Providing all of copper's traditional charm and dignity, Anaconda Economy Copper Roofing is offered especially for residential use. Lighter weight (10 oz. metal) reduces cost. Narrower sheets (13 3/4" between seams) are more in keeping with small roof areas, and provide approximately the same rigidity and wind resistance as wider sheets of heavier metal. Experienced sheet metal contractors everywhere can apply Anaconda Economy Copper Roofing. See our catalogue in Sweet's.

The American Brass Company

General Offices: Waterbury, Conn. Offices and Agencies in Principal Cities
In Canada: Anaconda American Brass Ltd., New Toronto, Ontario


Here copper graces a really "small house," built as a Model F. H. A. home by Andrew H. Larsen at Waterbury, Conn.

Built in Marblehead, Mass., and designed by Donald C. Goss, Architect, Boston, Mass. Copper was used extensively throughout.

This home with Anaconda Copper roof is in Newton Highlands, Mass. Built by Davis & Vaughan, Boston, Mass.
Your clients want these
4 important benefits
in their homes...

Provide them—with
FITZGIBBONS
"Split-system"
AIR-CONDITIONING

1. HEALTHFUL AIR CONDITIONING
   Air is cleaned, tempered (kept at
   even temperature), humidified and
   circulated in such rooms as living
   room, dining room, bedrooms, etc.

2. ECONOMICAL RADIATOR HEAT
   Economical steel boiler radiator
   heat is supplied to such rooms as
   bath, kitchen and garage, where
   air conditioning is not desired.

3. BASEMENT BEAUTY
   The compact attractive unit, with
   burner or stoker enclosed behind
   easily removed panels, makes the
   extra basement room practicable
   even in the small home. The larg­
   est model occupies only 4’ 6” by
   2’ 5” of floor space.

4. HOT WATER
   Abundant clean hot water is sup­
   plied summer and winter—at re­
   markably low cost. No tank or
   other outside accessory is required.
   Hot water flows from the Fitz­
   gibbons TANKSAVER, a copper
   coil submerged inside the boiler.

Probably no other single piece of equipment in the
modern home provides so many services essential to
the comfort and well-being of the owner and his family.
The Fitzgibbons Boiler-Airconditioner meets every con­
dition, supplying the desired proportion of conditioned
air and radiator heat, and year-round domestic hot water
as required. This flexibility is appreciated alike by archi­
tects, builders, heating contractors and homeowners.

With all this, the operating economy of approved
copper-steel boiler design, in types for any modern fuel
and method of automatic firing . . . the beauty to grace
any basement extra room . . . and the assurance of com­
plete all-round satisfaction.

Write for the catalog and full specifications.

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Distributed in Canada by
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The FITZGIBBONS
BOILER-AIRCONDITIONER
Made in types for oil burner, gas burner,
stoker. In most cases the firing unit is
mounted inside the jacket,
behind easily removable
panels—concealed yet readily accessible.

$3.00 per year; Canada, $4.00; Foreign, $5.00. Entered as second class matter April 6th, 1926, at the Post Office at New York,
For Handling Large VOLUMES of WATER
Specify BYERS WROUGHT IRON

Example by...
Karl B. Weber,
Pittsburgh Registered Architect

When it comes to handling large volumes of water, in swimming pools, filtration plants, sewage treatment and in air conditioning, you are sure to face the corrosion problem. Because wrought iron has given years of long life and economy under these conditions, that is why you should give it careful consideration before writing the specifications.

In the North Park Swimming Pool and Bathhouse at Pittsburgh, recently constructed under J. L. Laboon, Director of Public Works, the application of Byers Wrought Iron will suggest many specific uses for this corrosion-resistant material.

Byers Wrought Iron Pipe was used for all raw water supply lines, return lines from pool, scum gutter lines, recirculation lines, suction lines, waste lines, vents and leaders in bathhouse. Also all railings and stairway to observation platform were made of Byers Wrought Iron pipe, plates and bars.

Wherever corrosion is a problem be sure you review wrought iron's record before specifying the material. If there is any question about corrosive conditions let us work with you in making a corrosion study. Complete information and engineering assistance are readily available through our nearest Division Office or from our Engineering Service Department in Pittsburgh. A. M. Byers Co. Estab. 1864. Pittsburgh, Boston, New York, Philadelphia, Washington, Chicago, St. Louis, Houston, Seattle, San Francisco.

Specify Byers Genuine Wrought Iron Pipe for corrosive services and Byers Steel Pipe for your other requirements.
AMERICAN ARCHITECT AND ARCHITECTURE

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BOOKS • TECHNICAL DIGEST • TECHNIQUES • OBITUARIES

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Architect... Aymar Embury, II

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Pittsburgh Plate Glass Company

AMERICAN ARCHITECT AND ARCHITECTURE, OCTOBER 1937
...Couldn't we get by with cheaper acoustical materials?

No, that's false economy. They won't be permanently effective...and they'll cost you more in replacement and maintenance than your original investment in J-M Sound-Control Materials!

This architect is rendering his client an invaluable service. He has taken a definite point of view on acoustical materials...and made a recommendation based on actual experience.

Experience in the durability of Johns-Manville Sound-Control Materials. Knowledge of the fact that these materials retain their high rate of sound absorption throughout their entire long life...and are, therefore, a truly economical investment from every standpoint.

And like all architects who have used our engineering service, he knows its value in helping to co-ordinate the sound-control work with his basic design...and in assuring the proper application of the quieting treatment. Two factors as important in securing effective, economical sound control as are the materials themselves.

Architects who follow his example in specifying J-M Sound-Control Materials are looking beyond today. Are providing for that future time when the permanent efficiency and lasting economy of these materials will constantly remind their clients of a service rendered well...and to their mutual benefit.

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Johns-Manville Sound-Control Materials and Acoustical-Engineering Service

Actually it costs no more to use the best acoustical materials.
For both health and comfort, efficient control of air and temperature is essential—in schools, hospitals and public buildings. Permatite Windows—in bronze or aluminum—offer an important contribution to the solution of these problems.

Permatite Windows are weathertight. Their new, patented, metal weatherstripping forms an efficient seal—no air, rain or dust can enter. Exhaustive engineering tests indicate—for both casement and double hung—an unprecedented resistance to air infiltration. This feature makes them ideal for air-conditioned buildings. In winter these windows assure a considerable saving in fuel costs.

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harmonize with any architectural treatment. They cost less than half as much as former windows of similar quality and much less efficiency.

Permatite Windows are sturdily built to withstand time, weather and hard usage. They are rattleproof; free from warping, sticking and rusting; easy to operate. No painting is necessary—the maintenance cost is negligible.

Before you plan your next building, we invite you to consult Sweet's or to write us for a fully illustrated catalog giving complete construction details and specifications.

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Bronze or Aluminum • Casement or Double Hung

WINDOBS • REVOLVING DOORS • TABLETS • ARCHITECTURAL METAL WORK

GENERAL BRONZE CORPORATION
34-19 Tenth Street • Long Island City, N.Y.
CONSTRUCTION

BUILDING PERMIT VALUES DURING AUGUST, for the first time since May, reached a total slightly higher than that reported for the same month last year. According to Dun & Bradstreet's statistics covering 215 cities, the aggregate value of August building permits in these centers was $87,545,062, while in August, 1936, the total was $83,109,753. This year's increase amounts to 5.3%; however, August figures compared with those for the preceding month of July show a drop of 4.1% as against a usually expected gain of about 1%. Excluding New York City from the totals, the rest of the country registered a rise of 4.7%. For the year to date, value of building permits throughout the nation stands 19.1% ahead of 1936.

THAT MILITANT JOURNAL, NEWS & OPINION—published by New York's Building Trade Employers Association—repeats its recent warning to prospective builders that there is no chance for lessened building costs within the next eighteen months, and that if any construction is contemplated it might as well be done now. Labor prices are now governed in most cases by signed wages and hours agreements, and, according to N & O, there is little chance that anything will happen to bring about a reduction. The new Wagner Housing bill, it is stated, acts to prevent any such labor cost drop through its prevailing wage clause. It would take a very large decline in material expenses to offset increased labor costs, says N & O, and such a decline is not anticipated.

LITTLE COMFORT TO HOLDERS OF AN OPPOSITE VIEWPOINT is to be found in the American Federation of Labor's September Survey of Business. This bulletin takes the premise, which may seem sort of cart-before-horse-like to some, that any worker whose pay envelope this fall does not bring him 5% more than last fall will be forced to adopt a lower standard of living. Furthermore, workers whose pay envelope is not more than 5% above last year, although the same living standard can be preserved, will fall behind the "March of Progress." And ending on an altruistic note, the bulletin observes: "Organized labor will do industry a service by seeing to it that wages continue to advance substantially this fall. Equitable sharing by labor in the increasing wealth produced per worker is the way to avoid speculation and inflation and build our business progress on a sure foundation."

REFLECTING THE IMPORTANCE OF CONSTRUCTION to the national well-being, some interesting statistics have just been released by the Chamber of Commerce of the United States. Among the facts which catch our eye are these: From a peak of $11,060,000,000 in 1928 the volume of construction decreased to a low of $3,000,000,000 in 1933. It increased to $6,784,000,000 in 1936.

Private residential construction accounted for 39.2% of the total construction outlay in 1923 and only 18.4% in 1936. "Overcrowding" of dwellings is much less in the United States than in many foreign countries, the percentage of such over-crowded dwellings ranging from 3% in England to 1.4% in 64 American cities.

During the present decade the average annual increase in the number of families will approximate 475,000 to 500,000.

The average annual number of family dwelling units upon which construction was started was 677,000 in the decade 1920-29 and only 165,000 in the seven years 1930-36.

The total number of dwelling units built or under construction by the federal government to date is only 27,161.

The greatest lag has been in the construction of low cost housing.

The number of firms engaged in contract construction decreased from 135,087 in 1929 to 75,047 in 1935. Regular construction employment reached a peak of 2,888,000 in 1928 and declined to 629,000 in 1934, recovering to 1,210,000 at the 1936 peak.

Savings and loan associations hold 23.1% and private individuals 21.4% of the $17,740,000,000 of home mortgages outstanding.

WHAT THIS COUNTRY NEEDS, holds a writer in the New York Herald Tribune,
Specify Welding

for leakproof piping systems

ARCHITECTS and designers can provide a permanently leakproof piping system for their clients by specifying that all pipe lengths be joined by oxy-acetylene welding. A welded system has welds instead of joints—and every properly welded joint is as dependable, strong, tough, ductile and corrosion-resistant as the pipe itself. The welded system minimizes expensive leaks and servicing. Furthermore, this method of construction simplifies every step in the installation of pipe from the drawings to the insulating of the completed line.

Linde engineers are skilled in designing and constructing oxy-acetylene welded pipe installations. Their wide experience and cooperation are available to assist you. Write for complete information and ask how you may obtain the 200-page book, "Design of Welded Piping." The Linde Air Products Company, Unit of Union Carbide and Carbon Corporation, New York and principal cities.

Visit the Linde Exhibit
Booth 1152
National Metal Show
Atlantic City, N. J.
October 18-22, 1937

Everything for Oxy-Acetylene Welding and Cutting

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

AMERICAN ARCHITECT AND ARCHITECTURE, OCTOBER 1937
The Midtown Hudson Tunnel

New Jersey approach to the Midtown Hudson Tunnel now being constructed by the Port of New York Authority.

Man's Newest Under-River Achievement started with a pencil

A third great link brings New York and its neighboring communities minutes closer! Soon the Midtown Tunnel (to be renamed the Lincoln Tunnel) will help the downtown Holland Tunnel and the uptown George Washington Bridge in the gigantic task of carrying the ever-increasing traffic between New York and New Jersey.

First came ideas, then rough sketches, finally finished drawings—all along the line pencils played an important part. And, interestingly enough—Venus Pencils—will become now one of the beneficiaries of this new convenience. For the tunnel will mean even speedier shipments of these famous pencils from Hoboken to New York.

We are proud that in New York and throughout the world, in offices and drafting rooms where such outstanding achievements are taking place, Venus Drawing Pencils are sure to be found. It's good testimony to the fact that they are the world's finest!

Venus Drawing Pencils come in 17 shades of black. The Colloidal Process* and other scientific methods assure you that each is graded with unvarying accuracy—that each is perfectly smooth.

*U. S. Pat. No. 1,738,888.

Interesting Data

<table>
<thead>
<tr>
<th>Description</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of first (south) tube</td>
<td>8,215 feet</td>
</tr>
<tr>
<td>Diameter of shell</td>
<td>31 feet</td>
</tr>
<tr>
<td>Number of vehicles per year, about</td>
<td>15,000,000</td>
</tr>
<tr>
<td>Cost of complete project</td>
<td>$74,800,000</td>
</tr>
</tbody>
</table>

American Pencil Company • Hoboken, New Jersey

Also made in Canada by Venus Pencil Company, Ltd., Toronto

American Architect and Architecture, October 1937
The Delco Conditionair Modernizes Home Heating!

Today, the American family wants the healthful benefits of Winter Air Conditioning. Thousands of homes now equipped with this Proved Type of Winter Air Conditioning.

Now the old-fashioned heating system, with its parched stale air, gives way to healthful Winter Air Conditioning. The new Delco Conditionair warms and moistens the air. It filters out germ carrying dust and pollens. It gives positive air circulation and even room temperatures.

The new Delco Conditionair brings true winter air conditioning to homes costing as little as $5000. It is not a makeshift assembly of fan, spray and furnace. The Delco Conditionair is a thoroughly engineered unit—pioneered, built and backed by General Motors. Exclusive construction features greatly increase economy in operation. And the initial cost is actually less than some types of automatic radiator heating systems.

The Delco Conditionair is only one of the many heating and air conditioning products of Delco-Frigidaire, the air conditioning division of General Motors...

It Pays to Talk to Delco-Frigidaire

The Air Conditioning Division of General Motors

Automatic Heating • Cooling • Conditioning of Air

American Architect and Architecture, October 1937
is a "Titular Czar" in the building field . . . a dictator to coordinate the many divisions of the industry. The case of the Allied Armies is cited—how until Foch assumed supreme command, troops of different nations were working at cross purposes and facing defeat. The construction industry, like an army, requires a correlating brain at the top, avers this writer. If we had such a guiding genius now, he says, runaway prices would be curbed, over-eager labor held in check until recovery becomes more staunchly established.

Well, maybe so . . . but who's to be Czar? Any nominations?

A WAY TO HELP AVOID BUILDING DIS­
ASTERS such as the one which recently occurred on Staten Island, N. Y., was proposed recently by Hobart B. Upjohn, Fellow of the A. I. A. and past president of the New York Chapter. In brief, Mr. Upjohn's plan envisions creation of a new compulsory inspection service to certify compliance with the Building Code before occupancy of a structure is permitted. Says Mr. Upjohn:

"It is deplorable that lives must be sacrificed to demonstrate the existence of buildings of cheap and poor construction, yet a lethargic public does not seem to realize that the very building in which they live may be just as unsafe."

The Staten Island houses which collapsed during a severe rainstorm were constructed by altering an old factory. It makes little difference whether the building be a new structure or an alteration; the necessity for careful supervision of all structures to insure their erection in accordance with the Building Code is of paramount importance.

"It is unreasonable to expect the Build­
ing Department inspectors, of whom there are a scant number, to be able to vouch for the full performance according to law, nor is it reasonable to expect that the public should bear the expense of employing sufficient inspectors to make sure of a reasonable compliance with the law."

"Even continuous inspection is not suf­
ficient to guarantee 100% compliance if those in charge are bent upon skim­ping on the materials used in the building."

"Strict honesty in complying with the law is unquestionably the best solution, but this trait is not popular in a com­petitive market. As a result, therefore, we must resort to compulsory supervision by competently trained men, whose duty and responsibility it should be to see that the law is strictly adhered to. Such ins­pectors should have passed the exam­nation of the State Board of Regents." Even if—for reasons of civic economy—Mr. Upjohn's excellent plan were re­stricted to only those structures built without architectural supervision, the public would receive substantially more protection than is now afforded.

ARCHITECTURE NEEDS MORE PUBLICITY of the kind given in "Paying Plans," an article by Burton Ashford Bugbee appearing in the September 18th issue of Collier's. We have often wondered at architecture's apparent indifference to the way it is presented to the public . . . why more of this sort is not made to hammer into the country's consciousness a conception of architecture's part in the scheme of things.

Public Relations is a vital subject to corporations, industrial and many professional associations. Millions are spent yearly to acquaint Americans with the beneficent services of the telephone company, the steel industry, the iron and steel companies, the aluminium industry, the rail­roads, and so forth.

Professional associations such as the American Medical Association and American Dental Association are constantly on the alert to see that the country is not misinformed concerning the function of doctor and dentist. Yet we are not aware of any concerted attempt on the part of architecture to see that the public is given a true picture of its value and service.

At any rate, Mr. Bugbee's article in Collier's is the sort of thing we like to see. Throughout he stresses the im­portance of architectural supervision in home construction.

"Your first great economy is a good architect. Far from being the luxury you may have imagined, he will save you your fees many times over before he is through. He is trained to devise a more workable, economcal plan than either you or a builder could do, as any good builder will be the first to tell you. He will super­intend construction to make sure you get the workmanship and materials specified. He has a passion for sound construction and an eye for good design that will be money in your pocket later on in the way of low upkeep cost and easy salabilily."

HOUSING

THE FIRST PWA SLUM CLEARANCE and low-rent housing project—Techwood Homes in Atlanta—has just completed its first year of existence. In a recent re­port to Secretary Harold Ickes, Admin­istrator of the PWA, Mr. Howard A. Gray gives an ac­counting of the project's progress.

At the present time, this development has 604 families occupying its 604 dwell­ings and there is a substantial waiting list of applicants for accommodations. During this first year, $139,161 was col­lected for rentals, and rent arrears amount to only $244.36 or 0.01% per cent of the total income. Incomes of families in Techwood average $22.11 per week; (to obtain admittance, earnings must be less than five times the amount of rent). Tenants pay $5.52 monthly rent per room and the average size of each family is 3.24 persons.

Since its beginning the project has at­tracted hundreds of visitors. In marked contrast to the slum area it replaced, all buildings are fully fireproof and each dwelling is surrounded by lawns, gardens, recrea­tional areas and walks.

The Techwood development was fol­lowed by University Homes, a second project in Atlanta. Other PWA slum clearance and low-rent housing projects have been opened in Montgomery, Alabama; Cleveland, Ohio; Miami and Jack­sonville, Florida; Atlantic City, N. J.; Columbia and Charleston, S. C.; Okla­homa City, Oklahoma; and Stamford, Conn. Rents have been set for nineteen projects, including those above.
From basement to top floor
CORK INSULATION helps air condition this modern store

MODERNIZED this spring, this 12-story building of the People’s Outfitting Company, Detroit, is air conditioned throughout. The air conditioning equipment, furnishes a total of 230 tons of refrigeration—55 tons for the basement and three lower floors, 175 tons for the nine upper floors. And this refrigeration is economically carried through Armstrong-insulated cold lines and ducts.

Armstrong’s Cork Covering on cold lines, Armstrong’s Corkboard on ducts, cut operating costs by guarding against refrigeration waste. Cork presents an effective barrier to the passage of heat. Equally important, it resists the moisture that is invariably encountered at low temperatures. That’s why Armstrong’s Corkboard and Cork Covering have been standard insulation for years in industries where low temperatures must be protected.

Let Armstrong engineers work with you in planning insulation. Armstrong’s Contract Department is equipped to install low temperature insulation in accordance with Armstrong specifications—centralizing responsibility for both the insulation and its installation. Write today for complete details to Armstrong Cork Products Co., Bldg. Materials Div., 926 Concord St., Lancaster, Pa.

Armstrong’s CORK INSULATION

AMERICAN ARCHITECT AND ARCHITECTURE. OCTOBER 1937
The New Herman Nelson Air Conditioner for Schools is an entirely new unit designed and constructed from the ground up to maintain ideal air conditions in the classroom. Its exclusive "draw-through" design prevents drafts and eliminates overheating.

With the obsolete, multi-fan, "blow-through" design, fans in the lower portion of the cabinet discharge cold air up through the radiator. That portion of the air which passes through the radiator at low velocity is discharged into the room at a very high temperature, while that which passes through at high velocity is discharged at dangerously low temperatures, causing drafts. If a temperature control device is used to overcome this condition, the average temperature of all the air discharged into the room is not low enough to prevent overheating.

Now Herman Nelson’s exclusive, multi-fan, "draw-through" design assures that all the air discharged into the room is maintained at the desired outlet temperature. With the blower assembly located in the top compartment, streams of air at various temperatures drawn through the unit are thoroughly mixed in the fans immediately before being discharged into the room. No part of the air is colder or hotter than necessary to maintain the desired temperature. Only with this "draw-through", multi-fan design can air, cool enough to prevent overheating, be discharged into the classroom without danger of drafts.
Practically noiseless...
OPERATING AT FULL CAPACITY

Scientific design and location of the fan and motor assembly in the New Herman Nelson Air Conditioner for Schools assure most quiet operation. Locating the motor in the end compartment—out of the air stream—permits the use of larger blower assemblies, with fans running at slower tip speeds. In the past, noisy operation obtained with the motor placed in the center of the blower assembly often made it necessary to reduce capacity, resulting in drafts or overheating. The new design of the Herman Nelson unit now insures quiet operation at full capacity.

ADAPTABLE TO ALL CONDITIONS

The New Herman Nelson Air Conditioner for Schools is the first unit designed to operate most efficiently under all conditions. Its flexibility enables it to be controlled according to any method of operation desired by the architect or engineer. A continuous supply of outdoor air can be introduced into the room in any quantity, or outdoor air may be admitted only when necessary for cooling. The unit is available with either damper or radiator control.

For Complete Information Write to
THE HERMAN NELSON CORPORATION, MOLINE, ILLINOIS
THAT THERE IS A PLACE FOR SUCH PROJECTS IS further proved by the fact that more than 78,000 families have applied for tenancy in the 21,800 dwellings which will be available upon completion of the PWA's $134,000,000 program. In New York City more than 20,000 home seekers applied for accommodations in the Williamsburg Houses development, which has 1,622 dwellings. At this point, the New York Housing Authority decided to stop accepting registrations or goodness knows how many applications would have come in.

LAST MONTH THE FARM SECURITY ADMINISTRATION opened for occupancy Greenbelt, a completely new community near Berwyn, Maryland, seven miles from Washington. The Greenbelt project which began from scratch, so to speak, represents community planning in its most intensive form. There are a total of 885 new homes in the development, simple in design yet equipped with all modern conveniences. Rentals will range from $18 to $41 per month, with an average rental per dwelling unit of $31.23, including heating both dwelling and water.

Greenbelt is considered primarily as a relief project, and it is stated that the amount spent for labor has been much greater than it would have been had the economical building of low-cost homes been the sole object. Total cost amounted to an estimated $14,227,000. Of this figure, 65.6% was expended on labor. The Federal Government, it is stated, will collect from the project, $424,243 in yearly revenue . . . or a return on invested capital of slightly below 3%.

Apparently, the Farm Security Administration desires Greenbelt business enterprises to operate on a consumer-co-operative basis, since it is provided that residents shall determine how stores and facilities in the planned business district will be run. Which may provoke an outcry of "Socialism" from gentlemen on the Right. In any event, those concerned with community planning will watch with interest the progress and outcome of the Greenbelt project.

AN ACCOUNT OF A PRIVATELY-FINANCED HOUSING project—Chatham Village, on the fringe of Pittsburgh—is given in Freerohd Magazine, the publication of the National Association of Real Estate Boards. Completed in 1932 by the Buhl Foundation as "a socially constructive investment," this project has a record for the last five years of 99% productive occupancy and an annual net yield of 5% on original investment. Chatham Village is not regarded as a philanthropic undertaking and its success should encourage private enterprises of the same sort.

Average rent per room is now $10.70. Of the average rental income, 1.25%—equal to 1.5% of the building cost—is for amortization and 5% for net yield. The amortization fund is reinvested and compounded semi-annually at 4½% and is intended to retire the building cost in about 31 years. On each of the 197 sites approximately $1,300 was spent; on each of the houses $5,400 netting around $6,700 per house. This cost is much smaller than the per-unit cost of the Greenbelt development discussed above. However, perhaps there are differences which make impossible any logical comparison.

PUERTO RICO IS NOT BEING OVERLOOKED in Uncle Sam's housing program. Word has just been received that two projects providing neat, healthful homes for a total of 206 families have just been completed and are ready for occupancy. Monthly rentals range from $6.80 for a 3-room dwelling to $11.45 for a 5-room affair.

Coincident with receipt of this information, we learned of a Puerto Rican building boom which might tempt some of our architectural brethren to book passage on the next packet. Seems that Governor Winship is trying to build up a tourist trade for the island and that this has stimulated construction quite a bit . . . $200,000,000's worth, in fact.

The New York Herald-Tribune's correspondent says that despite the erection, so far this year, of 556 apartments, houses and private dwellings, you can't rent an apartment in San Juan for love or money.

SAN ANTONIO MAY NOT HAVE HAD A FAIR like some of her sister Texas cities, but right now she's feeling pretty superior. To understand why, you need to know that El Paso has a population of 102,000, Houston of 292,000, Dallas 262,000, Fort Worth 165,000 and San Antonio 231,000. Somebody who felt very friendly toward San Antonio must have had a hand in drafting the Texas definition of a city eligible for participation.
TERRAZZO BEAUTY
IS BEST EXPRESSED WITH MEDUSA WHITE

When one steps into the rotunda of the Cincinnati Union Terminal he is confronted with an inspiring color panorama seldom equalled in public buildings. Overhead is a colorful dome, while immediately beneath are inspiring murals. The floor of this magnificent interior is of rich colored terrazzo made with Medusa White, the original white portland cement. Medusa White Portland Cement as a matrix sets forth the colored marble chips in such a manner as to give maximum color value and beauty to the finished floor.

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* * *

Architects for the Cincinnati Terminal were: Fellheimer and Wagner, New York City. ** Terrazzo Contractor: Cassini Mosaic and Tile Company, and Martina Mosaic and Tile Company, Cincinnati, Ohio.
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Nothing less than adequate wiring satisfies today's discriminating home owners and builders. They know that the fully electrified home is the only modern home. Comfort and convenience are visioned in terms of proper lighting and electrical appliances that make homes more livable and easier to maintain.

Make sure that your clients get adequate wiring — let the experience of G-E engineers help you with the wiring in homes you design. Specify G-E Home Wiring.

G-E Home Wiring is designed to meet every test of adequacy. It may be installed in any type of home — in homes being built or homes being modernized. It provides wire sizes that are large enough for every electrical need, proper controls, circuits that avoid long runs, protective circuit breakers, and plenty of outlets. It assures comfort and convenience without materially increasing wiring cost.

The authors of "We View With Alarm" (page 26): LORIMER RICH, New York; MILES L. COLEAN, Chicago; WILLIAM DEWEY FOSTER, New York; PIERRE BLOUKE, Chicago; EUGENE H. KLABER, Chicago; and SPORT

FEDERAL ARCHITECTS AT EASE

ROY GAARDER of Albert Lea, Minn., who is still western enough in spirit to enjoy pistol shooting.

JOHN P. ALMAND of Little Rock, Ark., who, with the others portrayed on this page, came from private practice to Washington to serve the Government.

HOWARD L. CHENEY of Chicago, who is to design the U. S. Building for the New York World's Fair.
When you want to get the most for the money you spend on interior paint, don't ask "Is this paint durable?" Say, "Is it really washable?" Durability alone is not enough. You have probably had many experiences with paint that didn't wear off but from which marks and smudges wouldn't wash off. So repainting time came much sooner than was expected.

Flat paint made with Dutch Boy White-Lead and Dutch Boy Lead Mixing Oil has all the durability for which white-lead is famous. In addition, this paint is washable in the full sense of the word. Its beauty is not impaired by hard scrubblings. Those scrubblings really get you somewhere. Stubborn stains and dirt actually do "come out in the wash".

For proof, take a look at the test panel above. It was walked on for a week. Then it was smeared with grease, stained with mercuriochrome, streaked with pencil, crayon and lipstick, daubed with shoe blacking. But despite this hard treatment, washing with soap and water left the panel looking as clean as when first painted.

Now consider briefly this paint's many other advantages. It has all white-lead's characteristic richness, solidity and depth, a paint of unusual beauty. Because of its excellent sealing power, it stops suction and hides fire cracks.

Finally, this paint gives you all-round economy. It has high coverage (300 sq. ft. per gal. on smooth plaster), mixes quickly, spreads easily. Add up those three qualities, and you have low first cost. Then add long wear and real cleanability, and you have low cost per year.
IN STEP WITH THE VOGUE FOR
MORE STORE FRONT METAL—

SIGN AND ORNAMENTS

ENTRANCE DOORS

GLEAMING METAL BY DAY
ILLUMINATION BY NIGHT

The increasing use of such fine rustless metals as aluminum with the aluminite finish, bronze, and stainless steel makes a very definite contribution to the effectiveness of modern store fronts and buildings. Many interesting possibilities have been developed: many more remain to be explored.

Kawneer is in step with this movement. Originally founded by a practicing architect, The Kawneer Company has had wide experience in the fabrication of rustless metals for all architectural purposes, understands thoroughly the problems of the architect and builder.

Thus Kawneer is a logical source for all types of architectural metal work, entrance doors, special sign letters, ornaments, moldings, and Sealair Windows of several types. In addition, of course, the complete line of Kawneer stock store front construction is avail-

EXTRUDED—YET RESILIENT

All Kawneer glass-holding members are fully resilient, holding glass with a firm but yielding grip. No looseness. No rigidity. F. S. detail shows resilient Extruded Sash.

KAWNEER
RUSTLESS METAL
STORE FRONTS
Wired-in Radio Convenience for any or all rooms—with the MULTICOUPLER ANTENNA SYSTEM

Multicoupler Antenna System provides the modern home with all-room, all-wave radio reception; easily installed by the electrician. It is designed for multiple operation of two-to-twenty radio sets. In one system and for every desired room it combines a highly efficient doublet antenna and plug-in outlets for AERIAL, GROUND and POWER, with added Convenience Outlets in the same wall plates.

This brings wired-in radio convenience to the living room, bedrooms, children's rooms, den and recreation room—elsewhere as in schools, hospitals, hotels. Owners readily approve the system as a part of the regular wiring job. Free engineering service is given on plans and layouts for installation or specification. . . First, write us for general instructions folder fully describing the system.
MAINTENANCE costs will take a big tumble—now that this Jewelers Building has been re-sided with Eternit Timbertex. 35,000 square feet of this enduring asbestos-cement material were used on this industrial building.

But the positive gains were even greater than the very substantial savings. Timbertex is fire-proof and rot-proof—its beautiful "weathered cypress" texture affords enduring beauty. No paint or stain will ever again be needed. Timbertex adds insulating value. This means more comfort, both summer and winter—and a saving in winter fuel bills.

Timbertex is moderate in its first cost—and extremely economical in upkeep expense. It is available in a wide range of colors and designs—to suit the needs of industrial buildings, apartments, hotels and private residences.

Eternit Timbertex is the product long sought by the executive and architect concerned with maintenance. Send in the coupon—let us mail you full facts about this and many other RU-BER-OID money-saving products.
A Publisher Takes the FLOOR

When plans were being made for the decoration of the offices of Philip Battelle, publisher of Western Home Furnisher magazine, it was agreed that an atmosphere of rich, modern simplicity would be most becoming. Quite naturally, a floor of Sloane-Blabon Custombilt Tile was chosen to contribute to the harmony of the entire room scheme.

Today, visitors who view these offices on the tower floor of the New Western Furniture Exchange & Merchandise Mart in San Francisco call them the showplace of the building. The splendid Bleached Mahogany and Indian Red tile colors, with six-inch Black Marble Border and one-inch feature strips of Plain Tan and White, combine to give a striking effect.

Quietness, cleanliness and comfort also are a part of this gratifying Sloane-Blabon installation. We invite architects, builders, managers and executives to consider the smart advantages of this type of resilient floor when planning to build or remodel. Write to us.

Sloane-Blabon Custombilt Tile Floor, planned by Rucker-Fuller Co., installed by West Coast Linoleum & Carpet Co., San Francisco, Cal.
A WISE LENDER TALKS TO HIMSELF

SHALL lend on mortgages again because the shortage in building will have to be made up, rents are rising satisfactorily so that there can be profit. Mortgages will again be considered one of the soundest types of investment. There can be no doubt about it now, the worst offender, the second mortgage, has been pretty well removed from the picture and the FHA system of financing of residence construction has been well received. Confidence is restored by an above-board financing system in which all of the charges are known in advance, and made reasonable instead of exorbitant. Of equal importance, I think, is the insistence that is now put upon a complete analysis of the building operation, with emphasis on sound construction and good design. I shall certainly look over the plans and specifications more critically, and have Mr. Jones, of our staff, who is technically trained in these matters, report on the excellence of these plans and specifications. However, I have known specifications to become mere “scraps of paper” when the owner and builder found that they could substitute this and that for the materials of equipment called for in the specifications. This time when I lend I want to be sure that the plans and specifications are not only good, but will be followed to the letter. The only way I can do this is to insist that the owner engage a competent architect from the beginning, and that the architect perform his full services, which include the supervision of the work as it progresses. Neither I nor my inspector can tell whether the physical security behind my loan is what it purports to be after the house is completed. A house that is going to crack, deteriorate, and come apart in a few years looks just like the best the day after completion, but in five years the owner will be disgusted and probably the sales value of the house will not be as much as my loan. I have seen too many mushroom developments that looked perfect when they were about to be sold. Even though they were full of nationally-known electrical equipment, colored tile, built-in this and that, which are sales points, these things cannot carry the load when shoddy construction and poor structural materials have been covered with paint and paper. I am convinced that, at no added cost to myself, or to the owner, I can be assured of sound construction only by having the one unprejudiced agent in the building industry, the architect, serve both of us by supervising the construction. And the owner himself will be better pleased, for the competent architect will give him a house fitted to the needs of his family and his purse, one which is planned for the maximum comfort and convenience for his own way of living, a house properly suited to its lot, and certainly one that will not run up abnormal repair bills. For my own protection, and entirely in self-interest, if you like, I will lend only on buildings for which an architect is employed to give full service, planning, designing and supervision—and the greatest of these, for my protection, is supervision. I have had too much of jerry building. I insist now on quality in the materials, equipment and workmanship that in the final analysis create the value of the security for the money I lend.”


25
We View With Alarm

A FREE-FOR-ALL IN THREE ROUNDS

(Readers, if any, are forewarned against an attempt to sniff an official aroma in the following emanations. All remarks ascribed to the participants are informal, unpremeditated, unguarded and sometimes excited. In all cases they are the personal reactions of architects who have been doing a special kind of work rather than the pronouncement of officials; and any other interpretation is vigorously denied and disavowed in advance.

THE FIRST ROUND

TIME

A humid late afternoon in July of 1937.

PLACE

Washington, D. C., a dim corner in an old mansion, five, deep-cushioned, rusty leather chairs grouped around a small table supporting an assortment of bowls of ice, potato chips, popcorn, tumblers of various colored liquids. Overhead, in wide gilt frames, a benign beauty of Dolly Madison, and a portrait of an old gent with billy-goat whiskers; a bust of Apollo balanced on a slender pedestal.

PERSONS

Five, claiming membership in the architectural profession:

PIERRE BLOUKE, dark and deliberate, the paladin of architectural progress in the Home Loan Bank system, speaking in a low voice, the more emphatic for its quietness;

MILES COLEAN, the veteran of FHA’s forays into the wonderland of popular esthetics, more voluble than coherent;

WILLIAM FOSTER, grim and taciturn, seeking lessons in post offices;

HENRY KLABER, the Galahad of many a knight errantry in defense of Lady Log through PWA and FHA, exuberant in drawing instances from a wide experience;

LORIMER RICH, bibulous and bellicose, determined to discover what is wrong with it all.

As the curtain rises there is heard the drone of an electric fan and the celestial harmonies of ice tinkling against glass.

RICH (beginning, with some reluctance, to speak) The beneficent editors of AMERICAN ARCHITECT and ARCHITECTURE (all raise glass in silent tribute) have asked us, along with groups of architects in other cities, to part of one issue of their worthy sheet. They told me that in picking this group they hoped they would get something from us of a national viewpoint—(all raise glasses the national viewpoint)—that is, ideas gleaned from our experience here as architects working for the different branches of government. All of us have practiced independently in various parts of the country and have been brought down here—

COLEAN and KLABER (with feeling): “Brought down” is a nice phrase!

RICH (Unruffled): The feeling was that a group such as this might have a point of view on questions affecting the profession as a whole, arising out of the work of such agencies as the HOL, FHA, and dear old Procurement. (There are tears in Foster’s eyes as he finds another liquid tribute called for. Rich continues, fixing a diabolical glint on Colean as he draws some hoarded clippings from his pocket.) One thing that has particularly interested me has been the FHA activity. When that institution was set up, we were encouraged to hope that here might be an agency which could take a positive stand for good design in this country. Heaven knows, the situation cried out for somebody to take hold.
and we hoped the government might be that somebody. Yet, after three years, we
look at the product (he waves his clippings) and I don’t think we have any cause to
claim a millennium. Here it is, the same old row house, no better architecture than
our, no evidence that I can see of any thought given to esthetics and, rightly or
wrongly, advertised as conforming to FHA requirements and bearing the stamp of
approval of the United States Government!

LEAN:
Ill, Lorimer, it’s very nice of you to turn the meeting over to me at this early stage.

ABER:
Isn’t it? He has shoved it down your throat!

LEAN (taking the clippings in his free hand):
I cannot pry this subject loose until I have had a liquid wedge. (The wedge is firmly
med into place.) While I can’t say I’m enthralled with your little models, Lorimer,
they aren’t so bad as things go. They are in fact superior to a great many you could
in one part of the country or another. I think Pierre will bear me out in this.

ABER (nods sadly): You may be shocked when I say that these houses may be satis-
factory from the point of view of mortgage insurance. They are probably located in an
affable, growing neighborhood, as well laid out as the city will permit. They are
nably soundly constructed, have satisfactory light and air and good equipment; and
r designs are attractive to their buyers. They must be pretty reasonable risks.

STER:
aren’t, if I may use the word, a little complacent?

LEAN:
not complacent, just realistic. When we entered this field we had to accept a situ-
n which already existed—methods of design and construction apparently dear to the
her and his public and make the best of the situation. The situation as we found it,
se we were to avert our eyes in academic rectitude and get no building started,
only did not permit our standards to be as rigorous in many respects as we might care
ee. We hit first at the points where mortgage risk was most evident: construction,
, light and air, lot arrangement, privacy and convenience in layout; and we have been able
et considerably above the norm on many of these things. I can assure you there is no
placency in our attitude. We are pushing the line gradually forward all the time.

CH:\nt you all that. But it seems to me that the importance of good architectural
g has not been stressed; and I have felt that, with the government entering this
, there is an opportunity to do something really beneficial about it. When you
sk that small houses, such as these, are what determines the complexion of our cities,
might well add certain minimum standards of architectural design.

ABER:
it raises the basic question of the measure in which any government should impose
tic standards on the architecture of the country. Of course, the only effective way
chieve a real esthetic standard is through a realization by the general public of
is real quality in design and what is merely meretricious ornament placed to catch
ve and its dollars. But such a realization can arise only as a result of a richer and
fying life than is possible today for most people; it must be a democratic mani-
. On the other hand, the imposition of esthetic standards by bureaucrats or
ies is likely to lead us into the kind of stodgy architecture that the Second Em-
roduced in France.

OUKE:
in our own case, the danger of control of design and the weak ground on which we
ld stand if we attempted to exercise it seems apparent. The only points at which
can properly exert pressure on design are those which Miles mentioned, the points at
ch bad design affects the security of the mortgage through useless expenditure of
ey, or excessive prospective maintenance cost, or through some esthetic monstrosity
ly below the accepted norm. Such is the limitation in our case; but in any program
n democratic government the degree of esthetic control exercised by the government
be comparatively limited.

OUKE:
ive it ought to be comparatively limited, I believe the architects themselves, not
government, should take the situation in hand. All you have to do is to tour the
older residential areas of almost any city to see how the magic hand of the architect in all periods neglected the bulk of urban development. Right now, because their clients have been out of the market, architects show some excitement about these things I wish I could believe they wouldn't forget all about it as soon as the old type of practice becomes possible again.

**RICH (unconvinced):**
I think you should insist on a higher quality of design. You might have more technologically oriented experts—architects of good reputation—to see that designs are improved. I'll say there has been a good deal of zeal to see that construction matters are taken care of, but that the roof does not leak and that the utilities are there, but when you get into esthetics you get into questions as important as any of these.

**COLEAN:**
Aside from the administrative problems involved, that gets back to the fundamental question Henry raised. I would certainly like to see the quality of design improved. We may flatter ourselves that we have the sound judgment to exercise the control we want. However I can't help but feel, as Henry Klaber does, that when government officials begin to go in for control of esthetics they are apt to do at least as much harm as they do good. The government, it seems to me, is not the place where esthetic problems should be settled. Speaking as a private architect, I should hate to see the government set up as an arbiter of design in this country. An esthetic dictatorship dose not appeal to me.

**FOSTER:**
I agree. I would hate to see you doing a Dr. Goebbels with my brain children. I have experience, whenever there has been an effort to control design it really has worked very unsuccessfully or has been abandoned. However, it seems to me that there are certain things you could make a more definite stand for—

**RICH:**
There are very obvious things, such as fake half timber and false fronts.

**BLOUKE:**
False fronts have been accepted at least as far back as the Colosseum, while some of our most revered colleagues have revelled in fake half-timbering. You might get some difficulty in drawing up precise rules on such matters.

**FOSTER (carrying on):**
Just as you would say that there must be a certain amount of light in a room and a certain size room for livability, you might also force greater simplicity and directness in design.

**COLEAN:**
I don't like the sound of that word, "force."

**RICH (coming to the defense):**
Now, don't try to make a Mussolini of him. Bill's no esthete on horseback brandishing a flaming sword, like the Second Division Memorial. He merely wants the government to do something about design, and I agree it can be done. It seems to me at least you could force the contractor and developer to employ architects who have some conception of good design.

**BLOUKE:**
Can you write the rule for that? Would you accept Institute membership as a criterion or a State registration? You might not, even then, escape your false fronts. Do you know the kind of architect that is available to builders? There are states in this country where there are virtually no trained architects. Even in New York, where architects are numerous, there are very few of those you like to call architects except a comparatively few leaders, who are able or willing to serve the builder. The profession is sold to the idea and is not equipped to do the job—the kind of job that Gropius makes when he says that "the architect must make his profession socially and economically indispensable to the community," and that "he must definitely overcome that unpleasant state of being regarded by ignorant people as a costly luxury." I think I remember words correctly. They're worth remembering.

Pierre mops his brow. All sit back, recalling that the day is warm.
IAN (a little abstractly):

How far can the government go in the matter of design? Although I'm convinced it
should not dictate, that does not mean that it should make no effort to improve design.
I believe we can show that it is doing that. Pierre, for instance, on the part of his
organization, has been carrying forward a specific program to organize groups of archi-
ctists for small house design and to show lenders that their service is worth something.
Our part, we are endeavoring to point out to operative builders and banks the value
of design and of the whole service of the architect, and to point out to architects the
importance of entering this field. In an advisory capacity, we have been able to im-
prove the quality of subdivision design and of house design, and I can match examples
against those that shocked Lorimer. We do encourage simple, straightforward,
minimal design for small houses.

But the fact remains that the aesthetic standards of the country are low, and that the
esthetic and technical standards of a great many architects are low. The skill we need
is not available to meet the problem we are talking about; and I can assure you that,
ignoring all the force you seem to think we have power to use, we could not greatly change
the situation. But the question of esthetics is a thing which I go back to as, at best, a
harmful function of government, particularly, on so wide a front as we are engaged in.
We have already entered that field perhaps further than it is safe for us to go. As I
have said, I would hate, as a private architect, to feel that I had to adapt my whole
esthetic sense to the opinions of the government. The government should involve itself
in the problems of safety in security, to health problems, but esthetics are social prob-
lems arising out of the judgment of the people, of society as a whole.

It is the responsibility of architects to guide and express that judgment. Perhaps they
ought to do it in spite of themselves—explaining why we have Norman villas in Westchester
and Norman villettes in Queens. The setting of esthetic standards, even if it were
possible, in a time in which you can observe no norm, either in the high or low cost
field, would be fairly bewildering. Suppose, on the other hand, we were operating in
the period say, between 1720 and 1830. It would have been a very easy thing for us
to establish reasonable ranges of esthetic standards, but today esthetic standards are a
version of personal idiosyncrasy. Take, for example, the city of Salem. There you have
certain esthetic harmony due only to a certain social harmony. In Salem the question
of establishing esthetic standards did not arise. At the present time, however, you have
very different situation. There is no social harmony.

OUKE:
The real trouble is that people in this country are living in a sort of dream world, and
the whole architectural profession with them. Why talk about the sham and insincerity of
a small house built by speculators, when you find houses in Scarsdale, Lake Forest,
and Syosset, built by the "best architects" for the "best people" embodying the very
elements of false esthetics which we deplore, but unfortunately built to last longer than
the cheaper sham of the low-cost house?

ABER (leaning forward):
you've hit something there. The thing that is handed to people, and which they are
selling to buy, is the thing they want. The thing that appeals to them satisfies a need.
What is the need that the faked half-timber satisfies in the feeling of the American
people? Where does he get the desires which are visually satisfied by these things? They
are built up on certain concepts which arise out of the nature of his own living.

Recently, a woman remarked to me that the trouble with most small houses is that they
are designed as large houses. Here was an intelligent layman who grasped what many
architects fail to see, that essentially the small house must be simple. Why then does
the average American who builds or buys a house want the effect of a large house?
Because, as Pierre points out, he is living in a dream, a dream of Scarsdale and Lake
Forest, of mysteriously amassing independent wealth and tasting every luxury. When
he attempts to own a home, the dream persists. In spite of his comparatively small
means, he wants to incorporate that dream and if he can't have a linen dress shirt, a
 cardboard dickey will have to do the trick. The fake half-timber, scrofulous stucco
and machine made "hand hammered" wrought-iron are an answer of a kind to a real
spiritual need. He wants these things.

Let's not be too hard on the speculative builder; he makes his living by selling
houses, not by promoting esthetic purity, and his experience has taught him what the
buyer demands. If the product is wrong, it is because the demand is wrong. And if
the demand is for sham, it is because the life of most people is a drab frustration, and

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the only escape which is at all possible for them is through make-believe.
A number of years ago I commented to Lewis Mumford on the prevalent bad taste
in motion picture theaters. He remarked that the movie palaces occupied the same place
in the minds of the American people that the cathedral did in the medieval mind:
escape from life and the approach to Heaven. And it is true: for sixty cents a n
escapes from his environment, and for three hours enters a synthetic heaven. Ushe
to his place by an obsequious, handsomely costumed usher, he sits in cushioned e
surrounded by a splendor of imitation marble, and gilding, and witnesses a spectacle
synthetic love. The little dream home is a product of the same ideas. Here, for instan
is such a dream home. (Draws forth picture) Lorimer's examples may merely be
result of indifference or acceptance; this represents a conscious effort to achieve an id

FOSTER (almost violently):
Does the government have to stand back of that sort of thing?

COLEAN:
No—not so long as it is fairly unusual. But if it represented the norm in esthetic ju
ment, we probably would take it, whether we personally approved of it or not.

BLOUKE:
You talk, Bill, about simplicity and directness in design. How are you sure that t
is what we want? You would rule out the Flamboyant and Rococo along with Ge
eral Grant, Chester A. Arthur, and Queens County styles. There are no absolute ju
ments on that sort of thing.

COLEAN:
No, but some periods do achieve a unity within themselves. We haven't. If there i
norm, I don't know where to look for it.

BLOUKE:
Certainly the leaders of the profession today are agreed on no such norm; whereas t
architects and the public generally—I mean the great army of architects and design
who in one way or another make the plans for the mass of new houses and the pub
which buys them has nowhere to look for leadership. But the architect should be t
arbiter of design. If you turn it over to the government, you are certainly robbing t
profession of its opportunity and responsibility of leadership.

RICH:
I think all of you are dodging. You insist the profession is doing nothing, and at t
same time say the government can't, or oughtn't, or won't do anything. Then y
blame it on the age, or something else. We have accepted the idea that our olfactt
nerves are not to be offended. We prevent smoke, and we prevent noises and ot
disturbances; and the next step for us to take is to protect our eyes from archit
atrical atrocities. That example of Henry's is as much a crime as a belching chimney
cementless concrete. It ought to be prevented.

COLEAN:
It will be when the public is conscious of its badness.

KLABER:
When we again have an integrated society, it will impose its own esthetics.

BLOUKE:
But the profession can assume leadership.

FOSTER:
That's all very well; but just how can that be done?

COLEAN:
We must have a new concept of what the architect is—not just an ornamentener, n
a pious esthete, not a mere designer. He must understand and be willing to strug^
for the needs of his time. If he does that, a satisfactory esthetic will follow.

It goes back to the question of our equipment as architects to handle the whole of t
country's architectural problems. Our training was limited to a dream-world architec
ure. Most of us went from that sort of thing in school to the same sort of thing in practice—dealing with the phantasies of a limited class of people. The real needs of the country, we ignored, because we were not taught of their existence, let alone ho
were to meet them. I suggest that the real problem is one of our own education. (Rich settles comfortably, glass in hand.)

CH: I suggest that we have had enough for one night.

(Rich follows Blouke's example. There is a general relaxation, and the ice tinkles amid the drone of the fan. Apollo still manages to hold to his pedestal.)

THE SECOND ROUND

TIME
A sulphurous late afternoon in the same July.

PLACE
Washington, D. C., the awninged terrace of a Georgetown Garden (Foster's). Instead of the leather chairs, white, iron ones; instead of Apollo, Foster's peach tree shadows the top. Otherwise the arrangement is the same: table with glasses and other potent aliment.

PERSONS
The same five, with one addition: a brown and white Springer spaniel, to which Foster refers as "Sport," the perfect embodiment of its breed name, its ebullience unaffected by the heat or the discussion.

When the curtain rises, Sport is seen making a strenuous effort to get his nose ahead of foster's into a glass of pink lemonade.

STER (dismayed): No, Sport! Down, Sport, down!

SPORT withholds, then, in fine abandon, races behind the chairs and back and forth the length of the garden.

LEAN: His energy is commendable, but his objectives seem a bit vague.

DOKE: I say the same words, if I may be permitted to say so, might apply to the architectural profession. We don't seem able to get oriented.

CH (sadly): And in the meantime, government threatens to bureaucratize the whole business.

ABER: That! The other day you were insisting that the government take over the whole business!

CH: True, to be misunderstood, though I will give up that argument for the present. What I want is the government to guide, not absorb. And I see a clear tendency in both the state and federal governments to absorb the profession. That I don't like. I want the state practitioner preserved as such. But what do we see?—an increasing number of public agencies, both state and national, setting up architectural bureaus, and doing exactly work which otherwise would go to men in private practice. New York City and New York State are making persistent efforts to introduce laws which will require more and more city and state work be done by architectural bureaus. Illinois has been this for years. Of course in New York State they have been pointing to the example of the federal government and its various architectural bureaus. I think we ought to be concerned with this, because I believe it's a menace to the profession.

DOKE: What way is it a menace?

LEAN: Doesn't it mean that we will get poorer architecture? Has not the work of the Procurement Division, for instance, been of pretty high quality?

EDUCATION TOWARD THE FULLER ASPECTS OF ARCHITECTURE. STUDY FOR DETROIT RIVER FRONT IMPROVEMENT BY WALTER HICKEY.
CRANBROOK ACADEMY OF ART

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FOSTER: (interrupting):
I blush for you.

RICH (continues unruffled):
And in New York, I must admit that Moses has done a swell job architecturally in connection with his parks, playgrounds, and recreation centers. But I don't think the work of the last few years is characteristic of what I'm driving at. There has been freshness to it. Men trained in the freedom of private work have temporarily taken the opportunity offered by a vast governmental program. These men have had enthusiasm, but this wears out if it becomes a year in and year out proposition. You don't have the vitality to go along and produce building after building, thing after another, without the thrilling part of going out and getting the work yourself. There is something to going out and getting jobs for yourself—something thinking that your living is coming from your ability to get a job—

COLEAN:
You mean the architect can't perform unless he is faced with the prospect of hungry men trained in the freedom of private work.

RICH (unperturbed):
Not necessarily. But a routine is harmful to creation. You get tired—run out of ideas and find that you are repeating yourself.

KLABER:
I think Lorimer touched upon an important point. I too feel that you cannot keep an even pressure of productivity, working over a period of years on the same sort of thing, and that there is a tendency in any agency, where there is a more or less constant flow of work, for a man to slow up in his creative efforts because he just cannot create constantly. This may be the case with an architect in Government employ, but the same condition occurs in private practice. In the good old days (instantly glasses raised to the good old days) when job after job came into the office, all of us did so much work which bears the stamp of a fatigued architect. In this respect, many of the highly organized offices have all the disadvantages you lay to the bureau.

FOSTER:
Another thing happens in a bureau—the architect ceases to be an architect, he does not do the entire job. He can supervise it to a minor extent, but he really becomes simply a routine designer or engineer. He does not have a chance to control the whole problem as he does in outside practice. This makes the man suffer and the work suffer. Especially in the larger projects.

KLABER:
Let us forget it from the point of view that the man suffers—that is an individual problem. Do you believe it makes the work suffer?

FOSTER:
Yes, I do.

COLEAN:
You feel that so far as the architect is concerned, he will produce better work if he is acting in a private professional capacity rather than on the basis of a regular retail employment. On the other hand, many departments of the Government seem to have been appointed with the results they have been able to obtain from architects who do work for the Government in their private offices. The real problem is, what is the cause of dissatisfaction, for, say what you will, Government doesn't grow just for the sake of growing. Every lasting expansion of governmental function has come because of a breakdown somewhere along the line in the providing of that function. If there is a growing tendency to increase the number of governmental employes in the architectural field, it is probably because it has been forced upon the Government out of difficulties met with in doing it some other way.

RICH:
Well, to argue against myself for a minute, you might take the case of the Treasury Department when, in the depression, it was faced with 400 projects which all had to be done at once—the emergency arose because of the work relief program, and so for a time you don't have the vitality to go along and produce building after building, thing after another, without the thrilling part of going out and getting the work yourself. There is something to going out and getting jobs for yourself—something thinking that your living is coming from your ability to get a job—

FOSTER (interrupting):
I blush for you.
uld have given them out to 400 architects scattered all over the country—a tre-

dious job, and what with the contacts necessary with the Department and the Post

ice, Justice Departments, and the various other departments, a problem that was
not impossible to solve. To get 400 architects—there are probably not 400 architects
the country competent to do these jobs—properly distributed, I mean. The archi-

tects might not have been competent, might not have been able to put the drawings in
pe to meet public requirements. Here certainly, the Government was forced into

ething because, for one reason, the architectural profession was not equal to absor-
400 public building projects at once.

ABER:
take the case of the PWA Housing Division. It first tried to get its job done by

ing on private practitioners. But it soon found that in order to get that job done
had to take over more and more of the architect’s functions until it finally limited

work to producing the routine documents, while the direction of design and super-

ion were handled in the Division. With some notable exceptions, the profession,
in was unable to meet a requirement placed before it.

LEAN:
take the FHA. In connection with large projects, for instance, we have been trying
deal with the profession and to make the profession realize that it is up to the archi-
tects; but we have found the pressure increasing daily to institute bureaucratic perfonni-
ance, due to the fact that the stuff that comes in is frequently so inept; that with the
ount of work we have to get out, I often think our procedure would move more
oothly if we took the whole architectural end upon ourselves.

OUKE:
take any agency dealing with the small house. What sort of help does the Govern-
ment get from architects there? We’ve talked about that already; and it’s plainly so
l that Lorimer is even willing for the Government to take over that part of the
itect’s work.

LEAN:
you knew the pressure we have been under to produce small house plans for the
arket.

OUKE:
the Home Loan Bank system is engaged in an experiment to assist architects to enter
is abandoned field. We’ve set up what a few leaders of the profession believe to be
actical operating plan, sell the service for them, and lead them by the hand into it.
it’s up-hill work.

DSTER:
gets down to the fact that the architectural profession was not ready with enough
mpetent men when they were called upon in emergencies to produce work in a hurry—

LEAN:
an add that I do not think it is in a position to do the normal jobs, without any emer-
cies. This is certainly true so far as housing is concerned.

ABER:
f course, in spite of its importance, housing has been a step-child among architects,
was astounded at the rapidity with which prominent firms which had previously done
ice buildings became housing experts when there were no more office buildings to do. . .

OUKE:
rent evangelists. . .

ICH:
and a job to keep the office going. You noticed that, as these various agencies popped
, architects became interested, some of them because they had nothing else to do, and
en as business has picked up, as once more they have had dangled before them large
ings, they have dropped out of this work which is so very essential to the country
whole—this problem of improving ninety per cent of the building in the country,
ey jumped into it because there was nothing else for them to do. They did not have
real crusading spirit.

OUKE: (correcting:)
he professional spirit.
RICH: That's it. President Eliot was once asked the definition of a profession, and he said it was an occupation in which one engaged not primarily for profit.

COLEAN: If we were a profession we would most certainly interest ourselves in this picture. If we were even good business men we would do it.

BLOUKE: The architects have not known how to organize themselves in that picture. They are following a will-of-the-wisp. I had a long letter from Robert Kohn today. On my way back from Boston not long ago, I stopped in to see him concerning our efforts to get architects to interest themselves in the problem of the small house. He points out in his letter that the French architect is called to serve on a modest fee basis—little commissions throughout France, much as the medical profession serves the patient; but the attitude of mind in this country has been developed, as I've said before, by academic sort of schooling. The students all want to do capitol's, seaside resorts, and that is due, I think, to the present day education. The point I am getting at is that as architects we are still living in a superplane that is way above the problems of everyday living. From the start we have been insulated and isolated from the small house field.

COLEAN: If architects could bring to the small house field a real aesthetic concept—their knowledge of good design, their insistence on good construction—if they could show in everyday things the importance of their service, their position right up through the whole structure of society would be improved. It would be easier for them to get a hearing in connection with other kinds of problems. The deference which would be paid to them in the development of public buildings, public monuments, and so forth would be much greater.

KLABLE: People would better understand the importance of the architect in connection with public buildings if they could see his hand in the convenience of their houses, in the sunlight coming into their rooms, in the lasting pleasure they got from his handling of color and material.

RICH (Smiling into his glass): Would any of us, before we came down here to Washington, have got all “het up” about a house that the lower third lived in? Were our interests in that direction?

COLEAN: Well, I know Henry and Pierre had been pretty well into it from one angle or another. I had begun to get a little religion on the side. . . .

RICH (interrupting): I suspect you may be interested in it now because of your jobs. When you get back in private practice then is going to come the test of whether you are really interested.

COLEAN (after a gulp): I prayerfully hope I can meet that test, Brother Lorimer. If there is anything I would not want to do, it would be to go back to designing mirrored bathrooms for the hysterical rich, and other such sins with which my past is blotted.

FOSTER (reprovingly): Sport, I'm shocked. You must be more polite. Naughty! Naughty!

RICH (with some indignation): Colean, you are an unmitigated perverter of other people's words, especially mine! Last week I asked for a little control and guidance in the architectural field, and you beat me.
as a dictator. Now, I didn’t say the government was seeking to take over the
profession. I didn’t say anything about desire or intent. I merely noted what is
fig on.

LEAN:
accept the distinction.

CH:
an important one. This thing has happened. I contend it is a menace. But I don’t
use the government of plotting it. It has probably been forced on it by circum-
stances.

OUKE:
what circumstances?

STER (still disgruntled, a little vaguely):
the depression, by the emergency, by the hot weather, by such things as Sport. Let
get some more potato chips. (He goes inside.)

ABER:
ere evidently has more definite ideas.

OUKE:
finite and brief: the profession was not trained for the problems the government had
meet. I would like to take a crack at the present day education of architects.
ocation is still in a medieval state.

CH (interrupting):
whole evil which has fallen upon us has been due to our own lack of initiative to
ke advances to the Government in normal times. The A.I.A. has, especially lately,
e some haggling with the Treasury Department about ways and means. But, as far
ow, the profession has never tried to deal with the various governmental agencies
re War Department, Veterans Bureau, Bureau of Indian Affairs, all of which have
ial architectural problems—to understand those problems and to work out the
ys such agencies might deal with the private architect.

STER (returning with his replenished bowl):
H, I think that the bureau system is here to stay regardless of what we may want to
about it.

LEAN (with his free hand in the bowl):
't think that is necessarily so. If the government could get competent service—
ould get architects to interest themselves in its problems without chaining them
desk down here . . .

OUKE:
ink it could be done. In Illinois, for instance, Hammond has maintained a very high
formance in public work, passing jobs to a number of private architects. Perhaps a
tern might be worked out similar to that in Germany before the present lamented
time—under the direction of such famous architects as Messel, Hoffman, and Behrens.

CH:
ne way must be found to work it out. Architecture is a personal service—as per-
al as medicine. It can be performed properly only when it is performed by a person
her than by a bureau, whether it be a public or private one. I believe in the private,
idual architect. I believe that great architecture can come only from him. He is
master of his craft. If he has never done a library, he can do a library; if he has
ver done a hospital or a housing project, he can still do a hospital or a housing project,
he is a real architect he can do these things. The real architect can diagnose his
lems, he can understand function, circulation, lighting, and put all of these elements
propri juxtaposition to make them work. The real architect realizes that his objective
n the building. He must use his materials—his wood, his brick, his marble, or bronze
as a palate from which he creates a building.

ABER:
here will you find these fine creatures.

CH (woefully):
admit the government couldn’t find them when it needed them in a hurry.
NEW INDIAN SCHOOLS IN THE SOUTHWEST ARE DESIGNED IN THE TRADITION THAT THE INDIANS KNOW AND RESPECT. MAYERS, MURRAY & PHILLIP, ARCHITECTS

COLEAN:
I think this all goes back to a certain lack in the profession which baffles the governmental agency when it comes to deal with it. It does not get this beautiful composite picture which you draw up. In other words, the creature you describe, who can perform in the complete and competent professional way you visualize, does not exist far as these governmental problems are concerned.

BLOUKE:
So far as all but a very limited range of problems is concerned.

COLEAN:
We have seen here almost all architectural problems, in all their ramifications. We have been able to watch how the profession is meeting these various problems—from the 2,000 dollar house in the mill town to the erection of the most monumental building that can be devised. In one way or another we have had an opportunity to judge how the profession is meeting that great range of problems, and we all feel that there is something lacking, and when we trace it down we feel that much of what is lacking appears due to the training—to the education and point of view that has been given us so as the demands have come to us. If we had been trained to meet all of the needs of the country, when the depression came, we might not have been left . . .

FOSTER:
Like the fashionable tailoring business. We have found we aren't even as important as hairdressers. (He glares at Sport, who still in the same position, seems to have developed a sense of sin.)

RICH (after refreshing himself):
I'm a little weary with all this talk about the profession this, and the profession that. Why can't you be interested in something specific? Here, for instance, take the case of Washington—an architectural problem in which the whole country is interested. What about that?

COLEAN:
Well, what about it?

KLABER:
It seems to be in pretty good hands. It has a Planning Commission, a Fine Arts Commission, a Jefferson Memorial Commission, and I don't know how many more commissions. That ought to offer control enough to satisfy you.

RICH (pretending that Klaber had gone home some time ago):
The architecture of Washington, and the future architecture of Washington are something that every architect and every citizen ought to be interested in and ought so as possible be invited to have a voice in. But they get no such chance. The Fine Arts Commission, or whatever commission it may be, simply gets together and makes decisions. Then, before the public even has a chance to prepare for the shock, the commission says what it is going to do.

KLABER (refusing to be disembodied):
I cheer your abdication.

COLEAN (chiming in):
There you have a fine example of dictatorship, or control, if that pleases you better the sort of thing you want us to do for all the house architecture in the country. maybe you feel that is more important than public buildings or monuments . . .

BLOUKE (into an uplifted glass):
I wish I could think so.

COLEAN (continuing):
Or that the likes of us would make better dictators than the Fine Arts Commission. I am sure they are most competent. They are of acknowledged ability and of highest professional standing.

RICH:
They might be a little more receptive to public opinion.

KLABER:
Lorimer, you ask too much. If you were a Fine Arts Commissioner you would be pontifical as anyone. You couldn't help it. It's in the name, and the name is keynote to the whole attitude. What is "Fine Art" anyway, but a term setting art as
something unrelated to common life and experience, something which creates a special
esthhood which serves a cult?

OUKE:
ill, after all, that is exactly the attitude of most architects. They are trained to
ign railroad stations, resort hotels, and the like; and the small home, the shop, the
age, which constitute nine-tenths of American architecture, are below their lordly
ce.

OSTER:
get back to the Fine Arts Commission—how do you think they should arrive at their
isons? They can't very well take a popular vote.

CH:
fore coming to a decision, I think the Fine Arts Commission might make a public
ouncement of important matters it has under consideration, and let those interested
a chance to squawk. As it is, they suddenly announce their approval of a project.
 matter is all settled. The architect is chosen, the character of the building fixed.
de sign approved, before any but a few know what is being done. Why not
a hearing somewhat after the manner of Congressional hearings when legislation
osed.

LEAN:
er never has been opportunity for that kind of discussion, which would be most
thy. In the Renaissance, there were riots when the populace felt their esthetic
ibilities offended.

OSTER:
y would probably riot about the wrong things. Just remember how they tried to
ghter the Burnham plan when the Commission announced the opening of the Mall.
CH:
I was suggesting was that people be given a chance to be heard.

OSTER:
nderstand. I understand. But would it assure us better architecture, or would it,
ing your worship, merely get us into a dither about such things as cherry trees?
LABER:
ld it give us buildings you could find your way around in, or offices you could see
t of without peeking around columns or over parapets?
LEAN:
buildings you could moor an automobile near?

OUKE:
ld it still leave us some of the worst slums in the country? The thing that ought
cern us is not such absurdities as the Second Division Memorial or such phantasies
he Jefferson Memorial, but the vast bulk of our urban areas to which no directive
ught has been given. I'm not concerned about the cherry trees, but about a rational
itecture and a realistic architectural education. Even with all the high powered
rol we have here, we don't get rational architecture. We try to live on a super-
e. We set up a kind of grand scale Hollywood and forget it has any relation to
ing and doing business.

OSTER:
ere are we getting, anyway?

ICH:
e seem to be about back where we started.

HERE IS A GENERAL INFILTRATION ALL AROUND OF EFFERVESCENT BEAT-TOLLER. SPORT IS DISCOVERED BE PEACEFULLY ASLEEP.

OSTER (WITH A GLOW OF AFFECTION):
ku know, he really is a very nice dog. (There are no comments.)

THE THIRD ROUND

TIME

in the afternoon, early in August 1937; a mild, soft air of gentle coolness, such as the
ashington climate gets too little credit for producing and which, in fact, it does not
WASHINGTON PARKING PROBLEM

PROPOSED PLAN FOR NEW WORLD'S FAIR 1939 BY JOSEPH STEIN AND RUDOLPH MATTERN OF CRANBROOK ACADEMY OF ART, MICHIGAN

SECTION EDITED BY FEDERAL ARCHITECTS AMERICAN ARCHITECT AND ARCHITECTURE OCTOBER 1937

produce so frequently as to cause any alarm to the thirst-quenching industry. Foster's peach tree is in full fruit.

PLACE
The same as the Second Round; the properties are the same except for a new bottle.

PERSONS
The same. As the scene opens Colean is using Foster's peaches to barry Sport, who is his old self again, and becoming even more so under the barrage of amygdalus pers.

It is too much for Foster. With a deeply pained expression he seizes Sport by the coat and drags him to safety within the house.

COLEAN (setting into chair with the air of one who has accomplished something)
Where's the ice, Bill? So long as this is the magazine's party, I feel free to comp about the service.

FOSTER:
Since when did you develop any reservations on that fine freedom of yours?

COLEAN (undisturbed, as he pulls nearer to him the bowl of potato chips):
It seems to me last week we left Pierre on the verge of some great thought.

RICH:
If I remember correctly, we left him disgruntled on a super-plane, or some such place.

FOSTER:
He didn't like education.

BLOUKE (seriously):
The crux of this problem, I think, very definitely rests with the training of the architect to meet the problems of society today, and not that which existed in the time of Louis XVI.

RICH:
Well, this is progress. Last week Pierre had education in a medieval state. Perhaps today he can pull it forward another few hundred years.

KLABER:
I really feel very strongly with Pierre that education is the nub of the question. It must get back to the architect's training—what it has given him and what it has not given him to meet the things he is up against, or ought to be up against, present day practice.

RICH:
What, specifically does it need to give him?

BLOUKE:
It should give him a social and economic orientation. . .

RICH (with a gulp):
A well resounded period.

FOSTER:
What about an esthetic orientation?

BLOUKE (deliberately lowering his glass):
He needs both. But the second should grow out of the first. As a member of a profession he is a servant to society—to the whole of society and not just the capital variety. He must be taught what the great architectural needs are, and how to meet them. He must be inclusive in scope, not exclusive as he always has been. . .

KLABER:
. . . a servant of the people as a whole, not just of the priest and the patron. . .

FOSTER (mumbling):
Who alone have been willing to pay him.

RICH:
I agree with Pierre that education should inculcate in a man his responsibility to society—and this he should have if he has any pride—responsibility and realization of the situation in which he is living in this country, and he should not turn aside from works that will help our social structure simply to make money. That's preaching and all that, but it goes right back to the definition of a profession and a business. The business
make money and the profession is to follow your chosen vocation without a primary
need for profit. You take the teachers—they are not entering their profession for
money, but because they like the work, and eventually you must get the architect to
point where he does it because he is a servant—that thought permeates this whole
discussion.

BER:

There seems to be an impression that when we speak of a social point of view for the
architect, we mean some vague philosophical concept or a general benevolent attitude.
I believe it means something much more important and definite. I think that the prob-
lem, together with all other fields of work, is faced with an important choice. The
large amounts of money that are involved in building have naturally tended to make
an architect dependent on those who control money, and it is only too easy to slip
into the attitude that we are concerned only with the interests of this class.

L:

These precisely the same interests that today threaten the idea of democracy. The
architect must, therefore, decide for himself whether the idea of democracy on which
this nation was founded is valid. Its opponents say that it has failed, and if we base
our judgment on the ultimate ideal of a democratic government, we must confess that
has not as yet been achieved. But let us not forget that a few hundred years is a
short time in approaching such a goal. The architect must therefore decide on which
side of the fence he is on this vital question, and which way he proposes to push. This
is not necessarily imply that capitalism will vanish, but it does mean that it must
be kept in control.

LEAN:

I am afraid Henry is getting us hoisted on another kind of super-plane. When I plead
for a broader social point of view, I do it not only because I see the need of the archi-
tect's service in other fields than those in which he usually works, or over-works, but
also because I think the economic existence of the profession depends on such a view being
adopted. In other words, I want to see the architect—the average architect, that is—
have a better living for himself by making himself more generally useful. I want to see
him less dependent on a class of work which vanishes at the first threatening cloud of
depression, and which does not recover until it's nearly time for the next depression.

STER (Having tried since Klaber's apostrophe to get in a word, blurts a paragraph):

A great deal of the objections to present-day architectural education is directed towards
the fact that the graduate—or the general run of architects—doesn't know much about
the question of Housing. If one is not particularly interested in that part of the pro-
fessional practice why should he know a great deal about it, even if it does represent a
large volume of the building being done in the nation. An architect should have the
privilege, without criticism, of choosing that in which he may wish to interest himself
in his professional career; a lawyer or a doctor, certainly makes his choice for
specialization, and I doubt if a lawyer interested in criminal cases is considered to be
fulfilling his duty if he isn't also specializing in International law.

LEAN:

The trouble is that everyone wishes to specialize in International law, and there isn't
enough to go around.

DUKE:

I'd the schools haven't pointed that out.

LEAN:

Let us have been hammering at is that you do not get the proper orientation towards
your profession in the schools. I think our education has given us an erroneous lead in the
whole thing. Our whole education was built on archeological concepts. We were
in problems of a highly irrelevant nature, as far as the normal needs of society are
cerned. We got into what has been previously referred to as a "dream world,"
when we went into practice we knew only that kind of problem and could not get into
the general run-of-mine stuff—the kind of work that cities demanded, that people
needed, the houses, stores, warehouses, factories; those things that form the major
part of our building needs.

ABER:

Our education was based on study of the achievements of people of the past. It was
dealt with in such achievements without any understanding of the motivation and back-
ground that created them, or any understanding of the life that flowed through them.
In other words we were taught to reproduce Florence and Salem. 

BLOUKE: 
In other words the whole thing was academic, not realistic. I recently saw an exhibition of the work of a prominent school. Looking at it, I wouldn't have known the man was living in the United States in the second quarter of the twentieth century. 

RICII: 
You must know the precedent of the past. You can't start gaily inventing form and technique. You must somehow take advantage of the experience the ages have developed. 

FOSTER: 
Do you people object to all that? Do you think it should be merely supplemented by a course in social service? Do you think the thing to do is to study nothing but some houses, city stores, etc.? Did you ever realize that time for education is limited—the architectural student has only a limited time to get what he must get? There is the esthetic side that he is most likely to overlook later, and why not give him a good dose of it while we can? Why should they not put the emphasis on the esthetic rather than the material thing? 

In the years of architectural study the student should be given as broad an understanding of esthetic problems as it is possible for the suffering faculties to provide. I would include study of plan and the esthetics of elevations, or vertical walls—study of fenestration, balance, ornamentation—all of these with relation to the plan as needed to meet the requirements of the problem. I agree that perhaps too much emphasis has been laid in times past upon beautiful balance around axes to the detriment of the plan but I doubt very much if such teaching is being followed today and from observing, I sometimes think the pendulum is swinging somewhat too far in the other way. Moreover, the architect should know materials and furthermore he should know engineering. It is my conviction that no original thinking can be done by an architect, thinking in a fundamental character with regard to design, without a pretty thorough knowledge of structural engineering. Most of the original ideas concerning structure come from Europe where the architects are more thoroughly trained in mathematics and in engineering of structure.

In the study of planning and composition, there may be some justification in the criticism that problems are generally involved with a "Swimming Pool on a Large Estate," "A Small Private Museum," "A Sport Center in a Winter Resort," etc. Perhaps there would be well to give some problems concerning the housing of families of low income but it surely would be presumptuous to say that those problems should predominate. Whatever the vehicle let the student be taught that there is such a thing as balance, chiaroscuro, fenestration, and so forth that are satisfying to the emotions, and teach him that planning means arrangement of rooms and circulation so that the building will function efficiently, whether for business or for living. I can't believe that Housing is so intricate that an architect of average intelligence and decent training cannot solve the problems; he may not get all out of his problem the first time as we both may have studied the problems for some time. But surely there is such mystery or intricacy in the problems that either legerdemain or genius is absolutely necessary for their solution. (He takes a deep breath, and reaches for the

RICH: 
Bravo, Bill, I didn't know you could do it.

KLABER: 
Bill's remarks raise the question of the content of architectural education. A thought in Gropius' exposition of education was the fact that he does believe in a thorough going esthetic understanding. In painting, music, architecture, as in all creative work, we have certain general principles that pervade the whole picture—unity, select sequence, proportion and rhythm—these are basic principles. A certain rhythm in music has a certain reflex on your mind. Similarly architecture has a rhythm. The mix up in education is not teaching the architect to understand these basic principles by own experience—not giving the student a free hand to attempt, however ineptly express them. If I read Gropius' words correctly he starts out in the very first year of architectural training with those esthetic principles, dissociated entirely from design of building, starting off in all sorts of exercises in compositions, regardless of what they apply to building or textile pattern, and afterwards he leads the students into...
consideration of building. They then have their background of esthetic principles with which they themselves have experimented. And then they are led into an understanding of the social picture. That seems to me to be a thoroughly rational approach to the problem.

LEAN: If I get it, it means the interpretation of those principles in the light of existing problems, rather than getting those principles second-hand through adaptation of past examples which arose out of entirely different economic and social needs.

A whole problem we have raised in these discussions is that the architect is not trained to solve the problems which confront society today. We have seen it even in connection with simple government buildings which come closer to the problems which were given rise to in school. We have a group of practitioners who have fallen down whenever they come up against anything but a specialized group of problems. Bill says there is no answer to these other problems. But the evidence of failure is there, none the less.

DUKE: I think the evidence points to the schools, and the academic, rarefied, complacent point of view that is bred in the schools.

STER: The schools can't do everything. Those who want architectural education changed in order to think that the architect is wholly unprepared to meet the present-day demands of the profession; they feel that the young graduate doesn't know enough about the real conditions existing in the world he is entering; not just his professional world but the whole social fabric which will surround him. There can be no question but it is true he has not a full realization of all this, but I doubt very much if it is possible to give him much help along this line during his years of training. He can be led in some direction in thinking and can be made to realize that social problems exist if they are a very real part of the world in which he will practice and should be given very real consideration in his architectural approach. But he certainly cannot learn with it during these years about actually solving the problems. The time in college is right and there is more and more to learn about the subject of architecture.

DUKE: I still find that the schools do, but how they do it that bothers me. It isn't that they don't give a point of view, but that they give the wrong one. If they were merely haphazard academies, it might be better than the way it is now. At least, there would be less to unlearn later. It's the false, insulated point of view about which I complain.

CH: I can't see what the schools do, but how they do it that bothers me. It isn't that they don't give a point of view, but that they give the wrong one. If they were merely haphazard academies, it might be better than the way it is now. At least, there would be less to unlearn later. It's the false, insulated point of view about which I complain.

ABER: All the noble things were done before the day of schools.

STER: All our greatest architecture was done before the day of masters, under whom the novice could gain both his technique and his point of view.

ABR: I don't think we're only shifting the blame from the school to the teacher. The problem is the same—what is to be taught, and how.

ABER: (with emphasis) And how?

CH: (again ignoring a respected colleague):

I'm getting back to the architect's own, individual responsibility in this thing. Any case the school, or the master, can give him more than he has a capacity or willingness to get. My teachers, I'm sure, tried hard enough with me, but the gravity which you'd weigh down the student simply slid off me, if it were there. I was more interested in beer than sociology. An architect's real education begins when he leaves the school. He must remember that. He must accept the obligation of keeping up with what's about, and of learning how to meet the continually changing problems that will confront him. He must run a one-man school for adult education.

ABER: How will he know how to go about it, if he hasn't been started in the right direction? Where will he get his material for such a course?

LEAN: From the architectural magazines, perhaps?
RICH (aroused): From the magazines! What some of you have said about the schools is nothing, what, barring apoplexy, I'm liable to say about the magazines. If the schools give false point of view, what do the magazines do but continue and aggravate it? If schools are complacent and exclusive and all the rest of Pierre's fine adjectives, what are the magazines but ten times more soporific? What do they give you but, for thousandth time, the cornice details of Tottering-on-the-Brink and the entrance to dear old Bilgewater Manor? What do they offer in the way of stimulus but photographs and nicely drawn plans of other men's work to copy, just as the schools gave you the deadly volumes of the Prix de Rome? What sort of education is that?

COLEAN: You've got me.

BLOUKE: Painful as it may be, I must agree with Lorimer. Further, I feel one of the deficiencies in our current architectural publication practice is the apparent lack of a continuous editorial policy.

RICH: Policy? What policy do any of them have, but to print pretty pictures to save the agony of having thoughts of their own, and to play it safe generally? In what other art or profession do you find such complacency? Take the stage. It has proved its technique because of the criticism it has received. Literature the same. In architecture we have never had any real sincere, intelligent criticism in the magazines. If they could work out some way to constructively criticize it would help architects.

BLOUKE: And help architects to keep on their toes.

COLEAN: A representative of one magazine explained to me not long ago that they were afraid of libel. I tried.

RICH: Libel, be hanged! Did any self-respecting literary magazine worry about libel when set to demolishing a bad piece of writing? Why can't we have criticism? Why can't we have stimulation?

KLABER: What else have you been pouring into and out of that glass for the last hour?

BLOUKE: Certainly the magazines aren't doing what they might.

RICH: They might be more than photograph albums and.

COLEAN: They might try to influence instead of merely to report.

BLOUKE: They might have a definite editorial policy which one could recognize. They might stand for some definite things and be willing to crack heads over them—I believe architects would like it and would profit by it—the sort of things we have been talking about here.

FOSTER: (counting on his fingers): Government control, bureaucracy, professional shortcomings, professional bewilderment, the Fine Arts Commission, education.

COLEAN: Have we exhausted ourselves?

KLABER: Yes, but not the subjects.

RICH: We don't seem to have settled anything very definitely. What are we going to do about it?

BLOUKE: Let's leave it to the magazines. (All refill and lift their glasses):

To the magazines!

(The curtain slowly descends.)
Stately churches inevitably facing commons are a definite expression of the communal life which is the essential spirit of New England. This church is in Boxford, Massachusetts.
The socialite seaside village of Manchester, Massachusetts, is the fortunate possessor of this prim white church (above). Winter on the common in Reading, Massachusetts (opposite)
One of Charles Bulfinch's accepted masterpieces is the graceful, studied church in Lancaster, Massachusetts.
The classic influence at its best is reflected in Plymouth Church, Milford, Connecticut, which was built in 1834.
A yellow church trimmed with white faces the village green (opposite) in Hingham, Massachusetts. (Above) The Center Congregational Church in Meriden, Connecticut, was built in 1831.
First Church, Windsor, Connecticut, erected in 1794, is conspicuously Doric in inspiration.
JOHN FLOYD YEWELL, ARCHITECT

BA PHARMACEUTICAL PRODUCTS BUILDING, SUMMIT, N. J.
CIBA PHARMACEUTICAL PRODUCTS BUILDING
JOHN FLOYD YEWELL, ARCHITECT • BRIGGS & STELLING, LANDSCAPE ARCHITECT

PLOT PLAN
Located in a residential suburb, this group of buildings, because of their dignified architecture and fine landscaping, looks more like a civic center than a manufacturing plant developed by private enterprise. Careful attention has been paid to both materials and color throughout. The entrance is of glass block and Indiana limestone, while the remainder of the facade is of light buff brick with purplish red brick facing on the window piers. This latter device suggests continuous horizontal fenestration. Mullions are green and the muntins buff. The trademark seal over the entrance is in two shades of green, red and has buff lettering.
Color has been extensively used throughout the interiors of the building. In the laboratory (above) walls, a red tile floor, black base and green Venetian blinds have been used. The library and conference room (left) has stained and waxed oak walls. Furnishings are traditional and the decorative map was painted by architect in collaboration with Charles Gulbrandsen. Linoleum flooring in two shades of green and black is used in the corridors (opposite top). Walls are sea-green, base is black and the trim is a slightly green-blue. Bifolds glass is used on the ceiling of the entrance lobby (opposite below). Walls are gray-green with silver ab
A PHARMACEUTICAL PRODUCTS BUILDING

JOHN FLOYD YEWELL, ARCHITECT

AMERICAN ARCHITECT AND ARCHITECTURE, OCTOBER 1937
All the buildings are treated in the same manner with grey and purplish red brick, green trim with occasional accent of buff. The clock is black. For example, on the administration building, seen from the rear, is a copper. Here again fenestration has a horizontal ex-
Not so many years ago most offices, if they were decorated at all, looked as if they were designed for the head of no less than the East India Company. This was even worse than the golden oak period which, if undistinguished, was at least honest. Today most businessmen realize that Georgian paneling, despite its handsome appearance, is scarcely in keeping with the modern business tempo. As a result, they are demanding clean, simple, cheerful and comfortable places in which to work. The case in point is an excellent example of an efficient background for efficient work. (Above) The reception desk behind a glass screen is a welcome change from the usual peep-hole in a blank wall.
One of the main requirements for the job was that the executive offices be extremely flexible. This was accomplished by means of folding screen dividers which serve as auxiliary walls and by the use of a consistent decorative scheme. A specially woven navy blue fabric...
carpet was used throughout in combination with light warm gray walls, walnut furniture and leather upholstered chairs. The sofas in the small waiting room are upholstered in dark gray canvas.

Ceilings of Sanacoustic tile include Holophane lighting. The cleverly contrived desk (right) has a Formica top...
Not only were arrangements made for board meetings of varying sizes, but it was required that there be accommodations for serving meals at these meetings. This presented a special furnishing problem that was cleverly solved by the use of flexible furniture. Great attention was paid to various small details which lend an air of refinement in no sense of pretentiousness. Instances of this are the saddle stitching used on the leather chairs, the lavatory finished in Markwa tile, the gray lacquer cabinets with chrome hardware and the black tile floor.
CAFE, CHAMPAIGN, ILLINOIS

ARTHUR F. DEAM, DESIGNER • JAMES D. HOGAN, COLOR • WILLIAM A. GANSTER, ARCHITECT

AMERICAN ARCHITECT AND ARCHITECTURE, OCTOBER 1937
Popularity of the small restaurant (upper of plan) proved such that within a year the joining building was taken over and the gro floor altered as a cafe. Serving as a rendezv for local college students, provision was mad the addition for a small orchestra platform the grouping of booths. Location of the orche immediately opposite the opening between the units allows the music to be heard in both ro
Lighting is almost entirely indirect. A cove trough with 25-watt lamps on one foot centers has two circuits regularly alternated, and is supplemented with a two-circuit neon tube system. Each type has a red and one white circuit. Walls and ceiling are painted a variety of warm grays and sepia tones.
Furniture upholstery is warm in bright green, henna and sepia. Bar is of Philippine mahogany. Woodwork is birch with a natural finish. Floors are of asphalt and interior metal trim is chrome.

CAFE, CHAMPAIGN, ILLINOIS... WILLIAM A. CANTER, ARCHITECT
Tuesday, September 1.—Today marks the inauguration of a new experiment in American community life—an experiment of which the potentialities are to go back a little. The town of Green-Md., is the result of an effort to build shelter and amenities of a community of its own to a hundred families to live in. The community was built with the idea of giving decent quarters and a pleasing environment within the reach of a low-income person, the members of which were unable to manage such things under the existing conditions. And now comes the second step of the experiment—an effort to satisfy the every needs of these nine hundred families as a co-operative conduct of the town's affairs. Edward A. Filene, a philanthropist, has provided the capital of a million dollars to operate a community for fifty years without seeking a profit. The corporation, of course, will have to rent for its store spaces, and it will do through an arrangement with the Government by paying a percentage of gross profit, if any, to be devoted to other purposes. The corporation will supply the everyday needs of the community at cost or just above cost, the rest of the profit, if any, to be devoted to other purposes of the community. It is recognized as a possibility, and a desirable one, that residents of the community themselves will eventually take over the entire management and responsibility of the co-operative institution.

A successful experiment will bear watching. Though the Government and through this philanthropic aid, it has the ideal environment and presumably the utmost in economy of living. Whether a self-contained community such as this will lift its standard of living, or through complacency lower it, must be seen.

Friday, September 2.—L. Moholy-Nagy paid into the office today on his way to a tour on which he will attempt to bring about a rebirth of the Bauhaus idea. With him at Harvard, Moholy-Nagy in Chicago, and two or three other members of the San Bauhaus staff here or coming, the United States seems to have taken over definitely from Germany the idea and execution.

Moholy-Nagy, in the comparatively short time he has had to see America, is already pleased with the eagerness of American craftsmen to understand and apply the fundamental principles of basic craftsmanship, a greater understanding of space relationships, and the progressive apprentice system on which the Bauhaus ideas are based.

Saturday, September 4.—Every one in a while the old subject of rammed earth walls has a renaissance of interest. Several architects have written in recent months about this form of building—pisé de terre—but information regarding it has been rather difficult to find. Now, however, the Department of Agriculture has reprinted Farmers' Bulletin No 1500, "Rammed Earth Walls for Buildings," in which M. C. Betts, an architect now deceased, and T. A. H. Miller, an engineer, brought together an interesting history of the process and the practical techniques employed. If you have any sort of an impression that this is a make-shift form of wall building, you may be interested in the fact that watch towers constructed of rammed earth by Hannibal were in use two hundred fifty years after completion. There is a house in Washington, D. C., the main portion of which was built of rammed earth in 1773.

Tuesday, September 7.—In to see a model of the interior of the Oregon State Capitol. It is included in the mixture because of a mysterious quality it possesses of binding together the clay and sand. Possibly it is not enough to give merely accurate figures in the Time-Savers Standards: a reason now and then would be to find in their own homes.

Possibly it is not enough to give merely accurate facts in the Time-Savers Standards: a reason now and then would be to find in their own homes.

Tuesday, September 14.—Elizabeth Gordon, who with Dorothy Ducas recently wrote the book, "More House for Your Money," gave me a new picture today of the way in which the modest home builder gets his plans and
builds his house. The Misses Gordon and Ducas have, for some time, conducted a department in the Sunday Herald-Tribune, which brings them in particularly close contact with the hopes and problems of their professional brethren. The stock plan, in spite of its being more or less of a red flag to the architect, is gaining in use, and probably also in quality. Even if it were ideally suited to an individual’s need, however, he is bound to suffer for lack of the other services that an architect could give him—advising regarding contractual relationships and seeing that he gets his money’s worth in the building. The problem of how the architect is to be employed in this essential service is as much a problem today as ever.

Thursday, September 16.—Speaking of designing the small house, I hear that Frank Brangwyn has been planning “a perfect house for young married couples, price $837,” the first example of which is now being built near Brighton. One of his advisers says, “I ought to make it clear that in doing what he is, Mr. Brangwyn is working without a fee.” As if this fee cutting practice had not gone far enough already!

Saturday, September 18.—Apparently we have got to be very chary about using our cold water supply for cooling processes in our air conditioning. In Chattanooga, Atlanta, Columbus, Dallas, St. Paul, Scranton, and South Bend, for example, present water facilities are already being used to full capacity. Increased drain upon this, through apparatus which discharges additional large quantities of water into the sewer, puts a new problem up to civic authorities.

Monday, September 20.—Those who see in the great principle of standardization the answer to most, if not all, of our troubles, might pause for a moment to listen to a word from H. S. Goodhart-Rendel, without whose thoughts I should probably never complete a month’s Diary. He points out that since the architectural profession has never succeeded in getting bricks made to a uniform size and shape, it is likely to succeed in standardizing completely even the little buildings that are now designed over and over again with only small and irrational variations? Not that he sees any harm in trying. Such stock patterns, however, he thinks have a better chance of being produced and used if they are not marked by any great individuality. Quite possibly such stock types as we might generally accept should be designed not by one architect, but by a group.

Tuesday, September 21.—Dr. Charles Gray Shaw, professor of philosophy at New York University, says that, “the manner in which a people builds betrays the kind of world it will make for itself, its vital intentions.” A people who would build a Pyramid and put a Sphinx in front of it, obviously was not intrigued by the joy of life, but rather was impressed with life’s heaviness and mystery. To a people, on the other hand, who erected a bright temple, making use of color and gold, sculpturing upon its facade noble forms on parade, the ideal of joy is not far off. So far so good, but when the Doctor says that “to observe a Gothic cathedral of the Middle Ages, to note its grandiose arches within and flying buttresses without and to feel its dynamic system of thrust and counter thrust, is to be impressed with the strong piety of its builders,” it seems to me a non sequitur. The qualities mentioned reflect, rather than piety, a marvelous knowledge of engineering and a great joy in applying that knowledge.

Wednesday, September 22.—The Government has been building a lot of post offices lately, and we have not heard much fault finding about them. Ernest L. Woodward of Le Roy, N. Y., however, thought his home town post ofiice too small, and put up the money to build a parapet, a sloping roof, and a cupola upon it. Inasmuch as Mr. Woodward had given the building site and enough money so that it could be built of stone instead of brick, perhaps he had a right to think it too squat.

Friday, September 24.—A piece of news heard today interests me strongly. They say that the air conditioned office or home staves off baldness. The scalp is said to react more readily to abnormal air conditions than any other part of the skin. I am afraid the news comes too late.

Saturday, September 25.—Now that the Wagner-Stegall Bill has become the House Act of 1937, only thirty states out of the forty-eight now have laws on their books which will enable their municipalities to authorize housing authorities. Without such authorities, the municipalities are unable to participate in benefits of the Act. Up to 1933 there were no states which had specifically authorized local housing authorities. PWA was largely responsible for bringing the states into line with local housing laws, and that administration even drew up model laws which, in many cases, were adopted without change.

Monday, September 27.—I was asking Charles E. Peterson some time ago what had become of the scheme for the Museum of American Architecture in St. Louis, a project which had been proposed as a suitable form of national memorial to Thomas Jefferson. While nine million dollars has been available for some time, legal snarls and squabbles between various real estate interests have put spokes in the wheels of progress. Any idea involving such an elaborate piece of work is not likely to find smooth sailing and be built in a hurry.

There will have to be manifested an unmistakable desire of the public for a Jefferson National Memorial in this part of the country.

Wednesday, September 29.—I wrote, a short time ago, a number of letters to architects widely scattered geographically, asking the most trouble after completing a building—will tightness in air conditioning, floors, windows, or what? Strangely, in reporting, with air conditioning, for example, in the childhood period of technology, and with electric wiring being elaborated daily, the architects report that the difficulty still is keeping the water out. The rush, both toward tightness and as trouble makers. Curious, that with our experimenting indoors, the shell still remains the main source of trouble.

Thursday, September 30.—An arch friend of mine was rehabbing me something today for the publication of so much on what he called “this modern tripe.” The magazines should realize their responsibility to the profession as to what material they elect to show. The profession at large must estimate of what is being done in country almost exclusively from the pages of its professional journals, and the architects pattern their individual output on these well publicized examples.

“You know and I know that all this about function relates to a subject that is no newer than the Pyramids—the arch has been taught the principles of building and its functions according to function ever since he was a fresher. Having developed a really workable plan, his elevations should develop themselves. If the plan is good, the elevations will be good.

“Nowadays some of these radical designers seem to think that they must evolve a bizarre plan rather than a simple one like nothing that has ever been built before that the sake of getting an exterior that is fresh. Having developed a really workable plan, his elevations should develop themselves. If the plan is good, the elevations will be good.

“All of which brings up the old question of whether the character of a country architecture? Certainly it is not the magazines. Certainly it is not even the architects. In the end, it is the public. They know about architecture, but they know about architecture, and they know that architecture is to what material they elect to show. The profession at large must estimate of what is being done in country almost exclusively from the pages of its professional journals, and the architects pattern their individual output on these well publicized examples.

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The Editors welcome photographs of these subjects . . .
Forms close eight weeks in advance of publication. A list of the subjects that have appeared will be sent upon request. Certain of these past Portfolios are available to subscribers at 25 cents each; or five subjects for one dollar

Oakland, Calif.
Frederick H. Reimers

NUMBER 132 IN A SERIES OF COLLECTIONS OF PHOTOGRAPHS ILLUSTRATING VARIOUS MINOR ARCHITECTURAL DETAILS

AMERICAN ARCHITECT AND ARCHITECTURE, OCTOBER 1937
Pleasantville, N. Y.
James Renwick Thomson

The Rectory, Old Warden
Northamptonshire, England

Bridgeport, Conn.
Charles W. Walker

Detroit, Mich.
Richard H. Marr
Westport, Conn.
Burton Ashford Bugbee

Westfield, N. J.
Ray O. Peck

Hartsdale, N. Y.
Andrew J. Thomas

Red Bank, N. J.
Robert M. Carrere
Manhasset, N. Y.
DeWitt Clinton Pond

Summit, N. J.
Clark & Arms

Tuxedo, N. Y.
Walker & Gillette

Kansas City, Mo.
Edward Buehler Delk
Edward Devotion House
Brookline, Mass.

Tarboro, N. C.
Dwight James Baum

Red Bank, N. J.
Alfred Hopkins

Kansas City, Mo.
Edward Bushler Dolk
Goldens Bridge, N. Y.
Lewis Bowman

Kansas City, Mo.
Edward Buehler Delk

Richmond, Va.
W. Duncan Lee

Pelham, N. Y.
Pliny Rogers
Cimarron, N. M.
Edward Buehler Delk
Bartlesville, Okla.
Edward Buehler Delk

Great Neck, N. Y.
Frank J. Forster
Cincinnati, O.
Garber & Woodward
FAVORITE FEATURES

Common problems of design in everyday practice—how the results look and how the drafting-room detailed them

Simple Mantels

NOTE! All scale elevations drawn at 1/2 equals 1'-0".
All profiles are 1/2 full size.

MILLER, MARTIN & LEWIS

WILLIS N. MILLS; ALLAN M'DOWELL
Free adaptation of Colonial precedent, whether in wood, brick, or stone and wood is commonplace for contemporary domestic buildings. Unfortunately, the results are not always as successful as this example. One thing is very clearly indicated by this superficial romanticism. American architects and their clients are no longer preoccupied with an archeological approach to style, but are interested in developing an architecture for the America of today. Here warm colored stone is laid in random ashlar while vertical siding and hand-split shingles are painted a harmonizing cream color. Blinds are blue green and the shingle roofing is in variegated grays.
Because the gardens and the pleasantest view are toward the rear, all the main living rooms are on that side of the house. The projecting rear wing shields the living terrace from the service wing. View (above, left) of stairway, and (above, right) of corner fireplace and shelves in dining room.
Hand-split shingles are used on the rear and side elevations. These add textural interest to the otherwise simple and direct architectural treatment. Modern amenities, such as air conditioning, complete insulation, a thoroughly well-studied and equipped kitchen including an incinerator, are somewhat belied by the interior detail. However, the absence of picture molding and the simplicity of the woodwork are noteworthy. This woodwork is pine and oak stained a dark tone to contrast with the pre-tinted light buff plaster. Flooring is of oak in random width planks.

HOUSE OF DR. F. F. HARRISON, COOPERSTOWN, NEW YORK
GREVILLE RICKARD, ARCHITECT; WILLIAM F. DREWRY, JR., ASSOCIATE
A fine appreciation for rich textural contrasts is evidenced in both the exterior and the interior of the house. The fireplace in the living room is red brick. The hearth is of flagstone and the lintel is of concrete. The dentils under the shelf are red against black.
JOHN RUSSELL POPE
1874-1937

By FISKE KIMBALL

John Russell Pope American architect has lost an artist of authentic gifts, enriched it with works of abiding value. At the time of his entrance to practice and first triumphs, this value was not questioned, indeed it was acclaimed almost universally. That was a moment of dominance of the classical influence in America, then won by the works of McKim, White, Wells, which derived strength and remedy from the heritage of the Early Renaissance. Then the only voices raised against dominance were those, powerful to be of the two isolated artists of genius, Sullivan and Wright, then crying in the wilderness. Pope's death comes at a different moment, in the value of any neo-classic work is put into question, not only by Wright, but host of secondary men, themselves most imitators, followers, aping the creations of a different school, who identify merit to the body of his work which he abhors from a lifetime its renunciation; and which brought, better than any other way. We need not expect the creative artist himself to admit these axioms; the great artist in his work must be a fanatic, even a critic, and is apt to be so in his thought. His error, itself forgivable, is only in his denial of the endless flux which brings his own work into being; which will bring, after him, not pursuit of his "style," but necessarily its renunciation; and which brought, before him, work which he abhors from a lifetime of struggle, yet which may equally have its own coherence and individual value.

The possibility of artistic creation with traditional elements has indeed been often questioned, even as to the masters of the Renaissance, yet only the fanatic can deny that they achieved it. To the neo-classic artists, still involved in the passions of contemporary struggle, it is harder to render justice. They cannot hope, of course, for that veneration reserved only for the men who inaugurated vast movements of fundamentally original character, like Michelangelo, like the architects of Saint Denis, but we can still judge them on the success of their efforts to fuse the derivative elements in new wholes, and thus in works of art worthy of the name.

Such an artist was John Russell Pope. His work was far removed from that of the plan-factory in which classical motives served chiefly as handy formulae, ready to be served up in varying banal combinations with a minimum of time and study. Nor was he, like too many men masquerading as architects, actually an entrepreneur, or promoter, or salesman. His mind and heart were directed to an activity purely artistic. His designs were ripened, matured, digested—transmuting the elements into a work which was his own.

It is well known that Pope was not alone in his activity, that Otto Eggers and Daniel Higgins formed with him a team of extraordinary effectiveness. Indeed their abilities were such that the uninformed may have supposed that Pope's relation to his office was a distant and external one. Almost to the very end of his life the heritages of the Early Renaissance and professional responsibility. His associates remain, not only to carry out his unfinished projects, but to continue the practice in which their part was large.

Jack Pope is gone. We could have spared the modernist pretenders who cling to the skirts of the few giants of our day, as we could have spared the multitude of classical Hack of the day of his death his relation to his clients and his buildings was one of full personal and professional responsibility. His associates remain, not only to carry on his unfinished projects, but to continue the practice in which their part was large.

CARICAN ARCHITECT AND ARCHITECTURE, OCTOBER 1937
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The first unsung genius who patted a piece of clay into brick form, with which to build, was the first prefabricator. Since then literally billions of bricks of all sorts of colors and shapes have been used to build all kinds of buildings, in every possible style in nearly every country in the world. The reason for this is obvious. Brick is not only an efficient and beautiful building material, but it is an incredibly flexible one. Whether the discovery of the simple arch was due to the use of brick or still an unsolved question. At any rate, brick contributed greatly in the development of new structural forms and can be used for nearly every other building purpose. So today, when there is a search for new forms to express our time, it still plays a leading part.

RECENT EXAMPLES OF BRICK BUILDING
Illustrated on these and succeeding pages is the range of architectural effect that is obtainable by the use of brick. Simplicity is the keynote of the manner in which this material is used. The Tuberculosis Hospital (facing page). In school building (above and right) the restraint exercised in the use of brick as decoration is just the proper amount of interest to make otherwise would be dull and uninteresting.
Recent Examples of Brick Building
ability of use has always been a character-
of brick, and is aptly expressed in its adapt-
ity to style as illustrated by the Memorial
itorium (facing page). As a material used in
ings definitely of this decade and yet in har-
ly with surrounding traditions, the New
land police station (facing page) serves as
od example. Either painted as in the resi-
be above, or left natural as in the apart-
house (right), brick has long been asso-
ed with the construction of shelter of man.
Brick Masonry—Workmanship and Textures

Appearance, weathering properties and enduring strength of brick masonry are closely linked to both the workmanship employed in construction and the formation of joints, bonds and patterns to create desired designs and textures. Principal factors to be considered by the designer are summarized in this sheet.

Workmanship

Good workmanship is an essential requirement to effective performance of brick masonry, and is not incompatible with speed of production. Tests conducted by the Bureau of Standards have shown that a wall constructed according to approved principles will develop a strength 70% in excess of that of an identical wall constructed in violation of these principles. Nevertheless, erection of the stronger wall was accomplished in no greater time than required by the same mason for erection of the weaker wall.

The two essentials of good workmanship are flat bed joints and complete filling of vertical joints.

Bed Joints. From the standpoint of strength alone, the flat bed joint (Figure 2) is probably the most important single factor. The uneven and irregular bedding characteristic of the furrowed mortar bed (Figure 1) produces bending stresses in the brick and causes local concentrations of load. A furrowed mortar bed may, in addition, permit the entrance and retention of moisture.

Vertical Joints. Proper treatment of vertical joints in accordance with the purpose for which a wall is used will basically affect the appearance, durability, resistance to water penetration and strength of the wall. Types of joints include: (a) Shoved Joints, (b) Grouted Joints, (c) Open Joints.

Shoved Joints are made by pressing brick downward and side-wise on a bed of mortar slightly thicker than required for the finished joint. This causes the mortar to rise and fill the vertical joints. Shoved joints are strong and watertight.

Grouted Joints are made by filling vertical joints with a grout made of the bed mortar with water and cement added. Grouted brickwork accomplishes much the same purpose as shoved brickwork at lower cost. Outside wickets are laid with trowel mortar on beds and with vertical joints buttered, thus forming a barrier to keep the grouts from trickling over the face of the masonry.

Open Joints may be used in the interior course or back of an exterior wall where joints exposed to the weather are shoved, or in the full thickness of an interior partition. Every fifth course should be a header course with filled joints. Walls built with open joints are cheaper to lay, dry more quickly, and are amply strong for ordinary loads.

Thickness of Joints. Joint thickness affects to some extent the strength of the wall. Although no definite relationship has been proven, walls with thin joints tend to have a somewhat higher strength. For standard brick, a 3⁄8" joint is most useful in forming patterns and bonds, since two headers plus the joint exactly equal the length of the stretcher. 3⁄8" and 3⁄4" joints are used extensively, the difference in unit length of a stretcher and two headers plus joint being compensated by variation in the width of the vertical joints. Brick masonry walls with 3⁄4" joints and over require more time for erection.

Exposed Joints. The color, section and texture of joints will affect to a marked degree the interest and quality of the finished wall. Color of the joints should be kept uniform despite gradations in the brick shading. Dark colored mortar tends to subdue shadows and deepens the tone of the wall. Light or natural colored mortar gives a play of brilliant shadows.

Texture of the joint may resemble that of the brick or contrast with it, and is controlled by the use of a steel or wood surfacing tool, and the use of coarse sand or fine gravel in the mortar mix. Four types of exposed joints are illustrated in Figure 3. Tooled joints (types 3 and 4) which compress and spread the mortar after it has set slightly, produce the best weathering properties.

(1) Weathered Joint. This is formed as a plain cut joint, finished with the trowel after the mortar has slightly stiffened. Each course of brick will throw a horizontal line of shadow along the wall. It is a water-shedding, low cost joint, much to be preferred over the struck joint (not illustrated).

(2) Flush or Plain Cut Joint. This is formed by cutting surplus mortar from the face of the wall. If a rough texture is desired, the joint must not be manipulated with the trowel. For an extremely rough joint, the surface may be tapped with the end of a rough cut piece of wood after the mortar has slightly stiffened.

(3) "V" Joint. This is similar in method of forming and performance to the Concave Joint. It should be formed with a special tool, but may roughly be made with a square-edged board, rubbed at an angle along the joint.

(4) Concave Joint. This is best formed with a special tool or a bent iron rod. It is weather resistant and inexpensive.

(5) Struck Joint. This is the most simply formed of all joints and is widely used for interior walls. Its use for exterior walls is not recommended, however, because its weather resistant qualities are distinctly inferior to the other joints illustrated.

Protection during Construction

The absorption of excessive moisture during construction should be carefully avoided. Unfinished walls should be covered at night with canvas, tar paper, or boards as a protection against weather. Where concrete or reinforced brick slabs are built simultaneously with the walls, the wash from their surfaces should not be permitted to come in contact with the wall face. During freezing weather, bricks should be thoroughly dry and free from ice when laid.
CLEANING COMPLETED BRICKWORK

Care in building exposed brick surfaces will limit the amount of cleaning necessary. No job is finished, however, until it has been thoroughly cleaned and washed down. A 5% solution of muriatic acid should be used where necessary for cleaning brickwork or washing away efflorescence, followed by a washing with clear water.

TEXTURE

Texture in brickwork is the product of the character of the bond or integral pattern, type and color of joints, color range of the brick or the use of whitewash and other paint coating, and the employment of irregular or special brick shapes. Each of these is capable of wide variation, and an almost limitless range of surface textures is therefore possible.

Bond is the controlling factor in determining surface pattern. Primarily for the purpose of binding the wall together so that it will act as a unit in resisting stress, bond serves the additional purpose of forming geometric patterns on the wall surface. This influences both the quality of the brickwork and the character of the architectural design.

There are three basic bonds, and wide variations of each:

- Running or Stretcher Bond: made up of stretchers with joints broken on centers. Each alternate course has a header at the corner. This bond is weak transversely, because of lack of headers.
- Common Bond: a variety of running bond with every fifth, sixth, or seventh course a header course, either "full" (all headers) or "Flemish" (alternate headers and stretchers). A three-quarter brick is used to start each header course at the corner of the wall. Other courses need not be cut at the corners to make them break joint. Joints are lined perpendicularly for exposed walls; for unexposed work considerable variation in joint placing will not affect bond.
- Flemish Bond: made up of rows of alternate headers and stretchers. This kind is widely used due to the ease with which it is laid, and its attractive appearance.

MORTAR TEXTURE

Mortar Texture may be controlled to approximate the texture of the brick or contrast with it. Mortar color may likewise contrast or blend with brick color. The section of mortar joints may be used to accentuate the surface pattern, as in recessed joints, or subdue it, as in extruded joints.

INTEGRAL PATTERN

Bond pattern may be varied by diamond, herringbone, basket weave and other simple patterns. These may be further accentuated by alternating courses of recessed and projecting brick, adding the play of light and shade to the other elements of surface texture. The inherent possibilities for decorative variation in brickwork are almost limitless.

SURFACE COATING

Whitewashed and painted brickwork has long been used for certain types of architectural effect. The irregular weathering, characteristic of such painted surfaces, produces additional variation in surface texture.

SKINTLED BRICKWORK

A wide variety of informal and coarse-textured patterns is possible through the use of irregular and warped bricks, or through irregular aligning and placing of bricks according to a studied or haphazard design, known as Skintled Brickwork. For more comprehensive data on brick construction, textures, bonds, etc., see publications of Brick Manufacturers Association of America, Cleveland, Ohio, from which data presented here have been derived.
PURPOSE

Vertical construction of brick falls into two broad classes—solid masonry and hollow masonry. Solid brick walls and piers have maximum strength, durability and fire resistance. They are normally used for foundations and for all heavy load bearing structures. Hollow walls of brick built with air spaces between withes use less material, are lighter and somewhat less strong, but offer economies and advantages which suit them to residential work and similar light load construction. The air space within hollow walls is designed to increase the overall insulation value of the masonry, and when so arranged as to permit condensation and seepage to drain off, may produce a drier wall than one of equivalent thickness built of solid construction.

FOUNDATIONS

Brick foundations should normally be of solid construction. All joints should be filled, either by trowel work through-out, or by grouting the interior joints after the face joints (bed and vertical) have been made with the trowel. All masonry foundation walls below grade should be dampproofed or waterproofed according to soil conditions and the possibility of hydrostatic pressure from ground water. In all cases foundation walls should have footing drains extending around the exterior at the footing level and carried to an outfall below the footing level.

Foundation walls that are not normally exposed to hydrostatic pressure may be dampproofed against capillary action by either of two methods: 1—Two or more brush coatings of cutback asphalt applied hot or cold; or 2—Apply a plaster coat (see Appendix). Portland cement to 2 parts sand may be applied hot or cold to the exterior face of the wall according to the manufacturer's instructions, and preferably protected against backfill by a cement mortar coating; 2—A plaster coat of one part Portland cement to 2 parts sand may be applied to the exterior face and thoroughly troweled to a hard smooth finish.

Foundation walls below grade that are subject to any hydrostatic pressure whatever should be waterproofed by either the plaster coat method or by membrane waterproofing according to the designer's judgment in view of existing conditions. The latter involves the application of two or more coats of Portland cement mortar with admixtures of trowel grade compounds prepared for this purpose. Manufacturers' instructions should be followed accurately. The iron oxide plaster coat should be applied on the exterior face when conditions permit but may be applied on the inner face if no subsequent construction will interrupt its continuity or impair its bond.

Membrane waterproofing consists of alternate layers of asphalt and asphalt saturated felt. This is employed where severe water conditions are encountered. The membrane must be continuous according to the foundation and up the outside of the walls, and must be supported by masonry construction designed to resist the hydrostatic pressures which may occur.

HOLLOW WALLS

Where hollow construction is desired in superstructures in order to gain the advantages of intervening air space or to decrease cost due to the reduction in materials the designer has a choice of a wide variety of types that have been tested in practice. In general these fall into three classes: Rolok walls, cavity or barrier walls, ribbed (economy) walls.

Rolok-type Hollow Walls. The t e r m rolok implies a construction in which part or all of the brick used in a wall are laid on edge rather than on their flat beds. In Fig. 2 are shown 8" and 12\(\frac{1}{2}\)" all-rolok walls in which all bricks are on edge except the through headers used for bonding purposes; 8" and 12\(\frac{1}{2}\)" all-rolok walls in Flemish bond in which the header brick are laid on edge and create a Flemish bond pattern on the exterior face; 8" and two types of 12\(\frac{1}{2}\)" rolok-back walls in which the outer withe is of brick laid flat in common bond and the inner withe or withe is of brick laid on edge. The difference between standard and heavy-duty construction is indicated in the diagrams.

Barrier Walls consist of two independent withe of brick separated by an air space and transversely bonded by rigid metal wall ties imbedded in the horizontal mortar joints. This type of construction has been developed with the primary objective of having a continuous air space between the inner and outer surfaces to increase insulation value and, in some instances, to permit plastering directly on the inner face of the wall with a minimum likelihood of dampness penetrating to the plaster through the outer surfaces.

Two types of barrier or cavity wall construction may be used. One employs brick laid flat in both withes with a central air space of approximately 2" to form a 9\(\frac{1}{2}\)" wall. The other has one

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**RECOMMENDED SPECIFICATIONS FOR BRICK AND MORTAR**

**Brick**—All brick used in brick masonry (except reinforced brick construction) should be of a quality meeting the requirements of the A.S.T.M. tentative specification C62-37T for grade MW brick. Where exposed to severe weathering and frost action, use Grade SW. Quality of brick may be specified by requiring that all brick be sound, hard burned, free from cracks and other defects and having a minimum compressive strength of 2,500 pounds per square inch. Such brick usually produce a metallic resonant ring when struck together.

**Mortar for Brickwork.** For load bearing walls above grade, mortar should be proportioned by volume, one part cement, one lime, six sand. For increased weathertightness in walls above grade, with slight reduction in total strength, the ratio may range up to one part cement, two lime, nine sand. For load bearing walls and piers, above or below grade, use four parts cement, one lime, twelve sand.

**Mortar for Grouted Masonry.** Where hollow brick work has interior vertical joints grouted, the grout may be made of the bed mortar with additional water and cement in the proportion of one bag of cement to each 10 pounds of additional water (or 4 lbs. cement to 1 qt. water). Mortar constituents: Portland cement—should be of standard brand; meeting A.S.T.M. Specification C6-30; highly plastic lime meeting A.S.T.M. Specifications C6-31 (hydrated) or C5-26 (quick lime); sand clean, sharp and well graded to include fine, medium and coarse grains.

**FIG. 1**

Flooring, waterproofing, denting, cement, etc., in foundation below grade.
BRICK MASONRY—2—Walls and Foundations

Types of Hollow Walls

Ribbed or Economy Walls consist of a single withe of brick laid flat in common bond reinforced vertically by 8" piers formed of headers. The ribs thus created serve as furring strips to which wire lath or structural insulating board may be attached to receive plaster on the inner face. Details of construction are shown in Fig. 4. Note that foundations are carried up as solid construction and that piers are thickened where necessary to support concentrated floor loads. This construction is suitable for garages, bungalows and other 1 or 2 story buildings where local building ordinances permit.

Openings in Hollow Walls may be detailed substantially as shown in Fig. 3. Standard door and window casings and trim are normally employed, backed by fillers of brick or blocking to close off the hollow space and to form the necessary nailing points.

The details and recommendations presented herewith were supplied by Brick Manufacturers Association of America, Cleveland, Ohio. This organization has supplementary literature available to architects on request.
PROPERTIES AND USES

Reinforced brick masonry is a structural medium of particular usefulness where brick textures, bonds and characteristic joint work are desired on exposed surfaces, or where the relatively light weight of reinforced brickwork and its structural economy offer advantages over heavier masonry of equivalent strength. In normal building services, reinforced brick masonry finds advantageous use in beams and lintels; in beams and lintels supporting other brickwork; for columns and piers; arches and domes; for retaining walls; and for circular structures such as silos, towers, storage bins, chimneys, sewers and conduits.

Properly designed, reinforced brick masonry combines the characteristics of reinforced concrete with the durability, appearance values, and weathering qualities of brickwork. It requires horizontal forms, which need not be watertight.

MATERIALS

As in all structural design, the ultimate strength and total weight of reinforced brick masonry is governed by the properties of the elements employed. Brick. Any standard well-burned brick, normally suitable for construction work, may be employed. Minimum requirements are: Compressive strength, 2,000 lbs. per square inch for average of five tests on 24 hr., 50 lbs.; absorption determined by full immersion in water for 24 hours (preferably 21 days) before using. Mix cement and water, add lime putty and sand thoroughly. Allow mortar to stand 30 to 45 minutes before working again and using.

GROUT. It is recommended that grout be used wherever possible in interior vertical joints. This grout shall be composed of grout mixture used or proposed to be designed in accordance with the same standards. The weight of reinforced brick masonry is normally suitable for construction work, normally satisfactory for concretes of approximately £141⁄2-16. These requirements correspond to grade M of Federal Specification SS-B-656, grade B of A.S.T.M. Standard Specification G62-30, or grade MW of the tentative A.S.T.M. Specification G62-37T.

Mortar mix ordinarily satisfactory for R.B.M. contains (by weight): 1 part highly plastic lime putty, 5 parts Portland cement, 15 parts well graded sand. Volume equivalents are: 1:4:16. Prepare lime putty according to manufacturer's directions at least 24 hours (preferably 21 days) before using. Mix cement and water, add lime putty and sand mix thoroughly. Allow mortar to stand 30 to 45 minutes before working again and using.

Steel. Reinforced steel should conform to A.S.T.M. specifications according to the type of steel used, which may be concrete reinforcing bar, cold drawn steel, wire or other approved reinforcing steel, including expanded metal and welded fabrics for light slab loadings.

Testing. Whereas cylinders are tested as an indication of the compressive strength of concrete, the field test specimen for R.B.M. is a prism, usually square and approximately 25" long. The prism is built of unselected brick from the stock pile, laid horizontally as stretchers in running bond in the same mortar and grout mixture used or proposed to be used. Prisms are tested in a vertical position with bricks in end compression. Average ultimate 28-day compressive strength for each set of three prisms should be not less than 2½ times allowable (design) compressive strength (fa).

DESIGN

In general, reinforced brick masonry is designed in accordance with the same principles followed by reinforced concrete construction and follows the same theory, whereby the steel takes tensile stresses and masonry the compressive stresses: the two acting together. For complete data on theory and detailed methods of design, see "Brick Engineering, Volume III, Reinforced Brick Masonry" by Hugo Fillippi, and other literature published by the Brick Manufacturers Association of America.

Design Tables. Normal design problems encountered in building construction may be solved by the use of accompanying charts and tables. Table 1 shows safe live loads uniformly distributed for slabs 3½" thick (one brick on edge) with reinforcement in one direction. Table 2 shows safe live loads for a slab 6½" thick. Conservative values for the compressive strength of brick masonry (fa) that has been used with three values for the tensile strength of steel (f). The loads indicated above the double lines will require hooked ends for bond and bars bent on diagonal tension, as indicated on the sketch. Slabs designed as continuous will require additional rods near the top for negative moment over intermediate supports. The weight of reinforced brick masonry is taken as 125 lb. per cu. ft.

**I - SAFE LOADS for R.B.M. 3½" SLABS**

<table>
<thead>
<tr>
<th>Span</th>
<th>f&lt;sub&gt;a&lt;/sub&gt; = 16,000</th>
<th>f&lt;sub&gt;b&lt;/sub&gt; = 18,000</th>
<th>f&lt;sub&gt;c&lt;/sub&gt; = 20,000</th>
<th>f&lt;sub&gt;d&lt;/sub&gt; = 22,000</th>
<th>f&lt;sub&gt;e&lt;/sub&gt; = 24,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 ft.</td>
<td>620</td>
<td>790</td>
<td>850</td>
<td>920</td>
<td>990</td>
</tr>
<tr>
<td>12 ft.</td>
<td>530</td>
<td>680</td>
<td>730</td>
<td>780</td>
<td>840</td>
</tr>
<tr>
<td>13 ft.</td>
<td>450</td>
<td>580</td>
<td>630</td>
<td>680</td>
<td>740</td>
</tr>
<tr>
<td>14 ft.</td>
<td>370</td>
<td>490</td>
<td>540</td>
<td>590</td>
<td>650</td>
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</table>

**II - SAFE LOADS for R.B.M. 6½" SLABS**

<table>
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<tr>
<th>Span</th>
<th>f&lt;sub&gt;a&lt;/sub&gt; = 16,000</th>
<th>f&lt;sub&gt;b&lt;/sub&gt; = 18,000</th>
<th>f&lt;sub&gt;c&lt;/sub&gt; = 20,000</th>
<th>f&lt;sub&gt;d&lt;/sub&gt; = 22,000</th>
<th>f&lt;sub&gt;e&lt;/sub&gt; = 24,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 ft.</td>
<td>550</td>
<td>680</td>
<td>710</td>
<td>740</td>
<td>770</td>
</tr>
<tr>
<td>6 ft.</td>
<td>500</td>
<td>640</td>
<td>670</td>
<td>710</td>
<td>750</td>
</tr>
<tr>
<td>7 ft.</td>
<td>450</td>
<td>590</td>
<td>630</td>
<td>670</td>
<td>720</td>
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</table>

**CANTILEVER (Section inverted Steel near top)**

<table>
<thead>
<tr>
<th>Span</th>
<th>f&lt;sub&gt;a&lt;/sub&gt; = 550</th>
<th>f&lt;sub&gt;b&lt;/sub&gt; = 600</th>
<th>f&lt;sub&gt;c&lt;/sub&gt; = 650</th>
<th>f&lt;sub&gt;d&lt;/sub&gt; = 700</th>
<th>f&lt;sub&gt;e&lt;/sub&gt; = 750</th>
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</thead>
<tbody>
<tr>
<td>4 ft.</td>
<td>260</td>
<td>320</td>
<td>380</td>
<td>440</td>
<td>500</td>
</tr>
<tr>
<td>5 ft.</td>
<td>190</td>
<td>250</td>
<td>310</td>
<td>370</td>
<td>430</td>
</tr>
<tr>
<td>6 ft.</td>
<td>140</td>
<td>200</td>
<td>260</td>
<td>320</td>
<td>380</td>
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</tbody>
</table>

**TIME SAVER**

**AMERICAN ARCHITECT**

**OCTOBER 1937**
Design of Beams. Chart Nos. III and IV show safe loads for two sizes of R.B.M. beams: 8" x 14" and 8" x 19", for spans ranging from 3 to 16 feet. Beam sizes are nominal and will vary slightly with number of brick courses and thicknesses of joints. Stirrups (1/4" and 5/8" round) in either Z or U shape are used to overcome diagonal tension. These are usually spaced 8 1/2" and 4 1/2" on center to fit into mortar joints. Stirrups may be closer, breaking header brick if necessary.

The charts show the stirrup spacing required at the supports for various loads. No stirrups are required below line A-A. If the design load comes between two lines, use the smaller spacing, placing the first stirrup half this spacing from the support and gradually increasing the spacing, not to exceed half the depth of beam. The distance from the support at which no stirrups are necessary may be determined from the chart. For example, assume a span of 7 ft. with a total uniform load of 1700 lb./ft. including weight of beam. Using Chart IV, it is noted that five 5/8" round bars are required and the minimum stirrup spacing had better be made 4 1/2" as indicated by line C-C. The distance from O to line C-C (OC) represents half the span (1/2) and \( \frac{OC}{2} \) is the distance from the support at which no stirrups are necessary. At a distance \( \frac{OC}{2} \) from the support, the stirrup space may be increased to 8 1/2".

All data contained herein have been supplied by the Brick Manufacturers Association of America, Cleveland, Ohio. Tables and charts have been copyrighted.
BOOKS FOR THE ARCHITECT’S LIBRARY

Note: Readers desiring to secure copies of any publications mentioned below are advised to have their local bookseller obtain them, or write to the publisher, either directly or in care of AMERICAN ARCHITECT AND ARCHITECTURE.


Sir Reginald has attempted many formidable tasks in his architectural writings, but perhaps none so staggering as this particular section of French architecture. To crowd into one hundred thirty pages the history of Blois, Fontainebleau, Chenonceaux, the Trianon, Vaux-le-Vicomte, and a host of other such architectural achievements, required balanced knowledge and discrimination that few other than Sir Reginald could have brought to the task. The work is intended, of course, for the general reader, Sir Reginald having himself produced his four volume "History of French Architecture," covering the more technical details.


A handbook for architects and sheet metal workers, dealing with the application of sheet copper in the construction of buildings. This is a second edition, superseding previous handbooks on the subject, such as the various editions of "Copper Roofings" and "Copper Flashings." The information is compactly presented, the detail drawings well adapted to the architect's purpose, and there are added specifications in the various branches which have been prepared from a background of wide experience. Practically everything that an architect would need to know about copper in construction is to be found between these covers.

CURRENT DEVELOPMENTS IN HOUSING. 286 pages, 6 1/4 by 9 1/2 inches. Illustrations from diagrams. Philadelphia: 1937: The American Academy of Political and Social Science. $2.50, cloth; $2.00, paper.

The March 1937 issue of The Annals of The American Academy of Political and Social Science is given over to this subject. It is a broad survey of housing problems chiefly in our own land, but also abroad. Many of the well known names among writers and other authorities on housing are found herein attached to some particular phase of the subject: Newman, Vinton, Lewis, Holden, Colean, Wood, Woodbury, Ilder, among others.

AIR CONDITIONING IN THE HOME. By Elmer Torok. 296 pages, 6 by 9 inches. Illustrations from graphs and diagrams. New York: 1937: The Industrial Press. $3.

The author has attempted the rather difficult task of making a book that will serve not only the architects and engineers, but the home owner as well. Naturally, therefore, the text and general manner of presentation are rather more informal and less condensed than in the usual exposition of a technical subject.


Under the editorship of Coleman Woodbury, this yearbook is rapidly gaining recognition as the official annual survey of our progress toward better housing. With the torrential flow of articles, surveys, opinions on the subject of housing, an authoritative annual survey of this kind is particularly useful. Among those who have contributed are Gray, McDonald, Pahey, Alexander, Longan, Bauer, Blount, Basien, Angur, and others, as well as Coleman Woodbury. In addition to a valuable glossary of housing terms, there again included a directory of housing agencies—federal, state, national, and municipal.


Dr. Cram is always provocative in his writing, and certainly no less so when he steps outside of his profession and surveys the present social and political framework. The basis of this most interesting volume is an examination of the fundamental question, "Is it possible, with an unlimited privilege of the ballot, to achieve a progressive and stable government?" We think today of the universal ballot as the foundation stone of democracy. It was not thus when our Republic was founded, for the franchise was limited to men of property—those, who, it was assumed, had a superior intelligence which would make for the better government of all.

A GUIDE TO ESTHETICS. By Aram Torossian. 344 pages, 6 by 9 1/2 inches. Illustrated with three or four photographs. Stanford University. Calif.: 1937: Stanford University Press. $3.25.

A penetrating analysis of why we think of an object as beautiful or ugly. The author, who is assistant professor of architecture at the University of California, is not content with this, however, but discusses with great erudition the means to develop an intelligent appreciation and enjoyment of art in its many forms, including, of course, the mother of the arts, architecture. An excellent text book for instruction in esthetics and art appreciation, the work should also serve to help the general reader to a larger analysis of esthetics, and incidentally, to a wider knowledge of the many phases and comparative values of various methods of art expression.


There is a new approach to the subject here. Mrs. Born, the wife of Ernest Born, architect, and a trained and gifted photographer in her own right, looks at the new architecture in Mexico, not with the eyes of an archaeologist or an architectural stylist, but with the eyes of one who is interested in the social and creative aspects of a new movement. For Mexico unquestionably has awakened, and Mrs. Born has tackled with a new vigor the building to meet twentieth century needs by twentieth century methods. The book touches also upon contemporary painting and sculpture. To view of what is apparently an impending stampede of architects and students to the country south of us, Mrs. Born's book should form a valuable aid in pointing out some of the more important things that should be seen there.

where live loads are light

WHENever live load ratings are relatively low, Bethlehem Light Sections open the way to definite economies in the use of steel in floor construction. A typical example of their effective use is found in the floor beams of Knickerbocker Village in New York. In this installation their strength and dimensions made it possible to keep floor slabs within economical limits and materially reduce the total tonnage of steel.

Bethlehem Light Sections were developed to supplement the familiar Wide-Flange Sections and to be used wherever loads do not utilize the full capacity of regular heavy sections of depth called for by the span. They are rolled of the same grade of steel and to essentially the same shapes as Wide-Flange Sections, with ample thickness of metal in web and flange to comply with all building code requirements. In addition to their use as floor beams, Light Sections are used effectively as columns in upper stories, as struts between columns and as purlins in roof construction.

Complete data and the advice of Bethlehem engineers on the most efficient and economical use of Bethlehem Light Sections are always available to interested architects.
TECHNICAL DIGEST

KEY TO PRESENTATION

Typical reference: 15 O'37:14-26 gptv
This indicates: Issue of October 15, 1937, pages 14 to 26, inclusive, presented according to the following key:

d—diagram or illustration

g—graph

d—plan

Note that gptv means graph(s), plan(s), test and photographic view(s) in the article mentioned.

NOTE: Readers desiring to secure copies of any publications mentioned herein are advised to have their local bookseller obtain them, or write to the periodical of origin, either directly or in care of AMERICAN ARCHITECT AND ARCHITECTURE.

COLOR

Colour Pro DomO, (Doe & Sfax), Architectural Review (London). Ag'37:77-80 tv

Application of color to mural decoration in modern architecture. Important news to some designers and critics that modern work need not restrict function to physical needs—that beauty is a function of architecture. Portable murals are advocated, a more careful use of materials, and the use of mural reliefs and tapisseries. The latter are completely non-reflective without loss of coloring power. The figure illustrations are in an unfamiliar vocabulary of form and line, lack color, and will not be pleasing to a familiar vocabulary of form and line, lack color, and will not be pleasing to a majority. No one should fail to recognize, however, the amazing care taken to gain textural effects.

CONSTRUCTION


A tabular comparison of old and new codes. History of code change and a frank critical analysis. Discusses classification of structures on basis of fire resistance, extension of fire limits, egress requirements, materials, stresses and loads, design methods, timber, steel, concrete and welded construction, administration and structural affidavits. A number of errors are noted and the code found to have too great detail for concrete and welded construction, administrative, and structural affidavits.


Part II—Underpinning methods and procedure with timber, mass and reinforced concrete.


Plywood in place of conventional swathing, rough floors and wall finish. Method will eventually use shop-fabricated story-height panels for all openings with plain wall sections filled in on job. A 2x4 is run around the top to tie wall together. Panels on both sides of wall are butt-jointed and glue over 1/4-inch plywood strips attached to studs. There is a construction outline or brief specification for houses which are built according to this system.


An examination of the technique of reinforced concrete design (not structural) illustrated by two recent English houses. The architect classifies all construction as either (1) Solid continuous wall structure supporting beams and floor slabs: (2) framed construction with panel filling; or (3) post and panel construction. This third type is claimed a logical expression of reinforced concrete. A fourth type, arched construction, is now in disuse. Intelligent arguments are given for the third method, based on the peculiar advantages of the type of supports, foundations, flat roofs. The changed esthetic conception necessary to understand and appreciate these houses is very ably developed.

The Lane concrete-rib wall. The Federal Architect. Jl'37:47, 58 dt

An ingenious insulating and damp-resisting, patented construction of poured concrete or precast units consisting of a thin wall with vertical reinforced ribs inside and out, staggered to give structural strength and to avoid solid concrete through the wall. Exterior veneer and interior finish make a wall with double voids which permit passage of pipes and conduits and which may be filled with loose insulation.

Consolidating concrete by vibration. The Builder (London). 16 Jl'37:46 dt

The introduction of reinforcement made concrete placing more difficult. Use of wetter mixes to increase workability is "reason why the increase in the strength of concrete during the past thirty years has not kept pace with the improvements in the strength of cement."

Electric or pneumatic vibrators clapped to forms or inserted in concrete have proved successful in helping to place stiff mixes. It is important not to use a mix which is too wet, to avoid segregation. One of the advantages of vibration is the creation of a skin of mortar on surface, next to the forms, providing waterproof skin and a smooth surface which can be easily cleaned. Vibration should be stopped, however, before much mortar is brought to the surface.


The many types now used include Spud, Spade, Platform, Table, Form Vibrators, and Vibration Screed. Pumps and units may be used also for finishing concrete or terrazzo, sawing, post drill or pumping with different attachments already available. Vibration frequency ranges from 3000 to 9000 per minute. Electric power can be furnished by gasoline, electric or compressed air equipment.


Brief historical note. Factors in structural design include the attainment of bond between brick face and mortar and adequate to resist some amount of diagonal tension and shear. Grout has been found to develop a good bond—with stiff mortar the bond has been seen to deposit upon the suction of the brick. One result is that second-hand brick is not advisable for this kind of construction. It is claimed that even a thin layer of rich mortar will prevent dangerous erosion of steel. Only simple forms are necessary in beams and slabs, and none for walls and columns. No expensive plant is required and ordinary masons quickly learn work. Curing requires 3-14 days. Average weight of reinforced brick per course is 10-15% less than that of reinforced concrete.

There is additional technical data in the article.

Brick school built earthquake resistant (C. H. Forb). Engineering News-Record. Ag'37:227-229 dtv

Reinforced brick construction was used in this new Los Angeles school to meet California seismic requirement for lateral resistance (g/10). The longitudinal walls are designed as vertical beams (fors transverse horizontal force) and floor slabs as horizontal girders carrying accumulated forces to transverse walls which function as vertical cantilevers transferring accumulated lateral forces to ground.

Exterior and interior walls are 13-in. brick, floors and roof of tin-pan concrete construction with 3-inch slabs. The brick shapes were used to permit the placing of rods and grout: (1) standard brick; (2) 3/4, or L-shaped brick (1 p...
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GORING & HORNING, INC.
Washington, D. C.

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Leading builders say G-E heating equipment is a shortcut to sales. They know homes sell faster, when they specify General Electric Automatic Heating and Air Conditioning. Builders and owners know from actual experience that G-E heating equipment gives more years of satisfaction and economy. They know that every unit is designed, built and warranted by General Electric.

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AMERICAN ARCHITECT AND ARCHITECTURE, OCTOBER 1937

101
vertical rods); and (3) ½%, or long and narrow brick (to pass horizontal rods). Special methods of pouring grout and making forms were used, steel being set completely back from the brick. Data are included on mortar proportions, absorption and strength.

Monolithic brick houses. [A. W. Lute], American Builder. Ag'37:80, 82, 84 tv

Reinforced brick panels, 4 inches thick, fabricated horizontally in a form with sand bottom, are now being used for residential walls, partitions and floor slabs. This article gives progress photo views of this new type of construction for low-cost houses. No studs or backing up are required since these units are load-bearing and self-supporting. Wiring, etc., is run in steel I-panels, 4 inches deep. Corners of the structure are made by dove-tailing brick panels.

HEATING

Smoky chimneys. [Abrijing of a 1796 essay by Sir Benjamin Thompson, Count Rumford—notes by A. F. Dufton], The Builder (London). 23 Jl'37:144-147 flt

As apparently sound technical article recommending, among other features, a 4-inch chimney throat, spayed fireplace sides with the width of the back 1/3 the width of the opening, sufficient depth from wall face to back of fireplace, horizontal smoke shelf above throat, smooth interior finish and rounded internal angle at top of fireplace opening.

Rumford claimed to have cured over 500 smoky chimneys and his recommendations have been tested recently with success in more than 100 cases by the British Building Research Station.

Factors in the selection of an oil burner. [A. H. Sonner], Heating & Ventilating. Ag'37: 55-57

Abstract from recent Dept. of Agriculture Circular No. 406, at least 1/3/gallon of oil per hour will be required for each 100 sq. ft. hot water radiation, and 1/3 gallon for each 100 sq. ft. steam radiation, during severest weather, without providing for domestic hot water. This gives a clue to maximum capacity of burner required (not seasonal oil consumption).

Gun, vertical rotary, pot and other types must be considered in relation to boiler used. Vertical rotary burners work best in round boilers. Pot or gun is less limited by fire pot shape but vertical rotary or pot types are more efficient in many types of boilers which are short in blue travel. Guns are easier to build, install and service. Removability is important to permit coal firing if service is interrupted. Quiet action, gas and electric service requirements, maintenance and service reliability are all important considerations.

Steam traps and their characteristics. [T. N. Adlam], Heating & Ventilating. Ag'37: 51-54

Part II—Float and bucket traps. Operation of typical float and thermostatic static traps, capacity, traps for industrial work. Operation of inverted bucket traps and vertical open top bucket traps.

MATERIALS AND FINISHES


Abstract of an A. S. T. M. Convention paper on this rather mysterious property of concrete—gradually increasing deformation under sustained load—by some believed closely related to shrinkage. It is still impossible to calculate or to predict accurately in advance the effect of this action which sometimes is not undesirable, making possible more efficient use of steel and perhaps a better distribution of stress. The paper summarizes the scope of studies of the subject, gives data on long-time stress changes, aggregate cement and water-cement ratios, flow, tension and compression (former greater at first), effect of different cements (low heat types have greater flow), final formation of cracks and effects of thermal stresses.

Excerpts from Bureau of Standards Circular on Plastering Materials. The Plastering Craft. 15 Jl'37:10-12

Detailed description of properties, general actions and reactions of plastering materials. Lime, gysum, portland cement, Keene's cement, sand, fiber and water. References are made to the respective A. S. T. M. specifications.


Mention of a new paint, called "Rum Eeter," evolved by Thomas Parsons, a reputable British manufacturer, which is claimed to "digest the rust present on the surface and convert it into part of a protective film."—a dark blue which turns black. Four-year tests of single coats showed no trace of corrosion.

Atmospheric corrosion and electrolysis of metals. Table listing metals in order of resistance: Silver, copper, nickel, tin, iron, lead, zinc, aluminum. Theoretically, a metal preceding another in this order will accelerate the corrosion of the latter when the two are in contact in presence of moisture. Sometimes, however, the corroding metal forms a protective surface film. The protective and non-protective films formed on these metals are very concise described.


Wood can be pressure-impregnated with proper preservatives which also provide termite attack. It is claimed that termites cause annual repair charges of 40 million dollars, and that decay losses—first of yearly cut of lumber. There are 56 species of termites, both subterranean and non-subterranean, the form being most common. Decay is caused by a fungoid organism.

To be effective, a pressure injection must be poisonous to both decay fungi and to wood-destroying insects. Surface coatings are not effective. Vacuum and high air pressures (100 to 200 lb/sq. in. and temperatures above 150°F, follow by kiln seasoning, are parts of a recommended process. There are two general methods used: pressure-creosote and pressure salt. (Continued on page 112.)
VISIT, the next time you are in Philadelphia, the famed PSFS Building. Every architect interested in modern design will find this visit an interesting experience.

For entrances, lobbies, escalators, stairways, banking rooms, vaults, etc. Architects Howe & Lescaze used many shapes and forms of USS Stainless Steel to create a variety of interesting new designs—one of the first important applications of stainless steel in architecture.

Beauty was by no means the sole objective. For their sweepingly functional design, Howe & Lescaze were impressed by the utilitarian, practical advantages of USS Stainless Steel. Practical because it cleans like glass, is equally permanent and impervious to weather. Practical because it resists abrasion and scratching, should outlast the building with no replacements.

Today, the PSFS Building is five years old. Its brilliant parts of USS Stainless Steel stand out in striking contrast to the few places where other “white” metals were applied. After five years’ exposure to corrosive city air, its USS Stainless Steel looks as new today as the day of the gala opening. Untarnished. Unpitted. Undimmed.

USS Stainless Steel helps to keep the PSFS Building looking new. It continues, year after year, to attract customers, depositors and tenants.
Air-conditioning ... other motor-driven equipment ... demand modern electric circuits. Find out about the new developments in cables. Anaconda engineers will gladly aid you in taking a "20-year look ahead."

Ninety-five per cent of modern buildings are obsolete from the standpoint of electric wiring, authorities say. The demands made upon electric circuits by air-conditioning equipment, radio, mechanical refrigeration, and other services, are becoming greater every day.

Everywhere are examples of the inadequate wiring.

In one building, for instance, feed were designed on the supposition that tenants would use one or more floor spaces. Result: the electric load so
Owners millions today!

As an aid to you in obtaining the ideal wiring specifications, Anaconda Wire & Cable Company offers the services of its Engineering Department to assist your engineers, consultants or electrical contractors in the solution of technical wiring problems. With this experienced aid, your new project can be planned for “20-year adequacy” so far as any of us can foresee the future.

Consult the Anaconda Sheets of Time Saver Standards

For general COMMERCIAL wiring purposes—ANAconda DURACODE

This cable is built for long life under the exacting conditions in commercial buildings. An extremely stable compound, highly heat resisting, highly resistant to moisture and with low susceptibility to combustion and explosion. Utilities are using millions of feet of a similar ANACONDA product for network cable and vertical risers.

RESIDENTIAL

Two important recommendations enabling you to specify adequacy with economy, permanence and safety.

Service Entrance—ANAconda Service Entrance cables available in all types.

Interior Wiring—Throughout the building, specify ANACONDA Durax Non-Metallic Sheathed Cable.

Write for ANACONDA Handbook of Wires and Cables for all Occupancies and Types of Conditions.
This under-the-window Slenderized, that’s a little over 4 inches deep, took the place of an elephant radiator that was 42 inches long, 3 feet high and 14 inches deep.

You can put this Slenderized Radiator where there is no place to put it

You at once say: “That’s a fool statement.” And you are right. Only you are wrong.

In making that remark you must have overlooked the fact, that we are not talking about the usual room-taker elephant-brand of radiators. We mean our Slenderized.

The ones that are 40% smaller than others. The ones that in the four-tube size, are no deeper than your fore-finger is long. That means they can be recessed between studs and still be flush with the wall. It also means that they will fit under any average size window, and if free standing, take up only 4½ inches in all inclusive depth space.

But it means still more. It means that whether you believe it or not, you get quicker heating. Sounds wuzzy, we know. But it’s hard to prove a thing won’t do something, when it’s already doing it. There are over 10 million feet of them on the job, doing it right this minute.

And just a word of caution. A small radiator is one thing. A Slenderized one, is quite another. One is just small. The other is Slenderized. One does a small job. The other a big one, even though it’s no bigger.

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Manufacturers of Heating Equipment Since 1873

TECHNIQUES

REFRIGERATED DISPLAY CASE

A new seven-foot display case has been added to the line of refrigerated units manufactured by Norge Division, Borg-Warner Corporation, Detroit, for use in grocery and delicatessen stores, meat markets, and other commercial establishments. Exterior construction is of white vitreous porcelain on special enameling iron, black vitreous porcelain edging and kick plate. Display glass section is of ¼ plate triple glass, rubber sealed to prevent fogging. Service doors are of moulded hard rubber, finger tip sliding on hard rubber track, equipped with three plates of ¼ plate glass. Interior construction is also of white vitreous porcelain on special enameling iron. Bottom of storage compartment is of acid-resisting vitreous porcelain. Display platters are ¾” deep. Top shelf is equipped with six 8½ x 12” platters, and lower shelf with six 12 x 23½” platters. Accessible through two large service drawers, a storage compartment with gross capacity of 12.9 cu. ft. is located below display section. Display section is equipped with six bulbs mounted in front of glass, protected by one-piece porcelain guard reflector. A 1 3 hp. Norge Rellator condensing unit is flexibly mounted in machine compartment on lower right hand side of case. Standard electrical equipment is furnished for alternating current, 110 volt, 60 cycle, single phase.

849M

FIREPLACE

A black and white porcelain enameled fireplace has been designed by the Porcelain Metals Corporation of Louisville, Kentucky. The porcelain is on Armco Ingot Iron sheets. Lugs are spot welded on the backs of the porcelain enameled sections. The reinforcement wires are fastened to the lugs. Parts of the channels are filled with cement, but the wires are permitted to extend beyond the surface. When fresh cement is poured on the hearth and facing of the fireplace, the sections are set and braced for 24 hours. The wires become embedded in the concrete and hold the enameled fireplace sections in position. The new fireplace is said to be easy to install.

850M

DECORATIVE PANELING

A recently introduced decorative paneling material, known as Carstenite, which has a surface of real wood bonded to fibre board with a waterproof synthetic resin, is intended for wainscoting, wall covering, window backgrounds, furniture, or any other use where it is desired to show attractive wood surfaces at moderate expense. The base on which the thin wood surfacing is mounted is a wood fibre board—said to be grainless, non-warping and non-splitting—which can be worked in all ways that ordinary wood can be worked, and which will bend readily under suitable treatment to form curved surfaces. The outstanding features claimed for this new material are that it can be nailed or glued to old walls, without preparation of the walls, or nailed direct to
For Insulation That Returns More Than Its Cost

**Specify—**

**RED TOP INSULATING WOOL**

FIREPROOF - MOISTURE RESISTANT - DOES NOT DECAY

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**RED TOP STRIP WOOL** — in 3 and 9 ft. lengths to handle large areas quickly and easily.

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■ You can specify Red Top Insulating Wool®, confident that it is as economical an insulation as your client’s dollar can buy. It pays for itself within a few years in fuel savings. It is *all insulation*—you pay for no non-insulating, valueless impurities. Made from the same chemically stable mineral base as glass, spun to a fluffy, resilient, long-fibered wool as light in weight as cotton, it excels in every requirement of insulating performance:

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**MOISTURE RESISTANT**—Inherently moisture resistant, Red Top maintains its insulating efficiency under all atmospheric conditions.

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**ECONOMICAL**—High insulating value and fuel savings (yearly running from 10 to 40% of the cost of the insulation in the average case), plus low first cost and long life.

UNITED STATES GYPSUM COMPANY

UNITED STATES GYPSUM COMPANY

AMERICAN ARCHITECT AND ARCHITECTURE, OCTOBER 1937
KEY TO PICTURES


5. Adam Hat Stores, Inc. Architect: H. Nielson Jackson, Jr., Cincinnati, O. 


7. Formica Exhibit Room, 101 Park Avenue, N.Y. City. 


Revere Copper and Brass

INCORPORATED

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Illustrated booklet, just off the press, shows many late modern uses of Pyramid Metal Mouldings. Pyramid Moulding patterns are reproduced in actual sizes. The easy SNAP-ON method of installation, which often affords a labor-saving of fifty per cent, is fully explained and illustrated.

Pyramid Stainless Steel Mouldings can be either Satin or Mirror finishes. Bronze, Brass and Copper are also available. There are hundreds of standard patterns and sizes.

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NEW STUDDING OR Furring; that it is unaffected by dampness; that it will not craze or check; and that it remains flat in place. It can be had in twenty-one different cabinet veneers, and in widths of four feet and lengths of 4, 6, 8 and 12 feet. Carstenite was developed and patented by A. N. Carstens of Chicago, and is manufactured by Algoma Plywood & Veneer Company, Chicago.

RESIDENTIAL HEATING BOILER

A new residential heating boiler for hand, stoker or oil firing has been announced by the National Radiator Corporation, Johnstown, Pa. The boiler is finished in baked enamel of Matador Red and Stygian Black. The rounded corners of the side panels and a double roll at each edge of the center front panel aid in presenting a smooth contour free from projecting instruments. Among the features of the new boiler is a foot pedal to open the ash-pit door, operating like similar equipment on refrigerators. Control knobs, operating on the radio dial principle, serve as a means of adjusting the damper regulator and smokehood damper. The control knobs are located at the front of the boiler and are co-ordinated with numbered dials which indicate the relative setting or position. There are only six parts in the grate shaking mechanism. All of the parts usually found projecting from the base front have been eliminated and the shaker handle is the only part visible from the outside. Numerous extended fingers are placed on the side of the water legs and along the flueways, adding heating surface. The hand-fired type has a built-in domestic hot water heating coil recessed in the back section. All of the piping to the water heater is taken from the rear of the unit. Provision is made of the stoker-fired and oil-fired types for two sizes of storage and two sizes of tankless hot water heaters, together with tapping on the rear section for all controls required for automatic heating.

NEW ROOFING PRODUCT

A chief feature of a new roofing product, known as Republic Perfected Triple Drain Channel Roofing lies in the use of four ridges and three valleys in each channel unit. Because of this innovation, it is claimed that neither driving rain nor capillary attraction can cause leaks. A beaded channel makes a tight fit at the overlapping edge, creating a vacuum action. Any rain passing this point is carried into the center channel through the
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Durability is the first order of a public floor. In this public building, terrazzo fulfilled that demand...and added rich beauty as well.

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- When mixed with linseed oil, this chemically active pigment forms a tough, deep-anchoring, elastic paint film. Resists weathering... won't crack or scale. A safe standard specification for wood or brick.

Based on the principle of producing an insulation combining the largest relative volume of confined, non-circulating air with the least possible proportion of solid materials, the new Ideal Building Insulation manufactured by The Hinde & Dauch Paper Company, Sandusky, Ohio, contains only 5% solids by volume and 95% confined, non-circulating air. It is purely mechanical in structure. A chemically pure kraft paper of great density and extreme thinness is used to make an air-cell type material that may be worked as other building materials. It is held in place by edging strips tacked to joists and rafters. Radiation is said to be overcome by interposing a number of plain sheets in the heat path as barriers to the passage of heat rays: convection stopped by the proper spacing of the barrier sheets—all air movement is stopped with a structure of about ten barrier spaces of one inch thickness; conduction is reduced to a minimum use of air-cell structure requiring less than 5 per cent solids by volume, and use of strong, dense materials. Tested at a medium temperature of 75°F, this insulating material is said to provide less than 0.26 Btu per sq. ft. per inch thickness per degree F per hour.

INTERCOMMUNICATION SYSTEM

A new intercommunication system, known as the "Handy-Phone" has been developed by the General Electric radio division in Bridgeport, Conn. Essentially a loud-speaker phone system, the new apparatus is designed for use in offices, hospitals, stores, homes or any similar place where speedy voice communication is desired. The system consists of one master station and from one to four remote speaker-phone stations. The latter may be located at any points within 2000 feet of the master unit, or at greater distance with special arrangements. An individual at the master station may have two-way conversations with any of the remote stations, may speak to all of them at one time. He merely turns his answer, he releases the lever and it automatically returns the "listen" position. Remote stations may talk back to the master station without the operator using hands, switches or keys. The stations are housed in walnut veneer stations. The system operates on either a.c. or d.c., 115-125 volts; 25, 50 or 60 cycles.


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Smyser-Royer Company Cast Iron Veranda units may be combined to meet almost any required dimensions. A wide range of stock designs available.


Smyser-Royer Cast Iron Veranda units may be combined to meet almost any required dimensions. A wide range of stock designs available.

Building Insulation

A new intercommunication system, known as the "Handy-Phone" has been developed by the General Electric radio division in Bridgeport, Conn. Essentially a loud-speaker phone system, the new apparatus is designed for use in offices, hospitals, stores, homes or any similar place where speedy voice communication is desired. The system consists of one master station and from one to four remote speaker-phone stations. The latter may be located at any points within 2000 feet of the master unit, or at greater distance with special arrangements. An individual at the master station may have two-way conversations with any of the remote stations, may speak to all of them at one time. He merely turns his answer, he releases the lever and it automatically returns the "listen" position. Remote stations may talk back to the master station without the operator using hands, switches or keys. The stations are housed in walnut veneer stations. The system operates on either a.c. or d.c., 115-125 volts; 25, 50 or 60 cycles.
Erection or relocation of Transite Walls is a completely dry process, accomplished with remarkably little dirt, disturbance, cost. Concealed steel holding devices and studs provide a framework virtually as enduring as Transite itself.

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When Transite Walls are used to partition off private offices from general service areas, one side can be finished to suit any decorative scheme called for, while the other side, facing the service space, can be treated in as simple a manner as desired.
STADIUM FINISHED 6 WEEKS SOONER
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24-HOUR CEMENT USED IN L.S.U. STADIUM—5-STORY DORMITORY UNDER GRANDSTAND

Louisiana State University's new Baton Rouge stadium is a profitable structure. The concrete grandstand, seating 46,000, roosts a 5-story dormitory housing 1,000 students in 495 rooms; yearly rental, $108,000. Designed by Weiss, Dreyfous & Seiferth, architects, New Orleans, the stadium was erected with W.P.A. labor, under supervision of George A. Caldwell, of L.S.U. Preliminary plans indicated completion by last New Year's Day. By using 'Incor' 24-Hour Cement, the stadium was ready for big game Thanksgiving Day—6 weeks saved. Reason:

'Incor' is self-supporting 5 times as fast. You fill forms with concrete one day, strip them the next. That speeds completion, reduces form costs—forms are used over and over again, fewer forms needed.

On L. S. U. stadium, for example, 'Incor' saved $9400 on form material alone. Not to mention 6 weeks saved on contractor's fixed costs or overhead. Figuring time at a nominal $50 a day, 6 weeks saved means $2100.

And, in winter, 'Incor' cuts heating costs, because it is safe from freezing days sooner. On 5 jobs recently surveyed, 'Incor' saved 45¢ to $1.22 a cu. yd. of concrete.

Savings like these, on large jobs and small, suggest that architects encourage contractors to figure every job two ways—with both Lone Star and 'Incor'. Use 'Incor*' if it saves money; if not, use Lone Star. You gain either way, because better cement makes better concrete. Write for book, "Cutting Building Costs." Lone Star Cement Corporation, Room 2245, 342 Madison Ave., New York. *Reg. U. S. Pat. Off.
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NO "YOUNGSTER," the Whitney National Bank Building in New Orleans was erected 27 years ago—in 1910. Two years ago the owners decided to install Carrier Air Conditioning, and, thanks to Carrier Technique, the complete job was done without inconvenience to the bank or its rental tenants.

WHILE THE CITY SLEPT, ductwork to carry the conditioned air was put in place, covered with metal lathing preparatory to plastering. Each morning, the workmen were gone—and with them all traces of construction debris.

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Planning to air condition an office building? A theatre? A hotel? A residence? Any enclosed space? Then call Carrier—no matter how large or small the job may be.

For Carrier, through devoting 35 years exclusively to air conditioning—through making countless installations in 99 countries of the world—has developed a technique that saves you time, saves you money, and assures lasting satisfaction with the completed job. Take Blauner’s retail store in Philadelphia, for example. There the architect was faced with the problem of providing air conditioning for eight separate buildings—each with varying ceiling and floor levels—from a central plant. Carrier solved the problem. In Cleveland, air conditioning was required for the 12th floor of a building where the water supply was limited by old-fashioned water mains. Again Carrier provided the answer. And the files are filled with such examples.

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MACHINES LIKE THIS—Carrier Centrifugal Compressors, provide the necessary refrigeration and work in connection with a Carrier Central Dehumidifier. This equipment was also installed without interference to daily business.

COMPLETED, the offices look like this—all ductwork concealed, with merely an attractive grill to indicate where the cool, clean, properly humidified air enters the room. More than 1,400 such outlets were used throughout the building.

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Branches in principal cities

UNITED STATES BUILDING AT NEW YORK WORLD'S FAIR

The Government's building at the New York World's Fair, 1939, is to be designed by the Procurement Division of the Treasury Department, and Howard L. Cheney has been appointed as the designing architect. Eugene F. Savy, painter and sculptor, and a member of the Federal Commission of Fine Arts, has been appointed to design the mural decorations. Edward H. Burdick has been appointed Director of Exhibits in the building, and it is interesting to note that Mr. Burdick is a graduate of architecture of the University of California. He was director of the exhibits in the United States Building at the Dallas Centennial, and in 1933 he was engaged in the architectural department of Chicago Century of Progress Exposition, being in charge of the design and construction of scale models.

STREET CARS FOR HOUSING

Fifteen discarded street cars are likely to be used as emergency measure for housing as many families in Detroit. The Street Railway officials have offered to turn over the cars to the Welfare Department without cost. The Welfare Department now pays an average of twenty dollars a month per landlord housing families on the relief rolls, and it has become more and more difficult to find landlords willing to rent properties at that figure.

Partitions are to be erected in each street car, dividing the space into three or four rooms. In each car there will be a stallioa toilet, stove, sink, and drop leaf table. Electric light, water, and sewer connections will be added to each car. It is planned to establish the cars near an old public school, where the families dwelling in the cars will use the shower bath in the basement of the school. In warm weather the children could utilize the school playground. All of which is to be regarded simply as an emergency measure for the duration of the housing shortage.

AIR COOLING IN CAIRO

American science worked behind the scenes to keep His Majesty Farouk the First comfortably cool while he was being invested July 29 as the King of Independent Egypt. The youthful monarch took oath in the air conditioned Assembly Chamber of Parliament Hall, Cairo.

Farouk the First ordered the system so that it would be in operation for the colorful ceremony. He sent Abdel Raman Eyed, Egyptian engineer, to study air conditioning first hand and learn how to operate the Cairo system. He returned to Cairo with Peter Gray, American engineer, and the apparatus, which has a capacity of 150 tons. The installation was rushed to completion just in time for the ceremony.

COMPETITION FOR ELEVATED HIGHWAY

The American Institute of Steel Construction sponsors national competition to produce an improved design for elevated vehicular highway. It is hoped that something new will be developed that will better conform to the architectural requirements of city streets.

The design competition will be open to all architects, engineers and others interested throughout the United States. For the best design a cash prize of $5,000 will be paid. The
Garden Decoration and Ornament for Smaller Houses

by G. A. Jellicoe

The author, who is well known as a town-planner and designer of houses and gardens, analyzes in this profusely illustrated volume the structural features and ornaments of gardens for small country houses, suburban and town houses. The London Times Literary Supplement praised it for its "beautifully chosen illustrations" and spoke of it as "of a quality rare in modern garden books... full of stimulating ideas." Country Life says "it should be of great value to home and estate owners and garden lovers all over the world." $6.00

The Supervision of Construction

by W. W. Beach

This book is perhaps the first comprehensive treatment of the supervision of construction to be published and is indispensable to architects, engineers, construction superintendents, technical libraries, students and all interested in architecture and engineering. Written by one of the best-known architect-engineers in the Middle West, it is an authentic, up-to-date handbook that fills a long-felt need. Within its 488 pages are included all the details of the superintendent's work; there are appendices, 20 diagrams and illustrations. $6.00

Contents
The Duties of Superintendents
A Superintendent's Records
The First Day on the Job
Beginning the Work
Contract Changes
Foundations and Masonry Materials
Concrete Form-Work
Concrete Work
Concrete Reinforcement and Other Built-in Members
Waterproofing and Dampproofing
Finishing Concrete Surfaces
Roughing-in by Pipe Trades
Job Progress
Masonry
Terra-cotta, Cut-stone, and Precast Stone
Structural Steel
Miscellaneous Metal-work
Structural Carpentry
Roofing and Sheet-metal-work
Furring, Lathing and Plastering
Marble-work and Tiling
Finish Carpentry
Finish Hardware
Glass and Glazing
Painting and Varnishing
Electric Work
Heating and Ventilating
Plumbing
Completion and Acceptance
Cost-plus Construction

CHARLES SCRIBNER'S SONS

AMERICAN ARCHITECT AND ARCHITECTURE, OCTOBER 1937
BUILDING A ROOM AROUND A FIREPLACE

Symbol of the hospitality of the house... architectural focal point of the room... the simple Regency mantel is perfect for the interior photographed above. Whatever type of room you're planning you'll find the authentic mantel and accessories at Wm. H. Jackson's where the collection of antiques and reproductions has been famous for over a hundred years! Free consultation on construction problems.

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POWERS AUTOMATIC WATER TEMPERATURE CONTROL

will be a second prize of $2,000, a third prize of $1,000, and ten prizes of $100 each. Only employees of the American Institute of Steel Construction may compete.

The competition will close March 31, 1938. A jury will select the prize-winning designs will consist of Harlan Bartholomew, City Planner of St. Louis; Col. Willard T. Chevalier, President of the American Road Builders Association; Paul P. Cret, Architect of Philadelphia; Loran Gayton, City Engineer of Chicago; Paul G. Hoffman, President of the Studebaker Corporation; Albert Kahn, Architect of Detroit, and C. M. Pinckney, City Engineer of New York.

A program giving full details may be had upon application to the American Institute of Steel Construction, Inc., 2 Madison Avenue, New York, N. Y.

THE PRODUCERS' COUNCIL

Seven large companies have been recently admitted to membership in the Producers' Council, according to an announcement by Russell G. Creviston, president.

These companies include the International Nickel Co., National Radiator Co. of Johnstown, Pa., and The Flintco. Co. of New York, Detroit Steel Co. of Detroit, Curtis Companies of Clinton, Iowa, Gladding McBean Co. of San Francisco, and the Richmond Screw Anchor Co. of Brooklyn.

These companies bring the total membership of the Producers' Council, which is affiliated with the American Institute of Architects, to fifty-one.

EXHIBITORS ADVISORY COUNCIL

Additions to membership in the Exhibitors Advisory Council are: Bethlehem Steel Corporation, Bethlehem, Pa.—representative: S. H. Yorks, Advertising Department; General Alloys Company, 387-405 West 1st Street, Boston, Mass.—representative: H. H. Harris, president; Iron Fireproof Manufacturing Company, 3170 West 106th Street, Cleveland, Ohio—representative: Dale Wylie, Sales Promotion Manager.

COMING EVENTS

The American Institute of Steel Construction will hold its Fifteenth Annual Convention at the Greenbrier Hotel, White Sulphur Springs, West Virginia, the last week in October. General business sessions will be in the mornings of October 26 to 29, inclusive, leaving afternoons free for special functions, conferences, and group meetings.

The Annual Convention, National Association of Real Estate Boards will be held in Pittsburgh, the week of October 20 to 23.

The Porcelain Enamel Institute will hold its Seventh Annual Meeting in Chicago, October 11 and 12. The Second Poland Enamel Institute Forum will be conducted at the Ohio State University, Columbus, Ohio, October 13, 14, and 15.

The National Metal Congress opens October 18, in Atlantic City, N. J.

OBITUARIES

Robert Waterman Gardner, architect and archaeologist, died September 7, in the Southampton Hospital, Southampton, Long Island. Major Gardner's home was at Hampt...
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EFFLORESCENCE

If you are troubled by efflorescence on your brickwork, use Brixment for mortar. Brixment never causes efflorescence because it is so free from soluble salts. Even when soluble salts are present in the sand or brick, the waterproofing in Brixment prevents their being brought to the surface.

Easier to mix. Makes more plastic mortar—enables the bricklayer to do faster, neater, more economical work. Waterproofed. Won't fade mortar colors. Is stronger than the brick itself. One part Brixment, three parts sand, make perfect mortar for all masonry and stucco. Louisville Cement Company, Incorporated, Louisville, Kentucky.
Samson Spot Sash Cord has never abused the confidence of an architect, builder, dealer or user. Known for more than 40 years as the most durable material for hanging windows. Made in one grade only from the finest 3-ply cotton yarn, spun in our own mills. Firmly braided and smoothly finished to resist wear and stretch. Always identified by the Colored Spots — our trademark.

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Give your pencil drawings a new blueprinting strength with the Mars Lumograph pencil. There are seventeen true degrees, from ExExB to 7H.

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A comprehensive handbook invaluable in the office, on the job and in the classroom. 200 pages of technical data, charts and tables at your finger tips. Actual size, 4½ x 6½ inches. Flexible fabricoid binding. Published by the Southern Pine Assn. $1.00

Southern Pine Association
New Orleans, La., U. S. A.

Bays, Long Island, N. Y. He was born in Jackson, Miss., attended school in Buffalo, and studied architecture with Vaux & Radford, and also with Clarence Luce in New York City, from 1887 to 1891. He began his practice in New York in 1903.

Major Gardner, who was in the Ordnance Department, U. S. Auxiliary Reserve, was known in the profession chiefly for his researches in the possible mathematical base of design in Greek architecture. Major Gardner was the author of “The Parthenon: Its Science of Forms,” in which he developed the theory that the Greeks achieved their mastery of proportion solely by means of the square and compass.

Major Gardner was for a time a lecturer on reinforced concrete at New York University. He was a former president of the New York Society of Craftsmen.

OF THE OFFICES

Upon the retirement of Lois Lilley Howe, F.A.I.A., from active practice, the architectural firm of Howe, Manning & Abney has been dissolved. Miss Howe will be available to consultation at 2 Appleton Street, Cambridge, Mass. Mrs. Eleanor Manning O’Connor, A.I.A., will continue in active practice with an office at 381 Beacon Street, Boston, and Miss Mary Abney, A.I.A., will continue in active practice with an office at 101 Tremont Street, Boston.

Stanley Worth Hahn, A.I.A., announces the opening of an office for the practice of architecture in the Muskegon Building, Muskegon, Mich.
IN the attractive and functionally adequate design of C. Coggswell for a modern office, Formica was used for desk tops and ledges because of its durability and the fact that it is not spotted by cigarettes or ordinary liquids.

It is the ability of Formica to stand up and retain for a long period its original appearance that has made Formica so popular for desk and counter tops of all kinds, counter paneling, column covering, wainscot, and veneers on doors.

This practical value is accompanied by beauty. There are more than 70 colors, and inlays of one color over another can be made as well as inlays of simple designs in metal.

Let us send you our literature including a large number of suggested designs in full color.

THE FORMICA INSULATION COMPANY, 4621 SPRING GROVE AVENUE, CINCINNATI, OHIO
in the Wagner-Steagall Housing pro-
gram. According to a newspaper dis-
patch, to receive grants under the Act for
slum clearance and low-rent housing con-
struction, cities must have "a population
of more than 230,000 and less than
250,000"...thus excluding every big
Texas city except San Antonio! Maybe
it will be straightened out before opera-
tion of the Act begins.

LABOR
A bulletin has been received from the
Federation of Architects, Engineers,
Chemists and Technicians relative to the
third annual convention of that group in
Detroit the second week in October. Be-
cause of current interest in the activities
of such organizations, we quote this bulle-
tin in full:
"An extensive national drive to organ-
ize the technical and professional men in
industry throughout the country with the
aid of the CIO and its international
unions, will get under way at the third
annual convention of the Federation of
Architects, Engineers, Chemists and
Technicians to be held at the Book-Cadil-
lac Hotel, Detroit, October 7-8-9-10.

There are three classifications of Columbia Venetian BLINDS. Each de-
signed and built for its special purpose. There is the popular "Residen-
tial" designed especially for homes. The "Imperial" and "Controlite" for
commercial installations, in offices, public buildings, and wherever a
sturdy, well built BLIND, guaranteed to meet the most rigorous tests is
required. These blinds are built for areas as large as 250 square feet. The
Columbia BLIND illustrated (15' x 10') is operated by a unique patented
device which is so sensitive that the BLIND may be lowered or raised by a
one-finger pull. Special detailed drawings with illustrations have been
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Write for your copy of "Architectural Data Sheets No. 1"

THE COLUMBIA MILLS, Inc., 225 Fifth Ave., New York

"The Federation was chartered by the
CIO as the union to which technical and
professional employees will belong, and
through which these groups may arrange their economic adjustments with the vari-
ous firms for which they work. In this
way the technical professionals will be
better able to work out their own prob-
lems and also to co-operate with the plans
of the CIO unions."

"The Convention is significant in that
it is the first to be held by a CIO union
of professionals and has been made pos-
sible through the close co-operation of the
CIO. During the past few months mem-
bership in the Federation has reached the
5,000 mark and the group is receiving
active support from other technical groups
that comprise an additional 4,000 mem-
bers."

"Speakers who have been invited to the
Convention include Senators Wagner and
Robert La Follette, Coleman Woodburn
and others. Adolph Germer, CIO Re-
gional Director for Michigan, will rep-
resent the CIO. In addition invitations
are extended to all engineering societies
as well as technical men everywhere
either send delegates or be present in
person."

"The aims of the Federation are set
forth briefly in the call to the Convention
a copy of which follows."

In this the aims of the convention are
stated to be:

"This call goes out in answer to the
challenge of modern times, of changi-
trends and conditions of which the tech-
ical professions have been forced to tak
heed—to make new appraisals of the
scientific and technological contributio-
their social relationships and econom
needs."

"This call is more than a call to or-
membership alone. It is an invitation to
members of the technical professions at
their societies to attend a series of extra-
convention sessions on the impor-
tions raised by the report, June 193
of the Sub-Committee on Technology
the National Resources Committee, ap
pointed by President Roosevelt. These
sessions, dealing with the social and eco-
nomic aspects of technology, will en-
devour to develop new understandings
policies and organizational forms neces-
sary for immediate guidance and in ar-
ticipation of the future. What can the
technical professions do through or-
ized effort to secure the benefits of
modern science and technology in relati
productivity and utilization of re-
ources, human needs, employment op-
portunities and 'the abundant life?"

"This call is an invitation to the stud
of organization, of the achievements, pro-
grams and plans of technical profession-
men and women who have organized for
economic security, for unifying their ef-
forts with those of others to secure im-
proved working and living conditions."

"This call marks the advance at
SCHOOLS

THIS BEING THE BACK-TO-SCHOOL SEASON, we have received catalogs and notices from several centers of learning which pertain to architecture and allied subjects. Having got under way the latter part of September, all these institutions are now in full swing—with the following newsworthy additions and amendments to their curricula:

The New School for Social Research, of New York City is offering quite a few extension courses having to do with architecture and art. Chief of these are:

Contemporary Housing and Reloading, a lecture series under the chairmanship of Charles Abrams, Construction and Interiors as a Mirror of Our Times, conducted by Paul Zucker; Interior Planning, taught by Hilde Reiss; Sculpture in Wood and Stone—Jose de Creeft; and Mural Painting in Oil and Fresco, taught by Camillo Egges.

New York University is sponsoring a course in Housing by Carol Aronovici which will trace the evolution of housing, its present status in the U. S. and European experience in housing applicable to our problems.

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FAIRS

APPOINTMENT OF SCULPTORS—one of the first necessities in planning any fair—has been announced by San Francisco’s Golden Gate International Exposition, which will be held in 1939 on Treasure Island.

Edgar Walter, with Olaf C. Malmquist, William G. Huff and Adelaide Kent, were chosen by Arthur Brown, Jr., head of the architectural commission, to work out decoration of the central tower, central court and its pavilions. Haig Patigan was chosen, with Ettore Cadovin and P. O. Tognelli, to carry out sculpture for the north long court, south court and gardens—designed by the late George W. Kelham. The north square court has been assigned to Ralph Stackpole, who will be assisted by Jacques Schnier, Brents Carlton, Sargent Johnson, Carl George, Adelaide Kent, Ruth Wakefield and Cecilia Graham. Selected by architects Lewis P. Hobart to adorn the east long court and east square were Walter, Schnier, Michael Von Meyer, Huff and David Slivka. Sculptors for the Temple of Music, Lake of All Nations and East towers—designed by William G. Merchant—will be Schnier, Lulu H. Braghetta, Benaimino Bufano, Von Meyer, Robert B. Howard, and Huff. Donald Macky will do sculpture—under architects Ernest E. Weihe and John Bakewell, Jr.—for the main entrance towers and ferry boat terminal. Edward L. Frick is chef of the Exposition’s division of architecture.

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AMERICAN ARCHITECT AND ARCHITECTURE, OCTOBER 1937

125
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TECHNICAL DIGEST

(Continued from page 112)

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The latest method may involve either

the use of a conveyor belt on which

the goods or merchandise could be

transported from a loading point to

the desired destination. This method

is being considered for use in

department stores and other

large retail establishments.

The sex ratio of the population

is an important factor to be

considered in the planning of

residential buildings. It is

estimated that approximately

30% of the population is

male, with the remainder

being female.

The planning of educational

facilities is of paramount

importance. The design of

school buildings should take

into account the needs of

students as well as those of

teachers.

The American Architect and

Architecture, October 1937

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The heater is a glazed, white-painted “hot-box” enclosing a pipe coil. Copper pipe, 1½ inch (or smaller pipes in parallel equalling ½ inches) is recommended and it is estimated that ½ sq. ft. of pipe surface is required for each gallon used per day when temperature does not go below 70°F. in the daytime. The box should be angled for sun’s rays at noon.

Water heating. Domestic Engineering, Ag'37:70-73, 165-167 d.v.

Study of safety measures in designing domestic hot water systems. Any one of three conditions, excessive temperature, pressure or vacuum, can cause failure and consequent hazard to equipment and life.

Each of these is considered at length with diagrams explaining various arrangements of the piping and control of the relief devices.

Circuit or loop venting. Domestic Engineering, Ag'37:82-85 p.s.f.

Diagrams and text discussing bathroom connections, crown venting, fresh air inlets, single traps, drainage fittings, peak loads and condensing tanks.

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For soft pastels or deep, brilliant colors ... for high light reflection and real economy, specify Texolite*, the New Principle wall and ceiling paint. One gallon of Texolite mixed with one-half gallon of water makes one and one-half gallons of ready-to-use paint —50% more for your client’s money! In addition, it goes farther—gives more coverage per gallon. One coat usually hides completely; dries in one hour; leaves no brush marks. It contains no oil to dim its clear, clean colors — to create “paint odors” or fire hazards. Texolite comes in ten pastel shades and white, and in nine Deep Colors which may be used full strength or mixed with white or tinted Texolite. And it is durable — will not fade, yellow, crack or peel.

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City __________________________________________ State

AMERICAN ARCHITECT AND ARCHITECTURE, OCTOBER 1937

127
STANDARDS OF GOOD PRACTICE IN PLANNING

Hotel Bedrooms and Baths

Next month AMERICAN ARCHITECT AND ARCHITECTURE presents in its Unit Planning and Time-Saver Standards series a comprehensive study of the basic essentials in the design of hotel bedrooms and baths, by Jule Robert von Sternberg. The data sets forth sizes for the most economical planning, details of structure and maintenance, and the relation of a room and its bath. It discusses the 5 types of bedrooms and their individual requirements . . . heating . . . air-conditioning . . . sound-proofing . . . carpets . . . hardware . . . closet equipment . . . accessories, such as radio . . . ice water . . . door deliveries, etc. In a word, the essentials without which no architect planning a hotel can achieve a satisfactory and economical result.

Also in the November Issue of AMERICAN ARCHITECT AND ARCHITECTURE

Architectural Competitions for Public Buildings: By the Hon. Otha D. Wearin, U. S. Representative from Iowa, member of the Ways and Means Committee, one of the few men in government who has intelligently concerned himself with architecture and architects.

Symposium on the Wagner-Stearns Bill: Articles by the Hon. Langdon Post, Director of the New York Housing Authority; Clarence Stein, long prominent as a housing specialist; Albert Mayer, formerly associated with the Resettlement Administration; and others who have made this great need their first concern.

Architectural Overtones: Old and important monuments of Peiping.

Paris Fair: By Talbot Hamlin of Columbia University. A critique, illustrated by excellent photographs and sketches, of a tremendously significant architectural influence.


Portfolio: Entrance door sidelights.

Favorite Features: Garage doors.

American Twist Drill Building: Detroit. Clare W. Ditchy, architect. A fine example of a one-story factory, with more than adequate fenestration.

Distributing Warehouse: Newark. Frank Grad & Son, architect. Well studied for storage, shipping and light.

Chicago District Police Station: Paul Gerhardt, Jr., architect. A fine example of a branch station adaptable for use in a smaller city.

Criminal Court and Jail: Knoxville, Tenn. Frank O. Barber, architect. A recent example of combination criminal court and jail.

Six Residences in various parts of the United States, ranging from a year-around house to ocean-front week-end house; and from fieldstone to wood siding.

Don't Miss the November Issue of AMERICAN ARCHITECT AND ARCHITECTURE
NOT by chance are designers of smartly modern homes choosing Azrock for floor coverings. So well adapted to modern trends in design is Azrock that it is the natural choice of alert architects and home builders. Azrock's wide array of colors and sizes is an inspiration to the creation of beautiful floor patterns and color themes that harmonize perfectly with any interior.

The beauty of Azrock floors remains through years of constant usage...a source of continuing pride to architect and homeowner alike. For Azrock is tough to resist constant wear, its gentle resilience protects the tile from attempted imprints and the colors penetrate the entire thickness for permanence. Fire-resistant, Azrock cannot be harmed by carelessly dropped cigars and cigarettes; moisture proof, it can be laid on sub floors below grade without expensive waterproofing.

Azrock is now micro-cut by a new exclusive process which permits smoother, tighter joints than ever before possible in mastic tile. Azrock can be laid equally as well over old floors as over new. That's why Azrock is the frequent choice of architects when there's modernization work to be done.

Write to Uvalde Rock Asphalt Co., San Antonio, Texas, for name of your nearest distributing contractor or any other Azrock information you desire.
The time and expense of making ink tracings
are not in keeping with the present day demand
for speed.

Improvements in tracing cloth and paper, the
grains of which take a pencil stroke perfectly,
allows for clear, sharp blueprints to be made
from original pencil tracings. This, of course,
provided the proper pencil is used.

Important factors which decide what proper­
erties a pencil should possess to "cover," are the
regular distribution and close stratification of
graphite particles. These depend first of all upon
the size to which the graphite particles are
ground and also upon the shape of these parti­
cles. The resulting fine layer of graphite provides
an opaque, light impervious pencil line through
which are light rays cannot penetrate and from
which a clear, sharp print may be made.

The problem of correct size and shape of the
graphite particles for this particular purpose was
solved in a practical way by L. & C. Hardtmuth.
Koh-I-Noor Drawing Pencils, for years the
choice of discriminating draftsmen, contain no
dye, and produce perfect pencil tracings which
may be "fixed" to prevent rubbing without re­
ducing the reproduction value. Choose a suit­
able degree for the paper you are using and note
the improved result of your blueprints.

Leaflet P. 135 gives interesting data on this
process together with hints on the choice of
degrees. We shall be glad to mail you a copy
together with our latest illustrated catalog.
90 "X-RAYED" HOUSES GIVE EVIDENCE THAT JOHNS-MANVILLE ROCK WOOL IS A PERMANENTLY EFFICIENT INSULATION

FOR 10 YEARS, Johns-Manville has said: "Rock Wool is a permanently efficient insulation for homes." Now a comprehensive report, based on opening up the walls of 90 Johns-Manville Rock Wool Insulated Homes and witnessed by nationally known authorities, proves this assertion beyond all doubt. You owe it to yourself and your clients to send for a copy today.

Actually, we did more than "X-ray" these 90 houses—we performed a major operation on them. And as a result, this report reveals exactly what goes on in the walls of a house when insulated with rock wool to full wall thickness.

The report tells the interesting story of the J-M laboratory tests and then shows how they were confirmed in the field study. It shows how we found, on opening the walls, that after one to ten years of service, the rock wool was in the same condition as when it was applied ... the framing woodwork bright and clean.

The report, the result of months of preparation, is now on the press and will be ready about October 15th. It discusses the practical requirements of a good insulating material for houses and shows how perfectly J-M Rock Wool fills these requirements. It gives definite reasons why you can recommend Johns-Manville Rock Wool to your clients with perfect confidence, that it is "sound as a nut" and will bring them the maximum degree of year-round comfort and fuel savings. Send for a copy today.

WHAT WE FOUND:
Complete details of the condition of rock wool insulation and framing timbers in all 90 houses examined are included in this interesting report. All facts have been checked and verified by impartial observers of unquestioned integrity.

HOW WE CHECKED: 90 houses in northern United States were selected at random. In the presence of impartial engineers, whose reputation and professional knowledge was beyond question, we opened the walls as illustrated above. The rock wool and the framework of the house were minutely examined. Samples of the wool itself were sent to the Johns-Manville laboratory for test and analysis.

SEND FOR THE FACTS

JOHNS-MANVILLE, 22 E. 40th St., N. Y. C.
As soon as it is off the press, please send me your Performance Report of the Physical Condition of J-M Rock Wool After From 1 to 10 Years' Service in the Walls of 90 Houses.

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Address __________________________
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AA-10-57
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