment is usually lacking, he is free to work out genuine harmony between form and function.

We think the four buildings shown in this month's critique are excellent instances. They range in type from a simple, all-wood box factory to a nylon-throwing plant in which the required precise atmospheric conditions dictated a remarkable structure encased in insulation and covered outside with a sparkling surface of aluminum.

In studying this group of industrial structures, we were immeasurably assisted by the comments and questions of Roland Wank, distinguished New York architect, industrial plant specialist, and former Chief Architect for the Tennessee Valley Authority. We combed through the plans; the structural schemes; the measures introduced for controlling air conditions, light, and sound; and we attempted to weigh the final results as architecture. Then the several architects were called upon to elaborate on our tentative conclusions. The following presentations are a synthesis of this author-meets-critic endeavor.
ADMINISTRATION BUILDING (left) and ASSEMBLY BUILDING. The slight disharmony between louvered bands and open window areas is, according to the architects, "more logical, viewed from the interior," since most of the latter occur in the factory area.

1. ASSEMBLY PLANT, VAN NUYS, CALIFORNIA

PROGRAM: A two-part automobile assembly plant, with Fisher Body occupying the north third of the huge, two-story assembly building, the Chevrolet Division-General Motors utilizing the remaining two-thirds; an administration building, shared by the two divisions; a parts building; and several lesser structures.

SITE: A flat, 100-acre tract.

MAIN POINTS ADMIRE: Site organization; direct, flow-line layout from delivery of parts or subassemblies through to finished cars; the structural sun-control devices; and the pleasing architectural quality.

PLOT PLAN. In the Fisher Body portion (north third), Chevrolet passenger-car bodies are assembled; all other types of bodies are put together in the Chevrolet Division, where final assembly of all finished vehicles takes place. Bodies by Fisher move up a conveyor ramp to the second floor, receive fittings, and are lowered through a well into the Chevrolet assembly lines on the ground floor.
Questions: In Chevrolet locker area, why no direct entrance to toilet room from locker room? What is purpose of door into shower-drying area in southeast corner of Chevrolet locker space?

Answers: Toilet room does not open into locker room since latter is cut off during working hours. Door in southeast corner required by code for emergency exit.
ASSEMBLY BUILDING (left) and ADMINISTRATION BUILDING. All landscaping by Tommy Tomson.

PARTS BUILDING warehouses parts for filling orders from local dealers.
CHIEF QUESTIONS—in addition to those in the captions on preceding pages: How did the louvers actually work out? Would you use these again, in preference to some other form of sun control?

For some as yet unaccountable reason, there was a tendency toward buckling in the precast pumice-concrete louver panels. To correct this, aluminum spacer rods were installed, connecting the adjoining panels and holding them rigid. However, as a functional device, the architects report: "The sunshades do a good job... There is no feeling of being shut in. The one-way angular view is always open, and there is no glare of light from the windows, while ventilation is never obstructed. True, a certain amount of view is blocked out, but the view from the west windows is not inspiring, as the mountains lie to the north of the site."

The Assembly Building is framed in steel, laid out in 50-foot bays.
1. ASSEMBLY PLANT
VAN NUYS, CALIFORNIA

PARKINSON, POWELSON, BRINEY, BERNARD & WOODFORD, Architects

ALBERT KAHN
ASSOCIATED ARCHITECTS AND ENGINEERS, INC. Consultants

ENGINEERING OUTLINE


EQUIPMENT  Heating: ventilation and heated air filtered, supplied by duct system from central, natural-gas-fired heating plant which is located at garage mezzanine level; blowers at diffusing outlets; thermostatic controls; stand-by propane plant. Lighting and Electrical: fluorescent lighting throughout, with circuit breaker-controls. Plumbing: complete storm water sewer system for entire property; separate washrooms for each division of plant. Special deluge sprinkler system in paint rooms. Special Equipment: kitchen: gas-fired ranges; stainless steel surfaces (also in cafeteria counters). Intercommunication system throughout the factory.

LOBBY of Administration Building

GENERAL OFFICES, showing clear view through louvers.
Critique

THIS PLANT received a Mention in this year’s Progressive Architecture Awards program.

“The owner did not wish to have a canopy, as all material is taken on a truck by motor hauler directly into freight cars, and weather protection did not seem necessary.”

FACTORY, WEST BATH, MAINE

ALONZO J. HARRIMAN, INC., Architects-Engineers

PROGRAM: A factory for making wood boxes.

SITE: Flat field adjacent to rail siding.

SOLUTION: An open rectangle, with material-delivery and offices on one side, a shipping dock along the railroad side. All wood, simple design so that the factory workers themselves could build the building, which replaced one destroyed by fire.

MAIN POINTS ADMIRE: Direct and knowing handling of the local building material.

CHIEF QUESTIONS: OK not to have any canopy or other weather protection above shipping dock? No need for termite shields? What about space for visitors?

TERMITES? “Have not yet arrived this far north.”
Employees' entrance, right; office entrance, left. Special provision for visitors unnecessary: "This is just a plant; main office is elsewhere."

2. FACTORY, WEST BATH, MAINE
ALONZO J. HARRIMAN, INC., Architects-Engineers

ENGINEERING OUTLINE


EQUIPMENT Heating: steam from hand-fired (fuel: shavings) boiler; both unit heaters and direct radiation; thermostatic controls. Lighting: incandescent. Fire safety: sprinkler system.

CONSENSUS: "Really something! Great architectural quality . . . sparkle, and color."
THROWING MILL, WINSTON-SALEM, NORTH CAROLINA

LACY, ATHERTON, WILSON & DAVIS, Architects and Engineers

P. L. DAVIDSON, Consulting Engineer for Air Conditioning

PROGRAM: A plant for The Duplan Corporation for the processing of nylon synthetic fiber, involving planning for production-flow handling of materials in rigidly controlled, high humidity atmosphere with constant uniformity of vision at the machines.

SITE: A 16-acre slope at the intersection of two main thoroughfares in an outlying section of the city.

SOLUTION: A completely air-conditioned two-story scheme, utilizing the site slope; manufacturing area all on upper floor, the lower level (comprising about one-third of the building area) being planned for offices, locker rooms, lunchroom, boiler room, air-conditioning rooms, etc.; also for shipping room, the finished product dropping by conveyor at the end of the upper-floor mill production line. To provide the high humidity required for nylon processing and eliminate condensation, a windowless insulation-sheathed scheme was adopted for the factory area.

MAIN POINTS ADMIRE: The direct handling of materials from delivery at one end to shipment of finished product at the other. The ingenious insulation and aluminum-surfaced structural scheme that, along with the air-conditioning, achieves the precise environment needed; sensible accommodation to the sloping site.

CHIEF QUESTIONS: How many persons work at the plant and in how many shifts? Is a single, semicircular wash fountain in each locker room sufficient? Rest room space? The laboratory seems a little apart from the center of things. Is there a plan reason for this? In the structural scheme, were expansion joints deemed unnecessary?
THE IMMEDIATE AREA around the plant has been developed with roads, parking, walkways, and landscaping.

3. THROWING MILL, WINSTON-SALEM, NORTH CAROLINA

LACY, ATHERTON, WILSON & DAVIS, Architects and Engineers

Our questions regarding adequacy of circulation, provision for wash-up, and locker room accommodations turned out to be factors of both the number of workers and specific problems connected with the processing of nylon thread. The plant operates on three shifts, with from 150 to 200 persons on one shift, of which approximately 50 work on the lower floor. The handling of nylon during its processing entails constant washing of hands, and hence along the entire conveyor lines and in all departments, there are wash sinks installed at frequent intervals. Therefore, there is no need for full wash-up equipment in the locker rooms proper, and, according to the architects, the corridor and stair circulation has "proved ample," in addition to giving the management excellent control over movement to and from the plant. The cafeteria is always available, and its use is encouraged for rest purposes, as well as for refreshment. Location of the laboratory at one end is explained by the fact that it deals almost exclusively with the Sizing Department which it adjoins.

TOP: Entrance Front. CENTER: Receiving Dock. BOTTOM: Classroom. As to expansion joints: "There were slip joints provided in the steel for protection during erection. However, we feel that after the insulation has been applied, there is no further need for expansion joints in the frame. It was not felt that expansion joints were necessary in the block work as they are a panel construction contained within the webs of approximately 18 ft. between columns, and there was not much chance of expansion at this point. As to the aluminum sheets, they are free to contract or expand at will."
PLAN. All manufacturing steps take place in the upper, windowless area. Materials are brought in at one end of the building, progress through winding, spinning, and sizing stages, are coned, and then dropped on a conveyor to the lower-level shipping room, to be packaged and shipped. Both executives and employees enter the building from the front entrance area, though by separate doorways.
ENGINEERING OUTLINE


EQUIPMENT Heating and air-conditioning: refrigeration system, maintaining an effective temperature of 80 degrees, or a dry bulb of 85 degrees at 50 percent humidity; 400,000 cfm. of air is circulated through the various departments, and about 800 tons of refrigeration are employed; temperature and humidity controls. Lighting and Electrical: underground source from local power-company transformer to five substation units, general lighting: fluorescent, carried on trolley ducts, supplying about 45 foot-candles at the machines. Plumbing: wash sinks installed all along conveyor lines, in addition to locker and toilet room facilities; sprinkler system.

Outside the inner wythe of 8-in. cinder concrete block are 2-in.-thick blocks of foamed-glass insulation.
The aluminum sheets are carried on angle girts fastened by anchors back about halfway through the concrete block. Thus there is no through steel at any point that would carry atmospheric conditions from the outside to the inside of the building—the chief cause of condensation in manufacturing buildings of this type.

Architects and Engineers

LACY

ATHERTON

WILSON

DAVIS

I. Verne Lacy is a Cornell graduate with a background of industrial work, particularly in the textile field. Thomas H. Atherton, a graduate of Princeton University and M.I.T. in Architecture, is designer of the firm. Richard J. Wilson is the firm's structural engineer. John W. Davis is a graduate of the University of Notre Dame in Architecture. After approval of preliminaries, the Throwing Mill project was carried through by the firm's Harrisburg office (they maintain another in Wilkes-Barre) which is under his particular supervision.
PROJECTING MASS at the side contains the laboratory.

3. THROWING MILL
WINSTON-SALEM, NORTH CAROLINA

LACY, ATHERTON, WILSON & DAVIS
Architects and Engineers

LABORATORY. Cinder block painted is the wall finish.

NORTHEAST CORNER: air-conditioning room, right; entrances to boiler room and maintenance rooms, left, underneath the receiving room on the upper level (delivery dock just out of photograph at left).
ENTRANCE LOBBY serves as a functional separator between warehouse (left) and office building (right).

4. WAREHOUSE AND BRANCH OFFICE, CICERO, ILLINOIS

SKIDMORE, OWINGS & MERRILL, Architects

PROGRAM: A combined warehouse and branch business-office building for a manufacturer of cable, wire, and wire products. Warehouse operation to include storage of wire rope and electrical wire received from the mill; cutting; splicing; rigging; and distribution.

SITE: A 300' x 600' flat lot in an industrial district; a railroad spur at one end; streets at front and along one side.

SOLUTION: Warehouse and office structure, joined by an entrance lobby, placed along the northern long side of property (allowing room for expansion to the south); rail spur, entering warehouse at east end; truck docks opening to street to the north.

MAIN POINTS ADIMRED: Efficient use of site; direct planning for use in both warehouse and office portions; the lobby element, forming an effective design transition between two main use areas. Clean structural concept; airy, well lighted work spaces; accomplished architecture.

CHIEF QUESTIONS: Why so small a room between entrance lobby and warehouse? How many people use this? How many are employed in the warehouse? Does placement of superintendent's office in warehouse (rather distant from unloading track spur) offer sufficient control? In the office-building plan, is space between office partitioning and the first row of columns useful?
The small room between entrance lobby and warehouse, we find, is “more than ample.” For the traffic through it is negligible: “There are only 20 persons working in the warehouse; 25 in the office.”

The superintendent’s office is closer to the smaller truck loading dock than to the larger, heavier-materials dock, because there are 25 trucks loaded at the former to one at the latter. Also, when pickups occur, transactions are checked at the office, so it was desirable to have it as near this end as feasible.

The space between the row of columns and the private offices was purposely planned as a passageway: “The room has an open, untight atmosphere which the owner and we intended to achieve.”
PRIESTLEY  HUMPHREY


OFFICE BUILDING, lobby element at left. Private offices line this north wall; general offices are at the rear of the building.
OFFICE BUILDING, left; warehouse, in background. The door just out of picture at left enters the kitchen-equipped dining room, used (on a staggered basis) by all personnel. Also doubles as a conference room.

4. WAREHOUSE AND BRANCH OFFICE, CICERO, ILLINOIS

SKIDMORE, OWINGS & MERRILL, Architects

HEATING—AIR CONDITIONING
While the warehouse is provided only with heating, the office building has year-round air conditioning. The system includes winter filtering, warming, and humidifying of air; summer filtering, cooling, and dehumidifying. The heating source is an oil-fired steam boiler, steam being circulated with the assistance of an electric motor-driven vacuum pump. Cooling is by a direct expansion Freon compression system with an evaporative condenser provided for conservation of condenser water. The central air supply apparatus and the boilers with pumps and refrigerating equipment are located in a section of the warehouse. Heating and air conditioning are fully automatic, including boiler firing.

ENGINEERING OUTLINE

EQUIPMENT Heating and Air Conditioning: (see above and on page 66). Lighting and Electrical: fluorescent from recessed troffers with egg-crate louvers in office and lobby; in warehouse, incandescent unit hung level with bottom chord of truss, supplemented by industrial-type fluorescent units where high intensity is required.
LOBBY. Door in wall leads to entry to warehouse, or (by stairs) down to the boiler room.

REAR ENTRANCE to lobby.
A CRANEWAY has subsequently been installed along this 72-foot-wide, 29-foot high bay.

4. WAREHOUSE AND BRANCH OFFICE, CICERO, ILLINOIS

SKIDMORE, OWINGS
& MERRILL,
Architects

IN THE OFFICE BUILDING'S all-blast air-conditioning system, air supply, introduced through viscous-type air filters, is either humidified (in winter) or dehumidified (in summer) and brought at below-comfort level to the office area where it is reheated by convector (in supply ducts to each office) to the temperature set by the room's individual thermostat. An exhaust fan returns the air from the office areas. All or any part of the air may be recirculated.
In almost every state an architect, after qualifying for a license, is required in the words of a typical statute (New York) to “display it in a conspicuous place in his principal office, place of business or employment.” The requirement to display the license for all to see is based on the legislative realization found in most statutes that licensing of qualified persons is required “in order to safeguard life, health and property.”

Practice of architecture by unlicensed persons is not only recognized as reprehensible by legislatures, but by the courts as well. Unfortunately the lay public has not been made sufficiently aware of the significance attached to the licensing of a qualified architect. Many contractors seem similarly unaware that if they perform acts constituting the practice of architecture without a license they endanger life, health and property, perform an illegal act and jeopardize their right to compensation for services and materials otherwise legally supplied. Contractors and corporations continue to draw and enter into agreements which violate the principle of illegality carefully delineated by the courts. The obvious implication is that the general public is ignorant of the importance of the architect and that contractors knowingly or unwittingly capitalize on this ignorance.

In a recent case, a contractor, a corporation, entered into a contract with the owner of a restaurant to remodel it and to prepare plans, drawings, and specifications. The contractor corporation was not licensed but employed a licensed architect who prepared the plans, drawings, and specifications. The agreement between the contractor and owner provided that the owner’s vice-president, who was also a registered architect, approve the plans, which he actually did. No more than 10 percent of the work involved architectural services and about 90 percent of the work related to materials supplied and installed, such as a bar and other usual restaurant fixtures and furniture. The restaurant owner arbitrarily refused to pay for any of the services rendered or any of the materials supplied. It undoubtedly would come as a complete surprise to most contractors to discover that not only was the contractor denied recovery for its fee for the preparation of plans, drawings, and specifications, but it was also not permitted to recover for any of the work done. The court decided that the illegal nature of that portion of the agreement of the unlicensed corporation to furnish architectural services so permeated the whole contract as to render the entire relationship illegal. The court therefore said it would not enforce payment even for the services rendered which the contractor could otherwise legally perform since they had been contaminated by the illegal agreement to perform architectural services.

The foregoing decision was by Mr. Justice Rosenman in the case of American Store Equipment Co. v. Jack Dempsey’s Punch Bowl Inc. and was affirmed by the New York Appellate Division and then by the Court of Appeals, the highest court in New York State. Although some would consider the result a harsh one, it seems justified by the purpose of the licensing statutes as expressed by Judge Rosenman’s further discussion of the reasoning behind his decision:

“To sustain the legality of the balance of the agreement would lead to widespread disregard of the licensing statutes. It would be easy for any construction contractor to thwart the purposes for which the licensing of architects was enacted, by merely providing in his contract that architectural services would be given gratis, so long as the contractor were awarded the contract itself.”

It should be a matter of concern to the architectural profession that the purpose served by the decision in the case quoted above would be obviated by a simple expedient. When a contracting company employs a licensed architect, the licensing statutes can be satisfied by drawing two agreements—one for the contracting services rendered in which the contractor is the principal, and another for the architectural service rendered in which the licensed architect is the principal.

Two cases determined within the last year in New York State illustrate the prevalence of the misconception of the law. In one of these cases, although the contractor’s president was a licensed engineer, it was summarily refused a judgment sought in the sum of $6,000 (6 percent of a $100,000 project) where the corporation had agreed to perform engineering services. In the second case the court recognized the principle stated above but decided that in that particular
situation the contract was "severable" and permitted recovery. That
the contractor was attempting to recover a sum in excess of $32,000
for work actually performed and materials actually furnished, and
that the architectural services had been paid for by earlier payments,
undoubtedly played a large part in inducing the court to seek a
solution on the particular facts which would avoid what it felt was
an unconscionable result.

In view of the cases discussed, one a decision of the
highest court in New York State, it can safely be
said that an unlicensed person or corporation may not legally perform any architectural or engineering
services without jeopardizing its right to reimbursement
for the cost of the whole project. It is immaterial whether the constituent members of the
company or corporation are licensed and actually
perform the services. The controlling question is,
"Is the principal entering into the contract li­
censed?" It is also immaterial whether the architec­
tural or engineering services performed form a
small or major part of the agreement. In Appen­
dix A on page 122 there will be found listed cases
throughout the country that discuss the essential
principle involved.

It must be remembered that the licensing statutes
are double-edged swords. They perform the salutary
function of striking down the unqualified and the
licensed corporation that attempts to deprive the
licensed architect or engineer of his practice. They
should also serve as a warning beacon to the architect
who is careless about the letter of the law.

For example, the architect licensed to practice in
one state who does not properly qualify when per­
forming services in another state is in no better po­
tion than any other unlicensed person and could
easily be denied compensation for his labors. There
should be available to every architect whose practice
embraces projects in more than one state a digest of
the relevant provisions of the law applicable to ar­
chitectural practice in each state.*

Generally speaking it will be found that states fall
into one of three categories in this respect:

A. No registration or licensing requirements:—
B. Restricts use of the title "architect":—
Connecticut, Iowa, Maine, Massachusetts, Tennessee, Texas, Vir­
ginia, Washington, West Virginia.
C. Restricts practice of architecture to those licensed:—
Alabama, Arizona, Arkansas, California, Colorado, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Utah, Wisconsin, Alaska, Puerto Rico.

The foregoing is meant merely as a guide; there is
no substitute for a complete analysis of the ap­
licable statutes.

It should also be noted that architects often slip up
on technical compliance with the licensing laws in
their own states. Steps to renew licenses should be
taken before they expire so that no hiatus exists.
The architect who is resuming his practice after a
lapse (a war veteran, for instance) would do well
to make certain that his license is still effective.
This is no imaginary danger; it is necessary so that un­
scrupulous clients with knowledge of the principles
of law discussed above may not seize an excuse for
avoiding payment of fees for services rendered.

For the qualified, compliance with the necessary
statutes may seem an unnecessary nuisance. This
attitude is particularly unfortunate when unqual­
ified persons and corporations, in the face of the cases
discussed and existing statutes, contract with impu­
tunity to perform architectural services. It is obvi­
ous that the matter is one that must concern the
architect and arouse him to action singly and in
groups. Contractors must be educated to understand
that when they agree to render architectural services
they commit a crime; the public must be educated
to know that to participate in such an agreement is
equally reprehensible.

In summary, the matters
for an architect or engi­
near to watch carefully in
order to be sure that he
is technically complying
with the law are these:

1. Make certain that your license in your state has not lapsed. If it has,
drop everything and have it reinstated immediately.
2. Before engaging in a project in a state other than the one in which you
are licensed, check the licensing requirements and comply with them.
3. Do not perform your services incidental to a contracting firm's or engi­
nearing firm's agreement where the company acts as principal. Insist on
making your own agreement with the client unless the company itself is
legally permitted to practice architecture.
4. Discuss in your professional association meetings methods for combat­
ing illegal practice of architecture and for education locally and nationally
of contractors and the lay public.

For an excellent collection of the applicable state laws and of circulars of the National Council of Architectural Registration Boards, see Architectural Practice by Clinton H. Carencil and Ben John Small, Reinhold Publishing Corp., 1947. Perti­
ent amendments to the laws since 1947 can be obtained by writing to the state
agencies listed on pages 288 and 289 of that book. Appendix B to this article (see page 122) lists, for the benefit of the reader's lawyer, the applicable state codes and
statutes.

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APARTMENT HOUSE, LOS ANGELES, CALIFORNIA

CARL LOUIS MASTON
Architect

A Mention in this year's Progressive Architecture Awards, this four-unit modified garden-type apartment house, built on a private-residence-size lot, meets competition of speculatively built units at the same time that its standards are considerably above average.

PROGRAM: To develop an income-producing apartment property with the units having as much of the amenity of private homes as possible.

SITE: A 50’ x 110’ rectangular site, with its western narrow end on the street front; considerable slope down from front to rear.

SOLUTION: House arranged in a long L, with advantage taken of the site slope to provide a duplex unit at the rear; garage placed near street entrance. Each of the four units provided with some outdoor living space—a terrace, garden, balcony, or sun deck.

COMMENT: The Awards Jury commended this job “for attempting a solution of a rather difficult and complicated problem . . . The effort to develop a better type of apartment building in the face of standards and restrictions is praiseworthy.”
TERRACED GARDEN COURT; door to duplex unit on lower level (at rear).

APARTMENT HOUSE, LOS ANGELES, CALIFORNIA

CARL LOUIS MASTON, Architect
The architect tells us that “there was no view worth mentioning,” so window orientation was based primarily on sun exposure. The three units in the long leg of the L all have generous southern fenestration, coupled with structural projections for sun control. The building is placed so that only a service-entrance walk separates it from the property line to the north. An open passage serves both service and main entrances on the ground floor; paired staircases serve the upstairs apartments. To reach the duplex unit at the lower level on the east end, a walk with steps leads down along the landscaped terrace garden of Apartment No. 2.

**ENGINEERING OUTLINE**

**CONSTRUCTION** Framing: standard wood, worked out on a 4-ft. module; 8” x 10” floor joists. Walls: cement plaster, redwood or brick on the exterior; plaster or plywood, interior. Floors: oak and linoleum on the ground floor; carpet and linoleum upstairs. Roof: 2” x 8” wood rafters covered with ½” solid sheathing and tar and white gravel composition roofing. Fenestration: steel sash. Insulation: 4” mineral wool in roof construction. Doors: flush, hollow core wood.

**EQUIPMENT** Heating: gas-fired, forced air units, located in heater room, under southeast corner of Apartment No. 2. Lighting: recessed incandescent fixtures of fluorescent strips, concealed in light coves; exposed fluorescent strips in kitchens.

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**LIVING ROOM of duplex apartment.**

**ENTRANCE to duplex.**
A small house (the home of the family of Mr. Whitcomb, one of the architects) utilizing methods of construction adaptable to mass production—a Mention in this year’s Progressive Architecture awards.

PROGRAM: To develop a system of mill-fabricated posts, floor and roof beams, wall panels and sash units, largely of identical sizes and shapes within the limits of carpenter construction.

SITE: Large, level lot with fine trees.

SOLUTION: Organic, modular use of common framing lumber to assure strong, weathertight construction. As the architects comment: “We have attempted to devise a system of prefabrication with . . . a maximum of interchangeable parts, no patented tricky connectors, all-wood construction that could conceivably be fabricated either on the site or in a mill . . . We have combed out all the standing finish and the little pieces that take time to install . . . We should like to stress, however, that there has been no sacrifice in quality. The materials and workmanship were the best obtainable.”
FEATURES
Exterior: gray painted V-joint tongue-and-groove siding applied vertically. White trim, turquoise door. Bulk storage room, reached from outdoor shelter. Wall partition between living and kitchen areas is oak casework. Heating is simply a continuous hot-water coil hung from the bottom of floor joists ("very satisfactory"). Removable, sliding window-screens; special windows, wood framed; projecting sash. Plans for expansion: Later the Whitcombs may move the storage partition in the living room, making the kitchen space part of the living room, and move the kitchen, with an additional bedroom and bath, out in an ell. "If we were doing it again," the architects tell us, "we could eliminate still more details . . . The crawl space beneath the floor contains all utilities, heating, plumbing, and electrical work."
THE HOUSE is the structural scheme and vice versa. Shapes and spans were dictated by the system's economical limits.

HOUSE, DEDHAM, MASSACHUSETTS

JOHNSON & WHITCOMB, Architects

LIVING ROOM. Storage wall at right is of oak plywood.

BEDROOM. Closet doors are of blond birch.
ENGINEERING OUTLINE

CONSTRUCTION Foundations: Concrete: 2'-6" crawl space with 2" concrete earth seal. Framing: 1200# fir; built-up columns 4' o.c.; paired 2" x 12" joists at each bay; 2" x 10" solid bridging. Walls: pre-built panels (2" x 3" framing; vertical T & G pine; exterior), ½" gypsum board (interior); 1" wood fiber blanket insulation. Floors: 2" hard pine plank, asphalt tile; concrete in heater room. Roofs: paired 2" x 12" joists 4' o.c.; 2" plank, 5-ply built-up roofing, 2" wood fiber blanket insulation. Ceiling: 12" square processed wood tile. FENESTRATION: pine sash, transom type, to detail. Partitions: built-up panels faced with ½" gypsum board both sides. Doors: wood, flush.

EQUIPMENT Heating: radiant, hot water floor panels using wrought iron grid of coils suspended under floor joists; oil-fired, cast iron sectional boiler; thermostatic controls. Lighting: wall fixtures and recessed ceiling fixtures in addition to regulation service outlets. Special equipment: electric kitchen stove; automatic washing machine; instantaneous, tankless water heater.

KITCHEN. Cupboards have sliding panel doors.
BATH. Large counter; ample storage.
Not very often do architects have the opportunity to get accurate performance and cost data. With a feeling of real accomplishment P/A presents a report on classroom lighting which answers, for sixteen types of lighting systems, the two fundamental questions: What will they do? How much do they cost?

RESEARCH REPORT:

The author, Carl Allen, illuminating engineer, has concentrated upon classroom lighting and has lectured and written on the subject. Very wisely, we think, since costs vary greatly, he gives them on a percentage basis, using a median cost as 100%. At the end of the article you will find a simple method for translating the percentages into dollars and cents for your locality. The research behind this article was undertaken by General Electric, which has no ax to grind: the company manufactures no fixtures and is one of three major lamp manufacturers, any of whose products may be used. G-E's interest is proper lighting, taking into account the budget and practical job conditions as well as the imponderables.

The article is possible only because classrooms have, in general, a standardized shape and size. Designers are exploring other shapes and sizes: knowing how well a lighting system functions, at what cost, in the standard, the designer can approximately evaluate it for the non-standard. For preliminary decisions this should be entirely satisfactory, although so many factors affect lighting that an illuminating engineer should be consulted beforefinally selecting a system.

On aspects of lighting other than those discussed in this article, notably daylight control, research is not complete enough for a practical report. As fast as such subjects become reportable you will find them in P/A. For instance, we are scheduling for this fall a report on luminous ceilings, the research for which is only now nearing completion.
Louvered classroom lighting represents an advanced technique for obtaining high quality illumination, architecturally integrated. This school is located in Park Ridge, Illinois, where 22 classrooms are lighted in this manner. Architects: Perkins and Will.

CLASSROOM LIGHTING TECHNIQUES

By CARL J. ALLEN, School Lighting Specialist, Lamp Department, General Electric Co., Nela Park, Cleveland, Ohio

An estimated seven billion dollars of new school construction is required during the next ten years. It is needed to replace obsolete buildings and to provide facilities for an increase in the school-age population of five million children, born during and since the war. College and university population has vastly increased over the same period, too. School administrators put good lighting for classrooms high on their check list of requirements for a modern school plant. Having in mind all the pertinent factors in the local situation, the architect must arrive at a solution compatible with the circumstances.

What are the objectives to be met in the artificial lighting system to realize good seeing conditions? Quality, of course, is essential in classroom lighting. But what determines quality? We shall see that it involves a consideration of the characteristics of the entire room, as well as the lighting equipment. The various lighting schemes illustrated present several means of achieving desirable results.
CLASSROOM LIGHTING TECHNIQUES

Highest attainable reflectance (non-glossy), for efficient utilization of light

Ceiling brightness as uniform as practical. May vary up to 1:10

Intermediate brightness between ceiling and work areas of room (non-glossy)

Brightness as close to background brightness as efficient luminaire design permits

Reflectance as high as consistent with good visibility of chalk writing

Trim reflectance value intermediate between that of wall and chalkboard

Brightness difference between book and desk within 1:1 and 3:1 range; between book and surrounding within 10:1

GOALS OF A BALANCED-BRIGHTNESS VISUAL ENVIRONMENT

Modern school lighting techniques are characterized by their comprehensive nature. The purpose is to have the room present a brightness pattern of such related values as will provide easy, comfortable seeing conditions for every type of classroom activity. The brightness pattern is a result of the amount of light from the lighting units, the manner of its distribution, and the reflecting characteristics of room surfaces and appointments.

Fluorescent luminaires should be compared as to how well they shield or reduce the lamp brightness, especially in the field of normal view, horizontal to 45 degrees up, and how efficiently they deliver light where needed, as well as to appearance and initial and over-all cost.

RECOMMENDED CLASSROOM REFLECTANCES
INCANDESCENT LIGHTING

One sees equally well under the same illumination value from incandescent or fluorescent lighting of comparable diffusion and directional quality. The two systems differ in such matters as initial cost, operating economy, heat, wiring requirements, and general appearance.

For example, incandescent lighting has the advantage of lower initial cost but is inherently higher in operating cost than a comparable fluorescent system. The wattage required is approximately three to four times that of a typical fluorescent system and, hence, in old constructions, a rewiring program is generally required to bring illumination values up to today's standards. The quality of lighting and general appearance of the room with good semi- or totally indirect incandescent equipment, which is the type recommended, can be very satisfactory. As illumination values substantially exceed about 40 foot-candles the associated radiant heat may lead to discomfort.

The nine-outlet system has a desirable feature of easy conversion to higher levels at a future date by replacing the filament equipment with continuous rows of fluorescent luminaires on the existing outlets.

FLUORESCENT FOUR-LAMP 40-WATT FIXTURES

Due to the greater amount of light produced in each luminaire, four-lamp units may offer a lower initial cost and lower owning and operating cost than typical two-lamp unit fluorescent installations. For the same reason, the luminaires generally are slightly brighter and less comfortable and may tend to produce slightly less uniform lighting than continuous two-lamp systems. In old rooms with four outlets, the wattage requirements of an eight-unit arrangement permit easy conversion, usually without extensive rewiring.

If the row of units nearest the windows is moved in one to two feet from the usual equally spaced position the lighting will be more uniform in the inner part of the room which receives less natural light.
TWO-LAMP EQUIPMENT

Luminaires of the two-lamp semi-direct design in general deliver a higher percentage of the generated light to the plane of the desks than do four-lamp equipments. The units should be mounted as high as possible, consistent with delivering a reasonably uniform lighting on the ceiling between units.

Shielded fluorescent luminaires should provide at least 25° shielding lengthwise and 35° shielding crosswise, and brightness of the shielding elements should be kept below 450 footlamberts.

An installation of two continuous rows of two-lamp equipment, producing 30 foot-candles, in a median-size room, is considered an acceptable minimum recommendation for classroom lighting. Because of its low total wattage this arrangement is of special value when relighting a classroom with relatively limited wiring capacity.

THREE-ROW INSTALLATIONS

While 30 foot-candles represent a minimum value of good current practice, many schools will be able and will wish to provide more adequately for their students. Such a system is well typified by the installations consisting of three continuous rows of two-lamp fixtures. It may be noted that while the initial investment is three to four times that for the typical nine 500-watt incandescent system, the operating cost is only about two-thirds and the level of illumination is fifty percent higher. In the opinion of many this represents the more desirable present day practice. Fifty foot-candles is recommended for classrooms for students with partial vision, for drafting rooms, sewing rooms, and any other areas where the benefits of higher-level lighting are especially desired.
CROSSWISE INSTALLATION

Certain commercial fluorescent luminaires present a lower brightness crosswise than they do lengthwise. This type of fixture can be installed crosswise of the room. The front units will illuminate the front chalkboard better than will fixtures which are mounted perpendicular to the front wall. Arrangements for wiring and switching should be so arranged that the fixtures near the window can be turned off when this part of the room is satisfactorily lighted by natural daylight.

LUMINOUS-SEMI-INDIRECT FLUORESCENT

Where lighting of the highest quality is desired—lighting in which the shadows are the softest, reflected glare is at a minimum, and the brightness of the fixture closely approximates the brightness of the ceiling—the luminous indirect type of fixtures is to be recommended. Due to the lower utilization and lower maintenance factor generally considered with this type of lighting, approximately 60 percent more equipment is required for a given level of illumination than with semi-indirect fluorescent equipment. Many of those who appreciate the finer points of lighting believe that the gain in quality is well worth the higher cost.
TROFFERS

Troffer lighting is best considered in new construction, particularly where the light is combined with an acoustical ceiling. It is especially suited for illumination levels above 30 foot-candles. It combines lighting of good quality and low operating cost with sound conditioning and neat functional appearance. The etched aluminum type of troffer offers a very low comfortable brightness when viewed crosswise of the unit. One approaches closely the ideal condition where the visual task on the desk becomes the brightest object in the room, with all other areas of concern in satisfying brightness balance.

LOUVERALL

This technique is the newest of the methods of providing high-level flexible lighting with comfort and neat appearance. Much development work is being done in its use. Some louvers are plastic, others metal, others wood, and some are considering glass cloth as the shielding media. As it is new, it is suggested that details of any installation be worked out in conjunction with manufacturers' representatives.
Etched aluminum troffers were used in lighting this laboratory. Comfortable lighting at low operating cost, with favorable maintenance characteristics, and a simple means of access to service pipes and equipment concealed by the acoustical tile, are features of this means of illumination.

Lighting which illuminates the moving parts, dials, and controls of the tools from all directions is well accomplished by this grid system of industrial fluorescent fixtures. Plenty of good light promotes safety and good housekeeping in the shop, as well as good workmanship and a minimum of spoilage.

This cafeteria area was relighted so that it could serve the dual purpose of dining hall and large-group study area. By increasing the illumination level from 5 to 40 foot-candles, this school virtually increased its physical capacity.

Traditionally, gymnasiums have been lighted by high-wattage incandescent lamps in reflectors of the high-bay type. The lower brightness of fluorescent equipment will minimize the temporary blinding that players encounter in looking up into the lights. Long burning hours in many gymnasiums also favor fluorescent from the cost standpoint.

Libraries have long been characterized by an atmosphere of somber gloom, better equipped for drowsy meditation than for continued reading. Here abundant light on the study tables from the continuous overhead fixtures makes seeing easy; light on the open book shelves makes it possible to find title and author quickly. Individual reading table lamps are inherently unsatisfactory and are being superseded by overhead general lighting equipment.

Fifty foot-candles of incandescent lighting are used with comfort in this drafting room. The room is located on a top floor and has excellent cross-ventilation which makes the relatively high wattage tolerable.
The Cost of Classroom Lighting

**ANNUAL OVER-ALL COST**

**OF OWNING AND OPERATING A LIGHTING SYSTEM**

**=**

**ANNUAL OWNING COST**

**(INITIAL COST LESS LAMPS TIMES AMORTIZATION RATE)**

**+**

**ANNUAL OPERATING COST**

**(COST OF ENERGY, LAMP REPLACEMENTS, AND CLEANING)**

Premises used in comparative cost figures shown with each lighting system:

1. **Initial Cost** was based on estimated average cost to schools of median price fixtures, plus hanging, and of required ceiling outlets and switching control plus branch-circuit wiring to sub-panel board. Amortization rate of 2½% assumes a 10-year write-off plus a 2½% annual contingency to provide for interest, insurance, etc.

2. **Annual Operating Cost** was based on a median energy rate of 2½¢/kwhr, an effective average operating time of 750 hours per year, lamps purchased at 30% discount, a replacing charge of 10¢ per lamp, and a complete twice-a-year fixture-cleaning program. Estimated cleaning cost per fixture varied between $0.30 and $1.00 depending upon type of luminaire.

3. All examples and maintained foot-candle levels are for a classroom 22' x 30'—12' ceiling, finished as recommended and equipped with luminaires of an assumed average lighting performance.

**Note:** Because of wide variation in the cost of some of the components mentioned above, it is suggested that the figures given in this article be used as a general guide. For a specific installation the cost calculation should reflect the conditions that pertain locally.
OVER-ALL COST COMPARISONS
AT OTHER THAN 2½c KWHR RATE

The chart shows the effect of typical energy rates on the annual overall cost of lighting a classroom. The strong effect of energy rate upon the incandescent systems (A, B, C, D, and E) is clearly indicated. The fluorescent systems, on the other hand, are more strongly influenced by the amortization charges against the equipment than they are by the cost of current, as indicated by the points where they intercept the 0¢ energy line. It should be noted that in general the higher cost lines apply to higher foot-candle levels. The significant divergence between the operating costs of incandescent and fluorescent systems, as the energy rate increases, is shown on graph below.

Current estimates of the cost of modern education indicate that the annual cost of services and supplies for each student is about $250 per year and that each student requires about $500 worth of capital equipment. Amortizing this equipment over 30 years, the owning and operating cost of a classroom of 30 children would be about $8,000 per year. It is noted from the chart that for energy rates from 2 to 4¢ per kwhr, the over-all costs of the more typical lighting systems are grouped in the $100 to $200 per year range.

ANNUAL COST OF OPERATING AND MAINTAINING 30 FC.
CLASSROOM: 22' x 30-12' CEILING
LIGHT RECOMMENDED FINISHES
750 HOURS PER YEAR
PRODUCTION RECORDS

Several types of building products are being produced in unheard-of quantities; yet so great is the demand that the market is still far from satisfied. Electrical building wire, for instance, is now being manufactured at the rate of six billion feet per year, nearly three times the prewar rate, according to U.S. Rubber, which also expects an increase in the use of aluminum as an electrical conductor due to difficulties in obtaining copper. In the prefabrication field, some 80 companies produced over 37,000 houses in 1947; this year's production is expected to exceed 50,000, of wood construction alone. And we have barely begun to answer the cry.

HIGH COST OF BUILDING

According to Engineering News-Record, it now costs about three and one-third times as much to build as it did in 1913; or if that time's too distant for you, nearly twice what it did just prior to World War II. In many areas costs are far above this country-wide average. When such a condition arises, sooner or later a way out must be found. So far in 1948 costs have "leveled off" (except for heavy engineering construction), but with no real sign of a break. Yet in other ways there are signs of acute discomfort; for example, we are hunting for ways to reduce inherently costly building practices.

As evidence, we cite the following: The National Bureau of Standards is carefully scrutinizing the strength of common house constructions—not because houses need be stronger, but to judge how much material is superfluous—according to recognized engineering methods. (For a complete report, write the Supt. of Documents, Government Printing Office, Washington 25, D.C., for a copy of BMS 109, "Strength of Houses," enclosing $1.50 per copy.) Another bureau, Housing and Home Finance Agency, has recently published the Uniform Plumbing Code for Housing with the same objectives in view, but attacking an expensive equipment installation.

The American Institute of Steel Construction has formally announced to a meeting of the Vermiculite Association that "vermiculite plaster can be used to obtain a three- or four-hour fire rating with constructions ... which should effect an economy over any of the older types of fireproofing." The West Coast Lumbermen's Association has made a piece-by-piece study of lumber used in framing typical five-room houses. It finds that, of the total, approximately 29 percent should have come to the job in random lengths, which would not only have simplified the milling problem, but also actually have minimized waste during construction, since there is that proportion of odd-sized lumber in the average small house. If you're interested, write the Association at 1410 S.W. Morrison St., Portland 5, Oregon.

IS COST REDUCING CONSTRUCTION VOLUME?

Yes, to quote again the American Institute of Steel Construction. A.I.S.C. has just released construction surveys from its 15 district offices. True, steel is hard to get, but this doesn't seem to have affected the reports; also, A.I.S.C. bases its release on total building permits. To quote directly:

"In some fields of building construction high costs are beginning to act as a brake . . . investment builders are becoming cautious . . . in other sections the slight leveling-off in prices (is giving the green light to) churches, schools, and hospitals . . . a slackening has been noted of industrial building . . ." On the other hand there's considerable department store construction, and several regions report increasing new construction, notably the Middle Atlantic and Southern states, and California.

Query: How many people noticed that, under the draft bill rushed through Congress' last days, steel is again allocated at the President's discretion?

ELECTRONICS IN BUILDING EQUIPMENT

The push-button world predicted for the postwar era is not only here; now the push buttons themselves seem to be on the way out. Electronics, that little understood science, is invading the building equipment field. At left below is a rather "normal" example, a radio amplifier chassis with plug-in relay control box, for building into residential interiors; it is a high-grade unit, specially designed for high fidelity. Manufacturer: Brook Electronics, Inc., 34 DeHart Pl., Elizabeth, N.J. The two photos in center below show Minneapolis-Honeywell's new Electronic Air Conditioning Controls (thermostat left, electronic relay panel right) which has no moving parts in the thermostat and is 100 times more sensitive than existing controls. Photos at right below show Otis Elevator Co.'s new Electronic Signal Control for elevators (landing fixture— not a push button— at left, electronic control mechanism at right). The "landing fixture" looks
Electronic Air Conditioning Control System: claimed to be 100 times more sensitive than existing controls. Basic units include room thermostat, duct and immersion thermostat, electronic modulating motor, and electronic relay. No moving parts in thermostats, thus maintenance of system reduced to minimum. Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave. So., Minneapolis 8, Minn.


Unit Ventilator: newly designed for heating and ventilating school classrooms. Contains fiooting heating element with steam distributing tubes, pressure equalizing unit with checking device, and condensate cooling surface. Herman Nelson Corp., Moline, Ill.

CONSTRUCTION

Stainless Steel Roof Drainage Products: line of items includes "K" gutter, plain round, corrugated round, and corrugated square conductor pipe, waves trough, and all necessary fittings. Easily soldered, may be painted. Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.

Acrylic Plastic Sheets: standardization of extra large sheets, 100" x 120", makes possible applications hitherto restricted to other materials or segmented construction, such as wall facings, partitions, facades, curved surfaces. Easily soldered, may be painted. Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.

DOORS AND WINDOWS

"Over-The-Top" Door Equipment: utilizes one-piece garage door which rides to full overhead position by means of strong channel-iron "arms." ceiling track to guide and carry door, and over-size counterbalancing springs, Silent, roller-bearing hangers, steel wearbearstriping. Door units available in 18 sizes, all wood or aluminum. Frantz Mfg. Co., Sterling, Ill.


ELECTRICAL EQUIPMENT AND LIGHTING

All-over: new modular ceiling sections of aluminum, 18" x 48", made up of 3" or 114" cubes. Modules suspended by hinged-socket mechanism on telescoping rods, so that single section can be unhoisted or removed without disturbing remaining sections. When in place, All-over ceiling presents unbroken front without grid pattern, giving illusion of natural daylight lighting. General Lighting Co., 32 Union Sq., New York, N. Y.


Recessed Troffer Downlight: for use in stores, offices, or wherever concentrated light is desirable. Designed for individual, end, corner, cross-over, and in-line mounting with standard width fluorescent troffers. Pittsburgh Reflector Co., Oliver Bldg., Pittsburgh 22, Pa.

FINISHERS AND PROTECTORS

Velvet Flow: interior flat paint claimed to have unusual high covering properties, spreading over 1,000 sq ft per gal. Currently available in white only, but tints can be made with addition of manufacturer's other line of all colors. M. J. Merkit Paint Co., Inc., 1441 Broadway, New York 18, N. Y.

INSULATION (THERMAL. ACOUSTIC)

U.S. Flotofoam: very lightweight insulating material with low thermal conductivity: non-corrosive, nontoxic, self-extinguishing. Applied in shipping containers for fresh and frozen food, also commercial and home refrigeration units. Available in shredded or block form, in various sizes to fill cavities. U. S. Rubber Co., 1230 Sixth Ave., New York, N. Y.

MATERIALS OF INSTALLATION


Hose Mounting Clip: spring tension clip, with four grippers, holds tubing firmly and clear of aperture through which it passes. Mounting and demounting of clip made simple by compression of open ends of clip. Pepika Spring Co., 810 S. Waugh St., Kokomo, Ind.

SANITARY EQUIPMENT, WATER SUPPLY, DRAINAGE

All-Welded Vent Stack: new type of hot-dip galvanized plumbing assembly consisting of all-welded steel pipe and welding fittings; unit gives up to 2" in wall thickness without sacrificing I.D. of pipe. Tube Turn, Inc., Louisville 1, Ky.

Durlite Toilet Seats: made of Tenite plastic in six variegated colors, with stainless steel and aluminum hardware. Durlite Sales Div., Beacon Plastic & Metal Products, Inc., 1150 Broadway, New York 1, N. Y.

SPECIALIZED EQUIPMENT

Brook High Quality Amplifier: designed especially for custom-built radio phonographs. Low mutriodes throughout unit; frequency response is flat within 0.2 DB from 20 to 20,000 cycles. Intermodulation and harmonic distortion said to be reduced to vanishing point. Brook Electronics, Inc., 34 De Hart Pl., Elizabeth 2, N. J.

NB-10 Refrigerator: 10 cu ft, occupies same floor space as 8 cu ft model; for use wherever large refrigerated storage space is required. Shelf area totals 17.8 sq ft. Stainless steel compartment equipped with four ice trays, holds 32 lbs of frozen food. General Electric Co., 1285 Boston Ave., Bridgeport 2, Conn.


SURFACING MATERIALS

Floor Coverings: new styles, colors, patterns, of inlaid linoleum, resilient enamel coverings, rugs, asphalt tile, Koroseal tile, and cube base. Sloan-Bunton Corp., 295 Fifth Ave., New York, N. Y.

TRAFFIC EQUIPMENT

Electronic Signal Control: application of electronic principles in elevator control eliminates push buttons and considerable amount of wiring and relays formerly used for operation. Features tiny electronic tube in landing fixture; mere touch of recessed, tamperproof disc in fixture causes automatic stopping of car and opening of door at floor where passenger is waiting. Otis Elevator Co., 260 11th Ave., New York, N. Y.
**PROGRESSIVE ARCHITECTURE**, 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 manufacturer.

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*Editors’ Note: Items starred are particularly noteworthy, due to immediate and widespread interest in their contents, to the conciseness and clarity with which information is presented, to announcement of a new, important product, or to some other factor which makes them especially valuable.*

### AIR AND TEMPERATURE CONTROL

1-187. Control for Hot Water Heating (F-3157), 4-p. folder on an automatic electric temperature control system that varies water temperature in proportion to outside temperatures. Installation diagrams, advantages. Barber-Colman Co.

1-188. Merrill Wind Tunnel Tests, 8-p. report on a series of tests conducted on a 12" x 12" Airjet ventilator to determine performance in terms of volume on a 12" x 12" Airjet ventilator to determine performance in terms of volume for various wind speeds and with ventilator in different attitudes relative to the wind. Performance charts in fps and fpm. Installation photos. C. R. Geler Co.

1-189. Rempe Engineering Data Book (Form 547-3MO), 34-p. illus. catalog prepared for engineer and draftsman as guide in the design of pipe and fin coils, with specific data on dimensional limitations, heat transfer factors, and coil development formula. Specifications, diagrams, charts. Rempe Co. ($1.50 per copy. Make check or money order payable to Rempe Co.)

(To obtain literature coupon must be used by 10/1/48)

### CONSTRUCTION

#### 3-8. Tomorrow’s Silhouettes Today (Form DD-136), 15-p. illus. bulletin describing two types of masonry similar to brick in size and proportion; made of combination of minerals, bonded by Portland cement, and formed into shape without heat. Typical installations, advantages. W. E. Dunn Mfg. Co.

#### 3-9. Zourite (SF-7105), 16-p. booklet on new aluminum facing material for all types of buildings; shipped complete with fur­ring strips, fastening clips, and trim moldings. Illustrations, typical installations, application diagrams. The Kawneer Co.

#### 3-10. An Introduction to Pluswood, 3-p. bulletin on new high density plywood with characteristics comparable to aluminum, but half as heavy in weight. Description, physical properties, industrial possibilities. Pluswood, Inc.

Four booklets on precast gypsum roof decks, metal lath, corner beads, channels, partition systems, and plaster bases. Data, fire ratings, specifications, construction details. U. S. Gypsum Co.:

- **3-11. Precast Gypsum Roof Decks, AIA 4-E-6.**
- **3-12. Metal Lath, AIA 20-B.**
- **3-13. Roof Decks, AIA 4-L.**
- **3-14. Rockclath Plaster Bases & Attachment Systems, AIA 20-B-2.**

### DOORS AND WINDOWS

4-138. Aetna Steel Door Frames (Form 5-50M-1-48), folder on one-piece steel door frames standardized for residential installations. Specifications, opening sizes, installation details. Aetna Steel Products Corp.

### ELECTRICAL EQUIPMENT AND LIGHTING

5-129. Some Ideas, 4-p. folder on detailed plans showing construction of all-louvered ceilings and equipment for mounting. Engineering data. General Lighting Co.

5-130. Commercial Lighting Units (Cat. G-34), 4-p. illus. booklet on moderately priced cold cathode units for commercial and institutional lighting. Advantages, application data. General Luminescent Corp.

5-131. Guthlite, 4-p. folder on new fluorescent lighting fixture featuring "jackknife" hinges and maintenance rod, which makes possible all work of replacing, cleaning, from the floor. Advantages. Edwin F. Guth Co.

5-132. Design for Electrical Living (B-3979), 12-p. bulletin on wiring diagrams and kitchen layouts for two Industry Engineered Feature Houses developed by the Producers’ Council and sponsored by the National Association of Retail Lumber Dealers. Specifications and dimensions for all kitchen equipment. Westinghouse Electric Corp.


### FINISHERS AND PROTECTORS

6-127. Hy-Toner, color chart showing deep color flat finishes; 15 basic colors and white, which, when intermixed, will produce over 1000 hues. Hy-Toner Div., Roberts Paint Corp.

6-128. Heavy Duty Finishes for Maple Flooring, 8-p. folder on application, care, and requirements, of maple flooring. List of heavy duty finishes approved by M.F.M.A. Maple Flooring Manufacturers Ass’n.

6-129. Floor Facts, 8-p. bulletin containing architect’s and engineer’s specifications for treatment and maintenance of floors with manufacturer’s finishing and sealing products. Vestal, Inc.

**MATERIALS AND METHODS**

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**PROGRESSIVE ARCHITECTURE, 330 West 42nd Street, New York 18, N. Y.**

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**Name**

**Position**

**Firm**

**Mailing Address**

Home [ ] Business [ ]

**City**

State 8/48
THE new Richmond-Chase office building in San Jose, California, offers striking proof of the versatility of Revere sheet copper. The architects for the building were Wurster, Bernardi and Emmons of San Francisco, the builder was Carl N. Swenson Co., Inc. and the sheet metal contractor was the O. C. McDonald Co. Richmond-Chase Company is one of the largest canning companies in the area; and it was desired that the headquarters office building should be in keeping with the company's position of progressive leadership.

The distinctive architectural treatment includes a copper facing of the roof overhang. It is constructed of 16 oz. Revere sheet copper, \( \frac{3}{4} \)" standing seam—2'0" c.c. In addition to this use of copper for its color and beauty, copper was also used for flashing and window sills. Whenever you design or install sheet copper construction, it will pay you to take full advantage of the new technical data developed by the Revere Research Laboratories. You'll find these data in Revere's booklet, "Copper and Common Sense." This authoritative manual of sheet copper construction has been widely distributed to architects and sheet metal contractors, and there is probably a copy in your files. Be sure to refer to it as your guide to fine and durable sheet copper construction.

Revere materials are available from leading distributors throughout the United States. A Revere Technical Advisor will always be glad to consult with you without obligation.

REVERE COPPER AND BRASS INCORPORATED
Founded by Paul Revere in 1801
230 Park Avenue, New York 17, N. Y.
INSULATION (THERMAL, ACOUSTIC)

9-98. Armstrong's Insulating Wool (T D-11-640), 4-p. brochure on glass-fibered wool; comes in roll blankets, batt blankets, pouring and blowing wool, for all standard requirements. Properties, data. Armstrong Cork Co.

MATERIALS OF INSTALLATION
13-72. Brune's Gutter Hanger, Holder and Fastener, 4-p. illus. booklet on a gutter bracket with removable latch element for holding gutter upright and at same time permitting gutter to be removed and replaced. Specifications, directions, claims. Louis J. Brune, Sr.

PLASTICS

SANITARY EQUIPMENT, WATER SUPPLY, DRAINAGE


19-238. Pumps, 12-p. booklet on pumps for water supply and circulation drainage, sewage, and heating systems. Typical specifications, installation diagrams, blige pump and capacity selection tables, dimensions, advantages. Yeomans Bros. Co.

SPECIALIZED EQUIPMENT

19-243. Parsons Pureaire Kitchen, AIA 23a-15 (Form SA-1027), 4-p. illus. folder on all-metal, packaged kitchen units, for small houses, apartments, motels, recreation rooms, etc. Specifications, features. The Parsons Co.

19-244. Architect's Manual of Engineered Sound Systems, AIA 31-1-7 (Form 1R2184), 288-p. manual. A guide to the installation of sound systems into such structures as hospitals, schools, auditoriums, etc. Typical layouts, specifications, functions and application of system parts (amplifiers, microphones, etc.), listing of American Standard graphic symbols, definitions, contents table, index. Engineering Products Dept., Radio Corp. of America. ($5.00 per copy. Make check or money order payable to Radio Corp. of America.)

REVIEWED JULY '48

AIR AND TEMPERATURE CONTROL
1-183. Capture the Sun with B & G Hydro-Flo Heating (AX-1247), Bell & Gossett Co.


1-186. The New International Warm Air Oil Furnace (Form 151-8-47J-25M), International Oil Burner Co.

CONSTRUCTION
3-3. Fabricated Structural Steel, American Institute of Steel Construction.

3-5. Daylight in Industrial Buildings (IB-73), American Structural Products Co.

3-6. Aluminum Sheet and Plate, Reynolds Metals Co.


DOORS AND WINDOWS
4-134. Tinted Screening, Firestone Industrial Products Co.

4-135. The Window of the Future—Today!, Gate City Sash and Door Co.

4-136. Entrances, The Kawneer Co.

4-137. Apartment Casements, Truscon Steel Co.

ELECTRICAL EQUIPMENT AND LIGHTING


5-126. Surgical Lighting Technique (7L-949-4-1), American Sterilizer Co.

5-127. Prescolite, Pressteel Co.

5-128. Central Spang Conduit (351-1-48), Spang-Chalfont, Div. of National Supply Co.

FINISHERS AND PROTECTORS
6-126. Corrosite, Corrosite Corp.

MATERIALS OF INSTALLATION
13-71. The Right Roof for any Job from One Source!, Ruberoid Co.

SANITARY EQUIPMENT, WATER SUPPLY, DRAINAGE
19-229. A Positive Low Cost Answer to Corrosion (844112-2-100M-2-48), Calgon, Inc.


19-234. Prescription for Sound, Mastic Tile Corp. of America.

19-235. Ornamental Metalwork (Booklet 148), Julius Blum & Co., Inc.


19-237. Hammond Organs, AIA 35-G-1 (Cat. HO-10), Hammond Instrument Co.

19-238. Hydroplex Pump (Bul. 47-8020), Pump Div., Byron Jackson Co.

SURFACING MATERIALS
19-239. Matte Asphalt Tile Flooring, Mastic Tile Corp. of America.

19-240. Castle Square, Newcastle Industries, Inc.

SELECTED DETAILS

STORAGE: DISPLAY CASES

I. MILLER STORE

Long Beach, California

KENNETH S. WING

Architect

AUGUST, 1948
ADAPTABLE TO ANY FUEL

CONVERTIBLE
TO ANY FIRING METHOD

Here is one boiler, for steam or hot water, that assures continuous heating comfort through any type of prolonged fuel crisis. Designed for average size homes, or for small commercial buildings, the "200" Series National Heat Extractor is a truly versatile and modern cast iron heating boiler.

Easily converted from hand to automatic firing after installation, it is readily adaptable to any desired fuel or method of firing. Important, too, is its unique economy of operation—the planned result of its Extended Heating Surface, Multiple-Flue Sections, Extra-thick Insulation, Special Baffles (for oil and gas firing)—and unusually generous proportions.

Domestic hot water, year 'round, is another convenience of the "200" Series, offered by the easy addition of a tankless or storage type water heater.

For complete information on the "200" Series Heat Extractor—or the equally versatile "100", "300", "400" and "500" Series for smaller or larger installations—phone our nearest office or write to us at Johnstown.

THE NATIONAL RADIATOR COMPANY
JohNstown, Pennsylvania
SCHOOL: TRELLIS

Selected Details

RAINIER VISTA SCHOOL
Seattle, Washington

J. LISTER HOLMES
Architect

AUGUST, 1948
Good light...plus ceiling patterns as desired—
CEILINGS UNLIMITED*

Miller Fluorescent Troffer Lighting Systems have boundless versatility of application. You can install them to form ceiling patterns as desired. Modernize old interiors. Tops for new construction. They give you not only good light, but the plus benefit of CEILINGS UNLIMITED.

Miller Lighting Service is all-inclusive. It covers the needs of Planned Commercial and Industrial Lighting.

Miller 50 and 100 Foot Condiers (Continuous Wireway Fluorescent Lighting Systems) are standard for general factory lighting. Miller incandescent and mercury vapor reflector equipment has broad factory and commercial application.

Miller field engineers and distributors conveniently located, are at your call.


Classroom—Architects: Allen and Edwin Kramer, N.Y.

Miller Ceiling Furring Hanger (patented) simplifies installation. Continuous wireway cuts wiring, fitting costs. Bonderized units resist rust. Accessible parts ... easy service.
McCONNELL RESIDENCE
Solon, Ohio

ERNST PAYER
Architect

AUGUST, 1948
THUNDER IN THE CORRIDORS?

A HOSPITAL corridor can be a booming echo chamber! Ordinary footsteps sound like thunder-claps. It's a trying condition disturbing to both patients and staff. But it can be easily remedied:

You can stifle corridor noise with Gold Bond Acoustimetal. It's designed to assure maximum noise reduction — and to give high light reflection. And it's Fireproof to fit new building code specifications.

Best of all, maintenance is cut to an all time low! Each tile is an access panel, for quick repairs to wiring, piping, and air ducts. The 12" x 24" perforated pans snap into patented T-bars, and these T-bars can be mounted any distance from the ceiling which may be required to provide space for pipes, cables, and ducts. They are as adaptable to remodeling as to new building.

What's more, Acoustimetal can be washed repeatedly and even repainted without loss of sound absorption. Write now for the new Acoustimetal folder for complete details.

You'll build or remodel better with Gold Bond

NATIONAL GYPSUM COMPANY • BUFFALO 2, N. Y.

Over 150 Gold Bond Products including: gypsum lath, plaster, Tins, wallboards, gypsum sheathing, rock wool insulation, metal lath products and partition systems, wall paint and acoustical materials.

Gold Bond Acoustimetal — The Fireproof, washable acoustical tile for exacting sound control.
HOW TO SET A STANDARD

Good hardware complements good architecture. Your choice of Lockwood Hardware for every building you design can help to set a pattern by which all your work may be known.

More and more, architects are specifying Lockwood because it is good hardware. You’ll find ample evidence of this in the way its lines meet your eye . . . in its feel . . . in the very fact that it is designed and produced by Lockwood — a name that means more of the best in Finishing Hardware.

Lockwood Ambassador Hardware, selected for all doors in the new WIMY building, Greensboro, South Carolina. Right, Ambassador Entrance Set; left, Ambassador Interior Lockset for vestibule and office doors. All Ambassador Hardware applies directly to doors with concealed screws, lending charm to the design and furnishing complete satisfaction in use.

Lockwood makes it easiest for you to specify hardware for every type of building . . . for every decorating or architectural plan . . . from its catalog of "Simplified Specifications." You'll find this in Sweet's for 1948; or write for your own free copy.

Lockwood HARDWARE MANUFACTURING CO.
Division of Independent Lock Company • Fitchburg, Massachusetts
Douglas Fir Doors marked “A”
Meet these Industry-Approved Standards:

GRADE A — Recommended for Paint or Enamel Finish
To be Factory Resin-Sealed

STILES, RAILS, AND MULLIONS.—This stock shall be heartwood, all vertical grain old growth Douglas fir, Sitka spruce, or Western hemlock, the faces of which must be clear, with the exception that small, inconspicuous, and neatly repaired pitch seams are permissible. Characteristic sound dark streaks are permitted in hemlock. Glued-up rails are permissible in widths over 4 1/2 inches. A moisture-resistant glue shall be used. Mixing of woods is not permitted.

PANELS—FLAT VENEERED.—The standard thickness of 3-ply flat veneered panels shall be 3/4 inch after sanding. Each face shall be of a yellowish or pinkish color or a blend of the two, and shall be from smoothly cut veneer, free from knots, splits, pitch pockets, and other open defects. Small streaks and spots of other colors are permissible, provided that they in no manner make the panel unusable for the purpose intended. Shims that occur only at the end of panels and inconspicuous well-matched patches shall be admitted.

PANELS—SOLID RAISED.—The standard thickness of solid raised panels shall be not more than 9/16 inch before sanding and not less than 7/16 inch after sanding. They shall be either all vertical or all slash grain in any one door, and shall conform to the grade of the stiles and rails.
IN THE DUPLAN CORPORATION Nylon Throwing Mill at Winston Salem, North Carolina, where temperature and humidity must be kept at predetermined levels, the company installed PC Foamglas insulation on the steel deck roof. They also installed PC Foamglas on the entire wall area, as shown below, as core wall insulation between concrete block backing and corrugated aluminum outside finish.

It's Waterproof!

That is one of the main reasons why PC Foamglas is the permanent insulation.

Water cannot get into or through PC Foamglas. Exhaustive immersion tests in the laboratory and long practical use in marine floats, rafts and buoys, have proved that.

Foamglas is made of true glass, in the form of millions of minute air-filled closed glass cells, solidified into strong, rigid blocks. Therein lies the secret of its insulating efficiency.

PC Foamglas is also fireproof, verminproof, fumeproof, and acidproof. It withstands humidity and is an effective vapor seal. When installed according to our specifications, for recommended applications, PC Foamglas retains its original insulating efficiency permanently.

Our current booklets describe and illustrate many applications in which PC Foamglas, on roofs, in walls and floors, is helping to maintain desired temperatures, to minimize condensation. Why not send in the convenient coupon today? We shall be glad to forward free copies of the booklets you select. Pittsburgh Corning Corporation also makes PC Glass Blocks.
NO MAINTENANCE COST!

Adlake Windows
Saving Money for
Radio Station WHAM

The 103 double-hung ADLAKE ALUMINUM WINDOWS (Series 600) in Rochester, New York's station WHAM-WHFM will save the station a considerable sum, over a period of years, through eliminating maintenance costs. The windows will ultimately pay for themselves through this economy. Adlake Windows require no painting, no maintenance other than routine washing! And they last as long as the building.

ONLY ADLAKE WINDOWS have the combination of woven-pile weather stripping and patented serrated guides that assures minimum air infiltration and absolute finger-tip control.

Adlake Windows never warp, rot, rattle, stick or swell. They look lovely and operate smoothly for the life of the building.

INFORM YOUR CLIENTS about the wiping out of maintenance costs and the long, worry-free service they can expect from Adlake Aluminum Windows. For complete data, drop us a post card today at 1103 North Michigan Avenue, Elkhart, Indiana. No obligation, of course.

Adlake Aluminum Windows offer these "plus" features:
- Minimum Air Infiltration • Finger-tip Control
- No Warp, Rot, Rattle, Stick • No Painting or Maintenance • Ease of Installation

THE
Adams & Westlake
COMPANY
Established 1857 • ELKHART, INDIANA • New York • Chicago

Furnishers of Windows to the Transportation Industry for over 30 years

All Adlake double-hung windows carry this seal
No Application Charge for Vapor Barrier or Insulation . . .

use INSULATING ROCKLATH*

There's no application charge for insulation and vapor barrier when you insulate with Insulating ROCKLATH Plaster Base . . . because the aluminum foil has been laminated to the ROCKLATH at the mill. Your lath, insulation and vapor barrier are all applied in one operation.

A sheet of aluminum foil on the reverse side of Insulating ROCKLATH provides you with a summer heat barrier that reflects radiant heat and reduces interior temperatures as much as 15° . . . and effective winter insulation, because the aluminum foil retards the transmission of heat into the air space between the studs.

Because of the positive vapor barrier there is virtually no passage of moisture through the walls of a building. With Insulating ROCKLATH, there's less chance of mould or water damage to walls.

Insulate, provide an effective vapor barrier and install your plaster base in one operation. Use Insulating ROCKLATH.

In most states FHA requires certain minimum insulating and vapor barrier values. Insulating ROCKLATH and plaster in residential wall construction will in most cases provide the FHA values, as well as an ideal plaster base.

ALL sections of the new General Electric Central Plant Air Conditioners can pass easily through a standard 30" door . . . the two smallest models completely assembled. This compactness allows a wide choice of location for the unit. It means time and money saved in installation, too.

28 different arrangements
Both vertical and horizontal models are designed on the building block principle—12 different vertical arrangements—16 horizontal arrangements. They cover a cooling range from .8 to 58 tons . . . and a heating range from 28,100 to 1,310,000 Btu's per hour.

All units are pre-fabricated, pre-engineered and pre-matched to assure fast assembly if shipped in sections. The welded sheet-steel construction is rigid, light in weight, making it easy to handle, inexpensive to ship.

For a smoother, quicker, less expensive air conditioning job, get full information from your local G-E air conditioning representative today. Or fill in coupon below.

GENERAL ELECTRIC
Better Air Conditioning
What determines oil heating economy? Certainly not equipment cost alone! What counts most are the savings in fuel oil consumption obtained as well as the savings in upkeep and maintenance secured year after year.

On a comparative cost-per-year basis, a Petro Oil Burning System scores as today's most economical choice. According to the experience of more and more architects, engineers and building owners, Petro basic design provides more heat from every drop of fuel oil . . . makes every heating dollar work harder. Add to this the time-tested engineering and skilled workmanship built into Petro equipment and you have the long-lasting, minimum-maintenance performance that for over forty years has characterized Petro.

With Petro, you play safe with your clients' oil heating investment. As Mr. Nemeny sums it up, "I am satisfied, and I know owners are, too."

INDUSTRIAL MODELS: No. 5 or No. 6 fuel oil; manual, semi-automatic or automatic operation; 8 sizes to 450 bhp. Thermal Viscosity preheating.

DOMESTIC MODELS: No. 3 or lighter oils; "conversion" and combination-unit types, 7 sizes. Patented "Tubular Atomization."

FULL DATA on Petro Industrial Burners are in catalog files of Sweet's and Domestic Engineering. Details on Petro Domestic Burners available in separate catalog. Copy of either sent gladly on request.

Of the architectural firm of Nemeny & Geller, Mr. George Nemeny has been identified with many types of buildings, including homes, row houses, stores, apartments, institutional and industrial construction. His more recent projects include Garden Apartment Housing Project, Syracuse, N. Y.; Cooperative Clinic, Newark, N. J.; and Andrew J. Geller Shoe Store, Fifth Avenue, New York. Based on his wide experience Mr. Nemeny has the following comments to make on Petro Oil Heating Systems:

"I have found that Petro equipment is designed primarily to deliver the fuel economy which causes architects, engineers and owners to install oil firing. Petro Systems possess a mechanical simplicity and basic strength which result in easy, inexpensive upkeep.

"I am satisfied, and I know owners are, too, with the Petro characteristics of long operation and of economy in fuel, labor and maintenance."
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Alcoa Economy Castings can be produced promptly. For complete information on prices and design specifications, ask for the booklet, Alcoa Economy Castings. Call your nearby Alcoa Sales Office or write ALUMINUM COMPANY OF AMERICA, 1868 Gulf Building, Pittsburgh 19, Pennsylvania.

Now you can improve appearance and reduce construction costs by using high-quality Alcoa cast spandrels and wall panels. By co-ordinating design specifications and production facilities to permit maximum economy, Alcoa now can offer cast aluminum spandrels and wall panels at lower prices than ever before. Add to the advantage of low price, the economies of aluminum's light weight, corrosion resistance and easier handling and you'll see how Alcoa Economy Castings can help you solve the problems of construction time and costs.
GET BETTER TILE AND BLOCK-WORK with BRIXMENT!

Tile or block-work offers very little protection against the penetration of water, unless both inside and outside head joints are completely filled with mortar.

In laying clay tile, or concrete or cinder block, even when they are used only for back-up work, especial care should be taken to secure full head joints on both the inside and the outside edges of the unit. Either of the following two methods may be used:

One of the reasons bricklayers prefer Brixment mortar is the way it sticks to the tile or block, as shown above. It “stays put.” The bricklayer does not have to stoop to the board for more mortar. You get a stronger, more water-resistant wall. • Brixment mortar is easier to work, saves time, effort, and money. In addition, it has higher water-retaining capacity, greater bonding quality, is more durable. It is this combination of advantages that has made Brixment the largest-selling masonry cement on the market.

LOUISVILLE CEMENT COMPANY, Incorporated, LOUISVILLE, KENTUCKY

AUGUST, 1948 105
FROM THE TECHNICAL PRESS

BY JOHN RANNELLS

FROM OTHER PUBLICATIONS


The adaptability of cold cathode lamps to unusual installations is illustrated by many examples. Tables give color recommendations, lumen output, etc.


Four rooms of the Rosedale School in Austin, Texas, were remodeled and re-equipped recently under the direction of Dr. D. B. Harmon. Daylight control is secured by means of light-directing glass block above the six-foot level and Venetian blinds over the clear glass of the window below. All features of the rooms, decoration, seating, and artificial illumination were coordinated to secure best possible visual conditions and as nearly as possible an ideal environment.

The authors have been making an extended study of the visual environment in these rooms. The present article is a preliminary report, concerned especially with the difficulties of making accurate measurements under daylight conditions.


Mr. Robertson found time, while working as one of the Board of Design of the United Nations headquarters, to look us over rather thoroughly and his account of us to the R.I.B.A. gives us a fresh view, as in a mirror, an agreeable view, not at all critical.

He was impressed with our general freedom from design conservatism in the current commercial work. The "restrained and often classic" character of our public buildings and monuments is something else again: "... symbols of permanence in a world where so much is ephemeral... calm and dignified, their severe brand of neoclassic is timeless in that it is already dated." The American public likes 'em that way, he thinks. We do, at that!

The amount of work under construction and the experimental nature of much of it impressed him too (also the greater productiveness of our mechanics and our higher standards of finish, compared to present British conditions). While he found much to criticize he feels "that American architecture is well on the upgrade."


The National Research Council of Canada has recently set up a Division of Building Research of which Mr. Legget is director. The new division will be particularly concerned with

THE CHOICE OF BUYERS WHO INVESTIGATE BEFORE THEY BUY

WEATHERTIGHT. Special roller crank closing action moves the entire door smoothly and evenly against the stop strips in the last few inches of its downward travel, effectively sealing the opening against dust, dirt, litter, snow, rain, sleet, and wind.

EASY WORKING. Tailored twin-torsion counterbalancing springs accurately support the weight of the door, so minimum effort is required for raising or lowering. Sticking is eliminated by the fast-freeing effect of the closing action.

DURABLE. Barcol OVERdoors give long, trouble-free service because of strong construction, accurate assembly, and good installation by factory-trained men.

DOUBLE-WIDTH FEATURES. Above we show a double-width Barcol OVERdoor as used on a modern two-car garage. The use of wider single doors like this reduces the cost of installation, reduces the mechanism, eliminates the center post, gives more room for maneuvering two cars, and reduces the chances of damaging cars or garage by collision. These advantages are worth considering for every two-car garage door installation, whether new or remodeling.

ELECTRIC OPERATION. Barcol Electric Door Operators are available for swinging, sliding, and overhead type doors, and for sliding gates. They offer the convenience and protection of switch control or the amazing Radio Control.

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106 PROGRESSIVE ARCHITECTURE
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keeping the National Building Code up to date. At present they are assem-
bling all available printed information regarding materials, techniques, and
methods in the building industry so that their active research work can take
advantage of the work done elsewhere. Continued cooperation with other re-
search organizations (especially those in this country) is basic to their pro-
gram. The director has emphasized the
impossibility of drawing a clear line
between architecture and engineering
in building work. The professional staff
of the new division will not be referred
to as architects or engineers but as
"Research Officers."

REPORTS
Forest Products Research Society, Pro-
cedings of the First National Meeting,
Oct.-Nov. 1947. Forest Products Re-
search Society, Box 2010, University
Station, Madison 5, Wis. 344 pp., 7½"
× 10½"
The technical experts concerned with
wood and wood products have formed
their own society, of which this is the
first report. The papers (about half of
the book) cover a wide range of technical
research, engineering, preservation,
manufacturing, etc. This and following
reports will be the chief fund of up-to-
date information on developments in
the wood industry, supplementing the
indispensable reports of the Forest
Products laboratory, members of whose
staff have also contributed to this
volume.

Report on "Panel" or "Radiant" Heated
Test Buildings. C. D. Niven and A. D.
Kent. National Research Council of
Canada, Ottawa, Canada. 25 cents
Two methods of floor heating were in-
vestigated: pipes in an air space under
a sheet-steel floor covered with linoleum,
and pipes embedded in concrete slab on
ground. Heat loss from floor slab to
ground was closely investigated and the
conclusion reached that the slab should
be insulated on the underside for about
eight feet back from the edge. Ventilat-
ing rates of 1½, 3, and 4½ air changes
per hour were studied. No particular
difference in comfort was noted, except
that with the higher air changes the
room felt cooler with the same tempera-
ture reading.
The study includes an unusually com-
prehensive analysis of heat losses.

BOOKS

MASSORY SIMPLIFIED
J. Ralph Dalzell and Gilbert Townsend.
American Technical Society, 850 E.
58th St., Chicago 37, Ill. Vol. I, Tools,
Material, Practice, 387 pp.; Vol. II,
Practical Construction, 408 pp. Illus.,
index.

Designed as texts for student appren-
tices and handbooks for mechanics, these
volumes are packed with everything the
mason needs to know about masonry
materials and related work such as
forms, lintels, floors, waterproofing,
framing, etc. Wonderfully rich in clear
illustrations, the subject is simplified
by complete explanations in plain
English. The authors are evidently very
fine teachers.

HEATING AND VENTILATING
ENGINEERING DATA BOOK
Clifford Strock. The Industrial Press,
148 Lafayette St., New York, N. Y.
515 pp., 8½" × 11". Tables, diagrams,
index. $7.50
An enormous book, loaded with infor-
mation useful to heating and ventilating
engineers and contractors. The most
used diagrams and tables are conve-
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Vertically opening Rolling Steel Doors offer many operating advantages in addition to providing greater protection and longer life. In Mahon Rolling Steel Doors you get all of these advantages plus a greater door value ... this is immediately apparent if you check the details of construction, and the materials employed, against any other door of this type. You will find that Mahon Rolling Steel Doors are designed and built to give trouble-free service for a longer period of time. See Mahon Insert in Sweet's File for complete information, details and specifications.

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☐ Compressors
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Reviews

(Continued from page 108)

nently printed large, for easy use on the drafting board. Unusually complete data are given for many cities in the United States: weather, water supply, temperatures, etc.

SWEDISH STANDARDS ASSOCIATION'S REPORT ON MODULAR COORDINATION


Equivalent to our Project A62, this report covers the recommendations of the building section of the Swedish Standards Association (Byggstandardiseringen). Attention is focused very positively on rationalizing housing construction with a view to bringing down costs. It is taken for granted that the building industry generally will benefit and the Federation of Swedish Industries has, in fact, generously supported the project.

The modular system is worked out with fine logic, arriving at a 10 cm grid. The customary Swedish brick and cement block sizes don't fit in to the system at all but the authors propose modifications which the brick and block industries are investigating. The usual Swedish brick is 'way oversize by our standards (3" x 10" face) and the proposed standard is bigger yet (3⅞" x 10¼" x 4⅞"). With the addition of a ¼ brick the bonding works out surprisingly well and the large brick has proved economical to lay. However, for face brick a half-module course height is proposed (1½" x 10¼" face). Neither of these proposed shapes give the flexibility which we are accustomed to in this country, which we get with our standard brick sizes, either three courses to eight inches or the "Jumbo" three-inch courses. The joint thickness proposed (⅛") also seems excessive.

A slight modification in the usual sizes of lightweight concrete masonry units (now 10" x 20") would make them modular. However, a change to 12" x 16", nominal (center of joints), gives better coordination with windows, etc. Hollow concrete block, now 8" x 12", could be made either 8" x 12" nominal or 8" x 16" nominal. Surprisingly, the joint proposed is about ⅛" for lightweight and about 5/16" for hollow block. The A62 practice seems superior, in that it lets the brick and block manufacturers allow for the joints in terms of their own tolerances.

The chapters on stairs and elevators show full realization of functional needs

(Continued on page 112)
KAYLO INSULATING ROOF TILE is strong—runway shown above supports wheelbarrow traffic during construction.

KAYLO INSULATING TILE is lightweight. Each tile is 2¾ x 18 x 36 inches in size, weighs approximately 21 pounds.

KAYLO INSULATING ROOF TILE can be cut and fitted with ordinary hand or power tools right on the job.

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Kaylo Insulating Roof Tile combines in a single material structural strength, extreme lightness and high insulating ability. Composed entirely of inorganic materials, Kaylo Roof Tile is fireproof.

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Here's the casement operator specifically designed for a lifetime of use. Built of enduring bronze, it can't corrode or rust under the probing fingers of humidity and salt air.

Look at that solid, deep-cut worm... it's solid Bronze! See how the machine-cut teeth of the Internal Gear mesh cleanly... it's "Everdur" Bronze! Crank-handle, operator housing, channel guide and arm are all of solid Bronze, and every important working part is fabricated to close tolerances and permanently lubricated at the factory.

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- Arm, \( \frac{3}{8}'' \) wide, of \( \frac{3}{4}'' \) thick "Everdur" bronze.
- Arm pivots around \( \frac{3}{16}'' \) diameter solid bronze bearing-stud.
- \( \frac{3}{8}'' \) diameter worm, machine cut of high tensile-strength bronze, will give long efficient service. Full length of the worm is engaged at all times with the Internal Gear.
- Internal Gear is integral with operating arm. Teeth are heavy, strong, and accurately machined at exact operating angle.

Notice the powerful worm and Internal Gear construction—exclusive with Getty, pioneers in casement operators.

**No. 4703 W**

Housing and crank handle also available in Zamak Alloy die casting; (41,000 p.s.i.), worm of case-hardened cold rolled steel. Operator is easily installed through a mortise in the screen rail or with a screen seat (a wood strip which runs across the sill and is matted to fit snugly over operator housing). Comes in bronze lacquer finish (EBL) or standard plated finishes.

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**Reviews**

(Continued from page 110)

in terms of housing. Spiral stairs are allowed. Legal minimum story height (9") presents a dilemma if even runs are to be obtained: either 16 risers at 7-5/16" or 18 at 6-5/16". (Legal minimum stair widths in multistory dwellings are about like ours, at 7'11".) Standard-bathroom layouts are given, with modular drainage piping and fittings—almost too good to be true, but it seems to work.

All in all this is an extremely sound study, rather confined in its examples but completely suited to its goal: low-cost housing. If low-cost housing is to be achieved, then variety of details will have to be restricted. This book shows how. It's a beautiful job of bookmaking, too.

J. R.

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**AN INTRODUCTION TO COLOR**


The increasing attention to color effects in contemporary architecture as well as freer use of color photography to interpret the architect's work, suggest uses for this new study of light, color, and vision by a recognized authority in the color field. Added to the (specialized) reference shelf in the architect's office, the book can be a valuable guide to more exact and skillful design in color.

C. M.

---

**RUSSIAN ARCHITECTURE***


The native and foreign architectural currents reflected in the design and ornamentation of notable Russian buildings past and present are traced in this timely study.

C. M.

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**CHURCHES NEEDED**

Nederlands Nieuwe Kerken. G. van Sana, Amsterdam, C., Prinsegracht 676, Netherlands, 1948. 112 pp., illus. $4.00 plus 15¢ postage

On the occasion of a recent exhibition in Amsterdam of designs for new churches for Catholics and Protestants,
Never an Uncomfortable Moment in Our House

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A feature with proved sales appeal to home buyers

The home equipped with B & G Hydro-Flo Heating is truly a haven of luxurious winter comfort! Whether the heat distributing units are radiators, radiant baseboards, convectors or radiant panels, this forced hot water system provides the finest in automatic, controlled heating. B & G Hydro-Flo Heating owes its country-wide spread in popularity to its genuine merit—proved over and over again in thousands of homes! It is the system which affords the instant, positive control of heating so essential to real comfort... delivering just the right amount of heat for any weather condition. No overheating in mild weather and no lack of heat when the thermometer hits bottom. At all times, indoor temperature is maintained steadily at whatever degree is preferred. Naturally this precise measuring out of heat means utmost fuel economy.

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Where a B & G Hydro-Flo Heating System is installed, no separate water heater is required. The same boiler that heats the house also heats the domestic water—not only in winter but all around the calendar! What feature could have more appeal to the woman of the house than a bountiful supply of piping hot water... always ready for kitchen, laundry and bath... day and night.

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Chief Draftsman: "You should talk! Over at the plant you expect my department to produce useful drawings on perishable tracing paper instead of permanent Arkwright Tracing Cloth!"

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Reviews

(Continued from page 112)

this book was published. It opens with a symposium of 12 articles on church design by prominent architects and church authorities. After a discussion of existing churches, there are presented designs for a number of new, conservatively-designed structures to replace the hundreds destroyed or heavily damaged in the war.

C. M.

SOME IMPRESSIONS OF AMERICAN HOUSING 1947


This has been a flying visit. I flew the Atlantic to New York and thence via Boston flew to Washington where the grand manner seems to have run riot. Everything there seems so huge that it simply does not register on the brain. The buildings grouped around the main axis are so far apart, and behind so many boulevards and trees, that the grand avenue cannot be apprehended on any normal scale. The Supreme Court is a vast, frightening building, approached by white marble stairs leading to a kind of Greek portico. The National Gallery, from the point of workmanship, is a most amazing building, but so dwarfs the human scale as to be unable to awaken a sense of awe. The Pentagon is interesting from the point of sheer planning. It is built on stilts, and beneath it is an immense parking place. Everywhere there are dark mezzanine floors. The building is worth studying because, for example, the circulation system is in many ways nearer to our requirements than many others in America.

In Chicago, everything one has ever read or heard about the Middle West is to be found. An elevated railway running around the commercial heart of the city is known as The Loop, and to have an office within the Loop. I can think of nothing more frightful than to have to work all day, with the constant noise of trains rushing past the first floor office window. Chicago is obviously going to be worth-while visiting in a short space of time. Every 25 years or so, a quarter of the city is pulled down and rebuilt. Intended changes have been delayed by the war, but now everything seems ready for a flying start. The scheme is an interesting one. The whole of the main street leading up to the lake shore drives is to be remade, with three levels of road traffic, and building on either side.

(Continued on page 116)
The finest in Terrazzo Art calls for the FIRST and FINEST WHITE CEMENT

The true test of quality in white cement is best exemplified in fine Terrazzo. In Terrazzo, as in no other white cement use, a pure white color is absolutely essential. It governs the background in relation to the beautiful colored marble chips. Over 41 years ago, this company introduced Medusa White, the Original White Portland Cement, which has been used in the most colorful and artistic Terrazzo to be found anywhere. Its white color has been tested with hundreds of different color combinations, backgrounds and marble chips. It has been proved the finest white cement for Terrazzo work.

But Terrazzo is not the only use in which the white color of Medusa has excelled. In its many years of service, this fine white cement has been instrumental in making gleaming white and tinted stucco in countless buildings in almost every civilized country in the world. Medusa Waterproofed White, in addition to making a finer stucco, makes the stucco finish impervious to water. That's because the waterproofing material in the Waterproofed White Portland Cement repels all water at the surface. Dirt is washed off, water cannot enter, freeze and disintegrate the stucco. For a permanent beauty in Terrazzo or Stucco, be sure your specifications call for Medusa White, the Original White Portland Cement.

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**Reviews**
(Continued from page 114)

In Chicago I saw one of the most frightening things in the way of building. The Willow Run Ford plant was well known, but it is outstripped by the Dodge plant. One unit alone covers 89 acres under one roof, and employs 90,000 persons per shift. It took 20 minutes to go round it in a small car followed by policemen on tricycles. This reinforced concrete shell construction was an Albert Kahn job. One feels completely overshadowed by this frightening building. Within it one rarely saw natural lighting, and was surrounded continually by machinery, darkness, and noise. The manner of handling it is impressive. Workers are organized to travel by buses of certain numbers and colors and they eventually come up beneath the building within 50 feet of the machine where they are to work.

The Technical Institute building in Chicago is being erected at the moment. The construction is traditional, intended to be functional, simple, and, because sponsored by grants, economical. Yet the result is so complicated in its simplicity that it does not make sense.

In Cleveland I saw the Research Institute for the General Electric Company of America. They deal with everything from the Roosevelt battleship to oven stoves. Seen from the point of view of this country (England), one feels one has taken a trip of about ten years into the future.

Boston, I found disappointing, but I saw much small housing in and around it, especially around Cambridge.

The trip was a superficial one, and in consequence my impressions about housing are also only superficial. From coast to coast and from north to south, I observed a remarkable lack of it. Statistics collected by Catherine Bauer show that there is an even greater housing shortage in the United States than in this country (England). After VJ day, GI housing was specially boosted, but very little has happened, principally owing to cost. Houses of 1,500 square feet limit were allowed, but no limit was set on specification or cost. A certain house which was built within the 1,500 square feet limit, though an additional license had been obtained for the cellar and garage, but exclusive of landscaping, was costing over £20,000. It was equipped with every possible luxury device, including marble plunge bath, special electrical fittings, push-button radio in every room, built-in electric barbecues. The 850-foot GI housing is of fairly high standard—certainly as regards fittings and kitchen equipment higher than ours—and it includes central heating. A house of this type costs £3,000;
The flare of a facade is short-lived. The success, or failure, of a building’s adaptability lives as long as the building. The all-over electrical availability of Q-Floors provides almost unlimited adaptability to mechanical change. This enables the building to remain continuously modern.

The entire exposed area of a Q-Floor can be tapped for electrical outlets. The cells of Q-Floor, a steel subfloor, are crossed over by headers. These carry wires for any type of electrical service. An electrician drills only a small hole wherever needed, installs the fitting on any six-inch area in a matter of minutes.

Outlets and partitions can be located after the building is tenanted. This permanent flexibility of floor layout protects the building against electrical obsolescence. Incidentally, it protects you against drafting room headaches.

Here are answers to the most usual questions:

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**Availability of steel**—you have to allow time for demolition and excavation. By then, based on our experience, the steel will be ready. That Q-Floor is being specified for the biggest buildings of the postwar is additional proof.

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You can see Q-Floor fittings at any General Electric construction materials distributor’s. For details about Q-Floor’s light weight (less than forty pounds per sq. ft. including suspended ceiling) and its four-hour fire rating, see a Robertson Representative or write—

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Reviews (Continued from page 118)

apparently the average economic limit which a GI can afford is something like $7,000. He can only get a house for $12,000. Result: No GI housing.

In Baltimore I saw some speculative housing. Row housing is handled in an interesting way, and is obviously economic. All houses are built with cellars for heating plant, laundries, etc. One of the great influences in American housing is the universal acceptance of central heating on open planning. It has a definite bearing on the economic aspect. For instance, where there are children in the house, they do not simply have a chilly bedroom to which they retire at bedtime. The children's rooms can be used as sitting rooms and playrooms, because the whole house is warm.

The apparent finish of all American houses is impressive. The use of timber frame has distinct advantages. Americans laugh at our plumbing systems, with pipes festooned on the outside of the houses. One sees nothing of this over there. All they have to do is to bore holes and rip through frames to conceal their pipes. One never sees anything exposed.

American housing is very informal. Many pre-war and new houses have this open character, which appears very attractive, though as a place to live in I am not sure that I altogether care for it.

The extreme limit of what I saw was the Carl Koch house at Cambridge, Mass. They are so shoddily built as to be almost fantastic. There is a high superficial finish, but a lack of quality. This peculiar lack of quality runs through everything American. The design and detail of their motor cars are probably very thorough, and they are comparatively well made. But the materials are rubbish. It is a typical result of the overproduction for overconsumption policy. One sees the results of scrapping the old for the new, in the enormous dumps on the fringes of towns everywhere.

Parkchester, the Metropolitan Life Insurance Housing scheme, near New York, was intended as low-cost housing for the black-coated worker. One gets amazing finish and equipment, with hot water, electricity, and gas thrown in. The ground floor is occupied by branches of the downtown departmental stores, where the housewife can get the same article as in the main store in New York. This decentralization of stores is also being done in Washington and Baltimore, and has the useful result of saving a certain amount of traveling, and easing traffic congestion.

After a lot of trouble, I found the minimum-cost housing in New York. Elliott Housing, right down on 10th Avenue,
Anaconda
THROUGH-WALL
FLASHING
drains itself dry
on a level bed

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herever through-wall flashing is
specified, as at parapets and in masonry walls,
this patented Anaconda flashing offers both ef­
ciciency and durability. The design of Anaconda
Through-Wall Flashing provides a complete
mortar bond and prevents lateral movement in
any direction.

Sheet metal men like the die-stamped dam
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and faster to lay. End joints are made simply by
overlapping and nesting one corrugation. The
flat selvage permits neat, sharp bends for
counter flashing, without danger of distortion
that might inhibit drainage. Die-stamped cor­
nor pieces (for both inside and outside corners)
are nested in place as easily as the straight
lengths.

Since it "drains itself dry on a level bed,"
Anaconda Through-Wall Flashing provides
positive, controlled drainage. For detailed in­
formation, see our file in Sweet's.
JLW. Faber's quick-action (black or colored) LOCKTITE drawing pencil with a flip of the thumb.

1) Patented collet to hold lead in bulldog grip.
2) One-hand clutch operation to avoid touching lead and smearing fingers.

These are but two exclusive features which make LOCKTITE the favorite of professional men. Collet prevents lead breaking or slipping. Try this clean, balanced, sturdy mechanical beauty and you will surely want to own it.

Holds all standard graded drawing or retouching leads. Winner Techno-TONE No. 1930 assures best results.

ALSO AVAILABLE IN RED, BLUE, GREEN, YELLOW, CARMINE, ORANGE and WHITE—holding hardy WINNER Techno-TONE crayon leads for coloring, sketching and checking.

Black in degrees 4B to 9H. Sold at Stationers', art and drawing supply stores, photo supply shops and Blueprinters.

E. T.

NEW LOCKING PUSHBUTTON

FOR NURSES' CALL BEDSIDE STATIONS—this newest addition to the Cannon hospital signal system line incorporates all latest features of a locking pushbutton of the reset type. Ideal for replacement on systems equipped with old type buttons.

TYPE HLS
(Pushbutton only)
RESET TYPE

Type HLS has a minimum of moving parts. Small, light, nonbreakable plastic shell and transparent button with metal end bell. Cord entrance is provided with a fatigue rubber grommet—an exclusive feature! Reset by slight upward thumb action.

Reviews

(Continued from page 118)

has every known grant and subsidy that the State could produce, and rentals are based on an elaborate system which really amounts to a sort of means test. The flats are simply incredible. It is as if someone had taken the average British working class scheme, and stripped it of everything. The closet is nothing more than an open cupboard, in front of which the housewife is encouraged to hang a curtain. The kitchen fittings are little more than ammunition boxes. The finish everywhere is awful. Nothing is plumb or level. The metal windows must have been rejects from the cheapest mass-produced articles. Hinges, catches, fastenings are of the thinnest gauge stamping, and obviously will not last long. The maintenance on these flats is going to be terrific.

The American building industry is in a state of chaos, even in comparison with ours. The extravagance is beyond belief. I wanted to study American building organization, but came to the conclusion that it simply does not exist. Two skyscrapers were going up while I was there. Drawings for a Park Avenue skyscraper scheme were being prepared by a firm of well-known architects within six weeks, and during this time they must have had their 200 draftsmen employed on nothing else. They had done it to beat the new building regulations. Waste everywhere is incredible. I saw on the floors of Rockefeller Center enough cement to build several houses. It was being sucked up with an enormous vacuum cleaner and blown to waste. While I was there, an enormous truck with a trailer on it came in with about 100 window radiator panels. These were whisked off the truck by mechanical means, in the course of which about 20 were broken. These were chucked back again, and driven away to be thrown out on a dump on the way back to the plant. No wonder one sees these graveyards of broken cars and equipment round all American cities.

The building industry is principally engaged on work other than housing, such as shop fronts, because of their commercial income tax. For a job over £1,500 or £2,000, application has to be made to the union, which decides how many men may be used, and for how long. They even fix the size of brush a man may use. We know nothing of restrictive practices as they know them over there.

I returned from the trip exhilarated, and determined to demand a higher and ever higher standard of finish. Our standards sunk low through the war, on first-aid repairs, but are now beginning to improve. I feel also that, despite the weakness of our present building restrictions, some form of rationing makes sense.

E. T.
It's the **Tops**

**that take the wear**

DECORATIVE MICARTA — made by WESTINGHOUSE — gives you a durable, economical, ever-beautiful surface for table tops, bars, booths, walls.

When you need a practical working surface that must combine beauty with durability and convenience, be sure to specify Decorative Micarta. Only then will you get all 10 of these important advantages:

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4. **Quickly and easily cleaned,** because of its permanently smooth surface.
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10. **Large 4 ft. by 8 ft. sheets** of Decorative Micarta are available for covering large surfaces quickly, and with a minimum of joints. Smaller sizes also available for table tops and similar applications.

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AUGUST, 1948  121
YOU PROVIDE YEARS OF PROTECTION for Masonry Walls
WHEN YOU SPECIFY Cabot's Clear Waterproofings

Cabot's time-proven waterproofings protect masonry from efflorescence, prevent spalling and disintegration and interior leakage, due to moisture absorption. They actually penetrate deep into the surface of the masonry and completely seal voids and pores.

Walls treated with Cabot's Clear Waterproofings are still moisture proof after twenty years of rough weather!

APPENDIX A


KENTUCKY: Board of Education v. Elliott, 276 Ky. 793, 125 S.W. (2d) 753.


TEXAS: Clark v. Ends, 155 S.W. (2d) 1019.


APPENDIX B

ALABAMA: Code, 1940, Title 45, Sec. 8-20, 1945 Cum. Supp.

ARKANSAS: Code, 1939, Secs. 2-32. 1946 Supp., Sec. 15.


FLORIDA: Stats. Annotated, 1946 Supp. Vol. 15, Secs. 457.01 to 467.17; 485.01 to 485.03.

GEORGIA: Code, Annotated, Title 84-301 to 84-321, 1945 Supp. Title 84-316.

IDAHO: Code, Annotated, 1932, Col. 3, Secs. 53-401 to 53-410; 65-2801 to 65-2823.


MAINE: Laws 1945, Ch. 356, Sec. 1-19. Amendment to R.S. Ch. 15, Sec. 27.


MASSACHUSETTS: Annotated Laws, Vol. 1, Ch. 3, Secs. 44A-44D; Vol. 1, Ch. 12, Secs. 60A-60M. Supp., 1946, Vol. 4.


MONTANA: Revised Codes, Annotated 1935, Ch. 277, Secs. 2229-3240.


NEW JERSEY: Stats. Annotated, Title 45, Ch. 3, Secs. 1-5, 7, 11-16. 1946 Supp. Ch. 3, Secs. 6, 8, 9, 10.


RHODE ISLAND: General Laws, 1903, Ch. 410, Secs. 1-25.


POCITO: General Laws, 1936, Ch. 401, Secs. 1-25.


(Continued from page 88)
IT HAS EVERYTHING . . . INCLUDING TELEPHONE RACEWAYS

Nowadays even the smaller homes have telephone raceways. When telephones are installed, these raceways assure the owners of telephone convenience without exposed wires on walls and woodwork.

Installed during construction, telephone raceways cost little extra. In one-story homes without a basement, a few pieces of pipe or electrical tubing under the floor or above the ceiling will provide a clear path for telephone wires to outlet locations.

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BELL TELEPHONE SYSTEM
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(CONTINUED FROM PAGE 122)

SO. DAKOTA: Code 1939, Vol. 1, Title 18, Ch. 1801, Secs. 18.0103-18.0107, 18.0108. Ch. 18.02, Secs. 18.0204, 18.0205, Ch. 18.09, Sec. 18.0901. Secs. Laws, 1941, Ch. 91, Secs. 18.0101-18.0102, 18.0108.


Utah: Code Annotated 1943, Title 79, Ch. 1, Secs. 79-1-1 to 79-1-39. Ch. 2, Secs. 79-3-1 to 79-3-7. Laws 1943, Ch. 81.

VIRGINIA: Code, 1942, Annotated, Title 26A, Ch. 125A, Secs. 3143b-3145r. 1946 Supp. Sec. 3145a.

WASHINGTON: Rev. Stats, Annotated. Title 54, Ch. 2. Secs. 8270-76. Title 75, Ch. 1. Secs. 10853-10864, Sec. 10893.


APPOINTMENTS

GARRETT ECKBO, of the firm of Eckbo, Royston & Williams, Los Angeles and San Francisco, Calif., has been appointed to direct the newly established curriculum in landscape design at the College of Architecture, University of Southern California. The curriculum, which will lead to the degree of B. S. in Landscape Design, emphasizes analyses and re-evaluations of the theory and practice of landscape design in relation to present-day environment. The courses will be integrated with those in architecture.

TURPIN C. BANNISTER, dean of the School of Architecture and Arts, Alabama Polytechnic Institute, has been named head of the department of architecture, University of Illinois. He will assume his new position on September 1st, succeeding Professor Loring H. Provine, who is retiring.

COMPETITION

Six design-research teams will conduct technological research on methods and materials in connection with the INTERNATIONAL LOW-COST FURNITURE COMPETITION. The teams are as follows: Marcel Breuer, U. S. Forest Products Laboratory; Charles Eames, University of California at Los Angeles; Carl Koch, Massachusetts Institute of Technology; Robert E. Lewis and James Prestini, Armour Research Foundation, Illinois Institute of Technology; Donald A. Wallance, Midwest Research Institute and Yale University School of Forestry; and Harry Weese, Armour Research Foundation, Illinois Institute of Technology. Each team will publish an account of its work, the best account to be awarded a $2,500 prize. In addition to the prizes totaling $65,000, previously announced, a further award of $5,000 has been contributed by the Simmons Company for the best design for a dual-use upholstered unit, for use as sofa by day and bed by night. The competition, sponsored by the Museum of Modern Art, 11 W. 53rd St., New York 19, N. Y., closes on October 31, 1948.

CHANGES OF FIRM NAMES

MAURAN, RUSSELL, CROWELL & MULLGARDT, changing firm name to RUSSELL, CROWELL, MULLGARDT & SCHWARZ, 1020 Chemical Bldg., St. Louis 1, Mo.

ALLEN, KOEHLER, STEFES, NAROVEC, ARCHITECTS, firm dissolved. MAUREY LEE ALLEN, ARCHITECT, will complete all commissions and will continue to practice at Zuelke Bldg., Appleton, Wis.

Whether you are an architect, an engineer, a draftsman . . .
even a store executive . . . you will find in this book much of
direct and practical value. A down-to-earth approach,
which is the guiding principle in all the volumes in the Progressive
Architecture Library, plus the author's extensive experience,
assures you of the best, most comprehensive and complete information
on store design. The author covers scope and character of
design for merchandising; analysis of business and space requirements;
the small store, the large store, city and highway location . . .
as well as structural design, materials,
shopping-street development, investment values.
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**WANTED**—experienced architectural men, also a specification writer. Excellent positions for right men. Old, established firm with statewide general practice. Give age, education, experience and salary expected. Tinsley, Higgins & Lighter, Liberty Bldg., Des Moines, Iowa.

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Architectural Draftsman—experienced; work on schools and other public buildings. Attractive permanent position for right man. Information as to education, age, experience and salary expected. Small community-housing available. Myers Jordan, 81 West Main Street, Richfield Springs, N. Y.

WANTED—Experienced heating engineer for permanent position who can make heating layouts and write specifications for all types of buildings. Send outline of education, training and experience with samples of work and salary requested. Marr and Holman, Architects, 702 Stahlman Building, Nashville, Tenn.

WANTED—Experienced architectural designer for permanent position. Please submit outline of education, training and experience along with samples of work and annual salary requested. Marr and Holman, Architects, 702 Stahlman Building, Nashville, Tenn.

**ARCHITECTURAL FIRM**—in North Carolina wants architect thoroughly capable of taking charge of office, produce working drawings. Churches, schools, hospitals. Excellent opportunity for the right man to become member of firm. Reply to Box 156, PROGRESSIVE ARCHITECTURE.

**ADDITIONAL INSTRUCTORS**—in architectural design, structural design, and related courses are needed at the schools of architecture for the fall semester. Those interested in a career in the teaching profession should apply to Professor Paul Weigel, chairman of the committee on employment for the Association of Collegiate Schools of Architecture, Kansas State College, Manhattan, Kans.

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System Weathermakers give a store the advantages of efficient, customized air conditioning with all the convenience and economy of an easily installed, factory-assembled unit. They are available in a choice of capacities to meet the exact needs of individual stores. They can provide winter heating as well as summer cooling.

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You'll want the new folder that describes this quick, sure way to get insulation "built right in" with your structural roof deck, in one material, one application.
SAN FRANCISCO, CALIFORNIA. The presentation dinner of the Annual Progressive Architecture Awards was held in this center of architectural progress on June 1st. The Award was presented to Ernest Kump and his engineer partner, Mark Fulk; a certificate went to United Airlines, the client; and a number of the architects who won Mentions from this year's jury were present to be recognized. It was a good party; I wish you all could have been there.

For a week afterward Ted Hunter of New Hampshire, Dick Aeck of Georgia, and I wandered around the Bay Region under the direction of the local architects and gaped at the wonders. Among the things that impressed us were the cable cars at rush hour, Gardiner Daily's Red Cross Building, cracked crab on Fisherman's Wharf, Kump's Naval Ordnance Building, the view from the Top of the Mark, two recent houses by Albert Henry Hill, and, to be brief, serious progress in many architectural directions by many architects.

MONTEREY, CALIFORNIA. A great deal of activity is evident in this and the adjoining town, Carmel, which between them occupy what must be the most beautiful stretch of sea coast along either ocean. One of the interesting developments is the appearance of the young enthusiast, Gordon Drake, who has moved to the region from L03 Anh, and I am sure will come to useful fruition. More about this in time.

LOS ANGELES, CALIFORNIA. Perhaps a week wasn't time enough to allow for the climate and the general atmosphere to take its effect. I left L.A. with a feeling of rather complete confusion. Never has there been such a rapidly growing, sprawling, complex urban development. Most of the local people love it; some recognize it as a city which is strangling itself more rapidly than any city planner believed possible. To me the distressing thing is that the city, having filled the plain, is creeping up into the hills and depositing itself in the same small plots that one sees in any subdivision. It is a trite remark, but true that Hollywood (the industry, not the city, which no longer exists as an entity) has succeeded in giving a theatrical air to the town and its people, so that even some very good architects can't seem to resist artificial design. There is too much work that looks good but is poorly detailed and poorly built. I don't mean to imply at all that everything is bad in the town and its surroundings; that would be far from true. Alongside the house that required 27 sheets of structural details to accomplish the "effect" that the architect wanted, sits the simple straightforward conception that won Raphael Soriano a mention in the awards this year. It's a great town: perhaps it's best epitomized by the picture Life ran showing Nature Boy riding a bicycle past an excellent housing group designed by Gregory Ain.

PORTLAND, OREGON. Whatever pictures you saw of the floods didn't begin to show the real devastation or imply the magnitude of the loss of homes, belongings, income, or investment. To me the heart-rending sight was not Vanport—perhaps I had been prepared for that tragedy which had been almost inevitable from the day the town was planned there—it was rather the isolated farm with the roof of the house, and the ridge of the barn, and the top of a few trees sticking up above the muddy waters which were slowly but surely carrying away the top soil. The lessons in the need for flood control and the need for a long range housing program were too dramatically illustrated for my taste.

Architectural news in Portland centers in Pietro Belluschi's two new office buildings—the aluminum and blue glass Equitable Building, and the limestone-faced Oregonian Building. The glittering Equitable is a mighty handsome structure, but perhaps I'm just an old conservative—I liked the scale and the texture of the Oregonian better. Belluschi's work (in quantity as well as quality it is tremendous!) dominates the local scene, which is perhaps unfair to the rest of the many excellent architects in town. I admired the spirit of the local A.I.A. Chapter, and I certainly enjoyed the way Frank Roehr and Jim Barnes, president and secretary, respectively, of the Chapter, guided me around town to see the work of all the designers, even to the extent of arranging a speedboat ride on Lake Oswego to see some otherwise inaccessible houses.

SEATTLE, WASHINGTON. I think that very few places in the country could compete with this city in the general level of architectural progress. In most places you have to hunt for the samples of good contemporary work—in Seattle you see good work, if not excellent, on all sides as you tour the town and its environs. There are the established people like Chiarelli & Kirk, Paul Thiry, and Donald Williams; there is the war-born combination of Naramore, Bain, Brady, & Johnson; there are the newer firms like Bassett & Morse, and Tucker, Shields, & Terry, and I've left out many names—but the point is that the work of these people is evident in the residential areas, the college area, and, to a lesser extent, in the commercial section. The COPA group which I wrote about in the March 1948 P.S. column is a live, active organization, ably supplementing the work of the local A.I.A. Chapter.

Fortunately for me, Phyl Dearborn, the photographer (now Mrs. Bob Masar, having plucked one of the partners out of the firm of Bliss Moore & Associates) moves her center of operations from New York to Seattle in the summer, and I couldn't have asked for a more thorough or objective guide.

SALT LAKE CITY, UTAH. I'm terribly sorry, but I'm afraid that I can't report on the architecture of this city. The A.I.A. Convention (see PROGRESS REPORT on page 14) was such a notable gathering of interesting people that I found it impossible to move beyond the interior of the Hotel Utah. I wasn't the only one who felt this way—I asked Hugh Stubbins one afternoon if he and Mrs. S. were going on a scheduled sight-seeing trip, and he said, "Gosh, I don't know—do you think I'll miss any fun here in the hotel?"

The Utah liquor laws make it necessary to refresh oneself in a private room, with the result that all free moments were spent drifting from 927 to 643 and then to 418 etc. Many weighty questions were settled in such convivial gatherings. One of the pleasant aspects of the convention was a student delegation, and I recall one night that ended up as a dormitory, telling wonderful stories far into the night. That is a part of architectural education that most students miss.
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