

STACKS

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AMERICAN ARCHITECT

FOUNDED 1876

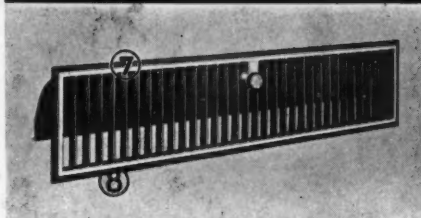
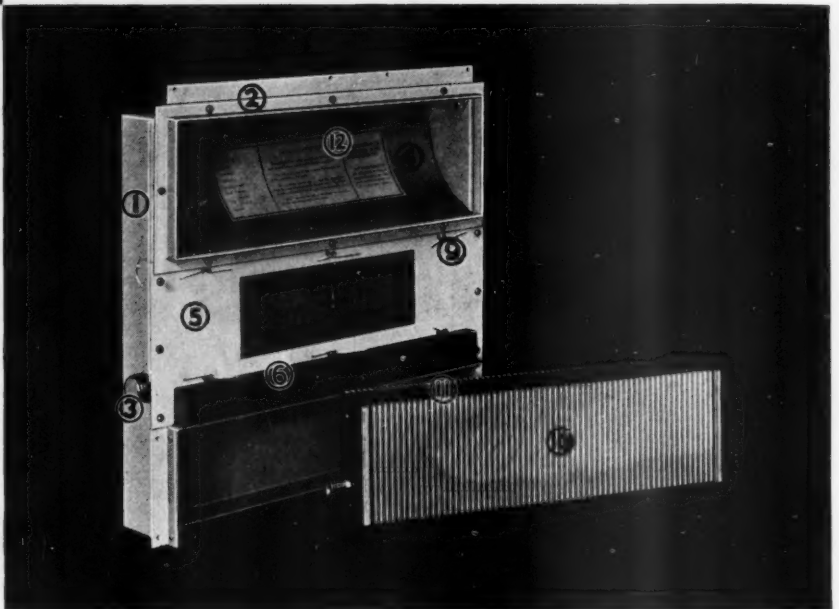
March 1932

COMPLETE and READY TO INSTALL WITHIN THE WALL



...scientifically engineered
for proper heating results

1. Sheet steel cabinet scientifically designed to maintain proper ratings and capacities.
2. Cabinet flanged at edges to provide means for securely fastening cabinet to building construction.
3. Temporary cap to protect radiator opening and threads from damage before installation.
4. Shield to protect heating element during construction—prevents dirt and plaster from dropping into heating element and impairing heating efficiency.
5. Sturdy front panel construction prevents damage of plaster due to pressure.
6. Wood strip above inlet opening provides for nailing.
7. Grille and damper unit fastened to frame itself and not screwed to a wood brick or plaster.
8. Felt strips to prevent leakage around grille.
9. Wire ties on front of cabinet for direct fastening of metal lath.
10. Patented Wedge Core Heating Element—light, strong, compact, free from joints to fail and leak or parts that can rust or get out of order.
11. Free air passage through radiator assures quick, uniform heating of air.
12. Instructions on correct installation.



Competent architects are avoiding "built on the job" and makeshift methods of concealed radiation. They know that only a scientifically designed, properly installed unit can produce the heating results their clients have a right to expect.

One unit, the Herman Nelson Invisible Radiator, is giving such results in thousands of installations throughout

the country. Many architects recognize it as by far the most practical concealed unit ever built.

The Herman Nelson Invisible Radiator is carefully designed according to proved principles of heating. It is sturdily built and furnished as a complete unit—ready for installation.

Note, above, some of the many features that set the Herman Nelson Invisible Radiator apart from all other heating units. For further information, get in touch with our nearest sales office or write us. The Herman Nelson Corporation, Moline, Illinois.

HERMAN NELSON Invisible RADIATOR

Factory at Moline, Ill. Sales and service offices in principal cities

Manufactured by the originators and pioneers of Univent Ventilation, the Her-Nel-Co System of Ventilation, the Invisible Radiator, and other heating and ventilating innovations that have received world-wide recognition.

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Springfield,
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Wheeling
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Toronto
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Shanghai

COMBINING

Beauty

WITH

PERMANENCE



Entrance detail of the New Steel & Glass Office Building of The Worcester Pressed Steel Co., Worcester, Mass.—J. D. Leland and Company, Architects and Engineers.

IN ALL-STEEL CONSTRUCTION

MODERN Architecture has here created an unusual treatment of exterior beauty with which has been combined the rugged strength and enduring utility of all-steel construction. » » » In its every detail, this all-steel office building of the Worcester Pressed Steel Company has been designed and built for lasting utility. From its impressive steel exterior to its every hidden construction detail, the finest of steel products assure permanence in its fullest meaning. » » » As in the thousands of other fine buildings throughout the country, Youngstown Steel Pipe here, too, plays an important part in this assurance of lasting utility which is typical of modern construction.

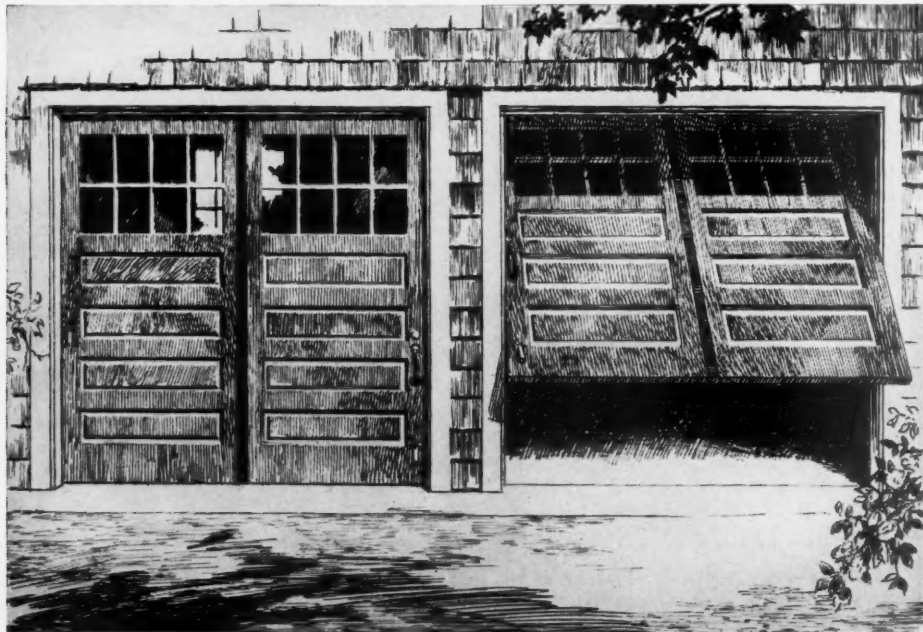
The YOUNGSTOWN SHEET & TUBE CO.

ONE OF THE OLDEST MANUFACTURERS OF COPPER-STEEL, UNDER THE WELL-KNOWN AND ESTABLISHED TRADE NAME "COPPEROID"

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GALVANIZED SHEETS PROTECT » » » SAVE WITH STEEL

Garage doors *float* into position



with the new
Stanley "Swing-Up" Equipment

For new construction or for modernization of old, consider the new Stanley "Swing-Up" Hardware Equipment. It fits two standard 4' x 8' doors and can be applied in as little time as ordinary hardware — often less time.

No working hardware visible or exposed to the weather . . . doors are perfectly balanced, may be left in any position . . . doors "float" into open or closed position . . . the only equipment of its kind which *locks* in the open position positively eliminating the possibility of accidental closing . . . requires no headroom above top of door . . . when closed, doors are absolutely weather-tight.

Full information on Stanley "Swing-Up" Equipment is available on request.

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Stanley "Swing-Up" Equipment is sold *only* through your local dealer — the same source of supply that helps you with all your hardware problems.



THE STANLEY WORKS
NEW BRITAIN, CONN.

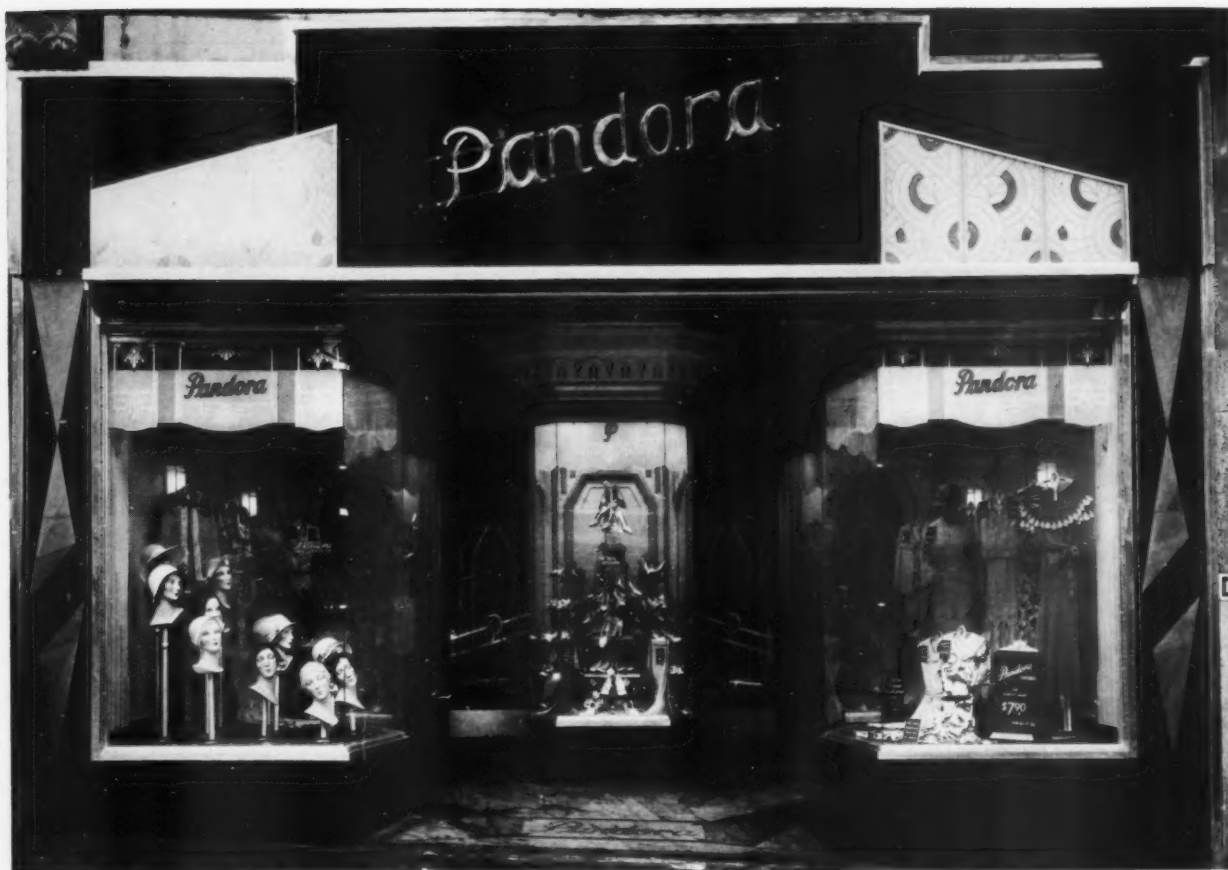


Specify Stanley
"Swing-Up" Equipment

For new private garages and for modernization of old ones.

STANLEY GARAGE HARDWARE
FOR EVERY TYPE OF DOOR

American Architect, published monthly by International Publications, Inc., 57th Street at 8th Avenue, New York, N. Y.; Yearly subscription \$5.00. Entered as second class matter, April 5th, 1926, at the Post Office, at New York, N. Y., under the act of March 3rd, 1879. Issue number 2605, dated March, 1932.



Pandora Dress Shop, Kansas City, Mo.
An interesting Desco Store Front installation.

Desco **METAL STORE FRONTS**

REG. U.S. PAT. OFFICE

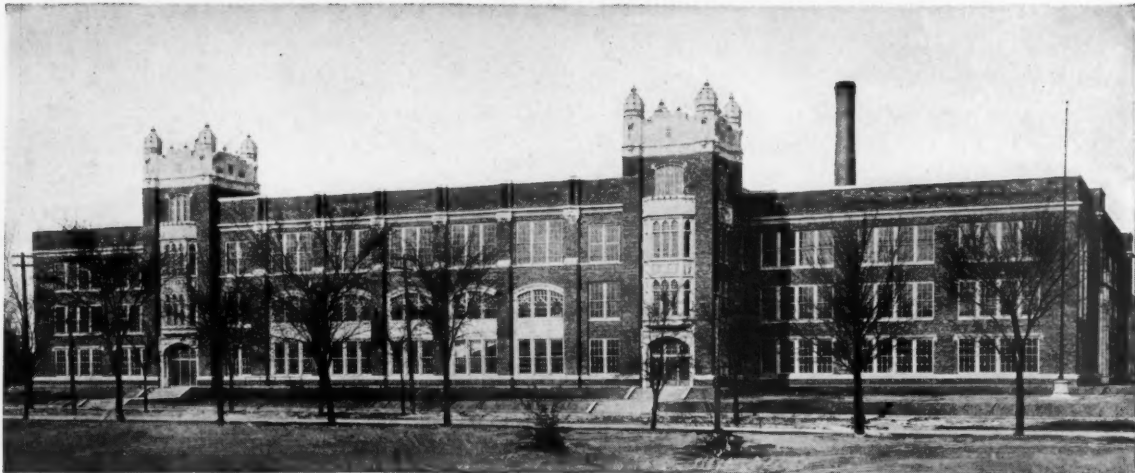
Will Attract Tenants for Your Clients

For full architectural details see Sweet's catalog. Write us for complete working data and price list. Remember, too, wherever you are there is a distributor near you. We also carry a complete line of "Desco" construction material in our New York City Warehouse.

Your interest in a project doesn't end with the erection or remodeling of the building. You want to see that building rented. Then why not specify Desco Store Fronts and achieve a handsome modern type of display window that will influence prospective tenants toward the desirability of the location? Manufactured in a wide variety of metals, including solid copper, solid bronze in all standard finishes and aluminum alloy (white metal), Desco Store Fronts will harmonize with any building design. Then, too, they have the additional quality of flexibility which protects the glass against abnormal wind pressure. Insure beauty and rentability for all your store jobs by recommending Desco Store Fronts.

DETROIT SHOW CASE CO.
 1670 WEST FORT STREET DETROIT, MICHIGAN

New York City Office and Warehouse: 344-346 East 32nd Street
 Philadelphia Office: 316 Commonwealth Building
 Pacific Coast Office: 450 Skinner Building, Seattle, Wash.



Fine schools deserve fine plumbing fixtures

Educational institutions are judged not merely by their class-room accomplishments but by their appointments. Not only faculties *but facilities* must be of recognized worth and in keeping with this thought Te-Pe-Co recommends the Penn Blow Out Urinal for Toilet rooms where it is desired to keep all piping above the floor. It affords ample room—measuring 18 inches in width, is cleanly, durable and *cannot be clogged*.

Its flushing rim, large water surface and jet action assure a positive and thorough cleansing of the entire inner surface. The entire trapway being larger than its opening in the bowl will obviously pass anything that enters it. Projecting but 13 inches from the wall it requires little floor space and leaves a clear unobstructed floor that is easy to keep clean.

School Executives and Architects may find many worth-while ideas relative to school sanitation by submitting to our Engineers their specific problems.

THE TRENTON POTTERIES COMPANY Trenton, New Jersey, U. S. A.

Showrooms:

New York City, 101 Park Avenue, Entrance on 41st St.
Philadelphia, Architects' Building, 17th & Sansom Sts.

Branch Offices: Boston, Chicago

Export Office: 115 Broad Street, New York City

TE-PE-CO

All Clay Plumbing Fixtures

OUR GUARANTEE . . . We make but one grade of ware—the best that can be produced—and sell it at reasonable prices. We sell no seconds or culls. Our ware is guaranteed to be equal in quality and durability to any sanitary ware made in the world. The Te-Pe-Co trade mark is found on all goods manufactured by us and is your guarantee that you have received that for which you have paid.



The Penn Urinal is sold under Catalog No. 6551 T. Projecting only 13 inches from the wall it may be set to any height depending upon the age of the pupils having access to the toilet room.



AMERICAN ARCHITECT

Monel Metal brightens the kitchen of Long Island's new "Telephone Headquarters"

● The well-appointed kitchen of the beautiful new Long Island "Headquarters Building" of the New York Telephone Company offers a pertinent example of how progressive architects specify modern food service equipment. Throughout this modern kitchen, Monel Metal units were specified and installed to insure scrupulous cleanliness and lasting attractiveness!

Monel Metal food service equipment, with its cheerful, silvery lustre, radiates wholesome cleanliness. Its bright, modern appearance is in keeping with the highest standards of kitchen sanitation and efficiency. This solid Nickel alloy has a glass-smooth surface that will never rust and is easy to clean and keep clean.

Monel Metal food service equipment is the best investment from the standpoint of low maintenance cost. Strong and durable, with no surface coating to chip or wear off, it retains its original attractiveness and serviceability through years of severe use and abuse. Monel Metal equipment pays worthwhile dividends in savings on repairs and replacements!

Monel Metal literature specially designed for architectural reference files, will gladly be sent on request.

Monel Metal is a registered trade mark applied to a technically controlled nickel-copper alloy of high nickel content. Monel Metal is mined, smelted, refined, rolled, and marketed solely by International Nickel.



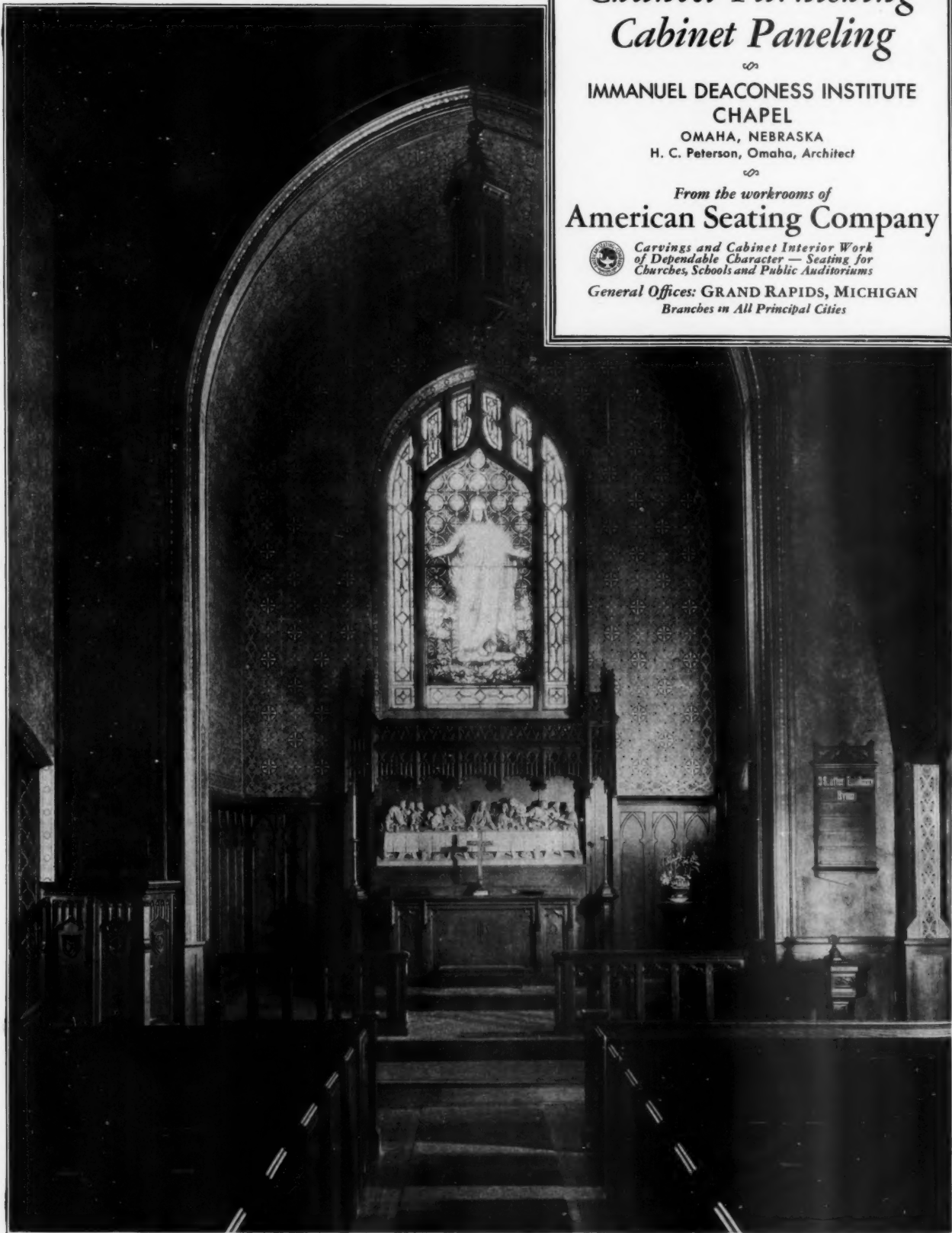
Headquarters Building, Long Island Area, New York Telephone Company, Brooklyn, N. Y. Architect: Voorhees, Gmelin & Walker, New York. Monel Metal kitchen and cafeteria equipment installed by Bramball, Deane Co., New York.



Part of the Monel Metal food service equipment in the cafeteria. This installation also includes the following Monel Metal and Nickel units: Ice cream cabinet (Frigidaire Corp., Dayton); Pure Nickel steam jacketed kettles (Lee Metal Products Co., Philipsburg, Pa.); Vulcan ranges and ovens (Standard Gas Equipment Co., New York); Refrigerators (Jewett Refrigerator Co., Buffalo); Slicing Machines (U. S. Slicing Machine Co., La Porte, Ind.); Dishwashers (Champion Dishwashing Machine Company, Erie, Pa.).

THE INTERNATIONAL NICKEL COMPANY, INC., 67 WALL ST., NEW YORK, N. Y.

FOR MARCH 1932



*Pew Seating
Chancel Furnishing
Cabinet Paneling*

IMMANUEL DEACONESS INSTITUTE
CHAPEL

OMAHA, NEBRASKA
H. C. Peterson, Omaha, Architect

From the workrooms of
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General Offices: GRAND RAPIDS, MICHIGAN
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American Seating Company, Grand Rapids, Michigan



The Government Provides Walking Safety—

A Post Office Lobby Floored with Alundum Aggregate Tile



THE lobby serves a busy, first-class rated post office and is the entrance way to the many federal offices in the floors above. The buff tone of the precast Alundum Aggregate Tile harmonizes pleasingly with the dark marble strips and diamonds and the green and white marble of the walls.

Moisture tracked in on stormy days will not lessen in the least the non-slip effectiveness of this Norton Floor.

T-308

NORTON COMPANY, WORCESTER, MASS. — Grinding and Lapping Machines • Grinding Wheels, Abrasives, Pulpstones, India Oilstones • Laboratory Ware, Refractories, Porous Plates • Non-slip Tiles, Treads and Aggregates

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**time proven recommendations
covering service adaptability for
every type of built-up roofing**

The twelve Carey Master Specifications for built-up roofing are condensed in form, yet complete in detail. They show construction drawings, material and application data and definite recommendations for each type, i. e., Asphalt, Asbestos or Tar construction; Slag, Gravel, Mica Quartz Mineral or Asphalt surfacing.

Correct adaptation of built-up roofing assures permanent satisfaction in service. Reference to Carey's twelve Master Specifications, shown in Volume A of Sweet's 1932 Catalog, Pages 677 to 701, will be of valuable assistance in determining the correct type of roof construction to meet any service condition.

THE PHILIP CAREY COMPANY

Lockland, Cincinnati, Ohio

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Carey Built-up Roofs include...

Slag or Gravel Surfaced Roofs

(Bonded for 10 and 20 years)

- (a) Asphalt Saturated Rag Felt construction
- (b) Tar Saturated Rag Felt construction
- (c) Combination Asphalt Impregnated Asbestos and Asphalt Saturated Rag Felt construction
- (d) Combination Tar Impregnated Asbestos and Tar Saturated Rag Felt construction

Mineral Surfaced Roofs

(Bonded for 10 and 20 years)

- (a) Asphalt Saturated Rag Felt construction
- (b) Combination Asphalt Impregnated Asbestos and Asphalt Saturated Rag Felt construction
- (c) Asphalt Impregnated Asbestos Felt construction

Asphalt Surfaced Roofs

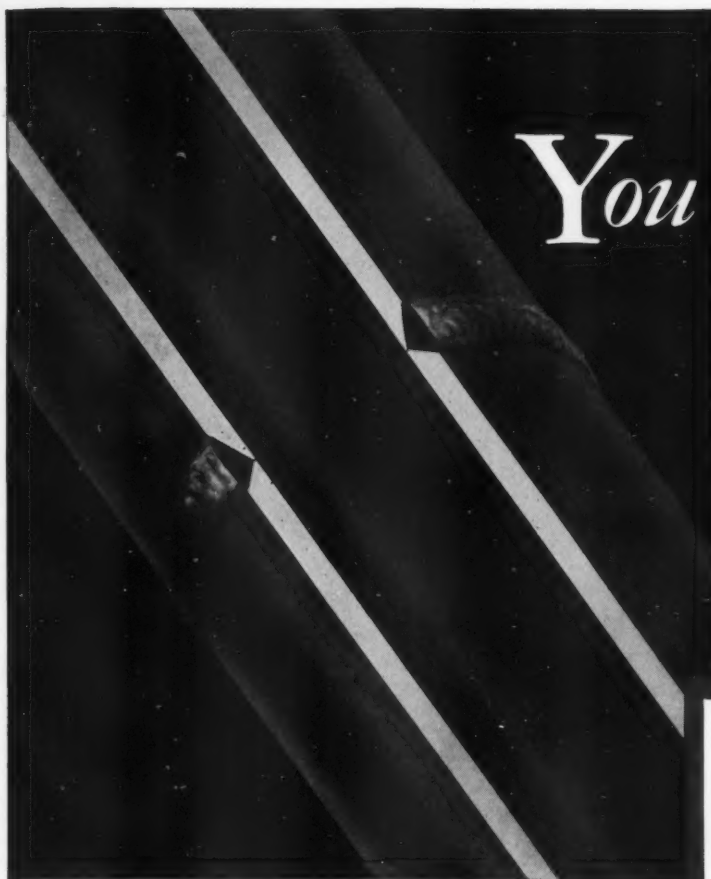
(Bonded for 10 and 20 years)

- (a) Asphalt Impregnated Asbestos Felt construction
- (b) Asphalt Saturated Rag Felt construction
- (c) Combination Asphalt Impregnated Asbestos and Asphalt Saturated Rag Felt construction.

BUILT-UP ROOFS
ASPHALT PRODUCTS
ELASTITE EXPANSION JOINT
WATERPROOFINGS
ROOF PAINTS



HEAT INSULATIONS
ASBESTOS MATERIALS
CAREYSTONE CORRUGATED SIDING
ASFALTSlate SHINGLES
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You can OXWELD any kind of Piping

ANY kind of pipe can be successfully and economically joined by oxy-acetylene welding. This modern low-cost method of pipe joining is now so highly perfected that any good pipe fitter can, after moderate training, make high-strength welded joints in every metal and alloy used in plumbing, heating, or ventilating systems.

How welding saves money and simplifies work is explained in the book, "Oxwelded Construction for Modern Piping Services," which we will be glad to send you without charge or obligation. Write for your copy today.

A series of motion pictures, showing the fundamental principles of the oxy-acetylene process for welding and cutting metals, and typical applications of oxwelding and cutting in the fabrication of piping systems, is now available for free distribution. Your organization or Union Local will find these pictures immensely interesting and beneficial. Write for release details.

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for hot and cold water piping and connections

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for soil pipe and vents

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for water heaters and connections

STEEL

for heating systems

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for soil pipe and vents

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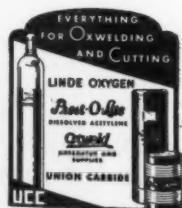
for water piping

ALUMINUM

for refrigeration and chemical piping

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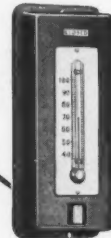
LINDE OXYGEN • PREST-O-LITE ACETYLENE • OXWELD APPARATUS AND SUPPLIES • UNION CARBIDE

JOHNSON

Heat and Humidity Control



The All-Metal System, The All-Perfect Graduated Control Of Valves And Damper. The Dual Thermostat (Two-Temperature) or (Night And Day) Control, Fuel Saving 25 to 40 per cent.



RESIDENCE - illustrated here is an interior view of Frederick C. Thwaits' residence . . . Milwaukee, Wisconsin . . . equipped with Johnson System Of Control.

WHEN HEAT AND HUMIDITY ARE CONTROLLED CORRECTLY

ACCURACY, DEPENDABILITY AND PERMANENCE MUST BE FOUNDED ON BASIC FUNDAMENTALS

The Johnson System Of Heat And Humidity Control is the only right method, the one complete system of control. There can be no successful substitute unless equal to Johnson Control . . . in principle, design and construction. Forty-seven years of heat and humidity control experience and experimenting are behind Johnson Control development and first position in the field. Accuracy, dependability and permanence are definitely assured in the Johnson System . . . after installation is made, and when most vital.

JOHNSON SERVICE COMPANY

507 E. MICHIGAN ST. Established 1885 MILWAUKEE, WIS.

Albany	Cincinnati	Greensboro, N.C.	Philadelphia	Seattle
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Baltimore	Dallas	Kansas City	Portland	Montreal, Que.
Boston	Denver	Los Angeles	St. Louis	Winnipeg, Man.
Buffalo	Des Moines	Minneapolis	Salt Lake City	Toronto, Ont.
Chicago	Detroit	New York	San Francisco	Vancouver, B. C.

OFFICE BUILDING

200 Johnson Dual Thermostats control 532 radiator valves in Union Gas & Electric Company Building, Cincinnati, Ohio, maintaining normal temperature during the day, automatically lowering the temperature for the night, and automatically returning the temperature to normal again each morning. In addition, this installation includes Johnson System fan control and Johnson cut-off fresh air and vent dampers on the building's ventilating system.

SCHOOL BUILDING

Johnson Dual Thermostats control ventilation and direct radiation throughout Woodrow Wilson Junior High School, Terre Haute, Indiana. Control divided into 3 units . . . one for classrooms, one for gymnasium, one for auditorium. Each unit is operated separately, and independently of others . . . maintaining normal temperature during hours each room is occupied, and lower (or economy) temperature when rooms are unoccupied: automatically turning steam on or off at predetermined hours, and according to each section's periods of use during the day or night.

HOSPITAL BUILDING

Ten operating and surgical rooms in Highland Hospital, Oakland, California, have Johnson Graduated Acting Room Type thermostats, controlling 14 Sylphon radiator valves on direct radiators. Installation also includes a 2-point Johnson Multiple Thermostat, controlling 2 Sylphon Coil Valves on fan unit for ventilating system.

SERVICE

30 Johnson Branches Insure Convenient, Quick Service Anywhere, Any Time. Each Johnson Installation Made By Johnson Mechanics Only. Every Johnson Installation Given Annual Inspection.



LEFT: Hotel Statler, St. Louis, where Dutch Boy White-Lead and flatting oil is used for all interior paint work.



ABOVE: The Coronado uses Dutch Boy and flatting oil for all maintenance work because it gives better washability and stands up.

RIGHT: The Daniel Boone Apartment Hotel uses Dutch Boy after finding it gives better service than other paints.

INSET AT RIGHT: The Adlon Apartment Hotel has also found that Dutch Boy saves money in longrun.

RIGHT: The President Apartment Hotel is another user that finds Dutch Boy superior.



The Mayfair Hotel was re-finished six years ago with Dutch Boy. Now it is being repainted again with this same pure white-lead paint.

6 St. Louis Hotels VOTE FOR DUTCH BOY

They know its record of performance...

● Another Dutch Boy district heard from! This time it's St. Louis, where the six big transient and apartment hotels illustrated have unanimously adopted Dutch Boy White-Lead.

Such general endorsement only serves to confirm what architects, hotel operators and building managers already know...that Dutch Boy White-Lead and flatting oil make an interior finish that represents the ultimate in beauty, washability and durability.

In addition to these advantages,

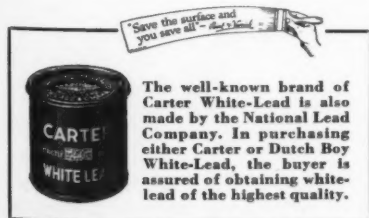
Dutch Boy White-Lead paint can be readily tinted. The painter obtains with it not only a durable, washable finish but the exact tints you specify.

Dutch Boy is also extremely adaptable in that it can be mixed to suit any surface—wood, plaster, masonry, wall board or metal. Moreover, it can be used for enamel undercoatings, for blended and mottled effects, for plastic finishes and other beautiful treatments.

These and many other uses of Dutch Boy are described in "Decorative Possibilities of Paint," an interesting and valuable booklet that should be in your files. Write our nearest branch for a copy.

NATIONAL LEAD COMPANY

New York, 111 Broadway; Buffalo, 116 Oak Street; Chicago, 900 West 18th Street; Cincinnati, 659 Freeman Avenue; Cleveland, 820 West Superior Avenue; St. Louis, 722 Chestnut Street; San Francisco, 2240 24th Street; Boston, National-Boston Lead Co., 800 Albany Street; Pittsburgh, National Lead & Oil Co. of Pa., 316 Fourth Avenue; Philadelphia, John T. Lewis & Bros. Co., Widener Building.



The well-known brand of Carter White-Lead is also made by the National Lead Company. In purchasing either Carter or Dutch Boy White-Lead, the buyer is assured of obtaining white-lead of the highest quality.



**... that an
OTIS ELEVATOR
may more exactly
fill the needs of the architect**

*The following comes from a letter by A. Moor-
man & Company, of Minneapolis, bank builders,
in commenting on a car installed by Otis in
Spokane, Washington: "This is the most beau-
tiful elevator car that we have seen. The work-
manship is excellent and the finish, castings,
and all the equipment are as nearly perfect as
any one could hope to obtain."*

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It is the unanimous belief of every one within
the organization of Otis Elevator Company that
highest quality of materials and workmanship
give, in the long run, greatest value. This ap-
plies not only to such elevator mechanism as

motors and controllers and brakes, but to such
things as elevator entrances, fixtures, and cars
—visible portions of the elevator which can
either add to or detract from the appearance of
the building. Thus it is that Otis has a special
department of architectural designers, artists,
and craftsmen for the purpose of adapting mod-
ern architectural practice and the ideas of the
building architect to the visible details of an
elevator. Within this department many inter-
esting elevator cars and accessories of excellent
modern design have been created. Here also
craftsmen faithfully produce any special design
conceived by the architect.

OTIS
ELEVATOR COMPANY **339** **OFFICES THROUGH-
OUT THE WORLD**

Painted

Decoration

BANKS
CHURCHES
CLUBS
SYNAGOGUES
HOTELS
RESTAURANTS
THEATRES
PUBLIC BUILDINGS

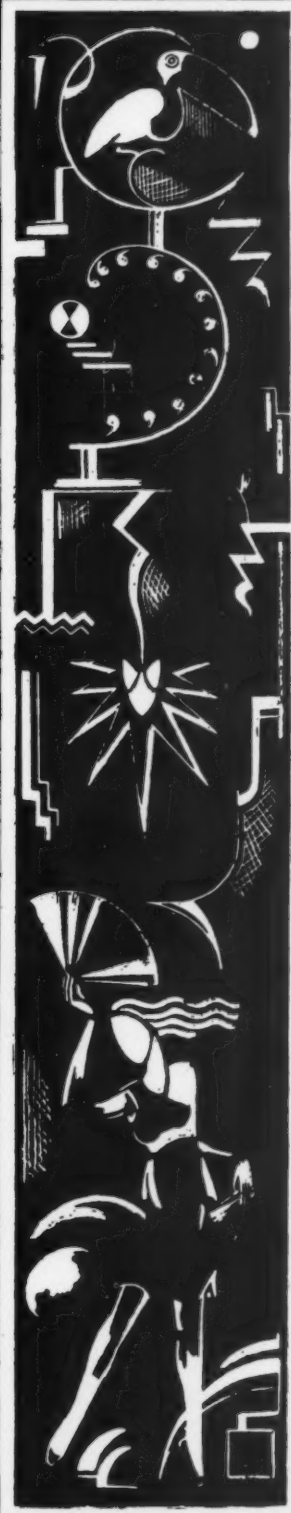
Under the direction of the Architects, we have executed decoration in the following buildings:

- Empire State Building New York City
Public Lobbies and Observation Tower—86th Floor
SHREVE, LAMB AND HARMON, ARCHITECTS
- New Waldorf-Astoria Hotel New York City
Main Foyer, Lobby, and Appurtenant Rooms
SCHULTZE AND WEAVER, ARCHITECTS
- Nebraska State Capitol Lincoln, Nebraska
House of Representatives Ceiling—House Lounge Ceiling
MAYERS, MURRAY AND PHILLIP, ARCHITECTS
HILDRETH MEIERE, DESIGNER
- Ohio State Office Building Columbus, Ohio
HARRY HAKE, ARCHITECT
- Vassar College Poughkeepsie, New York
Belle Skinner Music Building
ALLEN AND COLLENS, ARCHITECTS
- National Title Guaranty Co. Bank . . Brooklyn, N. Y.
CORBETT, HARRISON AND MacMURRAY, ARCHITECTS
- Club Boca Raton Boca Raton, Florida
SCHULTZE AND WEAVER, ARCHITECTS
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FIRM OF ELY JACQUES KAHN, ARCHITECTS
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- Roxy Theatre New York City
WALTER W. AHLSCHLAGER, ARCHITECT
- Paramount Theatre Stapleton, Staten Island
C. W. AND GEO. L. RAPP, ARCHITECTS
- Warner Bros. Madison Theatre . . Albany, New York
THOMAS W. LAMB, ARCHITECT
- St. James' Cathedral Chicago, Illinois
MAYERS, MURRAY AND PHILLIP, ARCHITECTS
- St. Catherine of Sienna's Church . . New York City
WILFRID E. ANTHONY, ARCHITECT
- St. Thomas' Chapel (timbered ceiling) . New York City
TALBOT F. HAMLIN, ARCHITECT
- St. Gabriel's Church Washington, D. C.
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RAMBUSCH

Painting, Decorating and Murals

2 West 45th St. ~ New York City



Pilaster,
Paramount
Theatre,
Staten Island
New York

C. W. & G. L. Rapp
Architects



WHAT YOU SEE!... IS
PERFECT ADHESION TO
THE MASONRY UNIT

● A small opening, caused by shrinkage, between the mortar and the masonry unit and sometimes invisible to the naked eye—will permit water to enter. The result is a leaky wall—a *disastrous condition, expensive to correct*. It is the perfect Balance of the materials used in the manufacture of Medusa Stoneset Cement that controls shrinkage and eliminates these openings. ● The use of Medusa Stoneset Cement assures a *non-staining waterproofed* mortar and perfect adhesion to the masonry unit. Architects are invited to send for Medusa Stoneset Cement-Mortar Specifications, A. I. A. File 3-L-11.

MEDUSA PORTLAND CEMENT COMPANY
1002 Engineers Building Cleveland, Ohio



Medusa Stoneset Cement is recommended for the setting, par-
geting and pointing of cut stone and cast stone and for mortar
in laying up face brick. It is economical in cost and should
be used in the mortar for the backup wall. The use of one
mortar cement on the job is convenient and economical.

MEDUSA
STONESET
CEMENT

Non-Staining and Waterproofed

Stop a Moment and Think



Before YOU Write

Into Your Specifications!

OF course you wouldn't specify pipe that might cause your client endless trouble and expense—if you *knew* about it beforehand. But today, so much is being said and written about pipe . . . so many plausible claims are being advanced . . . that it seems difficult to choose pipe wisely.

There is one way to be **SURE** that you are keeping pipe trouble *out* of your specifications. Specify the kind of pipe that has proved, in countless actual installations, over the greatest span of years, that

it **LASTS** . . . Reading Puddled Iron Pipe, with a record of resistance to corrosion, vibration and strain second to none!

Reading Puddled Iron Pipe rests its case on **FACTS**, not claims. You **KNOW** that you are doing justice to your client . . . and to yourself . . . when you specify it without an "or equal" clause. Our representatives will gladly consult with you—without obligation—about the sizes and types of Reading Pipe that best meet your problems. Write us today!

READING IRON COMPANY, Philadelphia, Pa.



Science and Invention Have Never Found a Satisfactory Substitute for Genuine Puddled Iron



Longer Lasting

PennVERNON
flat drawn
WINDOW GLASS

WINDOW BEAUTY

WINDOWS—they can mar or enhance the architectural beauty of a finished building. And whether they will detract or add to the building's attractiveness depends largely upon the kind of window glass with which they are glazed.

Pennvernon Window Glass has been found by architects everywhere to possess the qualities essential to window beauty. This glass is distinguished by an unusual clearness and transparency, a remarkable freedom from the imperfections which distort vision, and a brilliance of surface on both sides of the sheet which results in much better reflection.

But Pennvernon's greater beauty is only half the story. Its beauty *lasts longer*, too. That's because the

special process of flat drawing by which Pennvernon is manufactured assures a smoothness and density of surface which makes Pennvernon highly impervious to wear and abrasion.

Greater beauty and longer lasting beauty at no extra cost—we suggest that you investigate this finer window glass. It is available in single or double strength and in standard thicknesses up to $\frac{3}{16}$ ", at the warehouses of the Pittsburgh Plate Glass Company in all important cities and through progressive glass jobbers. Write to us for samples and for our booklet describing the interesting process of Pennvernon manufacture. Pittsburgh Plate Glass Company, Grant Bldg., Pittsburgh, Pa.





This Month's Cover

FIESTA TEHUANAS

THIS month's cover was selected from among the paintings shown at the recent exhibition at the Museum of Modern Art in New York City, which was devoted entirely to Diego Rivera's work. It is from a private collection and exhibits the fine sense of color and bold technique so characteristic of this painter's work.

Diego Rivera or, to give him his full name, Diego Maria Concepcion Juan Nepomuceno, Estanislao de la Rivera, was born in Guanajuato, Mexico, Dec. 8, 1886. At the age of three, his passion to draw was so great that his father gave him a room arranged with blackboards. His natural inquisitiveness made him seek the "why" of everything. He studied painting and travelled in Mexico, Europe and Russia. At one time he desired to become a sculptor.

Senor Rivera was for a time particularly active in Mexican politics, being a sympathetic communist and prominent in that party's councils.

BENJAMIN FRANKLIN BETTS, A.I.A., *Editor*

ERNEST EBERHARD, *Managing Editor* WALTER E. DEXTER, *Advertising Manager*
RAY W. SHERMAN, *Editorial Director* R. F. GARDNER, *Business Manager*

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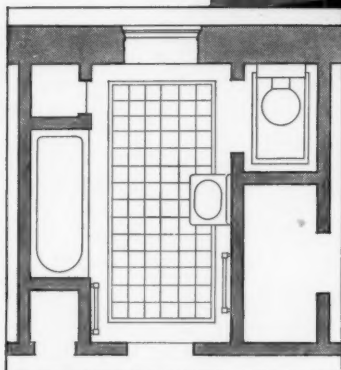
MATERIALS—A new material for exterior and interior use

LEGAL—Do you know what is expected of an expert witness?

BUSINESS—How to cut costs in the small architectural office

AMERICAN ARCHITECT, Published monthly by INTERNATIONAL PUBLICATIONS, INC.
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"Waltile" sheets (32"x48"x $\frac{1}{8}$ ") can be cut to fit any wall surface. Standard sheets are scored every four inches and are also furnished in 8" x 8" and 16" x 16" scoring. In new houses it may be invisibly nailed directly to the sheathed studding, saving lath and plaster. "Waltile" Plastic Compound is furnished for application to old plaster walls. Cap and base moulding to match or contrast with sheets are also supplied.

New low prices on K & M Ambler Weathered effect shingles have just been announced. Write for samples and prices.

Disregard the Economy of "Waltile"

Think of it only as a beautiful and practical material that provides both the desired effect and the required permanence. "Waltile" is handsome enough to specify for fine bathrooms. Again, its low cost will permit its use in the kitchens and laundries of modest homes.

To the layman, the difference between "Waltile" and expensive ceramics is in the bill. It looks, feels and *acts* like real tile yet costs approximately half as much. "Waltile's" waterproof surface is smooth, brilliant and sanitary. Because of its asbestos-cement base it cannot burn, warp nor crack. It comes in seven pleasing fadeproof colors.

Aside from residential work, "Waltile" has found wide acceptance for stores, restaurants, delicatessen shops, hospitals, lavatories, physicians' offices and public buildings. Send for data and samples.

Keasbey & Mattison
Company
Ambler, Penna.

Architects Do Not Sell Plans

By BENJAMIN F. BETTS, A.I.A.

DEFINED briefly, the function of an architect is to help owners obtain buildings that are, in meeting an owner's needs, practical in plan and operation, financially sound, and of good appearance. All of which may be summed up in the one word, SERVICE.

Service is what the architect has to sell and this is what the building public pays for, whether it be connected with a school, church, office building or house. Yet too often sets of plans and specifications are what architects think they sell and what owners think they buy.

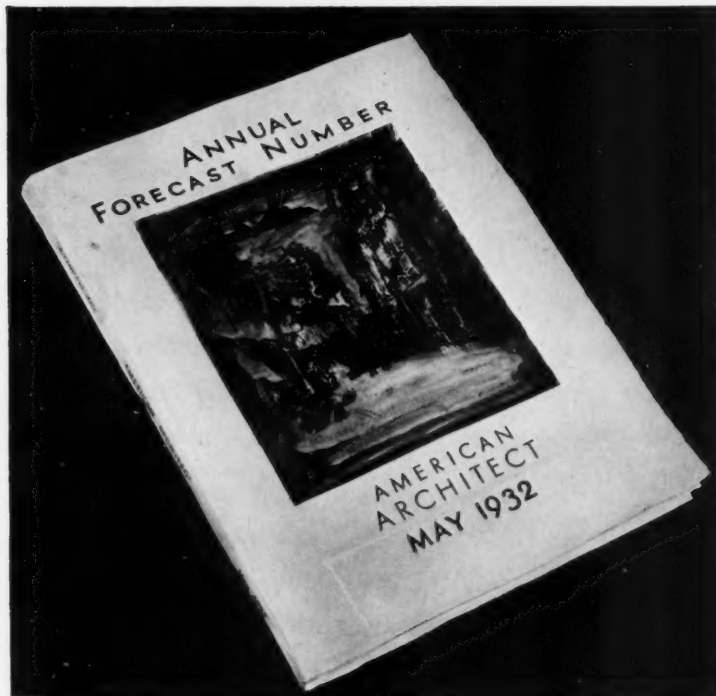
ARCHITECTURAL service does not consist merely in selling sets of plans for a building. These are only documents upon which to base a legal contract—a means of expressing ideas. Plans and specifications are but a small part of architectural service. Service sometimes means advising a client not to build.

When architects more thoroughly understand this and when the public understands it, more work will gravitate to more architects.

NOT so many years ago advertising agencies believed their job to be space buying and copy writing. The agencies came to the realization that these were but details of what they had to offer their clients and they acted accordingly. The result has been that the business of the advertising agency has become more profitable to both agency and client, with corresponding growth in agency prestige and volume of business.

There is an analogy between the service of the advertising agency and that of the architect. And, like the advertising agency, when the architectural profession realizes and sells service in its true meaning, more work will pass through its offices to the mutual benefit of architect and client and the prestige of the profession as a whole. The public will then no longer be interested in stock plans or any other scheme that is not *service*.

» » » A SPECIAL ISSUE OF



Annual Forecast
Dealing With the
Articles by the Leading

By

RAY W. SHERMAN

Editorial Director of
AMERICAN ARCHITECT

*The number of people in college
DOUBLED.*

*Movie-talkie attendance
DOUBLED.*

*The voting population has DOUB-
LED since 1916.*

WHAT will the profession of architecture be like ten years from now?

What new materials shall we be using?

What are the trends of today and where will they lead us tomorrow?

All these questions and many more are in the minds of architects. They are talked about wherever architects meet.

To cover these subjects, to determine so far as possible whither trends will lead and to clarify confused questions, AMERICAN ARCHITECT will in May bring out a special issue. It will be its Annual Forecast Number. It will be of particular interest to those who have watched events of the past ten years.

During the past decade, the world has been going through a period of evolution in which changes have been so many and so far-reaching that the whole picture is confused. We do not realize the extent of these changes.

Particularly is this true of the American people. During the last ten years influences have been brought to bear that have greatly changed our whole nation.

We DOUBLED the number of automobiles in use in seven years, and thereby created new habits of living for 50,000,000 people. Their thinking changed also.

Radio grew from nothing in 1922 to 15,000,000 sets listened to by 60,000,000 people in 1932.

A great movement of decentralization has been accelerated by improved methods of transportation and distribution of electric power. Rural and suburban isolation has become a thing of the past. A 1,000-mile telephone call now takes less time than a local call used to take.

Science has wrought great changes in living, knowledge, health and economic conditions.

All these things are having an effect on architectural and allied arts and crafts. These effects are keenly felt but their extent has not been appraised in the rush and confusion of the post-war period.

In AMERICAN ARCHITECT, we have touched on many of these trends and have tried to point the way to the future. Our effort has necessarily been detailed rather than complete in any one issue because the subject is so vast and the movement so rapid and so far-reaching in its ramifications.

Three years of observation and study and over two years of actual work in this field have led us to the conclusion that a great service to architecture could be rendered if the major phases of this evolution were consolidated in one issue of AMERICAN ARCHITECT and the trends pointed out by the profession's best informed men.

Such an issue of AMERICAN ARCHITECT will

AMERICAN ARCHITECT

Number to be Published in May

Future of the Architectural Profession

Authorities on Architecture and Construction

be published in May of this year. It will be continued annually as a FORECAST NUMBER.

This issue will bring the profession up to date on important subjects and endeavor to point the course events seem likely to take.

At the present time, architecture—like many other activities—is different from what it was a decade or so ago. In this FORECAST NUMBER, a leading architect will summarize the basic changes of the recent past and will describe the future of the profession as his study and observation cause him to see it.

The economic condition of the next few years is all-important. Changes since the war and an estimate of the future will be set forth by an analyst.

Modernism is confusion itself yet it is only one of similar movements of the past. Just what it IS and is NOT, and just what we shall preserve and just what we shall discard—with the fundamental reasons why—will make a very useful article for thousands of architects.

NEW living conditions and new demands by building owners require an abrupt readjustment among architects. The electric refrigerator has become commonplace and has already started the public thinking about air conditioning and particularly of cooling. *This will be an enormous development.* How much is now known, what developments are under way and what all this will mean to owners of both residential and business buildings, is one of the most important articles that can be published today. Few architects can talk intelligently on this subject.

Soundproofing is another subject on which every architect should be fully informed. The day is not far away when the waste through noise will be realized and soundproofing will be less expensive and more common in all types of building. This subject will be thoroughly covered.

Decentralization brings a picture of radically

changed cities. *Architecture will be changed thereby.* Lack of knowledge of the probabilities can lead to serious architectural errors.

Lighting is a glorious new field. What we have done is nothing compared to what we shall do even in small homes. Every architect wants to know just how far we have gone and where developments are likely to lead us.

Metals are a subject of prime interest. *Today we are building with metals that a few years ago were unknown as building materials.* Research engineers are working on still more new construction metals or new forms of old ones. A most important article.

Methods have been revolutionized and still further changes are in prospect. Pre-fabricated buildings are not a mere dream. Contractors will do many things differently.

Heating, plumbing, painting, and many other architectural activities may undergo change.

Glass has made strides—will make more.

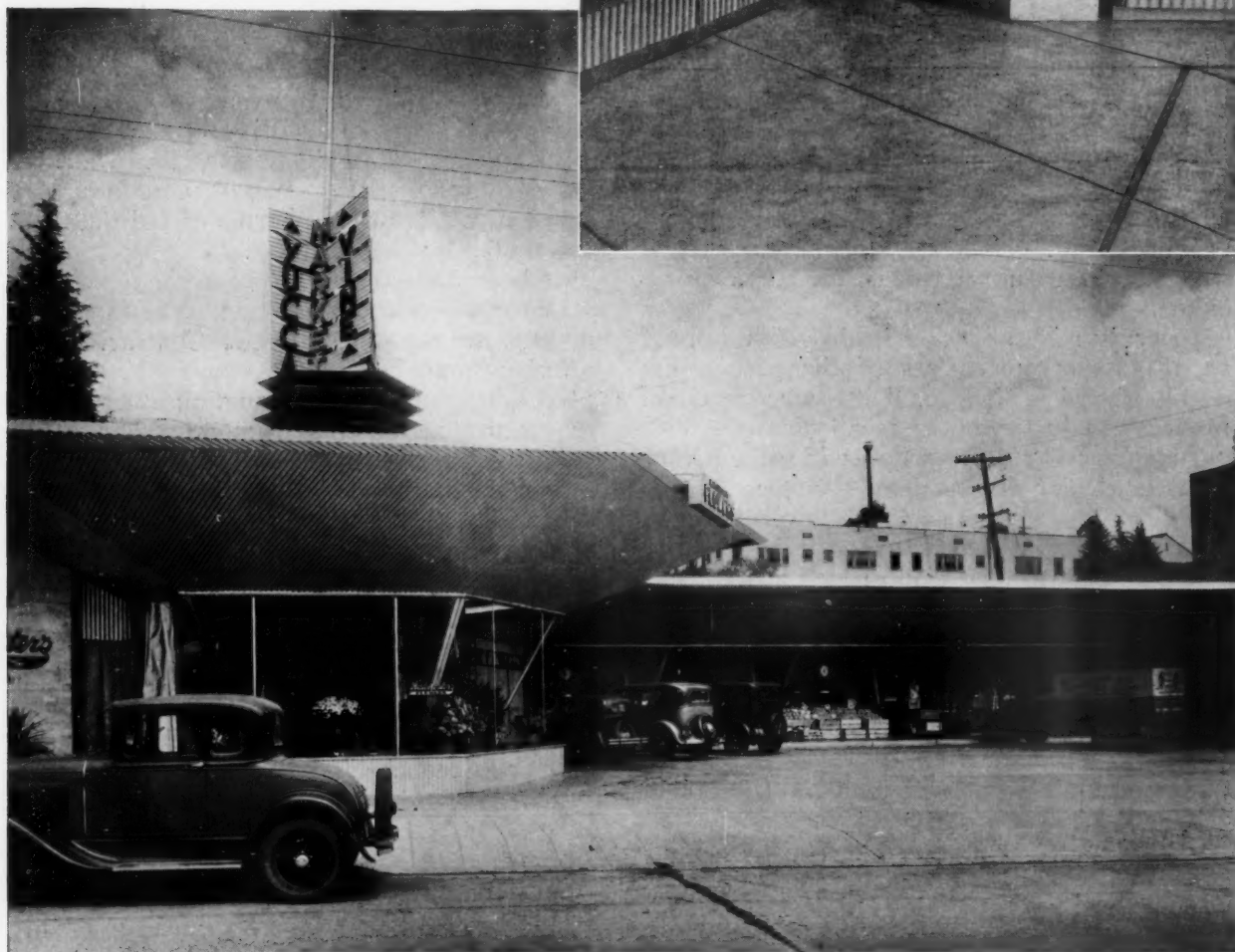
Even the methods and practices of the architect himself are not immune from change. The method of compensation will not necessarily remain as it is. The getting of clients may be altered. *The whole ethics of the profession may be found to have been static in a world of change.*

These are some of the major purposes behind this FORECAST NUMBER of AMERICAN ARCHITECT. We believe it will be very helpful to the profession as a whole if *once a year it may in an issue of this kind, hesitate for a moment in the rush of events, take stock of itself, review developments of the near past and look forward to the future.* It should enable us to profit by experience. It should add an element of solidity and stability to architecture and should add even more enjoyment to an already enjoyable profession.

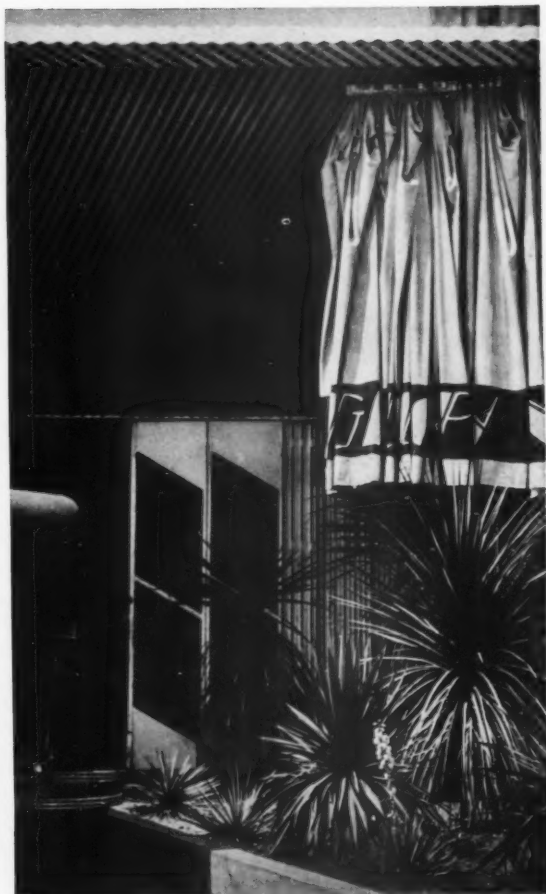
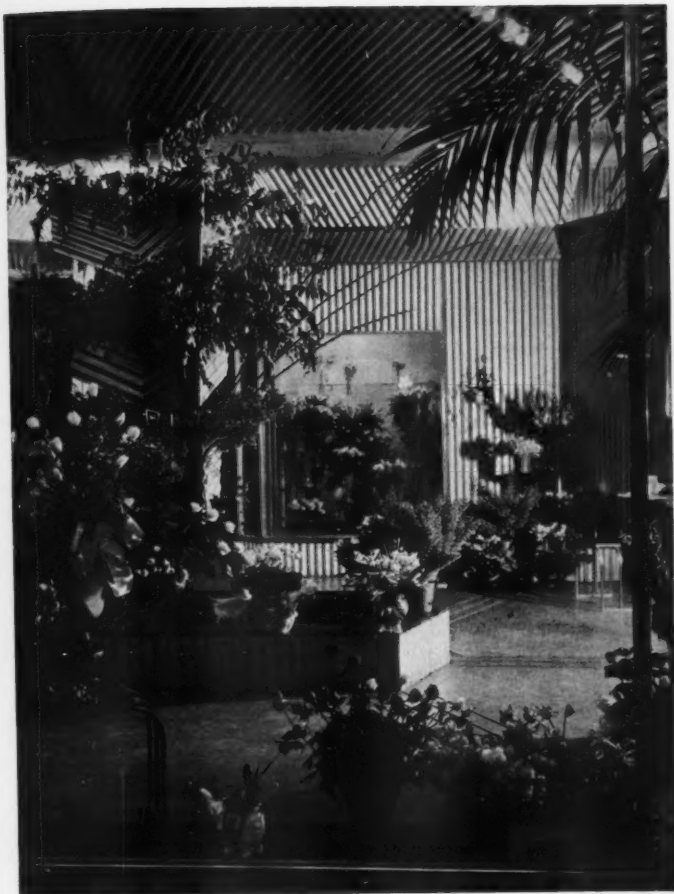
Therefore . . . in MAY . . . the first annual FORECAST NUMBER of AMERICAN ARCHITECT.

Corrugated Galvanized Iron

YUCCA-VINE MARKET
HOLLYWOOD, CALIFORNIA



ORDINARY corrugated galvanized iron was used for the wall sheathing and underside of roof. This unusual structural and decorative use of a utilitarian material shows the architectural possibilities inherent in commonplace materials frankly used. Construction consists of welded structural steel struts and cantilever beams with composition roof. Aluminum paint was sprayed on. General lighting is indirect strip with reflector surfaces and troughs formed by aluminum finished galvanized iron sheathing.



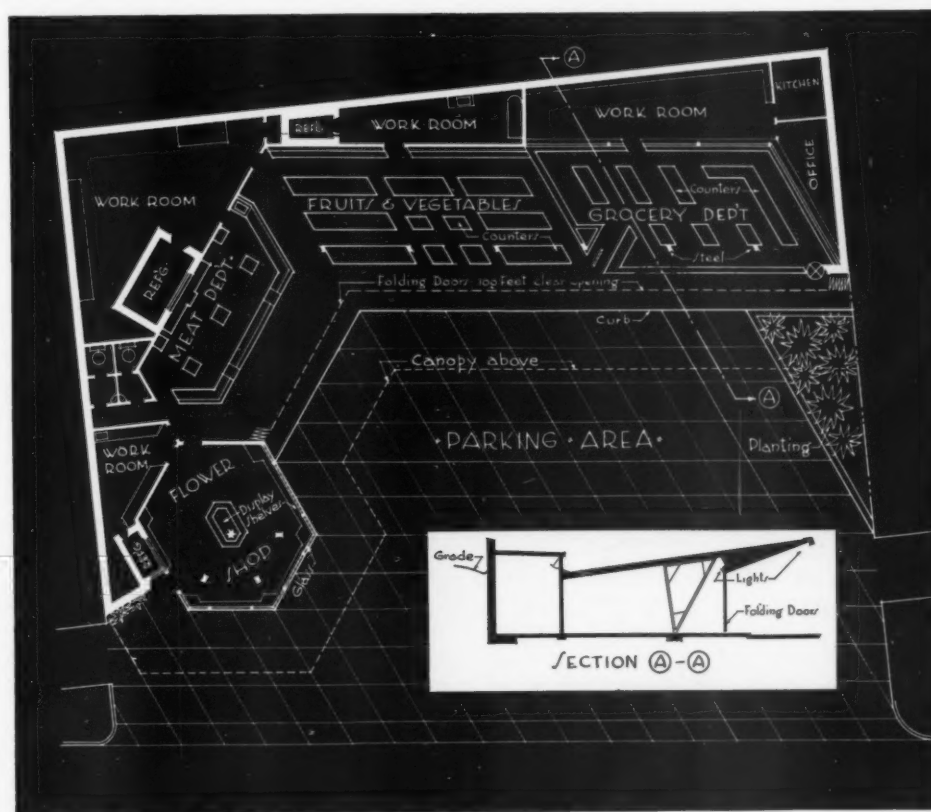
Emphasis is placed on directional lines, accessibility to the public, fire resistance and cleanliness

3% RETURN on the value of the land is produced by this taxpayer after deducting all taxes, up-keep, amortization and interest charges. The front of the building can be closed off with folding doors. A sun curtain provides protection from the sun when necessary and yet permits of the free circulation of air

**LLOYD
WRIGHT**

(Son of Frank Lloyd Wright)
ARCHITECT

Photos by
Mott Studios



» » what Are The Schools Doing About Modern Architecture?

By GEORGE YOUNG, JR.

Dean of the College of Architecture Cornell University

It happens at every Institute convention, chapter or society meeting. Sooner or later one is forced into a yawning arm-chair in the lobby and transfixed by the glittering eye of some militant modernist or captious conservative and cross-questioned—“*What are the schools doing about this modern architecture?*” Sometimes you can escape your fate by a counter offensive such as the engineers licensing law or the economic depression. But when an editor is behind the glittering eye you cannot brush him aside with any “now, wherefore stoppest thou me?” It is time to stand and deliver.

After the first hundred years or so of looking into the glittering eyes of the protagonists of this or that which “ought to be in the curriculum of every school in the country,” one becomes a bit hardened to it; perhaps even a wee bit “edgy.” But apparently this matter of modernism or anti-modernism will not down. The ancient mariners seem to feel as Mark Twain did about the weather—it is about time for somebody to do something about it. And when one feels that way it’s always a safe bet to call on the schools or colleges to do it.

I hold no brief for *The Schools*, not even for the one I happen to inhabit. Practice will vary from school to school and even from class to class within a given school, as the best traditions of teaching are rooted in the freedom of each teacher to present his subject in his own fashion and according to his own convictions. But I think that, speaking in a very general way, certain fundamental educational concepts will be found to govern most of our best teachers.

It is a question of whether your teaching program is to teach a student *what* to think—assuming that you know it yourself—or *how* to think. Put in that fashion, nearly everyone will agree on the latter but few realize the courage and restraint required on the part of the teacher to follow that thought out to its logical conclusion in his day to day work. Most teachers coming fresh from architectural practice are blissfully unaware of this difficulty. It usually takes a period of years to learn to let the student do his own thinking and a further period to learn *how* to get him to do it.

After one has played the game a while he begins to lose faith in curricula as such; so many parts of this indispensable ingredient, so many of that. He begins to realize that if by any means it is possible to produce a mentality that is capable of straight thinking and to lay the foundations of judgment and good taste, he can afford to launch his craft well assured that it will come to port. I am afraid that last metaphor is a bit

mixed but I guess you can see it means that it matters little whether we teach modernism or not. If the student can think he will decide that question for himself anyway. If he cannot think he is going to do what someone else tells him to, so again it doesn’t matter. But what does matter is that the student be given a chance to develop himself in an atmosphere of freedom and that he be exposed, insofar as possible, to contact with the best ideas of every age. And you’d be surprised to find how many things a lot of live students can think of for themselves.

Schools Have Changed, Alumni to the Contrary

WHAT, then, is the genesis of the perennial discussion on “what’s the matter with architectural education”?

Well, everyone who has had to deal with the typical alumnus, “professional” or otherwise, knows that he holds to some fairly fixed patterns of thought. He is subconsciously certain that “the schools” are doing exactly what they were doing when he was in attendance. He is unaware of the fundamental aims of the things he himself did when in college and just how he is now benefiting from them, or otherwise. He has an abiding faith in the importance of subject matter and finally he is truly interested and anxious to be helpful.

In all this the school man is apt to see something akin to the “old maid’s children.” But we all know certain children who have been very well brought up by certain old maids. Therefore the wise school man keeps his ear to the ground for the occasional hint that repays long stretches of just sheer listening.

Recently I received a letter from an alumnus who said that what Cornell needs is a “good faculty—like the one we used to have.” This came from a man who could not recognize by sight more than one man in five now on the faculty. Stated in that fashion it sounds ridiculous. But we must remember that in this attitude is reflected a fine loyalty and one that future alumni will be applying when our present faculty has become of the good old-fashioned sort through the lapse of time.

A few days ago another alumnus said to me, “You ought to do so and so forth.” My answer was “Those things were done ten years ago! We are now going on to do so and so.” Such illustrations are significant only because they are typical. Unfortunately it is difficult to maintain the touch between the schools and the practitioner which, if it could be maintained, would be



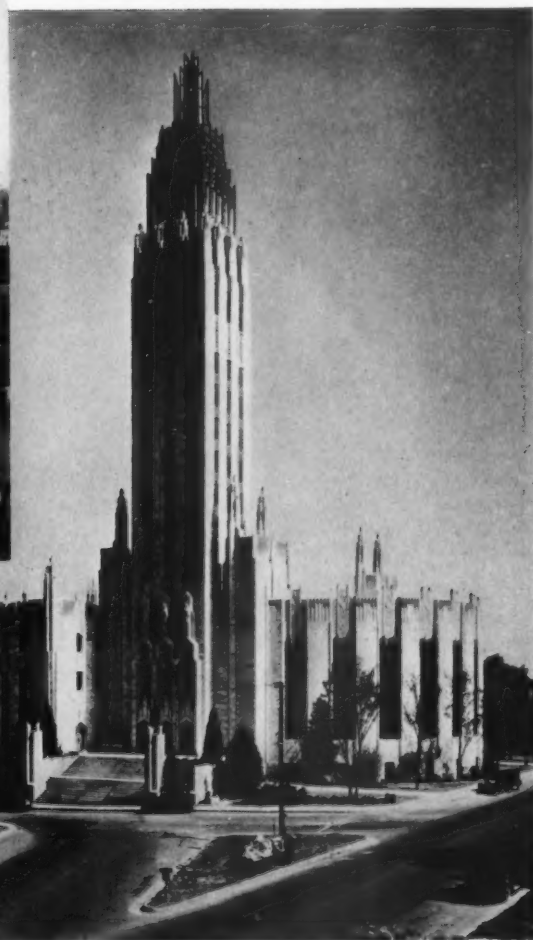
BROWN BROS.

1248
COLOGNE CATHEDRAL

1930
CHURCH AT TULSA, OKLA.

Adah Robinson, Architect

Should We
Emphasize
the OLD..or
the NEW?



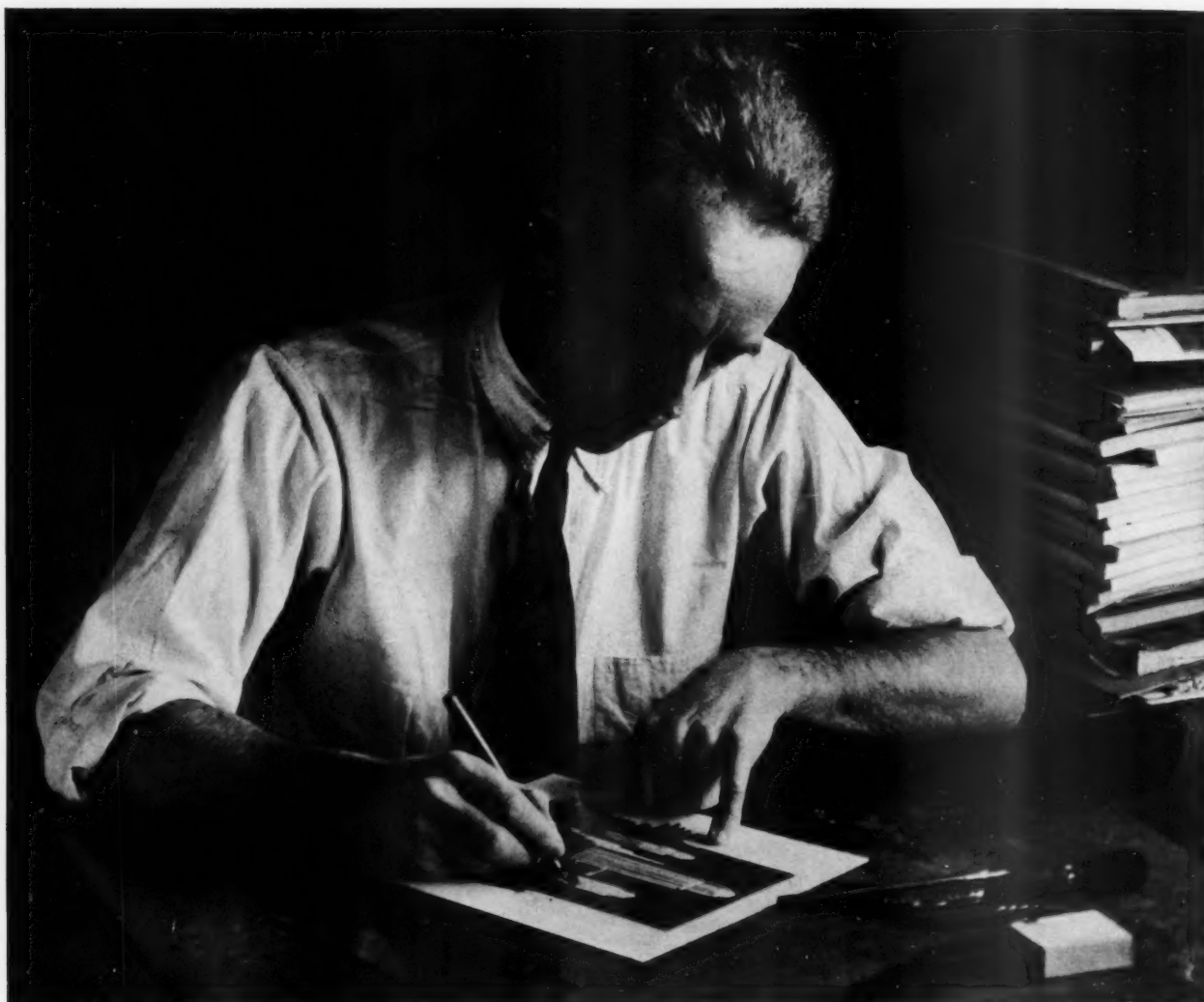
THE HOWARDS

decidedly helpful. As a result, about every so often, the schools come in for a beating that may have been deserved some time in the past—and also it may not have been.

There is another fundamental assumption, from which the alumnus is apt to take off, that does not stand scrutiny. He is apt to assume, without question, the existence of some yardstick whereby the results of an educational process can be assessed. I know many teachers who have been earnestly searching for such a device through many years. In the long run they have had to fall

back on faith. They recognize that if an educational program is worth its name, it is aimed at that time when the student has become, say from thirty to forty years old. They realize that by that time their student has been subjected to so many and such diverse influences that no man can pretend to trace the result, good or bad, back to any particular program of education.

But there is one thing that recurs so consistently and so frequently that we can feel fairly certain of its worth. When all the knowledge gained in school has been atrophied or out-dated. (Continued on page 70)



PALMER SHANNON

A New Way To Use Lithographic Crayon

By H. R. BISHOP

■ The scratch board technique which Mr. Bishop has developed—and explained in this article—has aroused considerable interest among architects, a number of whom have commissioned him to prepare renderings in this manner. Five of Mr. Bishop's white line drawings were published in *American Architect* for May 1931. He has exhibited at the Architectural League of New York and elsewhere

THIS method of using lithograph was developed two years ago out of my search for a novel way of making a Christmas card. Among other materials tried was a piece of chalk-coated cardboard on which the lithographic crayon spreads easily and which, when scratched, came off freely leaving a white line beneath due to the chalk. So my cards that year simulated "woodcuts." The medium proved to be very flexible, since it is easy to make changes. Also there is a richness of black and a lacquer gloss in the originals that unfortunately is lost in reproduction, since ink cannot give the same effect of depth.

Probably the first and most obvious question is, "why



1 PREPARATION of surface.

The crayon is laid on until a solid black is obtained. Then it is "ironed out" by going over it with the back of a comb, which smooths and evens the surface. A light rubbing with the side of the hand gives the surface a high polish

FURTHER STEPS ARE EXPLAINED
ON THE NEXT TWO PAGES

the comb?" Well, the humble comb is quite an important member of the tool family, for the smooth, rounded back proves an excellent burnisher for smoothing down the lithograph and "ironing out" any white spots that remain after the surface has been blacked in. Also when working on the drawing, if any portion needs to be changed and lines taken out, this burnisher does it easily and neatly. No patched effects result when changes are made.

A good knife makes an efficient and all-around tool for rendering, as either fine or





2 PRELIMINARY sketch in pencil. Reduced from the original size which, like others on this page, was the same as finished drawing on next page



3 OUTLINE DRAWING on tracing paper. It is transferred to the lithographic crayon surface by placing it over the prepared surface and going over the lines lightly with an etching needle. In this drawing, a different vertical vanishing point was used for each building, making it a compromise between the single vanishing point of the camera—which gives a stilted effect—and the use of common vanishing points as in the usual architectural perspective



4 DRAWING IS TRACED and the rendering is started. The method of development now corresponds closely to that of pen and ink, though here it is white on black instead of black on white

WOODCUT EFFECT SECURED THROUGH NEW



AFTER THE SURFACE IS PREPARED,

as explained on the two preceding pages, the rendering process is started. A woodcut effect may be secured if desired

5 COMPLETED drawing, actual size. An added luster can be obtained by spraying the rendering with a good grade of charcoal fixatif. This hardens and protects the surface so that dust will not adhere. The fixatif should entirely wet the surface so that it will not dry spotty

heavy lines may be obtained, though for very fine, even lines the etching needle is more effective. The scraper serves about the same purpose as the knife, though it gives a slightly different character of line. The soft hair brush is useful for removing the "shavings" of lithograph as one works and also for keeping the surface free of dust and specks.

Only the softest grade of lithographic crayon, No. 1, should be used. The harder grades will not give the

desired velvety black surface and are also more difficult to apply. An ink black is gray compared with the glossy black of lithograph.

The vital point in the use of this medium is the surface worked on. It must be a cardboard double-coated with chalk. Otherwise the crayon goes into the grain of the paper and will not come off freely or leave a white line. "Felpaco" double-coated is the trade name of the most suitable that can be obtained.

METHOD OF USING LITHOGRAPHIC CRAYON

A. I. A. should stop endorsing The

Many Architects Oppose Institute And Feel That It Hinders

By CLARENCE H. TABOR, JR.

President, Architects League of
Northern New Jersey

THE greatest obstacle to the unification program of the American Institute of Architects is, I believe, the Institute's endorsement of the greatest obstacle to that unity.

That obstacle is endorsement by the American Institute of Architects of the Architects' Small House Service Bureau. Because residence construction employs a greater number of architects than any other field of practice, it is but natural that any organization operating in that field by reason of favored Institute endorsement should create the greatest cause of discontent.

The Bureau was formed to remedy an admittedly deplorable condition through using the same instruments, but of better quality, that brought about that deplorable condition. The American Institute of Architects, by endorsing this stock plan method, has committed itself to a grave indiscretion, for the stock plan has exceedingly large and ruinous ramifications.

The duplication of buildings from one set of drawings represents the mass production of manufacture. The advantage of the stock plan is that if enough prints are sold at low prices, the profit accruing to the architect, or stock plan distributor, is greater and the cost to the owner is smaller. Thus if \$400 represents the normal fee of an architect for drawing a complete set of plans of a \$10,000 house, it is apparent that if prints of those plans are sold to twenty clients at \$40 each, each client will have saved \$360 and the architect will have received \$800 or double his normal fee. A magazine selling the same plan to thousands of buyers at one dollar each can make a profit over all expenses.

There is no limit to the possibilities in the mass production of plans. The architect's original charge of \$400, if divided among ten thousand buyers of the prints, would amount to just four cents to each buyer, exclusive of printing and distribution costs. There is no reason why a five and ten cent store cannot sell plans for a dime. There is no reason why a complete set of plans and specifications cannot be printed in a newspaper that sells for three cents.

That is the principle endorsed by the American Institute of Architects when it endorsed the Architects' Small House Service Bureau. If this principle is sound,

it is an economic waste for the public to pay an architect \$400 for special plans and it is a downright racket for the Bureau to make an outrageously high charge of six dollars per room for a stock plan.

School, church, bank, factory, office building plans are all subject to mass production. It is fortunate for us, however, that the cheaper the plans, the less the value placed on them by the public. A cheap plan inspires cheap supervision, if any at all is even considered. A cheap plan reaps its own reward in cheap, irresponsible construction—and cheap construction in turn induces sloppy designing. This is the rule—and it has played a miserable havoc with the architecture of our suburbs. This too is the rule that the American Institute of Architects unconsciously endorsed when the Architects' Small House Service Bureau sought to fight the enemy with his own weapon, the mass production stock plan. The Institute should never have endorsed the enemy's weapon; it should, instead, have endorsed its own weapon, the architect.

Speculators Do Not Want Supervision

EXCEPT in very rare instances, no speculative builder will follow a plan exactly, and almost never will he pay anything for, or even desire, supervision. As speculative builders are the largest class of stock plan buyers, the efforts for supervision on the part of the Bureau have been a meaningless gesture.

Aside from the mass production principle of the Bureau, we also oppose it on the following grounds:

1. The undemocratic endorsement by the American Institute of Architects and the United States Department of Commerce gives, as a special distinction of political patronage, a stock plan company professional standing to the belittlement of individual members of the profession who support both the Institute and the Government.

2. It is unethical for the Institute to grant endorsement to a private corporation composed of the Institute's own members. The non-profit making aim of the Bureau is so much akin to its non-profit making actuality that this excuse for the endorsement is illogical.

3. The Bureau's advertising has featured bargain prices for plans, which has resulted in the lowering of legitimate fees and the loss of clients able to afford an architect's services either in whole or in part.

4. The endorsement weakens the Institute's attack on the bureaucratic encroachments of the architect's practice by federal, state and city governments, since the Institute itself is being attacked for endorsing its own bureaucratic encroachment upon the architect.

5. The endorsement strangles any effort the Insti-

Architects' Small House Bureau

Sponsorship of Stock Plans

Unification of Profession



8 A. I. A. Chapters and twelve architectural societies have signified their opposition to A. I. A. endorsement of the Bureau, which is sufficient indication that some efforts toward reconciliation must be made. "Many architects feel that members of the Institute as a whole never intended that the Institute should endorse the stock plan business and that the Institute has therefore never officially endorsed the Bureau."

tute might make to solve the stock plan problem except through the Bureau.

6. Friction among architects and architectural organizations has existed since the Bureau's inception eleven years ago. The fact that eight chapters of the Institute and twelve other architectural societies have signified their opposition to the endorsement is sufficient to show that some efforts toward reconciliation must be made.

Opposition to the Bureau is developing, in addition to these reasons, along an entirely new line, for the feeling among many architects is that members of the Institute as a whole never intended that the Institute should endorse the stock plan business and that the Institute has therefore never officially endorsed the idea. Additional support is lent to this contention by a report submitted to the New York Chapter. This report, submitted at the suggestion of the chapter's president, was prepared by a committee including a chapter past president, a chapter president, a chapter treasurer, a chapter member, and a member of an independent society of

architects. It was recorded for the committee by A. T. North, A. I. A., and states:

In 1923 A. I. A. Disclaimed Bureau

"THE 1923 Convention of the Institute records a statement of the directors to clarify the Institute's responsibility to and relationship with the Bureau to the effect that it assumed no more responsibility for the Bureau's 'specific elements of service' than it did of the 'individual members of the Institute' and that it assumed no 'interest in or approval of any specific acts of the Bureau in the development of its operation nor any financial interest or control whatever.'

"The 1926 Convention . . . was informed that the 'organization which was formed for the control of the Bureau has not been effected' . . . The 1929 Convention did not appoint a Committee on Small Houses in the face of the growing objections to the Bureau's use of the phrase, 'Controlled by the American Institute of Architects.'

"Since 1929 an impenetrable obscurity has characterized the relations of the Institute with the Bureau until the announcement made by Mr. William Stanley Parker, President, Architects' Small House Service Bureau, Inc., at the December 9, 1931, meeting of the New York Chapter. Mr. Parker stated that the Directors of the Institute, at its October 1931 meeting, had approved an agreement made between the Bureau and the National Homes Finance Corporation composed of and capitalized by producers of building materials. The corporation is to finance the construction of small houses and the retail distributors of its building materials are to sell the Bureau's stock plans exclusively and advertise themselves as 'Agents for the Architects' Small House Service Bureau, Inc., endorsed by the American Institute of Architects,' and, also, that supervision of construction by architects will be provided at a commission of 1½% of the costs of construction.

"The action of the Directors in approving the contract between the Bureau and the National Homes Finance Corporation in October 1931 is a violation of the clear and positive statement of the Directors made in 1923, no record of revision or avoidance of which has been found in the published documents of the Institute."

The problems confronting the architectural profession are huge and worrisome. Aside from the potentially unlimited mass production of stock plans, there is the encroachment of government bureaus, the clamor of engineers for architects' work, the need for legislation, and the possible coming of (Continued on page 88)



W A R M E M O R I A L

Commemorating the Services
of the 91st Division, A.E.F.

JOHN GRAHAM, A.I.A., Architect
AVARD FAIRBANKS, Sculptor

Of Wilkeson sandstone and
bronze. The central figure
represents a crusader. The
pedestal is flanked by sen-
tries. Other figures portray
a welfare worker, Red Cross
nurse and wounded soldier

Fort
Lewis,
Wash.



Selling the Client

a story from
the experience
of several architects

By

L. W. RAMSEY

President, the L. W. Ramsey Company
Advertising Agency, Chicago, Illinois

EVERY successful architect is a salesman. He may not think so, but he is. Every time he convinces a board that it ought to use a quality product instead of something cheaper, he is selling. When he takes out sketches for a new building and comes back with an okay, you can be sure he did some selling. The fellow who doesn't "sell" is busy making revised sketches until the building project is abandoned, or represents something the owner wants instead of something the architect knows he should have.

It is more important for an architect to be a good salesman than for many whose business is primarily selling. If the business man doesn't sell he loses. If the architect doesn't sell, *he* loses—and the public loses also.

Some architects, whose acquaintance I enjoy, are consummate salesmen, and have the technique of selling their services well organized. I have made it a point to talk with these architects and study the methods they use. Some of their methods and theories may be useful to others.

Architects are often called upon to confer with boards and committees. To deal with more than one person always, of course, complicates matters. George K., a mid-western architect, employs an idea which he has found to be helpful when dealing with committees. He says, "When you know you have a majority, bring them to a vote."

Many jobs are lost by architects not adhering to this formula. Knowing they have a majority of a commit-

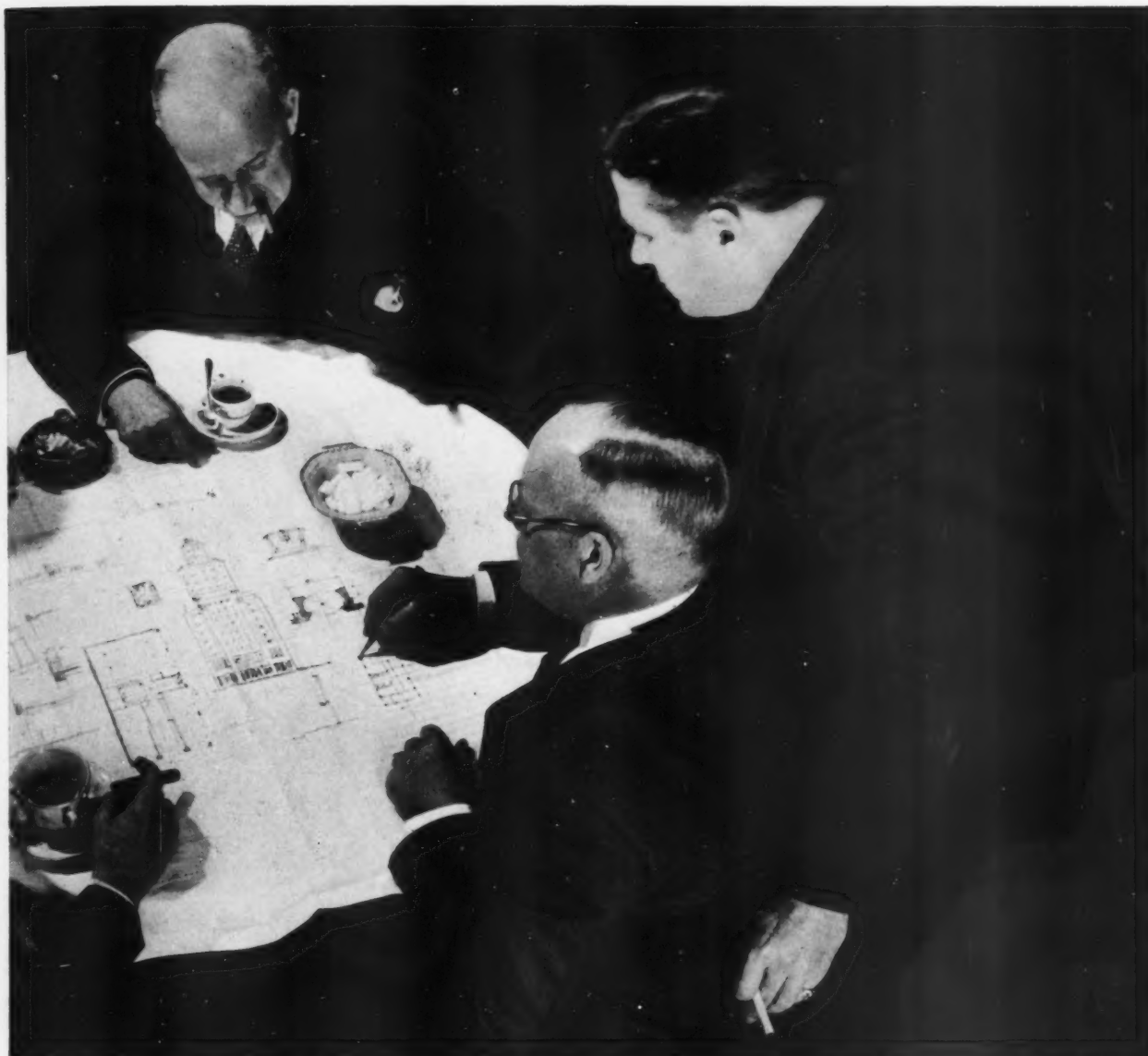


He sketched the idea on the

tee or a board in their favor, they consider the matter settled. As a matter of fact, it is not settled until definite action is taken. The way to make certain that the work is yours is to have a vote taken the minute you know you have a majority. The majority which is yours this week may be some other fellow's next week.

Some time ago I was talking to an architect about a large building which was being erected in his town. He mentioned that he should have had the job. "In fact," he said, "it was my own fault that I didn't get the work. The trouble was that I had a lukewarm majority but no one that would 'go to the mat' for me. I should have picked one of my friends and made sure that he would stick by me through 'thick and thin.' I didn't do this and as a result the other fellow, who had a fighter on his side, gradually won over enough votes to swing the job his way" . . . which leads us to our point that: "One fighter on a board is often worth more than a lukewarm majority."

A certain interior decorator executes about \$200,000



LAZARNICK

table cloth and later hung the table cloth on the wall

worth of business a year. Much of his work is in connection with club interiors, on which he works right along with the architect. He is about the best salesman with committees and boards I have ever known.

ASKED how he does it, he said, "On every committee or board there is one fellow who dominates the others. I decide who this important person is and then direct most of my selling effort to this one fellow. Of course, if I pick the wrong fellow all I can do is withdraw gracefully, for I never switch horses. You know, you can't switch horses in a race."

Perhaps there's something to this theory. At least, it works for this man.

An architect in Indiana suggested an idea which has always been helpful to him in securing commissions. He says that when a number of architects are called in to make a presentation, he always takes the stand in favor of the selection of an architect at that meeting. In this way, the matter is settled one way or another.

He suggests that final details be worked out through the committee and himself at a later meeting. In this way the fee to be paid is not an item under consideration and the Board has a tendency to select the architect who seems best fitted for the work. After a selection is made he returns with a contract which generally includes a higher fee than the other architects interested would have received.

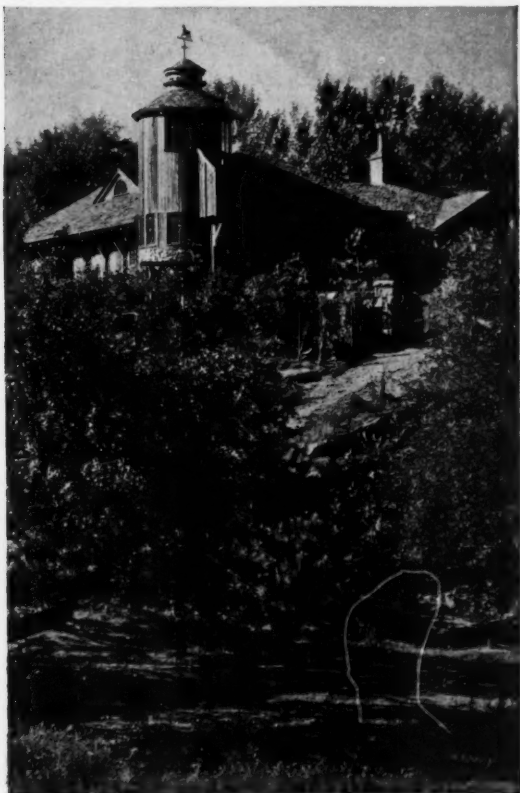
One architect of my acquaintance tells me that when he goes to another town or city for work, he stays in that town until an architect is selected by the prospective builder. He says that when he is asked when he is leaving town he replies, "Just as soon as we come to a decision regarding this work." Then between appointments he utilizes his time in securing surveys of the property and other necessary data. This procedure generally makes an impression on the client and, more often than otherwise, he leaves town with the work.

Another architect has told me about an instance in which he was invited to have (Continued on page 70)



Restaurant and bathhouse, Jones Beach. Herbert A. Magoon, architect, Long Island State Park Commission. Harvey W. Corbett, consultant

Mural from Jamaica High School, Long Island, N. Y. One of several panels by Suzanne Miller



Sports building for Starling W. Childs at Norfolk, Conn. Taylor and Levi, architects



From the
47th ANNUAL EXHIBITION
 held by the
**ARCHITECTURAL LEAGUE
 OF NEW YORK**
 at the
 Academy of Fine Arts
 Feb. 27 to March 12

AMERICAN ARCHITECT



GILKISON

Night view of pylons, Soldiers and Sailors Memorial Bridge at Harrisburg, Pa. Gehron and Ross, architects; Lee Lawrie, sculptor



SHANNON

House of Sherman Pratt, Niagara Island in the St. Lawrence River. John W. Wood, architect



HEDRICK-BLESSING

Racine County Court House, Wis. Holabird & Root, architects



SIMONDS

New Haven Lawn Club, Connecticut. Douglas Orr, architect



GOTTSCHO

Gallery of the Archibald M. Brown apartment in the River House, New York City. Peabody, Wilson and Brown, architects

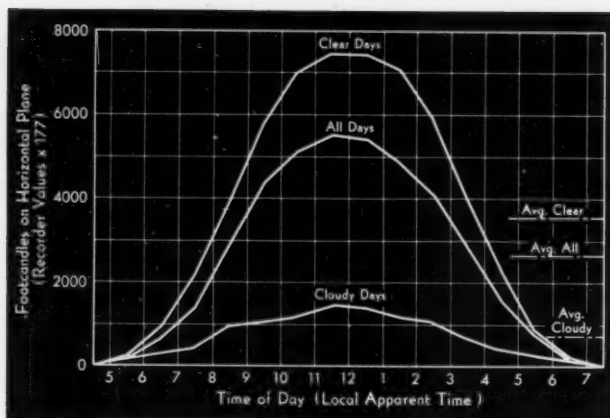


FIGURE 1

AVERAGE DAILY ILLUMINATION on a horizontal plane is 3,540 foot candles for clear days, 2,655 foot candles for all days and 708 foot candles for cloudy days only

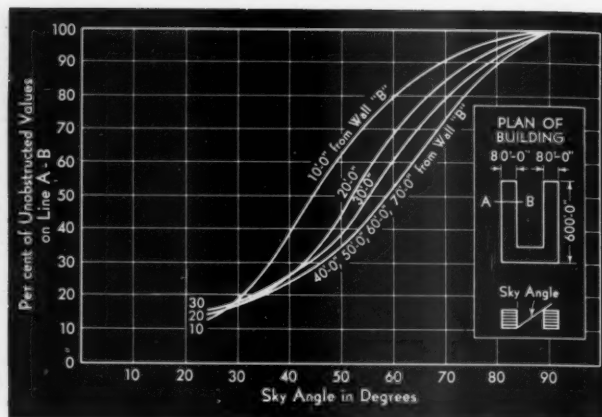


FIGURE 2

VARIATION OF ILLUMINATION, which changes according to the "sky angle." For example, at 10' away from a window, with "sky angle" of 30°, daylighting was 18%

Daylighting Commercial Buildings

By A. J. MARTIN, Illuminating Engineer, Detroit Steel Products Company

DAYLIGHTING design parallels that of artificial lighting design in that there are three principal points of interest, namely: 1. The light source, which in this case is the window and the factors affecting it *outside* of the building. 2. The window equipment, consisting of glass, shades, drapes, blinds, etc., which may be likened to the reflectors and inclosing globes of the artificial lighting system. 3. The room and its contents; that is, the size of the room, color of walls and ceiling, work to be done in it, and any interior obstructions.

Let us first consider the light source. In most methods of predicting daylighting in interiors, the window area itself is considered as the fundamental source, and is ascribed a certain brightness dependent upon the conditions for which we wish to predict. Further back than this is the actual light from the sky, a product of the sun, or even direct sunlight. Many people decry the use of daylight, saying that it is variable, low in quantity and generally unsuitable, although these same people make sure that their offices are where they can get plenty of it, and are glad to pay a premium for it (based on higher rentals demanded for outside offices.)

Tests over a period of years by the United States Public Health Service, and published in bulletin No. 197, show that, even on cloudy days, the average illumination available in New York City amounts to far more than is generally supposed. Figure 1 is taken from their data and shows that the average daily illumination

received throughout an entire year on a horizontal plane amounts to 3,540 foot candles when clear days only are considered; 2,655 foot candles when all days are noted; and 708 foot candles when only cloudy days are recorded.

If we base computations on cloudy days only—that being the worst condition usually encountered—we can, therefore, consider that we have a source of light capable of delivering 708 foot candles on a horizontal plane, which if originating from a hemisphere of equally cloudy sky would indicate a sky brightness of 225 candle power per square foot.

There are, however, many things which may happen to this light from the sky before it is delivered to the window surface and admitted to a room. Tall buildings across the street, buildings varying in color of surface, light wells or courts made necessary for this purpose and for ventilation, all have their effect on the amount of light reaching the outside of a window.

If we measure the angle between the face of our building and a plane drawn from the sill of the windows to the top of an obstruction, this angle will be a measure of the amount of light reaching the window. Figure 2 (from "Daylighting in Multi-Story Industrial Buildings" by A. Vogel, W. C. Randall, A. J. Martin and Frank Benford, published in Transactions Illuminating Society, February, 1928) shows how the illumination in a particular building varied with the "sky angle" obtained on different floors. For example, at 10' away

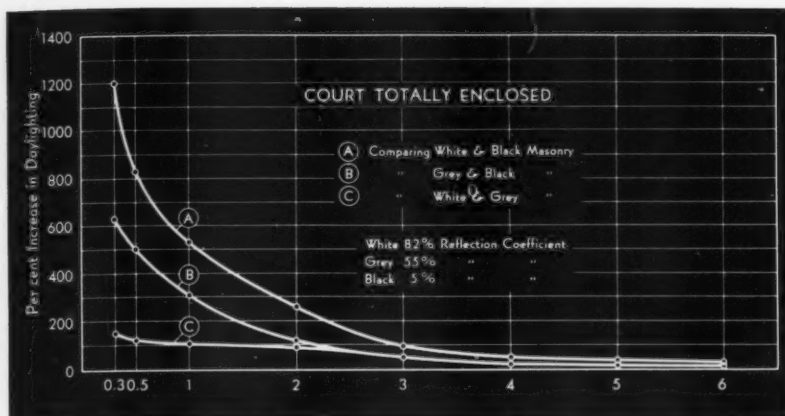


FIGURE 3

MATERIALS AND COLORS used for court space or for buildings opposite change the amount of daylighting according to their reflecting power. Using white instead of grey nearly tripled daylighting 40' from window

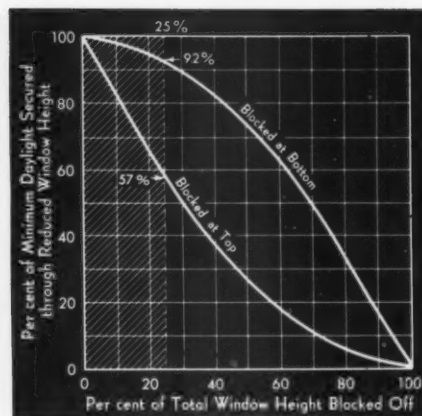


FIGURE 4

DAYLIGHTING loss at back of room is 43% if 25% of top of window is blocked off, but only 8% if bottom is blocked off

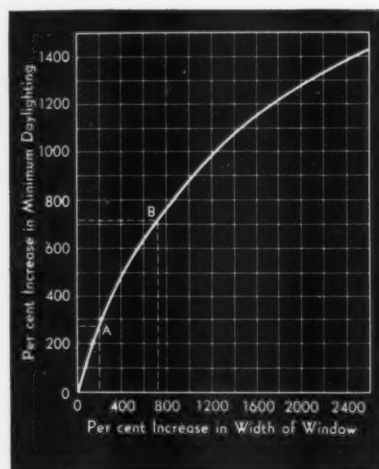


FIGURE 5

WIDER WINDOWS mean more daylighting, which increases at a rate greater than increase in width

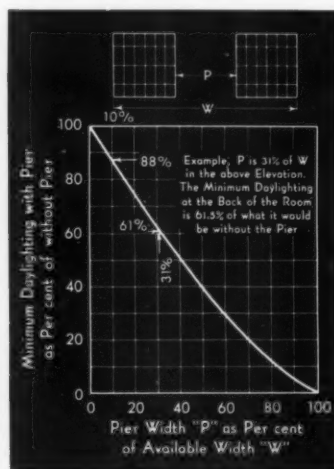


FIGURE 6

WIDE PIERS or large mullions reduce daylighting in proportion to their size

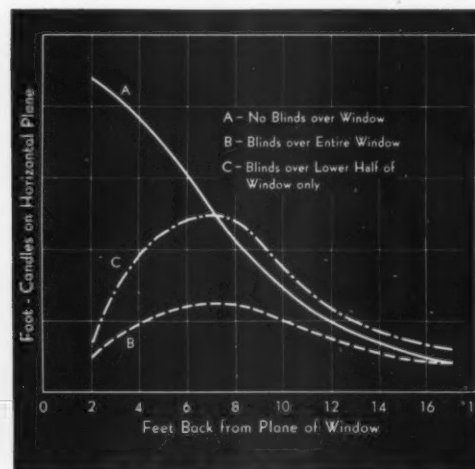


FIGURE 7

MORE DAYLIGHTING in back of room is possible with properly adjusted Venetian blinds, with intensity near window reduced

from the window wall on a floor having a sky angle of 30°, the daylighting was 18% of what it would have been if the windows had not obstructed.

MUCH can be done toward increasing the amount of light available through proper treatment of the exteriors of buildings. Materials, light in color, reflect a large amount of light into the windows across the street or court as can be seen in Figure 3 (from "Utilization of Exterior Reflecting Surfaces in Daylighting," by W. C. Randall and A. J. Martin in Transactions Illuminating Society, March, 1929) which shows the effect of progressively increasing the exterior reflecting factor of the spaces between windows, for various ratios of court width to distance down in the court.

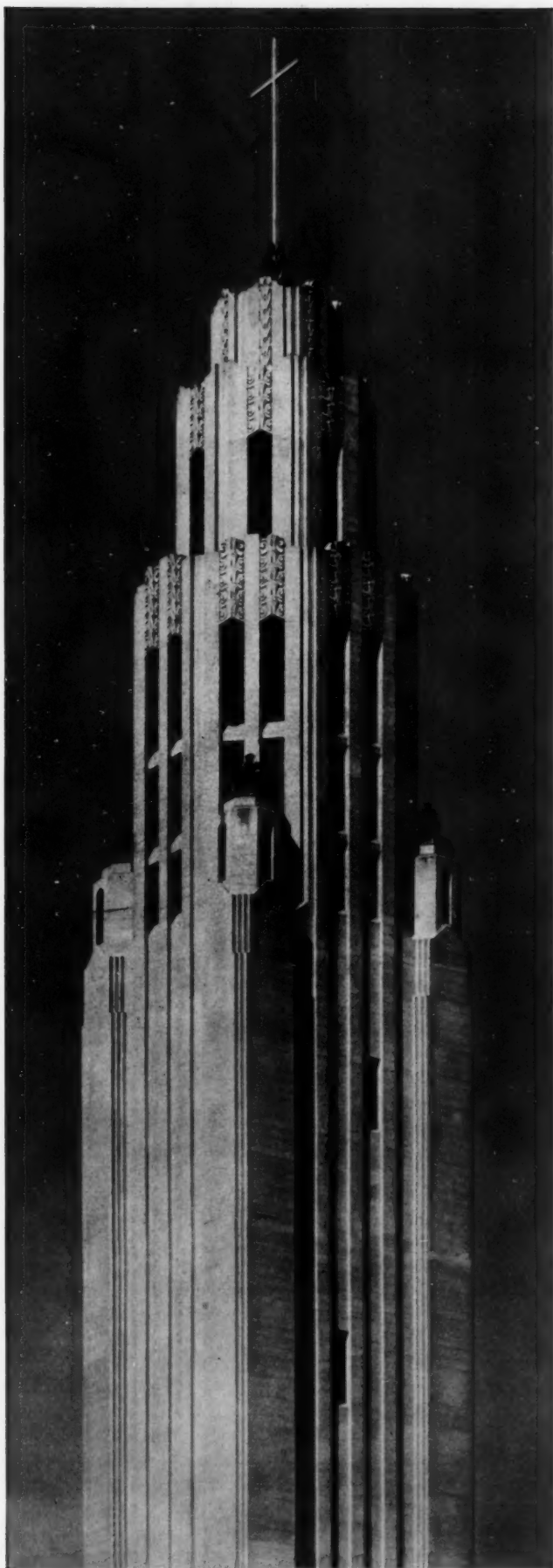
For a low ratio, such as that existing in a room at the bottom of a court, this increase is much greater due to the inter-reflection between walls, and in the case shown here, increasing the reflection factor from black to white, produced an increase in daylighting of 1,200%. Changing from grey to white—a change from 55% to

82% reflection—nearly tripled the daylighting 40 feet from the window.

The kind of glass to select for windows is one to provoke discussion. In office buildings, clear glass is almost universally used as it provides the maximum light transmission and outward visibility. A recent investigation, by H. H. Higbie and H. S. Bull, shows that we may hope to secure better results by the use of certain types of glass in the upper part of the window, this having the effect of literally increasing the effective sky angle. Care should be taken in selecting figured glass for redirecting purposes. Many of them are very hard to clean, and lose their properties when the prisms and facets become dirty.

Dirt on glass is one of the bug-bears of industry, as it has been demonstrated that glass in a vertical plane may lose as much as 50% of its efficacy in six months' time. As most office windows are washed oftener than this, the difficulty does not exist to such a great extent as it does in industrial buildings.

It is obvious that the actual (Continued on page 72)



CAST ORNAMENT, which is symbolic of the twelve apostles, decorates the main entrance



MASONRY SURFACES and masses are essentially without architectural modeling; there are no mouldings and no curves either in line or surface. Proportion, color, influence of lines, the relation of surfaces and the values of voids and masses were composed in the search for character and quality in the design



REINFORCED CONCRETE

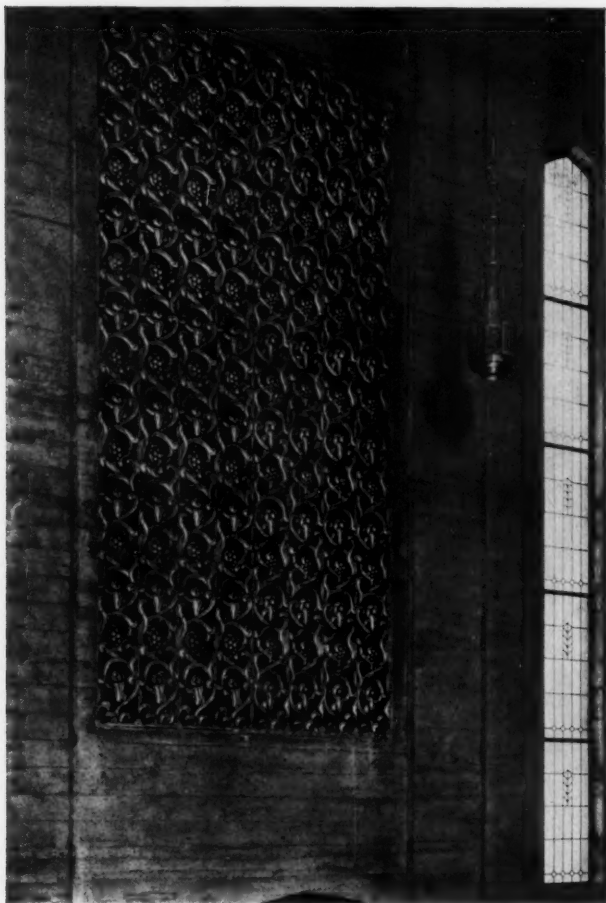
St. Joseph's Church, Seattle, Wash.

A. H. ALBERTSON, Architect

JOSEPH W. WILSON and PAUL RICHARDSON, Associates

Photographs by DePue, Morgan & Co.

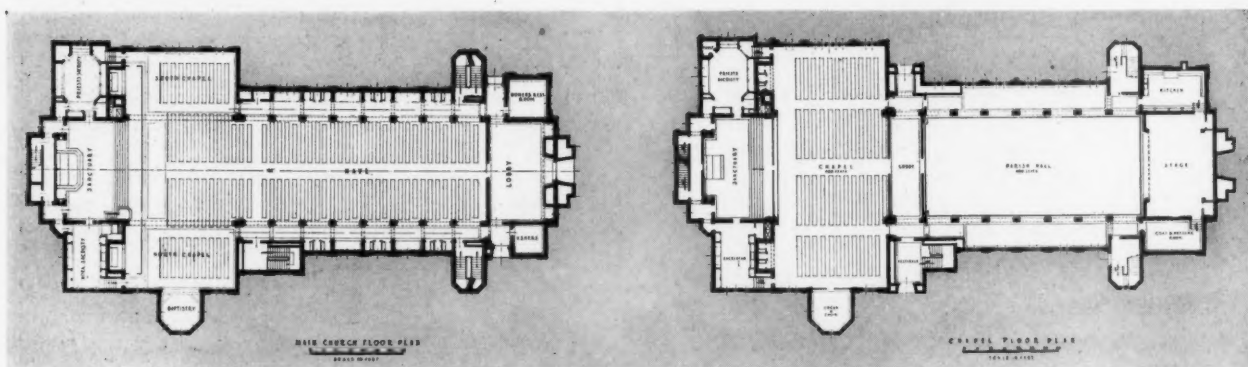
FINISHING MATERIALS AND COLOR



ORGAN GRILLE of ornamental plaster

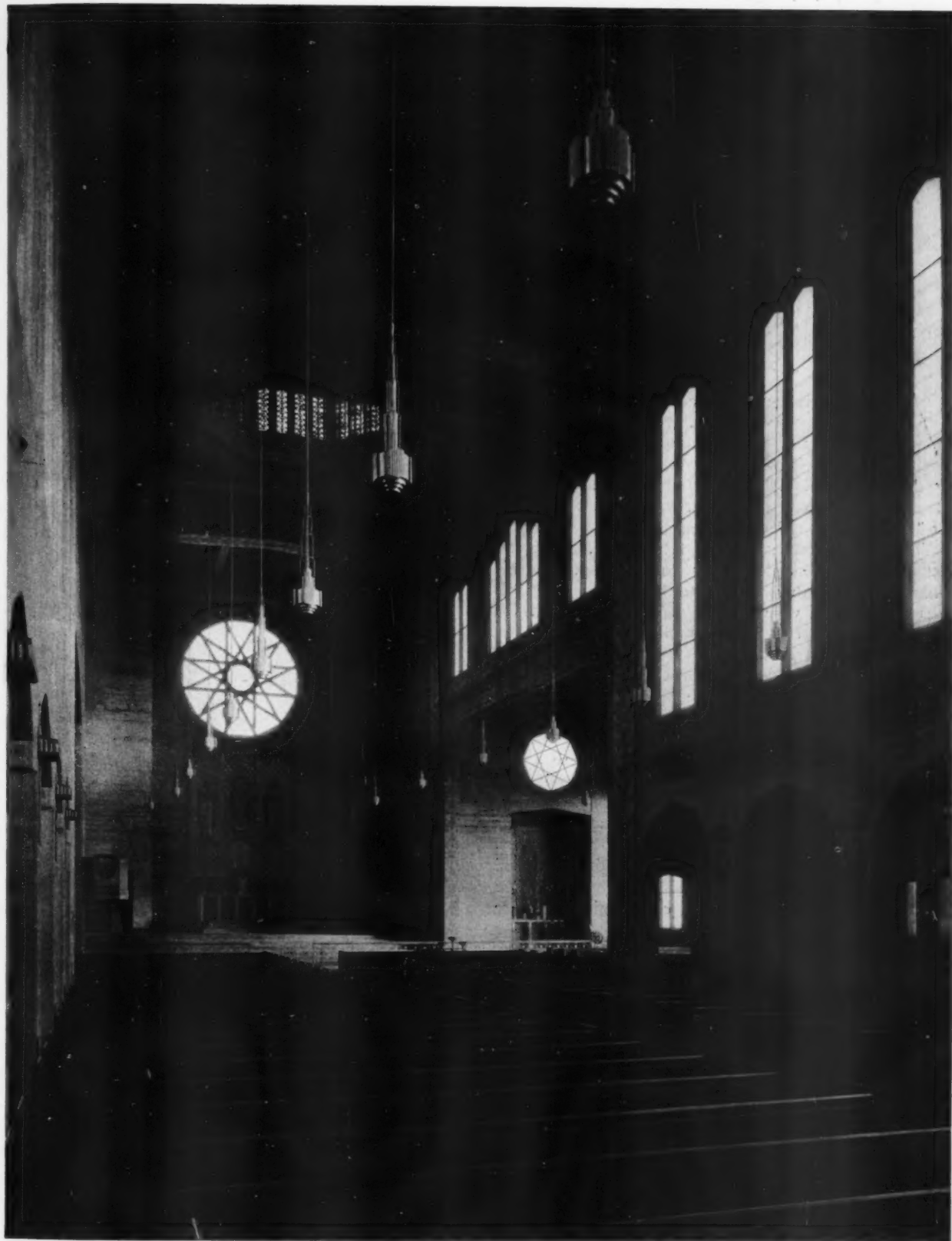


BAPTISTRY GRILLE of wrought iron



ST. JOSEPH'S CHURCH is a homogeneous mass of reinforced concrete from foundation to cross, no furring space, stucco or plaster being used inside or outside. Surfaces were left as they came from the forms, color having been added in some instances. An integral waterproofing was used in the solid walls; an outside coat of colorless damp proofing, carrying a light tan stone color, was brushed on and ground in with a revolving carborundum hand wheel but without obliterating the form marks. Concealed expansion joints were provided. The monolithic roof slab is protected from the sun by felt insulation cemented before laying the roofing. Pier caps, copings and lintels are terra cotta similar in color to the concrete and set flush. The dull Verde antique of the copper roofs and gutters and of the iron work is used as a color contrast to the main walls

USED TO EMPHASIZE CHARACTER



TYPICALLY CONCRETE. Color is introduced by the use of altar mosaics of glass, marble altars, wrought iron grilles enclosing the baptistry and hand made gold bronze tabernacle. Cement floor is tinted with dull rose. Concrete is colored a neutral wine shade. Ceiling beams, arch soffits and other suitable places carry dull rich hand painted ornaments

Pitfalls in Wood Framing

By HAROLD S. WOODWARD

Structural Engineer, New York

WOOD is a material commonly used in small building construction. The fact that a building is small does not mean that the engineering problems are simple. Generally speaking the contrary is true. At times the problems involved are as difficult and interesting as those encountered in modern steel structures.

While wood has an ample safety factor, this is no excuse for careless design or construction. Actual construction details may be left to the carpenter in some cases but it is not wise to depend on his judgment for important beams, trusses, or complicated details.

The fact that a structure is standing is no indication that it was properly designed or built. The live load in residences, for example, is small and this point together with the safety factor often prevents failures that might otherwise occur.

The woods commonly used for construction are yellow pine, douglas fir, and spruce. The best structural wood is longleaf yellow pine with douglas fir next. The desired quality is determined by specifications or by grading rules established by the lumber associations. If the best grade is desired the wood should be specified as "Select Structural." It is often desirable to use the best timber for trusses or for certain girders where a lower grade of wood would give sizes too large for the purpose.

In the framing of wooden structures such as residences the sizes of members are often surprisingly large when all the loads that come on the member are considered. In a residence the fact should not be lost sight of that it is the exceptional case where loads carry straight down to a foundation, no offsets being encountered on the way. In many cases the roof is carried on a partition which in turn must be carried on the second floor. The second floor rests on another partition which may in turn be carried on the first floor. It is obvious that the first floor joists must be designed for a heavy load. In many cases steel beams are necessary to carry the concentrations.

A condition that often occurs when wood joists frame into steel beams is shown in Fig. 1. The joists at the upper level are cut away in order to obtain bearing on a nailing block on the beam. This seriously weakens

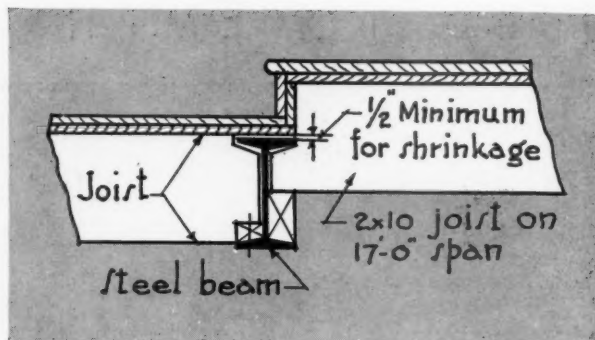


FIG. 1

CUTTING JOISTS weakens them and splitting in the corner of each notch may be expected

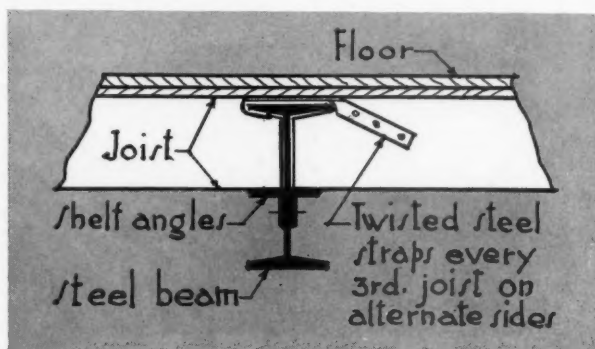


FIG. 2

BRACING TOP FLANGE of steel beams makes it possible to use a more economical size beam

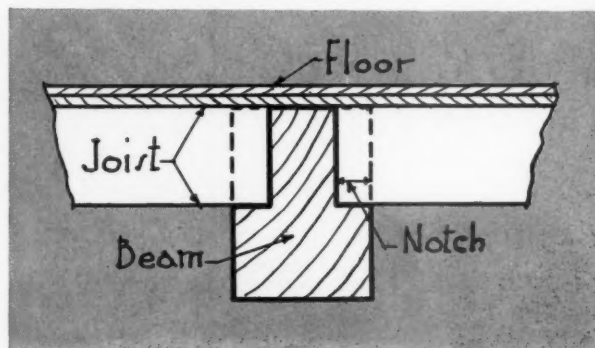


FIG. 3

BEAMS ARE WEAKENED when cut, which must be considered when figuring their proper size

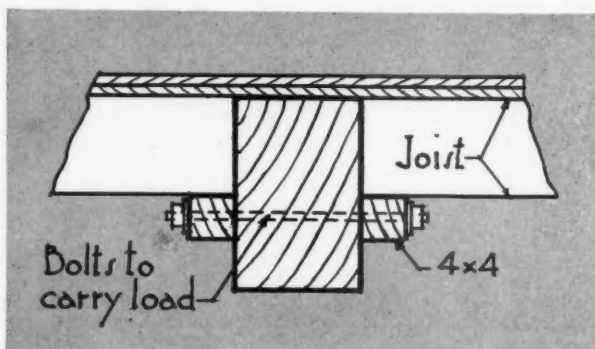


FIG. 4

FOR FLUSH TOP, joists may be carried on a 4" x 4" shelf, load determining number of bolts

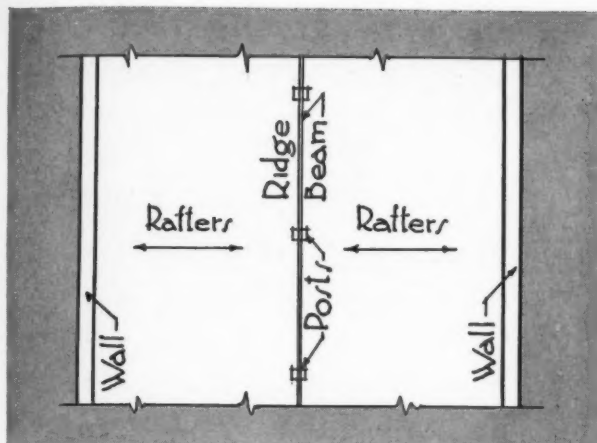


FIG. 5

NO THRUST to consider in framing as load is carried by outside walls and posts supporting ridge beam

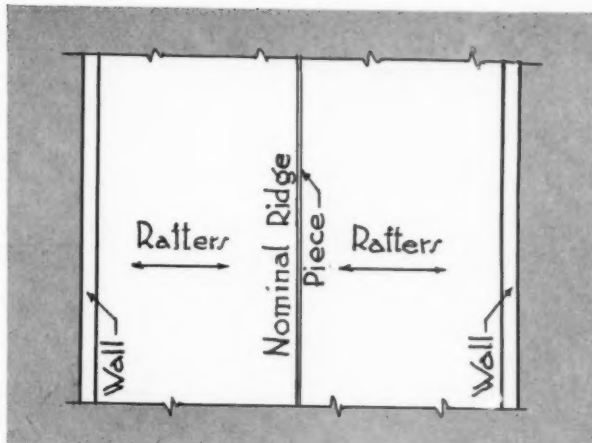


FIG. 6

THRUST ON outside walls requires a tie beam whose position influences the size of rafters. See Fig. 7

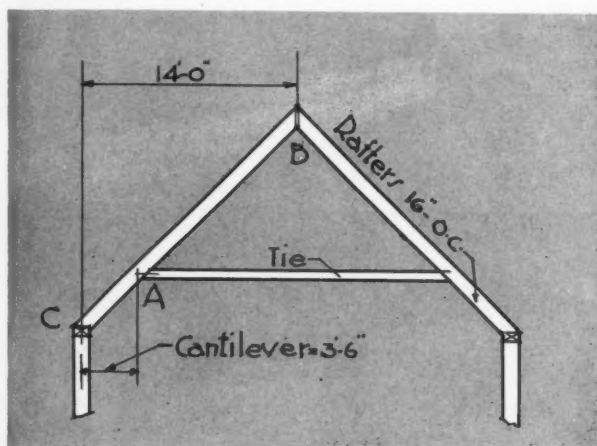


FIG. 7

RAFTERS BECOME cantilevers from "A." If not sized accordingly, cracks may occur in supporting walls

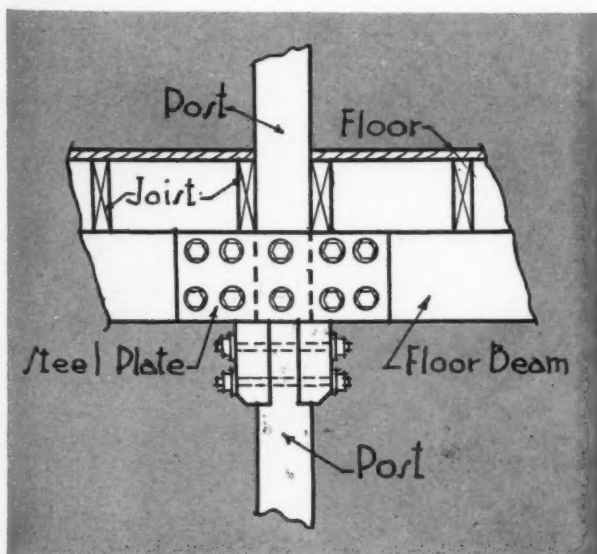


FIG. 9

CORRECT framing of continuous posts. Top and bottom of posts should preferably bear on each other

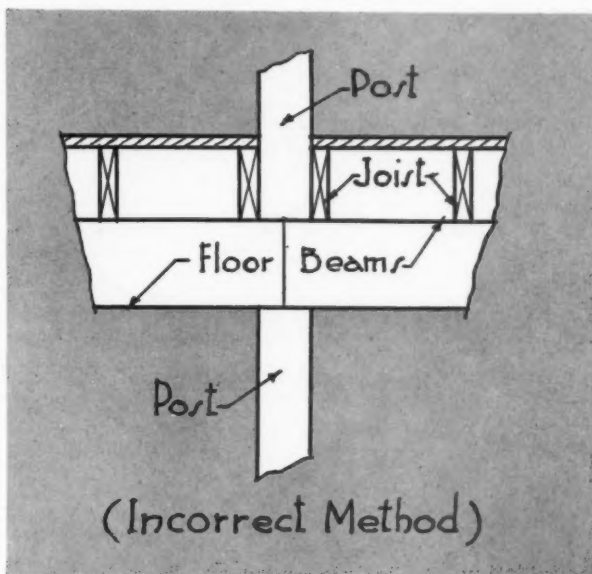


FIG. 8

CONTINUOUS POSTS should not be framed like this as shrinkage will lower all construction above

the joists due to the horizontal shearing action at the support and also due to the fact that there is a difference in stiffness on either side of the vertical cut. The joists have a tendency to split in the corner of the notch. This holds true whether the notch is in the top as shown in Fig. 1 or in the bottom. Theoretically if the joist shown has a span of seventeen feet with a live load of forty pounds, it could be cut only 4 inches before exceeding the allowable horizontal shearing stress. Actually, however, the joist is weakened more than this due to the difference in stiffness and to the development of secondary stresses. Tests have shown that a shoulder of 20 per cent of the depth reduces the strength 36 per cent, while a shoulder 60 per cent of the depth reduces the strength about 75 per cent. Due to this serious weakening action joists and beams should be cut as little as possible.

It is often necessary to cut wood joists and beams for pipes and conduits. In (Continued on page 66)



Approach from garden, estate of B. D. Riegel, Southport, Conn. Armand R. Tibbitts, landscape architect

GOTTSCHO



Garden on the estate of Louis Wilputte, New Rochelle, N. Y. Clarence Fowler, landscape architect



Sunken garden on estate of Childs Frick, Roslyn, Long Island. Marian Coffin, landscape architect

GOTTSCHO



FROM AN
EXHIBITION
OF
LANDSCAPE
ARCHITECTURE

. . . to be held by the
New York Chapter of
the American Society of
Landscape Architects at
the Ferargil Gallery, New
York City, March 16-26



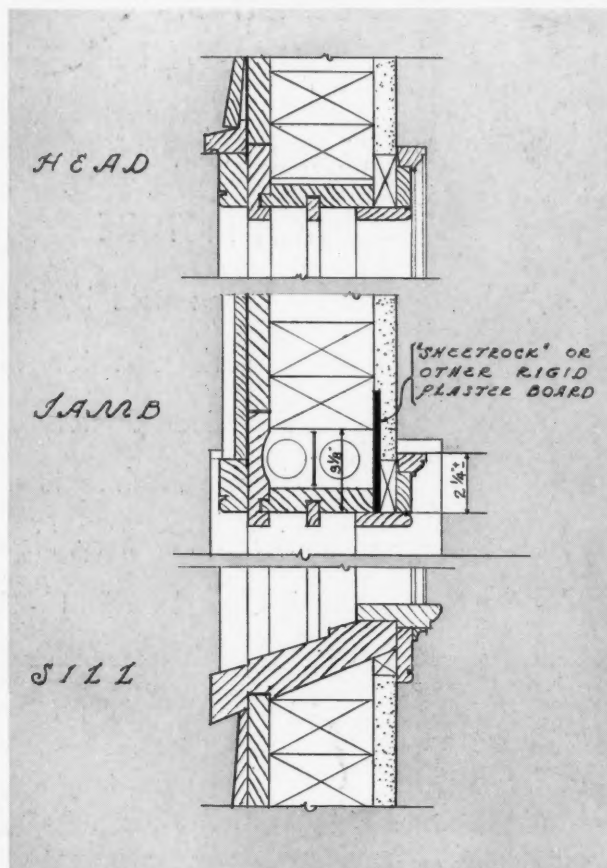
■ Entrance from pool garden,
estate of the Misses Righter at
Bedford Hills, New York. Helen
Swift Jones, landscape architect

BELOW: Detail, "the bather."
From the swimming pool and bath
house on the estate of Carl J.
Schmidlapp, Millneck, Long Island.
Edmund R. Amateis, sculptor.
Ferruccio Vitale and Alfred Geif-
fert, Jr., landscape architects

GOTTSCHE

\$10 ... Things You Didn't

Good ideas are wanted for this department. They may be glad to know. Sketches should be sent if illustrations



• NARROW TRIM ON DOUBLE HUNG WINDOW

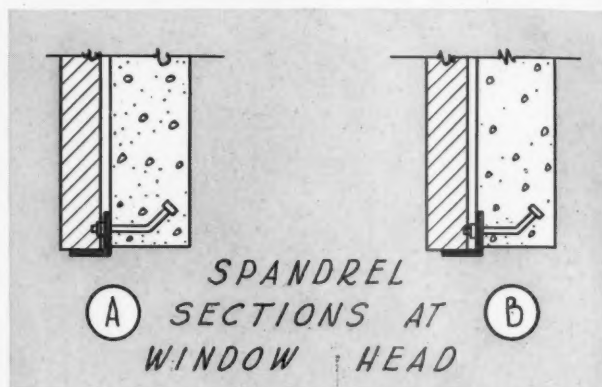
By Carl Cederstrand
Washington, D. C.

THE idea of narrow trim is abandoned in most cases because no practical way of covering the weight box can be seen. The accompanying drawing shows how this problem can be solved in such a manner as to make it easy to use narrow trim on a double hung window in a frame building.

• TO CHASE BURGLARS

By Harold H. Ehlert
Detroit, Michigan

MOST burglars are afraid of two things: noise and light. These safeguards may be included in most houses by writing in the specifications that all lights are to be controlled by one switch to be located in the master bed room, also that a switch shall be provided there for an electric gong to be used in case of necessity.



• KEEPING WATER OUTSIDE SPANDRELS

By Mike Mebane, architect
Houston, Texas

IN detailing spandrel beams, the draftsman ordinarily tacks on the shelf angle as shown in (A) and the detail is carried out "literally" on the job. Water invariably finds its way behind the 4 in. brick curtain. Backing up, it seeps between the angle and concrete beam, thus staining the window-head plaster.

In (B) the inside face of the angle is drawn flush with the face of the beam, and the water flows outward along the bottom of the angle.

Forming is expedited when the beams are detailed as in (B). The angle is set in the back of the form so that the concrete is poured around it as well as the bolt. No holes need be drilled in the form work, nor is any other support required for these bolts while the concrete is being poured.

• USING FLY SCREEN WHEN RENDERING WITH PASTEL

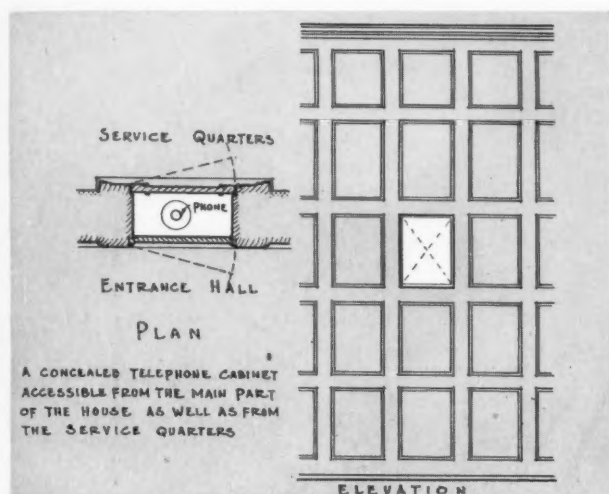
By F. W. Bang
Boston, Mass.

WHEN rendering with pastel, a small piece of metal fly screen the size of a sample cut will be found convenient in two ways. First, as a powdering agent. Lay the screen on a cardboard "palet," rub pastel over screen enough to crumple the quantity needed. A blended tone is had by mixing the powders obtained through this "screening."

Secondly, lay the screen over area to be rendered. With a chamois skin rubbed into the desired color, wipe over the screen, rubbing firmly with just a few strokes. Remove screen and fix the rendering, as the texture obtained is easily smudged.

LEARN in School...\$10

big or little—the sort of thing most architects would be
are necessary. \$10 will be paid for each idea accepted



• TELEPHONE CABINET USED IN TWO ROOMS

By Harold H. Ehler
Detroit, Michigan

TO avoid unnecessary steps, a concealed telephone cabinet can often be located in a partition with doors on either side so that it is accessible from two rooms.

• A NEW SKETCH MEDIUM

By E. Sewall Smith
Niagara Falls, N. Y.

SKETCHING one day in Venice with a Conté sepia pencil, I stumbled upon a new medium. A misty rain had come up; my paper became wet. The pencil lines began to flow in streams of brownish wash. I tried manipulating them with a water color brush, added some more strokes, then alternated a pencil and brush technique. The process was intriguing and a creditable result was quickly and easily obtained.

The pencil glided over the wet surface of the paper with great ease, and a value could be put on as soon as its defining area had been drawn. However, the mobility of the line and the flow of color from each stroke aroused the consternation of the inevitable on-lookers to no small extent. The group of longshoremen and gondoliers that gathered behind me when first I used this method were fascinated by the procedure. With their years of experience in supervising artists at work, they are doubtless most competent art critics. One could hear them go, "Tsck—tsck—tsck—tsck!" for blocks around, I am sure.

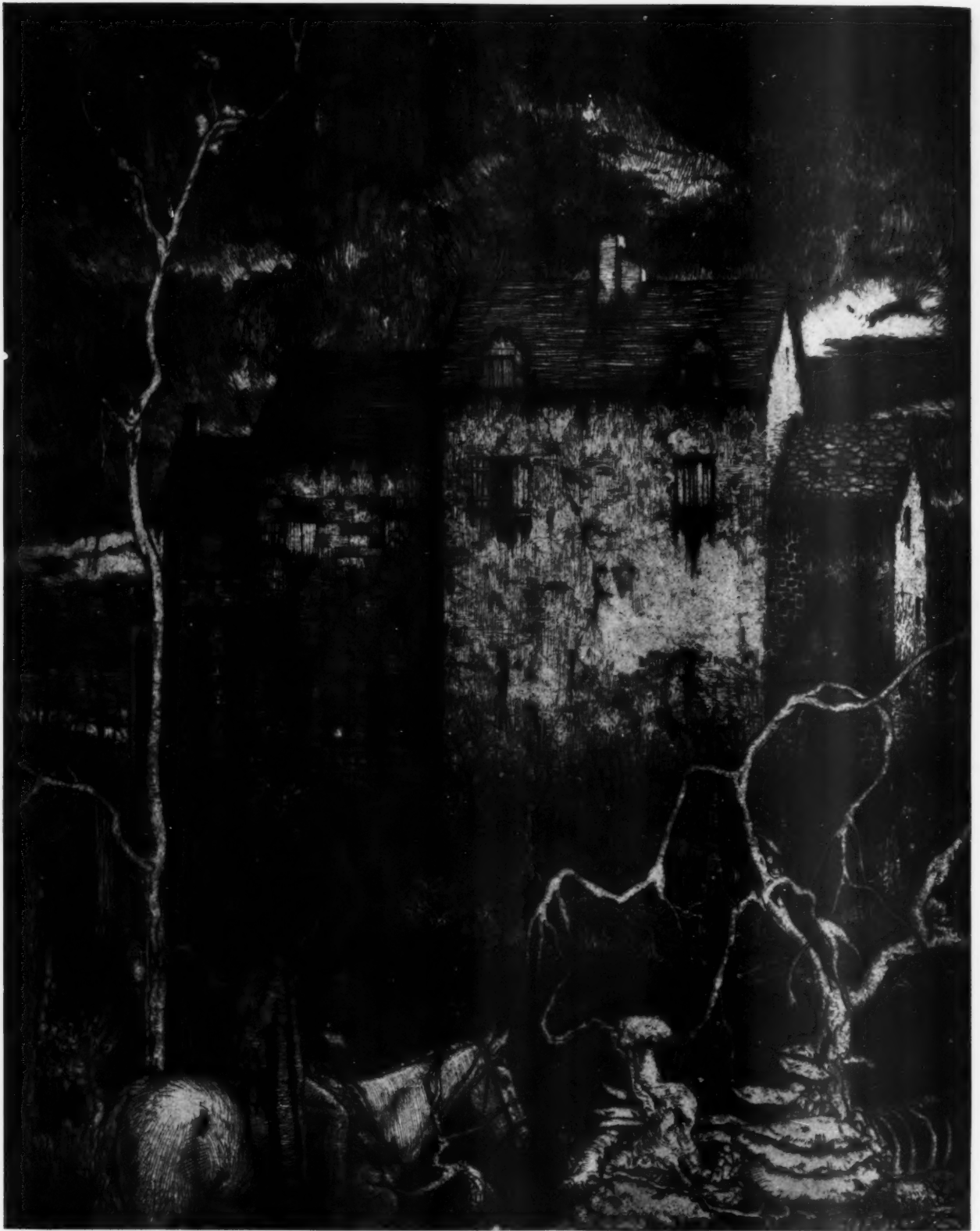
The sketch herewith reproduced is of an old well-head in a courtyard of Hadrian's Tomb in Rome. It was done on a heavy paper with a very smooth surface.



After dipping the paper in water, the drawing was made very lightly with the Conté pencil. The dark tones and accents were then put on directly with the pencil; the lighter values were abstracted from the darkest portions with a brush fully charged with water. I found that values can also be added by drawing very lightly over the surface of the wet paper and then using the brush to amalgamate these lines into a tone. Definite line strokes and small dark accents are made last, as the paper dries, occasionally dipping the pencil in water to get a deep rich value to the stroke.

After the sketch is thoroughly dry, additional highlights can be added by the deft use of a soft eraser sharpened to a point. If desired, tone values can be lightened or even graded from dark to light by using art-gum crumbs, rubbing them with a piece of paper over the portion to be lightened.

This medium of sketching will be found very valuable. The blunt point of the pencil lends itself to a method of indication rather than a too careful, tight delineation of detail. A few swift strokes achieve a pleasing breadth of treatment and suggest detail.



THE HOUSE OF USHER

"I know not how it was—but, with the first glimpse of the building a sense of insufferable gloom pervaded my spirit"

» » » » TWO ETCHINGS BY

Depicting the feeling of gloom, foreboding and horror of Poe's well-known story "Fall of the House of Usher." This print was judged the best piece of technical execution in pure etching at this winter's exhibition of the Society of American Etchers and received the John Taylor Arms prize



ROBERT LAWSON « « « «

HAPPY VALLEY, SUMMER

One of four etchings depicting the seasons in an imaginary land where everything is just about as one would wish it to be. Mr. Lawson is particularly well known for his etchings of gnomes and fairies. The etchings illustrated are reproduced through the courtesy of Kennedy & Co., New York

FOR MARCH 1932

51

SAVING TIME IN Writing Specifications

By

PHIL P. SCROGGS, A.I.A.

Scroggs & Ewing, Architects

Augusta, Georgia

EVERY architect is interested in getting his specifications written in the most accurate and efficient way, for the least possible cost. Dictating or writing in long hand every word in every specification is too tedious, expensive and otherwise unsatisfactory. The use of standard printed pages, with the exception of the General Conditions, is very apt to cause serious errors, either in omissions or unintentional additions. Copying portions of old specifications is too crude to even deserve mention.

The writer tried for years to develop a specification file and a means of writing them that would make each job individual and accurate and yet would eliminate the necessity of dictating or writing over and over again such phrases or sentences as are fairly uniform for every job. Several years ago I hit upon a scheme which I have chosen to call the "Key" system, tried it out and found it workable. It has been used in our office now for several years, with a marked elimination of errors and saving of time.

The file consists of more or less standard paragraphs, as shown by Figures 1, 2 and 3. These paragraphs are typed on ordinary typewriter paper and filed in loose leaf form. Each sheet is numbered in the upper right hand corner to exactly conform to the A. I. A. standard catalog file number for the item specified on the sheet. Obviously, there can be just as many different standard paragraphs for each subject as the architect or specification writer desires. But to keep the quantity of such paragraphs down to a minimum is one of the tricks.

In the wording of the paragraphs, Figures 1, 2 and 3, will be noticed incomplete sentences and at the end of

FIGURE ONE

1201-1

TIN ROOFING:

The Contractor shall provide tin roofing at (130) complete with all flashings, counterflashings, etc. All materials shall be as specified under the heading "Materials". All such roofing shall be applied with standing seams, and the sheets shall be put together in long lengths in the shop. All cross seams shall be flat. The tin shall be secured to the roof sheathing with 1½"x3" tin cleats, spaced not over (139) apart, along the vertical seam.

FIGURE TWO

1201-1

DOWNSPOUTS:

All downspouts shall be corrugated (131), and shall be fitted over the outlet tube in the gutter and secured to the building with (132). Downspouts shall be rectangular and where connected to the underground drainage system, shall be carried to the upper end of drainage pipe and the joints between the downspout and drain pipe shall be sealed with cement mortar well worked into place and finished smooth.

FIGURE THREE

1212-1

GUTTERS:

All gutters shall be the hanging type, installed to conform to detail drawings. They shall be banded and provided with mitre corners, outlets, caps, etc., as required. On long runs between outlets, the high point shall be placed midway between the outlets. Gutters shall be constructed of (135) and shall be supported on adjustable (136) hangers, spaced not over 3'-0" apart.

(Not to be copied by typist)

(135) Galvanized steel or iron, 16 oz. copper, 16 oz. copper coated both sides with lead.

(136) Galvanized iron, copper or brass.

A » » » THESE . . .

STANDARD PARAGRAPHS are written for the specification file. Where specific data must be inserted, a blank space is left with a number. These numbers are repeated at the bottom of each sheet with alternate data. See Fig. 3

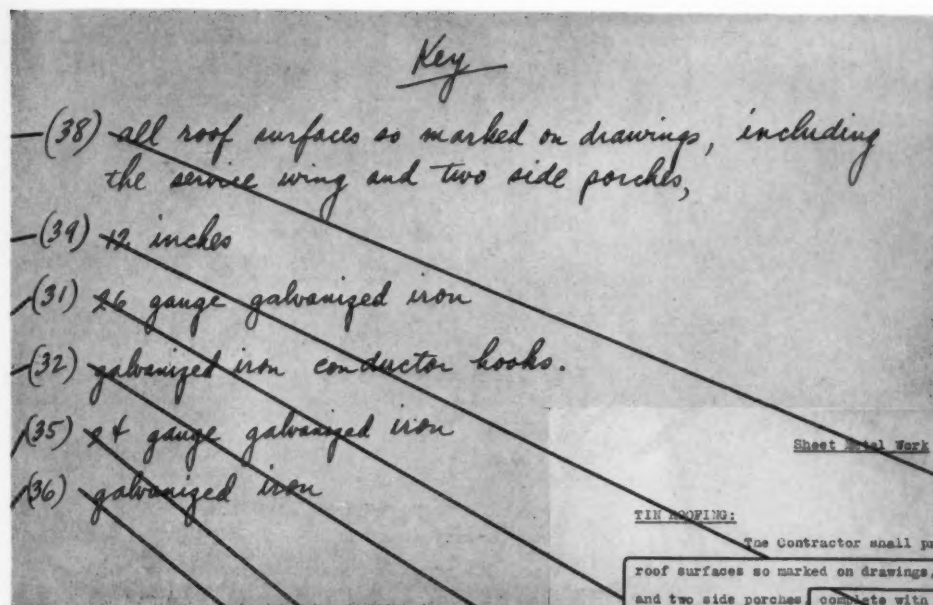


FIGURE FOUR

FIGURE FIVE

B WITH THIS . . .

KEY SHEET, indicates what shall be typed in where numerals occur in standard paragraphs

THE SYSTEM CONSISTS OF

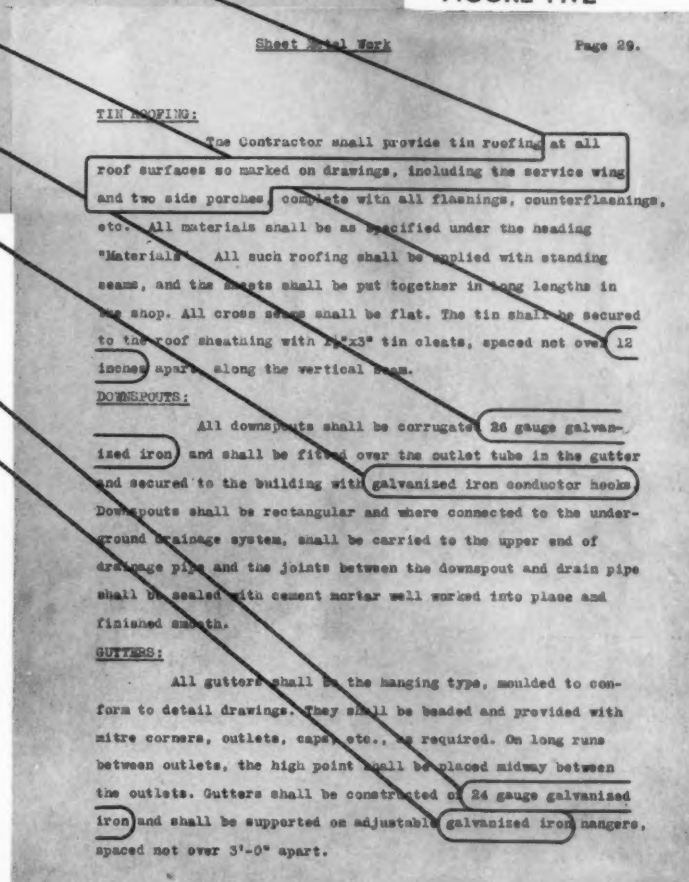
- 1: A loose leaf file of standard paragraphs, such as Figs. 1, 2 and 3.
- 2: A. I. A. standard catalog file number for the item specified on the sheet is placed on upper right hand corner for convenience in reference. Figs. 1, 2 and 3.
- 3: Key numbers occur in various incomplete sentences. Figs. 1, 2 and 3.
- 4: A memo at bottom of sheet indicates what is to be filled in where key numbers are shown. Fig. 3.

TO USE

- 1: The standard paragraphs desired, Figs. 1, 2 and 3, are selected from the loose leaf file.
A "key" sheet, specially written for each job, Fig. 4, tells the typist what to insert where key numbers occur.

THE RESULT

A completed specification, prepared from Figs. 1, 2, 3 and 4, is shown in Fig. 5.



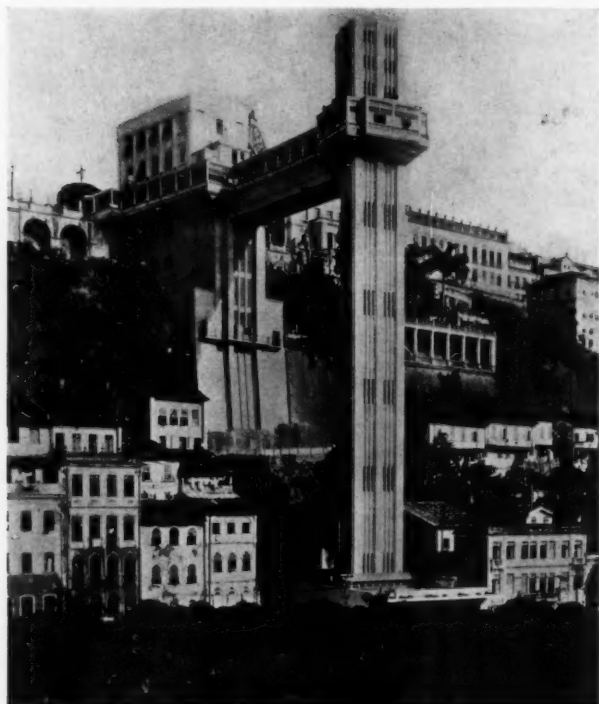
C » » » GIVE THIS

COMPLETED SPECIFICATION, "Sheet Metal Work," which is as specific to the job at hand as if every word were specially written

each such sentence, or at the point of the deficiency, a specially designated number, thus: (38). These are the "key" numbers.

On the bottom of each standard sheet is a memorandum (not to be copied by typist), which indicates what is to be filled in the above specification where the key numbers are shown. This can be expanded to a point where it is virtually a reference book and catalog combined. For instance, on a flooring specification, the general description may be given in the text of the standard paragraph, inserting a key number for the kind, grade and size of the flooring, then in the memorandum at the bottom of the sheet the (Continued on page 92)

WHAT ARCHITECTS



ELEVATOR TOWER, La Cerdá, Brazil. A convenient means of transportation between the upper and lower level of city. Courtesy Otis Elevator Co.

THE proposed New York Building Code permits a new class of structure called "Class 2 Fire Protective Structure." This class is intermediate between the fully fireproofed structure and the so-called non-fireproofed structure. The structural members of the new Class 2 will be of incombustible materials with adequate fire protection for the uses to which they may be put. Buildings in this class may be built for residence purposes to a height of 100 ft. or nine stories, and for business purposes to a height of 75 ft. or six stories, except that garages are limited to two stories in height.

POSSIBILITIES in architectural lighting are demonstrated in a group of miniature buildings at 1/16th scale, worked out by E. F. Lumber and C. T. Masterson of the General Electric Co. Incorporated are the latest developments in flood lighting, built-in lighted panels, electric signs as an integral part of the building, color, well lighted display windows. The model was built for the Kansas City Power & Light Co., Kansas City, Mo.



Features of New York Code

California Tries Two Shifts of Five Hours Each In Building Trades

Wage Cuts In Building Trades

CRACKS in the Vatican, which is 400 years old, have been present for many years but nobody paid any attention to them until the recent collapse of part of the structure. Then thin strips of glass were cemented over various cracks to determine if there was any tendency to spread. Within the past few weeks several of these pieces of glass have broken, giving warning that the old masonry is settling.

VARIOUS combinations of metal and heat insulating materials lighter than masonry walls are permitted in the proposed New York City Building Code. Not only will the cost of the wall thus be reduced, but since the walls will be lighter, the amount of steel and foundation necessary may be reduced.

RADIO CITY'S 70 story office building will contain 76 elevators, the largest number ever installed in one building. These elevators will handle 13,000 persons and 30,000 visitors and will cost \$2,500,000. They are being installed by the Westinghouse Electric Elevator Co.

BUILDERS, contractors and sub-contractors will be licensed in New York State if a proposed bill is adopted. The bill is modeled after the California law licensing builders.

ARE TALKING ABOUT

Bill to Eliminate Bid Shopping

Brooklyn A. I. A. Condemns Architects'
Small House Service Bureau

Largest Elevator Installation



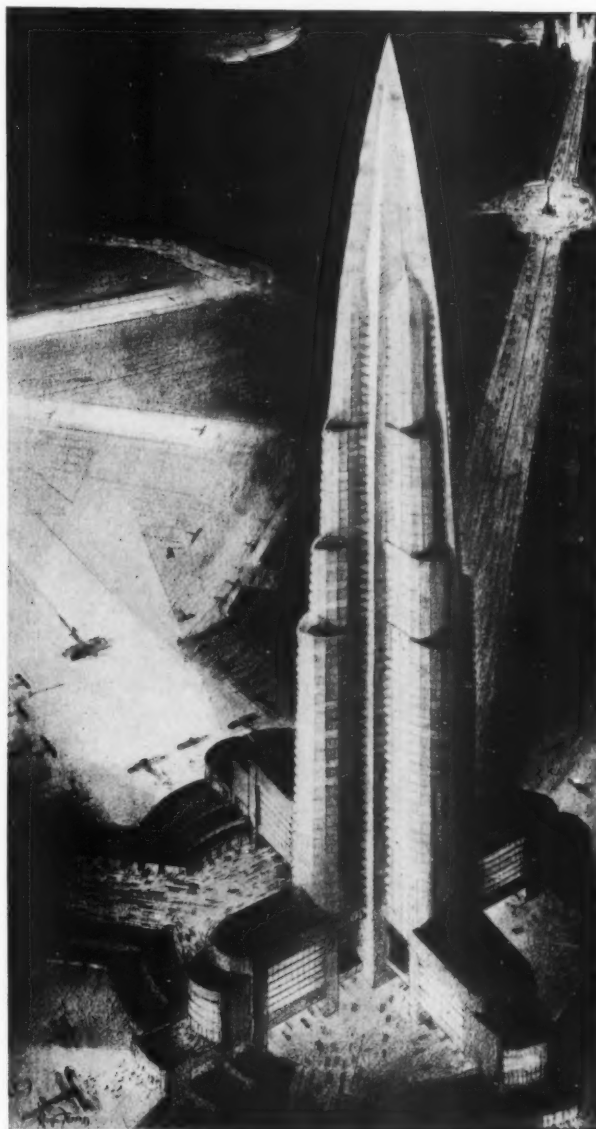
DIANA, a mantel group 28 inches high, modeled as a free standing relief with a thickness not exceeding two inches. Paul Fjelde, sculptor, New York

THE Committee on Unification, A. I. A., according to "The Octagon," has approved the plan "to set up the state societies as independent state corporations, with inclusive membership, and with memberships as organizations in the Institute. This would give them voting power in the meetings of the Institute, but that power should not predominate over the individual memberships. Otherwise the Institute shall remain with its present set-up and its chapters." Edwin Bergstrom, A. I. A., is chairman of the committee.

CONTRACTORS in California are now licensed. Architects and engineers are also licensed. Contracts with unlicensed individuals can not be enforced in a court of law so that the individual who deals with such individuals is automatically without protection of California law or courts.

ESCALATORS capable of a speed of 180 ft. per minute and suitable for vertical rises of from 24 to 90 ft. are being installed in the London subways. This is twice the speed and nearly twice the vertical rise formerly used. They are being installed by the Otis Elevator Company.

FOR MARCH 1932



SHANNON

AIRPORT OF THE FUTURE. An imaginative conception by Hugh Ferriss. The skyscraper houses the airline executive offices and is a mooring mast. The four waiting rooms open on the landing fields. From an exhibition of Mr. Ferriss's work at Roerich Museum, New York City

THE Western Division of the United States Chamber of Commerce has adopted a resolution endorsing H. R. 6187, introduced in Congress for the purpose of getting the government out of the architectural business. The resolution reads:

"The Western Division recommends that, in the case of the construction of government buildings, the government architect should act only in the capacity of a supervising or consulting architect and as liaison officer between government departments in the preparation of building plans and programs; and further that local architects and engineers, who customarily have a more intimate knowledge (Continued on page 74)

As It Looks

Roof Gardens Seem Passe

ROOF gardens and restaurants on hotel roofs—so popular in days now past—seemed to have outlived their appeal. People are more inclined to do the easiest thing—and riding elevators to the roof is harder than walking into a main floor restaurant. Exceptions to this seem to be where the warm weather is of sufficient duration to make the extra effort conducive to greater comfort while eating, or where there are unusual entertainment features that attract the crowd.

Hitler as Architect

ADOLF HITLER, viewed by many as the future dictator of Germany, once wanted to be an architect, according to Dorothy Thompson in the March issue of *Cosmopolitan Magazine*. The School of Architecture rejected him. Hitler wanted to be a painter. The Academy in Vienna rejected him. He realized both ambitions, in a sense, by becoming a house painter.

Stone Walls For Steamers

IMAGINE walking along the deck of an ocean going steamship and seeing rubble for the outside walls of cabins. That is what can be seen on the S.S. "Belgenland," where the cabin exteriors are painted to resemble country cottages built of stone. It must be rather nice—on a calm day.

Case Against Bureaucracy

FOLLOWING the release of an address given by A. L. Brockway, Regional Director of the American Institute of Architects, before a regional conference of the New York State Chapters of the Institute, *The New York Sun* commented upon Mr. Brockway's remarks. The address in question was a forceful argument against a bureaucratic system of State and Federal design of public buildings. The *Sun* said in part, "... let the architects present 'the virtues and the values' of a system under which their profession would plan and design public buildings. They need not seek far for plenty of examples of ugly piles erected at enormous expense on the plans of city, state and federal architects. Let them persuade Government authorities that private architects are competent enough and sufficiently numerous to handle all the public building programs of the country in a satisfactory manner.

"If the esthetic principles of modern architecture are assailed as a countercharge, on the score of absurdities in stone which some of the extreme modernists have wrought, then it is up to the architects to show the bureaucrats that their profession still cherishes the conservative, classic design befitting public structures. It should not be difficult to cite examples in every state

of new buildings privately designed which display a vast improvement over the work of bunglers in the Government's employ. If the architects can build up in this way a strong case against bureaucracy, more power to them."

California Educates

A WEEKLY building page edited by William I. Garren, A. I. A., and endorsed by the Northern California Chapter, A. I. A., is a feature of the *San Francisco Call-Bulletin*. Each week is presented a "story book" house together with articles such as, "Beauty in Homes Is Important Element," "Good Construction Dictates Use of Non-Corrosive Flashing Metals," "Cost of Home Ownership," and similar topics of pertinent interest to the layman. It is noteworthy that there is little if any material presented only from the architect's point of view—an excellent point, for most pages of this character incline too much towards the professional viewpoint with resultant lack of interest to the general public.

Advertising Defined

"OUR conception of advertising is that it is a force to guide the public to buy wisely and to secure honest value, rather than as a means of exploiting the public with false claims." That statement, taken from a booklet issued by a New York advertising agency, Batten, Barton, Durstine & Osborne, is a fundamental conception of advertising held by our leading advertising men. It is a definition which could well be pasted in the hat of every architect who would like to talk about advertising. Properly understood, it is a thoroughly satisfactory answer to those who feel that advertising by the architectural profession would lower the dignity of the profession. Why should not architects use advertising "to guide the public to buy wisely"?

Building Code Violations

IT is well known that plans filed with building departments are not infrequently departed from with resulting violations of the code. To check this, the proposed New York City Building Code requires that an architect or engineer filing plans for any substantial structure make affidavit that the plans are in accord with the building code except as specifically noted. Also to be required is a further affidavit from an architect or engineer, if one is employed, that the structure has been erected in accordance with the approved plans. When no architect or engineer is employed, a foreman or superintendent of construction will file the necessary affidavit. It is expected that this will check unscrupulous owners who alter approved plans without the approval of the designer or the department. This is a wise provision that could well be adopted by other communities.

to the Editors . . .

Craftsmanship Awards Useful

ARE craftsmanship awards of any practical value to the holder? They can be made so, particularly in court. For instance, William Orr Ludlow, F. A. I. A., relates that the New York Building Congress awarded one of its framed certificates and a gold button to Oscar Bergman in recognition of his ability in setting marble wainscots. Mr. Bergman was called as an expert witness in a suit brought against a department store for injury caused by a marble slab falling against a customer. The point was, will properly erected marble slabs fall? The judge asked if Mr. Bergman had ever received any sort of diploma from a technical school or college. Upon showing the craftsmanship certificate of award, Mr. Bergman was immediately accepted as an expert witness. The opposing lawyer then attempted to qualify two marble setters as expert witnesses but, as they had no certificates to prove superior knowledge of marble setting, they were rejected.

Poet Writes of Gothic

WHAT one of the world's greatest poets thought of Gothic architecture is revealed in a letter written by Heinrich Heine to August Lewold: "When I lately stood with a friend before the cathedral of Amiens . . . he asked me how it happens we can no longer build such piles? I replied, "Dear Alphonse, men in those days had convictions, we moderns have opinions and it requires something more than an opinion to build a Gothic cathedral." Which words are as true today as when penned.

Concealed Standpipes

STANDPIPES extending from the sides of a city building or placed beyond the building line are often a cause of barked shins and profanity, particularly in crowded streets where the hurrying throng occupies every available inch of sidewalk. They are a nuisance which can be eliminated just as easily as not. At least the framers of the proposed New York City Building Code think so, for no hose connection or fresh air inlet will be permitted outside the building line.

20,000 Hours To Make Code

THE time and effort required to completely revise a building code is demonstrated by a few statistics gathered from the New York Building Code Committee. The work was divided into six main parts, each under the direction of an architect, engineer, or contractor. Twenty committees comprising 125 individuals were formed, more than 475 committee meetings were held, of average duration of 3 hours, representing a total of about 1,420 hours. The average attendance was 7, making a total of

about 10,360 man hours. This did not include informal conferences which if included, it has been conservatively estimated, would represent a total of over 20,000 man hours of labor in committee meetings, conferences and study. This work if handled as a separate committee of 7 supermen, meeting 5 days a week, 8 hours per day, would have required 37 weeks or 8½ months. The time spent by the technical committee on the revision of the proposed new building code for New York City was distributed over approximately three years.

Senate Gets A. I. A. Bill

ON January 7, Senator Walsh of Massachusetts introduced into the United States Senate S. 2956. This bill reads the same as H. R. 6187, which was introduced into the House of Representatives on December 17 by the Hon. Robert A. Green and reprinted on page 45 of the January issue of AMERICAN ARCHITECT. Hearings will have been granted by the time this issue is in the mails. Architects are urged to get behind these two bills, which are sponsored by the American Institute of Architects and a number of other organizations interested in the welfare of our public buildings program.

Washington and H. R. 6187

"THE Federal Architect," which is edited by men in the Office of the Supervising Architect, states in its January issue: "Enthused by the numerical success of the campaign to give government work to private architects, certain persons are pressing a plan for all government work to be done in the offices of private architects. The reasoning, according to the newspapers, is:

"1. That the best outside architects will obtain the work.

"2. That the work will be done quicker.

"3. That the work will be done at less expense for architectural services.

"4. That outside architects have a better knowledge of local materials.

"It is an unhappy sort of campaign. Were the records consulted those four points would never be brought up. The Supervising Architect's Office is to be commended, however, for not mixing in and making an unprofessional brawl out of it."

The points made by "The Federal Architect" are not quite the whole picture. The real point—and it can be proved beyond the shadow of a doubt—is that employment of outside architects will result in the completed building having cost the taxpayers less than if the Office of the Supervising Architect had handled the whole job. If the Office is so reorganized as to make it possible for outside architects to get as complete information as to requirements and as prompt decisions as is accorded to projects in the government's own office, then outside architects will win almost every time.

What Have YOU Learned from the DEPRESSION?

"I'M getting fed up with this business of being an architect. Nothing to do and it's getting on my nerves." Jim Patterson shifted uneasily about in his chair, looking as if he'd lost his last friend.

"'Tain't as bad as you make it out to be, old chap," said Brady, trying to inject a bit of cheer into the conversation.

"A lot you seem to care. Things are rotten and you know it. But just because you have been lucky enough to get a few jobs, you sit there as if you were perfectly satisfied with the world as it is right now!"

"Let me tell you something, young fellow." Brady paused, relighting his pipe while he marshalled his thoughts. "The last two or three years have put most of us to a severe test. Some of us are busier than we have ever been. Some of us are barely making a living. And some of us have either been on our uppers or have taken some kind of job that isn't architecture—and maybe we have made more money than we have ever made in our lives.

"Now," he continued, "you can either sit back and rail at this depression or else you can make up your mind to get something out of it. That means a sincere willingness to accept new ideas, to learn how to make money when things are at their worst. If you can learn to do that, you'll be able to retire in ten years once things pick up. Remember that anybody can make a living when things are pretty good, but it takes a real man to meet the competition of hard times."

"Yes, Brady," Jim expostulated, "that sounds good, but what chance have I had to learn anything?"

"Just stop a minute and think, Jim," Brady replied. "How about the time you had that school house job when you pulled as clever a sales trick as I ever heard of? Have you tried it out on any other job?"

"No," Jim replied slowly, "I haven't."

"Well, what I mean is this. Go over your past experience. See what you have learned on one job that could be applied to another. Marshal your experience and ideas. Consider the jobs you've lost and find out why you lost them. The fellows who got the jobs couldn't handle them any better than you could, but they did



LAZARNICK

something that got the name on the dotted line. Find out what it was. *Learn* something."

"Looking at it that way, I guess I *have* learned something, if I only took the trouble to think about it. But, by the way, what have *you* learned?"

Have You Learned ANYTHING?

AMERICAN ARCHITECT wants articles telling what architects have learned since the depression started. It may be a way to get more business. It may be a way to keep overhead down so as to show a greater profit on fewer jobs. It may be a better way of getting along with contractors, writing specifications, or what not. The story may cover just one thing learned, or several things learned. It should contain about 1500 words and should be in the hands of the editors by April 2. Seventy-five dollars will be paid for each story accepted



Merchandise Mart, Chicago, and view of the Copper roof being installed.
 Architect: Graham, Anderson, Probst & White. General Contractor: John Griffiths & Sons Co. Sheet Metal Contractor: Harry C. Knisely Co. All of Ch'go.

...Copper was used for all *exposed* sheet metal work



In building the new Merchandise Mart, in Chicago... the largest building in the world... copper was used for all exposed metal work. The roof, gutter linings, base and cap flashings and louvers are of copper... Anaconda Copper.

The use of materials less durable than copper usually results in repairs and replacements far more expensive than the slightly higher first cost of this durable metal. The Merchandise Mart was built for permanence. It will never suffer the roof leaks, the water damage and the repair expense that are all too often caused by rust.

Distributors' stocks of Anaconda Copper, in the form of sheets, rolls and strips, are maintained in every large city. The American Brass Company, General Offices: Waterbury, Conn. Offices and agencies in principal cities.



ANACONDA COPPER

THE READERS Have a Word to Say

• AN ARCHITECT DRAWS A CARTOON

Editor, AMERICAN ARCHITECT:

THE writer is much interested in your efforts to put the Supervising Architect of the Treasury and Quartermaster's Offices where they belong, and along this line has made the enclosed cartoon that fits the average architect's situation and feelings over the country at the present time.

While I am not much of a cartoonist, I think the drawing is easily understood, more than some architectural drawings. I visited the office of the Supervising Architect in Washington last year, and there were more draftsmen and clerks than the writer ever expected to see together in one place. Adding the vast number of inspectors, engineers, and various other employees on the outside work, I expect my figure is within bounds. It is up to the profession to eliminate the government's example that is being followed by the employment of "City Architects," "State Architects," "School Board Architects" and others.—Frederick John Manley, A.I.A., Knoxville, Tenn.

• ADVOCATES H. R. 6187

Editor, AMERICAN ARCHITECT:

I AM sending you herewith a copy of a letter written by E. J. Zahner, President of the Metal Door & Trim Company of La Porte, Indiana. The letter was written to Senators Robinson and Watson of Indiana, and some of the Indiana Congressmen. I think it forcefully and intelligently expresses some of the reasons why our legislation should be supported.

LOUIS LABEAUME,

Chairman, Committee on Public Works,
The American Institute of Architects.

January 28th, 1932.

Hon. A. R. Robinson,
U. S. Senate,
Washington, D. C.

The writer and his company, with the consent of several of the directors, feel that House Bill No. 6187 presented by Congressman Green of Florida and its parallel bill of the Senate No. 2956, presented by Senator Walsh of Massachusetts should be supported for three substantial reasons. First—economy; second, proper distribution, and third, to obtain the best results.

It has always been a mystery to us how it is possible for the Supervising Architect's office, organized in its present form, to develop plans and specifications for its buildings throughout the United States and obtain anywhere near the result in economy that could be had under local design and supervision; how anywhere near personal contact could be had with an organization of one thousand or twelve hundred draftsmen and engineers. The writer's experience in thirty-two years in



the building business has proved that success is dependent to a great extent on personal contact. In his time he has worked on a good many Government buildings, and about the only government designing that has proved out a partial success has been the designing of buildings in and around army posts, where they are typical in size and structure, merely a matter of changing the exterior materials, built by the thousands from one plan or one design.

Let us take our little town here, as an example. At Christmas time there are probably as many as 25 people at one time in the outer lobbies of the post office. It may be used by several hundred in a day's time. A great deal of space could have been used for working space that is now given over to outside lobbies. The applying of a typical condition in this installation has been a waste of money. This is also the case in thousands of other locations, whether in cities of half a million or in cities of fifteen thousand.

What does a squad draftsman know about the conditions surrounding the building of a structure in a city five hundred, or even two hundred miles from Washington? Some inspector has been on the job and reported back, some engineer has gone out from Washington and made ground layouts, and some specification writer has only taken into consideration what, at some time, has been used in connection with these buildings. He might move material clear across the country that could just as well have been obtained locally and have been of superior quality to the material that he moved clear across the country. This leads to high cost and inefficiency.

The local architect has all of this data at his fingertips and for a small fee can properly design, supervise and specify materials that can be obtained in his locality at much less cost than can somebody several thousand miles away. This is common sense and reason. It is very seldom we find an owner of property in Houston, Texas, going to New York City for his architect, unless

MEDIAEVAL ART



(At left) Cloister from the Abbey of St. Genis-des-Fontaines.

(Below) View through Romanesque Portal. The wood and wrought-iron gates, about 1200, are from a church in the Pyrenees.

Horace Trumbauer } Associated
C. L. Borie } Architects,
C. C. Zantlinger } Philadelphia

George A. Fuller Company
Contractors, Philadelphia



● The galleries of the Pennsylvania Museum of Art in Philadelphia are of especial significance to those interested in the architecture of the Middle Ages. . . Among the treasures are a Twelfth Century Romanesque cloister in rose-colored marble, and a Romanesque fountain and abbot's throne. . . Restorations such as these present unusual problems to those charged with responsibility for the results. . . Selection of materials to replace those which for various reasons cannot be removed intact involves the necessity for obtaining the right products—making certain of authentic patterns—and preserving the feeling. . . It is significant that the roof of this cloister, which alone was missing, is cov-

ered with Ludowici hand-made tapered Mission tile—faithful reproductions of the originals—a blending of soft mellow tones—correct in texture. . . We are always glad to cooperate on roofing problems. . . Our catalog is filed in Sweet's.

LUDOWICI TILE *Made by* **LUDOWICI-CELADON COMPANY**

NEW YORK: 565 FIFTH AVE. • CHICAGO: 104 S. MICHIGAN AVE. • WASHINGTON: 738 FIFTEENTH ST., N. W.

probably it might be some relative, because he knows it is economical to employ the man who knows surrounding conditions and can design his building to fit the architectural beauty of that part of the country, and specify the proper material that might be had at hand to give him the substantial and economical construction. In this way he also has the personal contact of the designer of his building right at hand where the building is being erected, or in close proximity.

We trust you will use your best efforts to see that the aforementioned bills are passed when brought before the Senate.—*E. J. Zahner, President, Metal Door & Trim Co., La Porte, Ind.*

• CAUSE OF MASONRY JOINTS SHOWING THROUGH PLASTER

A SUBSCRIBER of AMERICAN ARCHITECT was troubled by a condition which he outlines in the letter printed below. This letter was referred to A. J. Capelle, Consulting Engineer, Structural Clay Tile Association, whose answer is also printed.

Editor, AMERICAN ARCHITECT:

We have been called into consultation in the case of a stone building which was lined on the inside with hollow terra cotta blocks and to which the plaster was applied direct after the blocks had been dampproofed with one of the commercial paints made for this purpose.

The building in question was erected about ten years ago and each joint between the terra cotta lining blocks is now apparent through the entire plaster.

We seem to recall having read somewhere that this is due to a deposit of dust and that this deposit varies according to the relative capacity of the joint or block for holding moisture.

We would be very much obliged to you if you could inform us of your opinion and advise us whether the probability is that this moisture is coming through the wall from the outside or whether it is condensation on the inside that brings about the markings. Possibly you can also advise us as to how this defect could be overcome and whether the markings would not reappear through a coat of paint, if the question were one of condensation.

Mr. Capelle's answer follows:

If we interpret your letter correctly, the discoloration of the walls is of the nature of soiling and probably caused by the gradual accumulation of fine dust over a period of ten years.

As you know, no masonry material is absolutely air tight and consequently all will permit the passage of air, commonly called "breathing." The air carries dust particles into the wall surface, causing discoloration, and the amount of discoloration varies with the difference in thickness and density of the material as at the cells in the tile and at the joints. Such discoloration is usually more pronounced and accumulates more rapidly on top-story ceilings where the air passage is more rapid due to the greater difference in temperature between ceiling and roof.

Condensation might also be a contributing cause of discoloration. An unnoticeable amount of moisture on the wall surface would gather dust from the air. Such condensation would also vary with the differences in

temperature of the wall surface opposite cells and joints and result in the discoloration showing the pattern of the masonry construction.

Another cause of discoloration is the entrance of water through the exterior face of the wall, but this usually results in irregular spots and not in the more uniform discoloration suggested in your letter. The remedy in such cases is to locate and repair the leaks in the exterior wall surface to exclude water and then, after the wall has dried, redecorate.

In the building you refer to, the discoloration is probably due to the accumulation of dust carried into the wall surface by "breathing" and perhaps by slight condensation. We feel confident that the stains will be completely covered by paint and suggest that a good grade of material be used with a first coat that will effectively seal the wall. Such a seal will reduce the "breathing" considerably and, with a good finishing material, future dust accumulation can be easily removed by washing.—*A. J. Capelle, consulting engineer, Structural Clay Tile Association, Pittsburgh, Pa.*

• GLADLY, MR. GREENLEAF

Editor, AMERICAN ARCHITECT:

I HAVE read your editorial in the January number of AMERICAN ARCHITECT, and hasten to submit my Leaflet No. 10 for your detailed criticism.

The purpose of this series of leaflets is not to describe occupations, but rather to give in detail opportunities for training, showing colleges and universities where courses are offered along with tuition rates, enrollments, etc.

Your criticism seems directed to page 1 of the leaflet particularly to paragraph 3. May I not have your revision of this paragraph or of any other paragraph before the leaflet is reprinted? The first edition is exhausted, and a revision is in order. My aim in the series is not only to offer educational guidance, but to have each leaflet approved in professional circles. National associations have cooperated in most of the pamphlets both in offering material and advice and in circulating the information.

I am limited for space in the description of occupations in order to give more pages to educational guidance. For that reason it is obviously difficult to tell much about a career. I would appreciate your suggestions on page 1; the factual material on the following pages 2-7 is drawn from the sources indicated in the references, in addition to official reports to the Office of Education.

If I could have your reply within a few days, I would be glad to make such changes as seem necessary. Sincerely yours.—*Walter J. Greenleaf, Specialist in Higher Education, U. S. Department of the Interior, Washington, D. C.*

Note: The editor of AMERICAN ARCHITECT complied with Mr. Greenleaf's request and, in addition, made a number of suggestions on the entire leaflet. Others have also made suggestions with the result that the entire leaflet has been written and, judging from the revised manuscript submitted to the editor of AMERICAN ARCHITECT for further criticism, the next edition of "Careers-Architecture" will present a more accurate outline of today's practice of architecture.

LOUISIANA HAS A NEW CAPITOL...

LOUISIANA STATE CAPITOL BATON ROUGE, LA.

Architect: Weiss, Dreyfous & Seiferth, Inc., New Orleans, La. *Mechanical Engineer:* F. H. Chisholm, New Orleans, La. *General Contractor:* George A. Fuller & Co., Washington, D. C. *Plumbing and Heating Contractor:* American Heating & Plumbing Co., New Orleans, La.



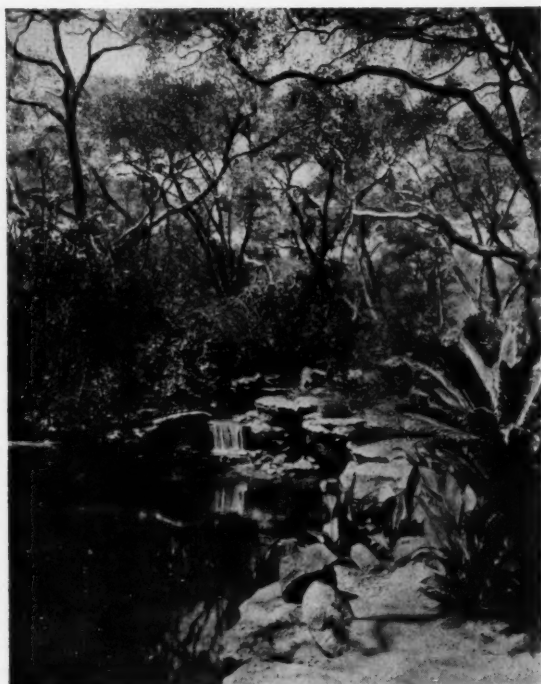
THE "Pelican State" boasts a new and splendid capitol. The daring height of the structure and the disposition of its parts clearly reflect the modern age. Yet it bears marks of classic tradition and has the detachment and the dignity of setting appropriate to its use. All its various conveniences are of the most practical, approved, and advanced types and kinds. Against whatever vagaries of climate may need to be reckoned with, even in the warm land of the sugar cane, vacuum heat is provided. The aim of those responsible has been to secure, throughout,

such permanence as the tower denotes, walled as it is with buff-colored stone, well buttressed, set on its base of white granite. In the choice of equipment for such a building and for such a purpose, it is of interest to record that the major pipe tonnage was NATIONAL—

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Subsidiary of United  States Steel Corporation

NATIONAL PIPE



On the estate of John L. Severance, Pasadena.
Paul G. Thieme, landscape architect. From "California Gardens"

CALIFORNIA GARDENS

By Winifred Starr Dobyns. Published by the Macmillan Company, 60 Fifth Ave., New York. Size, 8 $\frac{3}{4}$ x 11 $\frac{1}{4}$; 208 full page plates; 20 pages of text; indexed; price \$5

CALIFORNIA is well known as a land of fertile abundance. Its climate has fostered the garden idea, so that natural advantages have combined to give greater impetus to gardens than is generally found elsewhere.

This book presents a number of the most beautiful California gardens. Some of the illustrations are purely landscape, others present the planting around the residence itself, and still others show garden houses and reflecting pools with all the beauty of California flora.

STANFORD WHITE

By Charles C. Baldwin. Published by Dodd, Mead & Co., New York. Illustrated; indexed; 399 pages; size 6 x 8 $\frac{3}{4}$; price \$3.50

"WHITE probably did more for New York, to make it beautiful and livable, than any other man native to the city. Yet, apparently, the violence of his death was enough to damn him, to close the minds of all but thinking men to the beauty of his art and the fineness of his spirit. . . . The newspapers despatched detectives and reporters to interview valets and chorus girls, bell boys and waiters. And what did they discover? That White got more out of life in more different and more intelligent ways than any other man of his generation in New York, that he admired women of wit and



The firm: W. R. Mead, C. F. McKim and Stanford White.
From "Stanford White"

beauty, and that he had never, by so much as a word, harmed any of his fellows."

Those few words from Mr. Baldwin's introduction sum up much of Stanford White's life, a life that seems to have been full of exuberant joy. White's letters are fascinating things, as spontaneous and natural as those of the most gifted author. Indeed, one can not help but feel that had this man not been a great architect he would inevitably have become the greatest writer the United States had ever produced.

The book tells of Stanford White's apprenticeship to Richardson, his friendship with Saint Gaudens, his adventures and achievements in the realm of architecture, the men he knew and worked with—until his untimely death and the subsequent ill-founded scandal.

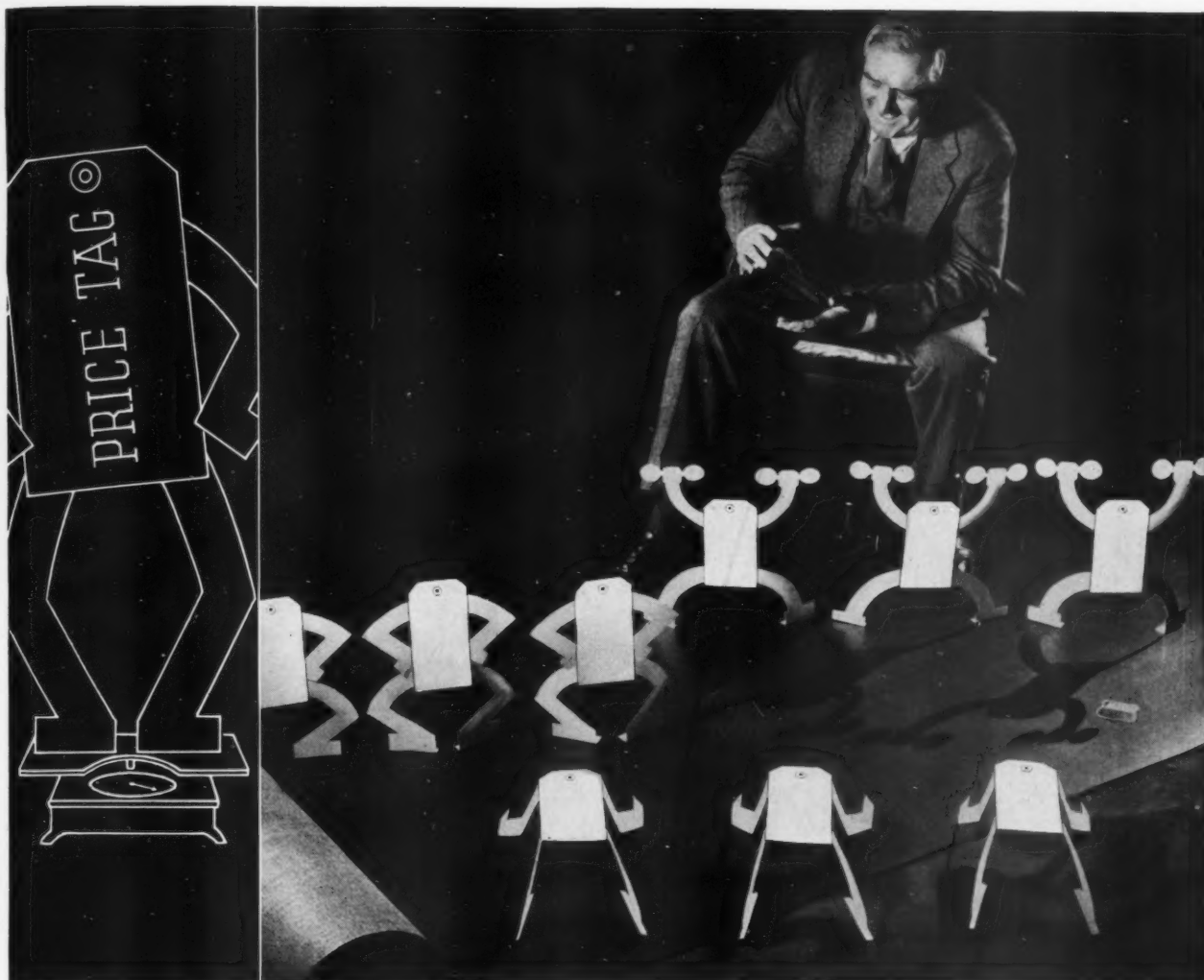
"Stanford White" is a book that no architect can afford to miss not only because it is the story of a great architect, but also because it is the story of a great man.

PLANNING FOR GOOD ACOUSTICS

By Hope Bagenal, A.R.I.B.A., and Alex. Wood, D.Sc., M.A. Published by E. P. Dutton & Co., Inc., 300 Fourth Avenue, New York. Illustrated; indexed; 415 pages; size 6 $\frac{1}{2}$ x 10; price \$6.75

WITH the advent of the radio, the talkies, loud speaker or amplifying systems in auditoriums, etc., new problems in acoustics have arisen. The object of the book is to help solve those new problems. Mr. Bagenal is lecturer on the acoustics of buildings at the Architectural Association School, London, and Mr. Wood is lecturer on experimental physics at the University of Cambridge, England.

The book covers the general properties of wave motion, development of reverberation formulae, designing plans and sections, designing for musical requirements, buildings for debate, theatres of various types, residential buildings, hospitals, banks, schools, churches, absorbents and their practical application, acoustic design in tropical countries sound (Continued on page 94)



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CONGOLEUM-NAIRN INC. KEARNY, N. J.

SEALEX
LINOLEUM FLOORS

Pitfalls in Wood Framing

(Continued from page 45)

general it is advisable to keep the holes at least a foot or a foot and a half away from the support and they should be placed in the center of the joist. This is vitally important near the center of the span or near the point of maximum moment. In any case the holes should be limited in size to about 20 per cent of the beam depth. These statements are general in character and may be in error in particular cases.

WHEREVER steel beams are used in conjunction with wood joists it is necessary to keep the top of the steel at least a half inch below the top of the joists. Due to shrinkage of the joists the flooring is lowered from its original level. If the steel is originally set flush with the top of the joists a bulge will occur in the floor where the steel beam is located. It is sometimes desirable, especially on wide flange beams, to have some nailing strips extending over the top of the steel. In this case the top of the steel should be kept at least an inch and a half below the top of the joists.

In Fig. 2 is shown a typical case of wood joists framing into a steel beam. It is necessary to brace the top flange of the steel beam unless it is figured unbraced, which means an uneconomical size. To brace the top flange the joists on both sides may be cut to fit around the flange. However, it is almost impossible to get carpenters to do this. Consequently it is better to bend a steel strap as shown over the beam flange about every third joist on opposite sides or every sixth joist on each side.

There are several different ways of framing joists into wooden beams. The ideal way is to rest the wood joists on top of the beam. However, this is usually impossible due to limited headroom conditions. If framed into the sides of the beam the beam is often notched out to receive the joists as shown in Fig. 3. Do not notch the bottom of the joists unless absolutely necessary. For heavy loads the joists should have a four inch bearing on the beam. This means that the beam must be figured to be strong enough deducting the material taken out for the notches. For example, a beam has a load of 2,000 pounds per linear foot on a 15 foot span. Without notches a 12" x 16" beam is strong enough, but taking out two notches of 4" x 7½" the strength of the beam is reduced 50 per cent. For light loads a 2 inch joist bearing might be sufficient, but in any case the notches must be considered as a weakening factor.

If the joists and beams have to be flush top it is best to place the joists on a 4" x 4" shelf, bolted to the beam with a sufficient number of bolts for the load. This condition is shown in Fig. 4.

The sizes of headers and trimmers around stair openings are dependent on the floor loads and spans. For a small stair in a residence it is usually sufficient to use double joists for these beams. For larger stairs the trimmers and headers should be figured carefully to meet the conditions. In any case, where a trimmer frames into headers it is best to use steel joist hangers. This also applies to any case where one beam frames

into another and it is impossible to rest one on top of the other. Toe-nailing is unreliable and is to be condemned. Notching the beam is also unsatisfactory for the reasons explained above.

Anchorage of floor joists to masonry walls is important in order to brace the walls and tie the structure together. Steel strap anchors 1½" x ¼" are commonly used. They should be spaced every four feet or every third joist where the joists are perpendicular to the wall. Where the joists run parallel to the wall the anchors should extend over the top of at least three joists.

Wood posts which serve as a support for steel beams are often used but it is preferable to use steel columns if possible, either structural shapes or Lally columns. In any case the steel beam should be bolted to the supporting column with at least two bolts.

Two typical cases of roof framing are shown in Fig. 5 and Fig. 6. In Fig. 5, the load is carried by the outside walls and the ridge beam, which in turn is supported by posts. As all the loads and reactions are vertical there is no thrust on the outside walls. In Fig. 6, the outside walls receive all the load. In this case the load on the rafters exerts a thrust on the outside walls equal to the thrust they exert against each other at the ridge. This thrust must be resisted by a tie at the eaves line or at some distance above the eaves depending on the location of the ceiling. As the tie is moved up from the eaves the rafters start to act as cantilevers from point A (Fig. 7). It takes only a short cantilever before this projection determines the size of the rafter, and not as in the ordinary case the span from C to B.

TO illustrate the difference this condition makes, consider a problem as shown in Fig. 7. The rafter will be a 2" x 10" if figured as a simple span from ridge to wall. With the tie at the position shown the size will be a 2" x 12".

The case of the high tie introduces another consideration. The higher the tie the more the deflection of the cantilever rafter. The deflection causes a thrust on the wall which might result in masonry or plaster cracks.

Wood trusses of any size or importance should always be carefully detailed as the strength of the joints generally determines the strength of the truss. The end joint of a truss is an especially important one and should not be left to a carpenter's judgment. Difficulty is often found in making the end joint of adequate strength for the assumed loads. In the case of the A-frame shown in Fig. 7, the tension in the tie should be figured and the required number of spikes or bolts at each end should be specified. In some cases bolts are necessary. If left to the carpenter the most you would get would probably be three or four spikes.

In the framing of roofs where hips and valleys occur the hips are often made of nominal size. This is done because the sheathing can be counted on to act as an arch to transfer the load to the valleys. If the above is done it should not be forgotten to figure the entire

The New York Telephone Company building, 101 Willoughby Street, Brooklyn, N.Y.
 Voorhees, Gmelin & Walker, Architects,
 New York City.

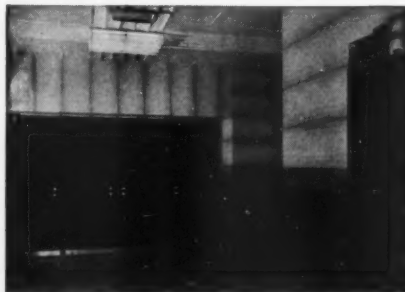
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roof load on the valleys, which must then be figured as beams spanning between posts or partitions, as the case may be. The valleys must carry the load and it is usually better if the hips can be figured to take their share. If they do they must receive direct support.

Where a post is continuous through a floor, Fig. 8 shows the way it should not be done. The strength of wood in compression across the grain is much less than with the grain. Consequently if the post is loaded any-

where near its capacity, the fibers at the top and bottom of the floor beams will be crushed. In addition the shrinkage of the floor beams must be taken into account. The correct detail should be similar to Fig. 9. The top and bottom posts should bear against each other, or against something equally as strong.

The above points occur on almost all wood structures. Consequently they are important and should be kept in mind at all times.

Some Architects Found 1931 a Good Year

SOME architects found 1931 a good year, according to "The Kosmos Cement News," which states:

In recent months we have called on a number of architects in the Middle West. In general, we would arrange them in two classes, those who were "at home" and those who were out developing business.

In Lexington, for instance, we called upon a well-known architect about two o'clock in the afternoon. His associate was busy at the drawing and plan board. He said, "If you want to see Mr. Blank, you'll have to come around in the early morning or late afternoon.

ON my return to this same office about five p.m., the architect was at his desk. He said, "The time has passed when I can keep this force busy staying inside. I contact supply houses and often go out with their salesmen and help them close contracts. Preliminary plans I have prepared have helped to land some nice orders which at first were largely speculative."

In Louisville one architectural firm in particular reported all departments over their ears in work. "We have men out all the time and the jobs they get often run into six figures. Instead of reading what Washington is going to do to stimulate building, we are busy in the field developing every prospect into a customer."

A contractor who works rather closely with this firm of architects and engineers said, "We have more work on our books now than at any time since we began business nine years ago."

In Cincinnati similar instances were discovered. A suburban supply dealer said, "See that new building over on the corner? We furnished the materials for that building which was occupied last week. But for two architects who convinced the owner that this was the time to build, we would not have got the business, which was quite worth while."

In a certain architectural office in Cincinnati the associate is never "in." In the daytime he is contacting contractors, material salesmen and realtors, and at night he attends meetings of these same people where he thinks there is opportunity for leads.

In Evansville a firm of designers and engineers follows somewhat the same plan and "business has been good in 1931" for them.

One young architect has caught this spirit and as a result of working with material houses in his city has recently reported eighteen nice jobs that proved to be very profitable. At the same time he is establishing a valuable acquaintance among supply dealers and their salesmen who can be expected to tip him off on larger

contracts that may develop at any time. Those who sell materials realize the advantage of architectural service in closing many sales, and naturally they turn for assistance to the architects they have learned to know from actual experience in developing business.

In Indianapolis a nationally-known architect devotes much of his time to working with members of the local building industry. He has been active in organization and get-together work and in cooperation with contractors, builders and supply houses has created a large volume of business for himself and others. He has had a very good year.

It is apparent from the above instances that regardless of what general business conditions may be in a community, an architect can keep busy, widen his circle of friends and lay the foundation for a larger architectural practice. If an architect is not of the salesman type, he can probably find an associate who has this qualification, and together they can build a very substantial business in a few years.

SPECIAL ISSUE

ON PAGES 20 and 21 of this issue is an announcement of a special number of the American Architect that will be of interest and importance to every architect. It has to do with architecture and the architect
"TOMORROW"

ANNUAL
FORECAST NUMBER
AMERICAN ARCHITECT
FOR MAY



BLUE PRINT *and* Circus

THE tinsel thrills of "The Greatest Show on Earth" seem dull in contrast to the skill and talent and thrills brought into play by the execution of the blue print for a modern structure. Behind the scenes is the hum and bustle of industry preparing its products for their roles. For the steel that forms the skeleton framework we see the ore piles, the blast furnaces, the white hot metal, seething in the open hearth, the blinding brilliance as it pours into ingot molds. Our ears are deafened by the roar as it emerges from the rolls, shaped into structural beams - tamed for the service of mankind. Then comes the thrill as the great beam swings into the air... up and up... to fit with amazing exactitude into its place. We marvel at the agility of the riggers and the structural steel workers who, oblivious to the yawning space below them, fit the unwieldy members into position.

The blue print is the programme of the brilliant spectacle of modern construction. Each product has its role, its excellence or its mediocrity permanently recorded in the completed structure. Gratifying has been the acclaim with which C B Sections have been received. Their inclusion in the most important construction of recent years would indicate that they fit well into the plans and blue prints of architects and engineers.

CARNEGIE STEEL COMPANY • PITTSBURGH, PA.

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Selling the Client

(Continued from page 35)

dinner with the directors of a large corporation who were contemplating building. The solution of the problem had taken form in the architect's mind but he did not expect the dinner meeting to get down to a discussion of details. After the dishes had been cleared away, the directors indicated an interest in the details and character of the new building, so this architect expressed his ideas about the proposed building. As he did so, he made his ideas clear by sketching upon the table-cloth with a large pencil. After he had completed the sketch, he tacked the tablecloth on the wall. The directors were so enthusiastic by this time that they instructed the architect to go ahead with preliminary sketches immediately.

There is a story about an architect located in the South, which, although I cannot vouch for its authenticity, could have happened and probably did.

It seems that an architect, educated in the North and a talented designer, was trying to get a foothold in the South. But no matter how much he tried, the work was generally obtained by someone else. One rainy day, sitting in the lobby of a small southern hotel, he became engaged in conversation with a traveling man, who was sitting near him. He mentioned to the traveling man that he was in town to make a presentation to the local school board and that an architect was going to be selected for the new school that evening. And

he invited the salesman to his room to see his sketches. He mentioned the fact that he believed that there were sound arguments as to why he should be given the commission but that his experience had been that he lost every one he went after.

The salesman thought the matter over for a moment and then said, "Let me go along with you tonight and make the presentation and then we will see what happens. You can introduce me as your partner." The salesman and the architect went to the board meeting and when the salesman had finished his presentation he was given the commission over a large group of competing architects. This incident led to a connection between the salesman and the architect which later developed into a partnership and one of the best-known architectural firms in the South.

These are only a few of the experiences in selling which have been given to me in my visits with architects. There is one thing I have noticed very definitely, however, and that is that when one sees an unusually successful architectural organization, he will find behind it a man who is capable of selling the services of that organization in a straightforward, businesslike manner. By selling, I do not mean that the technique of selling is apparent to the buyer, for the acme of success in any art conceals the technique behind it.

The Schools and Modern Architecture

(Continued from page 25)

the alumnus does not feel and continue to testify to the value of contact between an inspiring individual and a plastic mind.

And that brings us to subject matter. I recall vividly how, after ten years of working here and there, I decided to have a try at teaching. I felt I could afford to take a year or two to "show them how it ought to be done." At the end of five years I had begun to see the fallacy in my original assumptions with regard to subject matter and this brought about a complete shift of emphasis. Since then I have seen a lot of others go through the same experience. We see one man producing results by methods that in the hands of another would be fatal. We see subject matter that most of us could not raise above the dullness of ditch water being made to scintillate in the hands of a man who knows how. Finally we come to view subject matter as we do the vehicle in a paint; something that carries and spreads understanding. It may not remain but the desired end has been accomplished. Of course, it must contain sound values but after all it is merely a vehicle.

Starting from a basis of the assumptions here indicated we arrive at a somewhat different point of view. Curricula as such; the subject matter of a given course; these lose their position of prime importance. We see a school as being a faculty composed of men who can inspire students, each teaching such subjects as he happens to know about and believe in. This program will, of course, be woven across certain fairly well defined

lines of fundamentals. But the pattern varies infinitely with the individuality of the teacher and of the student.

A great deal of this lay discussion of education tends to lead the teacher into a comparison and a query. He is apt to recall that in "The Education of Henry Adams" we have a good example of a thoroughly educated man bemoaning, through the length of a weighty volume, that his education has been of the worst. And the query arises as to whether it may not be true that these dissatisfied ones feel the need to blame some one because they are not as they would wish themselves to be? And have they not lost sight of the fact that education must always be largely self acquired? The most a school can do is to offer a chance for self development.

Stopping to read this over, it appears that the roles have been reversed. Back of the glittering eye (now mine) there is easily seen the question—Why should the schools do anything at all about modern architecture—either one way or the other?

THE amount of decrease in 1931 business under that for 1930 is indicated by the first 96 corporations to report 1931 earnings. These earnings average a decline of 16.9% from 1930.

THE Museum of Modern Art has leased a five-story private house at 11 West 53rd Street, New York, and will move about May 1. The Museum will have about twice as much space at present.



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FRED'K V. MURPHY, Associate Architect

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Daylighting Commercial Buildings

(Continued from page 39)

window members should be as small as possible in order to make the most of the wall opening available for lighting. There are various types of windows available which provide minimum light obstruction with adequate provision for cleaning and ventilation.

In considering window dimensions, points to consider are height and distance from floor to sill. The height of the head of a window is more important than the sill height, as can be seen from Figure 4, which shows that if a window of given height is obstructed at the top, or arbitrarily reduced in height, for 25% of its height the daylighting in the rear of the room may lose 43% of its intensity, while if 25% is blocked off at the bottom, the loss of daylight at the same station would be but 8%.

Figure 5 shows how minimum daylighting may be increased by increasing the window width. Within limits, daylighting will always increase with an increase in window width, and up to a certain point depending upon actual conditions, the increase in daylighting is greater than the increase in width. For example, increasing 200% the width shown increases the minimum daylighting 275%, but increasing it 720% produces a 710% increase in minimum daylighting.

IN many architectural designs, piers or large mullions are indicated between windows. These, of course, block out appreciable portions of the wall which might be used for windows. How the minimum daylighting is affected by the width of pier is shown in Figure 6. This depicts the loss in daylight suffered by making the pier of various proportions as compared to the total width which might be available. For example, if P is 31% of W, then minimum daylighting will be 61.5% of what it would be if no pier existed. Similarly, a pier whose width is 10% of W, reduces minimum daylighting 12 per cent.

The interior treatment of a window has much to do with its effectiveness as a light source. Roller shades pulled down over the upper part of a window are bad offenders, as was shown in the curve which charted the effect of reducing window height. For general office use, the venetian blind has much to recommend it. It permits the passage of air through the window when it is lowered, and it is very efficient in reducing unwanted light. Tests made some time ago, by Professor H. H. Higbie, show that daylighting in certain parts of the room may actually be increased by proper adjustment of the slats while at the same time, high intensities near the window are reduced. This is shown graphically in Figure 7, which has been made from data in Professor Higbie's paper. The solid line curve "A" shows the daylight distribution uncorrected, the dotted

line "B" the result of having venetian blinds over the entire window and then adjusted for maximum efficiency. The broken line "C" shows what may be accomplished by using a venetian blind over the lower half of the window, then adjusting the slope of the slate to secure best results. It is noticeable that the high illumination values near the window have been reduced and some of that light used to advantage in the rear of the room.

Tests have been made to determine how much light is lost due to screening windows. Full screens on a double unit wood window reduced the average daylighting in a room to 55% of its value without screens, and reduced the minimum intensity in the room to 61%. Half screens over the lower sash—the part normally opened—affected daylighting but little, the average being reduced 14% and the minimum only 6%. A steel casement with screen over its ventilated portion—53% of the total area of the window—only, lost but 18% of the light on an average and 16% less in the actual minimum value.

THE third, and last, major topic is that of interior room conditions. Unlike artificial lighting, daylighting in the room is not as much affected by reflection from walls and ceiling, as most of the light enters directly upon the working plane. In large interiors, the indirect component of illumination due to reflection is a comparatively small percentage of the total. In a small room, such as an office, this amount will, of course, increase as the total unfenestrated area becomes larger in proportion to the window area.

Where the window jambs are extended to the side-walls, the amount of light reflected from these walls may become considerable and be of assistance in adding to the total illumination. The ceiling, important in some types of artificial lighting, plays but small part in the daylighting scheme except in the case of multi-story buildings whose windows are faced by obstructing walls. In this case, light is reflected from the obstructing walls all the way down, and actually enters the windows from below the horizontal, making the ceiling effective as a reflector and adding indirect light to the working plane. This same condition is often noticed in relatively low buildings when the ground is covered with snow which reflects light upward to the ceiling.

The same cautions relative to glare from interior furnishings apply to daylighting as well as artificial lighting. Highly polished surfaces should be avoided as much as possible as they are a source of eye discomfort. Except for direct sunlight, shadow conditions are usually at a minimum with daylighting due to the comparatively large surface of our source of light and which compares favorably with the indirect and semi-indirect systems of artificial lighting.

SPECIAL ISSUE . . . On pages 20 and 21 of this issue is an announcement of a special number of the American Architect that will be of interest and importance to every architect. . . . It has to do with architecture and the architect "TOMORROW"

ANNUAL FORECAST NUMBER • AMERICAN ARCHITECT FOR MAY

\$1500.00 in CASH AWARDS!

For "idea sketches" showing uses of Douglas Fir Plywood in architecture

THE purpose of this contest is to develop practical designs for dwelling interiors. Only two considerations will guide the judges in their selections: the attractiveness and good taste of the design itself, and the extent to which it adapts the *natural advantages* of Douglas Fir Plywood.

For example, the new $\frac{1}{4}$ " three-ply wallboard is superior for crack-proof walls and ceilings—but how should these be designed for different rooms? Other thicknesses are ideal for built-ins of all kinds—such as cabinets, cupboards, shelving, and similar uses.

In short, wherever this laminated lumber *should* be used—we want it to be used *skillfully* and *tastefully*. Forced adaptations are not wanted. Douglas Fir Plywood's unique qualities which differentiate it from ordinary lumber or composition boards should be thoroughly understood by each contestant.

Whether you plan to enter this contest or not, glance at the brief facts below—then send coupon for A. I. A. folder just published. Contestants who want to *start work immediately* will find helpful technical data in 1932 Sweet's Catalogue, Volume B, pages 1991 to 2003.

Facts About Douglas Fir Plywood

Douglas Fir Plywood is a *laminated* lumber—for wallboard, cabinet and general building uses. It comes in convenient-size panels up to 4 feet wide and 8 feet long, and in a variety of thicknesses, $\frac{3}{16}$ ", $\frac{1}{4}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{3}{4}$ "—or thicker.

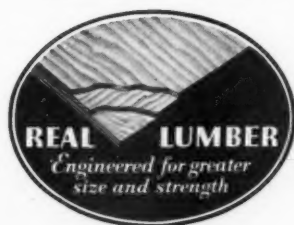
It is light in weight. A panel of sufficient size and strength to support twelve men can be balanced easily on the

fingers of one hand. It is easy to saw, plane, and drill—yet you cannot split it, even with a hatchet. It resists warping, shrinking, swelling, and buckling. It is stronger per pound than steel.

It is economical in price. For example, the new $\frac{1}{4}$ " three-ply wallboard can be bought at retail for around 5c to 7c per sq. ft., depending on freight cost to dealer. Other thicknesses are priced proportionately. Most progressive retailers carry Fir Plywood in stock.



DOUGLAS FIR PLYWOOD



CONTEST RULES

- 1 This contest is open to all architects, draftsmen, and architectural students in the United States. Entries must bear postmarks not later than June 15, 1932. Winners will be announced in national magazines, September, 1932.
- 2 You may submit as many designs in as many classes of entries as you wish. You are not limited as to the number of prizes you may win.
- 3 Drawings may be in pencil, ink or plain wash, without color. They should show plan and four rendered elevations, with sufficient sections to indicate clearly the application of the materials. Scale must be $\frac{1}{4}$ " to 1 ft. for plans and $\frac{3}{4}$ " to 1 ft. for elevations.

PRIZES

CLASS I—Design for attic bedroom: Maximum floor space, 140 sq. ft.* First prize, \$150; second, \$100; third, \$50; fourth, \$25; fifth, \$25; sixth, \$25.

CLASS II—Design for basement recreation room: Maximum floor space, 280 sq. ft.* First prize, \$150; second, \$100; third, \$50; fourth, \$25; fifth, \$25; sixth, \$25.

CLASS III—Design for combination kitchen and breakfast nook: Maximum floor space, 140 sq. ft.* First prize, \$150; second, \$100; third, \$50; fourth, \$25; fifth, \$25; sixth, \$25.

CLASS IV—Design for interior of one-room camp cottage to include sleeping, cooking and living accommodations for four persons: Maximum floor space, 360 sq. ft.* First prize, \$150; second, \$100; third, \$50; fourth, \$25; fifth, \$25; sixth, \$25.

*Economy in area, consistent with practical demands, will be considered a desirable quality.

4 Douglas Fir Plywood should be indicated where, and only where, it can be used fittingly and advantageously. Forced adaptations are not wanted.

5 In addition to designing the Douglas Fir Plywood ceilings and walls of any of the rooms indicated in each class of entry, you are at liberty to design as many Douglas Fir Plywood built-ins as may be appropriate to each room. Location of movable furniture should be suggested.

6 Each prize-winning design becomes the property of Douglas Fir Plywood Manufacturers, whose right to use it for advertising, publicly, or for any other purposes is acknowledged by the entrant. All other designs will be returned if return-postage accompanies them.

7 In event of a tie for any award, each tying contestant will receive the full amount of that prize. Decisions of judges shall be final.

8 The judges shall be a representative of Douglas Fir Plywood Manufacturers and two architects selected by the Washington State Chapter of The American Institute of Architects.

9 Drawings must be accompanied by a plain, sealed envelope containing the name and address of the contestant, one such envelope for each entry. No identifying mark of any kind should appear on the design itself. Drawings may be submitted either flat or rolled. They should be addressed to Mr. Charles H. Alden, F.A.I.A., Professional Adviser, Douglas Fir Plywood Manufacturers, Dept. 332-K, Skinner Building, Seattle, Washington. Requests for copies of the contest rules here shown, or for information about Douglas Fir Plywood, will be answered through the Professional Adviser.

MAIL COUPON TODAY

DOUGLAS FIR PLYWOOD MFRS., Dept. 332-K,
Sixth Floor, Skinner Bldg., Seattle, Washington.
Gentlemen: Please send me your new A. I. A. folder of working facts about Douglas Fir Plywood and a free sample of Douglas Fir Plywood.

Name _____
Address _____
City _____ State _____
Firm Name _____

For purposes of record, please indicate if you are an Architect ☐, Draftsman ☐, or Architectural Student ☐. I am thinking of entering your contest ☐.

What Architects Are Talking About

(Continued from page 55)

of local materials and local conditions, be employed to the fullest possible extent in government building activities.

"The Western Division further recommends that the Board of Directors of the National Chamber should request the Committee on Government Competition in Business to give thorough consideration to this matter with a view to including within its final report recommendations looking to the elimination of this type of government competition."

FLEXIBILITY is a feature of the proposed New York City Building Code. Concerning this, John Lowry, chairman of the Committee on Building Laws and Regulations of the Merchants' Association of New York, states: "Development of new materials and methods in building construction is so rapid as a result of research and intensive study that the statutory form of building code is too inflexible for modern conditions. Basic principles change slowly. Processes change over night. The new code recognizes this condition and is set up accordingly. It is divided into two parts. One part contains the basic principles and is to be adopted by the Board of Aldermen and the Mayor and can be amended only by them. The other part contains the detailed technical application of the basic principles and can be amended either by the Board of Aldermen and the Mayor or by the Board of Standards and Appeals. The latter would usually be the body to make amendments."

A DESIGN bureau for the development of heating and plumbing equipment in relation to architecture and decoration has been established by the American Radiator & Standard Sanitary Corp., 40 West 40th Street, New York. It is under the direction of George Sakier. The current project is the study of the bathroom as an architectural and decorative unit. Floor plans, lighting, heating and conveniences are the subject of practical experimentation. For this purpose, five rooms of different types and prices have been erected. Several new fixtures of special interest are shown prior to their public release.

IN order to double the number of men employed in the construction industry, the California Building Congress is advocating a working day of two shifts of five hours each. This plan has already been inaugurated in San Francisco. According to Frederick H. Meyer, A. I. A., labor under that plan is producing more work per hour than it did on the eight hour basis.

EVERY family in the United States would have \$10,961 of capital and an annual income of \$2,366 if the national income for 1930 could be divided equally between all the families of the country, according to the National Industries Conference Board.

A BILL intended to eliminate shopping for bids on government work after contracts have been awarded has been presented by Congressman Goss. The number of the bill is H. R. 4680 and reads in part: "That contracts in excess of \$5,000 in amount for the construction, alteration, or repair of any public building of the United States or of the District of Columbia within the geographical limits of the States of the Union or of the District of Columbia shall be awarded only to bidders whose bids are accompanied by a statement containing the names and addresses of the subcontractors, material men, and supply men whose services the bidder intends to utilize in the performance of the work."

Concerning this bill, William C. Amos, secretary of the Contracting Plasterers' Association of Greater New York, states: "The entire building trades industry should awaken and unite in bringing about such changes in the present methods of awarding public work in city, state and nation, as will justify the responsible subcontractor bidding and accepting contracts on such work with at least a reasonable assurance that he will not go broke in doing so."

WAGE reductions of 25-30% in the New York building trades have been ratified by thirty trade groups of the Building Trades Employers' Association, New York. The new rate will go into effect May 1st, when existing agreements expire, and affects 115,000 men. The association does not expect to receive or consider any further counter-proposals from labor officials, it is stated.

Thirty-five per cent reduction in the wages of all trades in the building industry are urged in a resolution adopted by the Illinois Society of Architects. The Allied Construction Council recently made a similar recommendation.

THE Brooklyn Chapter, A. I. A., on January 28th passed a resolution condemning endorsement by the American Institute of Architects of any organization such as the Architects' Small House Service Bureau. The resolution reads in part: "Be it Resolved—That the Brooklyn Chapter A. I. A. stands opposed to the approval or support in any official manner, by The American Institute of Architects, of any individual, group, association, or organization, such as the Small House Service Bureau, selling or deriving any benefit by the sale, resale, or distribution of architectural services in the form of stock plans and specifications."

ELECTRICAL contractors who are said to have formed a scheme for centralizing all estimates of cost by which no work can be undertaken in building construction unless the central bureau passes on the proposed costs, have been assailed in resolutions by the Illinois Society of Architects. The architects ask that all members of the Society insist upon independent estimates and that the central bureau be ignored.



Plate 11
of a series
showing
how marble
is being
applied in
the field of
modern design

Modernistic is a word of many meanings. The range in interpretation runs from the grotesque to the severe. At its best it stands for a new kind of beauty.

This view of the Standard Building, Albany, N. Y., was taken from the inside looking out toward the street. In this case as in many others the designers have worked out a thoroughly good idea in the modern marble way.

Black and white marbles were combined with other foreign varieties on this interior. Shreve & Lamb were the architects.

VERMONT MARBLE COMPANY — PROCTOR, VERMONT

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VERMONT MARBLE

THE average tax rate for 177 American cities of more than 30,000 population is \$34.03 per thousand, according to the annual compilation of municipal tax rates by C. E. Rightor, chief accountant of the Detroit Bureau of Governmental Research, published in the National Municipal Review. In 1929 the rate was \$33.51. Six years ago the rate was \$31.85. Thus it can be seen that real estate is carrying more and more of its share of taxation, a deterrent to building construction.

A MILLION dollar housing project for one of Cleveland's "blighted areas" has been proposed by Walter H. McCormack, A.I.A. He believes that apartments and houses can be built in Cleveland to rent for from five to six dollars a room through use of a new welded steel sheet method of building construction.

This new method of construction will be used in a house of insulated steel sheets about to be erected at Solon by the American Rolling Mill Co.

WHEN the City Hall in New York was built about 122 years ago, it was felt that New York City would never extend beyond Chambers Street, so that no one would ever notice the rear of the building. So, although the front and sides were built of marble from New England, the rear was walled with a cheaper stone. Now the city authorities are keeping the rear wall painted to harmonize with the marble.

ORGANIZATION of a Producers' Council Club has been completed in Detroit. R. B. Bragaw, Otis Elevator Co., was elected president.

MEETINGS and EXHIBITIONS

ONE of the major topics to be discussed at the Sixty-Fifth Convention of the American Institute of Architects to be held in Washington, D. C., April 27-29 will be unification of the profession. A session will be devoted to site planning and housing, one to architectural education, and one to consideration of the plan of the city of Washington.

THE ninth annual oil burner show will be held in Boston, April 11-16, in Mechanics Hall. Facilities for exhibiting burners in actual operation are provided. Concurrent with the show will be the usual convention of the American Oil Burner Association, headquarters for which will be at the Hotel Statler.

AN exhibition of modern architecture is being held at the Museum of Modern Art, 730 Fifth Ave., New York, up to March 23. This exhibition, the first of its kind in this country, is comprised of photographs, plans and models including a low rent apartment proj-

ect. Later, it will become a traveling exhibit to be shown in other sections of the country.

THE Chicago Chapter of the A. I. A. has invited the Producers' Council Club of Chicago to meet with them on March 8th and to provide speakers for the meeting.

A MEETING will be held in St. Louis on March 21 and 22 of the Construction League of the United States. E. S. Klein, president of the St. Louis Chapter of the A.I.A., is chairman of the reception committee.

THE American Concrete Institute will hold its Annual Convention in Washington, D. C., from March 1 to 4. Headquarters of the Institute will be the Wardman Park Hotel.

THE Concrete Reinforcing Steel Institute will hold its eighth annual meeting at the Atlanta Biltmore, Atlanta, Ga., March 7-9.

COMPETITION NEWS

COMPETITION conducted by The Architectural Forum for a new format for the magazine has been concluded. First prize of \$500 was awarded to Otto Maurice Forkert, instructor at the Art Institute of Chicago. Second prize of \$250 was awarded jointly to Francis Adams Comstock, associate professor of design at the Princeton University School of Architecture, and to Kennard G. Keen, Jr., of the Princeton University Press. L. J. Ansbacher, book designer, New York, received the third prize of \$100.

PRELIMINARY examinations for the Rotch Traveling Scholarship will be held April 4 and 5. The amount of the prize is \$3,000. A second prize of \$100 has been offered by the Boston Society of Architects.

For information, address C. H. Blackall, 31 West Street, Boston, Mass.

COMPETITION for unemployed architectural draftsmen has been announced by the Architects' Emergency Committee, 115 East 40th Street, New York. The competition is for small house designs with the object of producing several which by reason of planning and economy in the use of materials might be adaptable to mass production. Funds for the prizes, which range from \$25 to \$100, will be raised by an exhibition of the recent work of Joseph Urban, to be held at the Architectural League, to which the public will be admitted. The competition will be confined to the 1,700 unemployed draftsmen registered with the committee. Ely Jacques Kahn is chairman of the competition.

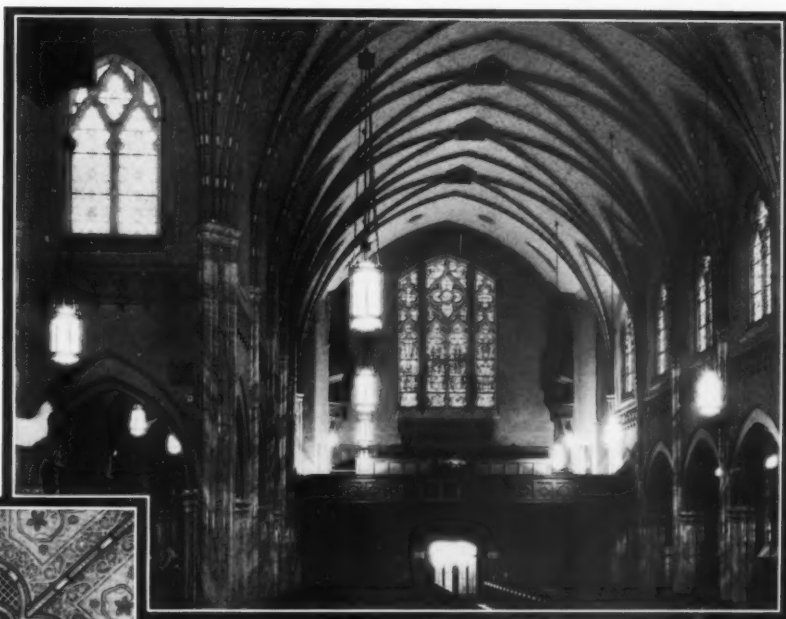
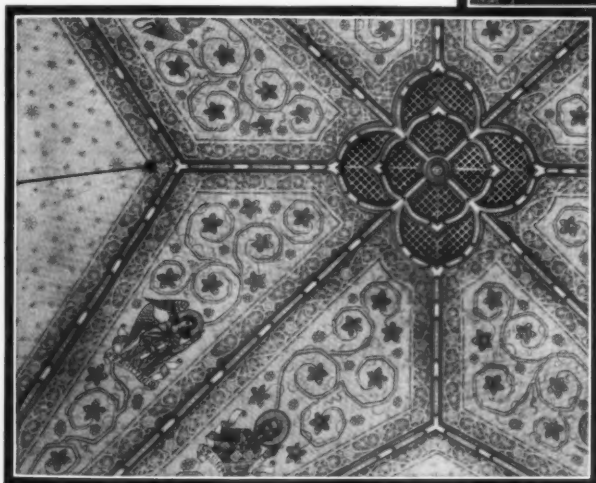
Acoustics and Design

are both served by Acousti-Celotex



*Church of the Blessed Sacrament, Springfield, Ill.
Aschauer & Waggoner, Architects.*

*Typical panel design, Acousti-Celotex ceiling, Church
of the Blessed Sacrament, Springfield, Ill. Decorated
by Rambusch Decorating Company.*



Showing Acousti-Celotex ceiling, Church of the Blessed Sacrament, Springfield, Ill.

THE beautiful vaulted ceiling of a fine church is usually an acoustical problem. Acousti-Celotex solves the problem by reducing reverberation and providing better hearing, and at the same time serves any design or decorative scheme conceived by the architect.

Acousti-Celotex is a permanent sound-absorbing tile which retains all its high efficiency under repeated paintings with any kind of paint.

Poor acoustical conditions are present not only in churches but in schools, auditoriums, business offices, theaters, and all manner of assembly halls and rooms. The growing practice today is to meet and dispose of them with Acousti-Celotex.

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- _____ ■ What materials you will use?
- _____ ■ How will buildings be equipped?
- _____ ■ Will buildings be standardized—built in the shops with units merely erected in the field?
- _____ ■ Will taller buildings go up—or will cities spread out?
- _____ ■ Developments are coming thick and fast. Sound-proofing—air conditioning. But what about them?

QUESTION after question comes into your mind that only tomorrow itself can answer.

Still definite trends are leading us on.

THE FORECAST NUMBER OF AMERICAN ARCHITECT in May will discuss these trends. Through the eyes of the nation's foremost architectural authorities this one issue of American Architect will look at the job that will be yours tomorrow.

AMERICAN ARCHITECT

The Business Magazine of Architecture

What Powered for the Tropics means to the designer and the builder

■ **Norge factory Hot Room**
Tests are made in a room heated to 120°. Every Norge is powered to refrigerate and make ice in this temperature . . . powered for the tropics, where it's hotter than the kitchen ever gets.

The powerful Norge Rollator is an almost everlasting electric refrigeration mechanism. It has only three moving parts . . . is actually just a roller, slowly revolving in a permanent bath of protective oil.

Big enough to do the job of unwavering refrigeration, day after day, and with a surplus of power for long life, the Rollator is a compact mechanism. It permits the Norge to be scientifically proportioned, with maximum

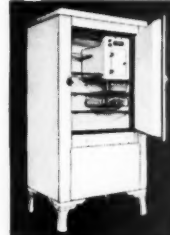
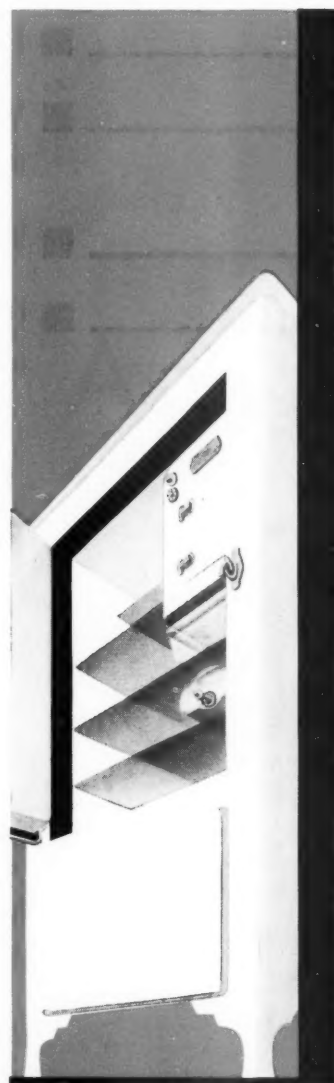
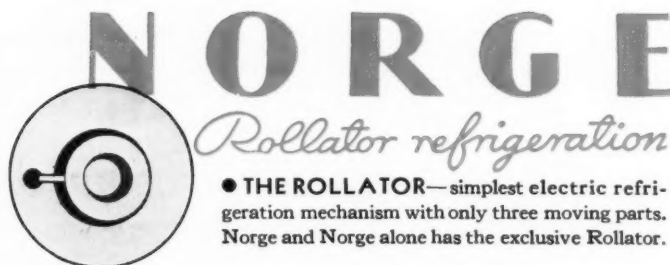
food storage space and occupying minimum exterior space. The same proportioning gives the user the convenience of a waist high food compartment.

Rollator Refrigeration equips any dwelling or apartment with the advantage of many original and exclusive advancements combined with unusual economy of operation.

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NEW CATALOGS . . .

Readers of AMERICAN ARCHITECT may secure without cost any or all of the manufacturers' catalogs described on this and the following page by mailing the prepaid post card printed below after writing the numbers of the catalogs wanted

CONCEALED RADIATION

357 . . . Circular Concealed Convection Heaters, which are concealed in the thickness of the wall between the studing to form a long narrow opening in the baseboard with a decorative grille in the wall above, are illustrated and described in this booklet. Explains manner of operation, illustrates units, has detail drawings of installation, and has pictures of rooms in which used, both residential and other. Issued by the Circular Heat Co., Louisville, Ky. A. I. A. file 30 c 4.

MEDUSA WHITE PORTLAND CEMENT STUCCO

358 . . . Contains general specifications for waterproofed Portland cement stucco over various bases, pictures of different finishes, tables of material required, numerous pictures of buildings where Medusa has been used, and general data. Issued by the Medusa Portland Cement Co., Cleveland, Ohio. A. I. A. file 21 d 1.

SLOANE-BLABON LINOLEUM AND FELT BASE

359 . . . 53 pages of pictures in color of various patterns of linoleum made by the Sloane-Blabon Corp., for which W. & J. Sloane, 577 Fifth Ave., New York, are selling agents. Also table of gauges and weights, yardage calculator, etc.

MODERN DOMESTIC SERVICE EQUIPMENT

360 . . . A manual on the use of monel metal in kitchens, pantries and laundries. Contains many illustrations. Gives properties of monel metal, finishes, specifications and similar data. Issued by the International Nickel Co., 67 Wall Street, N. Y. A. I. A. file 35 c 1.

BRYANT GAS BOILERS AND THE DUALATOR

361 . . . Issued by the Bryant Heater & Mfg. Co., Cleveland, Ohio. Illustrates and describes the various types of heating equipment made by this company. Gives dimension sizes.

BRIXMENT

362 . . . A booklet pointing out the reasons why Brixment has been widely used on the better types of masonry work. Gives various tests. Issued by the Louisville Cement Co., Louisville, Ky. A. I. A. file 3 a 9.

FOR MARCH 1932

KALITE SOUND ABSORBING PLASTER

363 . . . Booklet issued by the Celotex Company, Chicago, which discusses sound absorbing plasters and gives instructions for applying Kalite acoustical plaster. A. I. A. 39 b.

GEORGIA MARBLE

364 . . . Laboratory tests, pictures of buildings where used, pictures of texture finishes, specifications, description and uses of Georgia marble. Issued by the Georgia Marble Co., Tate, Ga.

TERRAZZO SPECIFICATIONS

365 . . . Booklet with illustrations, some in colors, giving facts about and specifications for terrazzo floors. Issued by the Medusa Portland Cement Co., Cleveland, Ohio. A. I. A. file 22 e 1.

ARCH ROOF CONSTRUCTION

366 . . . Folder issued by the Arch Roof Construction Co., 104 West 42nd Street, New York, illustrating and describing the long span roof arches made by this company.

DESIGN DATA FOR EXPANSION LOOPS

367 . . . Folder describing a simplified method for designing expansion loops with a design chart. Issued by Tube-Turns, Inc., 1300 South Shelby St., Louisville, Ky.

PROTECTING WIRING

368 . . . Describes in an interesting fashion various types of metal protection such as galvanizing, sheradizing, hot-dip galvanizing, etc., in their relation to

electric conduit. Discusses the way in which General Electric conduit is protected from corrosion. Issued by the General Electric Co., Bridgeport, Conn. A. I. A. file 31 c 62.

ALCOA ALUMINUM AND ITS ALLOYS

369 . . . A ready reference book on aluminum and its alloys. Issued by the Aluminum Company of America, Pittsburgh, Pa. Gives information concerning physical and chemical properties of aluminum alloys, tables of sizes, and similar data.

ROOFING—TILE, CLAY

370 . . . Specification data on various types of clay tile. Some illustrations in color. Estimating data. Detail drawings showing application. Illustrations of buildings where used. Issued by B. Mifflin Hood Co., Daisy, Tenn. A. I. A. file 12 e 1.

KEEPING OUTSIDE NOISES OUT

371 . . . Illustrates and describes a window muffler made by F. E. Berry, Jr., & Co., Inc., 203 Ipswich St., Boston. Stated to keep street noises out when windows are partly open.

DETAILS OF COPPER VALLEYS AND BOX GUTTERS

372 . . . Three plates prepared by the Copper & Brass Research Association, 25 Broadway, N. Y., showing recommended methods for installing copper valleys and box gutters. Besides presenting the detail drawings, notes explaining the construction are on the back of each sheet.

NO POSTAGE REQUIRED ON THIS CARD

AMERICAN ARCHITECT
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March, 1932

Please have the following catalogs reviewed in this issue sent to me.
Numbers

I also desire further information about the new products described in this month's "New Materials and Equipment." (See pages immediately following this insert.)

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N.B.: The catalog of any advertiser will be sent on request. Write advertisers names in space below.

These NEW Catalogs may be obtained through AMERICAN ARCHITECT

KELSEY HEALTH HEAT

373 . . . Illustrates and describes the Kelsey warm air generator, construction of heater, automatic humidification, chimney hints, etc. Issued by the Kelsey Heating Co., Syracuse, N. Y.

OIL BURNERS THAT FIT THE BOILER

374 . . . Petro-Nokol commercial-industrial oil burning systems, made by the Petroleum Heat & Power Co., Stamford, Conn., are illustrated and described in this booklet. Contains installation diagrams, pictures of installations, sectional view of burner in colors, accessories, etc. A. I. A. file 30 g 1.

COMMERCIAL LIGHTING

375 . . . Data on how to plan direct and semi-indirect light installations are contained in this booklet on commercial lighting for office, school, hotel, hospital and institutional use, issued by the Graybar Electric Co., New York. Pictures of fixtures, catalog data, etc. Also lighting intensities recommended for good lighting in commercial interiors. A. I. A. file 31 f.

NEW MURRAY RADIATOR

376 . . . Booklet of American Radiator Co., New York, describing a non-ferrous convection type radiator which, due to the nature of the materials used in fabrication, is small in size, permitting easy installation in recesses. Diagrams use in various type systems, gives sizes and output, charts to help determine sizes, and other data. A. I. A. file 30 c 4.

HOPE'S LEADWORK FOR THE GARDEN

377 . . . Pictures of architectural ornament made of lead, for garden as well as building use. Issued by Henry Hope & Sons, Inc., 101 Park Ave., New York. A. I. A. file 38 g.

THE FLUSHCALL PLAN

378 . . . Illustrates and describes a complete new line of signaling and calling devices for residences, apartments, or any place where bells, buzzers, transformers and annunciators are used. Installed in standard fittings. Set flush with wall. Suggested specifications. Issued by Edwards and Company, Inc., New York. A. I. A. file 31 i 13.

HERMAN NELSON HIJET HEATER

379 . . . Illustrates and describes the hijet unit heater, which consists of a heating element, a specially designed fan, a Her-Nel-Co motor, steel cabinet and steel discharge louvers. Contains chart giving suggested minimum and maximum distances from floor to bottom of heater, capacity of various sizes, proper location of heaters, piping suggestions, wiring instruction, etc. Issued by the Herman Nelson Corp., Moline, Ill. A. I. A. file 30 d 1.

PAINT WITH MONGOL COLORED PENCILS

380 . . . Folder illustrating and explaining how to use colored pencils for wash drawings, manner of getting various effects being shown in color. Issued by Eberhard Faber, Brooklyn, N. Y.

HOW ELECTRIC DOOR OPERATORS ON LARGE DOORS WILL SAVE DOLLARS

381 . . . Illustrated booklet issued by Barber-Colman Company, Rockford, Ill., explaining the advantages of this company's line of door openers and containing pictures of installations.

NEW WINDOW OPENING UNIT

382 . . . The new Curtis Silentite Pre-Fit window unit, which eliminates weight boxes, wide trim and wide mullions, is illustrated and described in this folder. Gives complete details of construction. Weather stripping included with frame. Issued by the Curtis Companies, Clinton,

Iowa. A manual issued by this same company gives tests on this unit, data on installation costs, etc.

RUUD WATER HEATERS

383 . . . Sales Bulletin 116 of the Ruud Manufacturing Company, Pittsburgh, Pa., illustrating and describing the various types of water heaters for residence use made by this company.

A NEW DRAWING PENCIL

384 . . . A new drawing pencil made by an entirely new process and stated to do an entirely new kind of job is described in this booklet issued by Eberhard Faber, Brooklyn, N. Y. Called the Microtomic Van Dyke.

ZEISS-DYWIDAC CONCRETE SHELL DOMES AND BARREL SHELL ROOFS

385 . . . Illustrates and describes a new principle in reinforced concrete construction. Issued by Roberts and Schaefer Co., Chicago, licensees under the patents of Dyckerhoff and Widmann, A. G., Germany. Adapted to a large variety of buildings where a large unobstructed floor area is required. A. I. A. file 4 e 1.

THE PRESERVATION AND STRENGTHENING OF WOOD FLOORS

386 . . . "Lignophol," a preservative treatment used on wood floors—either old or new—to lengthen their lives is described in this booklet issued by L. Sonneborn Sons, Inc., New York. Explains necessity for preservative treatment, gives results of laboratory tests on various species of wood, pictures of buildings where used, and specifications for various purposes.

CONCRETE ASHLAR WALLS

387 . . . Booklet issued by the Portland Cement Association, Chicago, containing data on this subject by Wal-Ward Harding, A. I. A., and pictures of many buildings with concrete ashlar walls. Discusses color treatments and textures.

SARCO HEATING SPECIALTIES

388 . . . Booklet issued by the Sarco Company, Inc., New York, illustrating and describing this company's heating systems. Contains drawings showing a typical Sarco vacuum heating system, a vapor heating system, etc. Describes thermostatic specialties such as radiator traps, packless valves, air eliminators, etc. A. I. A. file 30 c 24.

NEW SPACE SAVING SAFE

389 . . . The Diebold Safe & Lock Co., Canton, Ohio, has issued this folder on various types of safes. Describes construction and installation.

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NEW MATERIALS & EQUIPMENT

BRIEF REVIEWS THAT MAKE IT EASY TO KEEP IN TOUCH WITH THE PROGRESS MADE BY PRODUCERS



New Type of Wall Covering

51M A new type of wall covering has been introduced by Congoleum-Nairn, Inc., Kearny, N. J. This material, called "Sealex Wall Covering," is a special composition of cork, pigments and linseed oil keyed to a fabric backing. It is stated to have a waterproof surface which is impervious to dirt and easily cleaned with a damp cloth. It can be applied over old walls with little or no preparation. It is applied in six foot widths much the same as wall paper. The illustration shows this material applied to the walls of a kitchen, the floor being of Sealex linoleum. The material, being flexible, is stated to withstand considerable settling, expansion, contraction and cracking of the wall without breaking or warping, and once the adhesive has dried—which is in less than twenty-four hours—to become practically part of the wall.

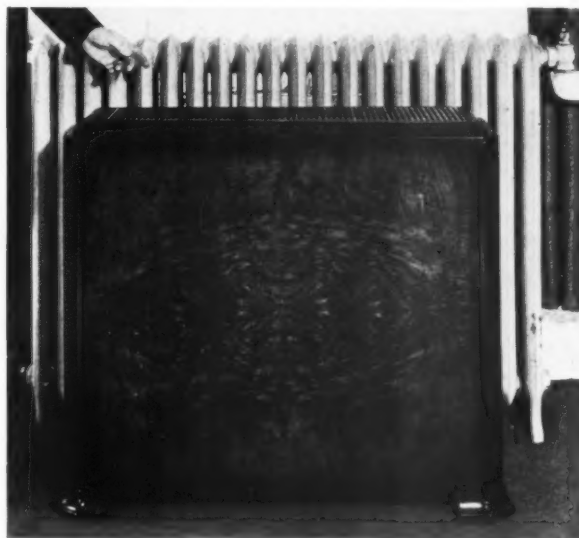
New Asbestos Wainscoting

52M The Johns-Manville Co., New York, has placed on the market a permanent wall material in tile or plain design; it is called J-M Asbestos Wainscoting and is made of asbestos and portland cement. It may be obtained semi-finished when desirable to carry out some special color scheme, the lacquer or paint being applied

on the job. It comes in a thick sheet material that can be nailed on, using ordinary carpenters' tools.

Garage Doors Operated by Radio

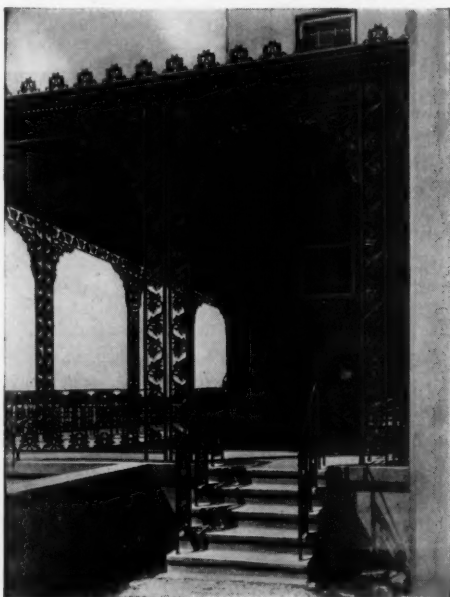
53M Radio control for door operators in residence garages have been placed on the market by the Barber-Colman Co., Rockford, Ill. All the automobile driver has to do is to pull a knob on the instrument board of his car as it approaches the garage. The door opens by radio control. After driving inside, the knob is pulled to close the door—all without getting out of the car. The garage lights turn on automatically when the doors are open at night.



Frigidaire Air Conditioning

54M The Frigidaire Corporation, Dayton, Ohio, has entered the air conditioning field with a diversified line of individual unit-type conditioners suitable for commercial establishments, offices, restaurants, residences, apartments, etc. The air conditioners are small to meet the needs of those who find the central type installations too large for their requirements. They come in several models. In most instances, the compressor unit will be placed in the basement or an adjacent closet. Where this is impractical, a soundproof, polished desk-size cabinet will conceal the compressor. The conditioning unit and the compressor are connected through a conduit. Joining of the heating coil with the existent heating system may be done by any plumber. The illustration compares the individual unit type air conditioning equipment with the conventional radiator.

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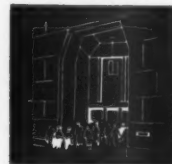
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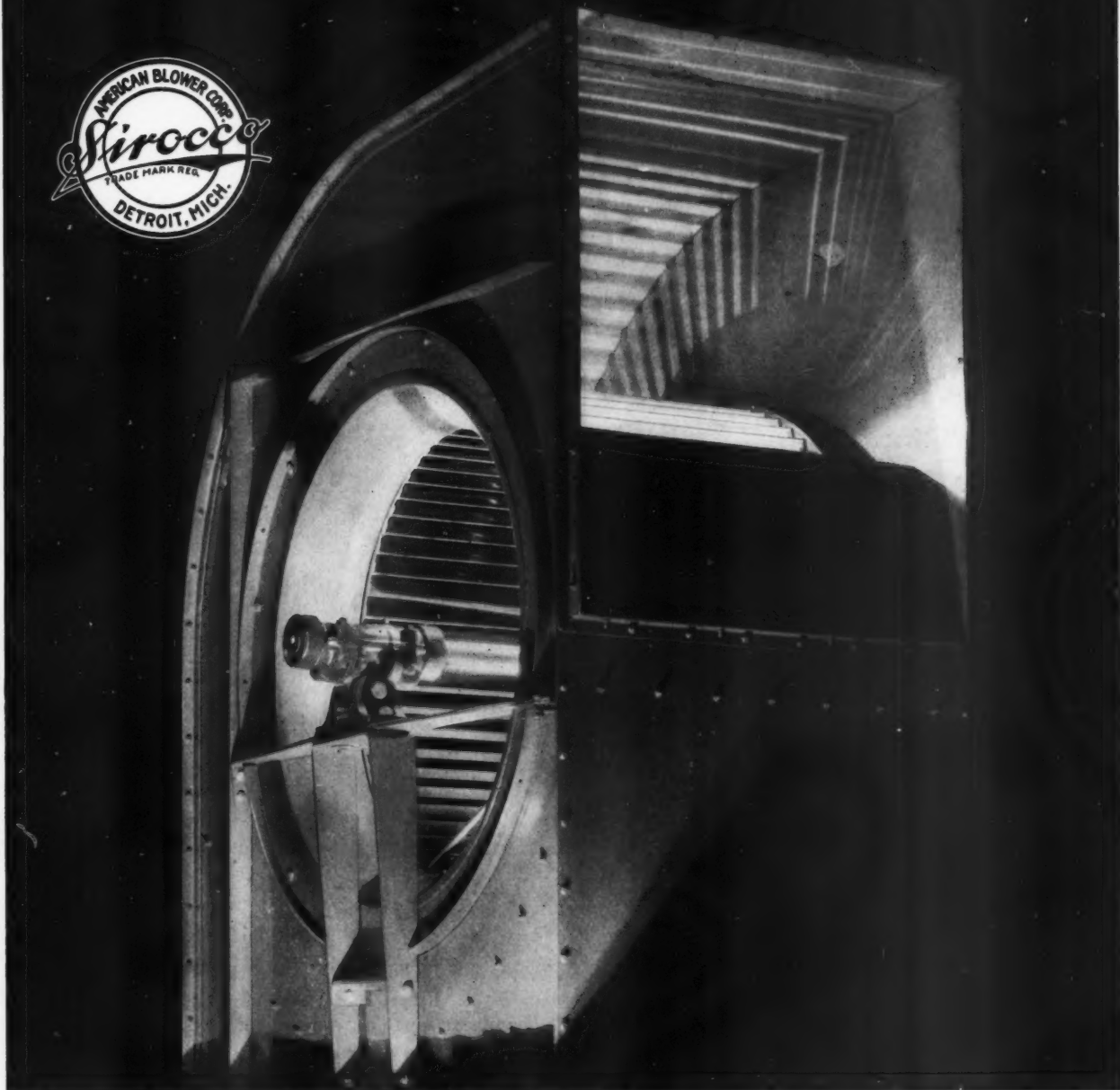
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FOR MARCH 1932

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PERSONALS

GUSTAVUS A. MANG, architect, Scarsdale, N. Y., was awarded the prize of \$100 offered by the Council of Registered Architects, State of New York, for the design of a membership certificate. Second prize was awarded to Edmond J. Ryan, Chateaugay, N. Y.; third prize to W. M. Geety, and fourth prize to Albert Kirschbaum, both of New York City. The competition was conducted by the Architects' Emergency Committee for the Region of New York to aid unemployed members of the profession.

BORIS R. LEVEN, senior architectural student at the University of Southern California, has been awarded the Emerson prize and a first medal, commemorating the grand award, in a competition under the auspices of the Beaux Arts Institute of Design for a memorial to Thomas Alva Edison.

THE PRODUCERS' COUNCIL announces that H. H. Sherman has been appointed as executive secretary to replace F. S. Laurence, who has resigned to become associated with Taylor, Rogers & Bliss, Inc., New York, as director of the architectural division of that company. Mr. Sherman was until recently secretary of the National Building Granite Quarries Association and is also a past president of the Producers Council.

HENRY J. MCGILL, A. I. A., has been awarded a medal by the Chamber of Commerce of Queens Borough for the Roman Catholic Church of the Precious Blood at Astoria, Long Island, which was judged the best church of the year erected in the borough.

JOHN P. B. SINKLER, F. A. I. A., has been appointed director of the Department of Architecture in the cabinet of the new Philadelphia municipal administration. He is a partner in the firm of Bissell & Sinkler and a past president of the Philadelphia Chapter.

STEPHEN F. VOORHEES, F. A. I. A., has been elected a member of the board of directors of the American Standards Association.

JAMES MONROE HEWLETT, F.A.I.A., has been appointed resident director of the American Academy in Rome for three years, beginning October 1,

1932. In recognition of Mr. Hewlett's appointment, the Architectural League of New York gave a dinner in his honor on January 29th.

ELY JACQUES KAHN, A.I.A., has been appointed chief of the Section of Industrial Arts for the Chicago World's Fair. He plans a comprehensive exhibit which will include the decorative arts, building materials and housing schemes.

R. H. SHREVE, William F. Lamb and Arthur Loomis Harmon, designers of the Empire State Building, have been awarded the 1931 Medal of Honor of the New York Chapter, A. I. A. The medal is given for "distinguished work and high professional standing."

WILLIAM VALDER, A. R. I. B. A., has been awarded the Alfred Bossom Travelling Scholarship of the Royal Institute of British Architects, which consists of a gold medal and 250 pounds in money to be applied towards the study of commercial architecture in America.

GOODWILLIE & MORAN, architects, have moved to 386 Fourth Ave., New York.

CHARLES S. PEABODY, A. I. A., has withdrawn from the firm of Ludlow & Peabody. William Orr Ludlow, F. A. I. A., will continue the practice of architecture under his own name at 101 Park Avenue, New York.

HENRY CHISHOLM, architect, has opened a studio at R. F. D. 125, Summer Street, Mansfield, Mass. He requests manufacturers catalogs.

VINCENT PALMER, architect, has moved his office to the Coyne Building at 116 North Larchmont Boulevard, Los Angeles, Cal.

CLEMENT V. TILLION, architect, has withdrawn from the firm of Tillion & Tillion and has established his own office at 101 Park Avenue, New York.

TANNER AND MABRY is the name of a new firm of architects at Houston, Texas. The partnership is composed of John R. Tanner and Armon F. Mabry, both members of the French Society of Architects.



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"Something more than tools and temperament is needed for great architecture, something more than a sense of beauty. The creators of lasting art must have a sense of something of which beauty is only the flower, something that stirs not only the emotions but the very soul, that may be called romance. If architecture is simply a matter of the most practical way to house our wants, we should not search architecture for beauty and romance, and it looks very much as if a machine age were impelling us that way. Nature, while predicating everything on facts, makes everything so beautiful that she needs no styles and periods; she is always in style.

"When we remember charming bits of architecture of the Old World, the mystery of color and form within Chartres Cathedral, the slender ethereal beauty of St. Chapelle, the eternally sturdy grace of the columns

of the Parthenon, can we imagine for a moment that no matter what architects do, that plain folks are going to throw these things into the discard, or that these things shall ever cease to be a part of our architectural inheritance, helping to form our ideas of beauty and appropriateness?

"Although the Parthenon and Chartres will always be our inspiration, let us no longer be copyists, but so modify the old or invent the new that we may tell a modern story in modern language."

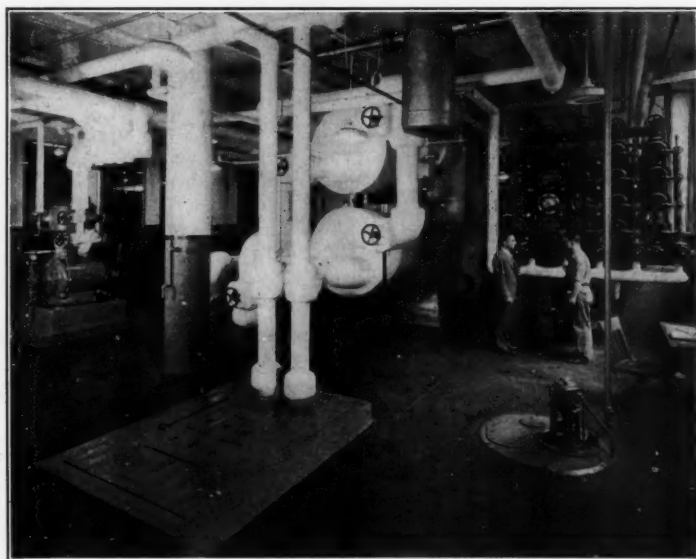
A. I. A. Should Stop Endorsing Architects' House Bureau

(Continued from page 31)

the mass production steel house.

Unification of the profession would go far towards developing proper remedies, for we would present a united front. But we never can unite so long as there is continuous friction regarding the unfortunate endorsement by the Institute of the Architects' Small House Service Bureau.

May I propose that either the endorsement be dropped and the Bureau allowed to continue separately or, what would be of greater benefit to the profession, to continue the endorsement and stop the sale of stock plans? In the latter case, the Bureau, through the educational work of its speakers, its sketches and its literature, would reap a harvest of good will from both public and architects, and the Institute would have won for itself a greater and nobler prestige.



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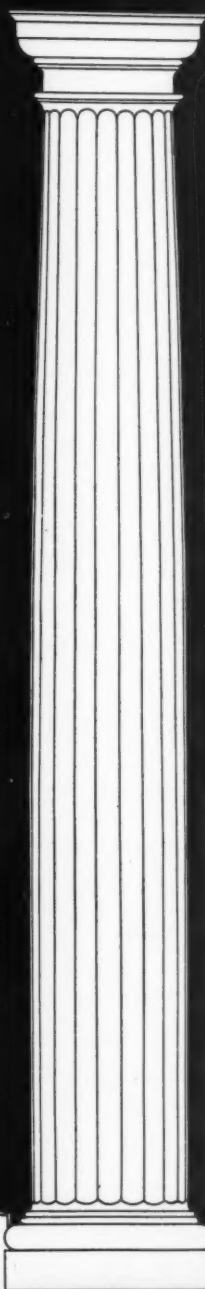
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One of the houses shown in March Good Housekeeping. Randolph Evans, Architect.

FALLOW FIELDS MADE TO BEAR

When Good Housekeeping inaugurated its Studio of Architecture a little more than a year ago, its avowed purpose was to make good domestic architecture the popular subject it deserves to be. Of all magazines, Good Housekeeping felt it was best able to do this. Its circulation of 1,850,000 is not only large enough, but it is most representative of that type of family which, by reason of income, standards of living and ideals, is a fertile field for the architect and the manufacturer whose products he specifies.

As every architect knows, this field has

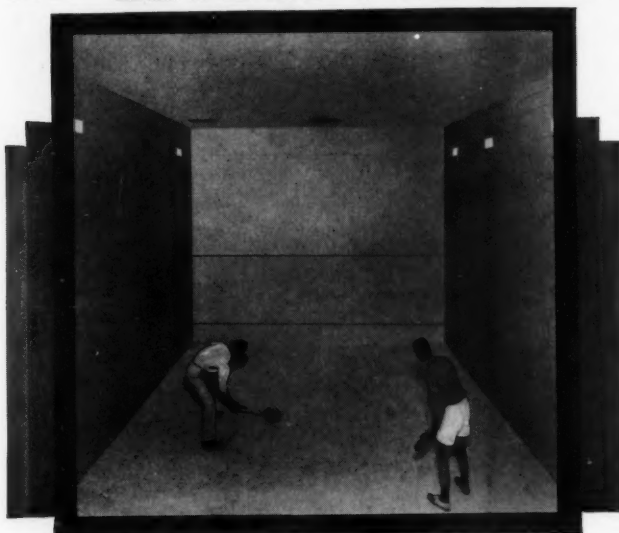
largely lain fallow. Comparatively few people have had the opportunity to learn the value of the architect's services and the intrinsic, as well as the aesthetic worth, of good design and sound construction.

Home building activity today is, of course, abnormally low. But when it does increase, as it will perhaps sooner than is expected, there is evidence piling up to show that Good Housekeeping's efforts to promote good domestic architecture will bear fruit in a wider demand for houses designed in good taste and built for permanence.

GOOD HOUSEKEEPING

Everywoman's Magazine

SQUASH COURTS AT HARVARD



ARE FLOORED WITH BLOX-ON-END

Twenty-one squash racquets courts in Dunster House, Leverett House and Lowell House — the new combined class room and dormitory buildings at Harvard — are floored with Genuine BLOXONEND Flooring. Coolidge, Shepley, Bulfinch & Abbott, Architects.

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Writing Specifications

(Continued from page 53)

various grades and sizes of the flooring may be listed for reference.

Now, in preparing a specification to be typed, the specification writer simply runs through the loose sheets comprising the standard paragraphs, and as he comes to one that he wants to use, he jots down with his pencil on a separate sheet of paper, on which he has noted at the top "Key," all that he wants the typist to insert wherever a key number occurs. See Figure 4. This key sheet is handed to the typist along with the selected standard paragraphs, which are arranged in proper order. By following the key or guide sheet the typist produces a complete specification, strictly applicable to the job at hand. Of course, where some special item is to be specified, that paragraph or paragraphs are simply written in long hand and inserted with the others. Figure 5 shows a specification completed from the standard paragraphs, Figures 1, 2 and 3, and the key sheet.

In the specification file, under each separate heading such as "Masonry" or "Carpentry," there is a plain sheet of paper on which a record of the key numbers is kept, each heading having its own set of key numbers. In this way there is no duplication of key numbers and when new standard paragraphs are added, new key numbers are determined from this sheet.

BULLETINS

PROPERTIES OF FIBER BUILDING BOARDS. By C. G. Weber, F. T. Carson and L. W. Snyder. Issued by the Bureau of Standards. For sale by the Superintendent of Documents, Washington. Price 5 cents.

RED CEDAR SHINGLES. Gives new commercial standards. Issued by the Bureau of Standards. For sale by the Superintendent of Documents, Washington, D. C. Price 5 cents.

FURNITURE: ITS SELECTION AND USE. Report of the Subcommittee on Furniture of the National Committee on Wood Utilization. Issued by the Bureau of Standards. For sale by the Superintendent of Documents. Price 20 cents.

ARCHITECTURAL ACOUSTICS. By Paul R. Heyl. Issued by the Bureau of Standards. For sale by the Superintendent of Documents, Washington. Price 5 cents.

SOOT and smoke in the metropolitan area of New York taxes each of the 7,000,000 population \$13.75 a year, according to the New York and New Jersey Smoke Abatement Committee. New Yorkers, it is estimated, pay out \$56 a year per family due to smoke damage.

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this time with

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Already tens of thousands of satisfied owners are attesting the perfection of the Majestic refrigerator. And once more, engineers the country over are marveling at the manufacturing genius of Majestic — a genius that now can point to a production record without equal in the industry: *more than twice as many electric refrigerators as were ever turned out by any other entrant in the same period of time!*

You'll be delighted with the Mighty Monarch of the Arctic, just as *more than three million families* have thrilled and continue to thrill at the Mighty Monarch of the Air. For this modern refrigerator, backed by a 3-year *factory* guarantee, is priced many dollars below what you might reasonably expect to pay for such an outstanding value.

Majestic Electric Refrigerators are made in six sizes. All have Elasto or porcelain exterior finish, porcelain-on-steel interior, positive air circulation, a factory sealed unit and 26 other great features, all tested and approved by Good Housekeeping Institute. Visit your nearest Majestic dealer. Examine the Mighty Monarch of the Arctic. Note its beauty, its amazing efficiency, its remarkably low price.

Don't buy until you see Majestic. Then match it, point by point and dollar for dollar — if you can!

GRIGSBY-GRUNOW COMPANY, CHICAGO,
and affiliates, with factories at Chicago, Toronto, London,
Bridgeport, Oakland, and Sao Paulo, Brazil

**MADE BY THE MAKERS
OF MAJESTIC RADIO**

(Reprinted from The Saturday Evening Post)



**ILCO DOOR CHECKS ARE
SEA-GOING—18° N. LAT. TO
44° N. LAT. WITH THE S.S.'s
YARMOUTH AND EVANGELINE**



**SPECIFY
ABSOLUTE
DOOR
CONTROL
WITH**

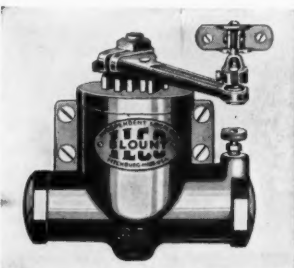
ILCO DOOR CHECKS

Between Yarmouth, Nova Scotia and Kingston, Jamaica, a ship's equipment meets every kind of wind and weather condition. Aboard the S. S. Yarmouth and the S. S. Evangeline, star cruisers of the Eastern Steamship Lines, Ilco Blount Door Checks are put to severe tests of their efficiency. Rain, snow, cold winds and fog on the winter runs to Yarmouth; tropical heat and humidity on cruises to Kingston, Havana, Nassau. Every condition is met with the absolute door control provided by Ilco Blount Door Checks.

Ilco Door Checks are built by science, tested to severe specifications, and their adaptability to weather, temperature and draught conditions has been demonstrated by a long period of actual use. Small home or skyscraper, office, store or hospital—modern conditions demand the elimination of noise. To accomplish this, to assure the best possible living and working conditions, is the mission of scientific **door control**. It is just that which you put into a building, when you specify Ilco Door Checks.

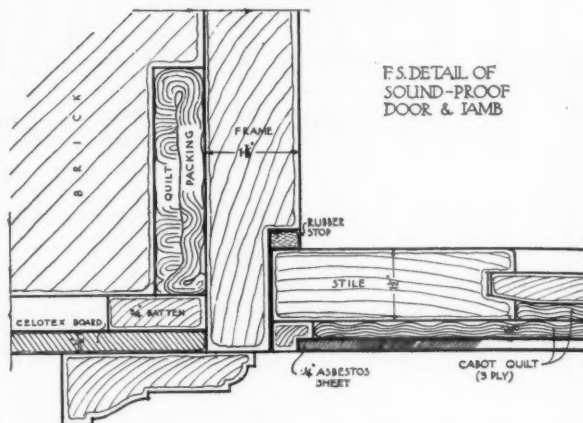
*Ilco Door Check data is filed in Sweet's.
Refer to pp. C3170 and C3171*

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**Independent Lock Company
FITCHBURG . . . MASS.**

Books (Continued from page 64)



Detail of sound-proof door and jamb.
From "Planning for Good Acoustics"

and prevention of noise, influence of ventilation on the acoustics of halls, etc.

There are many plans and sections of various types of buildings together with pictures of prominent rooms with good acoustics.

THE largest residence in the world is said to be the Karl Marx Hof, Vienna, the main façade of which is three-quarters of a mile long.

SCOTTISH RITE TEMPLE

Philadelphia, Pa.

Theatre architects who insist on the best, invariably specify Peter Clark stage equipment. A typical instance of this is the Scottish Rite Temple in Philadelphia, Pa.



another
PETER CLARK
installation!
May we help you with your next theatre job? We will be glad to cooperate with you in suggesting and designing the stage equipment.

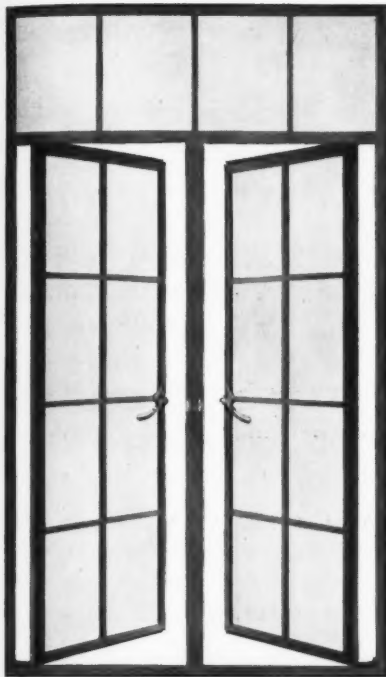
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Stage Equipment Specialists for Over 25 Years
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AMERICAN ARCHITECT

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Popular Steel Casements for Modern Homes



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Under-screen operators of either the Artex or Auto-Lock Type can be furnished as standard equipment. Or, if desired, Standard Rol-Up or Side-Hinged Screens can be supplied at moderate cost. Truscon Residential Casements are available in numerous standard sizes of single and combination units and with transoms.

Complete catalog on request.

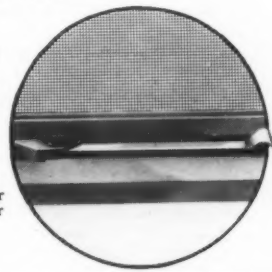
TRUSCON STEEL COMPANY, YOUNGSTOWN, OHIO

Warehouses and Offices in Principal Cities



ARTEX UNDER-SCREEN OPERATOR

An ingenious device that opens the sash to any position and locks it in place.



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A specially designed Push Bar for operating the sash under a fixed screen.

CHENEY FLASHING

Floor Section

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build for Engineers
they permanently eliminate Seepage and Leaks with

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INTERLOCKING THRU-WALL FLASHING

Both the Architects and Engineers of this modern Laboratory, by installing Cheney Thru-Wall Flashing, made certain that Seepage and Leaks would never deface or damage the masonry walls. Note: In the Cross Sections, the positive methods used to protect Parapet, Cornices, etc.

Each month witnesses a larger and broader use of Cheney Flashing by more and more Architects, Engineers and Contractors, in all types of construction from Coast to Coast; an exceptional tribute to the positive efficiency of Cheney Flashing.

Cheney Flashing is the only proved thru-wall copper flashing that runs completely through the masonry wall and forms a positive Key-bond in all directions within the mortar bed.

A Catalog; conclusive proof of its value and wide usage—is yours on request.

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CHENEY FLASHING

Parapet Section

DOES NOT BREAK THE BOND

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WILL HOLD YOUR INTEREST
MORE THAN ANY SINGLE
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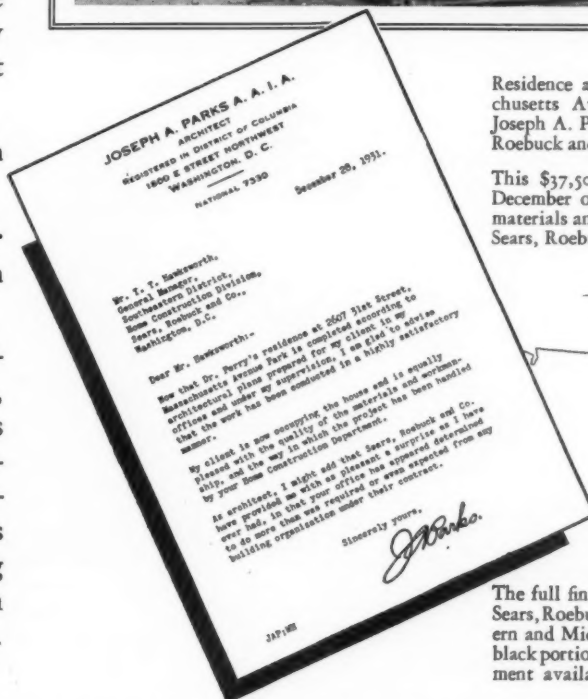
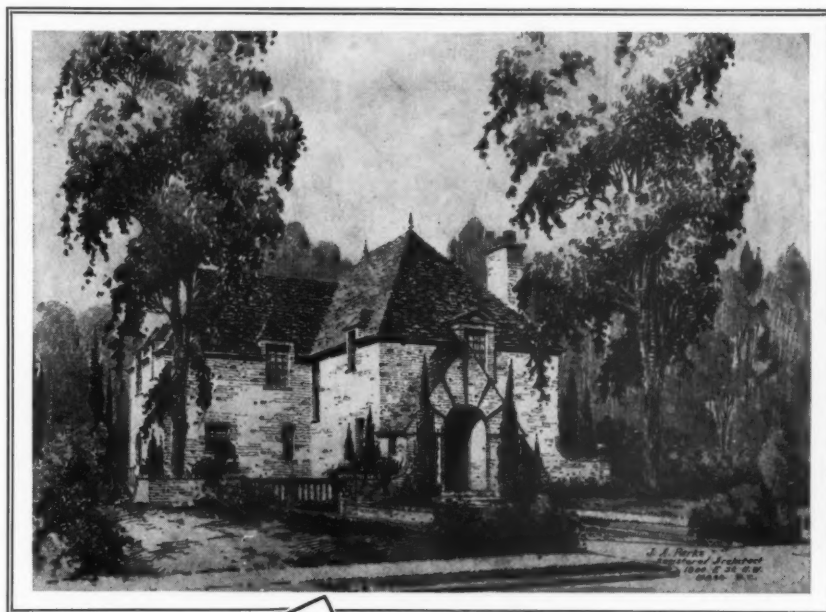
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FOR MARCH 1932



The replica of historic Mount Vernon in Paris at the French Exposition Coloniale Internationale was built by Sears, Roebuck and Co. for the United States Government in 1931. Charles K. Bryant, of Richmond, Va., Architect.



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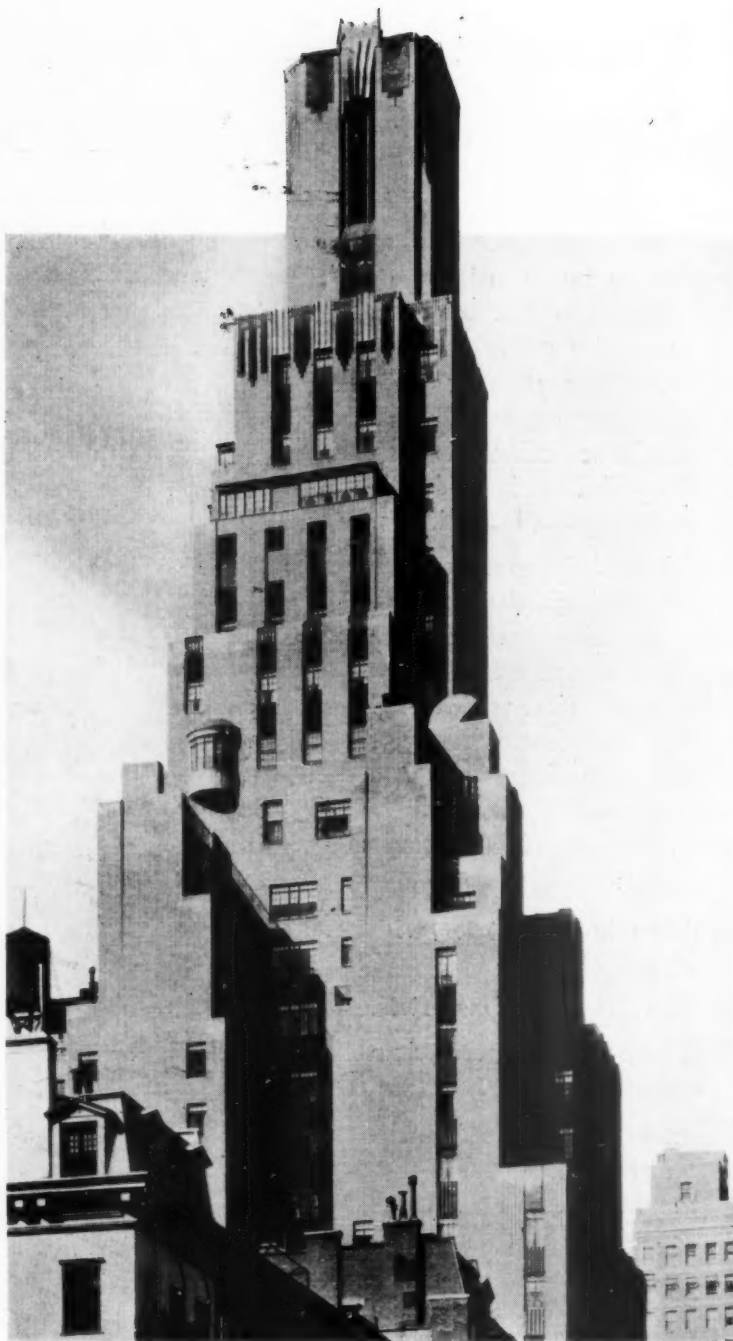
They will have windows which—built of solid, rolled-steel sections—never warp, stick or rattle, and always open at a finger's touch; windows which are safely washed on both sides from within the room.

They will have more daylight and fresh air—100% opening if desired. Yet their windows will close snug-tight—as tight as wood windows weather-stripped. And, if Fenestra's convenient inside screens are used, they will have fly-tight windows which are opened, closed and locked without touching the screens.

In addition, your clients will enjoy such major economies as the savings of installation time, labor and material on the job—Fenestra Casements come complete, fitted, assembled, primed, with hardware fitted, ready to attach.

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Look Inside **RIGID CONDUIT**

**G-E WHITE RIGID CONDUIT IS
PROTECTED AS WELL
INSIDE AS OUT**

The quality of rigid conduit must be judged by the effectiveness of its protection against rust and corrosion, the properties of its raw steel, and its surface finish. And it is on the *inside* of the conduit that these factors are most important.

Inside the conduit, the coating of zinc should be as heavy as on the outside to withstand the attack of condensate, which collects in low spots along the line. G-E WHITE rigid conduit is Hot-Dipped Galvanized and therefore is as well protected inside as outside.

The steel pipe should bend easily to facilitate installation. G-E WHITE is made of flexible alloy steel. You can test its greater workability by actually bending a length of the smaller sizes across your knee. This greater workability makes installation easier and better.

The galvanizing on the interior of G-E WHITE is always smooth because of the exclusive General Electric process by which the excess zinc is wiped out. The galvanized conduit is dipped in Glyptal, which is then baked on at a high temperature, giving a glassy-



**G-E WHITE lasts longer, works
easier, costs less to install.**

smooth interior as well as an additional protective coating that resists water, oils, acids, and alkalies, both inside and out.

Choose G-E WHITE rigid conduit for all jobs where permanence or easy installation is important. If you would like more information, ask for a new booklet "Protective Wiring," that describes all types of conduit and tells how G-E WHITE is made. Write to Section C-1003, Merchandise Department, General Electric Company, Bridgeport, Connecticut.

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RIGID CONDUIT

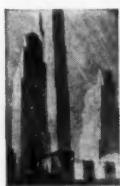
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**Interesting Elevator Statistics
of "Radio" City
by Westinghouse**

The Central Tower which will be the
largest building in Rockefeller City
will contain seventy-four
elevators—more than
have ever been installed
in any single building.



The combined total load
capacity of the passenger
elevators alone will exceed 125 tons.

To transport this amount of human
cargo 21,000 miles per day requires
the installation of equipment total-
ing over 13,500 horsepower.

The high rise elevators will actually
travel at a speed of 1200 feet per
minute—the fastest
elevators in the world.



Steel rails on which the
elevators will travel, if
shipped at one time,
would require a train
composed of forty-five cars.

Westinghouse engineers in develop-
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control for elevators have made pos-
sible high speed installations, of which
this tower is an outstanding example.



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